



# Wasp WWS750-BS Base Station



**Quick Reference Guide**

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### **Patents**

This product is covered by one or more of the following patents:

Design patents: EP002577189, USD757732, ZL201530128521.0

Utility patents: EP1873886B1, US7948214, ZL200780030808.2.

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# Using the WWS750-BS Base Station

The WWS750-BS Presentation Base, when paired with one or more WWS750 reader, builds a Cordless Reading System for the collection, decoding and transmission of bar code data. It can be connected to a Host PC via RS-232, USB, or KBD Wedge, and is suited for single-cradle layouts.

The label on the cradle contains LED indicators and a multi-function button.

The LEDs signal the WWS750-BS status, as shown.



LED	STATUS
Aux	Yellow On = WWS750-BS is powered through an external power supply.
Host	Yellow On = WWS750-BS is powered by the Host.
Reader	Green On = the reader battery is completely charged. Red On = the reader battery is charging. Orange Blinking = reader battery fault - replace battery. Red / Green Alternatively Blinking = charging error - see PRG. Off = reader not in the cradle or not properly inserted.
Radio	Yellow Blinking = radio activity.

## Installation

To set up your WWS750-BS cradle you must:

1. Physically install the cradle.
2. Make all system connections.
3. Configure the WWS750-BS cradle.

The cradle package contains the following items:

- WWS750-BS Presentation Base
- Hex Key
- WWS750-BS Quick Reference Guide (this manual)
- Rubber Spacers
- Metal Mounting Plate

## Regulating the Cradle Position

To regulate the position, use the hex key to unscrew the holder and slide it to the desired position.



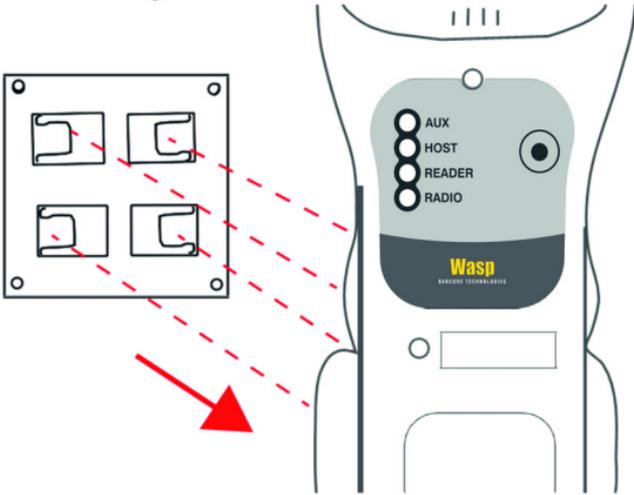
The rubber spacers included in the box can be used to fix the position of the cradle:



## Mounting with the Metal Plate

1. Affix the metal plate onto the desired mounting surface using the two center screw holes (see [Figure 1 on page 4](#)).
2. Slide the tabs on the back of the cradle onto the metal plate as shown in [Figure 1](#).
3. After aligning the tabs, push up to lock into place.

**Figure 1. Mounting Plate on Wall**

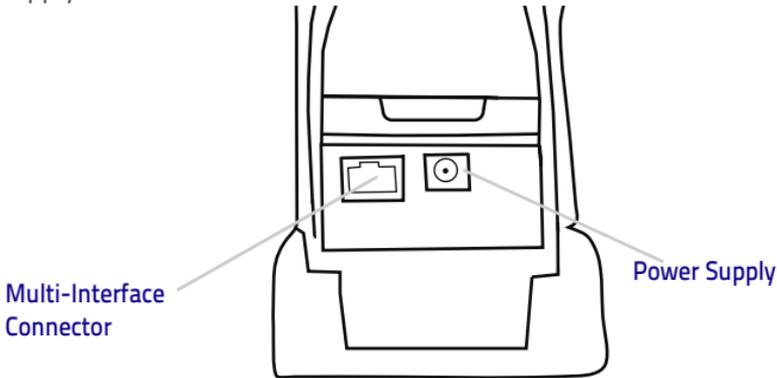


## System Connections



Connections should always be made with power off!

The WWS750-BS cradle provides a multi-interface connector and a power supply connector as shown:



### Connecting and Disconnecting the Interface Cable

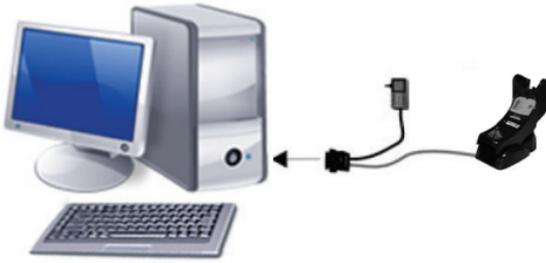
The WWS750-BS can be connected to a Host by means of a multi-interface cable, which must be simply plugged into the Host connector, visible on the front panel of the cradle.

To disconnect the cable, insert a paper clip or other similar object into the hole corresponding to the Host connector on the body of the cradle. Push down on the clip while unplugging the cable. Refer to the following figure:

Connecting/Disconnecting the Cable



### RS-232



### USB



#### NOTE

The power supply is required only if you need to connect the interface cable to a standard USB Port. The power supply is not required if you connect the interface cable to a PoweredUSB 12V or 24V port.

# WWS750-BS Configuration

The WWS750-BS configuration can be performed in two ways: sending configuration strings from the Host PC via the RS-232 or USB-COM interface or by reading configuration bar codes with the WWS750.

## Serial Configuration

By connecting the WWS750-BS to a PC through an RS-232 or USB-COM interface cable it is possible to send configuration strings from the PC to WWS750-BS.

## Configuration Bar Codes

Link the cradle and the reader using the procedures described in the WWS750 Quick Reference. Once the pairing is complete, you can configure the WWS750-BS cradle by reading configuration bar codes in this manual.

To configure the WWS750-BS using the WWS750 reader (paired to the cradle with the Bind command), follow the procedure according to the interface selected.

## Resetting Standard Product Defaults

Reference the PRG for a listing of standard factory settings. If you aren't sure what programming options are in your reader, or you've changed some options and want the factory settings restored, scan the **Standard Product Default Settings** bar code 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 reader for the correct interface before scanning this label.



Standard Product Default Settings



### CAUTION

Scanning this bar code will **RESET** all settings for the WWS750. Any customized settings that may have been applied to the reader will be lost.

## Selecting the Interface Type

Upon completing the physical connection between the reader and its host, scan the appropriate bar code for your system's correct interface type.

### Configuring the Interface

Scan the programming bar code which selects the appropriate interface type for the system the reader will be connected to.



#### NOTE

Unlike some other programming features and options, interface selections require that you scan only one programming bar code label. DO NOT scan an ENTER/EXIT bar code prior to scanning an interface selection bar code.

Some interfaces require the scanner to start in the disabled state when powered up. If additional scanner configuration is desired while in this state, pull the trigger and hold for 5 seconds. The scanner will change to a state that allows programming with bar codes.

RS-232
RS-232 standard interface  Select RS232-STD
RS-232 Wincor-Nixdorf  Select RS232-WN
RS-232 for use with OPOS/UPOS/JavaPOS  Select RS-232 OPOS

USB
USB COM to simulate RS-232 standard interface  USB-COM-STD <sup>a</sup>
USB-OEM (can be used for OPOS/UPOS/JavaPOS)  USB-OEM
USB Keyboard with standard key encoding  Select USB Keyboard
USB Keyboard with alternate key encoding  USB Alternate Keyboard
USB Keyboard for Apple computers  USB-KBD-APPLE

a. Download the correct USB COM driver from [www.wasppbarcode.com](http://www.wasppbarcode.com).

## Keyboard Interface

Use the programming bar codes to select options for USB Keyboard and Wedge Interfaces.

KEYBOARD
AT, PS/2 25-286, 30-286, 50, 50Z, 60, 70, 80, 90 & 95 w/ Standard Key Encoding  Select KBD-AT
Keyboard Wedge for IBM AT PS2 with standard key encoding but without external keyboard  Select KBD-AT-NK
AT, PS/2 25-286, 30-286, 50, 50Z, 60, 70, 80, 90 & 95 w/Alternate Key  Select KBD-AT-ALT
Keyboard Wedge for IBM AT PS2 with alternate key encoding but without external keyboard  Select KBD-AT-ALT-NK
PC/XT w/Standard Key Encoding  Select KBD-XT

KEYBOARD (continued)
Keyboard Wedge for IBM Terminal 3153  Select KBD-IBM-3153
Keyboard Wedge for IBM Terminals 31xx, 32xx, 34xx, 37xx make only keyboard  Select KBD-IBM-M
Keyboard Wedge for IBM Terminals 31xx, 32xx, 34xx, 37xx make break keyboard  Select KBD-IBM-MB
Keyboard Wedge for DIGITAL Terminals VT2xx, VT3xx, VT4xx  Select KBD-DIG-VT

## Scancode Tables

Reference the WWS750 QRG for information about control character emulation which applies to keyboard interfaces.

## Country Mode

This feature specifies the country/language supported by the keyboard. Only these interfaces support ALL Country Modes:

- USB Keyboard (without alternate key encoding)
- AT, PS/2 25-286, 30-286, 50, 50Z, 60, 70, 80, 90 & 95 w/Std Key Encoding
- Keyboard Wedge for IBM AT PS2 with standard key encoding but without external keyboard
- AT, PS/2 25-286, 30-286, 50, 50Z, 60, 70, 80, 90 & 95 without Alternate Key
- Keyboard Wedge for IBM AT PS2 without alternate key encoding but without external keyboard

All other interfaces support ONLY the following Country Modes: U.S., Belgium, Britain, France, Germany, Italy, Spain, Sweden.

COUNTRY MODE
 ENTER/EXIT PROGRAMMING MODE
 Country Mode = U.S.
 Country Mode = Belgium
 Country Mode = Britain

\*Supports only the interfaces listed in the Country Mode feature description

## COUNTRY MODE (continued)



Country Mode = Croatia\*



Country Mode = Czech Republic\*



Country Mode = Denmark\*



Country Mode = France



Country Mode = French Canadian



Country Mode = Germany

\*Supports only the interfaces listed in the Country Mode feature description

COUNTRY MODE (continued)
 Country Mode = Hungary*
 Country Mode = Italy
 Country Mode = Japanese 106-key*
 Country Mode = Lithuanian
 Country Mode = Norway*
 Country Mode = Poland*
 Country Mode = Portugal*

\*Supports only the interfaces listed in the Country Mode feature description

COUNTRY MODE (continued)
 Country Mode = Romania*
 Country Mode = Spain
 Country Mode = Sweden
 Country Mode = Slovakia*
 Country Mode = Switzerland*

\*Supports only the interfaces listed in the Country Mode feature description

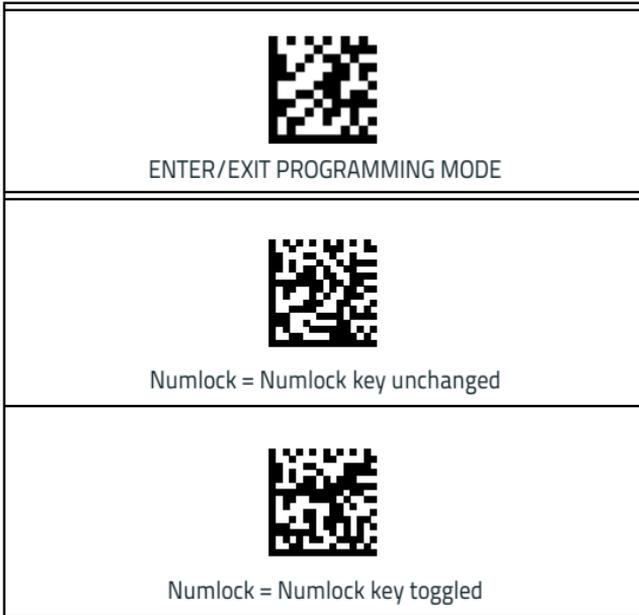
## Caps Lock State

This option specifies the format in which the reader sends character data. This applies to keyboard wedge interfaces. This does not apply when an alternate key encoding keyboard is selected.

 ENTER/EXIT PROGRAMMING MODE
 Caps Lock State = Caps Lock OFF
 Caps Lock State = Caps Lock ON
 Caps Lock State = AUTO Caps Lock Enable

## Numlock

This option specifies the setting of the Numbers Lock (Numlock) key while in keyboard wedge interface. This only applies to alternate key encoding interfaces. It does not apply to USB keyboard.



# Technical Features

<b>ELECTRICAL FEATURES</b>	
Supply Voltage External Power Host Power	10 - 30 VDC (Powered USB or RS232)
Power Consumption External Power Host Power	max. 10 W (charging) * max. 10 W (charging) *
Indicators	Ext. Power/Data yellow LED Host Power/Data yellow LED Reader batt. state green/red LED Spare batt. state green/red LED Radio yellow LED Ethernet green LED (Ethernet models only)
Time of Recharge External Power Host Power	min. 3 hours with 2150 mAh Li-Ion battery min. 3 hours with 2150 mAh Li-Ion battery
<b>BLUETOOTH FEATURES</b>	
Protocol	Bluetooth 2.0; Class 1; SPP (Serial Port Profile) or HID (Human Interface Device) profile
Radio Frequency	2.40 to 2.48 GHz
<b>ENVIRONMENTAL FEATURES</b>	
Working Temperature Radio Battery Charging	-20° to +50 °C / -4 to +122 °F 0° to +40 °C / +32° to +104 °F
Storage Temperature	-20° to +70 °C / -4 to +158 °F
Humidity	90% non condensing
Protection Class	IP40

<b>MECHANICAL FEATURES</b>	
Weight without metal plate	490gr
Dimensions (without antenna)	<p><b>WHEN HORIZONTALLY POSITIONED:</b>                      Height 125mm                      Length 215mm                      Width 98mm</p> <p><b>WHEN VERTICALLY POSITIONED:</b>                      Height 185mm                      Length 85mm                      Width 98mm</p>
<b>SYSTEM CONFIGURATION</b>	
Max number of devices per base station	7

- \* Having a switching regulator inside, the WWS750-BS draws the same power, regardless of the supply voltage. i.e. as the input voltage increases the current drawn decreases

# Wasp Technologies Limited Factory Warranty

## Warranty Coverage

Wasp warrants this product against defects in workmanship and materials, for a period of three years from the date of shipment, provided that the product is operated under normal and proper conditions. Wasp hardware products are warranted against defects in material and workmanship under normal and proper use. The liability of Wasp under this warranty is limited to furnishing the labor and parts necessary to remedy any defect covered by this warranty and restore the product to its normal operating condition. Repair or replacement of product during the warranty does not extend the original warranty term. Products are sold on the basis of specifications applicable at the time of manufacture and Wasp has no obligation to modify or update products once sold.

If Wasp determines that a product has defects in material or workmanship, Wasp shall, at its sole option repair or replace the product without additional charge for parts and labor, or credit or refund the defective products duly returned to Wasp. To perform repairs, Wasp may use new or reconditioned parts, components, subassemblies or products that have been tested as meeting applicable specifications for equivalent new material and products. Customer will allow Wasp to scrap all parts removed from the repaired product. The warranty period shall extend from the date of shipment from Wasp for the duration published by Wasp for the product at the time of purchase (Warranty period). Wasp warrants repaired hardware devices against defects in workmanship and materials on the repaired assembly for a 90 day period starting from the date of shipment of the repaired product from Wasp or until the expiration of the original warranty period, whichever is longer. Wasp does not guarantee, and it is not responsible for, the maintenance of, damage to, or loss of configurations, data, and applications on the repaired units and at its sole discretion can return the units in the "factory default" configuration or with any software or firmware update available at the time of the repair (other than the firmware or software installed during the manufacture of the product). Customer accepts responsibility to maintain a back up copy of its software and data.

Refer to:

<http://www.waspbarcode.com/support/warranty-claims>

Warranty Claims:

<http://www.waspbarcode.com/support/warranty-claims>

## Warranty Claims Process

In order to obtain service under the Factory Warranty, Customer must notify Wasp of the claimed defect before the expiration of the applicable Warranty period and obtain from Wasp a return authorization number (RMA) for return of the product to a designated Wasp service center. If Wasp determines Customer's claim is valid, Wasp will repair or replace product without additional charge for parts and labor. Customer shall be responsible for packaging and shipping the product to the designated Wasp service center, with shipping charges pre-paid. Wasp shall pay for the return of the product to Customer if the shipment is to a location within the country in which the Wasp service center is located. Customer shall be responsible for paying all shipping charges, duties, taxes, and any other charges for products returned to any other locations. Failure to follow the applicable RMA policy, may result in a processing fee. Customer shall be responsible for return shipment expenses for products which Wasp, at its sole discretion, determines are not defective or eligible for warranty repair.

## Warranty Exclusions

The Wasp Factory Warranty shall not apply to:

- (i) any product which has been damaged, modified, altered, repaired or upgraded by other than Wasp service personnel or its authorized representatives;
- (ii) any claimed defect, failure or damage which Wasp determines was caused by faulty operations, improper use, abuse, misuse, wear and tear, negligence, improper storage or use of parts or accessories not approved or supplied by Wasp;
- (iii) any claimed defect or damage caused by the use of product with any other instrument, equipment or apparatus;
- (iv) any claimed defect or damage caused by the failure to provide proper maintenance, including but not limited to cleaning the upper window in accordance with product manual;

- (v) any defect or damage caused by natural or man-made disaster such as but not limited to fire, water damage, floods, other natural disasters, vandalism or abusive events that would cause internal and external component damage or destruction of the whole unit, consumable items;
- (vi) any damage or malfunctioning caused by non-restoring action as for example firm-ware or software upgrades, software or hardware reconfigurations etc.;
- (vii) the replacement of upper window/cartridge due to scratching, stains or other degradation and/or
- (viii) any consumable or equivalent (e.g., cables, power supply, batteries, keypads, touch screen, triggers etc.).

### No Assignment

Customer may not assign or otherwise transfer its rights or obligations under this warranty except to a purchaser or transferee of product. No attempted assignment or transfer in violation of this provision shall be valid or binding upon Wasp.

WASP'S LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ORAL OR WRITTEN, STATUTORY OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT. WASP SHALL NOT BE LIABLE FOR ANY DAMAGES SUSTAINED BY CUSTOMER ARISING FROM DELAYS IN THE REPLACEMENT OR REPAIR OF PRODUCTS UNDER THE ABOVE. THE REMEDY SET FORTH IN THIS WARRANTY STATEMENT IS THE CUSTOMER'S SOLE AND EXCLUSIVE REMEDY FOR WARRANTY CLAIMS. UNDER NO CIRCUMSTANCES WILL WASP BE LIABLE TO CUSTOMER OR ANY THIRD PARTY FOR ANY LOST PROFITS, OR ANY INCIDENTAL, CONSEQUENTIAL IN-DIRECT, SPECIAL OR CONTINGENT DAMAGES REGARDLESS OF WHETHER WASP HAD ADVANCE NOTICE OF THE POSSIBILITY OF SUCH DAMAGES.

### Risk of Loss

Customer shall bear risk of loss or damage for product in transit to Wasp. Wasp shall assume risk of loss or damage for product in Wasp's possession. In the absence of specific written instructions for the return of product to Customer, Wasp will select the carrier, but Wasp shall not thereby assume any liability in connection with the return shipment.

## 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

## Services and Support

Wasp provides several services as well as technical support through its website. Log on to [www.wasbarcode.com](http://www.wasbarcode.com) and click on the links indicated for further information.

# NOTES





[www.waspbarcode.com](http://www.waspbarcode.com)

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