

DS5502

Fixed Mount Scanner



ZEBRA

Quick Start Guide

2024/06/05

ZEBRA and the stylized Zebra head are trademarks of Zebra Technologies Corporation, registered in many jurisdictions worldwide. All other trademarks are the property of their respective owners. ©2024 Zebra Technologies Corporation and/or its affiliates. All rights reserved.

Information in this document is subject to change without notice. The software described in this document is furnished under a license agreement or nondisclosure agreement. The software may be used or copied only in accordance with the terms of those agreements.

For further information regarding legal and proprietary statements, please go to:

SOFTWARE: zebra.com/informationpolicy.

COPYRIGHTS: zebra.com/copyright.

PATENTS: ip.zebra.com.

WARRANTY: zebra.com/warranty.

END USER LICENSE AGREEMENT: zebra.com/eula.

Terms of Use

Proprietary Statement

This manual contains proprietary information of Zebra Technologies Corporation and its subsidiaries ("Zebra Technologies"). It is intended solely for the information and use of parties operating and maintaining the equipment described herein. Such proprietary information may not be used, reproduced, or disclosed to any other parties for any other purpose without the express, written permission of Zebra Technologies.

Product Improvements

Continuous improvement of products is a policy of Zebra Technologies. All specifications and designs are subject to change without notice.

Liability Disclaimer

Zebra Technologies takes steps to ensure that its published Engineering specifications and manuals are correct; however, errors do occur. Zebra Technologies reserves the right to correct any such errors and disclaims liability resulting therefrom.

Limitation of Liability

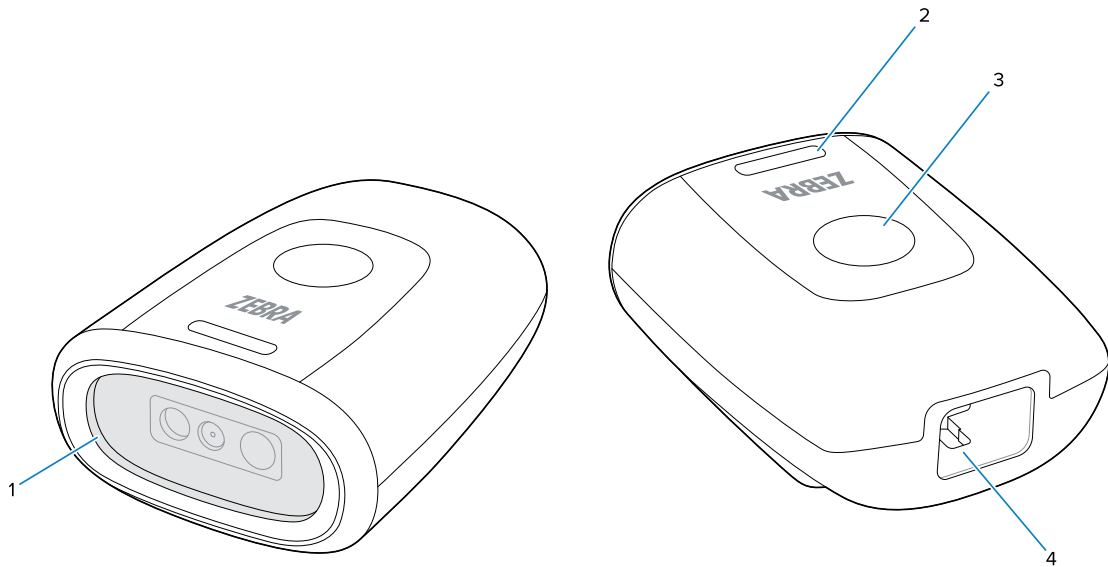
In no event shall Zebra Technologies or anyone else involved in the creation, production, or delivery of the accompanying product (including hardware and software) be liable for any damages whatsoever (including, without limitation, consequential damages including loss of business profits, business interruption, or loss of business information) arising out of the use of, the results of use of, or inability to use such product, even if Zebra Technologies has been advised of the possibility of such damages. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Getting Started

The DS5502 fixed mount scanner is specifically designed for standalone applications and OEM applications. The scanner is compact, provides easy and flexible integration of barcode scanning into a host device, and offers high-performance scanning on 1D and 2D barcodes. The DS5502 is ideal for various uses: kiosks, embedded medical diagnostic equipment, conveyor lines in manufacturing environments, and more. The DS5502 can also be used as a zero-footprint 2D array scanning solution in retail POS environments.

Scanner Features

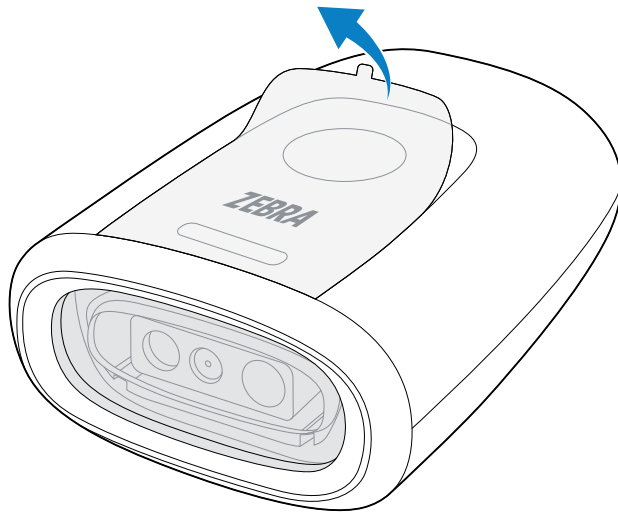
Label diagrams of key features for the scanner.



1	Scanner Window
2	LED Indicator
3	Trigger Button
4	Cable Interface Port

Removing the Protective Film

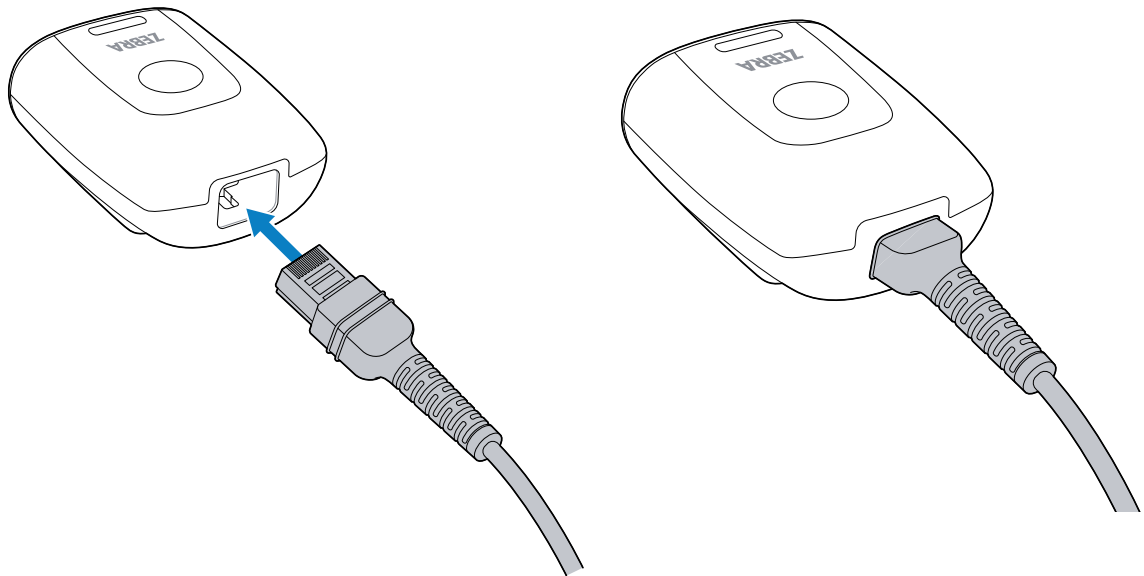
Remove the protective film from the device before use.



Connecting the Cable

This section describes installing the cable into the scanner.

1. With the latch facing down, plug in the cable until the latch clicks.

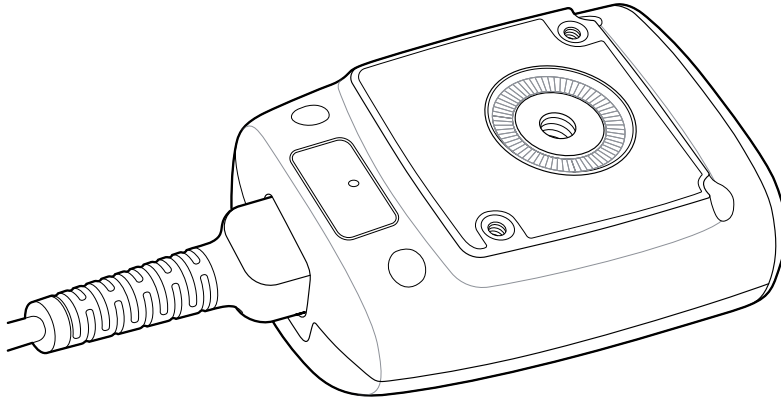


2. Connect the other end of the cable to either the USB or RS-232 port on your host computer. For more information, go to [Connecting the Scanner](#) on page 22.

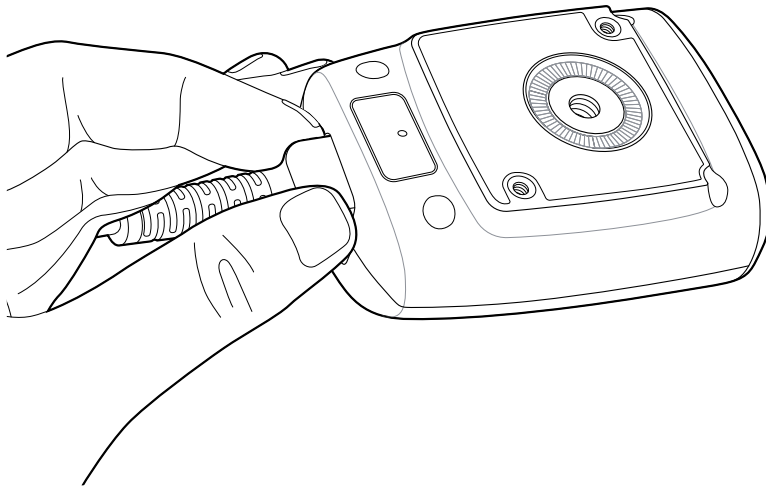
Removing the Cable

This section describes how to remove the cable from the device.

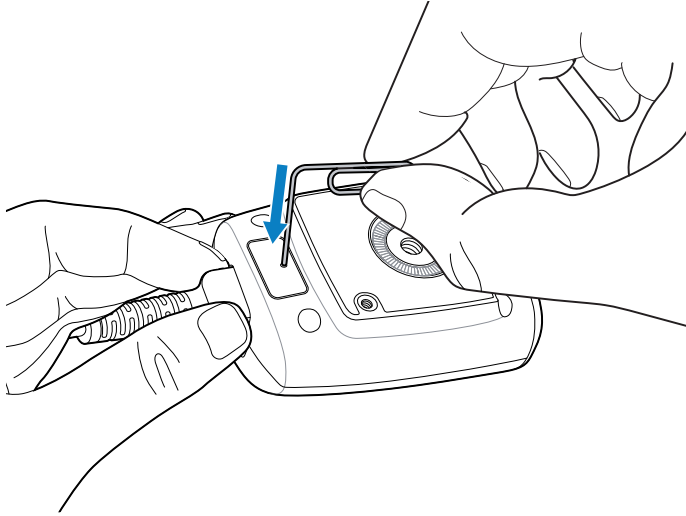
1. Lay the device on its back on a flat surface. To avoid any damage, place a soft material underneath.



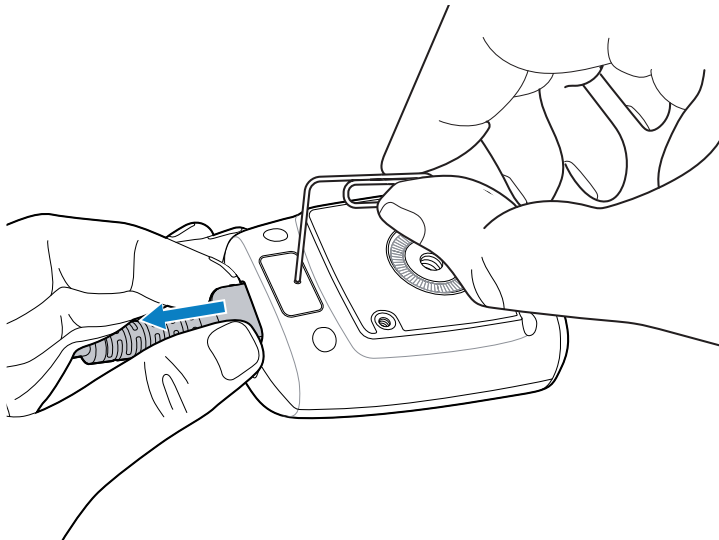
2. Grasp the strain relief section of the cable with your fingers pressed against the device.



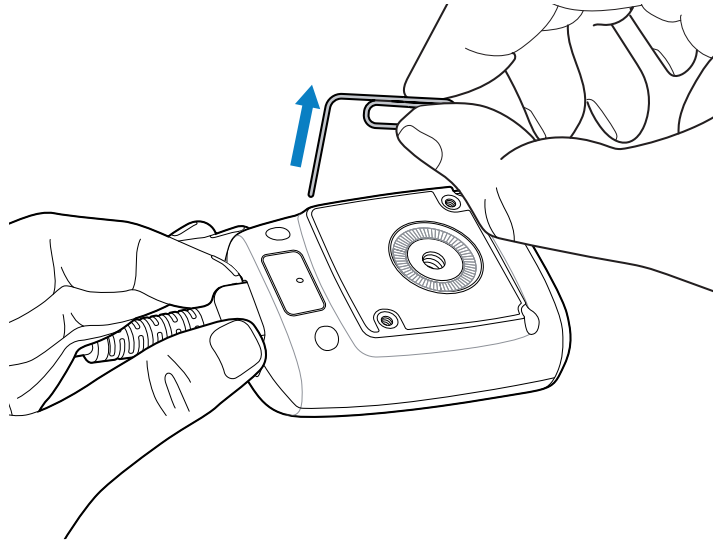
3. With your other hand, insert a paper clip into the pinhole to push down the cable latch.



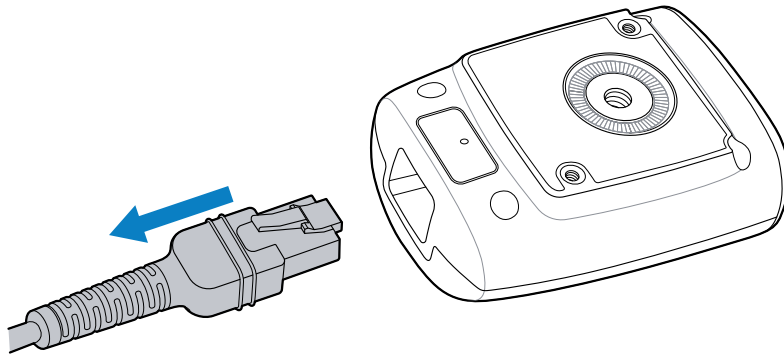
4. Gently pull the cable out a slight amount.



5. Withdraw the paper clip.



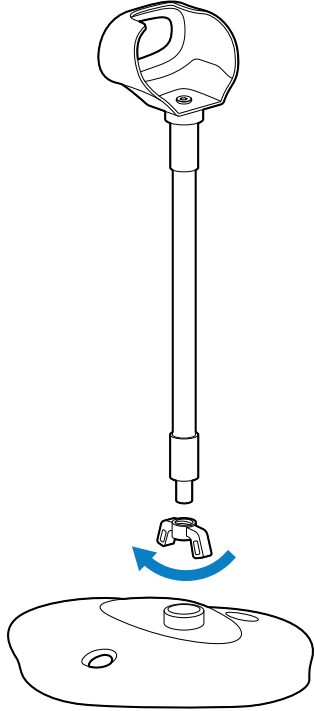
6. Fully remove the cable.



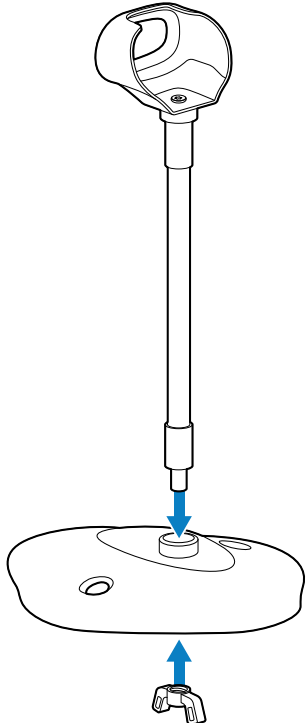
Using the Gooseneck Stand

Use the optional gooseneck stand to mount the scanner.

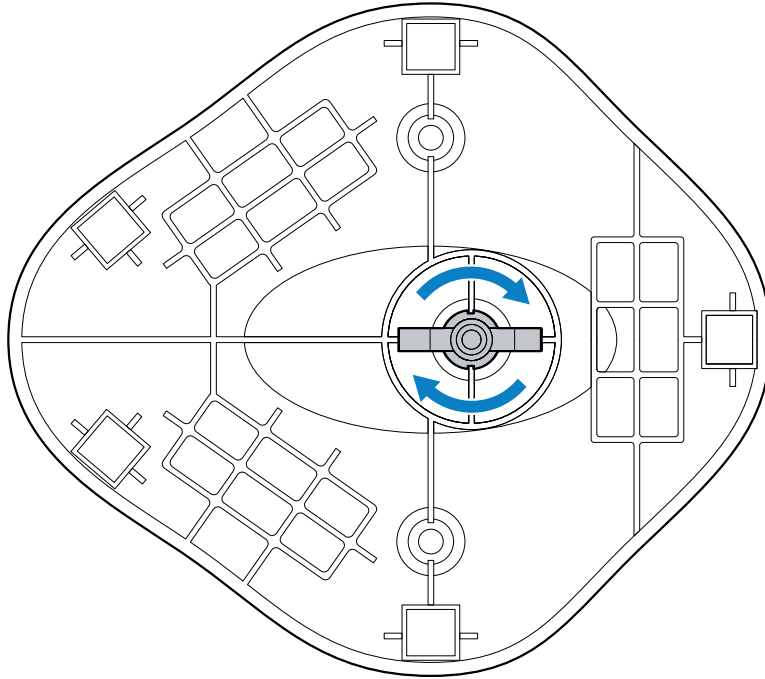
1. Unscrew the wingnut located at the bottom of the gooseneck.



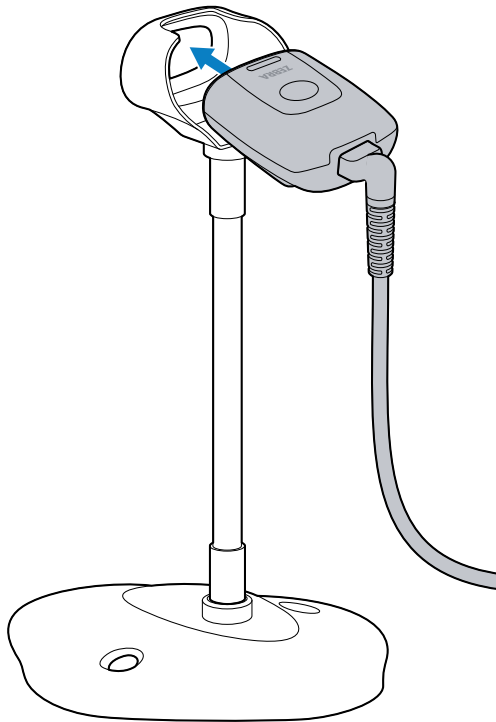
2. Insert the threaded end of the gooseneck into the base.



3. From the underside of the base, fasten the gooseneck by screwing and tightening the wingnut into it.



4. Attach the power cable to the scanner, and then insert the scanner into the cup of the gooseneck stand.



NOTE: Use the 90-degree cable when the device is table-top mounted.

Mounting the Gooseneck Stand

You can attach the base of the stand to a flat surface using two screws.

1. Position the assembled base on a flat surface.
2. Screw in a #10 wood screw (not provided) into each screw-mount hole until the base of the stand is secure.

Using the 3-in-1 Multi-Mount

Use the optional 3-in-1 multi-mount to mount the scanner to a tabletop, monitor, or wall (or other vertical surface). The mount can also function independently as a presentation stand.

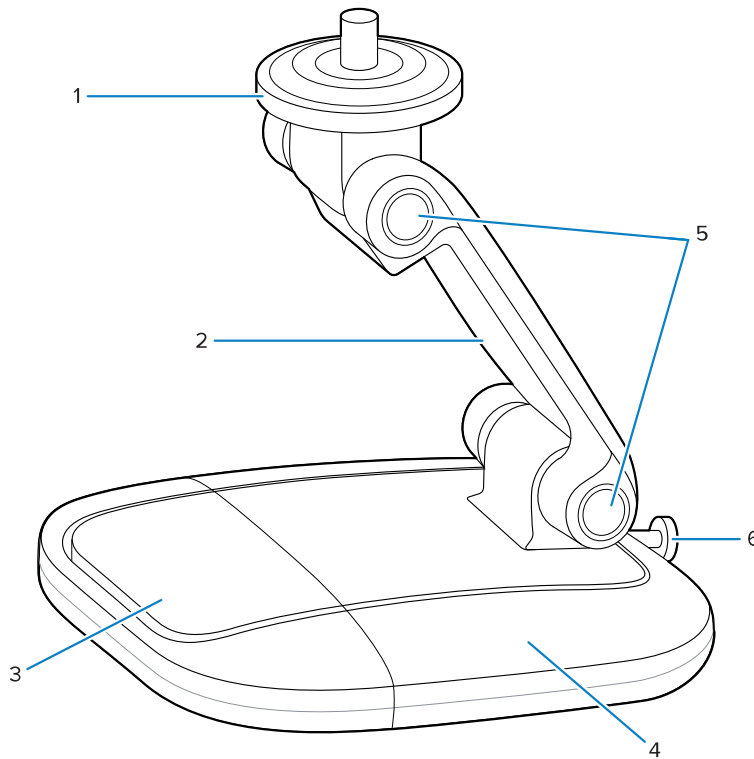


NOTE:

Mount the scanner no more than 2 m (6 ft 5 in.) above the floor.

3-in-1 Multi-Mount Features

Label diagram of key features for the 3-in-1 multi-mount.



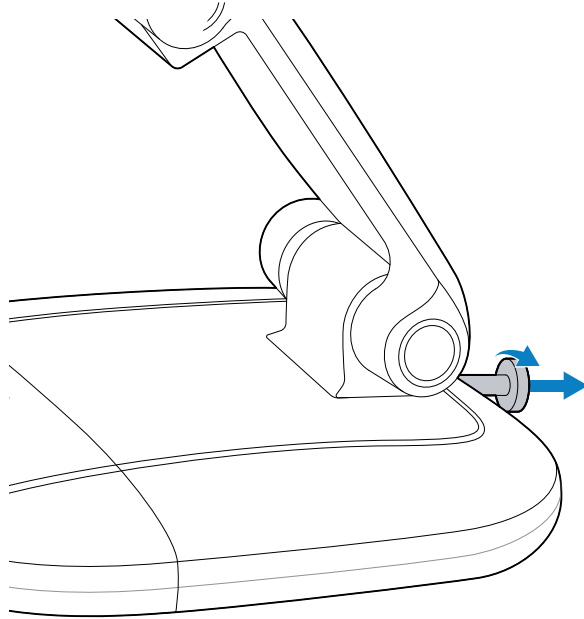
1	Swivel Plate
2	Main Arm
3	Narrow Base
4	Wide Base

5	Pivot Joints
6	Wide Base Screw

Removing the Wide Base

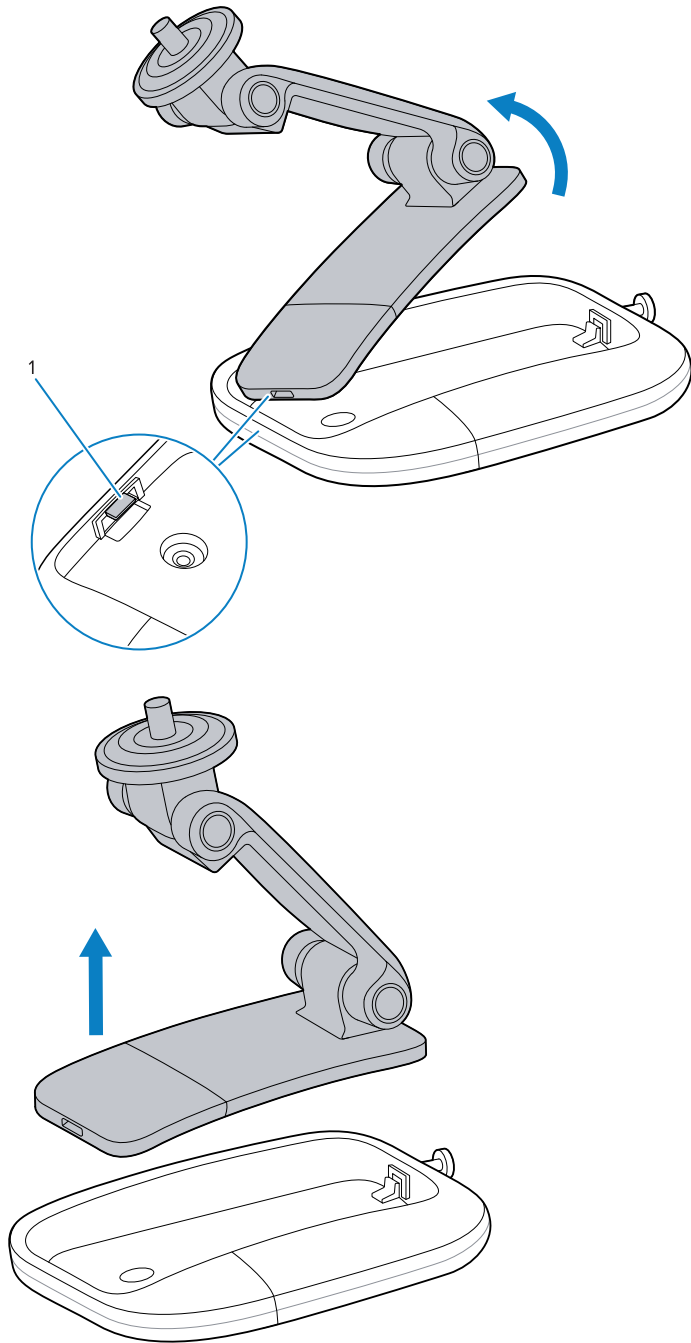
The following describes how to remove the wide base from the 3-in-1 multi-mount.

1. Using a Philips-head screwdriver, fully unscrew the screw located at the rear of the wide base, making sure it is not attached to the narrow base.



2. With one hand, grasp the main arm and then use your other hand to hold down the wide base.

3. Pivot the narrow base away from the wide base notch (1), and then lift it out.



Presentation Stand

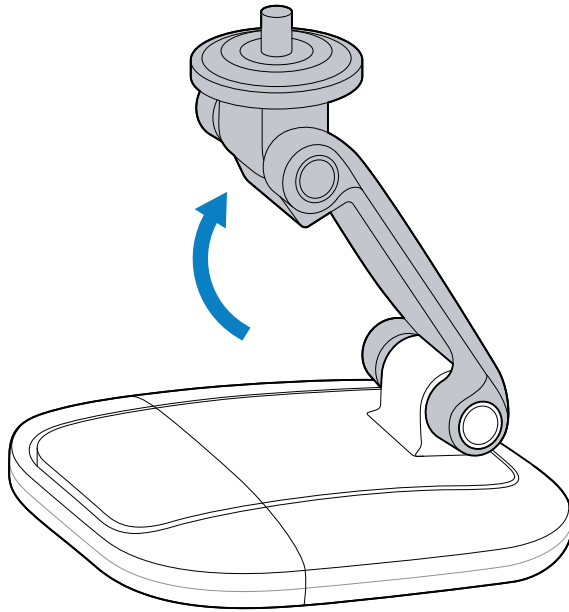
To use the 3-in-1 multi-mount as a presentation stand:

1. Attach the cable to the scanner. For more information, go to [Connecting the Cable](#) on page 4.

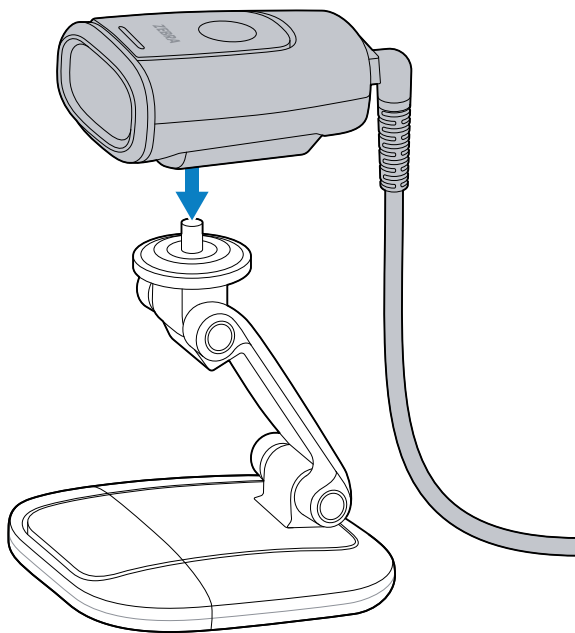


NOTE: Use the 90-degree cable when the device is mounted onto a presentation stand.

2. Adjust the pivot joints to the desired position.



3. Mount the scanner onto the top swivel plate, and then orient the scanner window to face down as needed.



The device is held in place by the magnetic swivel plate.

The presentation stand can also function without the use of the wide base. For more information, go to [Removing the Wide Base](#) on page 11.

Mounted Presentation Stand

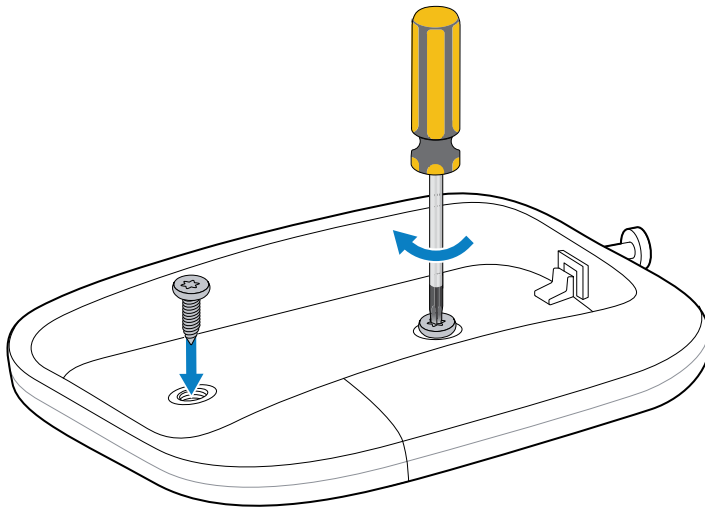
You can mount the presentation stand to a tabletop.

1. Attach the cable to the scanner.

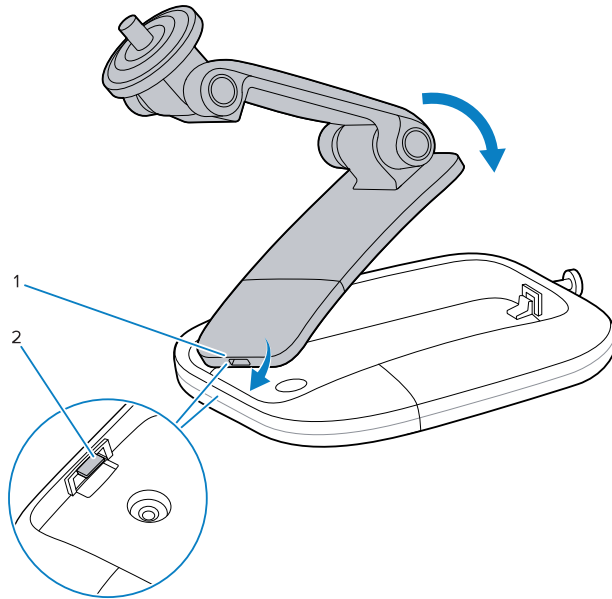


NOTE: Use the 90-degree cable when the device is tabletop-mounted.

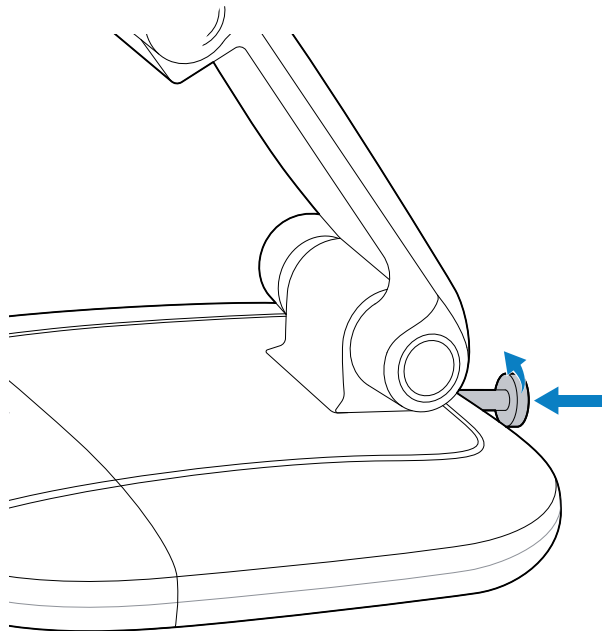
2. Remove the wide base from the 3-in-1 multi-mount. For more information, go to [Removing the Wide Base](#) on page 11.
3. Position the wide base on a flat tabletop surface.
4. Insert a #6 wood screw (not provided) through each screw hole, and then tighten the screws to secure the wide base to the tabletop.



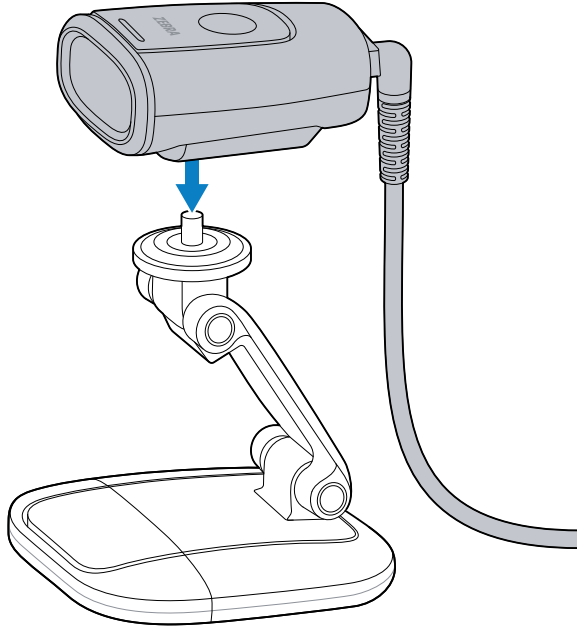
5. Pivot and slot (1) the narrow base into the notch (2) of the wide base, and then fully lower the narrow base into the wide base.



6. Using a Phillips-head screwdriver, tighten the wide base screw to fasten the narrow base to the wide base.



7. Mount the scanner onto the top swivel plate.



Wall Mount

The 3-in-1 wide base can serve as a wall mount, enabling the device to be mounted to a wall.

1. Remove the wide base from the 3-in-1 multi-mount. For more information, go to [Removing the Wide Base](#) on page 11.
2. Mark the location on the wall where the wide base will be installed.



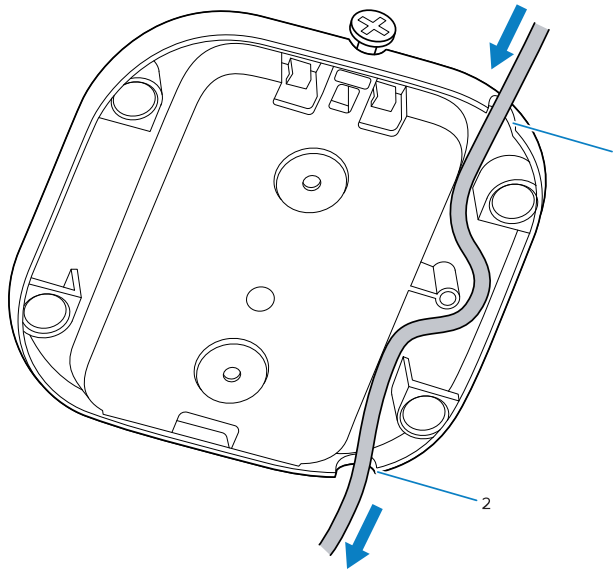
NOTE: Mount the scanner no more than 2 m (6 ft 5 in.) above the floor.

3. Install the cable into the wide base.

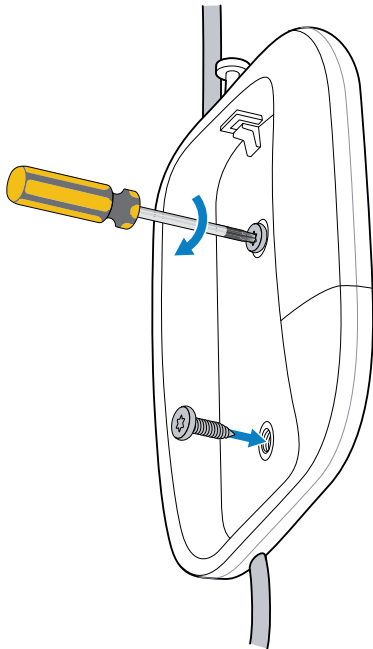


NOTE: Use the straight cable when the device is wall-mounted.

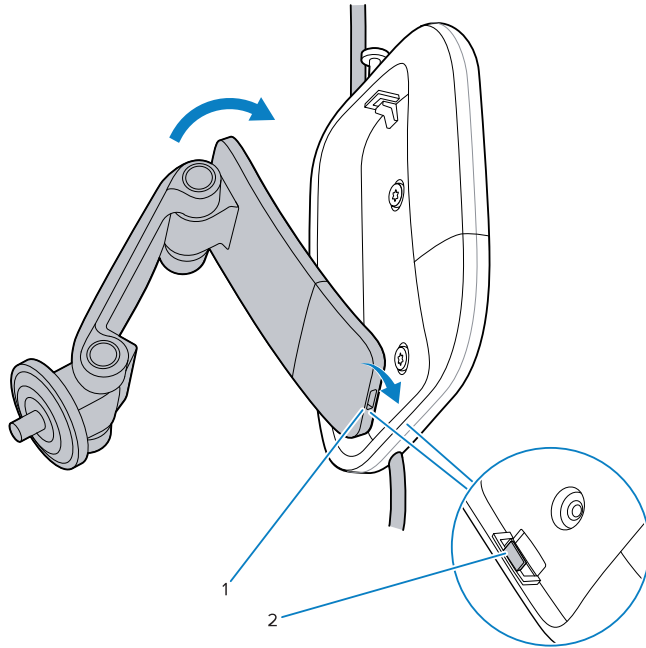
- a) Position the cable connector through the top D-Cutout (1) located next to the wide base screw.
- b) Run the cable downward along the edge of the wide base and out the D-Cutout (2) on the opposite end.



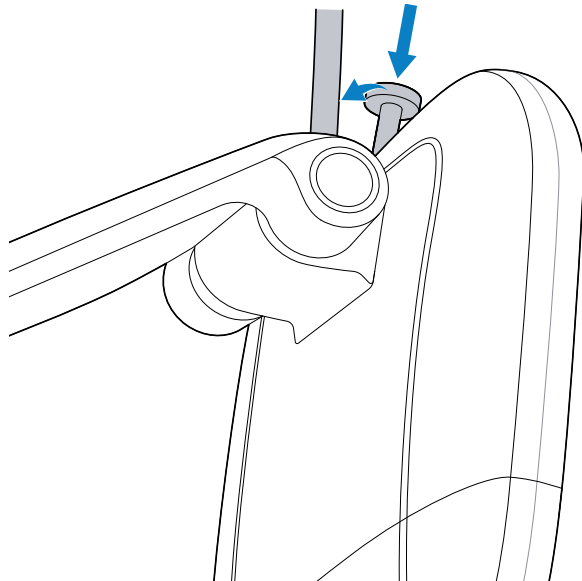
4. With the cable installed, hold the wide base to the predetermined location on the wall, and then insert and tighten #6 wood screws (not provided) through each screw hole in the wide base.



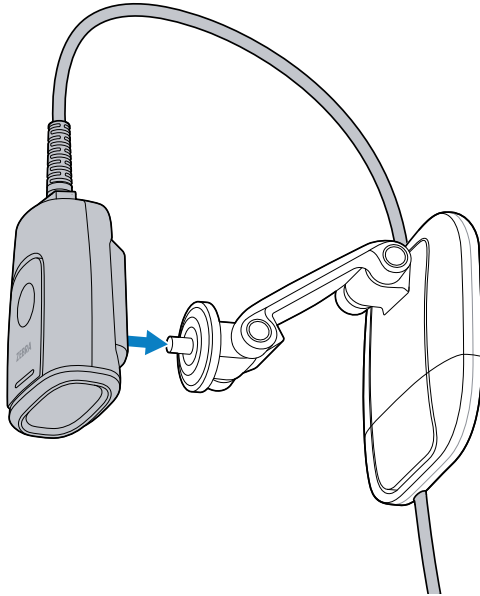
5. Pivot and slot (1) the narrow base into the (2) notch of the wide base, and then fully insert the narrow base into the wide base.



6. Using a Philips-head screwdriver, tighten the wide base screw to fasten the narrow base to the wide base.



7. Connect the power cable to the scanner, and then mount the scanner onto the top swivel plate.



8. Orient the scanner window to face down as needed.

Monitor Mount

This section describes how to mount the 3-in-1 multi-mount to a monitor.

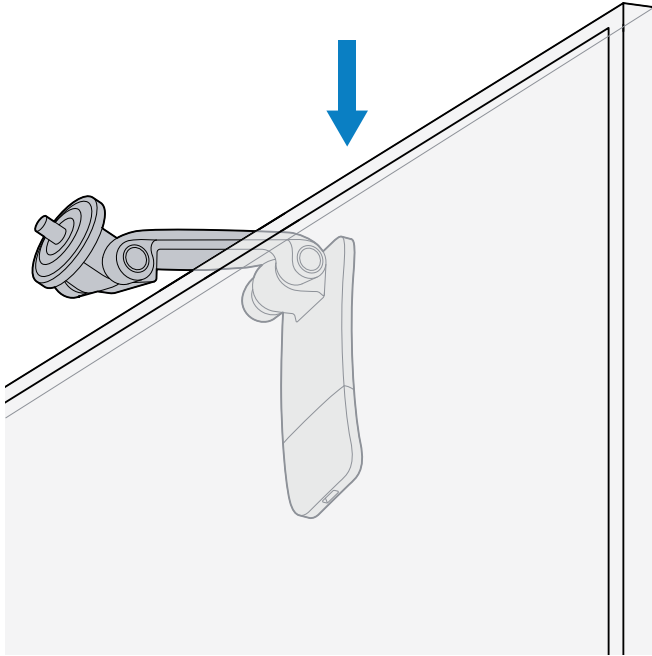
1. Attach the cable to the scanner. For more information, go to [Connecting the Cable](#) on page 4.



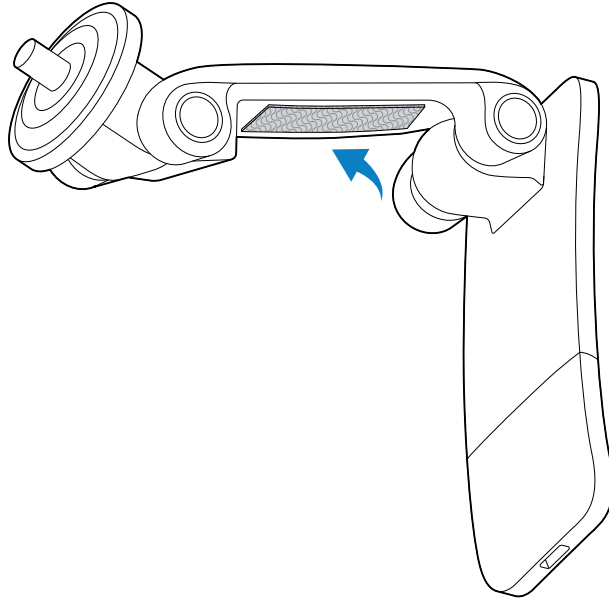
NOTE: Use the 90-degree cable when the device is monitor-mounted.

2. Remove the wide base from the 3-in-1 multi-mount. For more information, go to [Removing the Wide Base](#) on page 11.

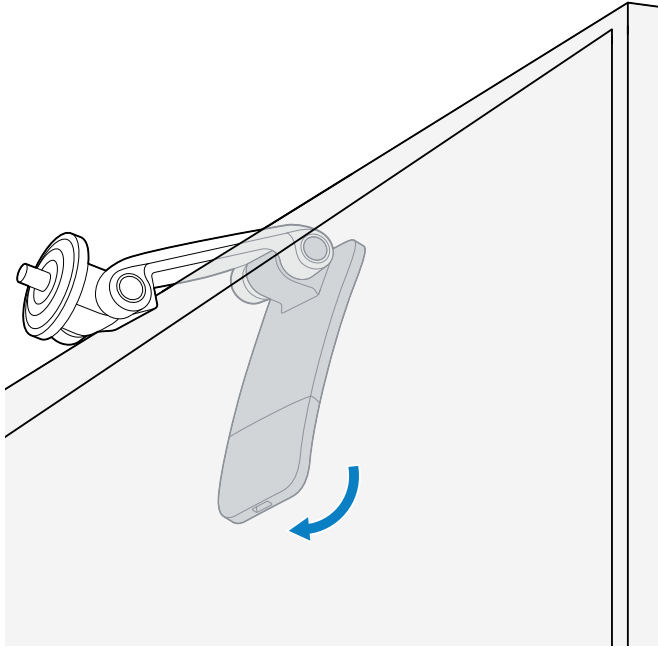
3. Widen the main arm and set it atop the monitor, with the hook oriented toward the front and the base toward the back.



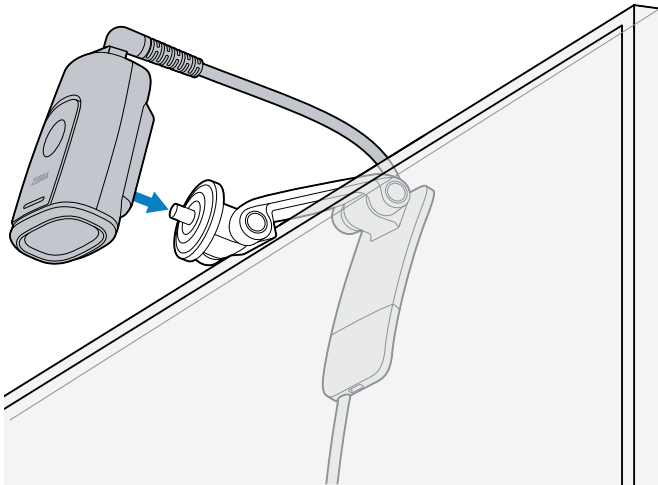
- a) Optionally, you can first apply the Zebra-provided adhesive tape to the inside of the arm or on the top of the monitor to enhance grip.



4. Gently close the main arm until it firmly grips the monitor.



5. Mount the scanner onto the top swivel plate, and then orient the scanner window to face down as needed.



NOTE: Adhesive cable clamps (not provided) are recommended for cable management.

Third-Party Mounting Accessories

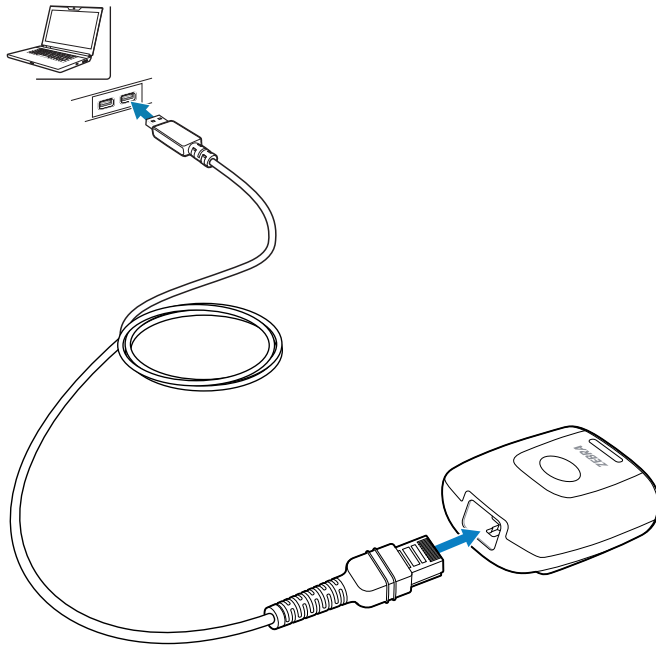
The scanner is compatible with third-party accessories equipped with a standard 1/4-inch threaded screw bolt (1/4-20 UNC), such as a tripod. Consult the user guide of your third-party device.

Connecting the Scanner

The scanner connects to the host interface using either a USB or RS-232 connector.

USB Connection

1. Plug the interface cable into the scanner. For more information, go to [Connecting the Cable](#) on page 4.
2. Plug the USB connector into the appropriate port on the host interface.

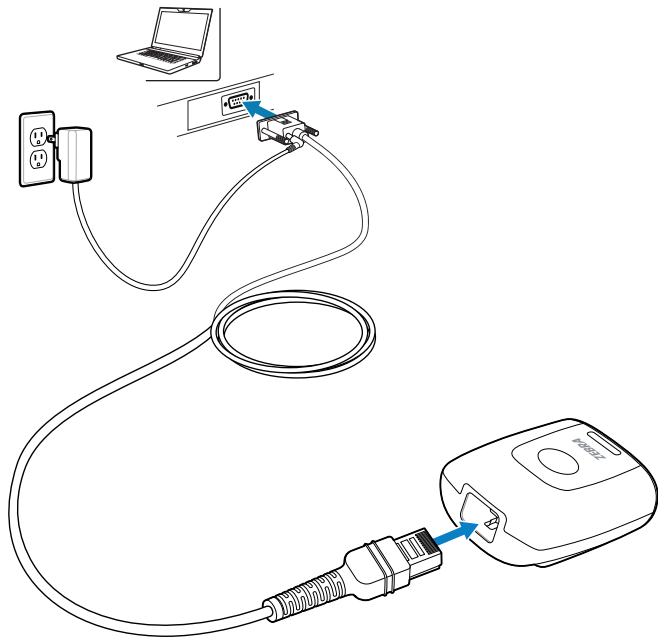


3. Check all connections to ensure they are secure.

RS-232 Connection

1. Plug the interface cable into the scanner. For more information, go to [Connecting the Cable](#) on page 4.

2. Plug the RS-232 connector into the appropriate port on the host interface.



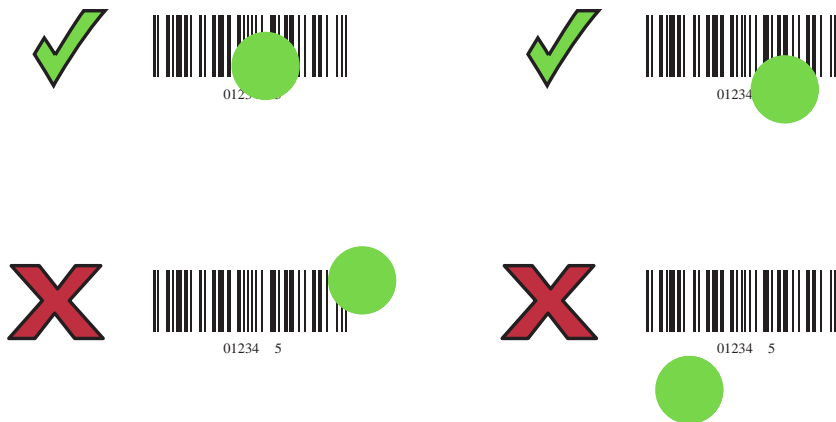
3. Check all connections to ensure they are secure.

Aiming the Device

When scanning, the device projects an aiming pattern that allows positioning the barcode within its field of view. If necessary, the scanner turns on its LED to illuminate the target barcode.

To scan a barcode, center the symbol and ensure the entire symbol is within the rectangular area formed by the illuminated LED. When off-centered, the scanner can also read a barcode presented within the aiming pattern. The following image illustrates proper LED placement to produce a successful decode.

Figure 1 Aiming Pattern



The aiming dot is smaller when the scanner is closer to the barcode and larger when it is farther away. Scan barcodes with smaller bars or elements closer to the scanner and those with larger bars or elements farther from the scanner.

The scanner beeps to indicate that it successfully decoded the barcode. For more information on beeper and LED definitions, go to [Scanner Indications](#) on page 27.

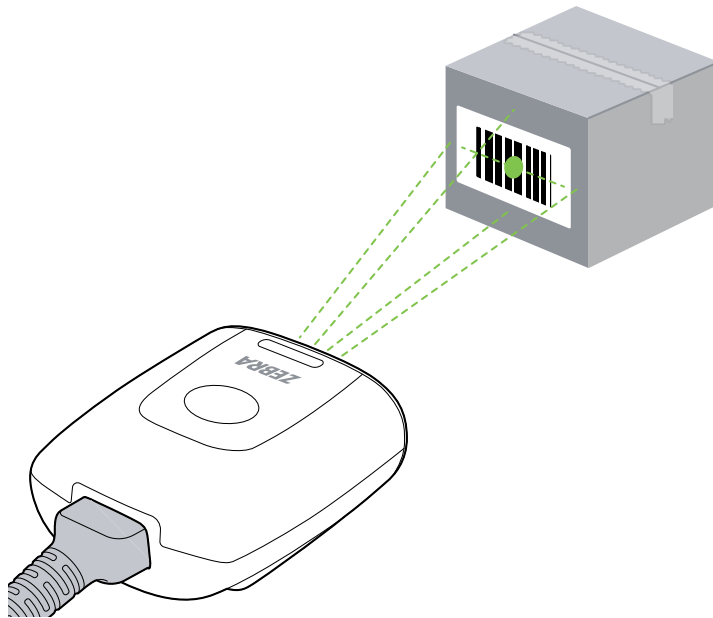
Presentation Mode Scanning

In Presentation Mode (default) during idle conditions, the scanner operates in object detection mode and automatically wakes up to decode a barcode presented in the field of view. In object detection mode, it is normal for the illumination LEDs to be dimly lit.



NOTE: Alternatively, configure the device to use scene detect mode, in which the device keeps the light off (Low Light Scene Detection) and only turns it on during an active decode state (Motion Detection Mode (Wakeup)). Refer to the DS5502 Product Reference Guide for more information.

1. Ensure all connections are secure.
2. Present the barcode in the scanner's field of view.
3. Upon successful decode, the scanner beeps, and the LED flashes green.



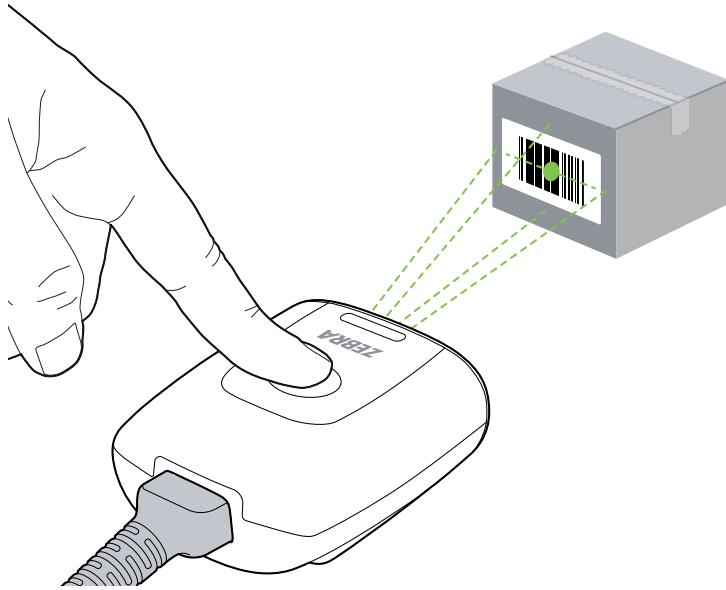
In scene detect mode, the device keeps the light off and only turns it on when it transitions from this mode to an active decode state.

Trigger Mode Scanning

Capture barcode data in trigger mode by using the device's built-in trigger.

1. Ensure all connections are secure.
2. Point the scanner at the barcode.
3. Press and hold the trigger button.

4. Upon successful decode, the scanner beeps, and the LED flashes green.



Programming Bar Codes

This section provides frequently used bar codes for programming the DS5502.

Set Factory Defaults

To reset the scanner to its default settings, scan the barcode below.



Return to Factory Defaults

Add a Tab Key

To add a Tab key after scanned data, scan the barcode below.



Add a Tab Key

Add an Enter Key

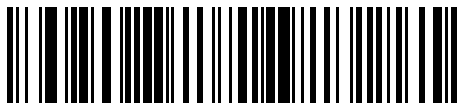
To add an Enter key after scanned data, scan the barcode below.



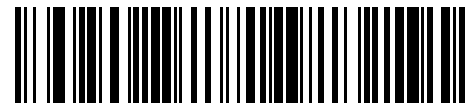
Add an Enter Key

USB Caps Lock Override

Scan the barcode Override Caps Lock Key (Enable) to preserve case data regardless of the Caps Lock key state. The default (*) is Disable.



Override Caps Lock Key (Enable)



*Do Not Override Caps Lock Key (Disable)

123Scan

123Scan is an easy-to-use, PC-based software tool that enables rapid and easy customized setup of a scanner via a barcode or USB cable. For more information, go to zebra.com/123scan.

Utility Functionality

- Device configuration
 - Electronic programming (USB cable)
 - Programming barcode(s)
- Data view - scan log (display scanned barcode data)
- Access asset tracking information
- Upgrade firmware and view release notes
- Remote management (SMS package generation).

Scanner Indications

This section provides beeper and LED indications.

Table 1 Scanner Indications

LED	Tone Sequence	Description
Green (stays on)	Low/medium/high beeps	Scanner has power.
Hands-free (Presentation) scanning: Solid Green LED; turns off after decode.	Medium Beep (or as configured)	Good decode.
Hand-held scanning: LED is off; green upon decode.		
Green (blink continuous)	Low beep	Snapshot started.
Red (stays on)	None	Scanner error.
Red (blink continuous)	None	Flashing new software.

Troubleshooting

This section provides information for troubleshooting the scanner.

Problem	Possible Cause	Possible Solutions
No green LED or nothing happens during a capture attempt.	No power to the scanner.	Check the system power.
		Connect the power supply.
		Re-connect loose cables.
Scanner cannot read the barcode.	Interface/power cables are loose.	Re-connect loose cables.
	Scanner is not programmed for the correct barcode type.	Program the scanner to read the type of barcode to be decoded.
	Incorrect communication parameters.	Set the correct communication parameters (baud rate, parity, stop bits, etc.).
	Barcode symbol is unreadable.	Ensure the symbol is not defaced. Try capturing similar symbols of the same code type.
Illumination and aim pattern does not appear.	Hot environment.	Remove the scanner from the hot environment and allow it to cool down.
LED activates, followed by a beep sequence.	Beeper is configured.	Go to Scanner Indications on page 27 for beeper indication descriptions.



NOTE: If the symbol fails to decode even after performing the mentioned checks, refer to either the distributor or Zebra Global Customer Support.

