

Zebra Connect Cradle and Connect Hub



ZEBRA

Product Reference Guide

2023/12/22

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About this Guide

This guide provides information on the installation, usage, and integration of the Zebra Connect Cradle and Connect Hub to create a mobile point-of-sale solution.

Streamline your workflow using Zebra Enterprise Applications such as Datawedge to facilitate USB scanning tasks, or Workstation Connect to deploy productivity and documentation applications.

Icon Conventions

The documentation set is designed to give the reader more visual clues. The following visual indicators are used throughout the documentation set.



NOTE: The text here indicates information that is supplemental for the user to know and that is not required to complete a task.



IMPORTANT: The text here indicates information that is important for the user to know.



CAUTION: If the precaution is not heeded, the user could receive a minor or moderate injury.



WARNING: If danger is not avoided, the user CAN be seriously injured or killed.



DANGER: If danger is not avoided, the user WILL be seriously injured or killed.

Notational Conventions

The following conventions are used in this document:

- **Bold** text is used to highlight the following:
 - Dialog box, window, and screen names
 - Dropdown list and list box names
 - Checkbox and radio button names
 - Icons on a screen
 - Key names on a keypad
 - Button names on a screen

- Bullets (•) indicate:
 - Action items
 - List of alternatives
 - Lists of required steps that are not necessarily sequential.
- Sequential lists (for example, those that describe step-by-step procedures) appear as numbered lists.

Service Information

If you have a problem with your equipment, contact Zebra Global Customer Support for your region. Contact information is available at: zebra.com/support.

When contacting support, please have the following information available:

- Serial number of the unit
- Model number or product name
- Software type and version number

Zebra responds to calls by email, telephone, or fax within the time limits set forth in support agreements.

If your problem cannot be solved by Zebra Customer Support, you may need to return your equipment for servicing and will be given specific directions. Zebra is not responsible for any damages incurred during shipment if the approved shipping container is not used. Shipping the units improperly can possibly void the warranty.

If you purchased your Zebra business product from a Zebra business partner, contact that business partner for support.

Configurations

Zebra provides multiple configurations of the Connect Cradle and Connect Hub.

Table 1 Connect Configurations

SKU	Description
CRD-TC5X-1SNHP-01	The TC52x/TC52ax and TC57x Connect Cradle (Point of Sale) connects mobile computers to an external monitor and multiple peripherals, including HDMI, Ethernet, USB-A (3), 24V powered USB (1), 12V powered USB (2), and a 3.5mm headset jack. Requires power supply (PWR-BGA24V150W1WW) and country-specific grounded AC Line Cord sold separately.

Table 1 Connect Configurations (Continued)

SKU	Description
CRD-NTC5X-1SNHP-01	The TC53/TC58 Connect Cradle (Point of Sale) connects mobile computers to an external monitor and multiple peripherals, including HDMI, Ethernet, USB-A (3), 24V powered USB (1), and 12V powered USB (2). Requires power supply (PWR-BGA24V150W1WW) and country-specific grounded AC Line Cord sold separately.
CRD-BLNK-1SNHP-01	The Connect Hub (Point of Sale) connects the ET4X Presentation Stand to an external monitor and multiple peripherals, including HDMI, Ethernet, USB-A (3), 24V powered USB (1), 12V powered USB (2), and a 3.5mm headset jack. Requires USB/Power Y cable (CBL-ET4X-SCHCAB-01) to connect between hub and presentation stand, power supply (PWR-BGA24V150W1WW), and country-specific grounded AC Line Cord sold separately.
CRD-TC5X-1SNWS-01	The TC52x/TC52x-HC, TC57x, and TC52ax/TC52ax-HC Connect Cradle (Workstation) connects a mobile computer to an external monitor and multiple peripherals, including HDMI, Ethernet, USB-A (4), and a 3.5mm headset jack. Requires power supply (PWR-BGA12V50W0WW), DC Line Cord (CBL-DC- 388A2-01), and country-specific grounded AC Line Cord sold separately.
CRD-ET4X-1SNWS-01	The ET40/ET40-HC and ET45/ET45-HC Connect Cradle (Workstation) connects a 10" or 8" Tablet to an external monitor and multiple peripherals, including HDMI, Ethernet, USB-A (4), and a 3.5mm headset jack. Requires power supply (PWR-BGA12V50W0WW), DC Line Cord (CBL-DC- 388A2-01), and country-specific grounded AC Line Cord sold separately.
CRD-NTC5X-1SNWS-01	The TC53/TC58 Connect Cradle (Workstation) connects a mobile computer to an external monitor and multiple peripherals, including HDMI, Ethernet, and USB-A (4). Requires power supply (PWR-BGA12V50W0WW), DC Line Cord (CBL-DC- 388A2-01), and country-specific grounded AC Line Cord sold separately.

Table 1 Connect Configurations (Continued)

SKU	Description
CRD-TC2X-1SNWS-01	The TC21/TC-21HC and TC26/TC26-HC Connect Cradle (Workstation) connects a mobile computer to an external monitor and multiple peripherals, including HDMI, Ethernet, USB-A (4), and a 3.5mm headset jack. Requires power supply (PWR-BGA12V50W0WW), DC Line Cord (CBL-DC- 388A2-01), and country-specific grounded AC Line Cord sold separately.
CRD-NTC7X-1SNWS-01	The TC73/TC78 Connect Cradle (Workstation) connects a mobile computer to an external monitor and multiple peripherals, including HDMI, Ethernet, and USB-A (4). Requires power supply (PWR-BGA12V50W0WW), DC Line Cord (CBL-DC- 388A2-01), and country-specific grounded AC Line Cord sold separately.

Getting Started

The Connect Cradle and Connect Hub provide a point-of-sale and productivity solution that enables users to connect purpose-built point-of-sale peripherals that fit a specific use case and support peripheral integration when utilized with Zebra applications such as DataWedge.

For more information on utilizing Zebra scanners, refer to techdocs.zebra.com/datawedge/11-3/guide/about/

For information on using Zebra Workstation Connect, refer to zebra.com/support

Unpacking

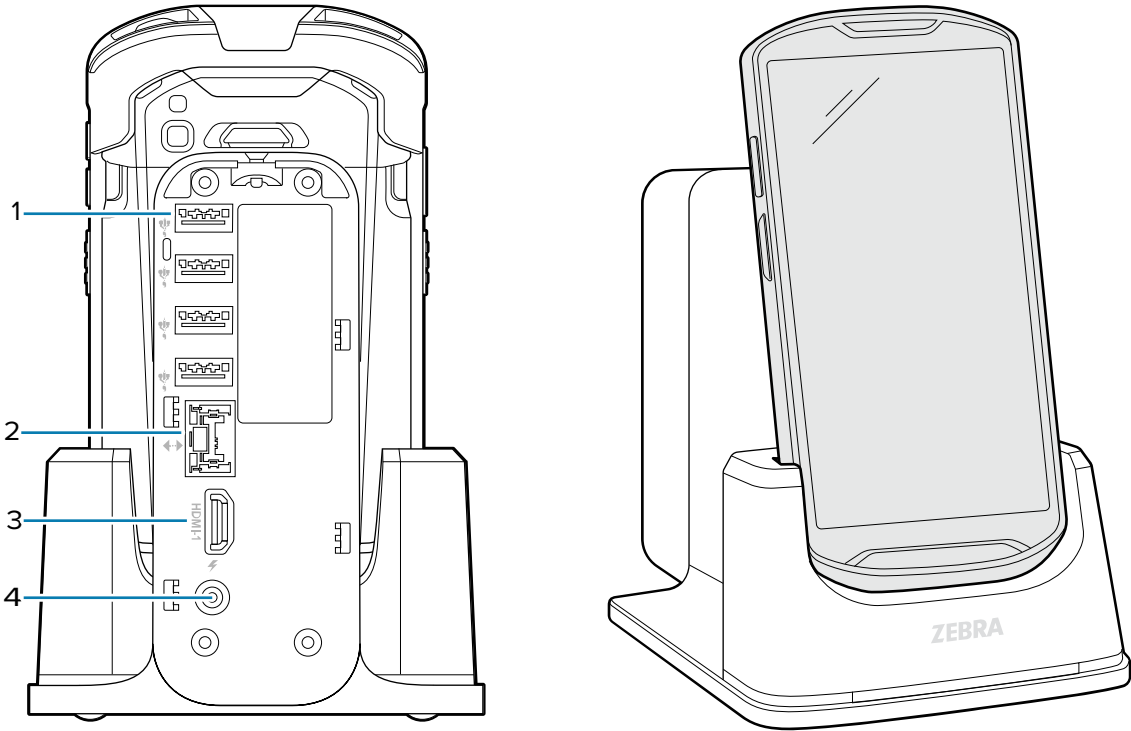
The kit contains:

- Connect Cradle or Connect Hub
- Cable Cover
- Regulatory Guide.

Inspect the equipment for damage. If any equipment is missing or damaged, contact the Global Customer Support center immediately.

Connect Cradle Features

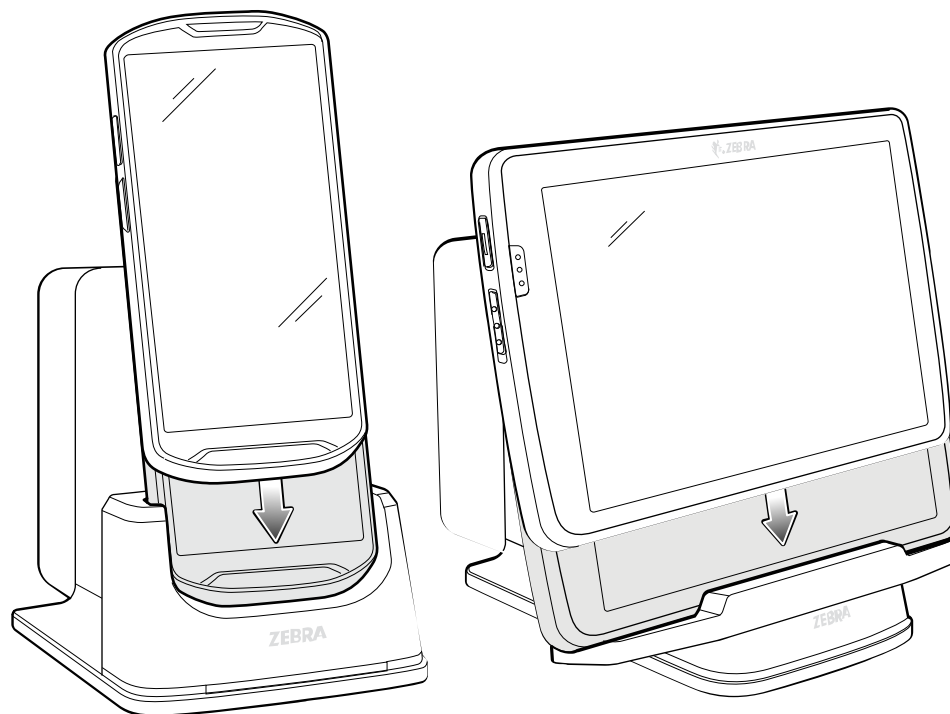
The Connect Cradle transforms Zebra mobile computers and tablets into mobile workstations or full-service point-of-sale solutions by providing connections to USB 2.0 Type A, RJ45, HDMI, and 12V DC power, powered USB 24V, and 12V on point-of-sale versions. Mobile computer or tablet users can dock their device into the Connect Cradle and gain access to multiple purpose-built peripherals, such as an HDMI monitor, USB scanner, payment terminal, or printer, while running office applications or management tools on the device to satisfy both fixed and on-the-go use cases.



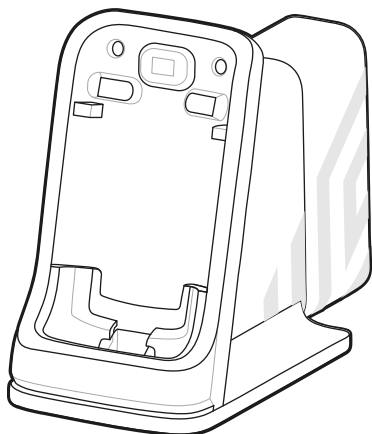
1	USB 2.0 Type A 5V (4)
2	RJ45
3	HDMI
4	12V Power DC

Inserting a Device into the Cradle

Insert a mobile computer or tablet into the Connect Cradle by aligning the guides on the device with the guides on the cradle cup.



NOTE: TC53/58 mobile computers require a Connect Cradle with a wider back (CRD-NTC5X-1SNHP-01 and CRD-NTC5X-1SNWS-01). TC73/TC78 mobile computers also require a Connect Cradle with a wider back (CRD-NTC7X-1SNWS-01).



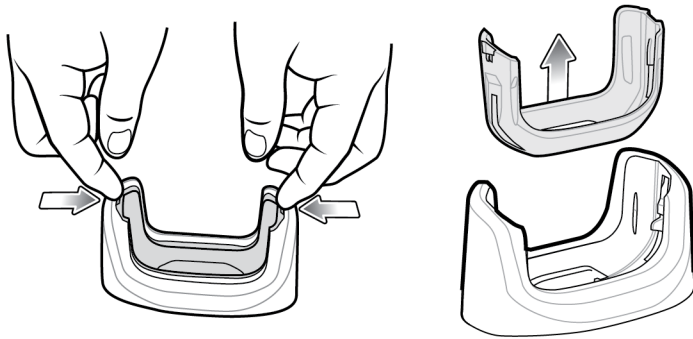
Inserting a Device with a Rubber Boot into the Cradle

TC5X/TC52-ax (CRD-TC5X-1SNHP-01) and TC53/58 (CRD-NTC5X-1SNHP-01 and CRD-NTC5X-1SNWS-01) cradle cups have an insert that must be removed before inserting the device.

Remove the insert and then insert the device into the cradle cup.

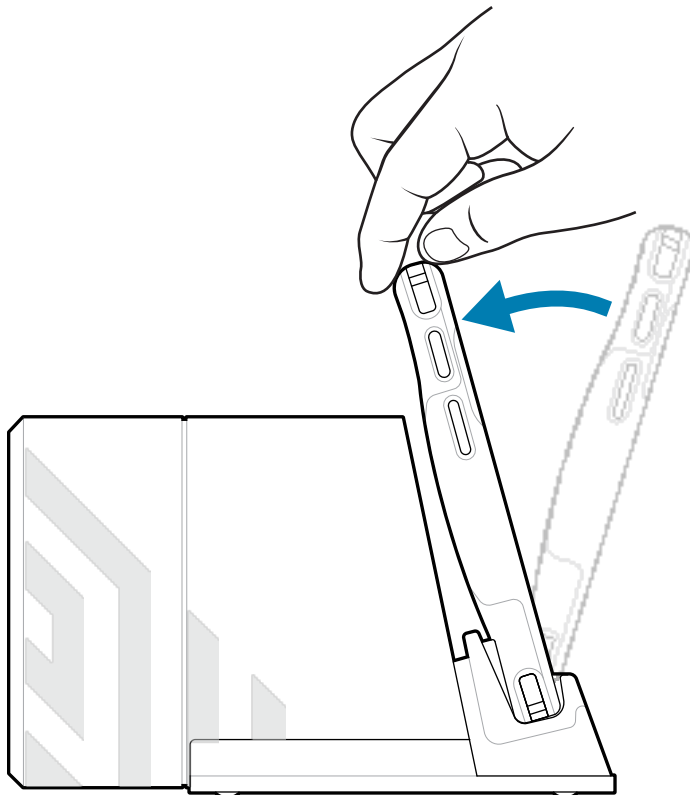


NOTE: Applicable to TC5X and TC52-ax mobile computers only.



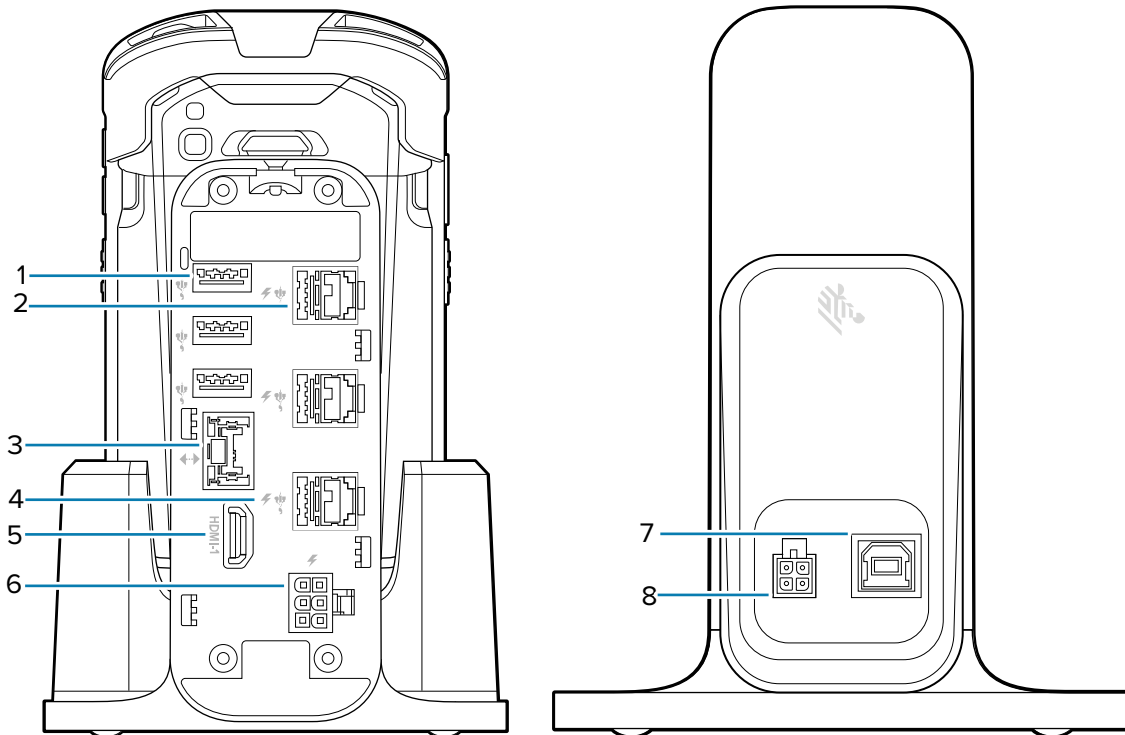
Installing a Tablet with a Rubber Boot

Tilt the tablet forward and align the guides on the tablet with the notch on the cradle. Next, tilt the tablet backward and insert it into the contacts inside the cradle cup.



Connect Hub Features

The Connect Hub provides back connections to USB 2.0 Type A 5V, RJ45, HDMI, 12V, and 24V power. The front of the Connect Hub has two connector ports for USB Type B and a 12V connection to the Presentation Stand. The back connections support peripherals such as USB scanners, printers, or payment terminals. The Connect Hub and ET4X tablet mounted to the Presentation Stand offer a mobile point-of-sale solution with versatile mounting and display capabilities.



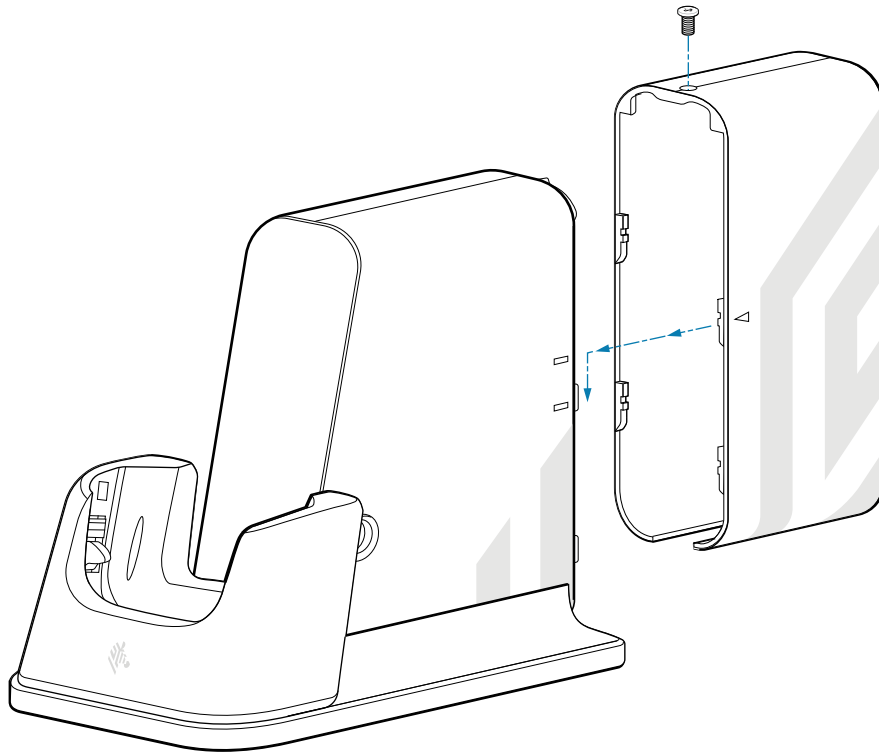
1	USB 2.0 Type A 5V (3)
2	24V Powered USB (1)
3	Ethernet
4	12V Powered USB (2)
5	HDMI
6	6-pin Connector for 24V Power Supply
7	USB Type B
8	12V Power DC

Installing the Cable Cover

The cable cover provides cable management and security that allows the organized installation of peripherals and prevents access to unutilized ports. Installing the cable cover can minimize interruptions

in productivity that can occur when a cord is dislodged from the port preventing the connection of unauthorized peripherals.

1. Remove the base of the Connect Cradle or the Connect Hub.
2. Align the guides on the cable cover with the insertion points on the Connect device and gently slide down to lock into place.
3. Insert and secure the optional top screw (included).



Securing the Mounting Bracket to the Device

Connect devices can be mounted vertically or horizontally using a bracket.



NOTE: Hardware must be provided by the customer to accommodate mounting material and thickness.

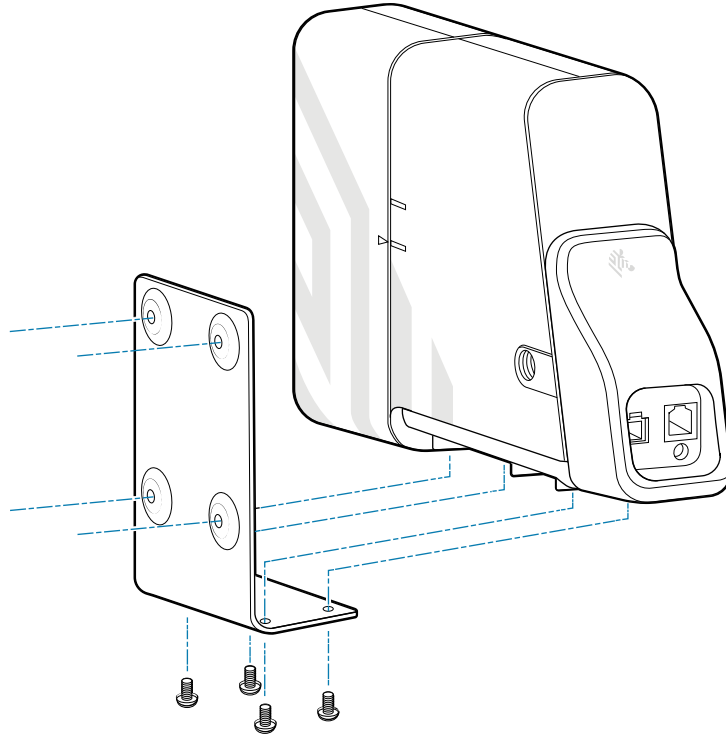


NOTE: The equipment is only suitable for mounting at heights less than 2m.

1. Remove the base of the Connect device.
2. Install the four M3x5 screws (not included in the kit) from the base to attach the device to the bracket.
(Maximum torque: 30 in-lbs)



NOTE: Ensure that the bracket is mounted to the surface before inserting the device into the Connect Hub or Cradle.



NOTE: Connect devices can be mounted upside down, on top of a countertop, and under a countertop using the mounting bracket. When installing the mounting bracket onto the device, use caution to avoid obstructing the headset jack.

Mounting the Device to a Surface

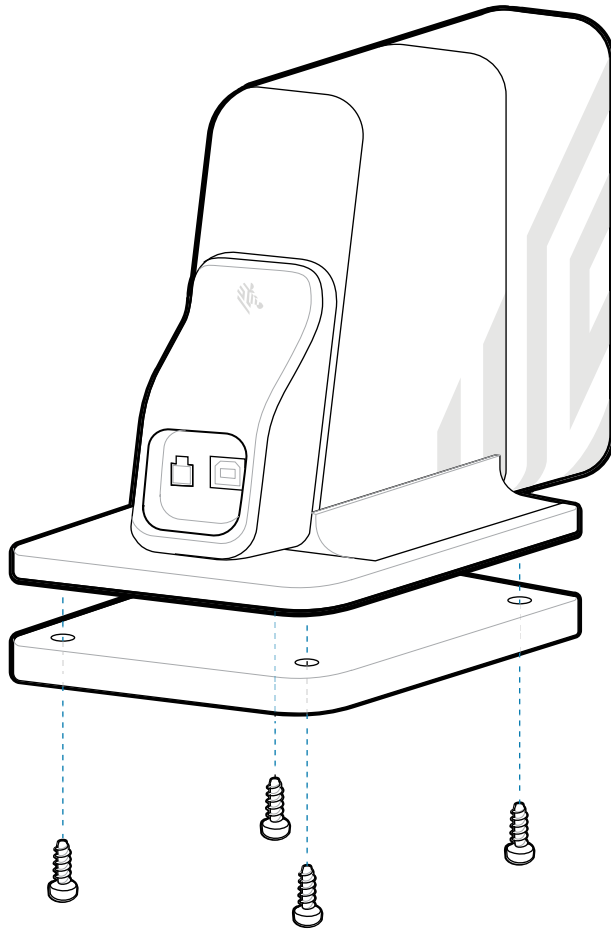


NOTE: Mounting hardware is provided by the customer to accommodate mounting material and thickness.

1. Remove the base of the Connect device.
2. Mount the bracket to a surface such as a desk or a shelf using four M5 screws. (Maximum torque: 30 in-lbs with a minimum of 5-7mm of screw engagement.)



NOTE: When mounting the Connect Cradle, ensure that the bracket is mounted to the surface prior to inserting the mobile computer into the cradle.

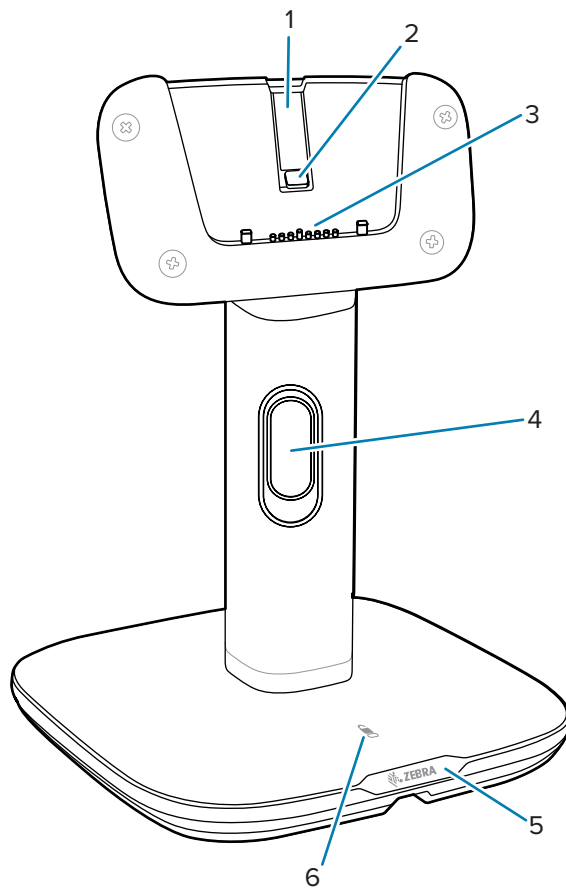


Presentation Stand

The Presentation Stand provides the following features:

- Power for operating the device.
- Charge the device's battery.
- Cable management.
- Rotate, tilt, and adjust the height of the stand while the tablet is docked.
- Desktop mount.

Figure 1 Presentation Stand Features



Number	Item	Description
1	Anti-locking switch	Slide the switch up to allow auto-locking of the tablet or slide the switch down to keep the tablet unlocked.
2	Locking catch	Secures the tablet in the Presentation stand.
3	Interface Connector	Provides communication between the tablet and peripherals.
4	Height adjustment lever	Lift to adjust the stand height.
5	Front notch	Indicates the front side of the stand.
6	Locking LED	When the stand is in auto-lock mode, the Locking LED is only on when the tablet is in the stand and unlocked. When the stand is in always unlocked mode, the Locking LED is always on.

Cable Routing

The Presentation Stand has various cable routing options.

If using the charge and communication cable, split the cables apart for easier cable routing.

Figure 2 Presentation Stand Cables

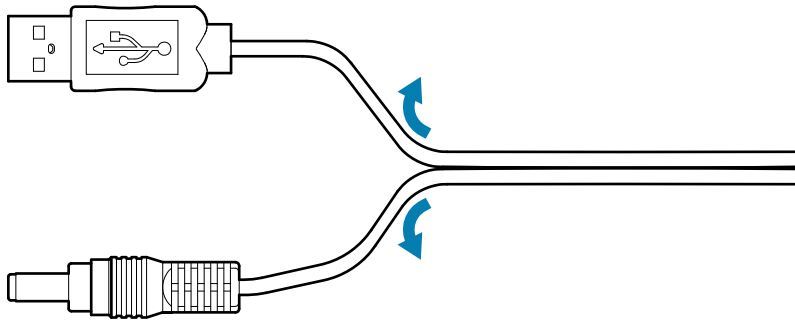
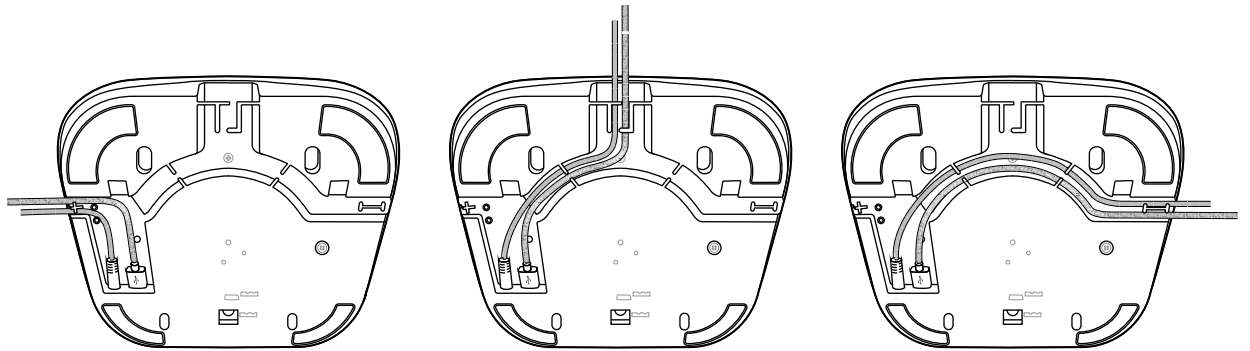


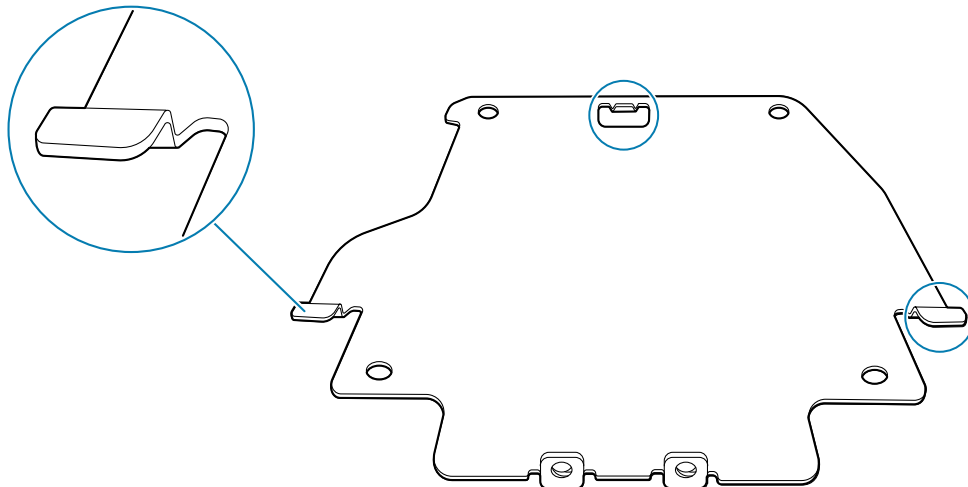
Figure 3 Cable Routing Options



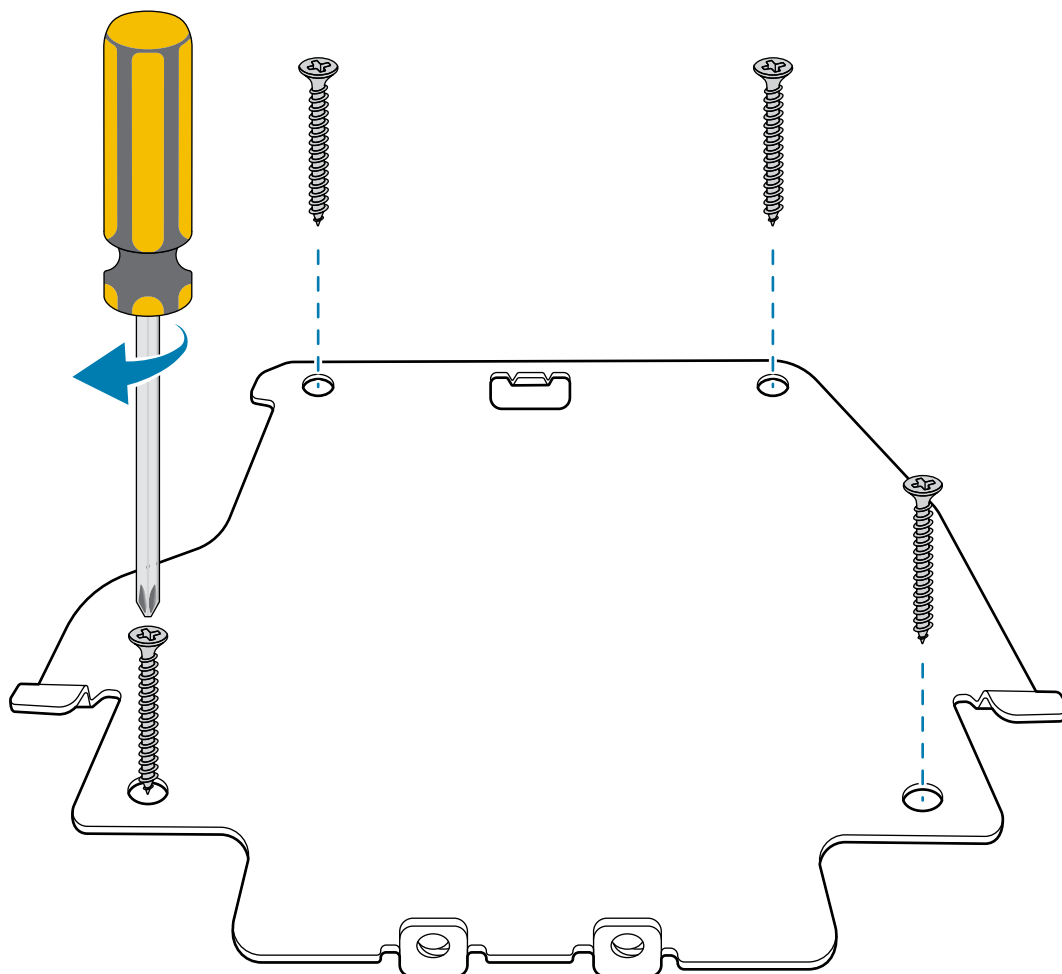
Mounting the Presentation Stand

Use the Desktop Mount Plate to secure the Presentation Stand to a desktop.

1. Place the mounting plate on the desktop with the three tabs facing up.



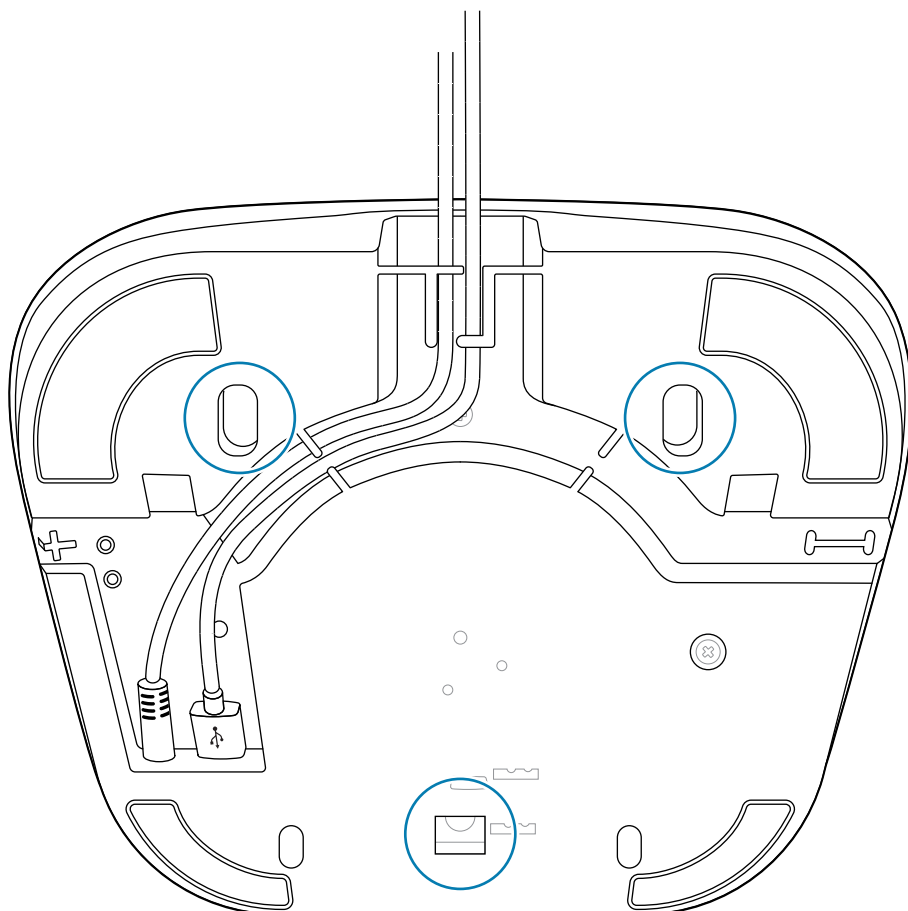
2. Install four wood screws.



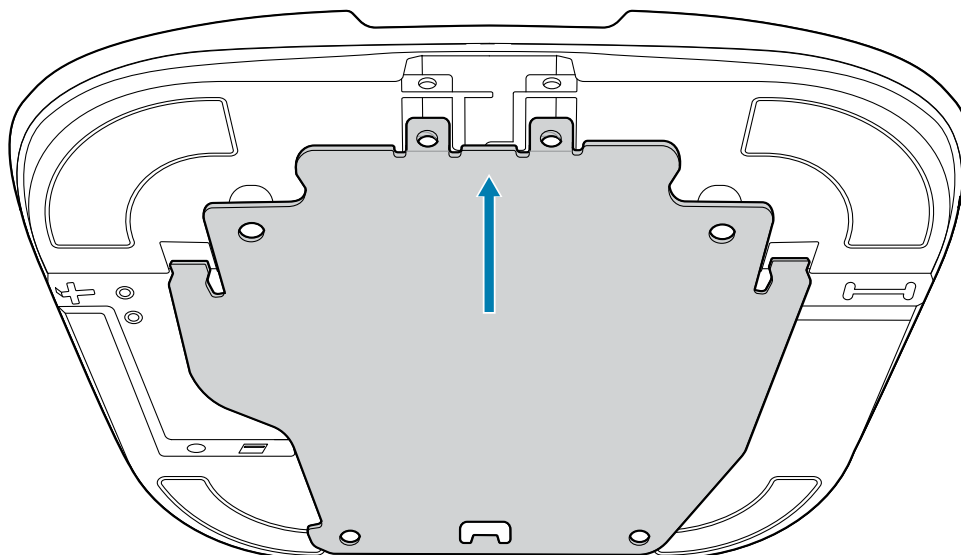
3. Align the front of the stand base with the front of the mounting plate.

- 4.** Lower the stand onto the mounting plate.

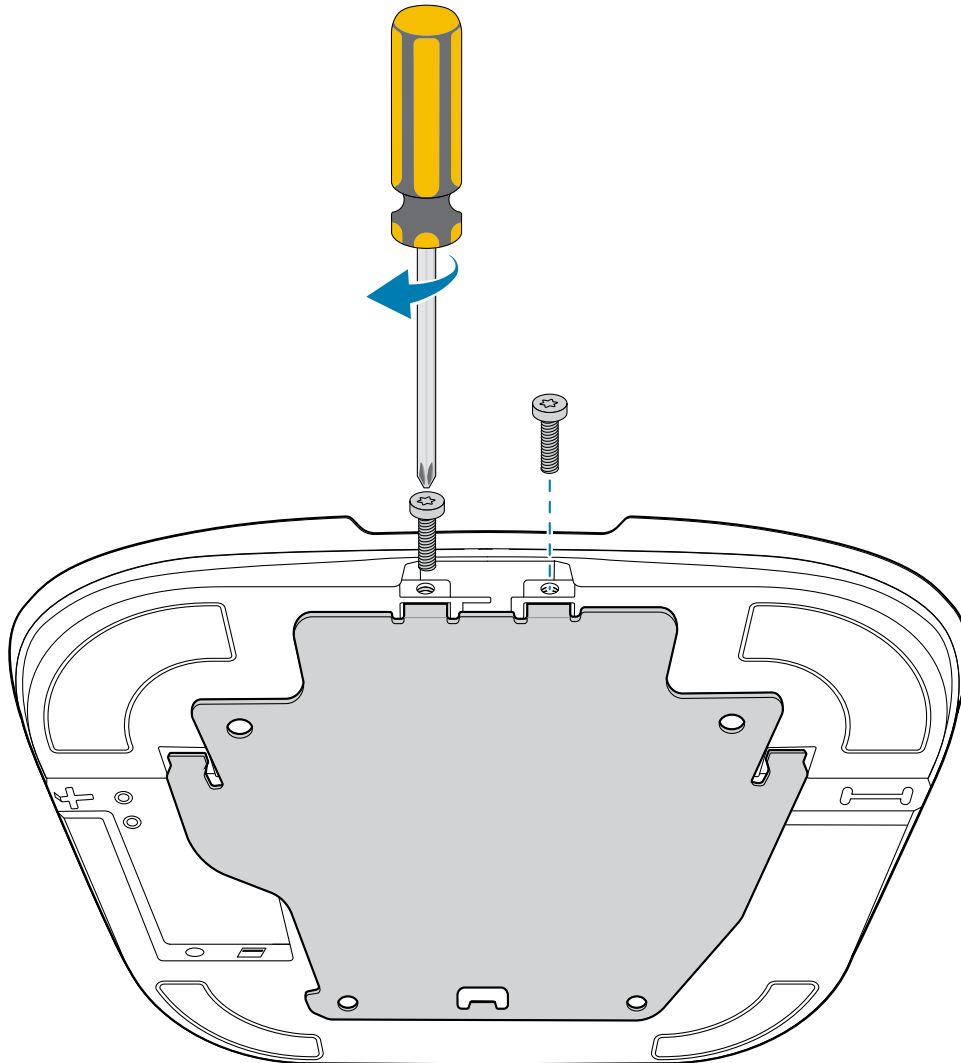
The mounting plate tabs fit inside the square cutouts on the bottom of stand.



- 5.** Slide the stand base forward slightly onto the mounting plate.



6. Install two M3x5 screws to secure the stand base to the mounting plate.



Presentation Stand API

Use the API for the Presentation Stand to lock or unlock the tablet and customize presentation mode. For detailed API information, refer to techdocs.zebra.com.

The information displayed on the screen can change based on the rotation of the Presentation Stand.

System Diagrams

Integrate the Connect Cradle or Connect Hub with other supported peripherals to form an end-to-end solution that fits your mobile workflow. The diagrams in this section outline potential configurations that utilize the Connect solution with other Zebra devices, such as a digital scanner or the ET4X Presentation Stand.

Connect Cradle System Diagram

The Connect Cradle can be deployed with peripherals such as standard USB keyboards, USB mouse, USB scanners, HDMI monitors, and 3.5mm standard headsets to extend the display of mobile business applications when docked.

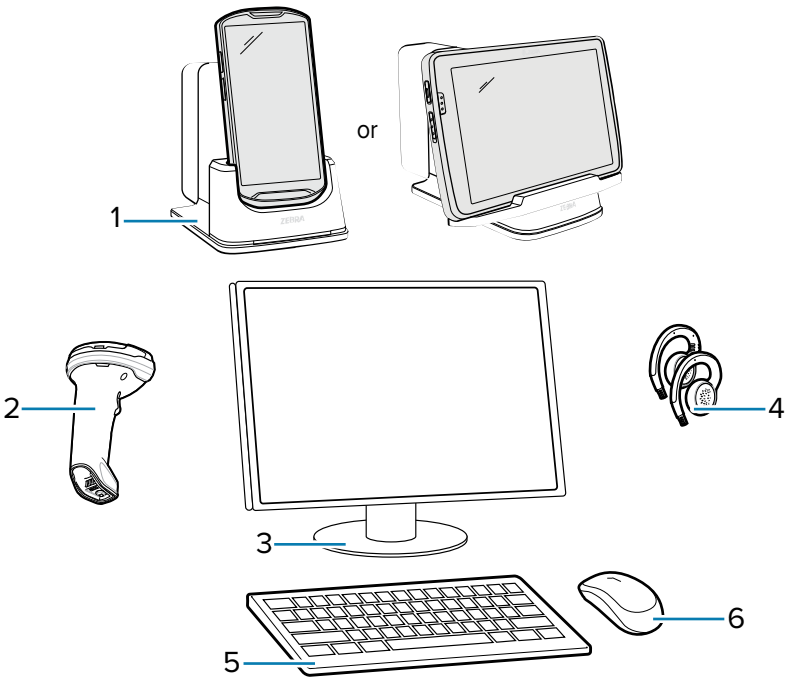


Table 2 System Components

Component	Description
1	Connect Cradle with Mobile Computer or Tablet
2	Bluetooth or USB Scanner
3	HDMI Monitor
4	3.5mm Audio
5	USB Keyboard
6	USB Mouse

Point of Sale System Diagram

Use the Connect Cradle and Connect Hub with peripherals such as standard USB keyboards, mouse, USB scanners, HDMI monitors, 3.5mm standard headsets, desktop printers, receipt printers, and payment terminals to form an end-to-end point-of-sale solution.

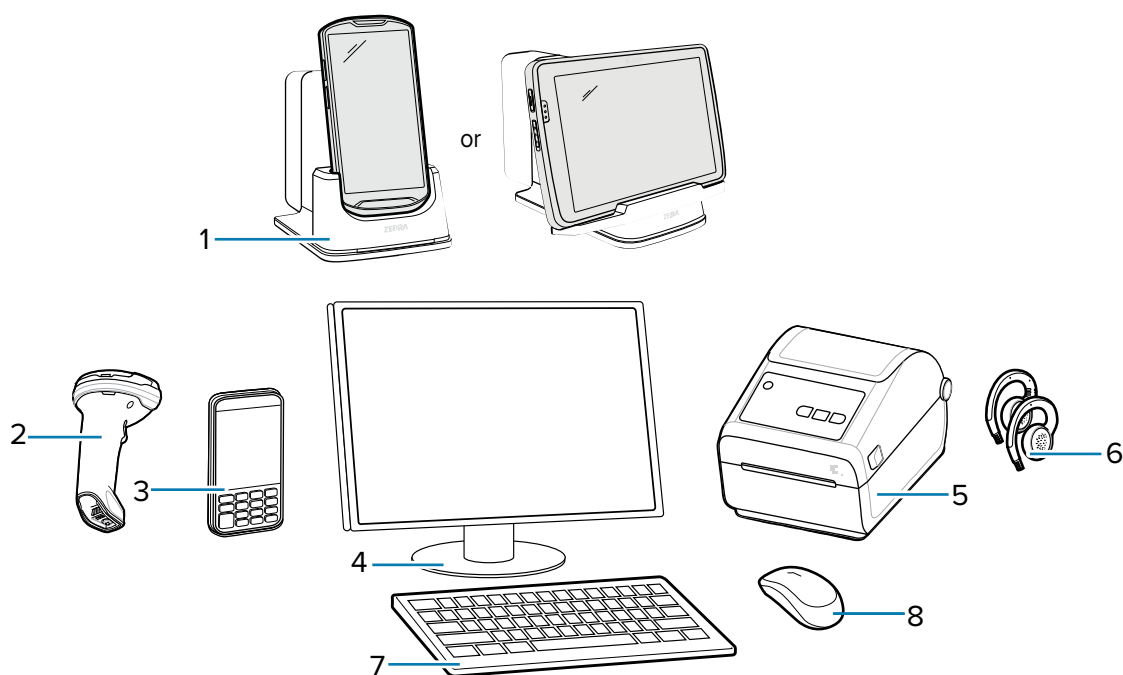


Table 3 System Components

Component	Description
1	Point of Sale Connect Cradle with Mobile Computer or Tablet
2	Bluetooth or USB Scanner
3	USB Card Reader
4	HDMI Monitor
5	Printer
6	3.5mm Audio Headset
7	USB Keyboard
8	USB Mouse

Connect Hub with Presentation Stand System Diagram

Use the Connect Hub with the ET4X and Presentation Stand to connect peripherals such as USB keyboards, mouse, USB scanners, HDMI monitors, 3.5mm standard headsets, printers, or payment terminals to form an end-to-end point-of-sale solution.

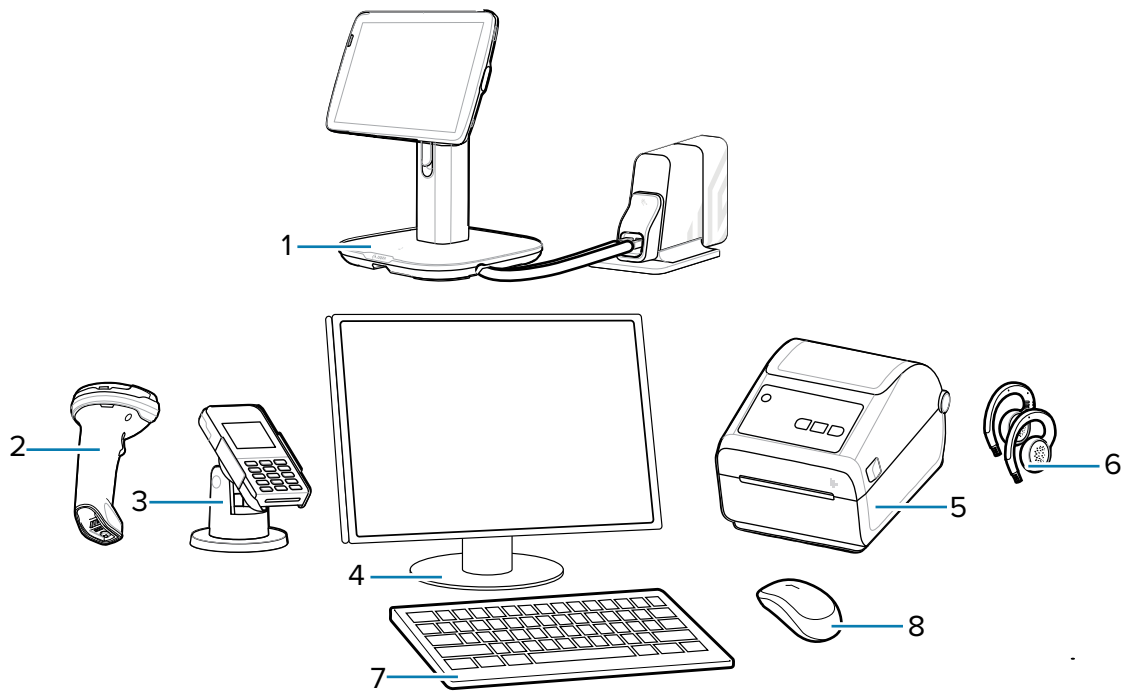


Table 4 System Components

Component	Description
1	Connect Hub and ET4X Presentation Stand
2	Bluetooth or USB Scanner
3	Corded Point of Sale
4	HDMI Monitor
5	Printer
6	3.5mm Audio Headset
7	USB Keyboard
8	USB Mouse

Maintenance

This section describes the maintenance procedures that must be followed to maintain the Connect Cradle and Connect Hub.

Known Harmful Ingredients

The following chemicals are known to damage the plastics on Zebra devices and should not come in contact with the device:

- Acetone
- Ammonia solutions
- Aqueous or alcoholic alkaline solutions
- Aromatic and chlorinated hydrocarbons
- Benzene
- Bleach
- Carboic acid
- Compounds of amines or ammonia
- Ethanolamine
- Ethers
- Ketones
- TB-lysoform
- Toluene
- Trichloroethylene

Approved Cleaning Agents

The following cleaning agents are approved for cleaning the plastics on Zebra devices:

- Clean DI water
- Mild dish soap
- 70% Isopropyl alcohol solution

Cleaning the Device

Routinely cleaning the device is required. Do not allow any abrasive material to touch the device.

- Dampen a soft cloth with one of the approved cleaning agents listed above or use pre-moistened wipes.
- Gently wipe all surfaces, including the front, back, sides, top and bottom. Never apply liquid directly to the device. Be careful not to let liquid pool around the cable connectors or any other area on the device.
- Allow the unit to air dry before use.
- For connectors:
 - Dip the cotton portion of a cotton-tipped applicator in isopropyl alcohol.
 - Rub the cotton portion of the cotton-tipped applicator back and forth across the connector on the device at least 3 times. Do not leave any cotton residue on the connector.
 - Use the cotton-tipped applicator dipped in alcohol to remove any grease and dirt near the connector area.

Use a dry cotton-tipped applicator and rub the cotton portion of the cotton-tipped applicator back and forth across the connectors at least three times. Do not leave any cotton residue on the connectors.

Technical Specifications

For additional device technical specifications, go to zebra.com/support

Connect Cradle Specifications

Specification	Description
Weight	TC53/TC58: 686 g (24 oz.)
	TC52ax: 557 g (20 oz.)
Dimensions	Height 140 mm (5.5 in.) Width 109 mm (4 in.) Length 224 mm (8.8 in.)
Input Voltage	12 VDC
Power Consumption	up to 48 watts
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Charging Temperature	0°C to 40°C (32°F to 104°F)
Humidity	5% to 95% non-condensing
Drop	76.2 cm (30.0 in.) drops to vinyl tiled concrete at room temperature.
Electrostatic Discharge (ESD)	+/- 20kV air +/- 10 kV contact +/- 10 kV indirect discharge

Connect Hub Specifications

Specification	Description
Weight	TC53/TC58: 750 g (oz.)
	TC52ax: 621 g (oz.)
	ET4x: 621 g (oz.)

Technical Specifications

Specification	Description
Dimensions	Height 140 mm (5.5 in.) Width 109 mm (4 in.) Length 224 mm (8.8 in.)
Input Voltage	24 VDC
Power Consumption	up to 150 watts
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Charging Temperature	0°C to 40°C (32°F to 104°F)
Humidity	5% to 95% non-condensing
Drop	76.2 cm (30.0 in.) drops to vinyl tiled concrete at room temperature.
Electrostatic Discharge (ESD)	+/- 20kV air +/- 10 kV contact +/- 10 kV indirect discharge

Presentation Stand Specifications

Specification	Description
Dimensions (with ET4x Tablet)	Height (without extension): 310 mm (12.2 in.) Height (fully extended): 310 mm (12.2 in.) Width: 220 mm (8.66 in.) Depth: 220 mm (8.66 in.)
Weight	Base only: 2900 g (102 oz)
Input Voltage	12 VDC
Operating Temperature	0°C to 50°C (32°F to 122°F)

Troubleshooting

This section describes potential issues that could arise while using the device and solutions that could correct the problem such as rebooting the device and redocking the device into the cradle.

Table 5 Troubleshooting

Problem	Cause	Solution
External monitor not detected.	The device is powered off when placed in the cradle and then turns on.	Remove the device from the cradle and re-insert it. The device detects the monitor upon redocking the device.
		Reboot after applying mDNA license (only applicable for Value Tier devices).
		Reboot after switching between Mirror mode and Desktop mode.
Peripheral not detected.	Bad cable connection.	Remove the cable and re-connect.

