

# RS5000 and RS5000x

Ring Scanner



**ZEBRA**

## **Quick Start Guide**

2024/08/16

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When contacting support, please have the following information available:

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

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## Introduction

The RS5000/RS5000x scanner is a modular, wearable imager scanner that gives you hands-free barcode scanning capability. The scanner is used with a host device.

The scanner is worn on your index finger and utilizes a thumb-operated trigger. It connects via an interface cable to the host device, which provides power and performs data collection functions.

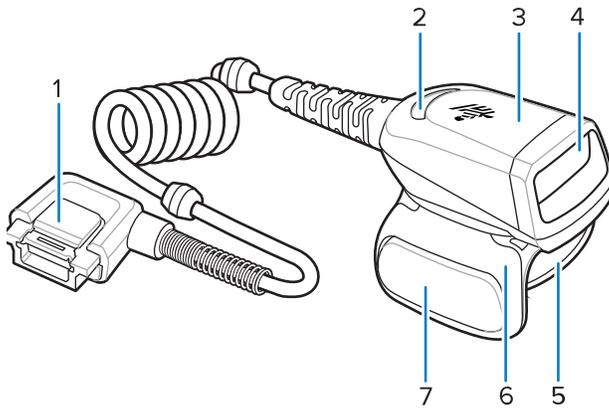
**Table 1** Configurations

Configuration	Description
RS5000-LCFSWR	Short cable for connection to a wrist-mounted WT6000.
RS5000-LCFLWR	Long cable version for connection to a hip-mounted WT6000.
RS5000-LCBSWR	Short cable version with power buffer for connection to a wrist-mounted WT41N0.
RS5000X-TCFSSWR	Short cable for connection to a wrist-mounted WT6000/WT6300/WT6400.
RS5000X-TCFSXWR	Short cable for connection to a wrist-mounted WT6000/WT6300/WT6400 and a freezer-glove finger strap.

## RS5000 Features

The following section shows the features of the RS5000.

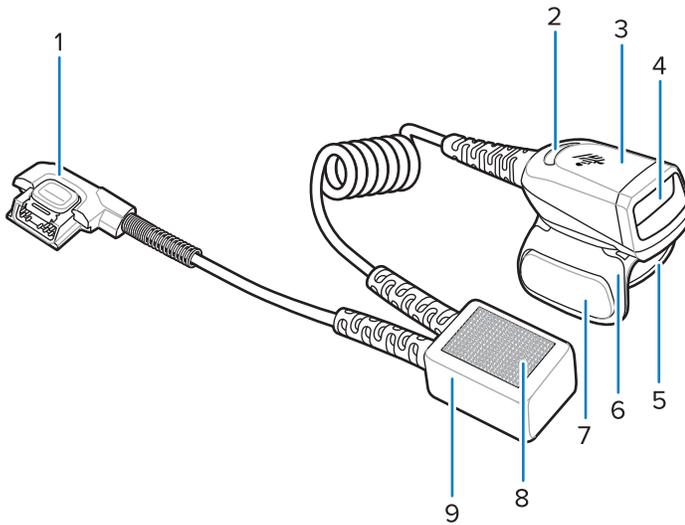
**Figure 1** Short Cable Features



**Table 2** Short Cable Features

Item	Description
1	Connector
2	Decode LED
3	Scan assembly
4	Exit window
5	Finger strap assembly
6	Trigger assembly
7	Scan trigger

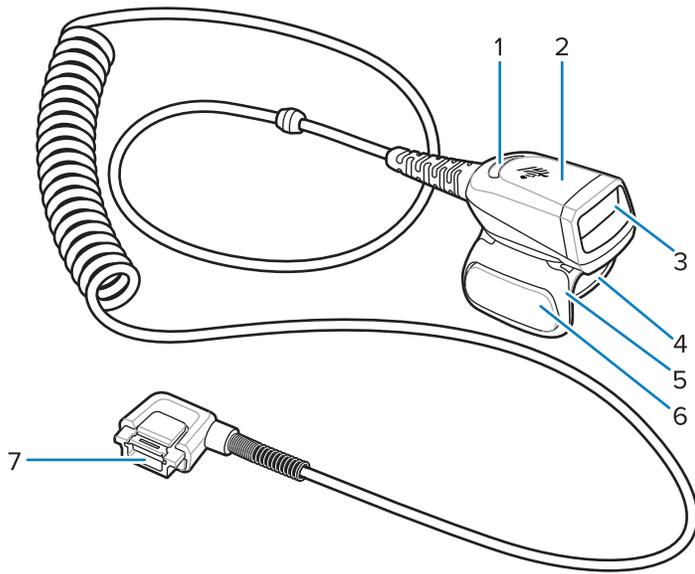
**Figure 2** Short Cable with Power Buffer Features



**Table 3** Short Cable with Power Buffer Features

Item	Description
1	Connector
2	Decode LED
3	Scan assembly
4	Exit window
5	Finger strap assembly
6	Trigger assembly
7	Scan trigger
8	Hook and loop fasteners
9	Power buffer

**Figure 3** Long Cable Features



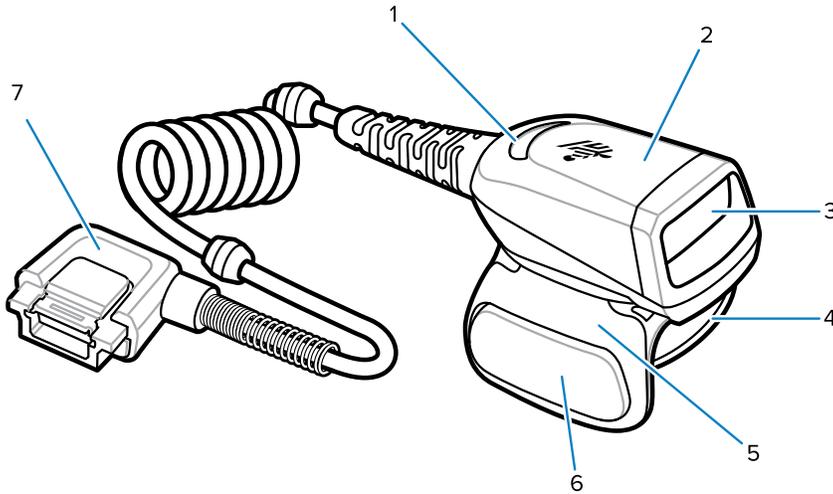
**Table 4** Long Cable Features

Item	Description
1	Decode LED
2	Scan assembly
3	Exit window
4	Finger strap
5	Trigger assembly
6	Scan trigger
7	Connector

## RS5000x Features

This section lists the features of the RS5000x configurations.

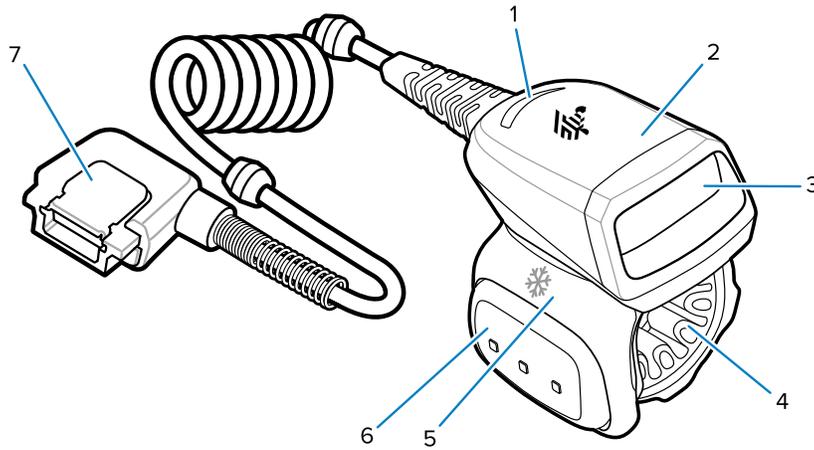
**Figure 4** RS5000x Features



**Table 5** Features

Item	Description
1	Decode LED
2	Scan assembly
3	Exit window
4	Finger strap assembly
5	Trigger assembly
6	Scan trigger
7	Connector

**Figure 5** Freezer Configuration Features



**Table 6** Freezer Configuration Features

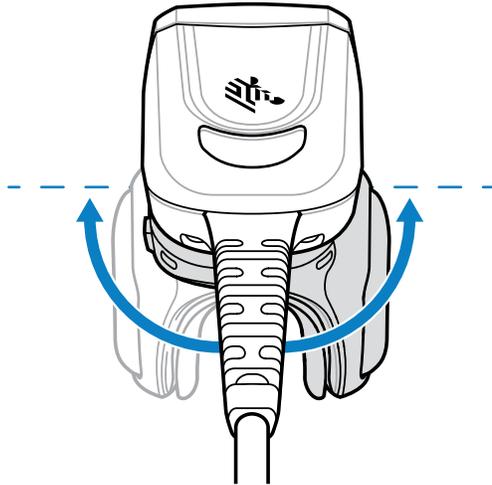
Item	Description
1	Decode LED
2	Scan assembly
3	Exit window
4	Freezer finger strap assembly
5	Trigger assembly
6	Scan trigger
7	Connector

## Changing Trigger Position

The trigger assembly of the device rotates to provide left-hand or right-hand use.

1. Determine whether the scanner is used on the left or right hand.

2. Rotate the trigger assembly so that the scan trigger is positioned next to the thumb when the scanner is placed on the index finger.



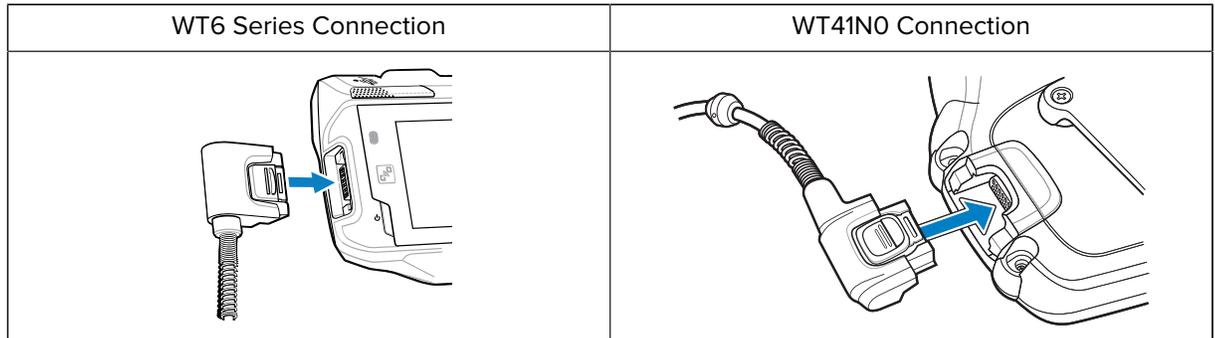
## Connecting the Scanner to a Host Device

The scanner mounts on your finger and connects to a host device, which can be mounted on the wrist or kept on your person.

See the [Configurations](#) table to confirm your scanner/host device connection compatibility.

1. Remove the connector cap (WT41N0 only).
2. Connect the scanner cable to the host device port.

Connect to the port closest to your wrist.



You can now mount the scanner onto your finger.

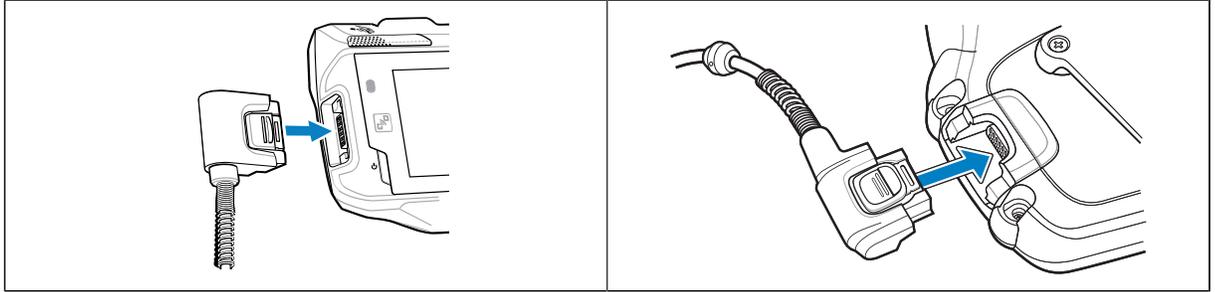
## Connecting the Scanner to a Hip-Mounted Host Device

The scanner mounts on your index finger and connects via a long cable to a hip-mounted host device.

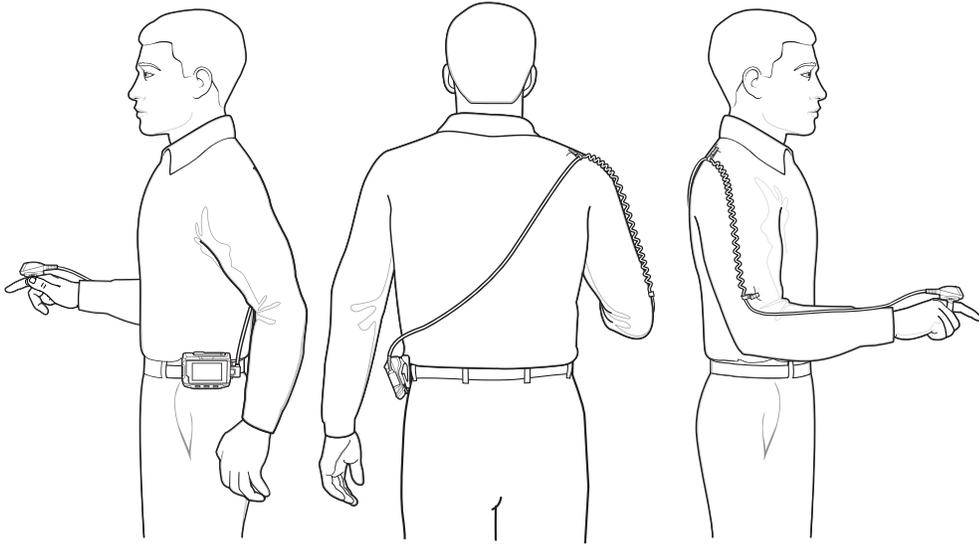
See the [Configurations](#) table to confirm your scanner/host device connection compatibility.

1. Remove the connector cap (WT41N0 only).
2. Connect the scanner cable to the host device port.





3. Route the scanner cable up to your shoulder and down to the hand where you will mount the scanner.
4. Attach two cable clips to your clothing and secure the cable to the cable clips.

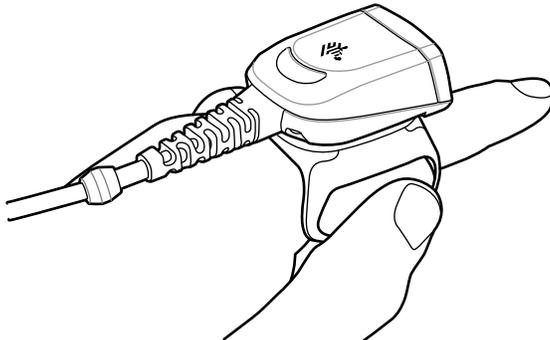


You can now mount the scanner onto your finger.

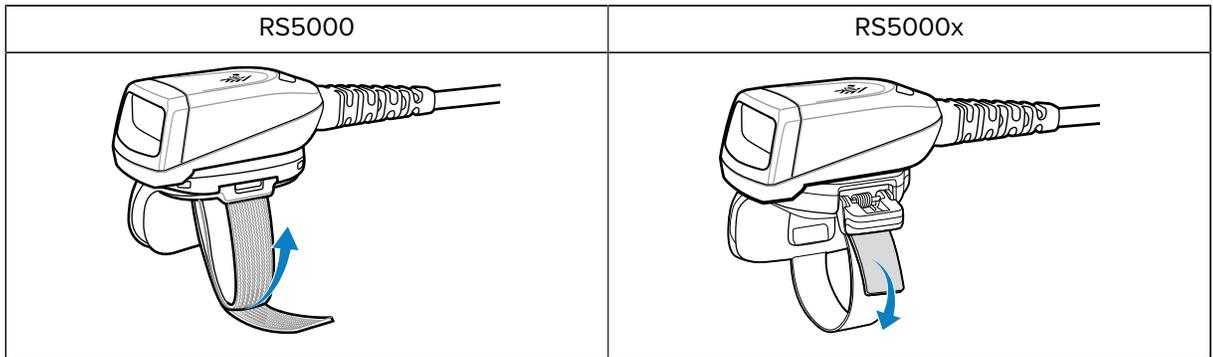
## Mounting the Scanner

The scanner can be mounted on your left or right hand.

1. Rotate the trigger assembly so the trigger is on the same side as your thumb. Go to [Changing Trigger Position](#) for instructions on changing the trigger position.
2. Slide the scanner onto your index finger with the scan trigger next to your thumb.



3. Tighten the finger strap.



4. (Optional, RS5000 only) Cut excess finger strap material.
5. Warm boot the host device. Refer to the host device's manual for warm boot instructions.

## Using the Scanner

Scan barcodes using the scanner when it is connected to the host device.



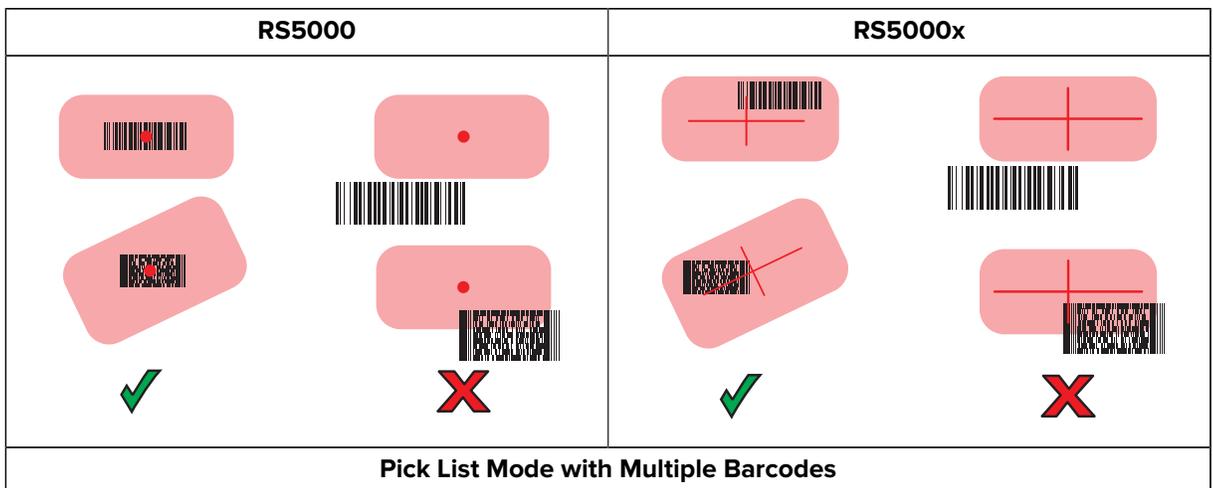
**NOTE:** The scanner should not be used in condensing environments.

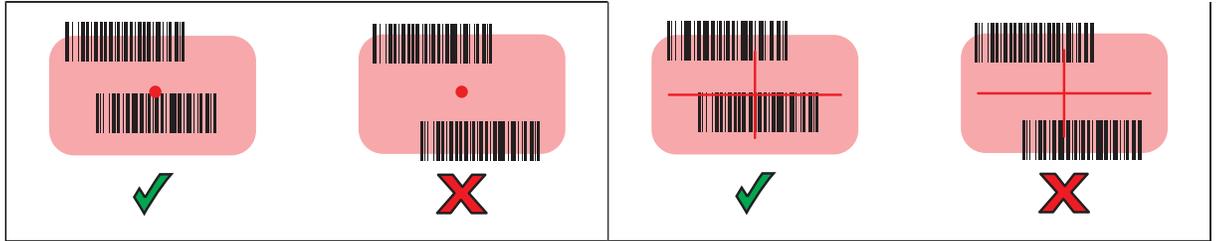
1. Turn on the host device.
2. Launch a scanning application.



**NOTE:** If the RS5000 is connected to a WT41N0, it requires a minute or more to recharge after it is powered down for an extended period of time. Allow a minute for the RS5000 to charge.

3. Press the scan trigger and aim the scanner at a barcode.
4. Ensure the barcode is within the area formed by the aiming pattern. The aiming dot/crosshair is used for increased visibility in bright lighting conditions.





The scanner LED illuminates green on a successful decode.

## Scanning Tips

Consider the scan distance and barcode size to ensure successful scans.

- For larger barcodes, hold the scanner farther away from the barcode.
- For the barcodes with bars that are closer together, hold the scanner closer to the barcode.
- The optimal scanning distance varies with barcode density, but 10–25 cm (4–10 in.) generally works.
- Test scanning distances to determine what distances work best.

## Firmware Update

The scanner can be upgraded with new firmware by downloading it to the scanner's flash memory.

If downloading fails, the previous firmware remains operational. The firmware remains in the scanner's memory even after disconnecting from the host device.

## Viewing the Current Firmware Version

You can check the current firmware version against updated firmware available for the scanner and host device.

1. Connect the scanner to a host device.
2. On the host device, touch  > .
3. Select **Peripherals** > **Device Details**.
4. Scroll down to view the firmware version.

## Updating Firmware

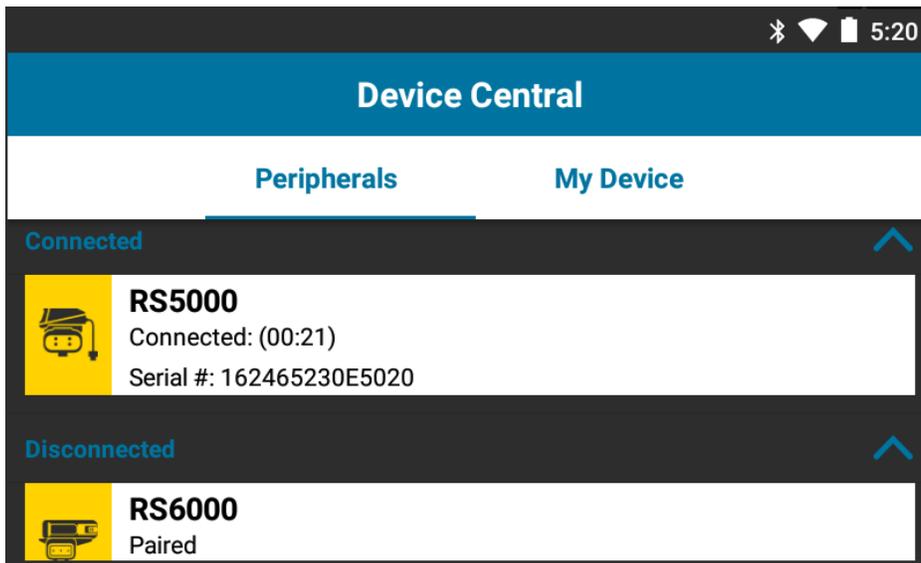
Update the scanner's firmware using the **Device Central** app on a host device.

**Table 7** Scanner and Host Device Compatibility

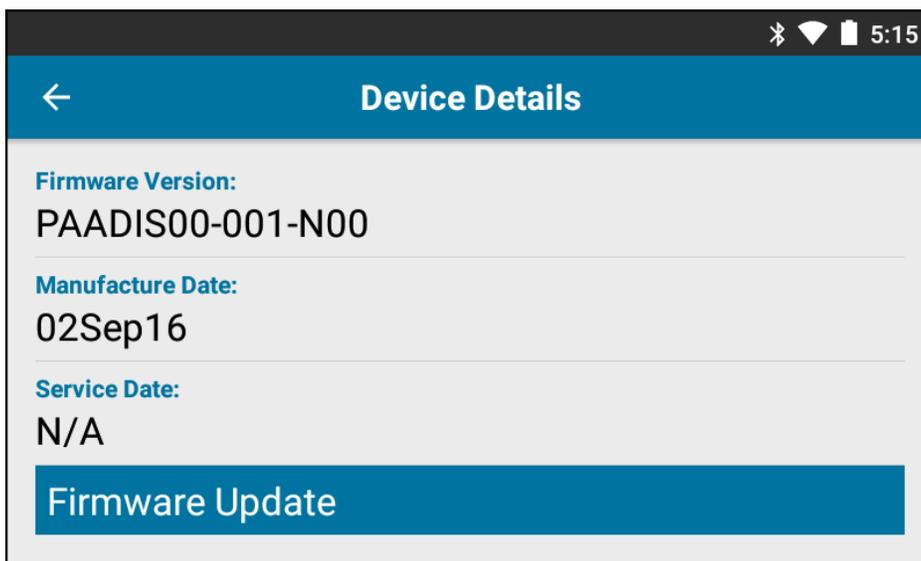
Scanner	Host Device
RS5000	WT6000, WT41N0, WT6300, WT6400
RS5000x	WT6000, WT6300, WT6400

1. Connect the host device to your PC with a USB cable.

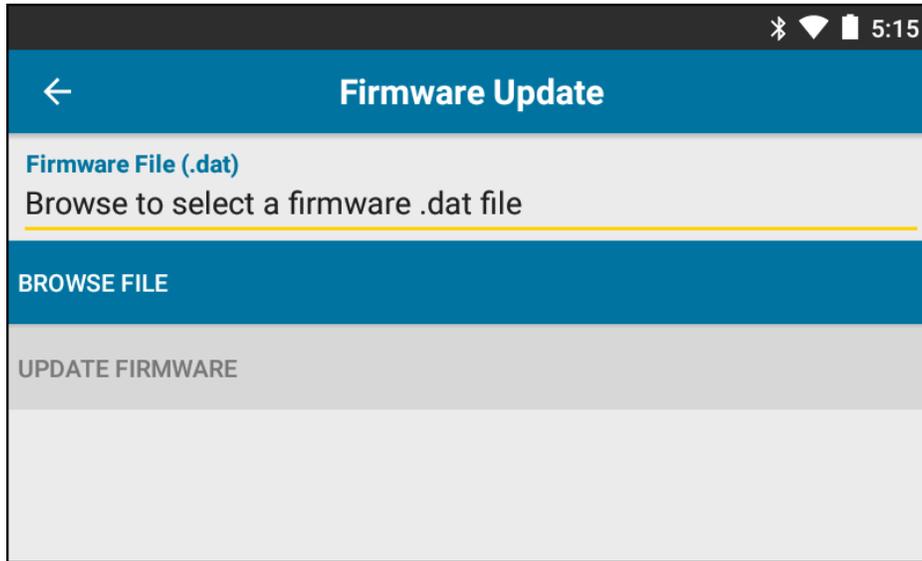
2. On the host PC, download the firmware update package from the Zebra Support website.
  - a) Go to [zebra.com/rs5000-info](http://zebra.com/rs5000-info) and select the correct model from the **Get Support** dropdown menu.
  - b) Select the **Downloads** tab on the support page.
  - c) Download the new firmware file.
3. Save the firmware update file to the host device's terminal in the folder `/sdcard/Android/data/com.symbol.ddevicecentra/files/`.
4. Connect the scanner to the host device.  
Go to [Connecting the Scanner to a Host Device](#) for instructions on connecting the cable.
5. On the host device, touch: ☰ > 📱



6. On the **Peripherals** tab, touch the RS5000/RS5000x peripheral information to open the **Device Details** screen.
7. Scroll to the bottom of the **Device Details** screen and touch **Firmware Update**.

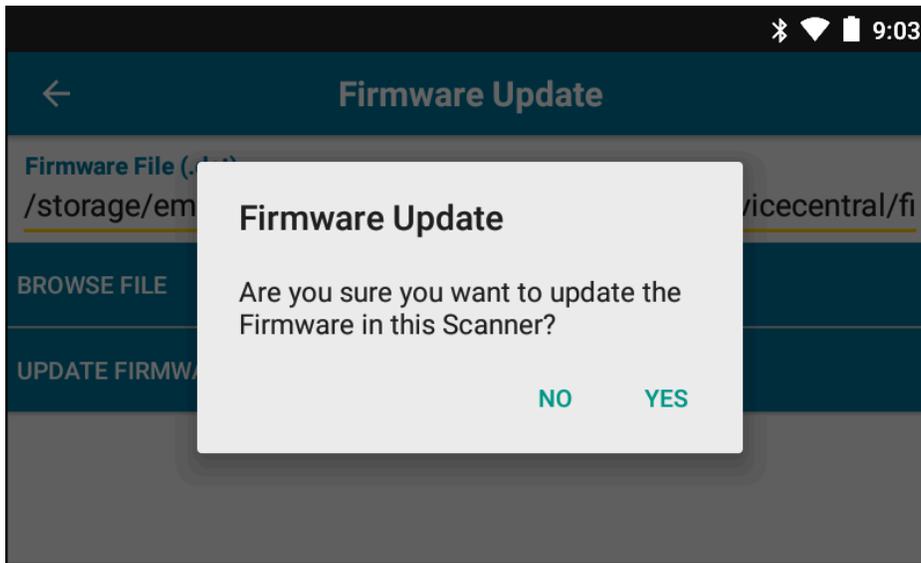


8. Touch **Browse File** and select the firmware upgrade file.

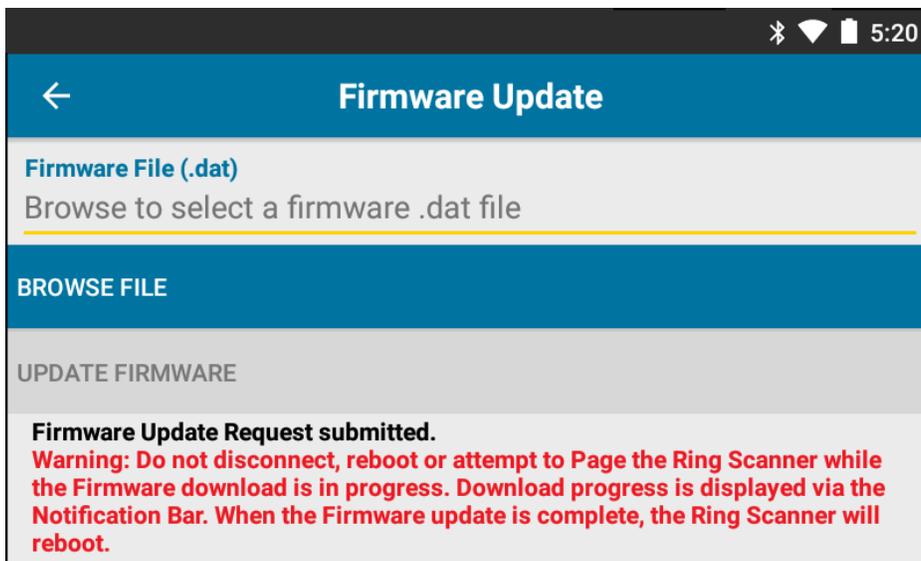


9. Touch **Update Firmware**.

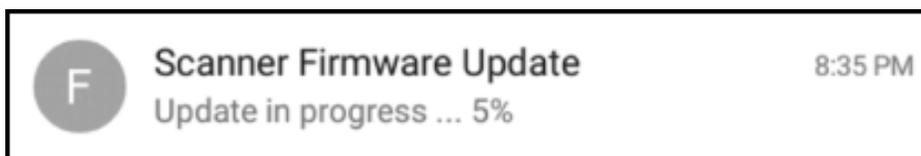
10. Touch **Yes** to confirm the firmware update.



**CAUTION:** When the firmware update begins, do not unplug the scanner.



11. Track the firmware update progress from the host device's notification bar.

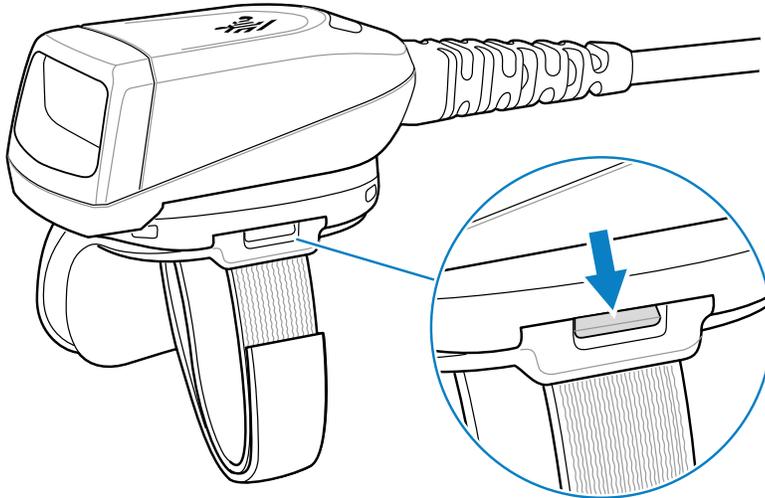


12. When the update is complete, reboot the scanner by disconnecting and reconnecting it to the host device.
13. View the new firmware version on the host device's **Device Details** screen.

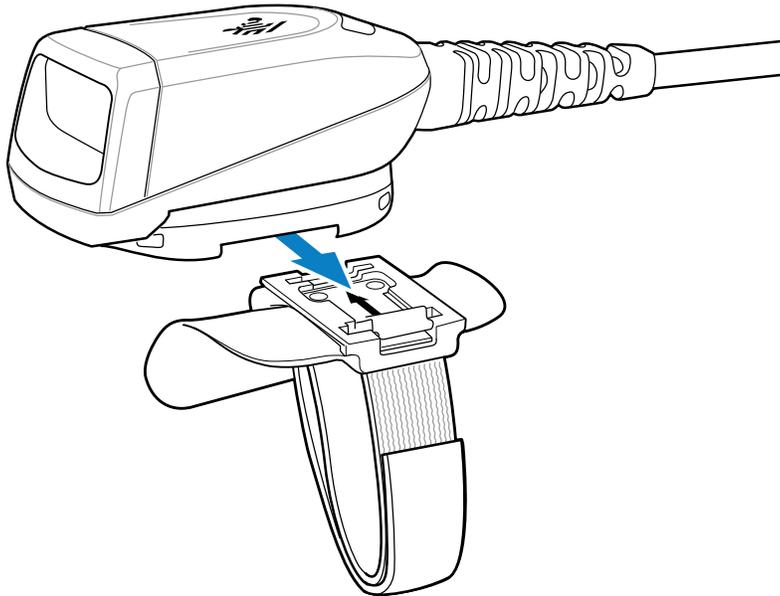
## Replacing the RS5000 Finger Strap Assembly

The finger strap assembly can be changed for each user or when it is worn out.

1. Press down on the finger strap assembly release tab.



2. Slide the finger assembly out of the trigger assembly.



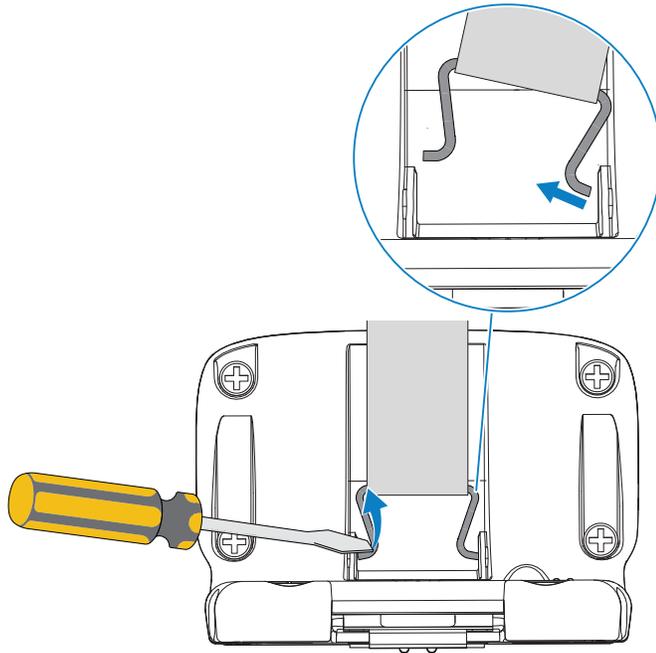
3. Align the new finger strap assembly with the slot in the trigger assembly.
4. Push the finger strap assembly into the trigger assembly until the release tab clicks into place.

## Replacing the RS5000x Finger Strap

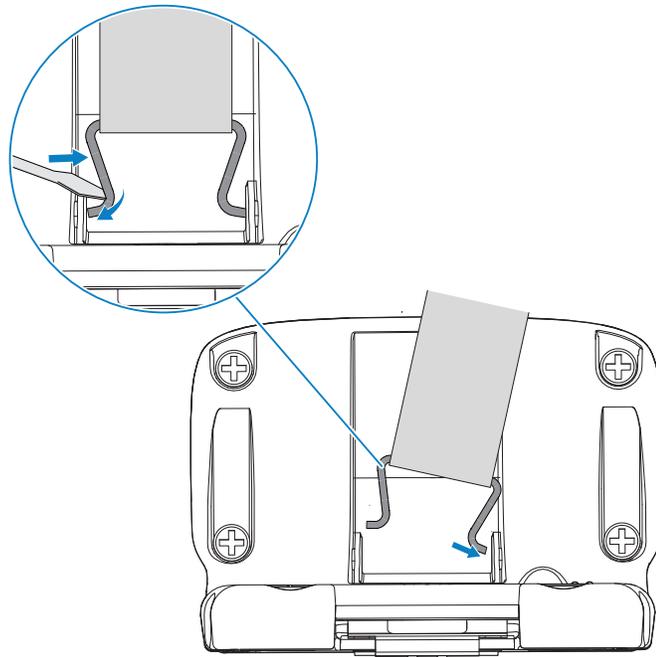
The finger strap can be changed for each user or replaced when it is worn out.

1. Open the strap buckle.

2. Remove the strap from the buckle.
3. Use a small flathead screwdriver to release the strap pin from the trigger assembly.



4. Guide one side of the new strap pin into a slot of the trigger swivel assembly.
5. Use the screwdriver to push the other side of the strap pin into its slot.



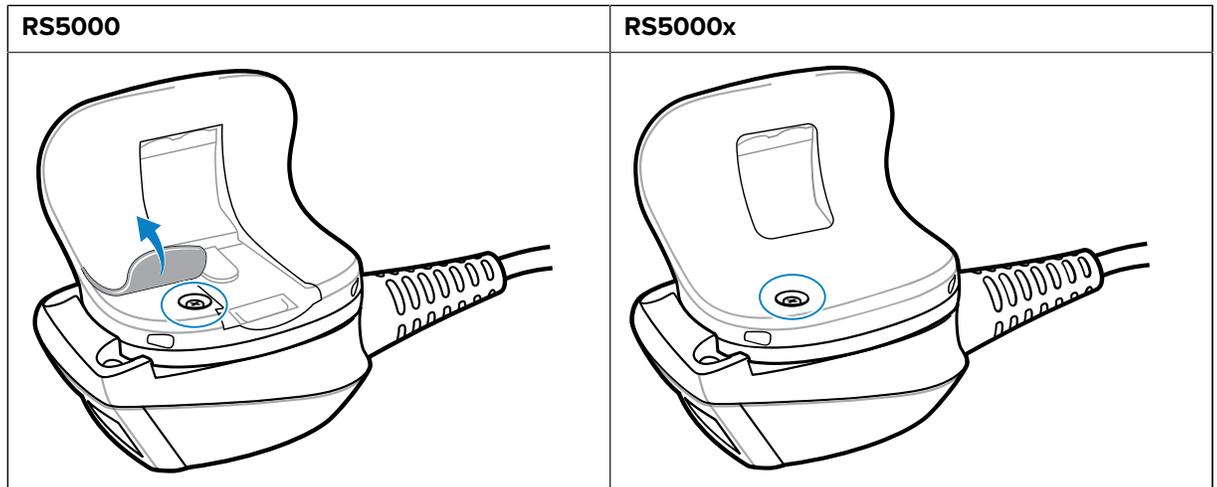
6. Pull the finger strap through the buckle.

## Replacing the Trigger Assembly

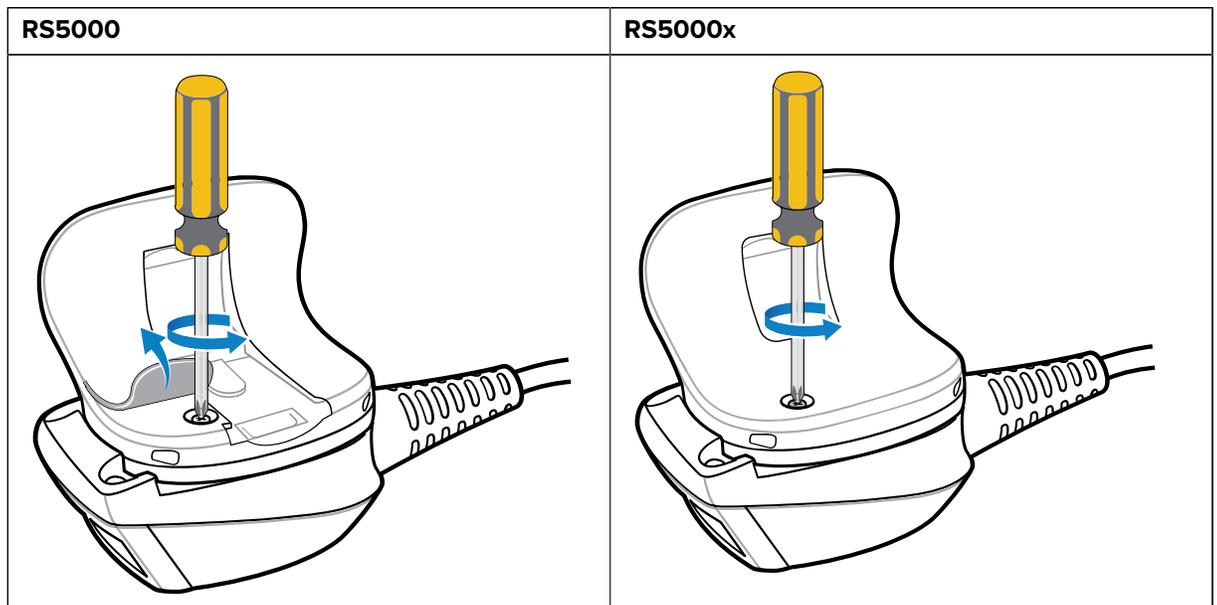
The trigger assembly can be changed when it is worn out.

Before replacing the trigger assembly, disconnect the device from the host computer.

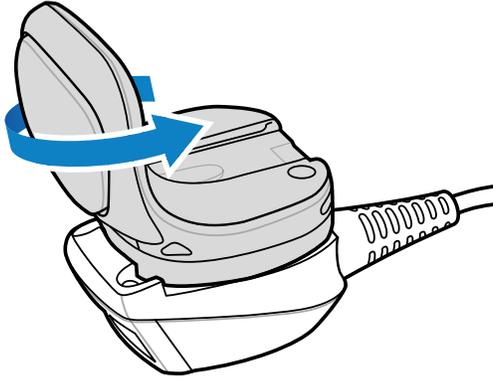
1. Pull the finger strap out of the clasp/buckle to give easier access to the base of the trigger assembly.
2. Turn the scanner upside-down.
3. (RS5000 only) Lift the edge of the comfort pad and locate the set screw.



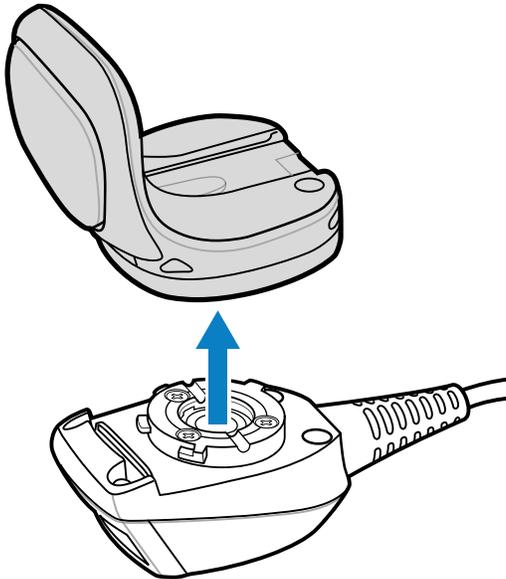
4. Remove the set screw with a Philips screwdriver.



5. Turn the trigger assembly counter-clockwise until the exit window and scan trigger align.



6. Lift the trigger assembly off of the scan assembly.



7. Align the replacement trigger assembly with the scan assembly.
8. Rotate the trigger assembly 1/4 turn clockwise.

## Cleaning

Clean the scanner regularly to ensure scanner longevity and functionality.



**CAUTION:** Always wear eye protection.

Read the warning labels on compressed air and alcohol products before using.

If you have to use any other solution for medical reasons, contact Zebra for more information.



**WARNING:** Avoid exposing this product to contact with hot oil or other flammable liquids. If such exposure occurs, unplug the device and clean the product immediately in accordance with these guidelines.

### Approved Cleanser Active Ingredients

100% of the active ingredients in any cleaner must consist of one or some combination of the following:

- isopropyl alcohol
- bleach/sodium hypochlorite
- hydrogen peroxide
- mild dish soap

### Harmful Ingredients

The following chemicals are known to damage the plastics on the scanner and should not come into contact with the device:

- ammonia solutions
- compounds of amines or ammonia
- acetone
- ketones
- ethers
- aromatic and chlorinated hydrocarbons
- aqueous or alcoholic alkaline solutions
- ethanolamine
- toluene
- trichloroethylene
- benzene
- carboric acid
- TB-lysoform

### Cleaning Instructions

- Do not apply liquid directly to the scanner.
- Dampen a soft cloth or use pre-moistened wipes.
- Do not wrap the device in the cloth. Wipe the device gently.
- Be careful not to let liquid pool around the display window or other places.
- Allow the unit to air dry before use.

### Special Cleaning Notes

The scanner should not be handled while wearing vinyl gloves containing phthalates or before hands are washed to remove contaminant residue after gloves are removed. If products containing any of the harmful ingredients listed above are used before handling the scanner, such as hand sanitizers that contain ethanolamine, hands must be completely dry before handling the scanner to prevent damage to the plastics.

### Cleaning Frequency

The cleaning frequency is up to the customer's discretion due to the varied environments in which the mobile devices are used. They may be cleaned as frequently as required. However, when used in dirty

environments, it may be advisable to periodically clean the scanner exit window to ensure optimum scanning performance.

## Cleaning the Housing

Clean the housing regularly to ensure scanner functionality and longevity.

Required Materials:

- Alcohol wipes
1. Use the alcohol wipes to wipe the housing.
  2. Repeat the process as needed.

## Cleaning the Exit Window

Clean the exit window regularly to ensure scanner functionality and longevity.

Required Materials:

- Lens tissue

Wipe the scanner's exit window periodically with a lens tissue or similar material suitable for cleaning optical materials such as eyeglasses.

## Cleaning the Connector

Clean the connector regularly to ensure scanner functionality and longevity.

Required Materials:

- Cotton-tipped applicators
  - Isopropyl alcohol
  - Can of compressed air with a tube
1. Disconnect the scanner from the wearable terminal.
  2. Dip the cotton portion of the cotton-tipped applicator in isopropyl alcohol.
  3. Rub the cotton portion of the cotton-tipped applicator back and forth across the connector.



**NOTE:** Do not leave any cotton residue on the connector.

4. Use a dry cotton-tipped applicator and repeat steps 3 – 5.
5. Spray compressed air on the connector area by pointing the tube/nozzle about 1.3 cm (0.5 in.) away from the surface.



**NOTE:** Do not point the nozzle at yourself and others. Ensure the nozzle or tube is pointed away from your face.

6. Inspect the area for any grease or dirt.
7. Repeat the process as needed.

## Troubleshooting

The following table includes basic troubleshooting information.

**Table 8** RS5000/RS5000x Troubleshooting

Symptom	Probable Cause	Action
The aiming indicator does not display when pressing the trigger.	Interface cable is not secure.	Verify that the interface cable connection is connected properly.
	Power is not applied to the device.	Power for the scanner is provided by the wearable terminal. Verify that the wearable terminal has a charged battery installed.
	Scan enabled application on the wearable terminal is not running.	Launch scanning application on the wearable terminal.
The device does not decode a barcode.	Barcode is unreadable.	Verify that the barcode is not defective, for example, smudged or broken.
	Exit window is dirty.	Clean exit window with a lens tissue. Tissues for eyeglasses work well. Do not use tissues coated with lotion.
	Symbology is not enabled.	See your system administrator.
Condensation appears on the inside or the outside of the exit window.	Using the ring scanner in a hot and humid environment after being in a freezer environment.	Wipe condensation from the exit window with a soft cloth. For condensation inside the device, dedicate a ring scanner to the freezer and a separate one for hot and humid environments. Do not pass between environments using the same ring scanner.
The device does not connect to the wearable host terminal.	The scanner is not a correct match for the host device.	See your system administrator to provide the correct device.

## Ergonomic Considerations

The scanner allows the user to enjoy the following benefits:

- Reduce or eliminate repetitive motion
- Maintain a natural position
- Reduce or eliminate excessive force
- Keep objects that are used frequently within easy reach
- Perform tasks at correct heights
- Reduce or eliminate vibration
- Reduce or eliminate direct pressure

- Provide adequate clearance
- Provide a suitable working environment
- Improve work procedures

