User Guide

HP Wireless Barcode Scanner

About This Guide

This guide provides information on setting up and using the HP Wireless Barcode Scanner.

⚠ **WARNING!**   Indicates a hazardous situation that, if not avoided, **could** result in death or serious injury.

⚠ **CAUTION:**   Indicates a hazardous situation that, if not avoided, **could** result in minor or moderate injury.

📝 **IMPORTANT:**   Indicates information considered important but not hazard-related (for example, messages related to property damage). A notice alerts the user that failure to follow a procedure exactly as described could result in loss of data or in damage to hardware or software. Also contains essential information to explain a concept or to complete a task.

📝 **NOTE:**   Contains additional information to emphasize or supplement important points of the main text.

☼ **TIP:**   Provides helpful hints for completing a task.

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1   Quick setup

Use the barcodes in this chapter to perform quick setup procedures for common tasks. Scan the following barcode to set the scanner back to the HP defaults.

Set All Defaults

NOTE: Scanning the "Set All Defaults" barcode does not change the interface type.

Scan the following barcode (USB HID Keyboard Emulation) in order to put the HP Wireless Barcode Scanner into the default mode of the scanner.

USB HID Keyboard Emulation

When the scanner is changed between HID and USB COM mode, allow the Windows® operating system a little time to reload the drivers for the scanner.

OPOS driver

The HP Wireless Barcode Scanner is shipped in the human interface device (HID) keyboard emulation mode as the default. In order to use the barcode scanner with OLE for Retail POS (OPOS) drivers, the scanner must be put into USB COM (OPOS) mode.

The barcodes to put the HP Wireless Barcode Scanner into USB COM (OPOS) mode or into HID keyboard emulation are located in this document. Refer to the *HP Wireless Barcode Scanner Programming Reference Guide* (PRG) for a complete list of barcodes. The PRG is available on the optical disc included with the scanner or on the HP support web site.

Scan the following barcode (USB COM OPOS) to put the HP Wireless Barcode Scanner into the mode used with the OPOS drivers.

USB COM (OPOS)

Carriage return

Scan the following barcode to set the scanner back to the factory defaults.

Set All Defaults

📝 **NOTE:** Scanning the "Set All Defaults" barcode does not change the interface type.

If a carriage return is required after each scanned barcode, scan the following barcodes in the order listed:

Enter Programming Mode

Set Global Suffix

0

D

Exit Global Suffix Mode

Exit Programming Mode

Tab

Scan the following barcode to set the scanner back to the factory defaults.

Set All Defaults

📝 **NOTE:** Scanning the "Set All Defaults" barcode does not change the interface type.

If a tab is required after each scanned barcode, scan the following barcodes in the order listed:

Enter Programming Mode

Set Global Suffix

0

9

Exit Global Suffix Mode

Exit Programming Mode

Tab   3

Volume

Scan the following barcode to set the scanner back to the factory defaults.

Set All Defaults

Scan the following barcode to set the volume of the good read beep on the HP Wireless Barcode Scanner:

Enter Programming Mode

Scan one of the four barcodes to set the volume to the desired setting:

Off

Low

Medium

High

Scan the following barcode to exit the programming mode.

Exit Programming Mode

2 Product features

HP Wireless Barcode Scanner

The HP Wireless Barcode Scanner represents the premium level of data collection equipment for general purpose applications. The HP scanner has enhanced optics with improved motion tolerance, allowing codes placed on fast-moving objects to be easily and quickly captured, creating the ideal scanner for tasks requiring high throughput like those found in retail and light industrial environments. The scanner includes the following features:

- **Omni-Directional Operation**: To read a symbol or capture an image, simply aim the scanner and pull the trigger. The HP Wireless Barcode Scanner is a powerful omni-directional scanner, so the orientation of the symbol is not important. The "Green Spot" for good-read feedback helps to improve productivity in noisy environments or in situations where silence is required. When using the product with the cradle at a 45° position, the aiming pattern can work as an aiming system to aid in positioning the barcode for quick and intuitive reading.

- **1D and 2D Symbol Decoding**: Reliably decodes all standard 1D (linear) and 2D barcodes, including:

  — GS1 DataBar™ linear codes

  — Postal Codes (China Post)

  — Stacked Codes (such as GS1 DataBar Expanded Stacked, GS1 DataBar Stacked, GS1 DataBar, Stacked Omnidirectional)

  The data stream — acquired from decoding a symbol — is rapidly sent to the host. The scanner is immediately available to read another symbol.

- **Imaging**: The scanner can also function as a camera by capturing entire images or image portions of labels, signatures, and other items.

NOTE: For safety and regulatory information, refer to the *Product Notices* provided in your documentation kit. To locate updates to the user guide for your product, go to http://www.hp.com/support. Select **Find your product**, and then follow the on-screen instructions.

3 Safety and maintenance

Ergonomic recommendations

⚠ **WARNING!** In order to avoid or minimize the potential risk of ergonomic injury, follow the recommendations below. Consult with your local Health & Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

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

Cleaning procedure

Proper cleaning is needed on the external plastic surfaces, output window, and electrical contacts to guarantee reliable scanning and battery charging.

A regular cleaning routine will remove the dust and dirt that may accumulate on the product over time. The frequency of the cleaning routine depends on the environment in which the scanner is used.

A periodic deeper cleaning is suggested once per month.

Cleaning plastic surfaces

Exterior plastic surfaces and scan windows exposed to spills, smudges, or debris require periodic cleaning to ensure optimal performance during scanning. Use a soft, dry cloth to clean the product.

If the product is heavily soiled, clean the plastic surfaces with a soft cloth moistened with a diluted non-aggressive cleaning solution or isopropyl alcohol (minimum 70%).
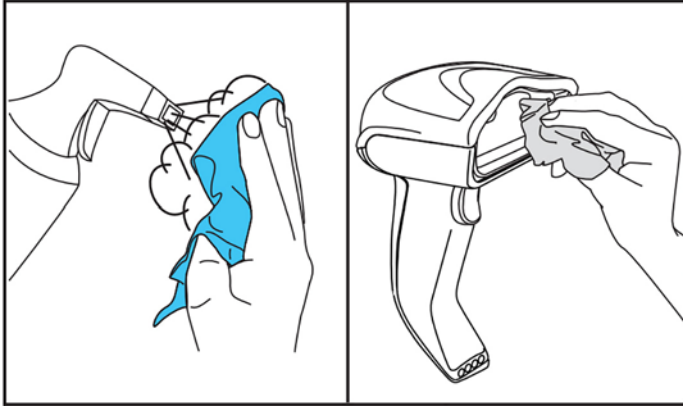
Recommended cleaners for standard plastics are Formula 409® glass and surface cleaner, dish soap and water, and Windex® Original (Blue).

IMPORTANT: Do not use abrasive or aggressive cleansing agents or abrasive pads to clean scan windows, contacts, or plastics.

Do not spray or pour liquids directly onto the unit.

Be sure to turn off power and unplug the device from the electrical source before cleaning.

Be sure the device is completely dry before powering it up.

Cleaners and liquids may be harsh on metal contacts and are recommended for use only on enclosures.

Cleaning electrical contact surfaces

Regular cleaning of electrical contacts is needed to guarantee correct recharging of the battery. Clean the contacts on both the scanner and the cradle.

Proper operation could be affected if spills, smudges, or debris accumulate on the cradle and/or the scanner. To maintain proper operation, periodic cleaning is recommended.

Do not use brushes or any other hard tool to remove grime from electrical contacts because they can damage or scratch the contact's plating.

Scanner contacts

- Use a soft, dry cloth to clean the contact area and the plastic surface around the contacts.
- Be sure to remove dust, dirt, and any cloth residue.

- If the level of grime is significant, use a soft white or pink pencil eraser to gently rub the contacts. The cleaning motion can be along both the green and yellow directions shown below.
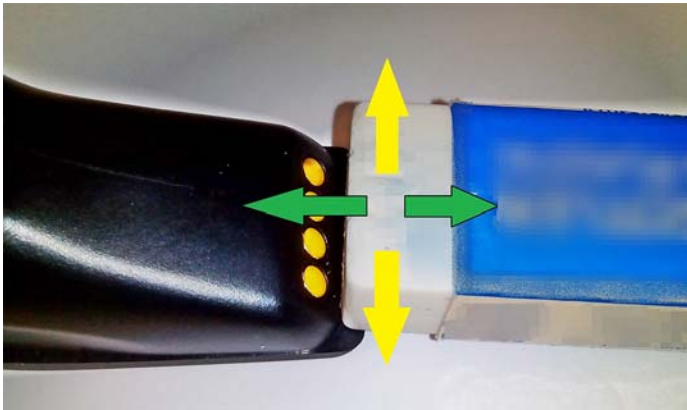
- Be sure to remove the rubber residue by gently blowing the residue off with clean compressed air.

⚠ **CAUTION:** Be careful when using compressed air: protect yourself with goggles and point the nozzle far from eyes and not too close to the scanner surface. Read the warning label on the spray can before using the compressed air.

Cradle contacts

- Use a soft, dry cloth to clean the contact area and the plastic surface around the contacts.

- Be sure to remove dust, dirt, and any cloth residue. Do not allow this material to fall onto the contacts.

- Use of a soft white or pink pencil eraser to gently rub the contacts. Cradle contacts should be cleaned with a motion along the yellow direction shown below.
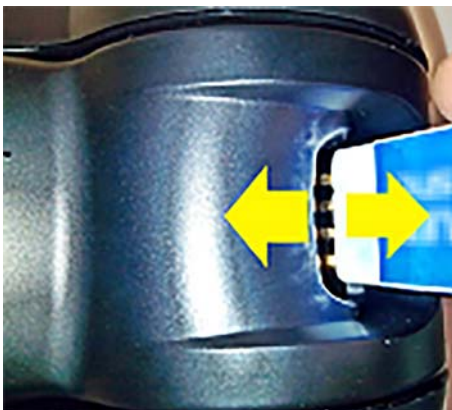
- Be sure to remove the rubber residue by gently blowing the residue off with clean compressed air.

⚠ **CAUTION:** Be careful when using compressed air: protect yourself with goggles and point the nozzle far from eyes and not too close to the scanner surface. Read the warning label on the spray can before using the compressed air.

Scanner and cradle deep cleaning

IMPORTANT: Remove power before initiating the deep cleaning routine.

After completing the deep cleaning routine, allow the system to dry completely before reconnecting power. Depending on the environmental conditions, wait at least 30 minutes or, if possible, leave the system unpowered overnight.

If hard grime, grease, or liquid residue is present on electrical contacts, a deeper cleaning may be needed. If the procedure above does not adequately clean the contacts for proper system operation, the use of isopropyl alcohol is suggested (minimum 70%).

It is suggested that you use a cotton-tipped applicator with isopropyl alcohol, gently wiping along the pins of the electrical connection. Be sure that cotton residue is not left on any pin of the electrical contacts.

4 Setting up and using the scanner

Follow the steps below to connect the scanner and begin communicating with its host.

1. Position the base station (see Positioning the base station on page 10).

2. Connect the base station (see Connecting the base station on page 14).

3. Charge the batteries (see Charging the batteries on page 15).

4. Link to the base station (see Linking the scanner on page 19).

5. Select the interface type (see Selecting the interface type on page 20).

6. Program the scanner as described in Programming the scanner on page 22 (optional, depending on settings needed).

Positioning the base station

The base station/charger can be set up in a desk top application to hold the reader in three different positions (horizontal, standing, or vertical) in order to provide the most comfortable use depending on the needs.

The base station positions and related clips required for the positions are shown below.

Horizontal: This is preferred unless a different position is required.

- Provides maximum ease when inserting the scanner

- Requires minimum effort and allows for the attention required to the customer when docking the scanner
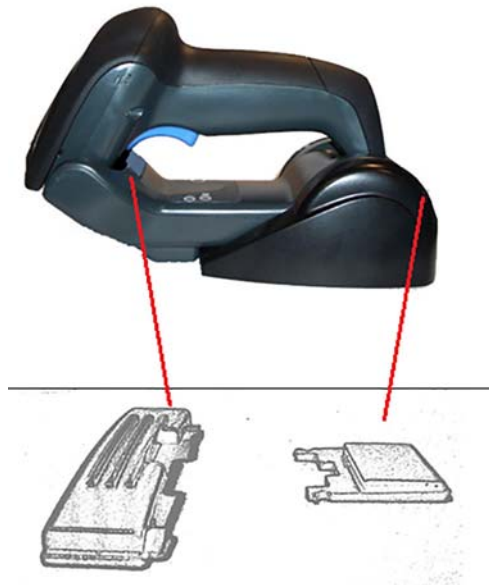
Standing: This is preferred if the scanner is used in stand mode and not often removed from the base station.

Vertical: This is preferred when the lack of room on the desk top requires the scanner to be left vertical during recharging.

To ensure the best contact and performance, do not interchange the parts used for different mounting configurations.

The following errors when mounting the clips may prevent proper engagement of the charging contacts.

● Clip mounted upside down

● Clip not fully inserted

Verify that the rear clips are present and properly inserted. The absence of the rear clip could prevent proper engagement of the charging contacts when in a standing or vertical position.

📝 **NOTE:** A tool such as a rigid pen or a flat-bladed screwdriver can be used to change the mounts. Do not allow it to touch the contacts.

1. Using your thumbs, push open the plastic tabs (1) on the bottom of the base to free the wing holders.
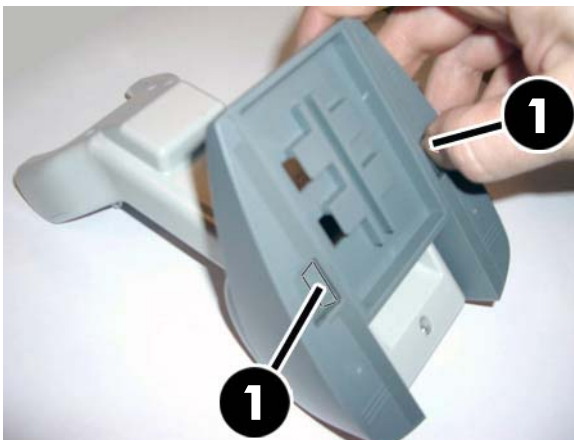
📝 **IMPORTANT:** To ensure best contact and performance, do not intermix the parts of the two different mount sets.

2. The stand can now be repositioned in either horizontal (1) or standing (2) position.

Connecting the base station

You can connect the base station to a terminal, PC, or other host device. Turn off power to the host before connecting and consult the manual for that equipment (if necessary) before proceeding. Connect the interface cable before applying power to the base station.

NOTE: The scanner can also be powered by the terminal. When powered by the terminal, the battery charger is automatically set to slow charge.

Base station connection: Fully insert the Interface (I/F) cable (1) connector into the port on the underside of the base station (2).

Host connection: Connect the Interface (I/F) cable (1) to a USB port on the host.
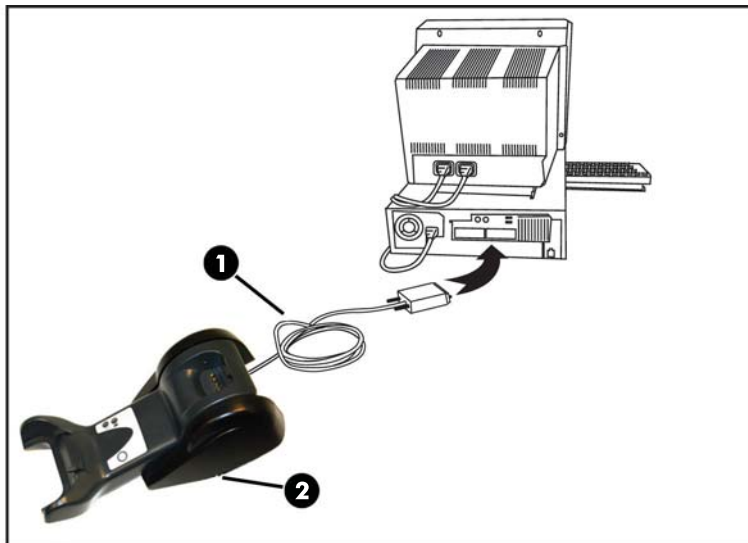
NOTE: The scanner can be set up to require a PIN code when connecting to the host. If you are adding new equipment to a system that uses a custom security PIN, see the *HP Wireless Barcode Scanner Programming Reference Guide* (PRG) for information before proceeding.

Disconnecting the cable: To detach the cable, insert a paper clip or similar object into the hole on the base (1).

Using the base

Base LEDs

LEDs on the base provide information about the base as well as battery charging status, as shown below.
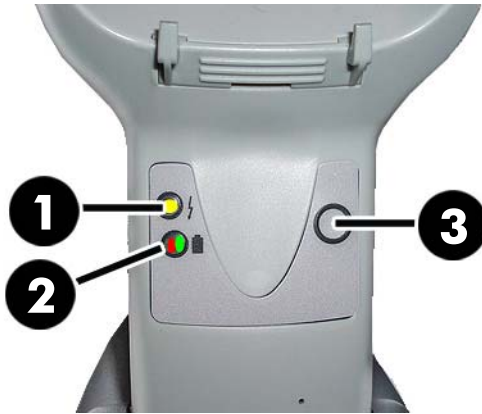
No.	Icon	LED	Status
1	⚡	Power on / data	Yellow on = base is powered. Yellow blinking = base receives data and commands from the host or the reader.
2	🔋	Charging	Red on = the battery is charging.
2	🔋	Charge completed	Green on = the battery is completely charged.
2	🔋	Charging + charge completed	Red and green blinking together = the reader is not correctly placed onto the base.

The button (3) can be used to force device connection via the HP Scanner Configuration Software tool, to force a Bluetooth disconnect, and for paging the scanner when it is activated. Refer to the *HP Wireless Barcode Scanner Programming Reference Guide* (PRG) for a more detailed explanation.

Charging the batteries

To charge the battery, simply insert the scanner into the base. When the scanner is fully seated in the cradle, it will sound a "chirp" to indicate that the cradle has detected the scanner connection.

The LEDs on the base will indicate the status of the battery.

To be sure that proper charging of the battery is in progress, verify that the cradle red LED is steady on when the scanner is placed into its powered cradle. The green LED on the base indicates that the battery is fully charged. If there are other conditions indicated by the cradle's LEDs, verify that the scanner is properly placed in the cradle.

Given the long battery life and the great ergonomics of the scanner, you do not need to place the scanner in the cradle after each barcode reading transaction. Depending on the intensity of use, the scanner may only need to be placed in its cradle at the end of the working shift.

NOTE: Before using the battery, read the following "Battery safety" section. HP recommends annual replacement of rechargeable battery packs to ensure maximum performance.

NOTE: Battery replacement should be done only by a trained technician.

Battery safety

To install, charge, and/or perform any other action on the battery, follow the instructions in this guide.

WARNING! Do not discharge the battery using any device except for the scanner. When the battery is used in devices other than the designated product, it may damage the battery or reduce its life expectancy. If the device causes an abnormal current to flow, it may cause the battery to become hot, explode, or ignite and cause serious injury.

Lithium-ion battery packs may get hot, explode or ignite and cause serious injury if exposed to abusive conditions. Be sure to follow the safety warnings listed in this guide.

Do not place the battery pack in fire or heat.

Do not connect the positive terminal and negative terminal of the battery pack to each other with any metal object (such as wire).

Do not carry or store the battery pack together with metal objects.

Do not pierce the battery pack with nails, strike it with a hammer, step on it or otherwise subject it to strong impacts or shocks.

Do not solder directly onto the battery pack.

Do not expose the battery pack to liquids, or allow the battery to get wet.

Do not apply voltages to the battery pack contacts.

In the event the battery pack leaks and the fluid gets into your eye, do not rub the eye. Rinse well with water and immediately seek medical care. If left untreated, the battery fluid could cause damage to the eye.

Always charge the battery at 32°F – 104°F (0°C – 40°C) temperature range.

Use only the authorized power supplies, battery packs, chargers, and docks supplied by your HP reseller. The use of any other power supplies can damage the device and void your warranty.

Do not disassemble or modify the battery. The battery contains safety and protection devices, which, if damaged, may cause the battery to generate heat, explode, or ignite.

Do not place the battery in or near fire, on stoves or other high temperature locations.

Do not place the battery in direct sunlight, or use or store the battery inside cars in hot weather. Doing so may cause the battery to generate heat, explode, or ignite. Using the battery in this manner may also result in a loss of performance and a shortened life expectancy.

Do not place the battery in microwave ovens, high-pressure containers, or on induction cookware.

Immediately discontinue use of the battery if, while using, charging, or storing the battery, the battery emits an unusual smell, feels hot, changes color or shape, or appears abnormal in any other way.

Do not replace the battery pack when the device is turned on.

Do not remove or damage the battery pack's label.

Do not use the battery pack if it is damaged in any part.

Battery pack usage by children should be supervised.

IMPORTANT: Storage of batteries for a long time at fully charged status or at fully discharged status should be avoided.

To avoid deep discharge during long storage of the battery, it is recommended to partially recharge the battery every three months to keep the charge status at a medium level.

As a reference, run a fast recharge for 20 minutes every three months on unused products to avoid any performance deterioration of the cell.

As with other battery types, Lithium-Ion (LI) batteries will lose capacity over time. Capacity deterioration is noticeable after one year of service whether the battery is in use or not. It is difficult to precisely predict the finite life of a LI battery, but cell manufacturers rate them at 500 charge cycles. In other words, the batteries should be expected to take 500 full discharge/charge cycles before needing replacement. This number is higher if partial discharging/recharging is adhered to rather than full/deep discharging.

The useful life of LI batteries depends on usage and the number of charges, after which they should be removed from service, especially in mission critical applications. Do not continue to use a battery showing excessive loss of capacity. It should be properly recycled / disposed of and replaced.

Collect and recycle waste batteries separately from the device to comply with European Directive 2006/66/EC, 2002/ 95/EC, 2002/96/EC and subsequent modifications, US and China regulatory, and other laws and regulations about the environment.

Replacing the batteries

NOTE: Before proceeding, read Battery safety on page 16. HP recommends annual replacement of rechargeable battery packs to ensure maximum performance.

Use the following procedure to change the scanner's battery:

1. Using a screwdriver, unscrew the battery cover screw (1).

2. Unplug the white connector (1), and remove the two screws (2) securing the battery holder.
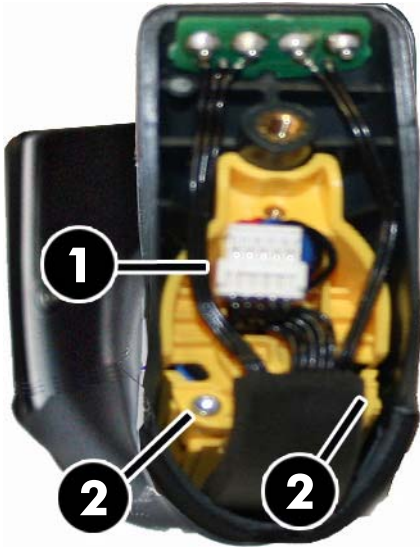
3. Carefully lift out the gold contacts circuit (1), and remove the battery holder cap while letting the white connector pass through the hole (2) in the battery holder (as shown below).
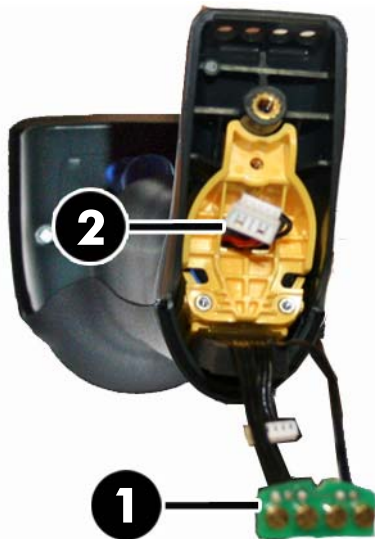
4. Remove the old battery from its place (if present), and insert the new battery in the same position.

5. Replace the battery holder cap, plug in the connector and return the contacts circuit to its previous location.

NOTE: When inserting the new battery into the handle, take care to position the battery and the connector as described above.

6. Insert the cover in the handle and screw it back into place.

Using the scanner

The scanner normally functions by capturing and decoding codes. It is equipped with an internal motion-sensing function that activates the aiming system on device motion. The intelligent aiming system indicates the field of view that should be positioned over the barcode:
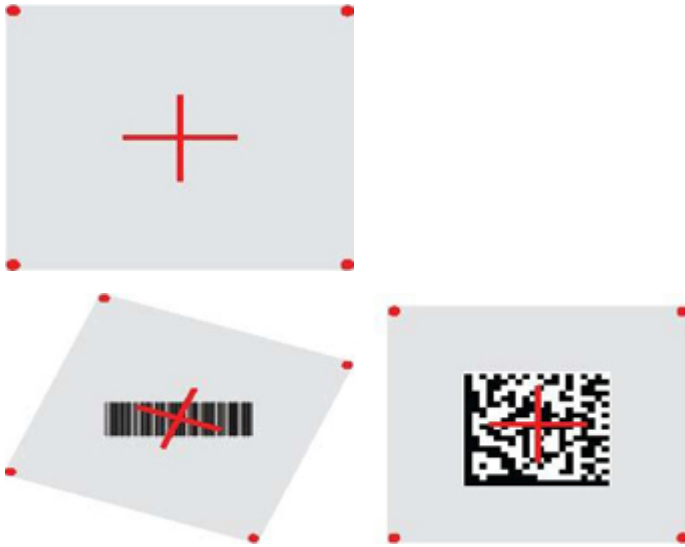
A red beam illuminates the label. The field of view indicated by the aiming system will be smaller when the scanner is closer to the barcode and larger when it is farther from the code. Symbologies with smaller bars or elements (mil size) should be read closer to the unit. Symbologies with larger bars or elements (mil size) should be read farther from the unit.

If the aiming system is centered and the entire barcode is within the aiming field, you will get a good read. Successful reading is signaled by an audible tone plus a good-read green spot LED indicator.

Refer to the *HP Wireless Barcode Scanner Programming Reference Guide* (PRG) for more information about this feature and other programmable settings.

Linking the scanner

Linking RF devices to the base

For RF devices, before configuring the interface it is necessary to link the scanner with the base.

To link the scanner and the base, either press the trigger to wake it, or simply mount into the base to wake up for operation. If the scanner was previously linked to another base, you must first scan the **Unlink** barcode before re-linking to the new base.

Unlink

Linking the scanner to a Bluetooth adapter

1. Install any drivers provided with the Bluetooth adapter.

2. Scan the Enable RF Link to Server label below to make the scanner visible to the host computer.

3. Use the host computer's Bluetooth manager to "Discover new devices" and select "HP Wireless Bluetooth Scanner." If you receive an error message, it may be necessary to disable security on the device.

4. Use an RS-232 terminal program to see incoming data on the port designated by the computer's Bluetooth manager.

Enable RF Link to Server

NOTE: The scanner can be set up to require a PIN code when connecting. If you want to set up a PIN, or when adding new equipment to a system that uses a custom security PIN, see the *HP Wireless Barcode Scanner Programming Reference Guide* (PRG) for information.

Power off

Scan the barcode below to shut off power to the scanner until the next trigger pull.

Power Off
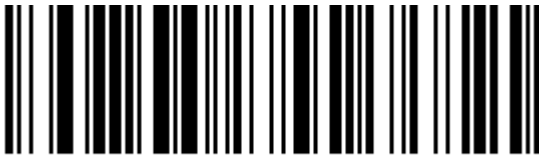
PowerOff

Selecting the interface type

Upon completing the physical connection between the scanner and its host, proceed directly to interface selection below for information and to program the interface type the scanner is connected to (for example: RS-232, USB, etc.) and scan the appropriate barcode to select your system's correct interface type.

USB-COM

USB Com to simulate RS-232 standard interface

Select USB-COM-STD

NOTE: Install the correct USB Com driver from the optical disc included with your product.

USB keyboard interface

Select options for USB keyboard interfaces.

USB keyboard with alternate key encoding

Select USB Alternate Keyboard

USB keyboard with standard key encoding

Select USB Keyboard

Country mode

This feature specifies the country/language supported by the keyboard. The following languages are supported.

Supported country modes		
U.S. English	Norwegian	Korean
UK English	Spanish	Russian
Belgian	Swedish	Hebrew
Danish	Traditional Chinese	Arabic
French	Thai	Greek
French Canadian	Portuguese (EU)	Hungarian
German	Brazilian Portuguese	Slovakian
Italian	Japanese	

See the *HP Wireless Barcode Scanner Programming Reference Guide* (PRG) for information and programming barcodes for this feature.

5 Programming the scanner

The scanner is factory-configured with a set of standard default features. After scanning the interface barcode from the Interfaces section, select other options and customize the scanner through use of the programming barcodes available in the *HP Wireless Barcode Scanner Programming Reference Guide* (PRG). Check the corresponding features section for your interface, and also the Data Editing and Symbologies chapters of the PRG.

Using programming barcodes

This guide contains barcodes that allow you to reconfigure the scanner. Some programming barcode labels, like the "Standard Product Default Settings" in this chapter, require only the scan of that single label to enact the change.

Other barcodes require the scanner to be placed in Programming Mode prior to scanning them. Scan an ENTER/EXIT barcode once to enter Programming Mode; scan the desired parameter settings; scan the ENTER/EXIT barcode again to accept your changes, which exits Programming Mode and returns the scanner to normal operation.

Configure other settings

Additional programming barcodes are available in the PRG to allow for customizing programming features. If your installation requires different programming than the standard factory default settings, refer to the PRG.

Resetting standard product defaults

Refer to the PRG for a listing of standard factory settings. If you aren't sure what programming options are in the scanner, or you've changed some options and want the factory settings restored, scan the "Standard Product Default Settings" barcode below to copy the factory configuration for the currently active interface to the current configuration.

NOTE: Factory defaults are based on the interface type. Configure the scanner for the correct interface before scanning this label.

Standard Product Default Settings

Reading parameters

Move the scanner toward the target and center the aiming pattern and illumination system to capture and decode the image. See Using the scanner on page 19 for more information.

The aiming system will briefly switch off after the acquisition time, and if no code is decoded will switch on again before the next acquisition. The illuminator will remain on until the symbol is decoded.

As you read code symbols, adjust the distance at which you are holding the scanner.

Aiming system

A number of options for customizing control of the aiming system are available. See the *HP Wireless Barcode Scanner Programming Reference Guide* (PRG) for more information and programming barcodes.

Good read green spot duration

Successful reading can be signaled by a good read green spot.

Use the barcodes that follow to specify the duration of the good read pointer beam after a good read.

Enter/Exit Programming Mode

Disabled

Short (300 ms)

Medium (500 ms)

Long (800 ms)

6   Operating modes

Scan mode

The scanner can be set to operate in one of several scanning modes. See the *HP Wireless Barcode Scanner Programming Reference Guide* (PRG) for more information and settings for any of the options.

Trigger Single (default): This mode is associated with typical handheld scanner operation. Motion Sense is active and if the scanner detects motion the aiming pattern is turned on. When the trigger is pulled, illumination is turned on and the scanner attempts to read a label. Scanning is activated until one of the following occurs:

- The programmable "maximum scan on time"[1] has elapsed
- A label has been read
- The trigger is released

Trigger Pulse Multiple: Scanning begins when the trigger is pulled and continues after the trigger is released, until the trigger is pulled again or until the programmable "maximum scan on time"[1] has elapsed. Reading a label does not disable scanning. Double Read Timeout[1] prevents undesired multiple reads while in this mode.

Trigger Hold Multiple: When the trigger is pulled, scanning starts and the product scans until the trigger is released or "maximum scan on time"[1] has elapsed. Reading a label does not disable scanning. Double Read Timeout[1] prevents undesired multiple reads while in this mode.

Always On: The illuminator is always ON and the scanner is always ready for code reading. Double Read Timeout[1] prevents undesired multiple reads.

Flashing: The scanner illuminator flashes on and off regardless of the trigger status. Code reading takes place only during the Flash On[2] time. Double Read Timeout[1] prevents undesired multiple reads.

[1] See the PRG for these and other programmable features.

[2] Controlled by Flash On Time and Flash Off Time. Use the PRG to program these options.

Stand Mode: In Stand Mode, the illumination remains on for a configurable amount of time after a good read occurs. The scanner exits stand mode when movement is detected. If the trigger is activated from Stand Mode, the scanner transitions into one of the triggered modes.

Pick Mode: Specifies a Decoding and Transmission process where barcodes that are not within the configurable distance from the center of the aiming pattern are not acknowledged or transmitted to the host. Pick Mode is active only while the scanner is in Trigger Single mode. If the scanner switches to a different Read Mode, Pick Mode is automatically disabled.

Enter/Exit Programming Mode

Scan Mode = Trigger Single

Scan Mode = Trigger Pulse Multiple

Scan Mode = Trigger Hold Multiple

Scan Mode = Flashing

Scan Mode = Always On

Scan Mode = Stand Mode

Pick Mode = Enabled

Multiple label reading

The scanner offers a number of options for multiple label reading. See the *HP Wireless Barcode Scanner Programming Reference Guide* (PRG) or software configuration tool for descriptions of these features and programming labels.

Stand operation

This feature controls how the scanner behaves when it is placed into a cradle or stand.

- Ignore Autorecognition – Disables mode switching when the scanner is placed in a stand.
- Switch to Stand Mode – Automatically switches the scanner to Stand Mode when the scanner is placed in the stand.
- Switch to Flashing – Automatically switches the scanner to Flash Mode when placed in the stand.
- Switch to Always On – Automatically switches the scanner to Always On mode when placed in the stand.

Enter/Exit Programming Mode

Ignore Autorecognition

Switch to Stand Mode

Switch to Flashing

Switch to Always On

A   Technical support

Contacting support

To resolve a hardware or software problem, go to http://www.hp.com/support. Use this site to get more information about your product, including links to discussion forums and instructions on troubleshooting. You can also find information on how to contact HP and open a support case.

Preparing to call technical support

If you can not solve a problem, you may need to call technical support. Have the following information available when you call:

- If the product is connected to an HP POS computer, provide the serial number of the POS computer
- Purchase date on invoice
- The spares part number located on the product
- Condition under which the problem occurred
- Error messages received
- Hardware configuration
- Name and version of the hardware and software you are using

B   Technical specifications

The following table contains physical and performance characteristics, user environment and regulatory information.

Item	Description
Physical characteristics	
Color	Black
Dimensions	Height 7.1"/181 mm
	Length 3.9"/100 mm
	Width 2.8"/71 mm
Weight (without cable)	Approximately 8.7 ounces / 246 g (reader)
	Approximately 8.7 ounces / 246 g (base charger)
Electrical characteristics	
Battery type	Lithium-Ion battery pack
Typical charge time for full charge from full discharge	Max 22 hours with host power (in this case no supply adapter is needed)[a]
Operating autonomy (continuous reading)	50,000 reads (typical)
Cradle consumption and DC input supply range	Volt 4.75-14 VDC; Power <8W[b]; Max 500 mA when in host/bus powered mode[b]
Performance characteristics	
Light source	LEDs
Roll (tilt) angle[c]	Up to ± 180°
Pitch angle[c]	± 40°
Skew (yaw) angle[c]	± 40°
Field of view	Field of view

[a]Charge times are much lower when battery is within daily typical operating condition.

[b]Typical input current measured under factory default configuration.

[c]Based on ISO 15423 specifications.

Depth of field (typical)[1]	
Symbology	**SR:**
Code 39	5 mil: 1.6" - 7.5" (4.0 - 19 cm);
	10 mil: 0.4" - 11.8" (1.0 - 30 cm);
	20 mil: up to 17.7" (up to 45 cm)

Depth of field (typical)[1]	
Symbology	**SR:**
EAN	7.5 mil: 0.5" - 10.6" (2.0 - 27 cm)
	13 mil: 0.6" - 15.7" (1.5 - 40 cm)
PDF-417	6.6 mil: 1.0" - 5.9" (2.5 - 15 cm);
	10 mil: 0.2" - 8.6" (0.5 - 22 cm);
	15 mil: 0.6" - 13.4" (1.5 - 34 cm)
DataMatrix	10 mil: 0.8" to 6.3" (2.0 - 16 cm)
	15 mil: 0" to 9.3" (0 - 23.6 cm)
QR code	10 mil: 1.2" to 4.9" (3 - 12.5 cm)
	15 mil: 0" to 7.5" (1 - 19.0 cm)
Minimum element width	Standard Range:
	1D Min. Resolution = 4 mil
	PDF-417 Min. Resolution = 5 mil
	Datamatrix Min. Resolution = 7 mil
Print contrast minimum	25% minimum reflectance

[1]   13 mils DOF based on EAN. All other 1D codes are Code 39. All labels grade A, typical environmental light, 20°C, label inclination 10°.

Decode capability

1D Barcodes

- UPC/EAN/JAN (A, E, 13, 8)
- UPC/EAN/JAN (including P2 /P5)
- UPC/EAN/JAN (including; ISBN / Bookland & ISSN)
- UPC/EAN Coupons
- Code 39 (including full ASCII)
- Code 39 Trioptic
- Code39 CIP (French Pharmaceutical)
- LOGMARS (Code 39 w/ standard check digit enabled)
- Danish PPT
- Code 32 (Italian Pharmacode 39)
- Code 128

- Code 128 ISBT
- Interleaved 2 of 5
- Standard 2 of 5
- Interleaved 2 of 5 CIP (HR)
- Industrial 2 of 5
- Discrete 2 of 5
- Datalogic 2 of 5 (China Post Code/ Chinese 2 of 5)
- IATA 2 of 5 Air cargo code
- Code 11
- Codabar
- Codabar (NW7)
- ABC Codabar

- Code 93
- MSI
- PZN
- Plessey
- Anker Plessey
- Follet 2 of 5
- GS1 DataBar Omnidirectional
- GS1 DataBar Limited
- GS1 DataBar Expanded
- GS1 DataBar Truncated
- DATABAR Expanded Coupon

2D / Stacked codes

The scanner is capable of decoding the following symbologies using multiple frames (i.e. Multi-Frame Decoding):

- PDF-417
- QR Code

- Aztec
- Sweden Post

- PDF-417
- MacroPDF

Decode capability

1D Barcodes

- Aztec
- Datamatrix
- Inverse Datamatrix
- Datamatrix is configurable for the following parameters:
  — Normal or Inverted
  — Square or Rectangular Style
  — Data length (1 - 3600 characters)
- Maxicode
- QR Codes (QR, Micro QR and Multiple QR Codes)

- Portugal Post
- LaPoste A/R 39
- 4-State Canada
- Postal Codes
- Australian Post
- Japanese Post
- KIX Post
- Planet Code
- Postnet
- Royal Mail Code (RM45CC)
- Intelligent Mail Barcode (IMB)

- Micro PDF417
- GS1 Composites (1 - 12)
- Codablock F
- French CIP13[a]
- GS1 DataBar Stacked
- GS1 DataBar Stacked Omnidirectional
- GS1 DataBar Expanded Stacked
- GSI Databar Composites
- Chinese Sensible Code
- Inverted 2D codes

[a]It is acceptable to handle this with ULE.

Interfaces Supported	USB Com Std., USB Keyboard, USB (see Selecting the interface type on page 20 for a listing of available interface options)

User environment

Operating temperature	32°F to 122°F (0°C to 50°C)
Storage temperature	-4°F to 158°F (-20°C to 70°C)
Humidity	Operating: 5% to 90% relative humidity, non-condensing
Drop specifications	Scanner withstands 18 drops from 1.8 meters (5.9 feet) to concrete
Ambient light immunity	Up to 100,000 Lux
Contaminants spray/rain dust/particulates	IEC 529-IP52 (scanner only)
ESD level	15 KV

Regulatory

Complies with FDA performance standards for laser products except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.

Radio features

Frequency range	2400 MHz to 2483.5 MHz
Range (in open air)	30 m

LED and beeper indications

The scanner's beeper sounds and its LED illuminates to indicate various functions or errors on the scanner. An optional "Green Spot" also performs useful functions. The following tables list these indications. One exception to the behaviors listed in the tables is that the scanner's functions are programmable, and so may or may not be turned on. For example, certain indications such as the power-up beep can be disabled using programming barcode labels.

Indicator	Description	LED	Beeper
Power-up beep	The scanner is in the process of powering up.	N/A	Scanner beeps four times at highest frequency and volume upon power-up.
Good read beep	A label has been successfully scanned by the scanner.	LED behavior for this indication is configurable via the feature "Good Read: When to Indicate" (see the *HP Wireless Barcode Scanner Programming Reference Guide* for information).	The scanner will beep once at current frequency, volume, mono/bitonal setting and duration upon a successful label scan.
ROM failure	There is an error in the scanner's software/ programming.	Flashes	Scanner sounds one error beep at highest volume.
Limited scanning label read	Indicates that a host connection is not established.	N/A	Scanner 'chirps' six times at the highest frequency and current volume.
Scanner active mode	The scanner is active and ready to scan.	The LED is lit steadily[1]	N/A
Scanner disabled	The scanner has been disabled by the host.	The LED blinks continuously	N/A
Green spot[1] flashes momentarily	Upon successful read of a label, the software shall turn the green spot on for the time specified by the configured value.	N/A	N/A
Image capture	When ready to capture image.	Blue light flashes 2 times when updating	N/A

[1]　Except when in sleep mode or when a good read LED duration other than 00 is selected

Programming mode - The following indications ONLY occur when the scanner is in Programming mode.

Indicator	Description	LED	Beeper
Label programming mode entry	A valid programming label has been scanned.	LED blinks continuously	Scanner sounds four low frequency beeps.
Label programming mode rejection of label	A label has been rejected.	N/A	Scanner sounds three times at lowest frequency and current volume.
Label programming mode acceptance of partial label	In cases where multiple labels must be scanned to program one feature, this indication acknowledges each portion as it is successfully scanned.	N/A	Scanner sounds one short beep at highest frequency and current volume.

Indicator	Description	LED	Beeper
Label Programming Mode Acceptance of Programming	Configuration option(s) have been successfully programmed via labels and the scanner has exited programming mode.	N/A	Scanner sounds one high frequency beep and 4 low frequency beeps followed by reset beeps.
Label Programming Mode Cancel Item Entry	Cancel label has been scanned.	N/A	Scanner sounds two times at low frequency and current volume.

Error codes

Upon startup, if the scanner sounds a long tone, this means the scanner has not passed its automatic Selftest and has entered FRU (Field Replaceable Unit) isolation mode. If the scanner is reset, the sequence will be repeated.

The following table describes the LED flashes/beep codes associated with an error found.

Number of LED flashes/beeps	Error	Corrective action
1	Configuration	Contact Help desk for assistance
2	Interface PCB	Contact Help desk for assistance
6	Digital PCB	Contact Help desk for assistance
12	Imager	Contact Help desk for assistance
15	Accelerometer	Contact Help desk for assistance