FLB3508/3578 Cradle
Quick Reference Guide
© 2015 Symbol Technologies Corporation

No part of this publication may be reproduced or used in any form, or by any electrical or mechanical means, without permission in writing from Zebra. This includes electronic or mechanical means, such as photocopying, recording, or information storage and retrieval systems. The material in this manual is subject to change without notice.

The software is provided strictly on an “as is” basis. All software, including firmware, furnished to the user is on a licensed basis. Zebra grants to the user a non-transferable and non-exclusive license to use each software or firmware program delivered hereunder (licensed program). Except as noted below, such license may not be assigned, sublicensed, or otherwise transferred by the user without prior written consent of Zebra. No right to copy a licensed program in whole or in part is granted, except as permitted under copyright law. The user shall not modify, merge, or incorporate any form or portion of a licensed program with other program material, create a derivative work from a licensed program, or use a licensed program in a network without written permission from Zebra. The user agrees to maintain Zebra’s copyright notice on the licensed programs delivered hereunder, and to include the same on any authorized copies it makes, in whole or in part. The user agrees not to decompile, disassemble, decode, or reverse engineer any licensed program delivered to the user or any portion thereof.

Zebra reserves the right to make changes to any software or product to improve reliability, function, or design.

Zebra does not assume any product liability arising out of, or in connection with, the application or use of any product, circuit, or application described herein.

No license is granted, either expressly or by implication, estoppel, or otherwise under any Zebra intellectual property rights. An implied license only exists for equipment, circuits, and subsystems contained in Zebra products.

Zebra and the Zebra head graphic are registered trademarks of ZIH Corp. The Symbol logo is a registered trademark of Symbol Technologies, Inc., a Zebra Technologies company.

Zebra Technologies Corporation
Lincolnshire, IL U.S.A.
http://www.zebra.com

Warranty

For the complete Zebra hardware product warranty statement, go to:
Introduction

The FLB3508/3578 cordless scanner cradle acts as a stand, host communication interface and charger for the LS3578 cordless scanner. It attaches to a mounting bracket using three isolators. The bracket is then mounted on the forklift surface. The FLB3578 cradle receives data from the scanner via a Bluetooth radio, and sends that data to the host through an attached cable. The cradle also charges the scanner's internal battery pack when the scanner is inserted. A portable power supply on the forklift supplies power to the cradle. This document provides basic instructions on setting up and using the cradle.

CAUTION LS3478 cordless scanners are incompatible with FLB3508/3578 cradles. LS3578 cordless scanners are incompatible with FLB3408/3478 cradles.

Equipment Supplied

The cradle package includes:

- Cradle
- Mounting bracket with isolators
- Three 8-32 x 1.5" Philips head screws (for attaching cradle to mounting bracket).

Accessories

The following equipment may be needed:

- Four 1/4-20 screws, minimum length 1.0" (for fastening bracket to mounting surface).

Save the shipping container for storing or shipping. Inspect all equipment for damage. If anything is damaged or missing, call an authorized Zebra business Support Center immediately.

Related Documentation


This documentation is available at: [http://www.zebra.com/support](http://www.zebra.com/support).
The Mounting Bracket
The mounting bracket is used to install the cradle on a forklift. Mount the bracket so that the cradle is within the user’s reach envelope. The recommended reach envelope has a radius of 15" measured from the front of the user’s shoulder to the scanner grip. Three isolators ensure secure attachment with minimized vibration. The bracket has holes that provide access the host and power ports, and enable securing the cables.
with cable ties.

CAUTION Ensure the Converter Knob is in the position shown above. If not, rotate the knob counterclockwise to activate latches.
Cradle Connections

**IMPORTANT** Connect the interface cable and power supply (if necessary) in the following order to ensure proper operation of the scanner and cradle.

1. Insert the interface cable from the host computer into the cradle’s host port.
2. Connect the forklift power supply to the cradle’s power port, if applicable.
3. Optional: Thread the host cable over the cable hook and run the host and power cables into their respective cable grooves, or use cable ties to secure them to the mounting plate after it is attached to the cradle (see Mounting the Cradle on the Forklift).
4. Pair the scanner with the cradle by scanning the pairing bar code on the cradle.
5. If necessary, scan the appropriate host bar code (for non-autodetected interfaces). See the Product Reference Guide.

**Changing the Host Interface**

To connect to a different host, or to the same host through a different cable:

1. Unplug the power supply from the cradle, if used.
2. Unplug the interface cable from the host.
3. Connect the interface cable to the new host, or the new interface cable to the existing host.
4. Reconnect the power supply, if required.
5. If necessary, scan the appropriate host bar code (for non-autodetected interfaces). Refer to the Product Reference Guide.

**CAUTION** If the scanner does not recognize the host, disconnect the power supply, then reconnect after connecting the host cable.
Mounting the Cradle on the Forklift

1. Consult an environmental health and safety manager to determine an appropriate mounting location within the recommended 15” reach envelope.

2. Ensure the converter knob is in the correct position (see Caution in The Mounting Bracket section).

3. Attach the host and power cables to the appropriate ports (see Cradle Connections).

4. Position the cradle with the screw holes in the cradle aligning with the holes in the isolators.

5. Attach the cradle to the bracket using three 8-32 x 1.5” Philips screws through the cradle and isolator holes.

6. Mark the mounting surface through the four screw holes on the mounting bracket, or use the mounting template to determine the location of the screw holes.

7. Pre-drill holes into the mounting surface to accommodate four 1/4-20, minimum 1.0” length, Philips head screws.

8. If desired, thread cable ties through the holes on each side of the bracket and secure the host and power cables along the edges of the bracket.

9. Attach the bracket to the mounting surface.

10. Place the scanner in the cradle.
Inserting the Scanner in the Cradle

To insert the scanner in the cradle, insert the scanner top first. Then, push the handle until it clicks into place, engaging the contacts in the cradle and scanner.

Sending Data to the Host Computer

The cradle receives data from the scanner via a wireless radio connection and transmits it to the host computer via the host cable. The scanner and cradle must be paired for successful wireless communication.

Pairing

Pairing registers a scanner to the cradle such that the scanner and cradle can exchange information. The FLB3578 operates in two modes: scanner-to-cradle and multi scanner-to-cradle. In scanner-to-cradle mode, the scanner is paired to the cradle either by insertion into the cradle (if pairing on insertion is enabled), or by scanning the pairing bar code. In multi scanner-to-cradle mode, up to three scanners can be paired to one cradle. A multipoint bar code must be scanned to activate this feature.

The cradle includes a pairing bar code on its front. To pair the scanner with the cradle, scan the pairing bar code. A high-low-high-low beep sequence followed by a low-high beep sequence indicates successful pairing and connection to the remote device. A long low, long high beep sequence indicates unsuccessful pairing. Refer to the Product Reference Guide for more information.

Lost Connection to Host

If scanned data does not transmit to the cradle’s host, ensure that all cables are firmly inserted and the power supply is connected to an appropriate AC outlet, if applicable. If scanned data still does not transmit to the host, reestablish a connection with the host:

1. Disconnect the power supply from the cradle.
2. Disconnect the host interface cable from the cradle.
3. Wait three seconds.
4. Reconnect the host interface cable to the cradle.
5. Reconnect the power supply to the cradle, if required.
6. Reestablish pairing with the cradle by scanning the pairing bar code.

**NOTE** The FLB3578 does not always require a power supply, depending on the host interface.

Charging the Scanner Battery in the Cradle

To charge the scanner battery, place the scanner in the cradle (see Inserting the Scanner in the Cradle). The battery begins charging when the scanner LED indicator starts flashing green. A complete charge of a fully discharged battery can take up to four hours using external power and up to 10 hours using the interface cable.
Scanner LED Indicators
The green LED on the scanner indicates charging activity (see the table below). If the scanner is charging in fast mode (non-bus powered mode), the green LED blinks at a fast rate. If the scanner is charging in slow mode (bus-powered mode), the LED blinks at a slow rate. If the red LED on the scanner begins flashing, indicating a charging problem, remove the scanner from the cradle and replace the battery. If the red LED continues flashing, contact a Zebra business Support Center.

<table>
<thead>
<tr>
<th><strong>Standard Scanner Use LED Sequences</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
</tr>
<tr>
<td>Green</td>
</tr>
<tr>
<td>Red</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Charging Use LED Sequences</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Slow Flash</td>
</tr>
<tr>
<td>Green Fast Flash</td>
</tr>
<tr>
<td>Red and Green Flash</td>
</tr>
</tbody>
</table>

Using a Host Interface to Supply Power
Some hosts can provide power to the cradle via the host interface, instead of an external power supply.

Troubleshooting
If the cradle does not work after following the previous procedures:
- Check the system power.
- Check for loose cable connections.
- Check that the scanner is inserted properly in the cradle.
- Check that the host settings are correct and the cradle is connected to the appropriate port on the host.

⚠️ CAUTION Do not pour, spray, or spill any liquid on the cradle.

Mounting Template
Refer to the English version of this guide (p/n 72-94604-xx ) for a mounting template.
Health and Safety Recommendations

Ergonomic Recommendations

Caution: 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.
FCC

References to the "current edition" in this document refer to the 15th Edition of the FCC Rules and Regulations. The FCC requires that this device meet two sets of regulations: (1) The FCC Interference Handbook, Chapter 7, Section 7.803, which addresses interference to the public service, and (2) The FCC Interference Handbook, Chapter 10, Section 10.13, which addresses interference to all other equipment.

Industry Canada - Canada's Regulatory Body

Industry Canada requires that this device comply with its RSS 201 Regulations. The device and its accessories must be installed and used in accordance with the user manual. The device must not cause interference and must accept any interference, including interference that may cause undesired operation.

Declarations Regulamentares para Symbol STB3578 (LMX5452) BRAZIL

NOTA: A marca de certificação se aplica ao Equip. de Radiação Restrita, modelo Symbol STB3578. Este equipamento opera em caráter secundário, isto é, não tem direito à proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.

Para maiores consultas sobre ANATEL consulte o site: www.anatel.gov.br

(EEA) CE Marking

The symbol on the device indicates that it complies with EU Directives and is CE marked. The device is designed to operate within the frequency bands of 2.4835 to 2.495 GHz. It is intended for use in Class 2 applications. The maximum output power is 200 mW EIRP.

Zebra Technologies Corporation

This device meets the requirements of the Zebra Decal and is intended for use in the following countries and regions:

- http://www.zebra.com/doc
- http://www.zebra.com/doc
Waste Electrical and Electronic Equipment (WEEE)


English: For EU Customers: All products at the end of their life must be returned to Zebra for recycling. For information on how to return product, please go to: http://www.zebra.com/weee.


Italiano: per i clienti dell'UE: tutti i prodotti che sono giunti al termine del rispettivo ciclo di vita devono essere restituiti a Zebra al fine di consentirne il riciclaggio. Per informazioni sulle modalità di restituzione, visitare il seguente sito Web: http://www.zebra.com/weee.


**Português:** Para clientes da UE: todos os produtos no fim de vida devem ser devolvidos à Zebra para reciclagem. Para obter informações sobre como devolver o produto, visite: http://www.zebra.com/weee.

**Românesc:** Pentru clienţii din UE: Toate produsele, la sfârşitul duratei lor de funcţionare, trebuie returnate la Zebra pentru reciclare. Pentru informaţii despre returnarea produsului, accesaţi: http://www.zebra.com/weee.

**Slovenski:** Za kupce v EU: vsi izdelki se morajo po poteku življenjske dobe vrniti podjetju Zebra za reciklažo. Za informacije o vračilu izdelka obiščite: http://www.zebra.com/weee.


**Suomi:** Asiakkaat Euroopan unionin alueella: Kaikki tuotteet on palautettava kierrätettäväksi Zebra-yhtiöön, kun tuotetta ei enää käytetä. Lisätietoja tuotteen palauttamisesta on osoitteessa http://www.zebra.com/weee.


**Türkçe:** AB Müşterileri için: Kullanım süresi dolan tüm ürünler geri dönüştürme için Zebra'ya iade edilmelidir. Ürünlerin nasıl iade edileceği hakkında bilgi için lütfen şu adresi ziyaret edin: http://www.zebra.com/weee.
Service Information

If you have a problem using the equipment, contact your facility’s Technical or Systems Support. If there is a problem with the equipment, they will contact the Zebra Support at: http://www.zebra.com/support.

For the latest version of this guide go to: http://www.zebra.com/support.