

# Kronos InTouch® 9100 Installation Guide: Workforce Central®



*How to install and maintain the  
Kronos InTouch 9100 timeclock.*



*Document Revision: G*

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IC:1416A-8609K003 is used with part numbers: 8609100-003, 8609100-053, 8609100-103, 8609100-403

IC:1416A-8609K004 is used with part numbers: 8609100-004, 8609100-054, 8609100-104, 8609100-404

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Published by Kronos Incorporated

900 Chelmsford Street, Lowell, Massachusetts 01851 USA

Phone: 978-250-9800, Fax: 978-367-5900

Kronos Incorporated Global Support: 1-800-394-HELP (1-800-394-4357)

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### Document Revision History

Revision	Release Date
A	June 2016
B	December 2016
C	March 2017
D	April 2017
E	November 2017
F	April 2018
G	April 2018



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*Chapter 1*

***Before You Install the InTouch***

## Contents of the kit

The contents of your kit may vary depending on the model and the options ordered for your site. For example, the Standard model transformer and Slim Profile wall transformer are separately orderable items.

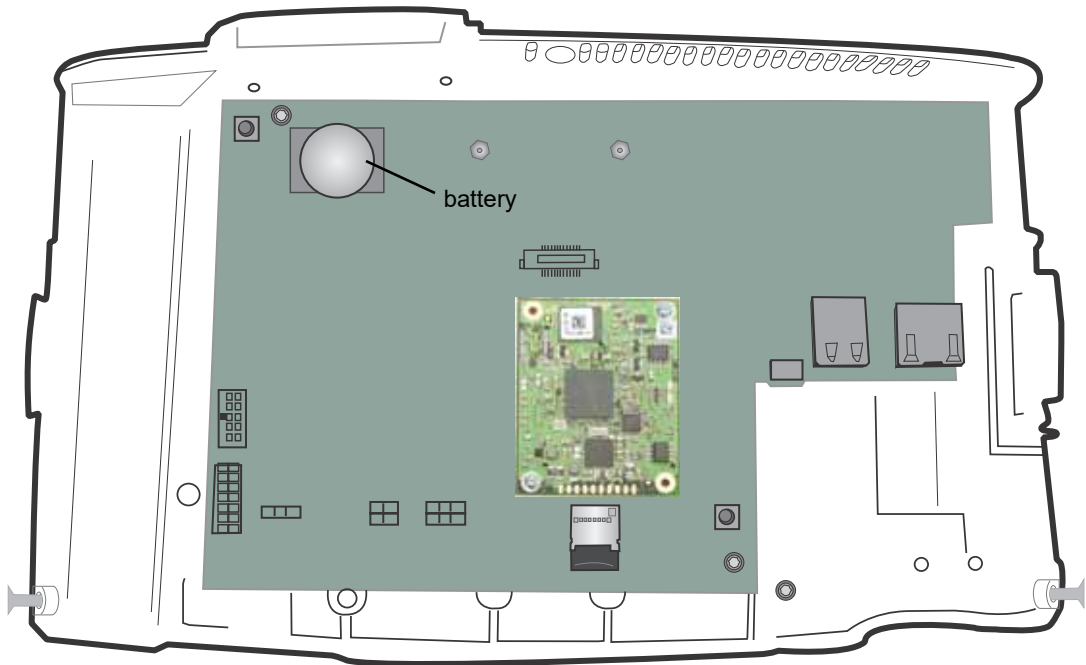
The bag of hardware is the same for the two models except where noted:

Part	Quantity	Where Needed
Maintenance badge	1	Supplied for magnetic stripe, HID proximity, bar code, and smart card readers.
10 x1 1/4 self-tapping screw Plastic wall anchors	3 3	<ul style="list-style-type: none"> <li>Standard model: “<a href="#">Step 3: Mount the base</a>” on page 31</li> <li>Slim Profile model: “<a href="#">Step 3: Mount the base</a>” on page 68</li> </ul>
Ethernet strain relief clip M3 x 10 screw	1 2	<ul style="list-style-type: none"> <li>Standard model: “<a href="#">Connect Ethernet cable</a>” on page 49</li> <li>Slim Profile model: “<a href="#">Step 7: Connect power and cables to the main board</a>” on page 76</li> </ul>
Strain relief clip	Standard: 2 Slim Profile: 1	<ul style="list-style-type: none"> <li>Standard model: “<a href="#">Secure the cables with the strain relief clip</a>” on page 52</li> <li>Slim Profile model: “<a href="#">Step 6: Secure the cables with the strain relief clip</a>” on page 73</li> </ul>
Security wrench (torx) M4 x10 torx screw	1 1	<ul style="list-style-type: none"> <li>Standard model: “<a href="#">Close the cover and secure the screws</a>” on page 58</li> <li>Slim Profile model: “<a href="#">Close the cover and secure the screws</a>” on page 80</li> </ul>
SEMS M3 x 6 screw	3	<ul style="list-style-type: none"> <li>Standard model: “<a href="#">Install the transition board option kit</a>” on page 41 and “<a href="#">Step 6: Attach the plastic transformer plate</a>” on page 43</li> <li>Slim Profile model: N/A</li> </ul>

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## Important notes

- To avoid damaging the main board, always wear an anti-static wrist strap when touching the main board of the InTouch in any way, including connecting and disconnecting wires.
- The application software for the InTouch resides on the microSD card within the unit. Do not copy or alter the microSD card or your warranty will become void.
- Do not remove the cover assembly from its anti-static packaging until you are ready to install the InTouch.
- Do not remove the tape that covers the battery, unless you need to replace the battery.



- Save the paper mounting template and any other printed documents.

- Additional InTouch documentation can be found by logging in online at <http://community.kronos.com>.



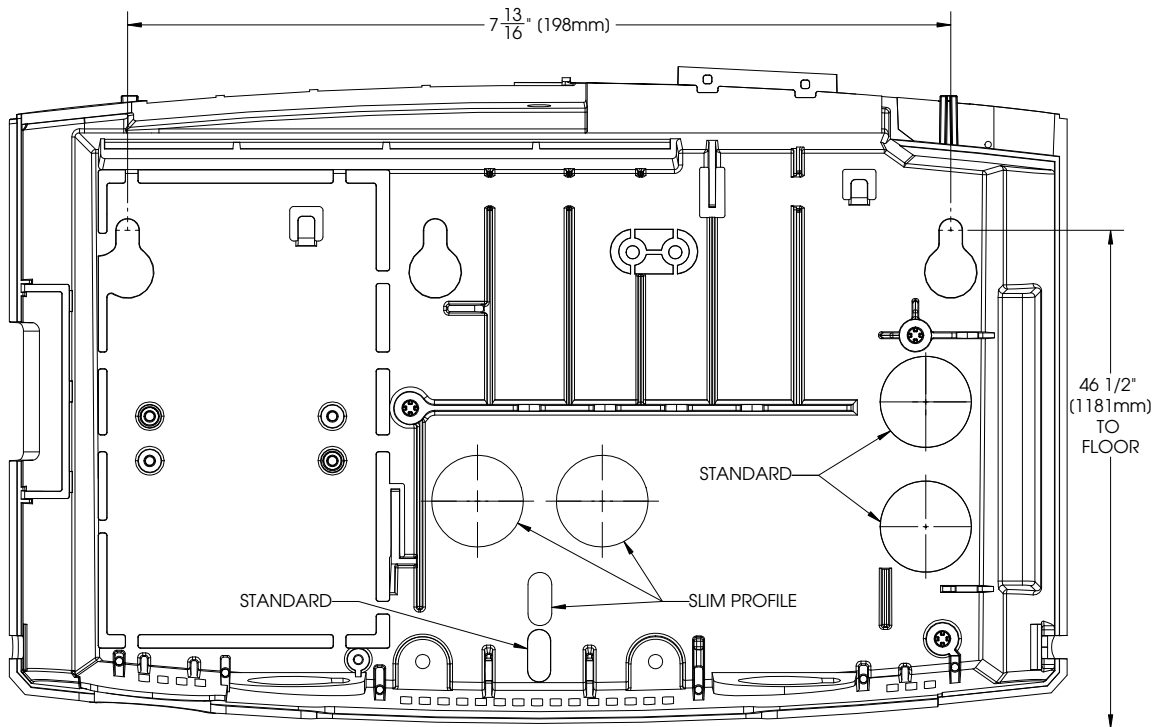
## Plan the installation

This section describes how to prepare your site for the installation of the InTouch.

### Mounting template

The InTouch kit includes a paper mounting template that you use to mark the wall with the following measurements and indicators:

- Where to screw the base of the unit into the wall
- Where the AC outlet must be located
- Where cables enter the unit through access holes in the wall
- Where cables enter the unit through the access holes at the bottom



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Review the following sections to determine how you will use that template to install the Standard or Slim Profile model InTouch at your site.

## Location

- The InTouch is designed for mounting on walls in typical office and indoor manufacturing environments. Recommended wall surfaces are drywall (sheetrock) and wood.
- Install the InTouch in an area where the screen is not exposed to direct sunlight or other high-intensity lighting that could make the screen difficult to read.
- Ensure that the location for the InTouch falls within the following temperature and humidity ranges:
  - Temperature ranges:
    - Operating: 0–40 degrees Celsius (32–104 degrees Fahrenheit)
    - Storage: -20–+70 degrees Celsius (-4–+158 degrees Fahrenheit)
  - Humidity range (operating and storage): 10%–95% non-condensing
- InTouch timeclocks are designed for office and manufacturing environments. In rare cases, user sites might contain agents that are corrosive in nature and which could corrode the electronics assemblies in these devices. In the event of this situation, users must move the devices to a suitable environment.

## Access

- New location—To provide optimal access to the InTouch for the widest range of users and to ensure ADA compliance of the 48 inch height specification (1219 millimeters), Kronos recommends that the top two mounting screws be no higher than 46 1/2 inches (1181 millimeters) above the floor.
- Existing location—If you are replacing an existing Kronos Series 4000 device, you can use the same location but you must drill new screw holes. See [Appendix A, “Replace a Series 4000 Device with the InTouch,”](#) on page 93 for complete information.

- ADA (Americans with Disabilities Act) compliance:
  - The 48 inch height specification (1219 millimeters) ensures that no part of the InTouch that personnel will physically use (biometric sensor) will be higher than the limit set by the ADA.
  - Devices mounted on a wall must not protrude more than 4 inches (10 cm) from the wall. You must mount the InTouch directly to the wall.
  - If you are in doubt about any regulations, Kronos recommends that you check the current ADA requirements.

## Power sources and connections

### Requirements

- The AC power source must be grounded 100 to 240 VAC, 50/60Hz input voltage.
- The AC power source for the device must be connected to a 20A maximum circuit breaker.
- A licensed electrician must ensure that low-voltage wiring is routed securely away from high-voltage wiring.

### Power source options

- Standard model — Uses standard AC power from an internal or external source. It includes an integrated, autosensing, AC power transformer that supports an IEC C7 external power cord connection. This type of connection allows the use of compatible international power cords.

The following power supply methods are available:

- Mounted over an AC outlet, with transformer plugged in
- Mounted near an AC outlet, with transformer plugged in
- Power-over-Ethernet (PoE) or PoE Plus cable (**Note:** Can supply power in certain configurations only. See the table in “[Optional devices](#)” on page 17.)

- Slim Profile model — Choose from the following power supply methods:
  - Power-over-Ethernet (PoE) or PoE Plus cable
  - Mounted near an AC outlet, with wall transformer plugged in

## Adherence to local codes

Installation of the InTouch, including all electrical wiring, must comply with all applicable national, federal, state, and local safety codes and standards.

## Ethernet cables

- Location — Plan to install the InTouch in a location that allows an easy and secure connection to an external network (for example, using the Ethernet cable).
- Ethernet requirements and specifications:
  - If you are using Power-over-Ethernet (PoE), your network must comply with the 802.3af standard; if you are using PoE Plus, your network must comply with the 802.3at standard.
  - The InTouch supports 10BASE-T or 100BASE-T Ethernet communication and autosensing between 10Mbit and 100Mbit.
  - Ethernet communication requires an RJ-45, 8-wire connection, and must meet all other wiring code specifications.
- All cables must be in place before installing the InTouch.

## Optional devices

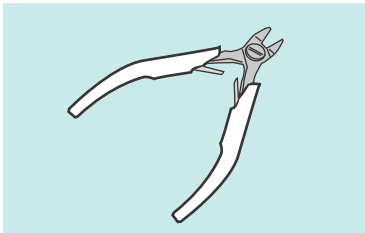
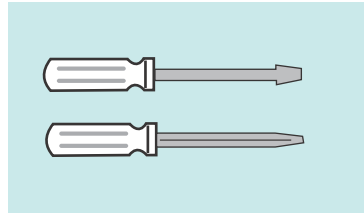
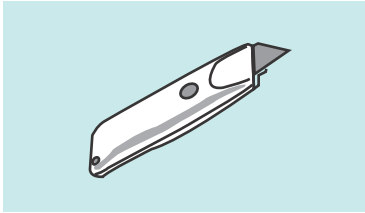
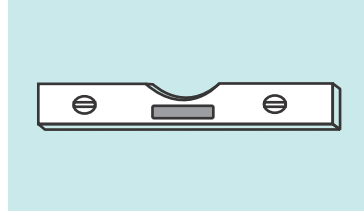
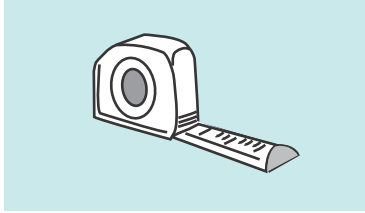
If you plan to connect certain optional devices to the InTouch, follow the step-by-step instructions in this guide and the corresponding installation guide that is included with each option kit. Note the following:

- Some optional devices (remote readers, for example) must be mounted within a certain number of feet (or meters) of the InTouch.
- The optional devices have components and cables that must be attached to the InTouch in a certain order during specific stages of the installation.
- Some optional devices are compatible with the Standard model only, Slim Profile model only, or both models. Other options require the installation of the transition board option. Some options support Power-over-Ethernet (PoE) or PoE Plus; others do not. See the following table for currently supported options and configurations. See the release notes for changes to this information.

<b>Option kit</b>	<b>Compatible with Standard model</b>	<b>Compatible with Slim Profile model</b>	<b>Transition board required</b>	<b>Compatible with PoE</b>	<b>Compatible with PoE Plus</b>
Backup Battery	Yes	No	No	No	Yes
BLE	Yes	Yes	No	Yes	Yes
Kronos Touch ID	Yes	Yes	No	Yes	Yes
Kronos Touch ID Plus	Yes	Yes	No	Yes	Yes
Linear Imager	Yes	Yes	No	Yes	Yes
Remote Bar Code Reader	Yes	No	Yes	No	Yes
Remote Proximity Reader	Yes	No	Yes	No	Yes
Transition Board	Yes	No	—	No	Yes
Universal Relay	Yes	No	Yes	No	Yes
Wi-Fi	Yes	Yes	No	No	No

## Required tools

In addition to the security wrench that is included with the kit, you will need the following tools



**Note:**

- Because of the small size of certain screws, Kronos recommends that you use small screwdrivers (number 1 or 2) with magnetic tips.
- The wire cutter should be small as well. For example, a 5-in. flush cutter or a circuit board cutter.

## **Required personnel**

Depending on the InTouch model that you purchased and the implementation planned for your site, you will need the following personnel:

- A licensed electrician to install or move AC outlets and power cables.
- A qualified person to run Ethernet cable.
- One or more qualified installers to assemble the device and mount it on the wall (a second person may be necessary to hold the cover while the other person attaches components to the cover and base).
- A network administrator or similarly qualified individual to configure device settings on the InTouch and in the host application.

## Configuration settings

After you power up the InTouch, a network administrator or similarly qualified individual must configure the settings for that device. Those settings must match the information that the administrator entered on the server using the host application.

For more information, see the host application online help, the InTouch 9100 User Guide, and the release notes. InTouch documentation can be found by logging in online at <http://community.kronos.com>.

## Next steps

Depending on the InTouch model purchased for your site, go to one of the following chapters to install that device:

- [Chapter 2, “Install the Standard Model InTouch,”](#) on page 21
- [Chapter 3, “Install the Slim Profile InTouch,”](#) on page 61



*Chapter 2*

***Install the Standard Model InTouch***

## Step 1: Prepare the location

### Determine the power source for your site

Before you start the installation, plan with your electrician (if required for the power option that you choose) how the InTouch will connect to the power at your site.

Choose from the following options and review the associated notes.

#### Power options

- Install *over* an AC outlet (recommended)—If you are replacing a Series 4000 device with the InTouch and are using the same location, you can use the existing AC outlet, but you need to drill new holes.

If the installation is at a new location, you will need to install the AC outlet (requires a licensed electrician) in the location that you mark on the wall with the mounting template (described in [“Mark insertion points for the base”](#) on page 24).

- Install *near* an AC outlet
  - Select a location where the distance from the power cable hole at the bottom of the InTouch is not more than 5 feet (1.5 meters) from the AC outlet.
  - **Note:** Installing the device near an AC outlet does *not* protect against the AC power cord from being deliberately or inadvertently unplugged from the outlet.
- Install using a Power-over-Ethernet (PoE) or PoE Plus cable—This power option is limited to certain configurations only. See the table in [“Optional devices”](#) on page 17.

## **Notes**

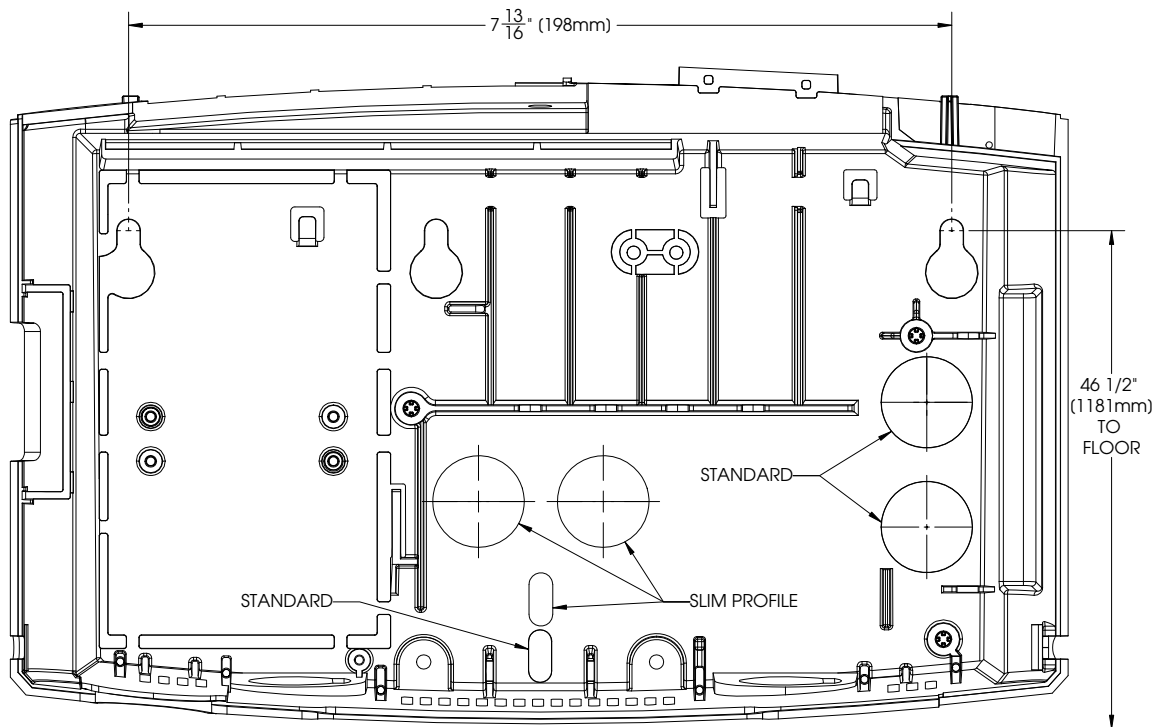
- A licensed electrician must install the AC outlet and associated wiring *before* you install the InTouch.
- The AC line that supplies power to the InTouch must be equipped with a 20A maximum circuit breaker.
- Do not connect the InTouch power line to circuits that are being used for electrical devices that draw large amounts of power, such as air conditioning units, electrical motors, and compressors.
- Avoid running a communications cable near devices that interfere with data transmission.

## Mark insertion points for the base

To mark areas on the wall where you will install the device, use the mounting template or the base of the device.

## Use the mounting template

The mounting template is printed on a sheet of paper that is included with your InTouch kit. Use that template to mark the areas of the wall where you plan to install the InTouch.

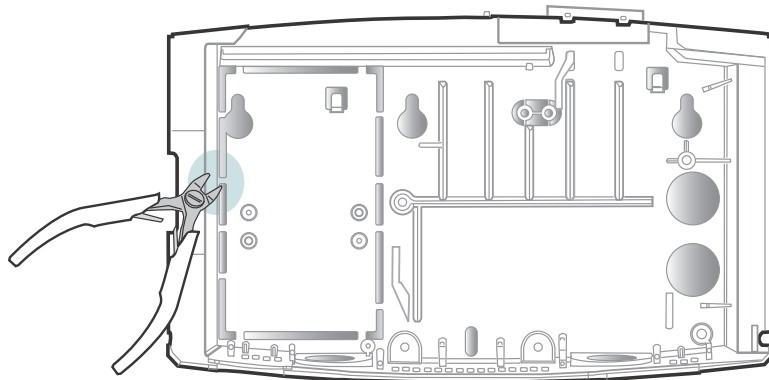


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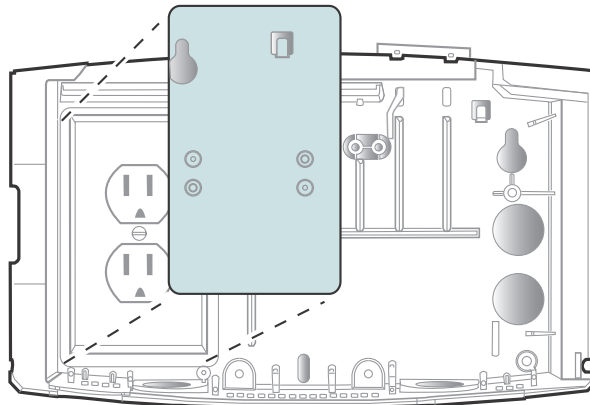
## Use the base of the device as the template

You can also use the base of the InTouch as the template. Note, however, that if you plan to install the device *over* the AC outlet, first remove the plastic knockout plate from the base of the InTouch. This will allow the base to fit over the outlet as you hold the base against the wall.

1. Use a small wire cutter to cut the plastic tabs that anchor the knockout:



2. Remove the plate:



## Mark the wall

1. Tape the mounting template (or position the base) at the optimal height and location for the InTouch.
  - The top mounting screws must be 46 and 1/2 inches (1181 millimeters) above the floor, for ADA compliance.
  - Use a level to ensure that the top of the template is horizontal to the floor.

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**Note:** If you are replacing a Series 4000 device, you can install the InTouch on the same area of the wall but you cannot use the same screw holes.

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2. If installing over an AC outlet (Standard model only), mark the location for the installation of that outlet. (If you are replacing a Series 4000 device that was previously mounted over an AC outlet, you can use that same outlet for the InTouch, but you need to drill new holes.)
3. Mark the location of the mounting screw holes, as follows
  - Installing *over* an AC outlet: Mark the two top screws to the right of the knockout plate and the single screw in the bottom middle. (See the illustration in [“Example 1: Mount over an AC outlet”](#) on page 33.)
  - Installing *near* an AC outlet, or with Power-over-Ethernet (PoE) or PoE Plus: Mark the top screw that is on the far left (on the knockout plate), the top screw on the far right, and the single screw in the bottom middle. (See the illustration in [“Example 2: Mount near an AC outlet or with PoE or PoE Plus”](#) on page 34.)
4. If you plan to run an Ethernet cable or cable from a remote reader through the wall to enter the InTouch from the back or through the bottom, use the template to mark the point of entry. (See the illustrations in [“Secure the Ethernet cable”](#) on page 37.)
5. If you are installing the InTouch *near* an AC outlet, be sure the outlet is within 5 feet (1.5 meters) of the unit.
6. After you finish marking all entry points, screw holes, etc., remove the mounting template (or base) from the wall.

## **Install the AC outlet**

If you plan to install the unit *near* an existing AC outlet, or with Power-over-Ethernet (PoE) or PoE Plus, skip this step.

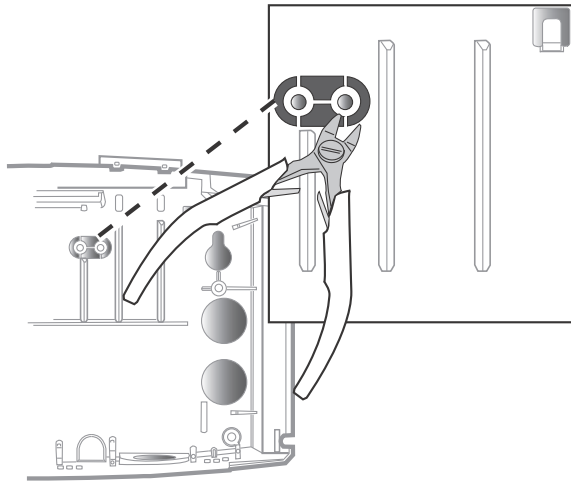
To install *over* an AC outlet:

1. Be sure you have prepared the location and reviewed the cautions described in [“Determine the power source for your site”](#) on page 22.
2. Use a licensed electrician to install the AC outlet at the location that you marked on the wall in [“Mark insertion points for the base”](#) on page 24.

## Step 2: (Optional) Widen the badge reader slot

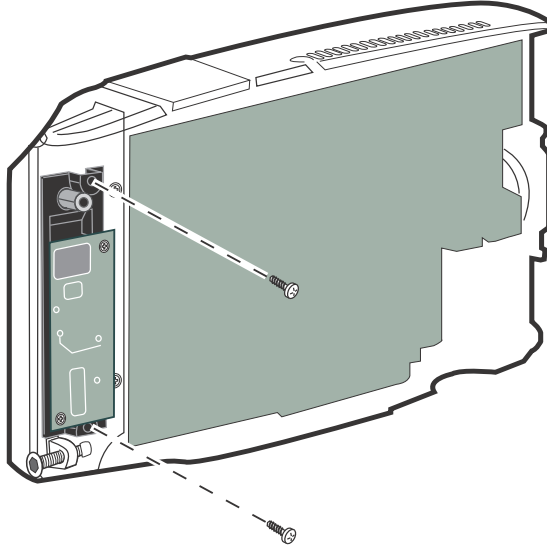
If the badges that you will use with the InTouch are more than 0.05 in (1.27 mm) thick, you need to install two spacers in the badge reader (for bar code or magnetic stripe cards) to accommodate the badges. The spacers are molded into the base of the InTouch.

1. Use a wire cutter to remove the spacers from the base.

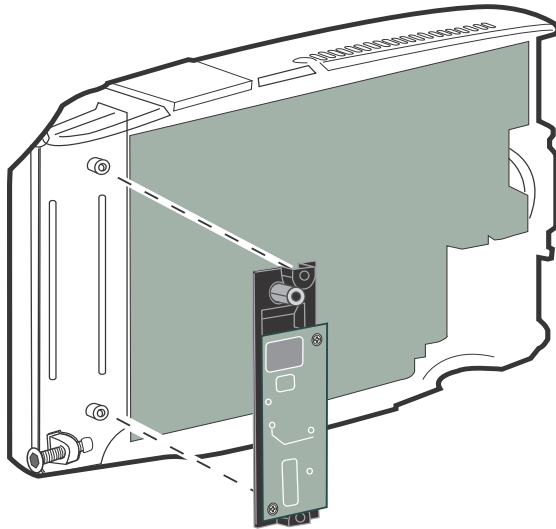




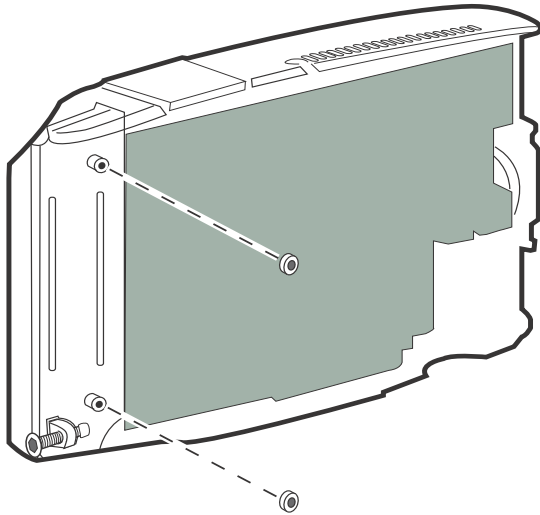
2. On the inside of the cover, use a Phillips screwdriver to loosen the two screws that hold the badge reader cover in place.



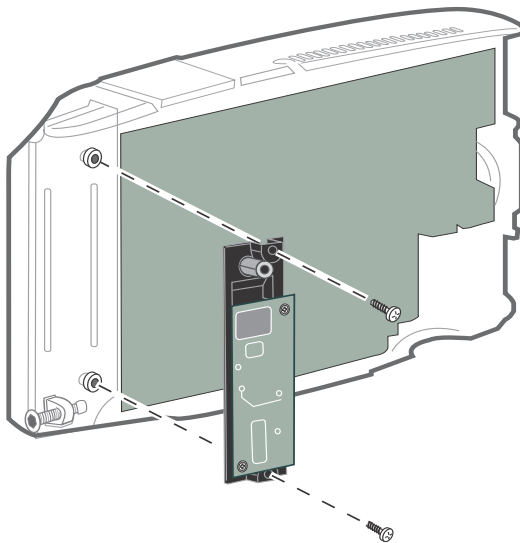
3. Remove the badge cover.



4. Press the two spacers onto the tops of the two channels that hold the screws.



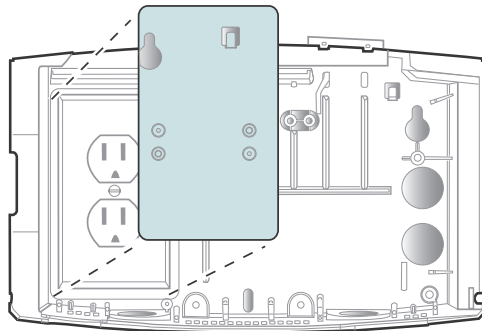
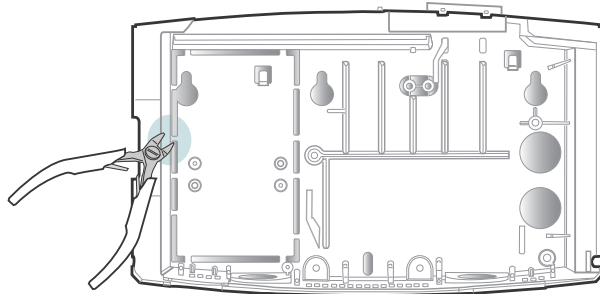
5. Insert the reader cover back onto the base. Tighten the screws on the reader cover.



## Step 3: Mount the base

After you prepare the location, drill holes at the locations on the wall that you marked with the template. Then, mount the base of the InTouch to the wall:

1. To install the device over an AC outlet, remove the knockout plate (if it has not already been removed).



2. Using the two large holes on the right that you marked on the wall from the mounting template or the base, use a 3/8 inch drill bit to drill holes into the wall at those marked locations. Those holes will be used to run the Ethernet cable, the cable from a remote reader, and any other cables that you plan to run through the wall in to the base of the InTouch.

3. Do one of the following:

To mount the base on *wood*:

- a. Drill pilot holes for the top two mounting screws and the bottom mounting screw (three 10X1-1/4 screws are included with the InTouch). See the examples on the following pages.
- b. Use a drill or screwdriver to drive the top two mounting screws into the wall, leaving 1/4 inch (6 mm) between the head of each screw and the wall.

To mount the base on *drywall*:

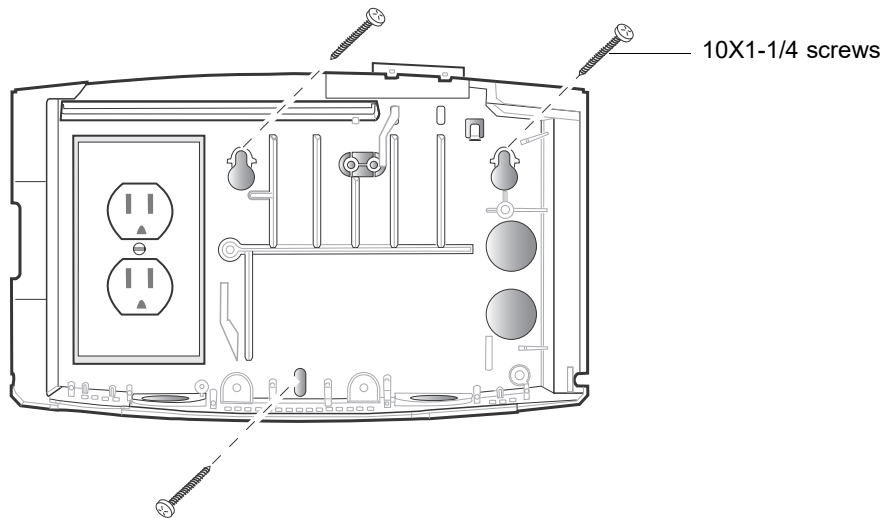
- a. Use a 9/32 inch drill bit (7 mm) to drill holes for the three wall anchors (included with the InTouch). See the examples on the following pages.
  - b. Install a wall anchor in each screw hole. Push or tap the wall anchors until they are flush against the wall.
  - c. Use a drill or screwdriver to drive the top two mounting screws (three 10X1-1/4 screws are included with the InTouch) into the wall, leaving 1/4 inch (6 mm) between the head of each screw and the wall.
4. Align the top two screw holes and bottom middle screw hole in the base with the two top screws in the wall, and gently set the base in position.
  5. Tighten the top two screws so that they are flush against the base. Then drive the bottom middle screw into the wall so that it is flush against the base.

---

**Note:** Do not tighten the screws excessively. If the wall surface is not smooth, you may crack the base.

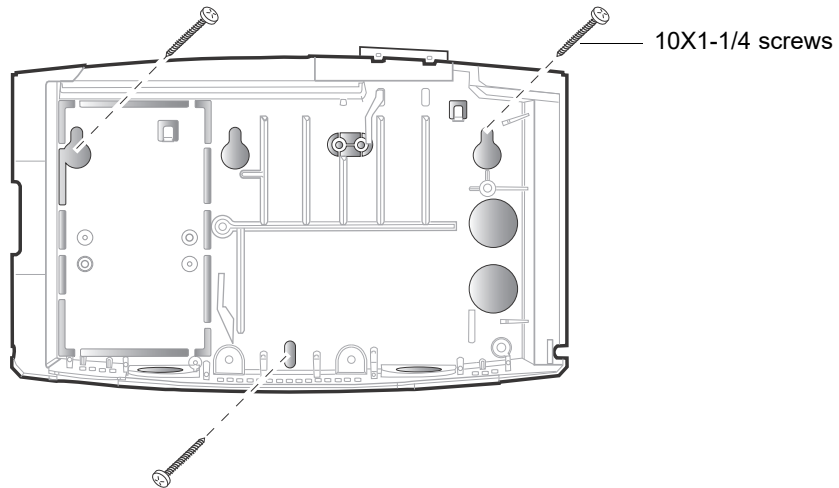
---

### Example 1: Mount over an AC outlet



**Note:** The sample illustrations in this chapter for installing other components and options show the InTouch installed directly over an AC outlet. However, the procedures note alternative steps, as necessary, if you are mounting the InTouch near a wall outlet, or are using PoE or PoE Plus.

## Example 2: Mount near an AC outlet or with PoE or PoE Plus



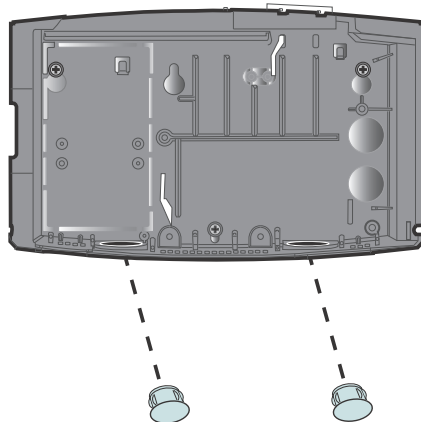
## Step 4: Route the cables

Follow these guidelines as you route specific cables through the points of entry into the base of the InTouch. For example:

- Ethernet — Route the cable through the back wall into the base or through the hole at the bottom of the base.
- Remote readers — If you purchased a remote badge reader or universal relay kit, you must run those cables through the wall or along the wall into the base of the InTouch. See the installation guides for those options.
- Transformer — If you ordered a transformer with a 6-ft. cable to plug into an external wall outlet, you will route that cable through one of the bottom access holes after you install the transformer (“[Step 5: Install components and options in the base](#)” on page 38.)

### Remove cable access plugs

The base of the InTouch has two cable access holes in the top right of the base and two holes at the bottom of the base. If you plan to route cable through one or both bottom holes, remove the plastic plugs.



## Cable routing guidelines

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**Note:** You must route these cables into the base *before* you attach the plastic transformer holder or transition board to the base. Otherwise, you may not have clear access to the cables when you need to connect them to the main board or transition board of the InTouch.

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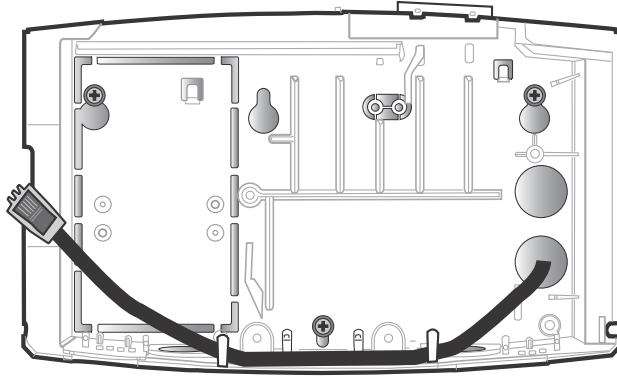
<b>Point of entry</b>	<b>Approximate amount of slack after point of entry</b>
Through the wall into the back of the InTouch base	<ul style="list-style-type: none"><li>• Ethernet cable: 16 in. (40.6 cm) of slack after the point of entry into the InTouch</li><li>• Remote reader cable: 23 in. (58.4 cm)</li></ul>
Through the bottom of the InTouch base	<ul style="list-style-type: none"><li>• Ethernet cable: 6–12 in. (15.2–30.5 cm), depending on which hole is used</li><li>• Remote reader cable: 10 in. (25.4 cm)</li><li>• Transformer with 6-ft. cord: 12 in. (30.5 cm)</li></ul>



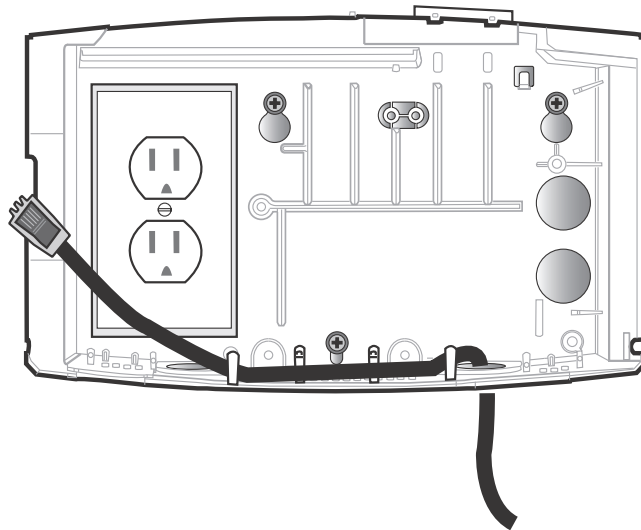
## Secure the Ethernet cable

The following illustrations show how to secure the Ethernet cable in the channels of the Standard base. Avoid excessive bending or crimping of the cable.

### Ethernet cable routed through the wall



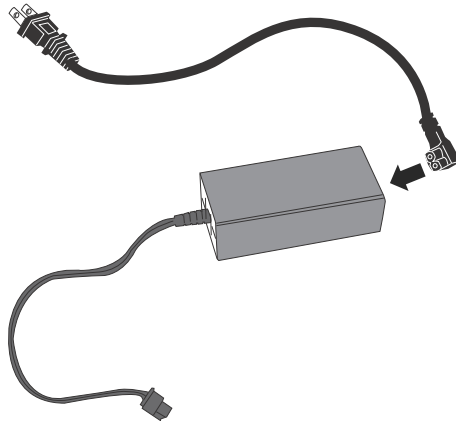
### Ethernet cable routed through the bottom of the base



## Step 5: Install components and options in the base

### Install the transformer

1. Plug the power cord into the top of the transformer.
  - Use the supplied 12-inch (30.48 cm) cord for mounting the InTouch over an AC outlet.
  - Use the 6-foot (1.8 meters) cord if you are using an external AC outlet.
  - Hold the transformer so that the power cord that you just plugged in is at the top and the non-labeled side of the transformer is facing you.

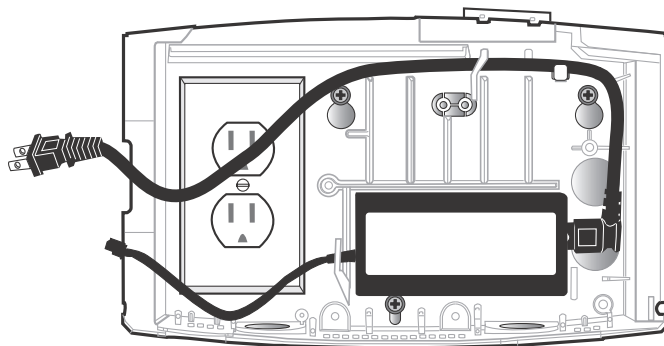


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**Note:** The type of transformer and length of the cord may vary depending on your locale and which configuration was ordered for your site.

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2. Position the transformer and secure the cords as shown:



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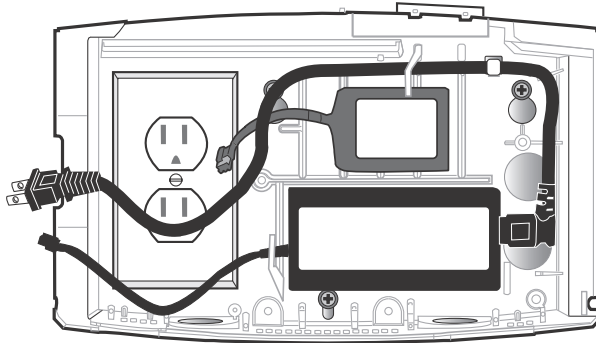
**Caution:** Do not plug in the transformer until you are instructed to do so.

**Attention :** Ne branchez pas le câble d'alimentation avant qu'on vous demande de le faire.

---

## **Install the backup battery option**

If you purchased the backup battery, install it now, while the base is open and the plastic transformer cover has not been attached.



The backup battery requires 24 hours to fully charge after installation.

---

**Caution:** Do not plug in the transformer or battery until you are instructed to do so.

**Attention :** Ne branchez pas le câble d'alimentation ou le câble de batterie de recharge avant qu'on vous demande de le faire.

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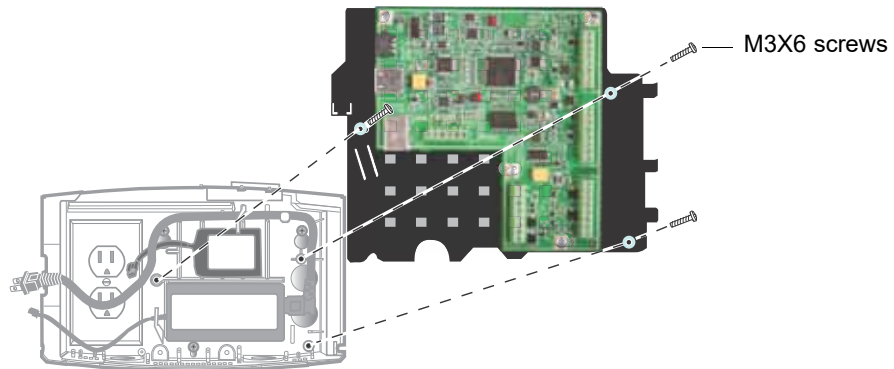
See the backup battery option installation guide for complete installation instructions. Then return to this guide to continue the installation.

## Install the transition board option kit

If you did not purchase a transition board kit, skip to “[Step 6: Attach the plastic transformer plate](#)” on page 43.

If you purchased a transition board kit, install that option now. The transition board must be installed before you can install the following options:

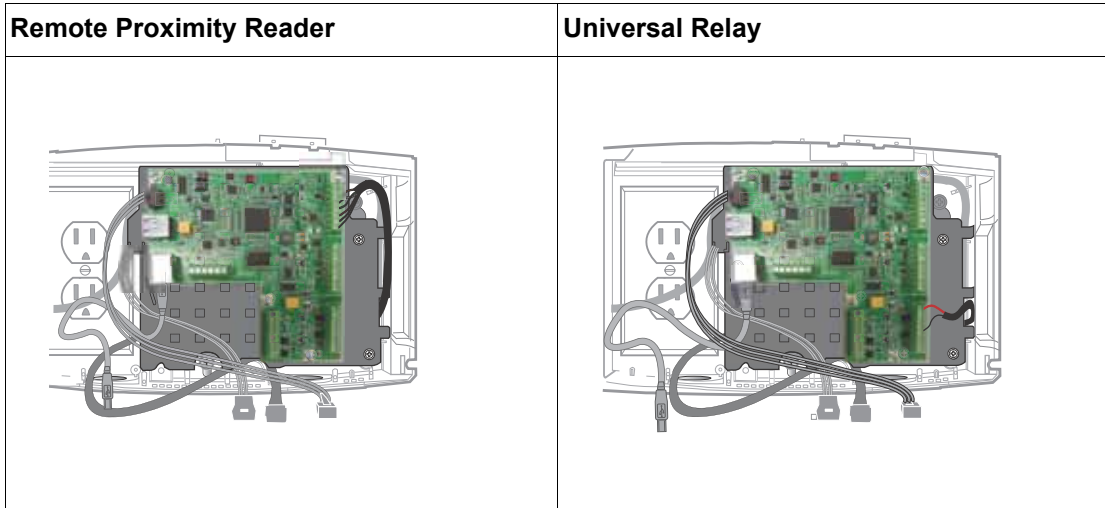
- Remote badge readers
- Universal relay



See the transition board installation guide for complete installation instructions. Then return to this guide to continue the installation.

## Install the remote badge reader and universal relay options

If you purchased remote badge reader or universal relay kits, install them now. For example:

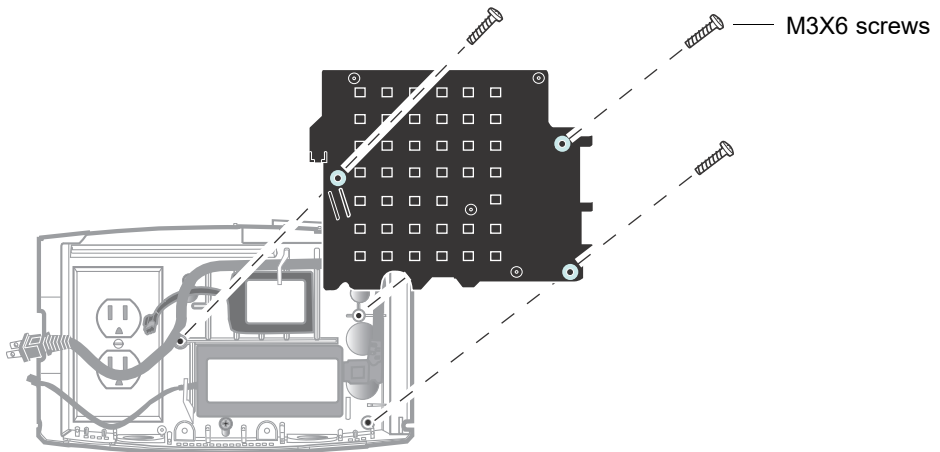


See the option kit installation guides for complete installation instructions. Then return to this guide to continue the installation.

## Step 6: Attach the plastic transformer plate

If you installed a transition board kit, you have already attached the plastic transformer plate to the base; skip to the next section.

If you did not install a transition board kit, attach the plastic transformer cover to the base now.

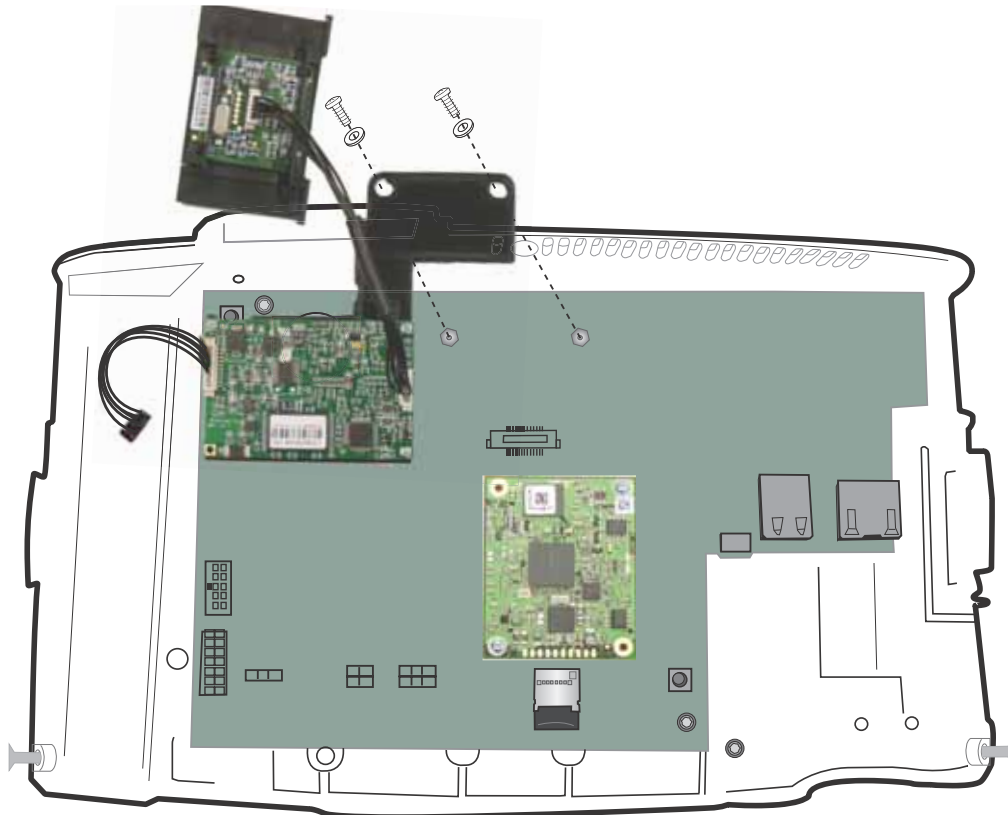


## Step 7: Install the finger scan option

If you purchased a finger scan kit, install it now.

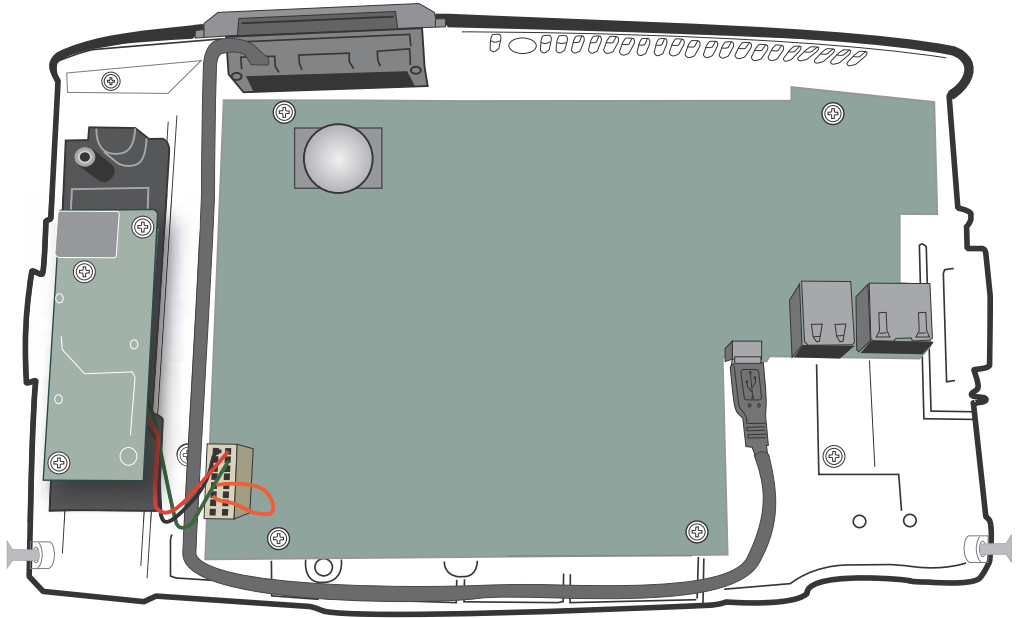
### Kronos Touch ID

**Note:** If you are also installing the Wi-Fi option, install it at the same time that you install the Kronos Touch ID. For details, see the Kronos Touch ID installation guide for the InTouch 9100.





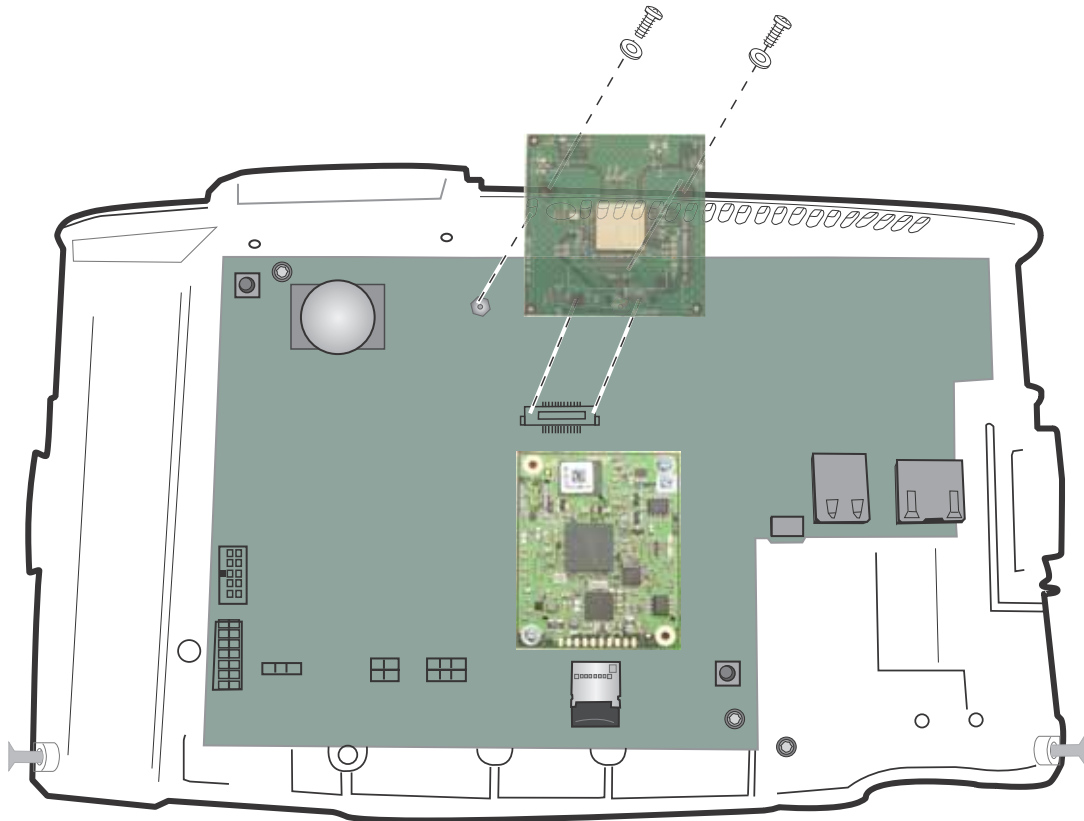
## **Kronos Touch ID Plus**



See the appropriate finger scan option installation guide for complete installation instructions. Then return to this guide to continue the installation.

## Step 8: Install the Wi-Fi option

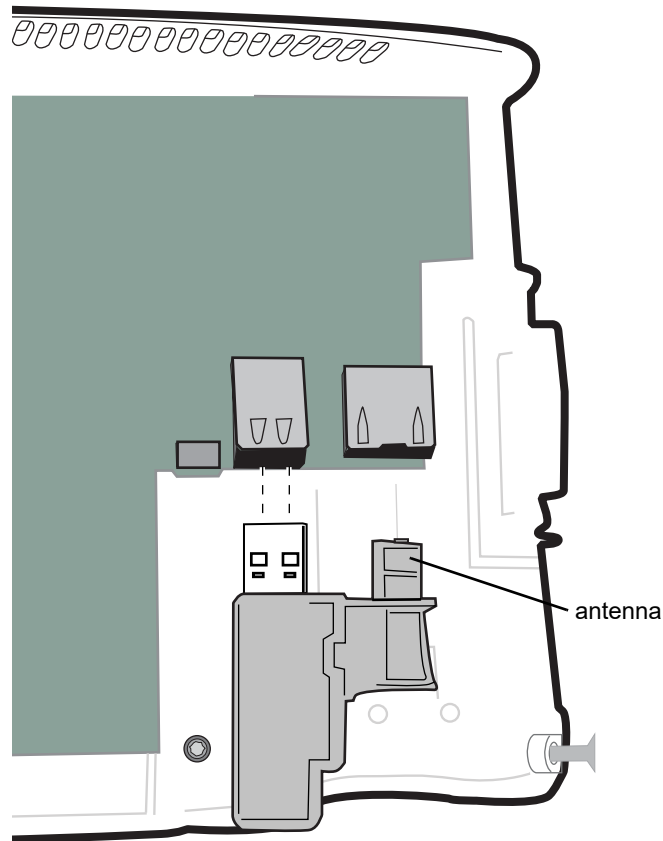
If you have already installed the Wi-Fi option, or have not purchased it, skip this step. Otherwise, install it now. The Wi-Fi board connects to the main board inside the unit's cover.



See the Wi-Fi option installation guide for complete installation instructions. Then return to this guide to continue the installation.

## Step 9: Install the BLE option

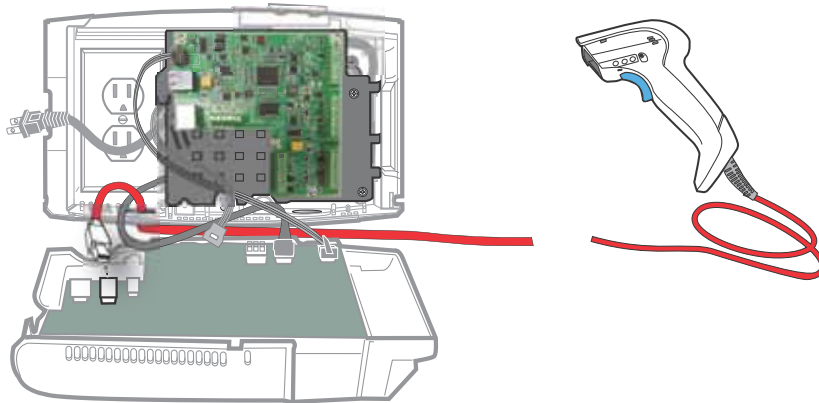
If you purchased the BLE (Bluetooth® Low Energy) option, install it now. Plug the BLE module into the *lower* USB port on the main board (the antenna slides under the Ethernet port).



See the BLE option installation guide for complete installation instructions. Then return to this guide to continue the installation.

## Step 10: Install the linear imager option

If you purchased the linear imager kit, install it now. The linear imager connects to the main board on the inside cover of the unit, or to any available USB port on the transition board.

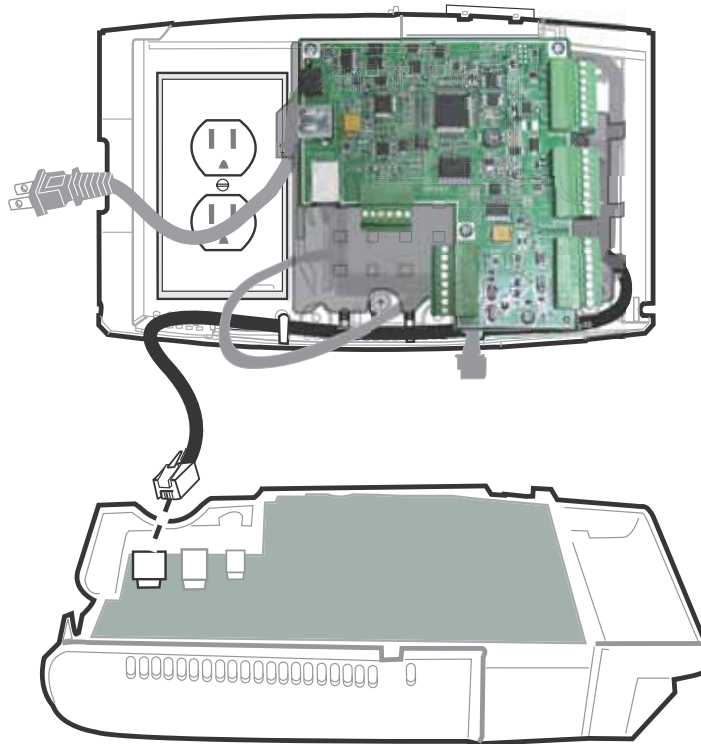


See the linear imager option installation guide for complete installation instructions. Then return to this guide to continue the installation.

## Step 11: Connect and secure the cables

### Connect Ethernet cable

1. Plug the cable into the Ethernet port to connect the InTouch to the local area network. The cable can also be routed through either of the bottom holes in the base.

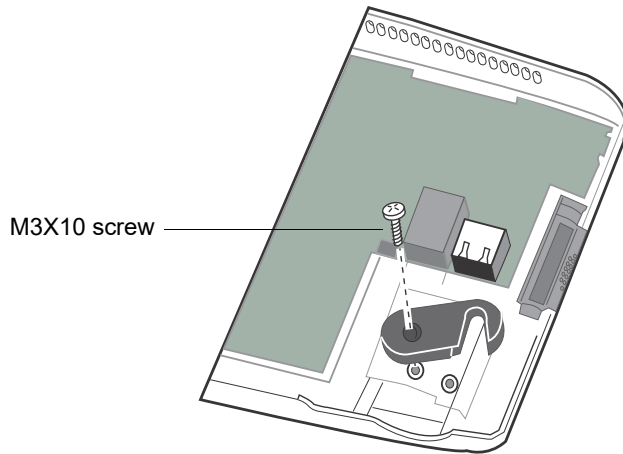


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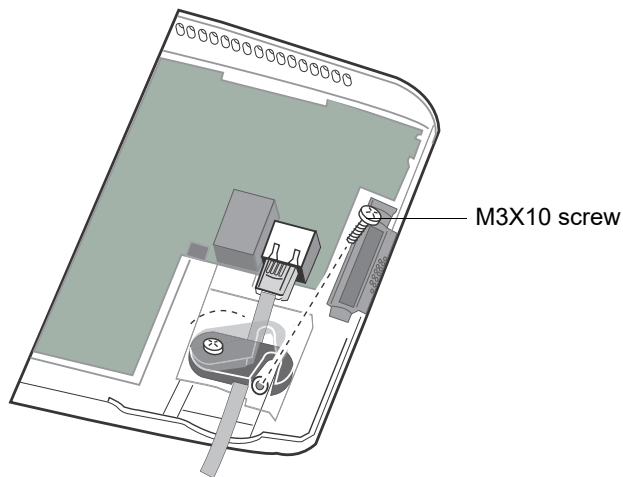
**Note:** If you are using Power-over-Ethernet (PoE) or PoE Plus, the unit will turn on.

---

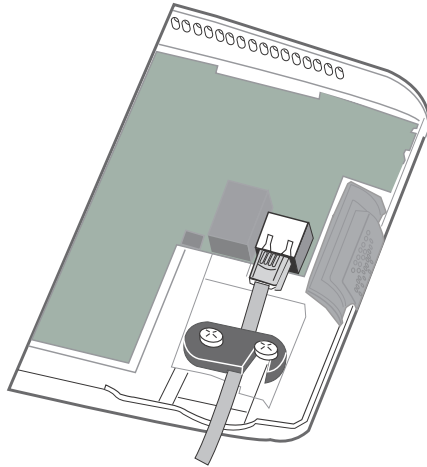
2. Attach the Ethernet strain relief clip.
  - a. Insert screw and clip as shown. Do not fully tighten the screw.



- b. Insert the second screw, but do not fully tighten it. Then swivel the clip over the Ethernet cable.



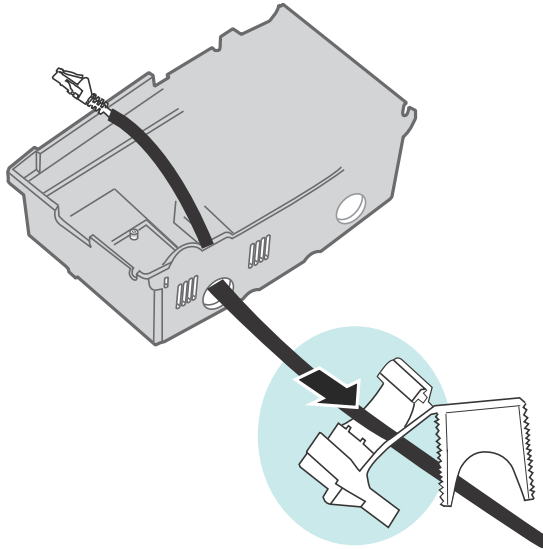
- c. Tighten both screws.



## Secure the cables with the strain relief clip

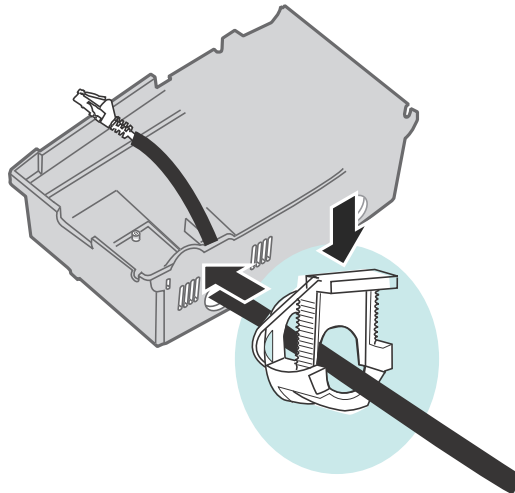
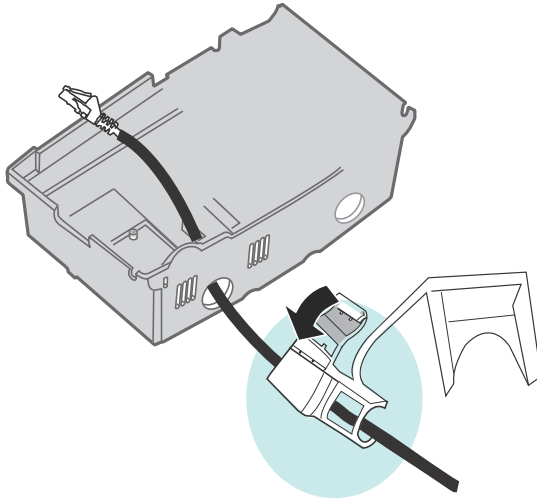
Use the strain relief clips to secure any cables (for example, power cord and Ethernet) that are routed through the bottom of the InTouch. To install the clip, see the following series of diagrams. You can use the clips to secure cables in both bottom holes.

1. Put the clip around the cable and then run the cable through the hole in the base.





2. Close the top and bottom halves of the clip together and then insert that assembly through the hole in the base.

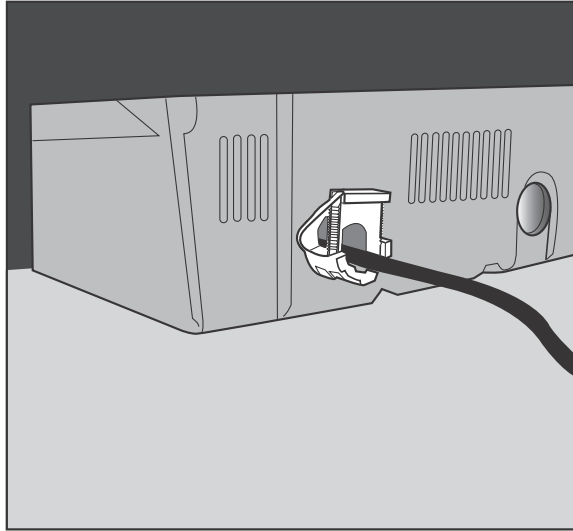


3. Push the clip assembly through hole in the base.

---

**Important:** Do *not* tighten the clip. Wait until you have plugged all cables into the main board, verified that the device is on, and adjusted the slack in the cables.

---



## Connect battery, transition board, and transformer cables

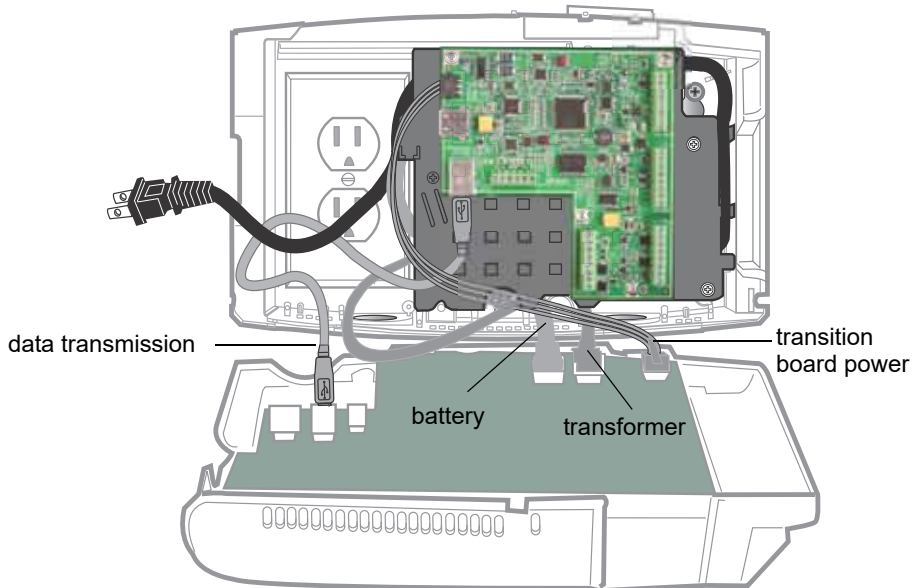
- Backup battery — Plug the cable into the 6-pin connector on the main board.

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**Note:** Although the backup battery is not fully charged, it may have enough power to turn on the unit.

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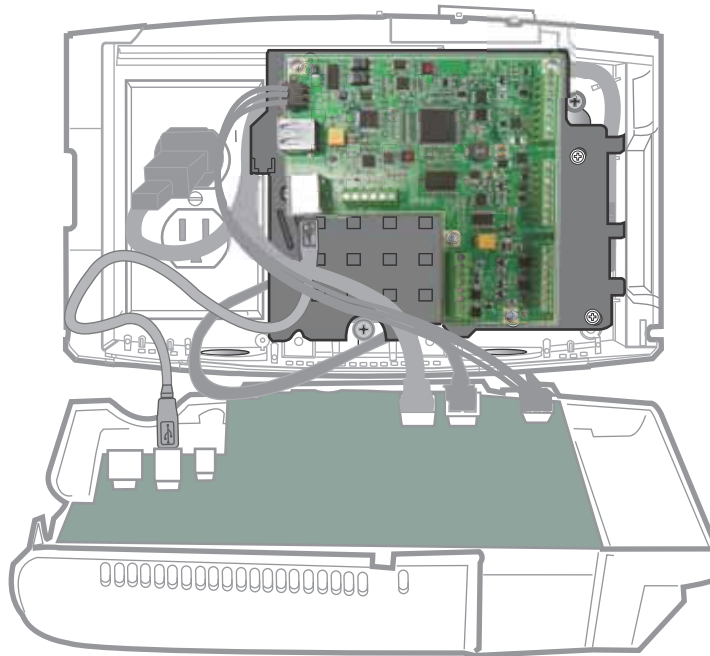
- Transformer — Plug the power cable into the 4-pin connector (J1) on the main board.
- Transition board — If these cables are not already connected, do so now:
  - Connect the power cable from the 3-pin connector on the transition board to the 3-pin connector on the main board.
  - Connect the data transmission cable from the mini-USB port on the transition board to the standard USB port on the main board.



## Step 12: Turn on the AC power to the device

**Note:** If you are using Power-over-Ethernet (PoE) or PoE Plus, the system should already be running.

1. Depending on your configuration:
  - Plug the transformer into the external AC outlet
  - Plug the transformer into the AC outlet over which the base is mounted.  
For example:



2. Close the cover of the InTouch enough so that you can view the display screen as the device initializes.

---

**Note:** Although the backup battery is not fully charged, it may have enough power to turn on the unit if the main source of power is off. It takes approximately 24 hours for the battery to fully charge.

---

## Verify that the power is on

A red light inside the InTouch indicates that the power is on. If that light is *not* on, check the power connections.

After you turn on the power, the InTouch initializes and performs internal diagnostics. When the initialization finishes, the system displays the time and date on the touchscreen. (The time and date may not be accurate until you set it in Maintenance mode or when the device begins communicating with the host application.)

If the screen does not display the time and date or the unit does not appear to be on:

- Check all your connections.
- Review [“Troubleshooting and Preventive Maintenance”](#) on page 83.
- If necessary, contact your Kronos Representative.

When the InTouch has successfully initialized, go to [“Step 13: Close and lock the InTouch”](#) on page 58.

## Step 13: Close and lock the InTouch

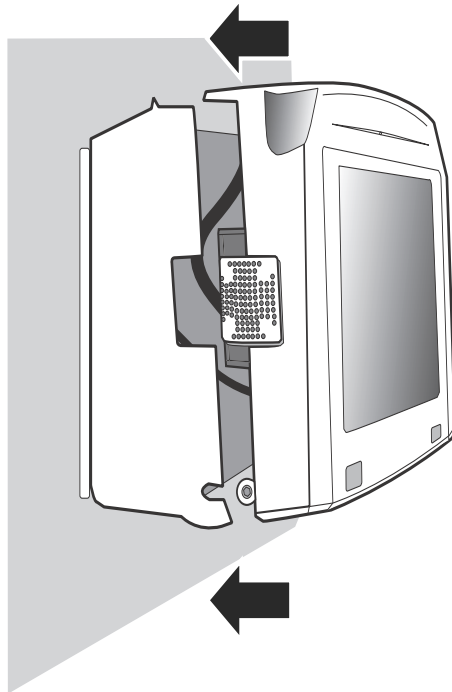
When the InTouch is powered on and operating, perform the following steps.

### Tighten the strain relief clip

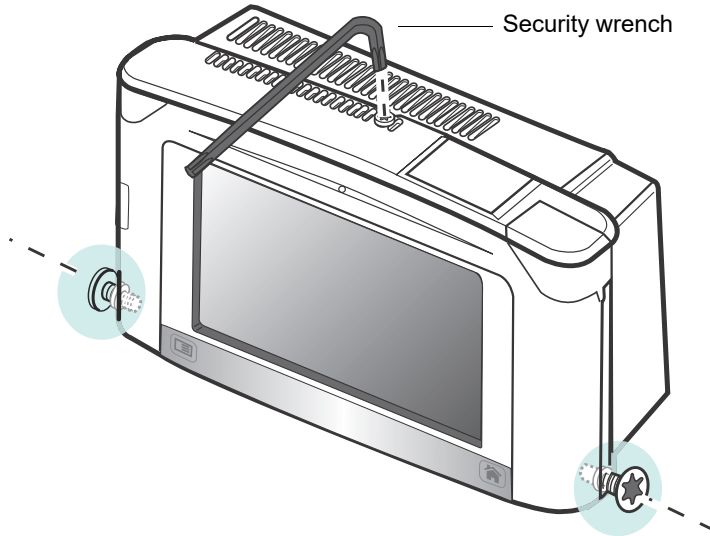
Adjust the slack in the cables as necessary and then tighten the strain relief clip that you previously inserted through the bottom hole of the base.

### Close the cover and secure the screws

1. Close the cover onto the base. There are three locking tabs on the top of the base—one in the center and one at either end. They fit into the three holes on the top of the cover. Do not close it on any of the cables inside the InTouch. Do *not* force the cover when closing it.



2. Insert the M4 X 10 torx screw into the top of the cover. Use the security wrench to secure each screw so that the fit is snug, but not too tight.



## Next steps

To configure the InTouch for your site, the network administrator or similarly qualified individual configures device settings on the host application and on the installed unit. For more information, see the following:

- The online help for the host application.
- The InTouch 9100 User Guide. See the section about initial setup.

InTouch documentation can be found by logging in online at <http://community.kronos.com>.

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**Note:** If the InTouch is replacing a Series 4000, also see the configuration guidelines in “[Step 3: Install and configure the InTouch](#)” on page 120.

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*Chapter 3*

***Install the Slim Profile InTouch***

## Step 1: Prepare the location

### Determine the power source for your site

Before you start the installation, plan how the InTouch will connect to a power source at your site.

#### Power options

- Install using a Power-over-Ethernet (PoE) or PoE Plus cable for power.
- Install *near* an AC outlet and use the wall transformer connection for power.

#### Important notes

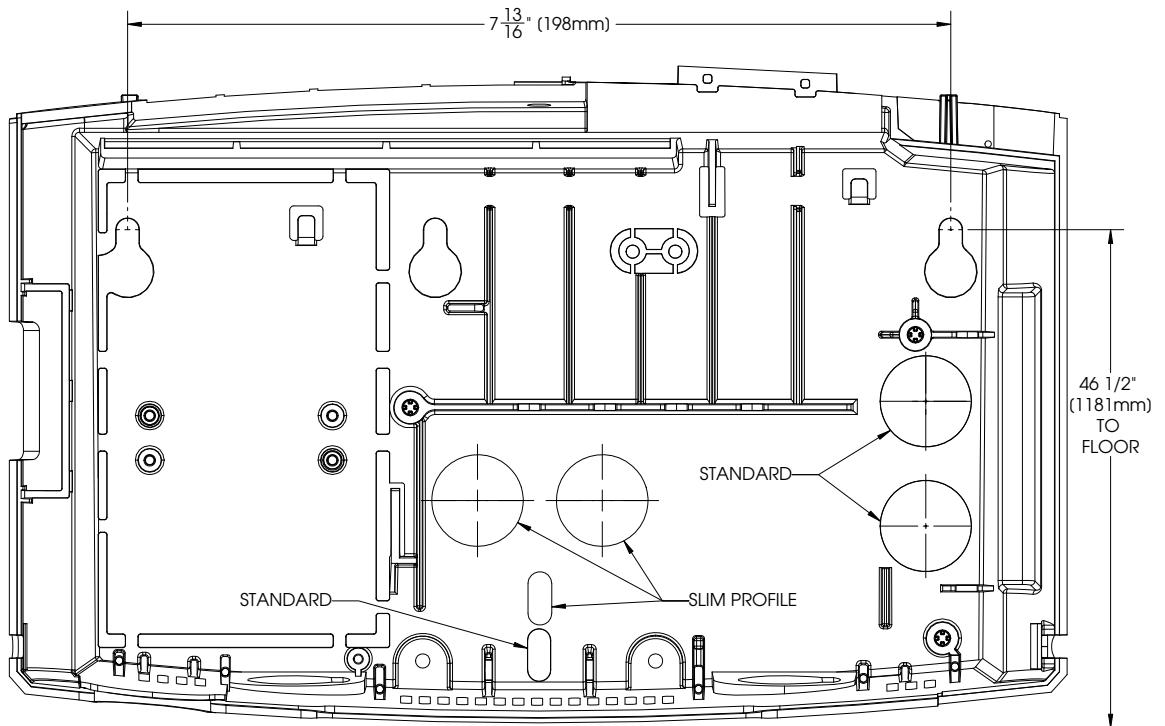
- Select a location where the distance from the power cable hole at the bottom of the InTouch is not more than 5 feet (1.5 meters) from the AC outlet. Install an outlet if necessary.
- The AC line that supplies power to the InTouch must be equipped with an appropriate disconnect device (20A maximum circuit breaker).
- Do not connect the InTouch power line to circuits that are being used for electrical devices that draw large amounts of power, such as air conditioning units, electrical motors, and compressors.
- Avoid running communications cable near devices that interfere with data transmission.

## Mark insertion points for the base

To mark areas on the wall where you will install the device, use the mounting template or the base of the device

### Use the mounting template

The mounting template is printed on a sheet of paper that is included with your InTouch kit. Use that template to mark the areas of the wall where you plan to install the InTouch. (You can also use the base itself as the template.)



PART NUMBER 4704549-003 REV-C

1. Tape the mounting template (or position the base) at the optimal height and location for the InTouch.
  - The top mounting screws must be 46 and 1/2 inches (1181 millimeters) above the floor, for ADA compliance.
  - Use a level to ensure that the top of the template is horizontal to the floor.

---

**Note:** If you are replacing a Series 4000 device, you can install the InTouch on the same area of the wall but you cannot use the same screw holes.

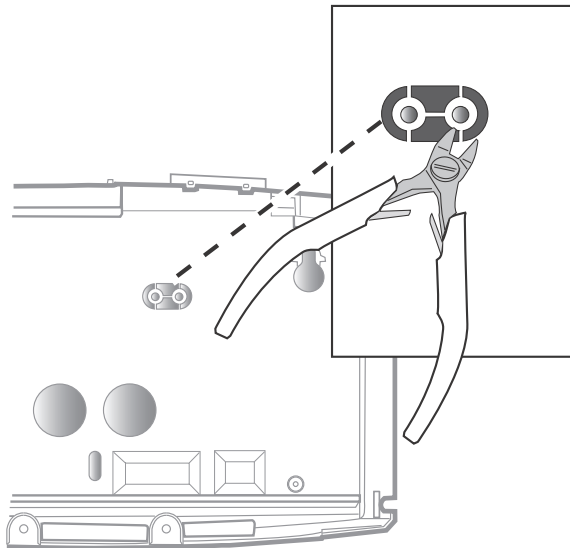
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2. Mark the location of the mounting screw holes: Mark the top screw that is on the far left, the top screw on the far right, and the single screw in the bottom middle. (See the illustration in [“Step 3: Mount the base”](#) on page 68.)
3. If you plan to run an Ethernet cable through the wall to enter the InTouch from the back or through the bottom, use the template to mark the point of entry. (See the illustrations in [“Route the Ethernet cable”](#) on page 71.)
4. If you are installing the InTouch *near* an AC outlet, be sure the outlet is within 5 feet of the template. (See the illustration in [“Cable routing guidelines”](#) on page 71.)
5. After you finish marking all entry points, screw holes, and so on, remove the mounting template (or base) from the wall.

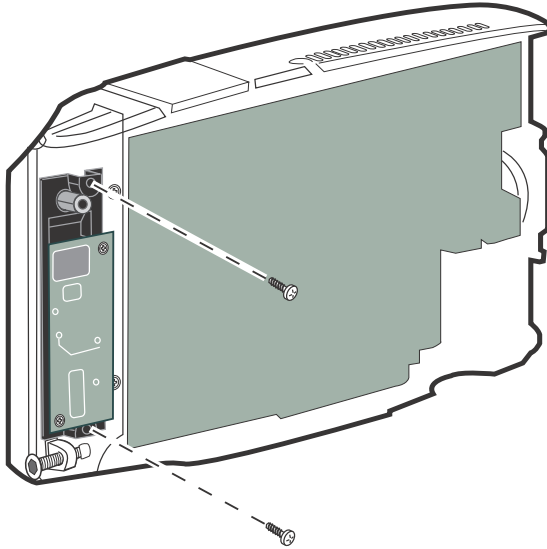
## **Step 2: (Optional) Widen the badge reader slot**

If the badges that you will use with the InTouch are more than 0.05 in (1.27 mm) thick, you need to install two spacers in the badge reader (for bar code or magnetic stripe cards) to accommodate the badges. The spacers are molded into the base of the device.

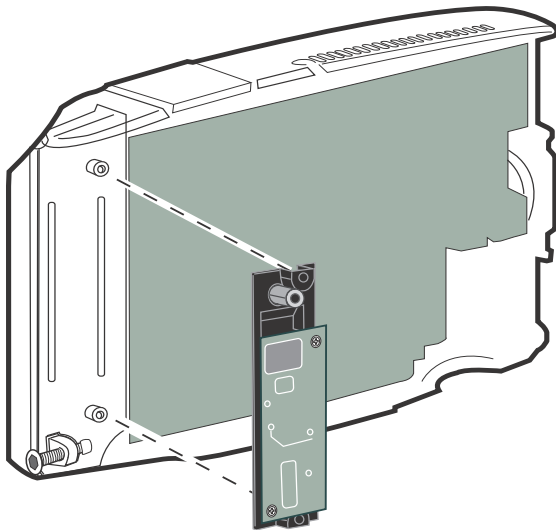
1. Use a wire cutter to remove the spacers from the base.



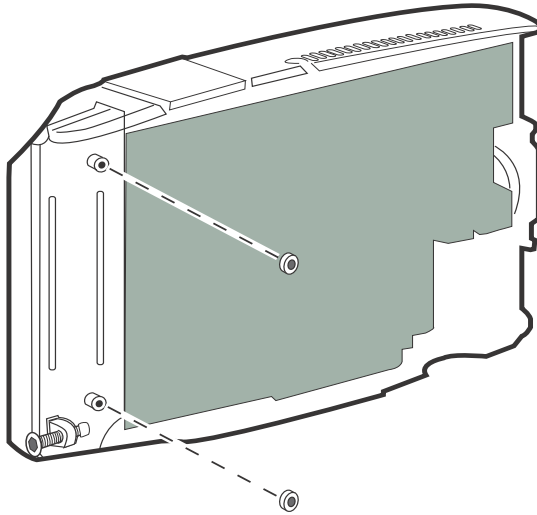
2. On the inside of the cover, use a Phillips screwdriver to loosen the two screws that hold the badge reader cover in place.



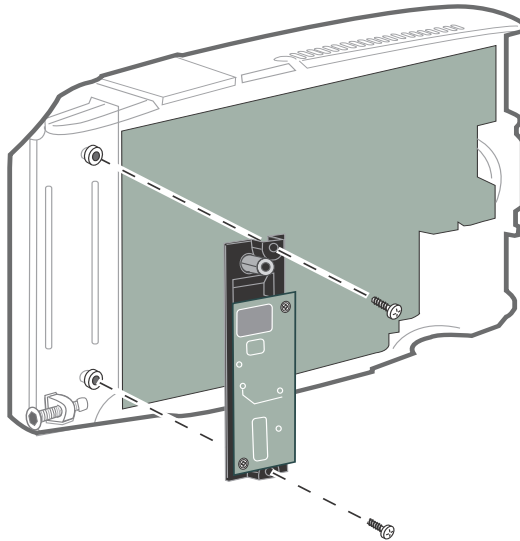
3. Remove the badge cover.



4. Press the two spacers onto the tops of the two channels that hold the screws.



5. Insert the reader cover back onto the base. Tighten the screws on the reader cover.



## Step 3: Mount the base

After you prepare the location, mount the base of the InTouch to the wall.

1. Do one of the following:

To mount the base on *wood*:

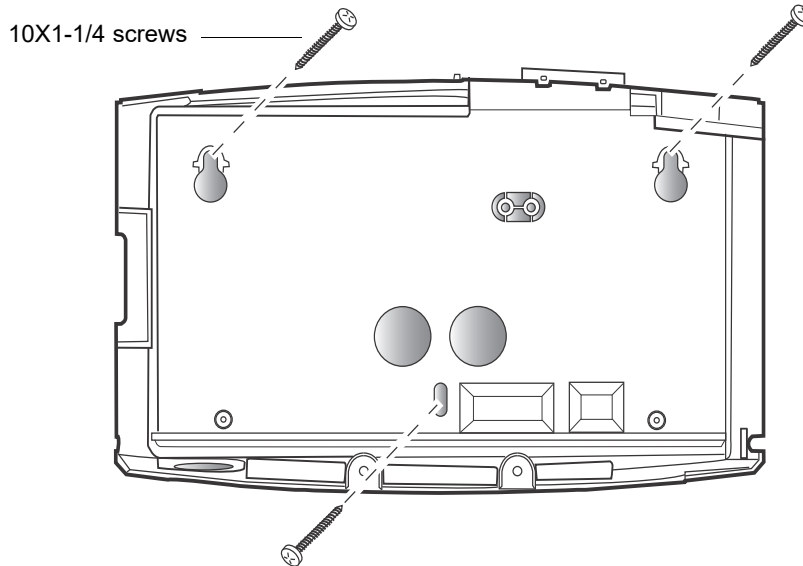
- a. Drill pilot holes for the top two mounting screws and the bottom mounting screw (three 10X1-1/4 screws are included with the InTouch). See the examples on the following pages.
- b. Use a drill or screwdriver to drive the top two mounting screws into the wall, leaving 1/4 inch (6 mm) between the head of each screw and the wall.

To mount the base on *drywall*:

- a. Use a 9/32 inch drill bit (7 mm) to drill holes for the three wall anchors (included with the InTouch). See the examples on the following pages.
- b. Install a wall anchor in each screw hole. Push or tap the wall anchors until they are flush against the wall.
- c. Use a drill or screwdriver to drive the top two mounting screws (three 10X1-1/4 screws are included with the InTouch) into the wall, leaving 1/4 inch (6 mm) between the head of each screw and the wall.



2. Align the top two screw holes and bottom middle screw hole in the base with the two top screws in the wall, and gently set the base in position.



3. Tighten the top two screws so that they are flush against the base. Then drive the bottom middle screw into the wall so that it is flush against the base.

---

**Note:** Do not tighten the screws excessively. If the wall surface is not smooth, you may crack the base.

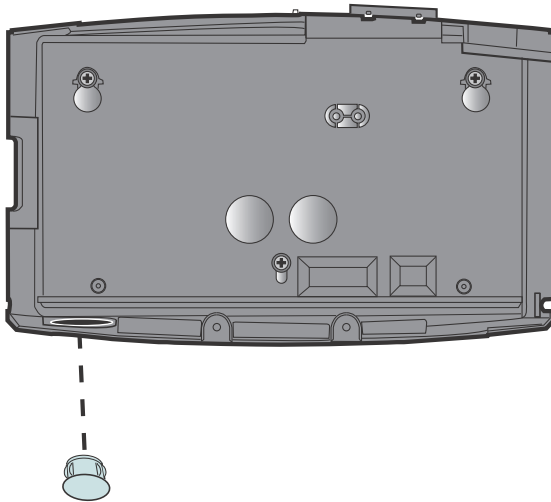
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## Step 4: Route the cables

Follow these guidelines as you route specific cables through the points of entry into the base of the InTouch.

### Remove cable access plug

The base of the InTouch has two cable access holes centered near the bottom of the base and one hole at the bottom of the base. If you plan to route cable through the bottom hole, remove the plastic plug.



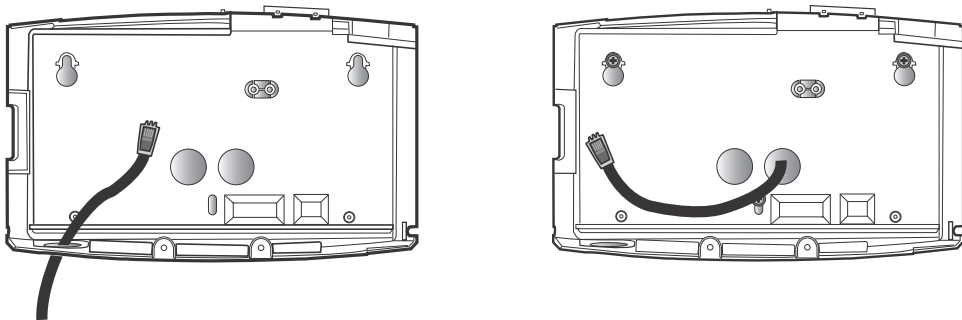
## Cable routing guidelines

Follow these guidelines as you route the Ethernet cable or AC wall transformer cord through the point of entry into the InTouch:

Point of Entry	Approximate Amount of Slack After Point of Entry
Through the wall into the back of the InTouch base	<ul style="list-style-type: none"> <li>Ethernet cable: 10 inches (25.4 cm)</li> </ul>
Through the bottom of the InTouch base	<ul style="list-style-type: none"> <li>AC wall transformer cord: 12 inches (30.5 cm)</li> <li>Ethernet cable: 6 inches (15.2 cm)</li> </ul>

## Route the Ethernet cable

Run the Ethernet cable through the base. For example:



**Note:** If the Ethernet cable is also the source of power for the device, do not plug it into the main board until you are directed to do so.

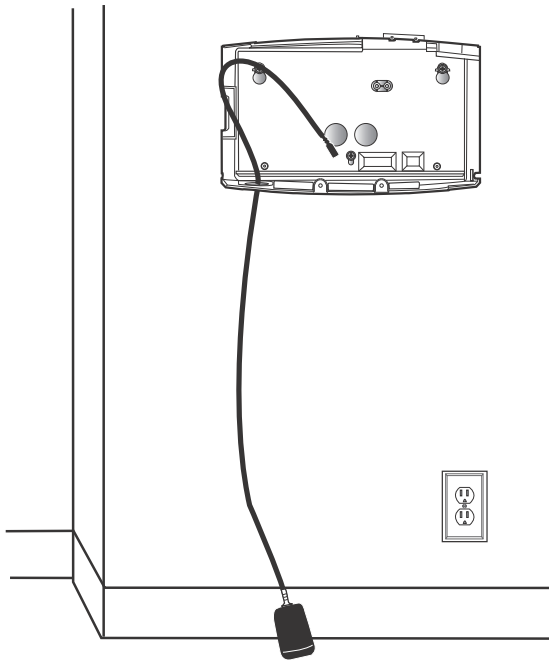
## Route the AC wall transformer cord

If the power source is from a wall transformer that will be plugged into a nearby outlet, route the cable as shown. Note that the base must be within 5 feet of the outlet.

---

**Note:** Do not plug in the power until you are instructed to do so.

---



## Step 5: Install other options

If you purchased one or more of the following options, install them now. These options connect to the main board on the inside cover of the unit. See the option installation guides for complete installation instructions. Then return to this guide to continue the installation.

- Finger scan device (Kronos Touch ID or Kronos Touch ID Plus).

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**Note:** If you are installing the Kronos Touch ID, you must install it and the Wi-Fi option at the same time. Refer to the Kronos Touch ID installation guide, before you begin installing the Wi-Fi option.

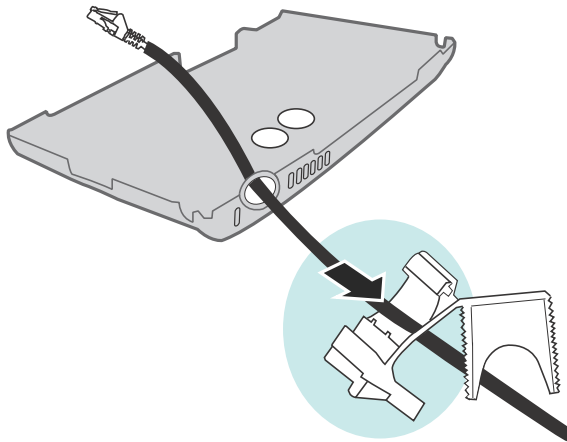
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- Wi-Fi option.
- BLE option.
- Linear imager option.

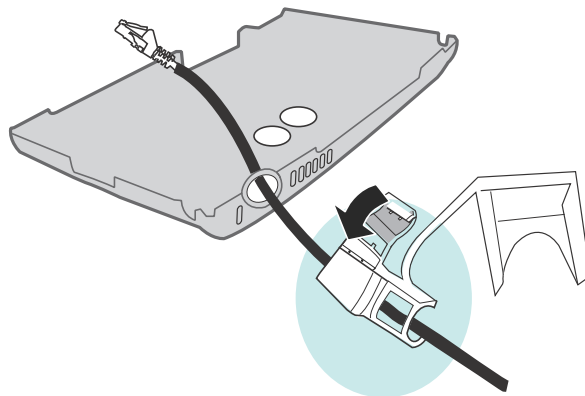
## Step 6: Secure the cables with the strain relief clip

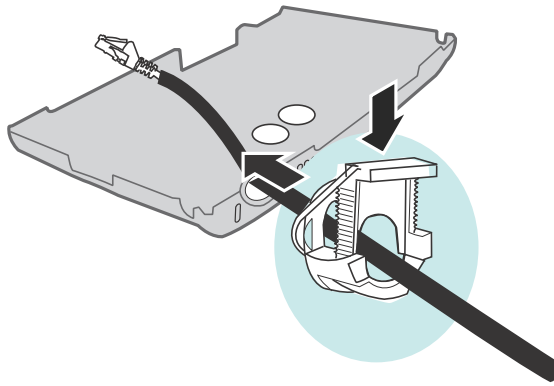
Use the strain relief clip to secure any cables (power cord, PoE, or PoE Plus) that are routed through the bottom hole of the InTouch. To install the clip, see the following series of diagrams.

1. Put the clip around the cable and then run the cable through the hole in the base.



2. Close the top and bottom halves of the clip together and then insert that assembly through the hole in the base.



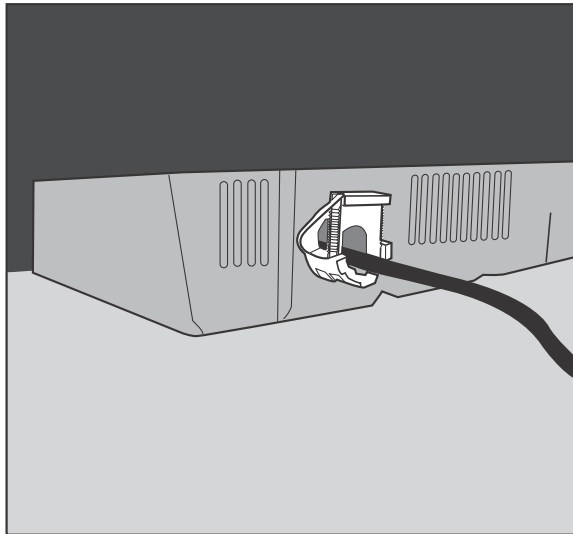


3. Push the clip assembly through hole in the base.

---

**Important:** Do *not* tighten the clip. Wait until you have plugged all cables into the main board, verified that the device is on, and adjusted the slack in the cables.

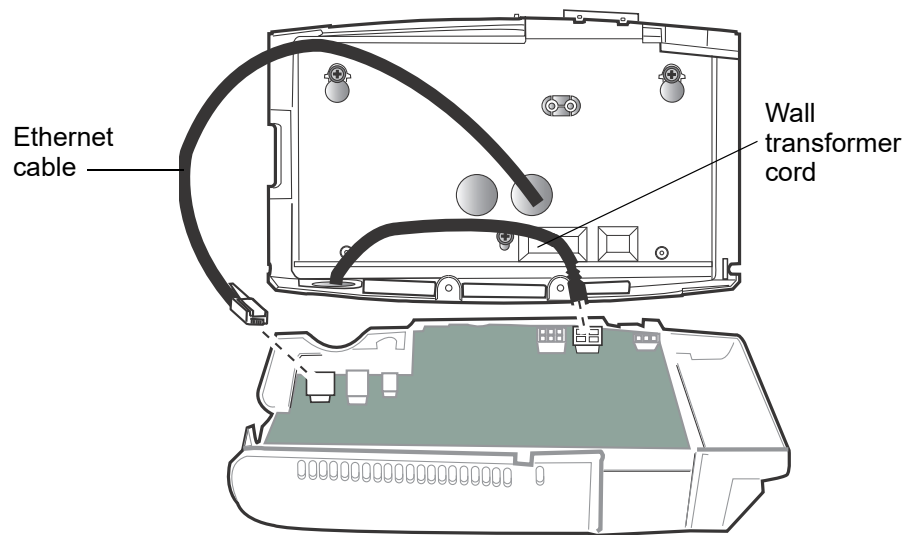
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## Step 7: Connect power and cables to the main board

The following illustration shows the Ethernet cable and external wall transformer cord connected to the main board.

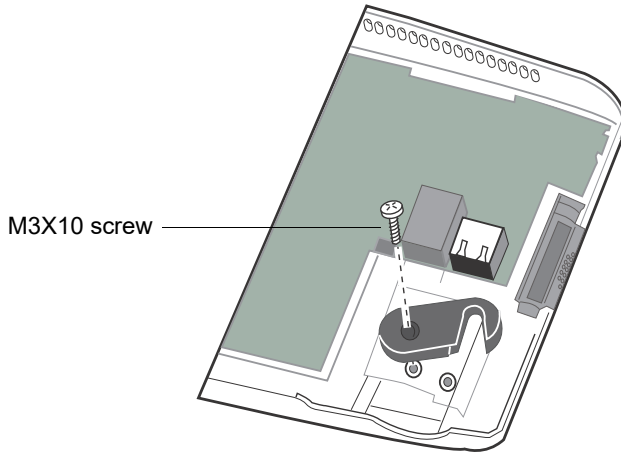
If the Ethernet cable is the source of the power, you do not need the external wall transformer cable.



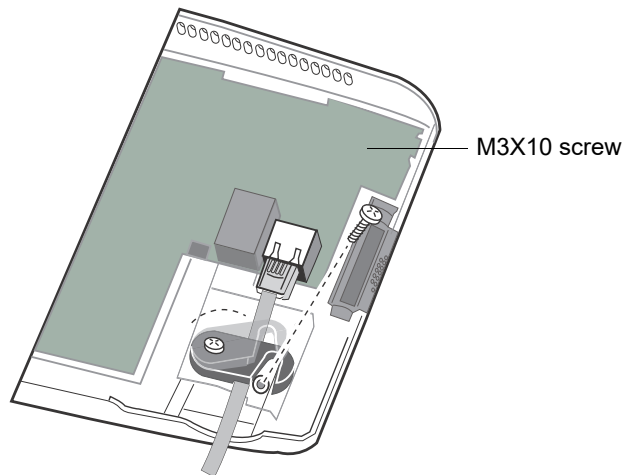
1. Connect the Ethernet cable to the main board. If you are using Power-over-Ethernet (PoE) or PoE Plus cable, the unit will turn on.



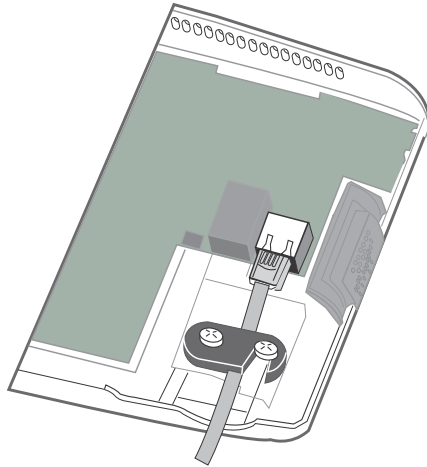
2. Attach the Ethernet strain relief clip.
  - a. Insert screw and clip as shown. Do not fully tighten the screw.



- b. Insert the second screw, but do not fully tighten it. Then swivel the clip over the Ethernet cable.



- c. Tighten both screws.



3. If the external wall transformer is the source of power, plug that power cord into the AC outlet and into the main board.
4. Close the cover of the InTouch enough so that you can view the display screen as the device initializes.

## Verify that the power is on

A red light inside the InTouch indicates that the power is on. If that light is *not* on, check the power connections.

After you turn on the power, the InTouch initializes and performs internal diagnostics. When the initialization finishes, the system displays the time and date on the touchscreen. (The time and date may not be accurate until you set it in Maintenance mode or when the device begins communicating with the host application.)

If the screen does not display the time and date or the unit does not appear to be on:

- Check all your connections.
- Review [“Troubleshooting and Preventive Maintenance”](#) on page 83.
- If necessary, contact your Kronos Representative.

When the InTouch has successfully initialized, go to [“Step 8: Close and lock the InTouch”](#) on page 80.

## Step 8: Close and lock the InTouch

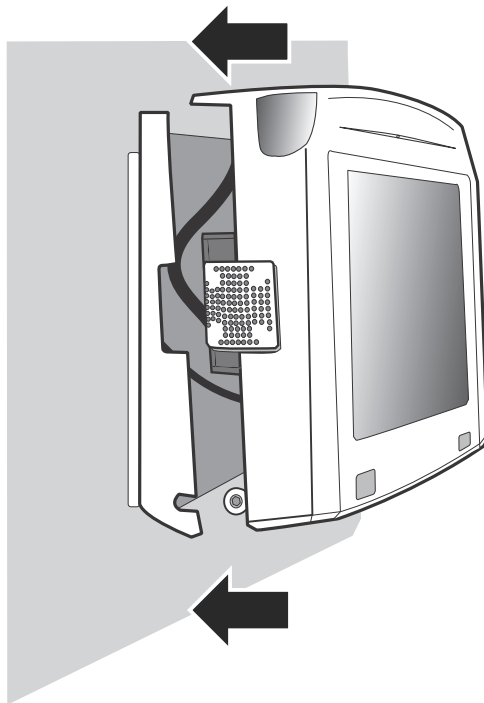
When the InTouch is powered on and operating, perform the following steps.

### Tighten the strain relief clip

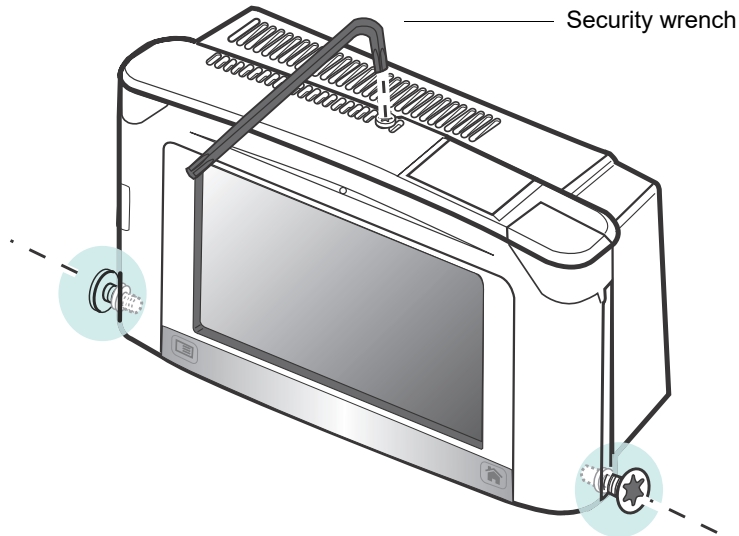
Adjust the slack in the cables as necessary and then tighten the strain relief clip that you previously inserted through the bottom hole of the base.

### Close the cover and secure the screws

1. Close the cover onto the base. There are three locking tabs on the top of the base—one in the center and one at either end. They fit into the three holes on the top of the cover. Do not close it on any of the cables inside the InTouch. Do *not* force the cover when closing it.



2. Insert the M4 X 10 torx screw into the top of the cover. Use the security wrench to secure each screw so that the fit is snug, but not too tight.



## Next steps

To configure the InTouch for your site, the network administrator or similarly qualified individual configures device settings on the host application and on the installed unit. For more information, see the following:

- The online help for the host application.
- The InTouch 9100 User Guide. See the section about initial setup.

InTouch documentation can be found by logging in online at <http://community.kronos.com>.

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**Note:** If the InTouch is replacing a Series 4000, also see the configuration guidelines in “[Step 3: Install and configure the InTouch](#)” on page 120.

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*Chapter 4*

***Troubleshooting and Preventive Maintenance***

## Resolve common problems

This section describes common problems that you might encounter. To run diagnostic tests and reports, see the user's guide.

Symptom	Probable Causes	Corrective Action
There is no power in the InTouch.	<i>If the InTouch is powered using standard AC power cable, the transformer is not properly plugged in to the main board of the InTouch, the AC outlet, or both.</i>	<p>If the InTouch is powered using a standard AC power cable:</p> <p>Check the connections to the main board and the AC outlet.</p> <p><b>Important:</b> If the power cord is not plugged into the AC outlet, do <i>not</i> plug it in until you ensure that the transformer is properly connected to the main board.</p>
	<i>If the InTouch is powered using Ethernet cable, the network may be down, or connections to and from the Power-over-Ethernet (PoE) or PoE Plus module may not be secure.</i>	<p>If the InTouch is powered using Ethernet cable:</p> <ul style="list-style-type: none"> <li>• Ensure that the network is running.</li> <li>• Ensure that the network Ethernet cable is connected to the main board of the InTouch.</li> </ul>
The InTouch does not boot up.	The microSD card may be loose.	Ensure that the microSD card is inserted securely in the unit.
The power LED is turned on, but nothing appears on the screen.	<i>If the InTouch is powered using a standard AC power cable, the AC line is not live or is supplying improper voltage.</i>	<p>Measure voltage at the AC outlet and, if necessary, locate another power source.</p> <p><b>Note:</b> When the InTouch starts up, the LED is amber and the screen is blank for 1-2 minutes. If the screen remains blank, then there might be a problem and you can take the corrective action.</p>
	<i>If the InTouch is powered using Ethernet cable, there is an issue with the network.</i>	<ul style="list-style-type: none"> <li>• Check the Ethernet connection at the InTouch, and all other network connections.</li> <li>• Ensure that the network is supplied with an 802.11af-compliant (PoE) or 802.11at-compliant (PoE Plus) power source.</li> </ul>







<b>Symptom</b>	<b>Probable Causes</b>	<b>Corrective Action</b>
InTouch fails to read badges.	The badge is unreadable or does not meet the required badge specification.	<ol style="list-style-type: none"> <li>1. Inspect the badge for cleanliness.</li> <li>2. Clean the badge and badge reader.</li> </ol>
	The bar code on the badge is worn or scraped off.	Replace the badge.
	You did not configure the InTouch to read the symbology that your badges use.	<ol style="list-style-type: none"> <li>1. Access Maintenance mode at the InTouch.</li> <li>2. Access the Symbology settings.</li> <li>3. Turn on the appropriate symbology.</li> </ol>
	The InTouch is not enabled for the correct badge reader type or company ID code (if you are using a code).	Correct the badge reader and company ID code settings in the host application.
	The badge reader may not be working correctly.	<p>Run the Badge Test test at the InTouch:</p> <ol style="list-style-type: none"> <li>1. Access Maintenance mode at the InTouch.</li> <li>2. Tap the Test button on the touch screen.</li> <li>3. Select Badge from the list of options.</li> <li>4. Follow the prompts to conduct the test and note the result.</li> </ol> <p>If the test does not indicate the issue, run a Reader Report as follows:</p> <ol style="list-style-type: none"> <li>1. Access Maintenance mode at the InTouch.</li> <li>2. Tap the Reports button and scroll down to Readers.</li> </ol> <p>Note the report results and contact your Kronos Representative for assistance.</p>

Symptom	Probable Causes	Corrective Action
<p>Communication fails.</p>	<p>Communication settings are incorrect either at the InTouch or the host PC.</p>	<ol style="list-style-type: none"> <li>1. Access Maintenance mode.</li> <li>2. Tap Communication Settings.</li> <li>3. Check and, if necessary, correct the Device ID and IP Address. These settings must match the settings entered for the InTouch in the host application.</li> <li>4. Check the Gateway, Subnet Mask, and DNS IP Address settings. Ensure that the IP address is appropriate for the Subnet Mask and Gateway settings.</li> <li>5. If DNS is enabled, ensure that the DNS server is running.</li> <li>6. If the Comm Mode prompt is set to <i>Device Initiated</i>, also ensure that the following prompts are set correctly: Primary Server, Primary Server Port, Primary Server Instance ID</li> </ol> <p><b>Important:</b> These settings <i>must</i> match the corresponding settings in the host application.</p> <p>If the password feature for the InTouch is enabled in the host application, the password you set in the host application and at the InTouch (Primary Server Password, Verify Password) must match.</p> <p>If the password feature is disabled, a password must still be entered at the InTouch. Any combination of 6–10 digits is valid.</p> <p>If you still cannot determine the problem, run the Communications Test (in Maintenance mode).</p>

<b>Symptom</b>	<b>Probable Causes</b>	<b>Corrective Action</b>
Communication fails (continued).	Communications cabling is connected incorrectly.	<p>Ensure that all communications cables are routed correctly and connected properly. If the connections are secure, determine whether the cable is defective by doing the following:</p> <ul style="list-style-type: none"><li>• Check to see if the green communications LED inside the InTouch is lit. Use the security wrench to unlock and open the cover of the InTouch.</li><li>• Check to see if the green link light on the hub to which the InTouch is connected is lit.</li></ul> <p>If both lights are lit, the cable is not defective. The issue may be the network configuration. If both lights are not lit, the cable may be defective. Consult with your system administrator to resolve the issue.</p>

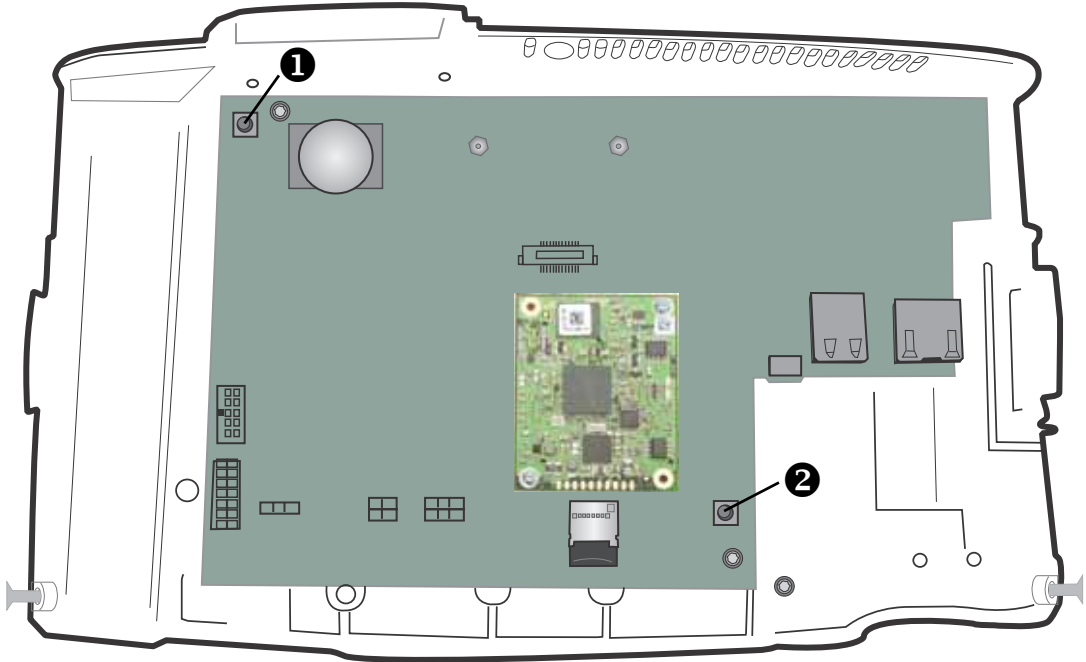
## Device status icons that indicate problems

One or more status icons may appear below the logo on the home page. The following icons indicate specific problems. See the user guide for a complete list of device status icons and descriptions.

	Indicates that the data collection device has lost power and is operating on battery backup. Check the plugs, connections, and so on.
	Indicates that the disk free space has fallen below the low disk space threshold. Contact your administrator to increase the disk space.
	Indicates that the device is failing to communicate with the host application. Check the Ethernet connections.
	Indicates that the average memory usage, CPU load, or both have exceeded their thresholds. Contact your administrator.

## Alternative buttons for Maintenance mode and restart

If necessary, you can use the following two buttons on the inside of the cover to access Maintenance mode or to restart the unit.



- ➊ Restart the device, when the system is not responding. Press and hold the button for four seconds.
- ➋ Access Maintenance mode (for example, if the device times out during the initial setup). Press and hold the button for at least fifteen seconds.

To open the cover to access the inside of the device, see [“Step 2: Open the InTouch”](#) on page 122.

## Preventive maintenance

See the user's guide for additional maintenance tasks and to run diagnostic tests and reports.

### Clean the unit

Use glass cleaner and a soft, lint-free cloth to clean the unit.

---

**Note:** Do *not* spray the cleaner directly on or inside the unit. Spray the cleaner on the cloth.

---

### Clean the touchscreen

To clean the touchscreen surface, press the Menu key on the front of the device (bottom left), and tap Clean Touchscreen. The system disables the touchscreen for 30 seconds, so that you can clean its surface without inadvertently performing a transaction. The system counts down the number of seconds that the touchscreen remains disabled.

Spray glass cleaner on the soft, lint-free cloth and wipe the screen.

After you finish cleaning the touchscreen, wait until the remaining time elapses, or press the Home key on the front of the device (bottom right) to exit.

### Clean the case

Spray the glass cleaner on the soft, lint-free cloth and wipe the top, bottom, and sides of the case. Do *not* spray the cleaner directly on or inside the case or directly on the finger scan plate (if that option is installed), speaker, or microphone.

Do not use steel wool or any other abrasives, or solvents such as alcohol, benzene, or acetone, as they can damage the unit.

## **Clean the badge reader**

To clean the badge reader:

1. Fold a paper towel over an inactive badge.
2. Spray the towel gently with a glass cleaner.
3. Swipe the badge several times in the badge reader.

## **Replace the backup battery**

The lithium battery is a 12 VDC battery that powers the unit at full capacity for up to two hours if the power is lost. If an optional device is connected to the touchscreen data collection device (for example, an external badge reader), the amount of time that the backup battery can provide power may be less than two hours.

Replace the lithium battery when it is 5 years old or if the date and time do not reset to the current date and time after a power failure. See the instructions that are included in the backup battery installation guide to remove and replace the battery.

## **Return the unit for replacement or repair**

If you have performed the required preventive maintenance and troubleshooting tasks but the InTouch or any of the optional components are still not operating correctly, and you and your Kronos Representative have determined that you need to return the unit and certain options, follow the instructions in the Guide to Returning the InTouch 9100.





*Appendix A*

***Replace a Series 4000 Device with the InTouch***

## Step 1: Prepare the site and collect data

### Location of the unit

- If the Series 4000 is mounted over an AC outlet, you can install the InTouch (Standard model only) in the same location, but you must drill different holes for the screws.
- To comply with the Americans with Disabilities Act (ADA), the top of the InTouch cannot be greater than 48 inches (1219 millimeters) above the floor.
- If the InTouch will be plugged into a wall outlet away from the device, the unit cannot be more than 5 feet (1.5 meters) away from the outlet.

See [“Plan the installation”](#) on page 13 for additional information about preparing the location.

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**Caution:** If the Series 4000 device that you are replacing uses an internal AC outlet, you must have a licensed electrician disconnect the power line from the outlet.

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**Attention :** Si le InTouch de la série 4000 que vous remplacez est relié par une prise c.a. interne, vous devez faire appel à un électricien agréé pour débrancher la prise de la source d'alimentation.

---

### Use the host application software to collect data

Before you disassemble the device, use your host application software to collect all data. Note that you can also use the Maintenance Mode > Database Report feature on the device. If the report displays the following, then you do not need to collect any data: `uncollectedFifos:0`. For more information, see the host application online help.

## Step 2: Disconnect and remove the Series 4000 device

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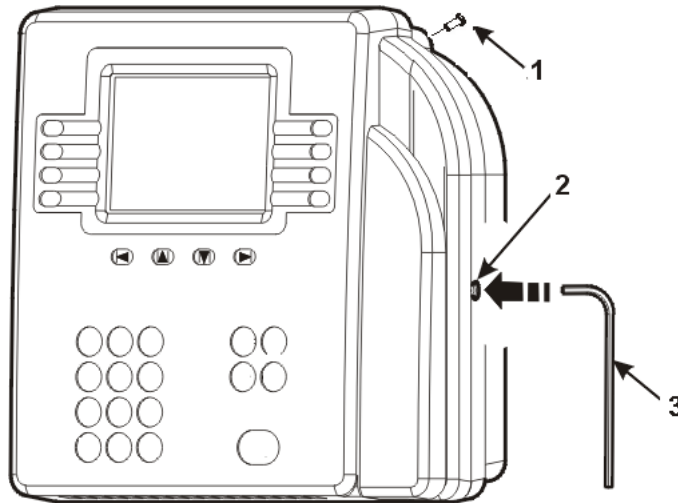
**Important:** Before you begin, be sure that you collected data from the Series 4000 device using your host application. Otherwise, the data will be lost.

---

**Note about option kits:** If you plan to upgrade some of your existing options (such as the remote proximity reader or universal relay), for use with the InTouch, do not remove the cable for those devices from the wall. You can remove the terminal block from the cable, and then connect the wires to the transition board of the InTouch. See the transition board installation guide for complete information.

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1. Open the cover of the device by using the security wrench (3) to loosen the security screws (1 and 2) on the back and right side of the device.



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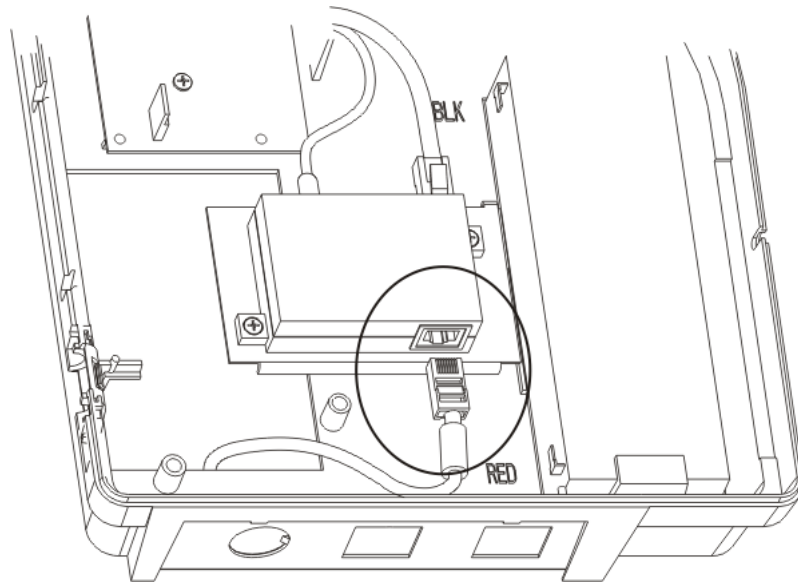
**Important:** Open the cover slowly and carefully. Depending on which optional devices are connected to the device, you may not be able to open the cover all the way because of cables that are plugged into the main board.

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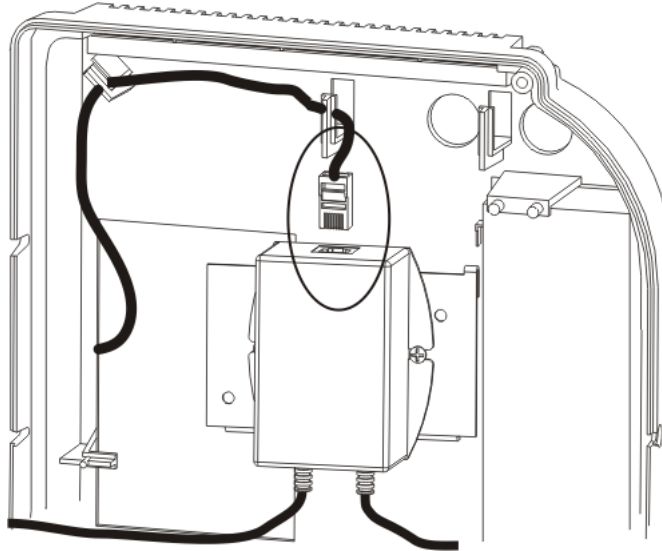
2. *If your device is powered by a standard AC power cable, locate the electrical outlet that the device is plugged into and unplug the cable. This outlet could be a wall outlet over which the device is mounted (covering the outlet from view), a wall outlet away from the device, or an outlet assembled inside the device.*

*If power is supplied to your device through a network Ethernet cable, (device part number 8602004-xxx or 8602800-xxx only) unplug the Ethernet cable that runs into the device from the Power-over-Ethernet module.*

*If the device uses the LS15 Power-over-Ethernet module (black module), refer to the following illustration to unplug the Ethernet cable from the module:*

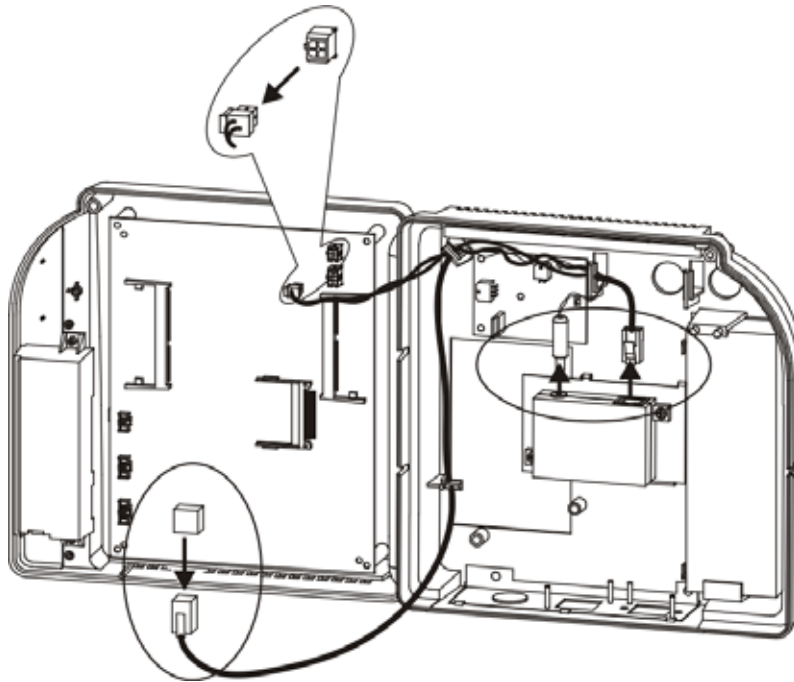


If the device uses the *GT-91080 Power-over-Ethernet module* (beige module), refer to the following illustration to unplug the Ethernet cable from the module:

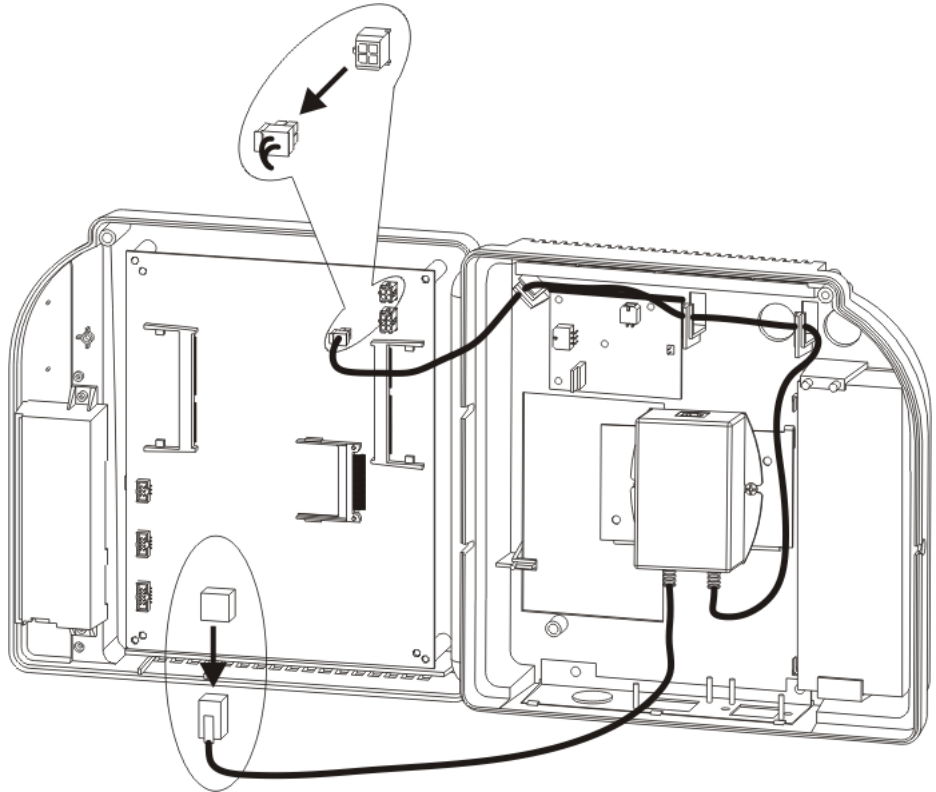


3. If a Power-over-Ethernet module is installed in the device (device part number 8602004-xxx or 8602800-xxx only):
  - a. Disconnect the power and Ethernet cables that run from the module to the main board inside the cover of the device.

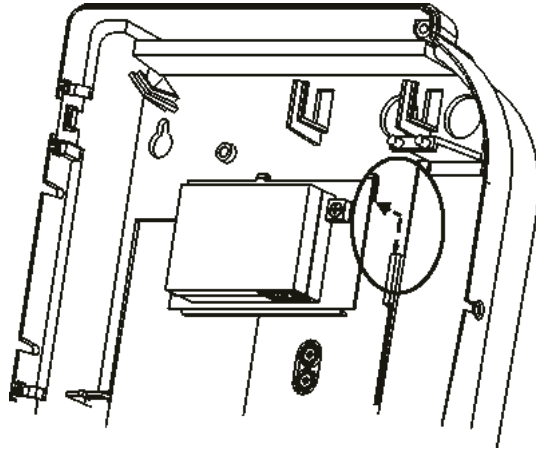
*If the device uses the LS15 Power-over-Ethernet Option Kit (black module), refer to the circled areas in the following illustration to disconnect the cables:*



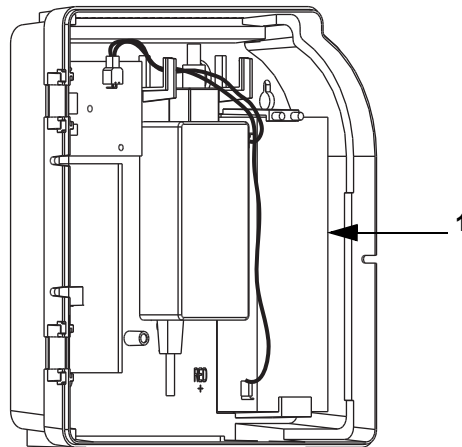
If the device uses the GT-91080 Power-over-Ethernet Option Kit (beige module), refer to the following illustration to disconnect the cables:



- b. Grip the Power-over-Ethernet module firmly and push up so that the module and its mounting bracket slide off the channels molded into the base. The method is the same for the LS15 and the GT-91080 modules. The following illustration shows the LS15 module.

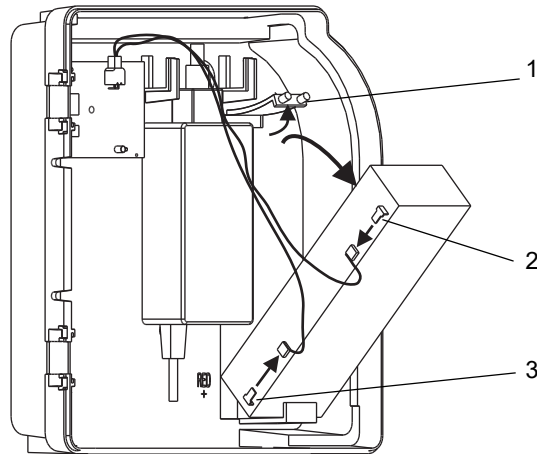


4. Determine whether the device has a backup battery (1) installed in the base. If so, go to step 5. Otherwise, go to step 6.





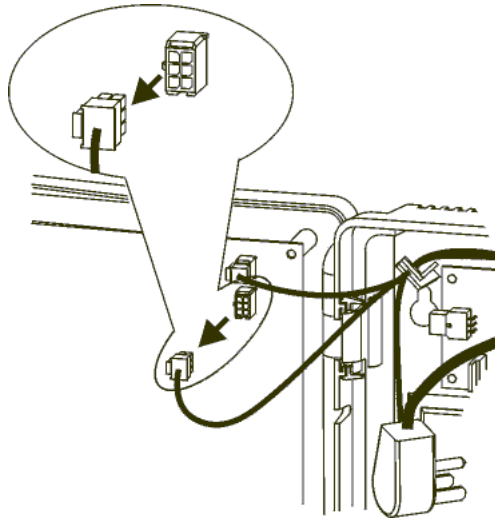
5. If the device has a backup battery:
  - a. Push up on the top bracket (1) and angle the battery out of position. Disconnect the wire from the negative battery terminal (2). Then, disconnect the wire from the positive battery terminal (3).



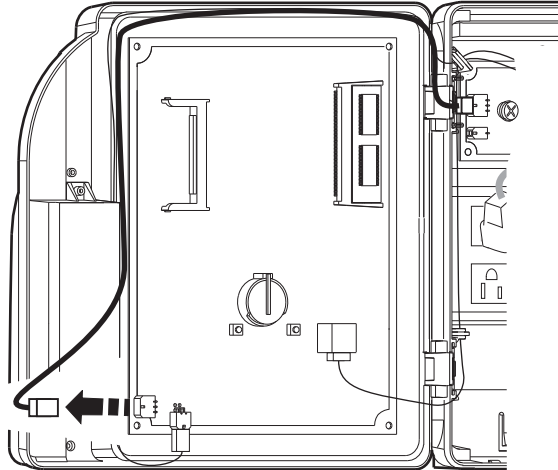
- b. Remove the battery and set it aside.

- c. Disconnect the battery charger board from the main board.

*If the part number of the device is 8602004-xxx or 8602800-xxx, use the following illustration to locate the connection. Then, disconnect the battery charger board: press the clip on the cable connector, and move the connector from side to side while you pull it out of the socket.*

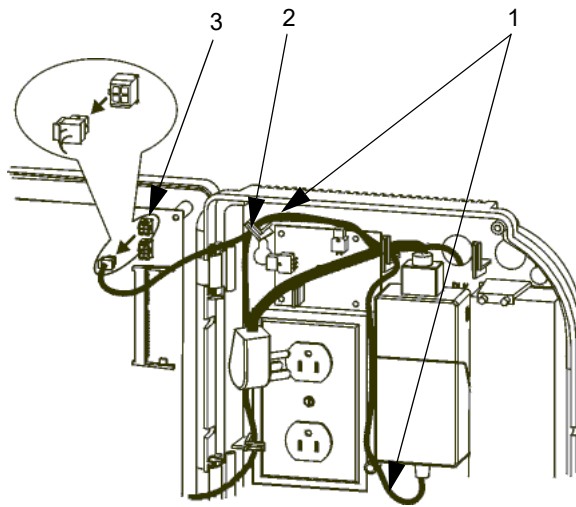


*If the part number of the device is 8602000-xxx, use the following illustration to locate the connection. Then, disconnect the battery charger board from the main board of the device. To do this, press the clip on the connector at the end of the cable and pull it to the left while moving the connector from side to side*

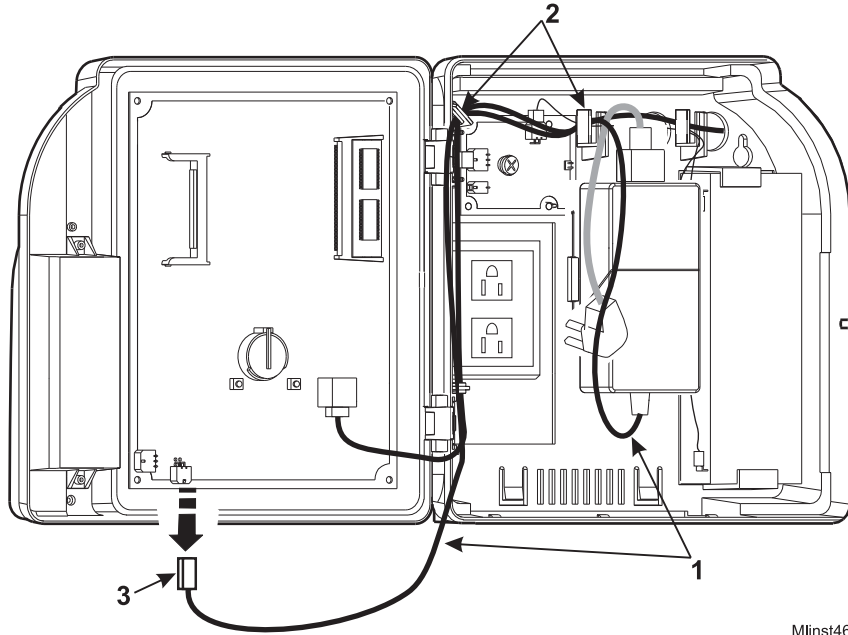


6. Remove the transformer:
  - a. Disconnect the transformer cable (1) from its connection on the main board (3). To do this, press the clip on the connector at the end of the cable and pull out while moving the connector from side to side.
  - b. Trace the wire back to the transformer, freeing it from one or more hooks (2) molded into the base of the device.

*If the part number of the device is 8602004-xxx or 8602800-xxx, use the following illustration as a guide:*

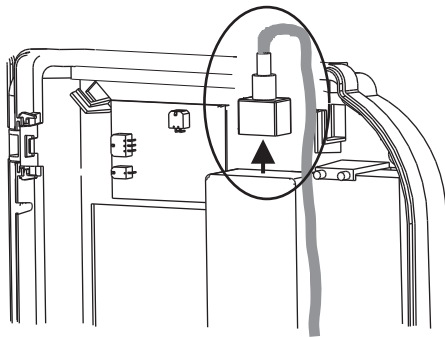


If the part number of the device is 8602000-xxx, use the following illustration as a guide. The numbered arrows point to the transformer cable (1), molded hooks (2), and the transformer connection on the main board (3).



MInst46

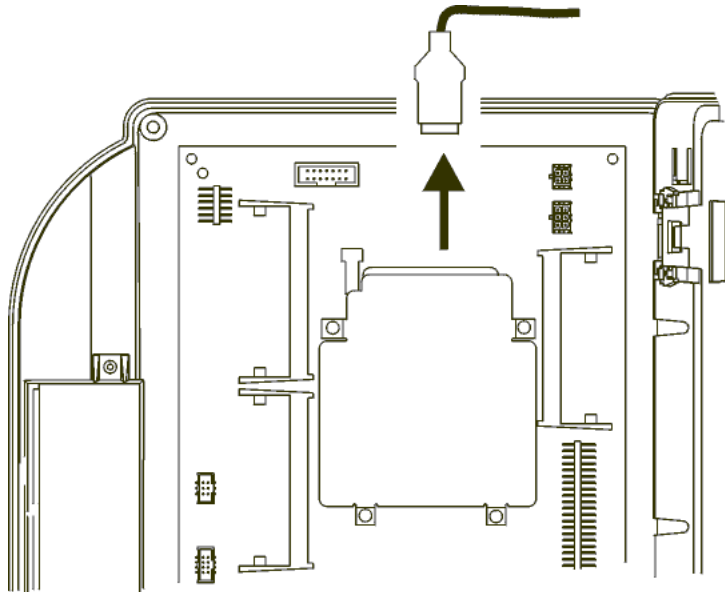
7. Unplug the power cable from the top of the transformer in the base of the device. See the circled area in the following illustration:



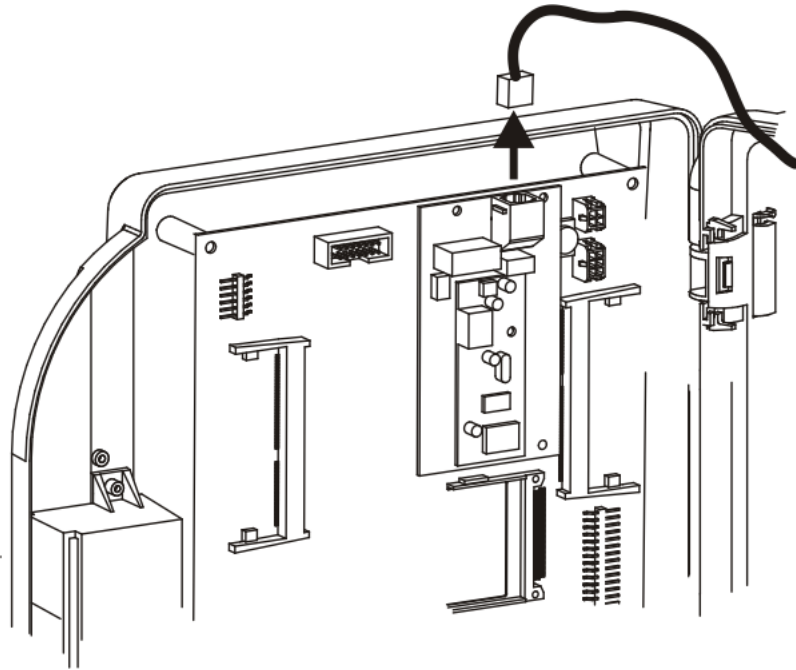
8. The method for disconnecting the modem or Ethernet cable depends on which method of communication the device uses.

For devices that use *modem communication*, disconnect the cable that connects the telephone line to the modem card using the following instructions.

*If the part number of the device is 8602000-xxx or 8602004-xxx, use the following illustration to locate the modem card. Then, disconnect the telephone line by squeezing on each side of the connector and pulling it away from the card in the housing.*

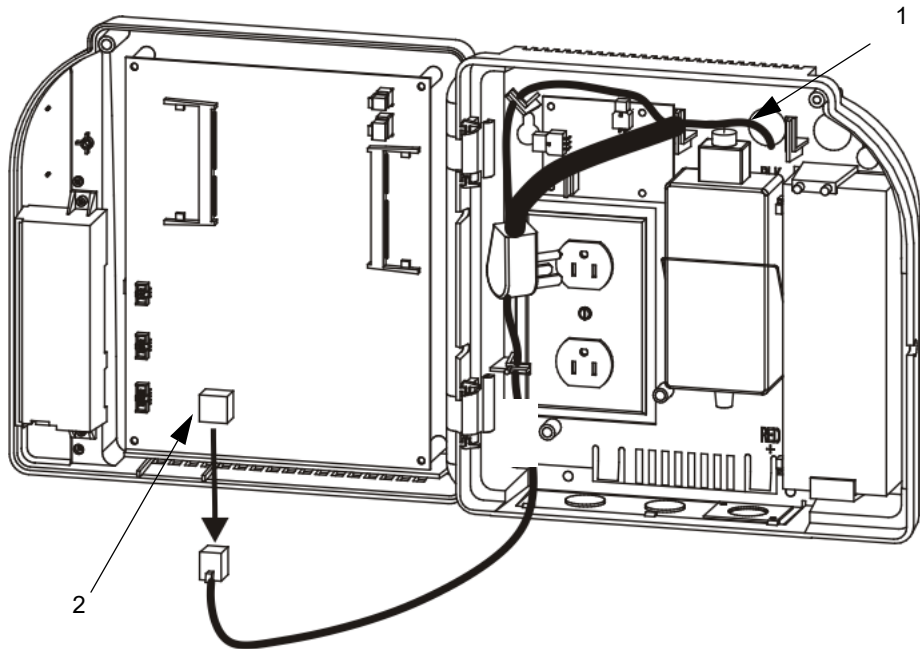


*If the part number of the device is 8602800-xxx, use the following illustration to locate the modem card in the inside cover. Then, disconnect the telephone line from the modem card.*



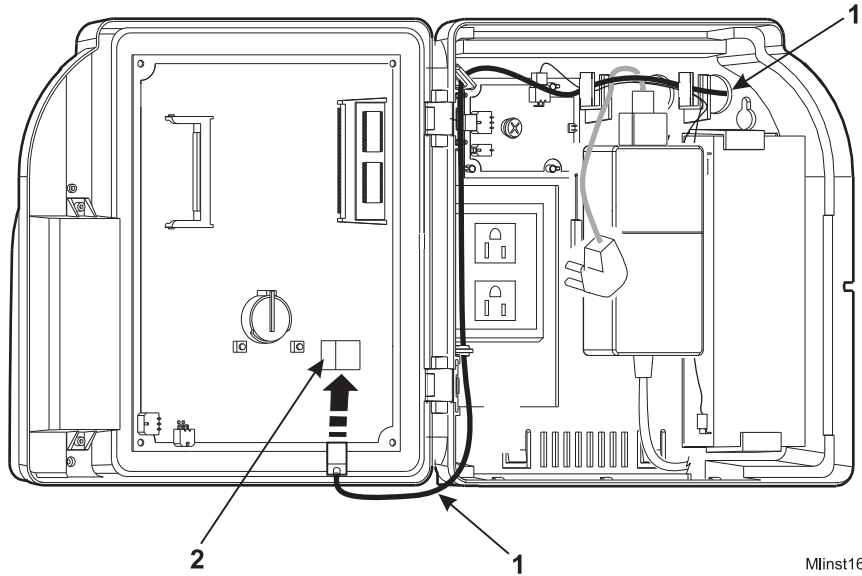
For devices that use *Ethernet communication*, disconnect the Ethernet cable (1) from the connector (2) on the main board. Press the clip on the connector and pull it down.

*If the part number of the device is 8602004-xxx or 8602800-xxx, use the following illustration as a guide. Then, press the clip on the connector and pull it down.*



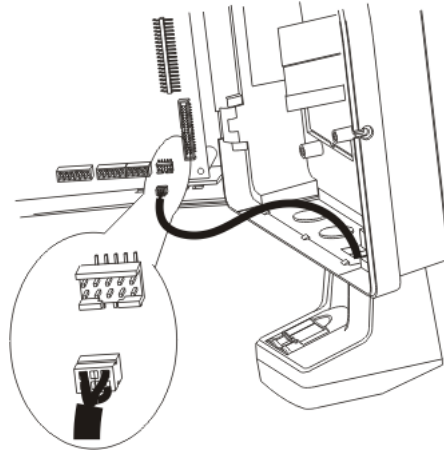


If the part number of the device is 8602000-xxx, use the following illustration to locate the Ethernet cable (1) and the connector on the main board (2). Then, press the clip on the connector and pull it down.

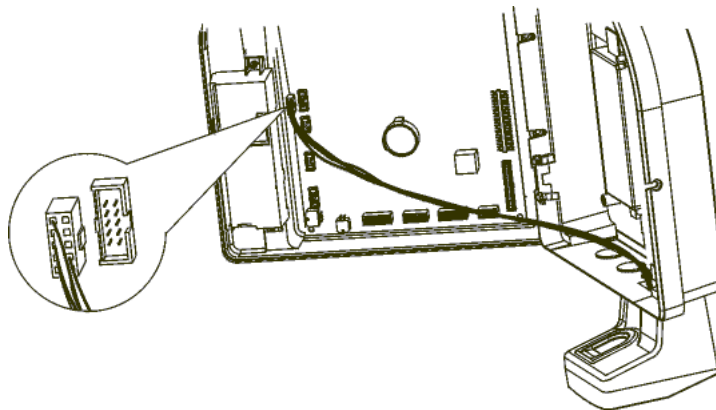


MInst16

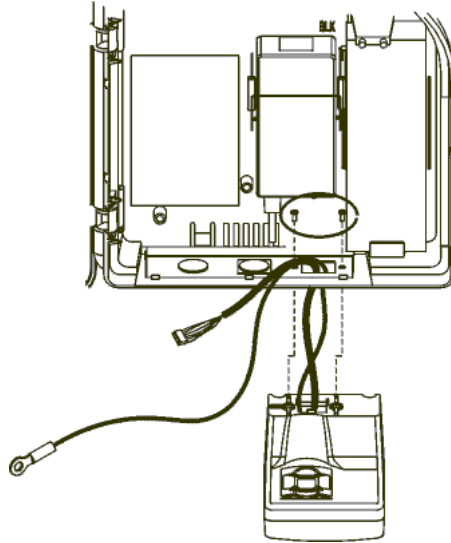
9. If the Kronos Touch ID verification device is attached to the device:
  - a. *If the part number of the device is 8602004-xxx or 8602800-xxx, use the following illustration to locate the connection. Then, unplug the verification device from its connection on the main board.*



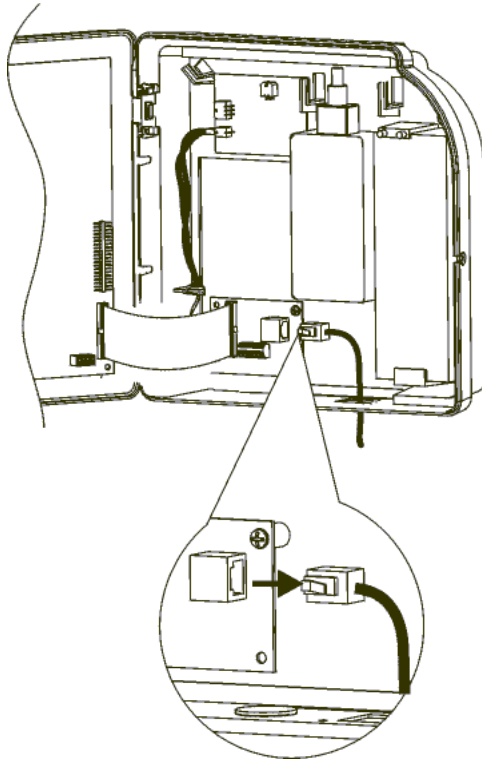
*If the part number of the device is 8602000-xxx, use the following illustration to locate the connection. Then, unplug the verification device from its connection on the main board.*



- b. Disconnect the green ground wire leading from the verification device by removing the screw and freeing the wire. Then, reinstall the screw.
- c. Remove the verification device from the device by loosening the two screws (circled in the illustration) holding it to the base, and set the verification device aside.



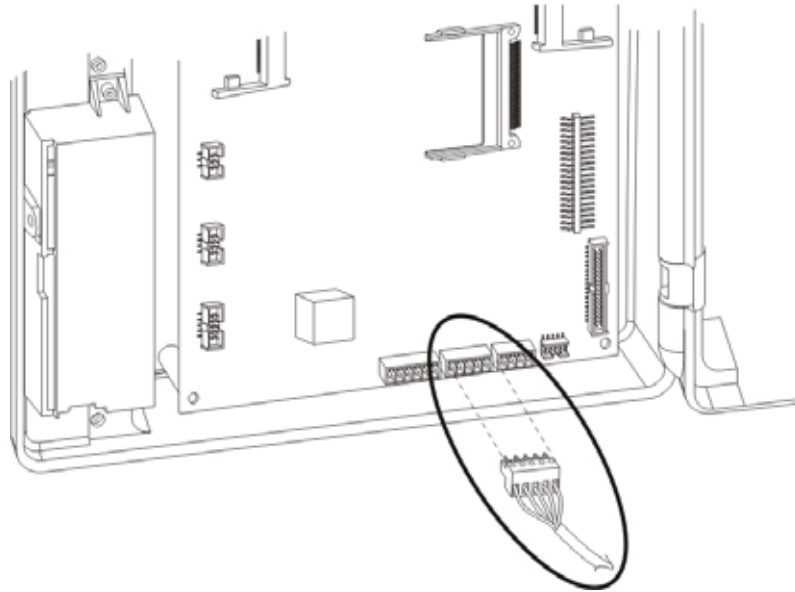
10. If your device uses an external reader (linear imager, or laser scanner):
  - a. Disconnect the reader from the interface board, as shown in the following illustration:



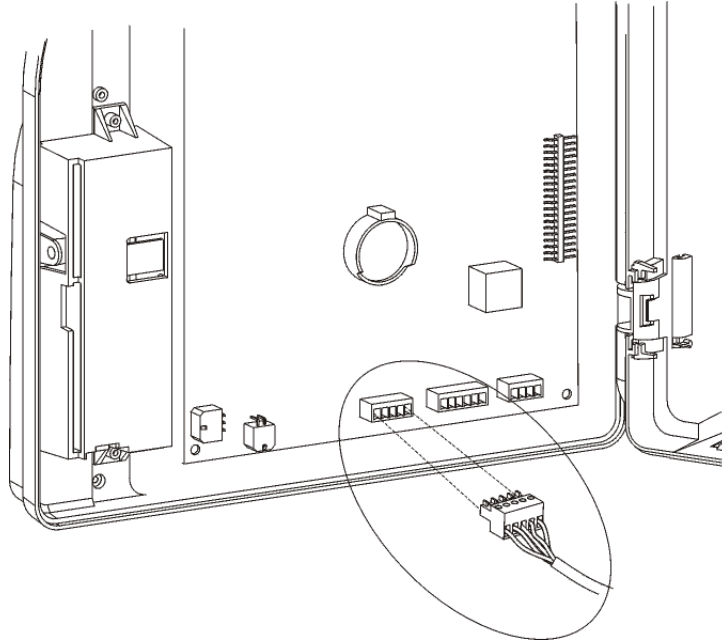
- b. Thread the reader cable out of the device and set the reader aside.

11. If your device uses a remote bar code reader, disconnect the reader from the device main board and thread the cable out of the device.

*If the part number of the device is 8602004-xxx or 8602800-xxx, refer to the following illustration to disconnect the cable:*

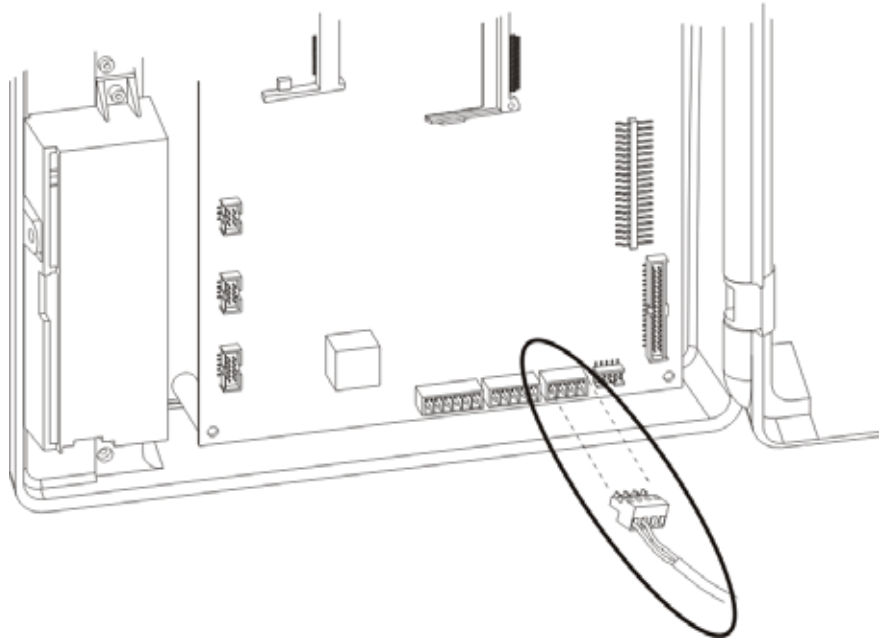


If the part number of the device is 8602000-xxx, use the following illustration to locate the connection and disconnect the cable:

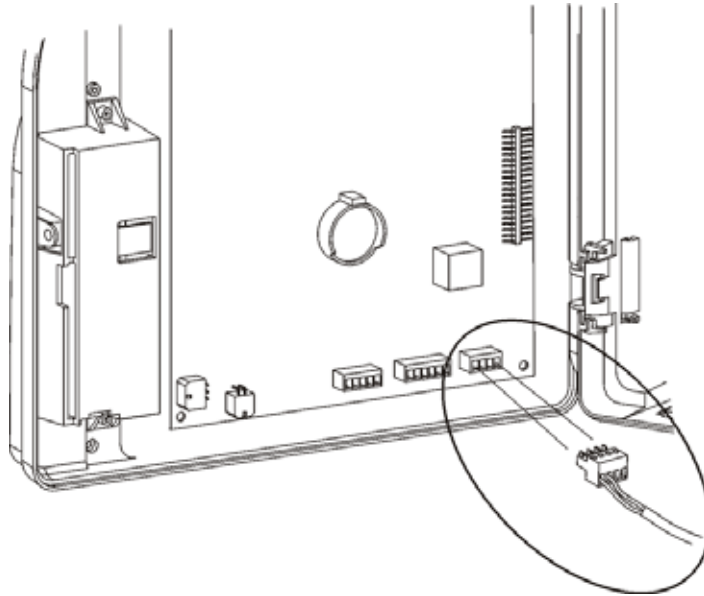


12. If your device uses a universal relay (for example, to ring a bell or operate a door strike), disconnect the relay from the device main board and thread the cable out of the device.

*If the part number of the device is 8602004-xxx or 8602800-xxx, use the following illustration to locate the connection, and disconnect the cable:*

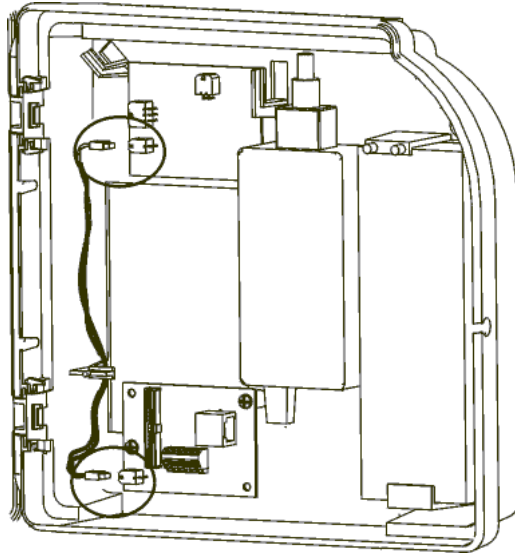


*If the part number of the device is 8602000-xxx, use the following illustration to locate the connection and disconnect the cable:*

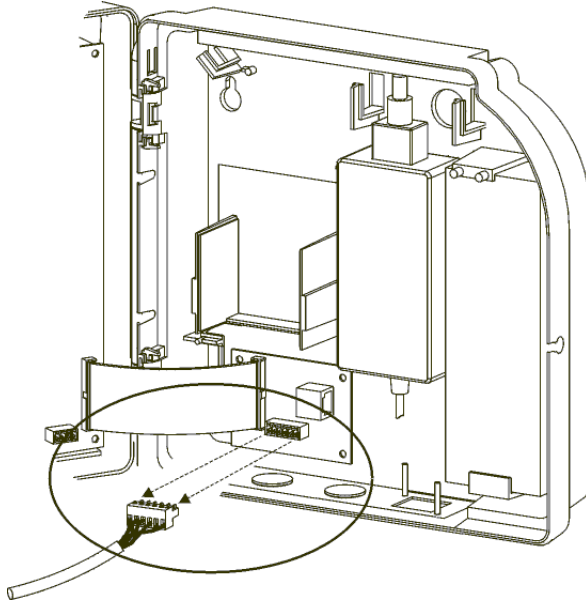




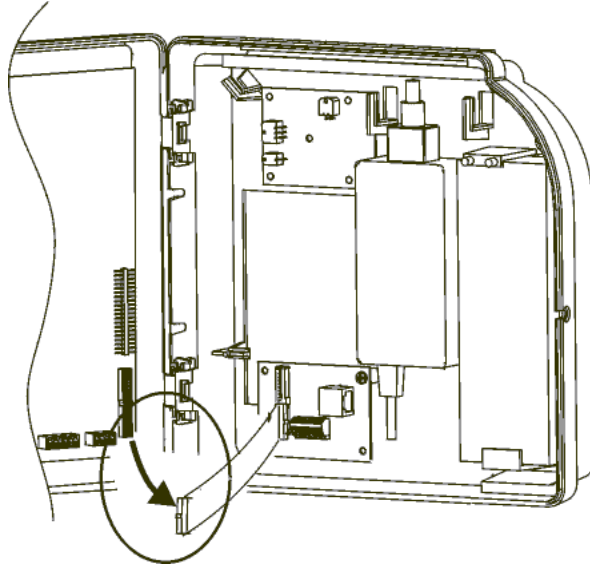
13. If your device uses a remote proximity reader:
  - a. Disconnect the 12-volt cable connecting the 4500 interface board to the battery charger board, as shown in the following illustration:



- b. Disconnect the remote proximity reader from the connection on the interface board, as shown in the following illustration:



14. Disconnect the end of the ribbon cable that connects the interface board to the main board in the cover (circled in the following illustration).



15. Unscrew the two screws that attach the base of the unit to the wall and remove the unit from the wall.
16. Store the unit and associated components in a safe place and then dispose of them responsibly in accordance with your company procedures.

## Step 3: Install and configure the InTouch

1. Install the InTouch, as described in this installation guide. Note the following:
  - You can install the base of the InTouch in the same location as the Series 4000, but you must drill new screw holes into the wall.
  - Although the InTouch can be installed in the same location as the Series 4000, the InTouch is a smaller unit. Therefore you may need to repaint part of the wall or make similar modifications to hide areas of the wall that were formerly covered by the Series 4000 unit.
  - If you had used the direct AC wiring option for the Series 4000, you must mount the InTouch over or near an outlet, or use Power-over-Ethernet (PoE) or PoE Plus.
2. If you use bar code badges, send a sample of those badges to Kronos for badge evaluation, to verify that your bar code badges will work with the InTouch.

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**Note:** The InTouch does not ship with Supervisor badges. You must either purchase them separately or use the Manager Logon transaction in Manager mode.

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3. On the host application, use the device configuration function to copy the Series 4000 settings and assign them to the InTouch. For details, see the online help for the host application.

## *Open and Disconnect the InTouch*

If you need to open the InTouch to use the internal startup or Maintenance mode buttons, access the circuit boards or cables, or add, remove, or replace any components, use this section for the general procedure. You may not need to perform all of the steps or remove all components, depending on the maintenance or installation task you need to perform.

**Important:**

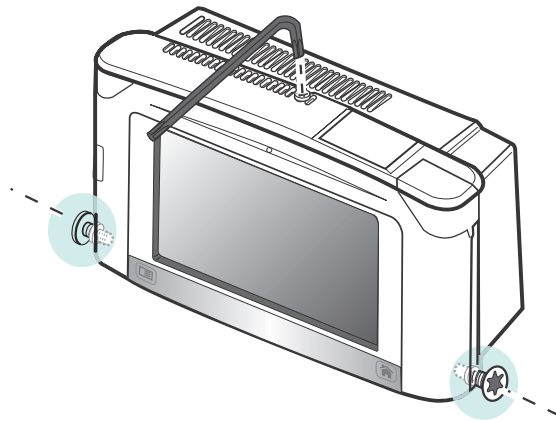
- If you need to return the InTouch or any of its options, follow the procedures in the Guide to Returning the InTouch 9100.
- You may need an extra person to hold the cover assembly while you perform some of the steps.
- Required tools: Security wrench that came with the InTouch and small Phillips and slotted screwdrivers.

## Step 1: Use the host application software to collect data

If you plan to disconnect the device, a network administrator, or similarly qualified individual, must first use the host application to collect all data. For detailed instructions, see the online help for the host application.

## Step 2: Open the InTouch

1. Use the security wrench that came with your InTouch to remove the top screw, and then loosen the security screws on the sides of the device.

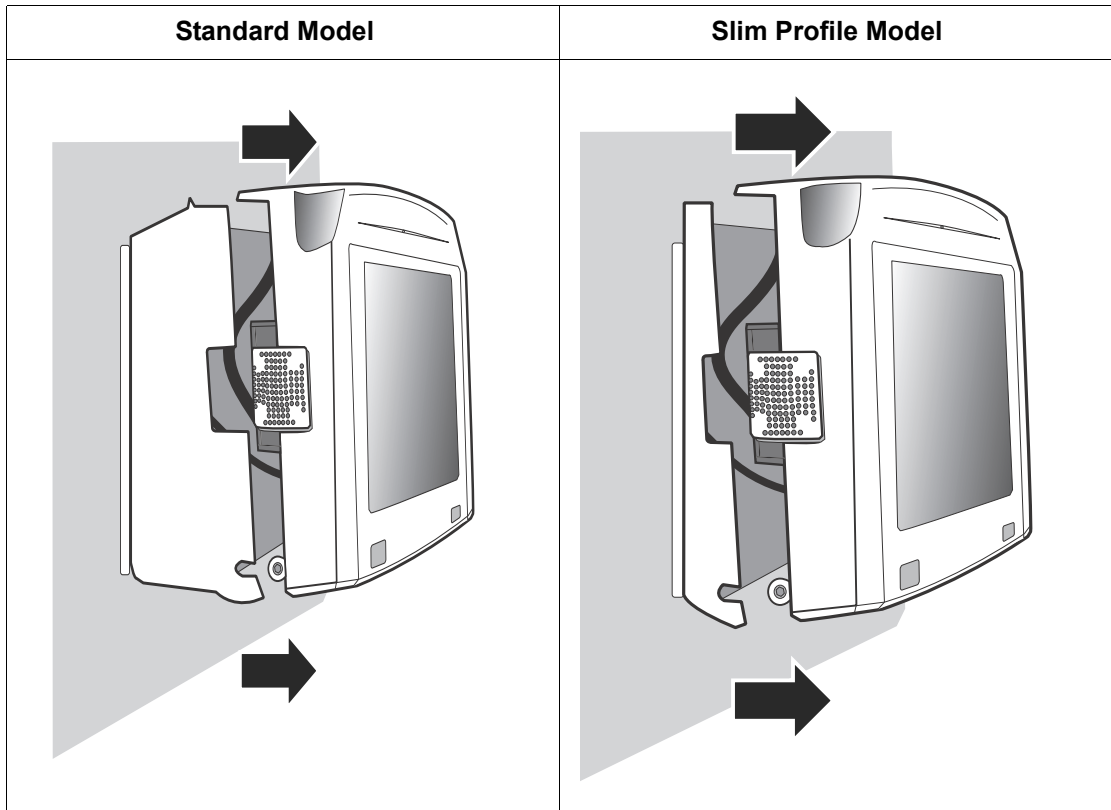


2. To remove the cover, grasp the bottom of the timeclock with one hand and, with the other, pry open the top corners, and then pull open each end of the timeclock. You may not be able to completely open the cover if there are cables from optional components connected to the main board.

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**Note:** You may need another person to hold the cover as you work.

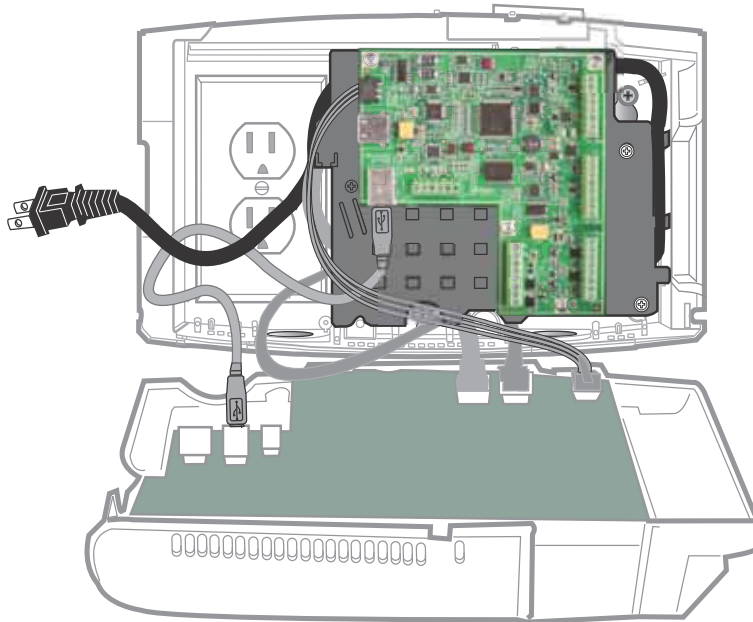
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## Step 3: Disconnect the power

### Standard model

- If your unit is mounted over a wall outlet, unplug the transformer power cord from that outlet. For example:



- If your unit uses Power-over-Ethernet (PoE) or PoE Plus, unplug the Ethernet cable from the main board. To remove the Ethernet cable, see [“Example 2: Ethernet cable”](#) on page 127.
- If your unit is plugged into a nearby external wall outlet, unplug the transformer from that outlet.

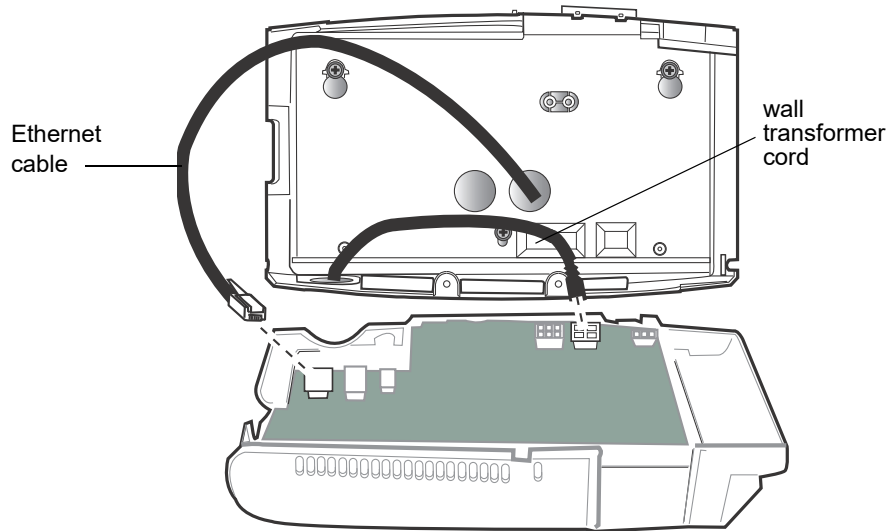
### Slim Profile model

Unplug the Ethernet cable (if that is the source of power for the device) or unplug the power cable that is connected to the wall outlet away from the device.

To remove the Ethernet cable, see [“Example 2: Ethernet cable”](#) on page 127.



The following illustration shows both the Ethernet cable and the wall transformer cord.



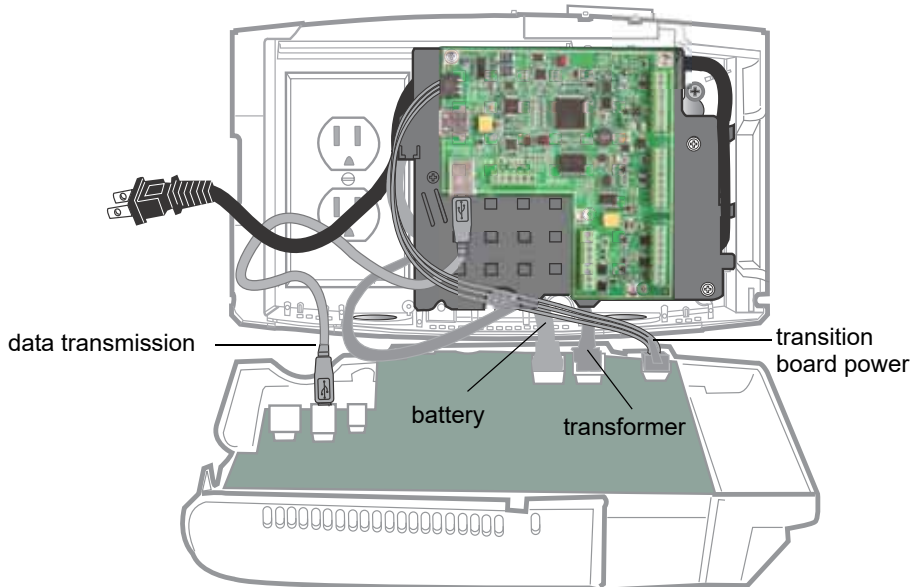
## Step 4: Disconnect cables from the main board

If you need to disconnect cables from the main board on the inside of the cover:

- Transformer, backup battery, and transition board (Standard model only) — See “[Example 1: Transition board cables](#)” on page 126.
- Ethernet — See “[Example 2: Ethernet cable](#)” on page 127.
- Linear imager — Connected to standard USB port. See “[Example 3: Linear imager cable](#)” on page 128.

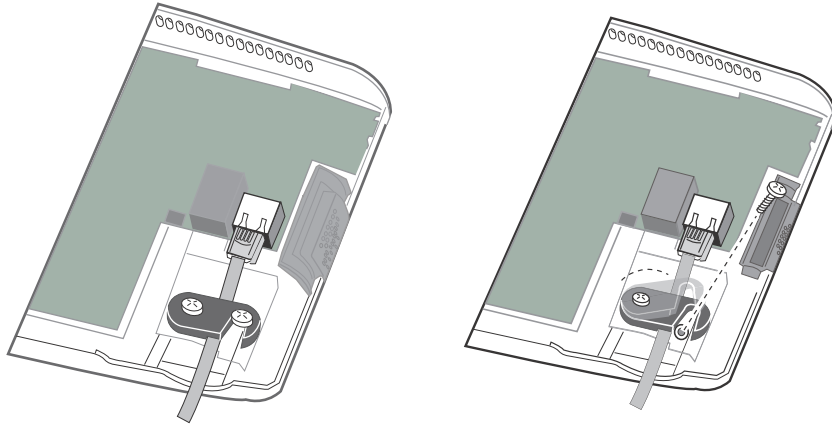
### Example 1: Transition board cables

This example shows the cables from the battery, transformer, and transition board that you must disconnect from the main board

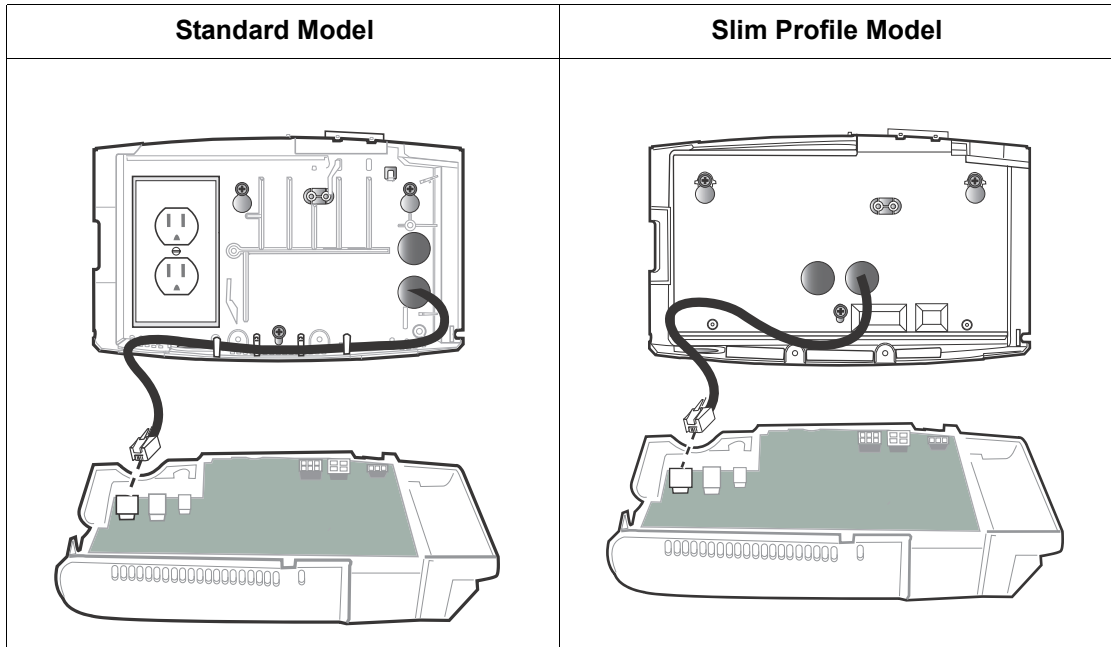


## Example 2: Ethernet cable

1. Loosen and then swivel the strain relief clip before you remove the cable.

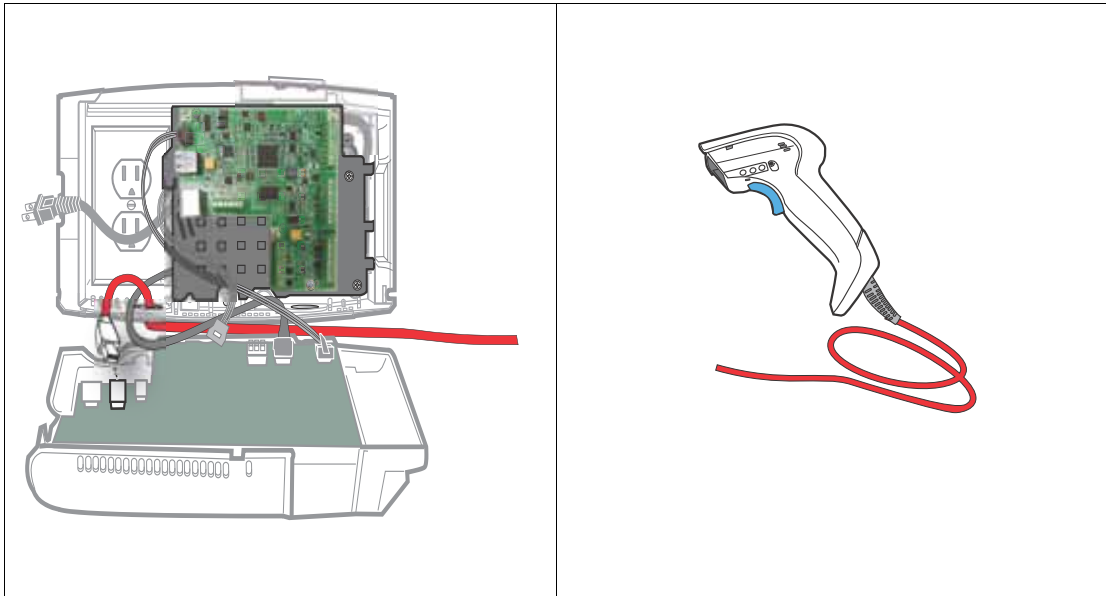


2. Push in the top of the Ethernet connector clip and then pull out the cable.



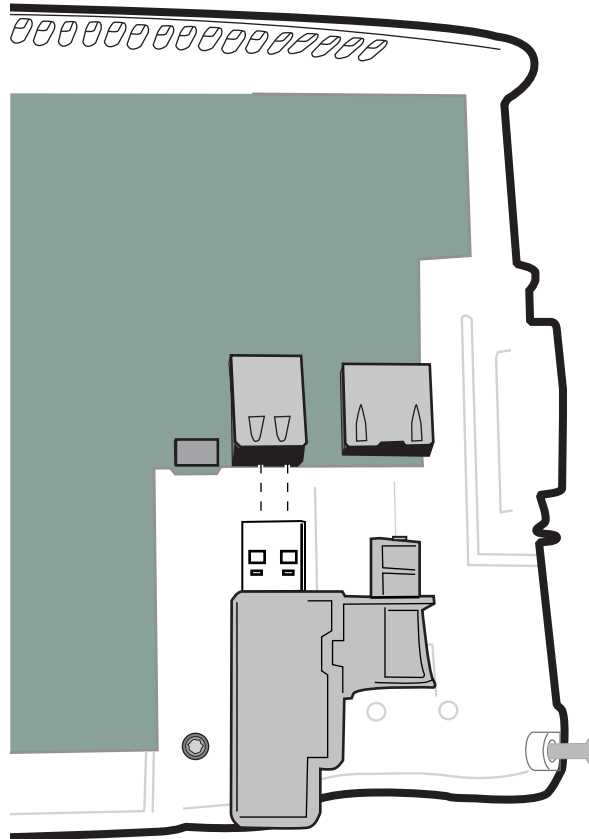
### Example 3: Linear imager cable

If you need to disconnect the linear imager, unplug the cable from the standard USB port on the main board of the device. (In some configurations, the imager may be plugged into a USB port on the transition board.)



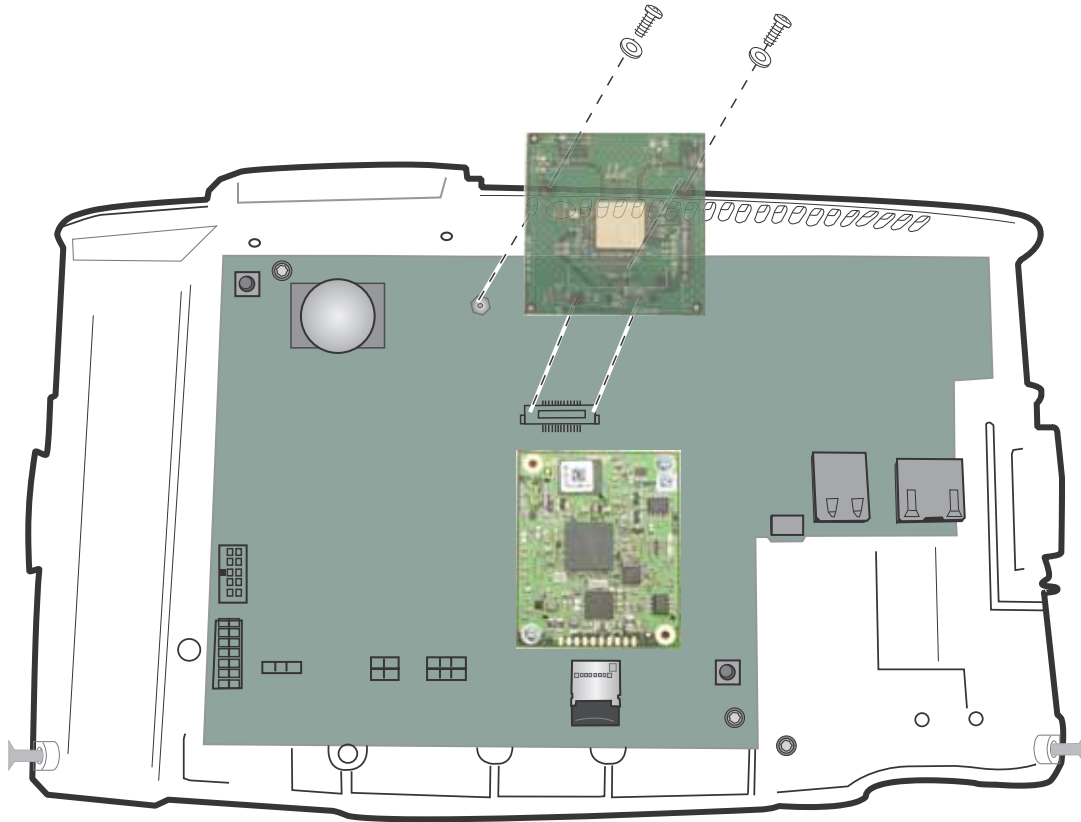
## **Step 5: Disconnect the BLE option**

To disconnect the BLE (Bluetooth® Low Energy) option, remove the USB connector from the lower USB port on the main board.



## Step 6: Disconnect the Wi-Fi option

To disconnect the Wi-Fi option, remove the USB connector from the USB port on the main board. Then use a no. 0 Phillips screwdriver to remove the Wi-Fi assembly from the CPU board.



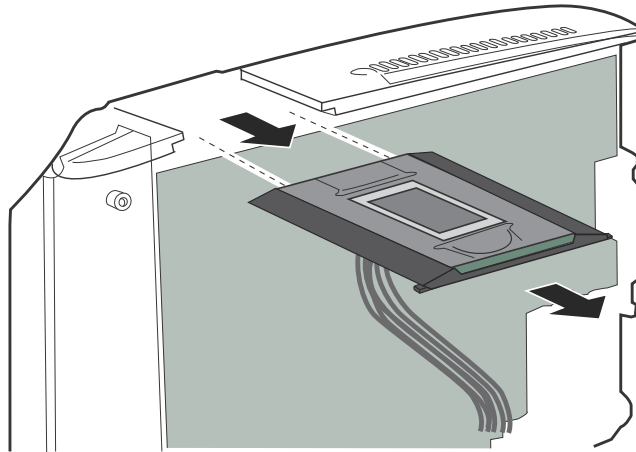
## Step 7: Disconnect the finger scan device

If a finger scan option is installed, use the following steps to remove it (see the appropriate section). You might not need to remove all components.

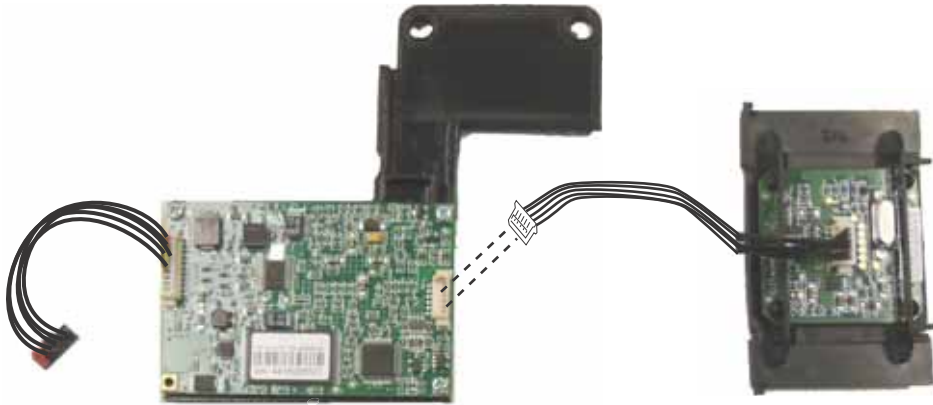
If you do *not* have the finger scan option installed, skip to [“Step 7: Store the cover in a protected area”](#) on page 134.

### Kronos Touch ID

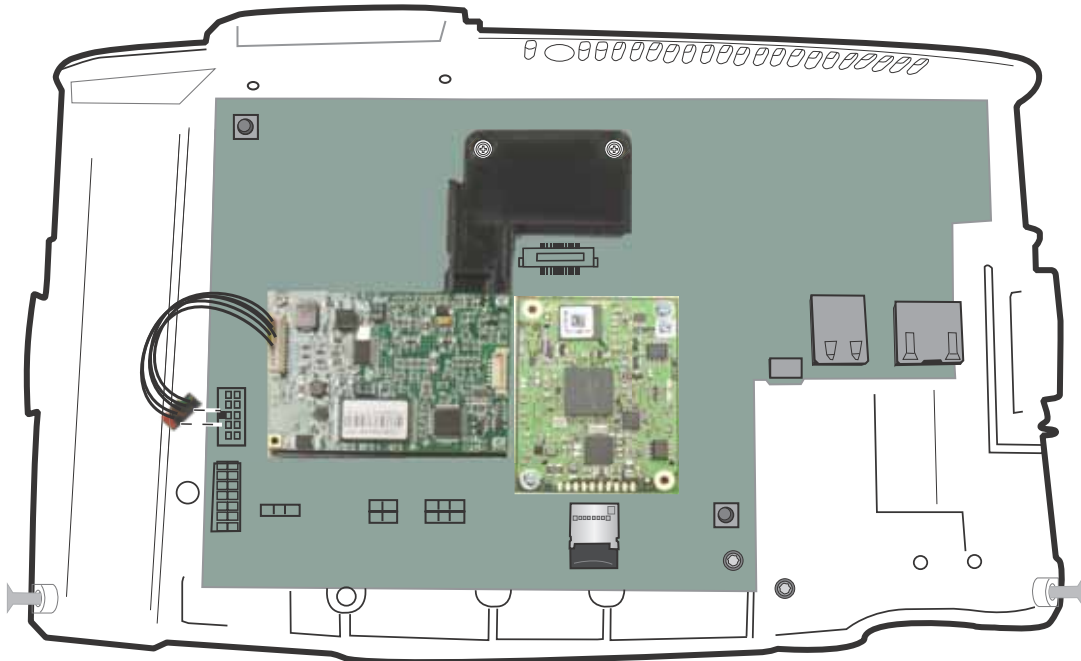
1. Remove the finger scan plate from the unit.



2. Remove the finger scan plate from the biometrics board.

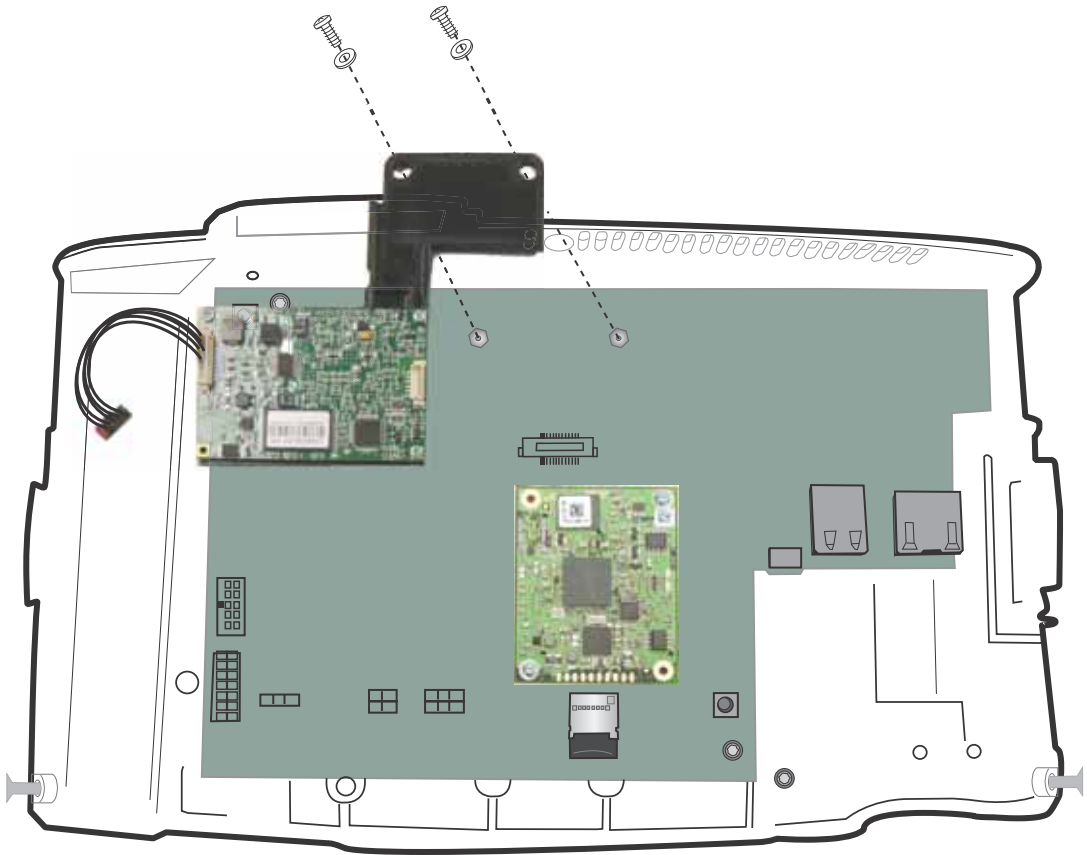


3. (Remove the biometrics board only if instructed to.) Disconnect the cable from the main board.



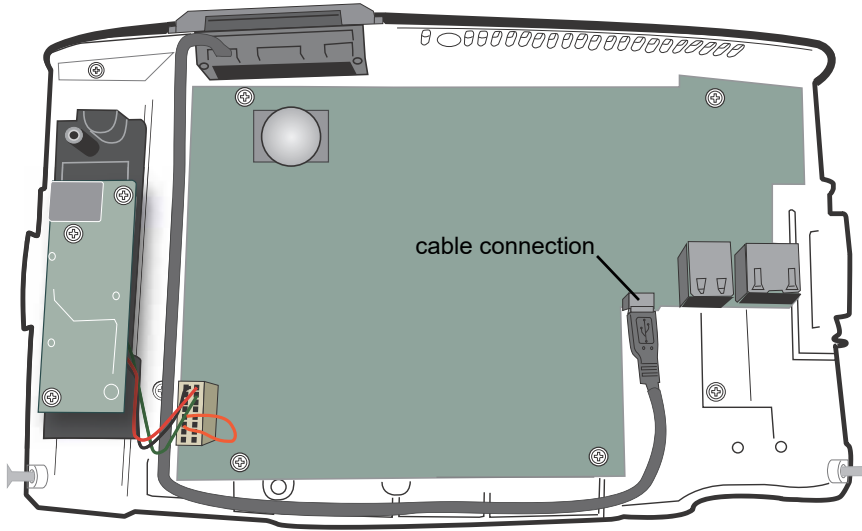


4. Use a no. 1 Phillips screwdriver to remove the biometrics board from the main board.

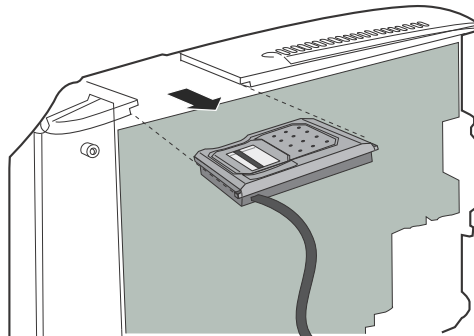


## Kronos Touch ID Plus

1. Unplug the cable connection.



2. Remove the finger scan plate from the unit.

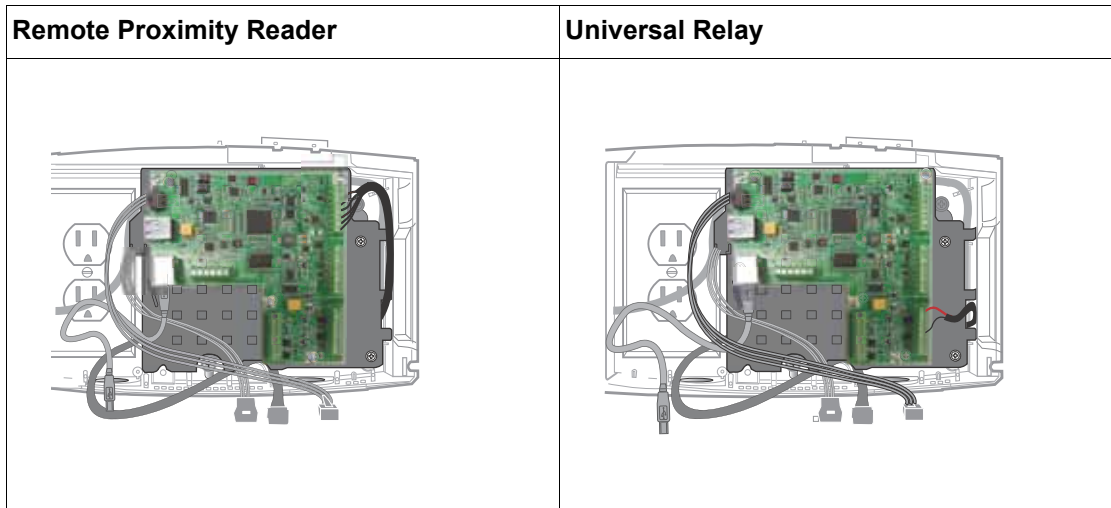


## Step 8: Store the cover in a protected area

After all cables and optional components have been removed from the cover and main board of the device, set the cover assembly aside in a secure area where the touchscreen and main board will not get damaged.

## Step 9: Disconnect badge readers and universal relay

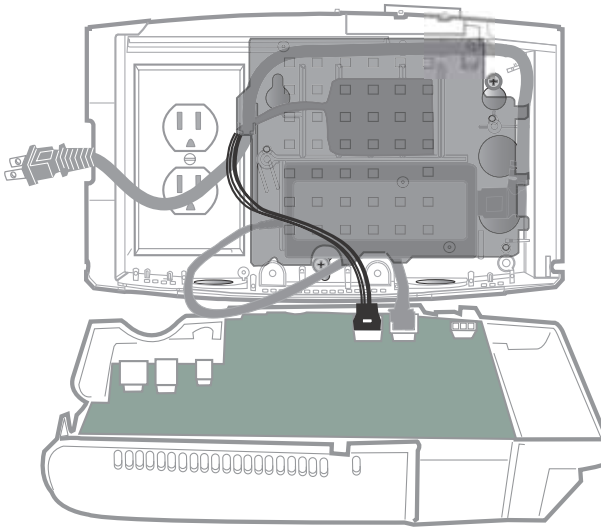
(Standard model only) If you need to disconnect a remote badge reader or universal relay, unplug those cables from the 8-pin terminal block receptacles on the transition board. For example:



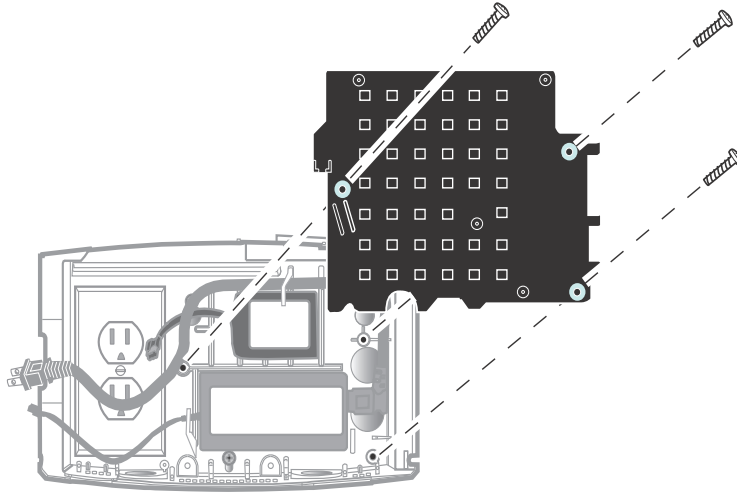
## Step 10: Remove battery, transformer, and transition board

(Standard model only) If you need to disconnect and remove the backup battery, transformer, or transition board, follow the instructions in this section.

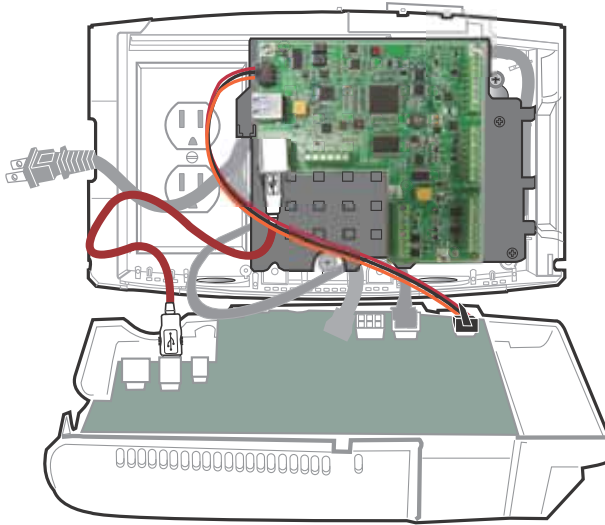
### Transformer and battery only:



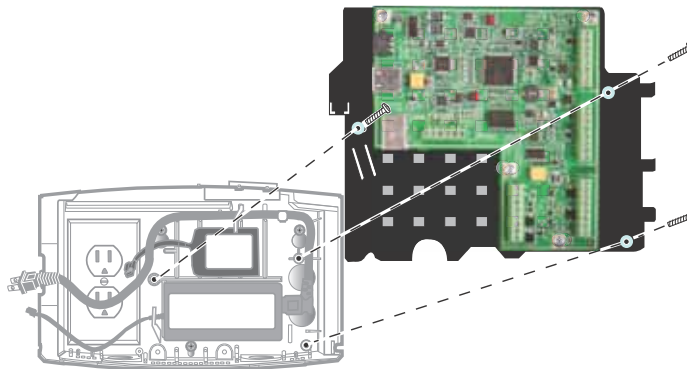
Use a Phillips screwdriver to remove the plastic transformer holder. Then remove the transformer and battery.



**Transformer, battery, and transition board:**



1. Unplug the cables from the transition board, including the power cable, USB cable, and the cables from the battery and transformer.
2. Use a Phillips screwdriver to remove the plastic transformer holder and transition board assembly. Then remove the transformer and battery.



## **Next steps**

- Collect and organize any optional components (cables, screws, boards, and so on) and store them in a safe place.
- Be sure that the cover assembly is stored in a secure area where the touchscreen and main board will not get damaged.
- Perform the necessary installation or maintenance tasks and then reassemble the unit, as described in this installation guide.

