V450-H Wireless Handheld DPM Reader

Quick Start Guide

OMRON
MICROSCAN

Reader Features
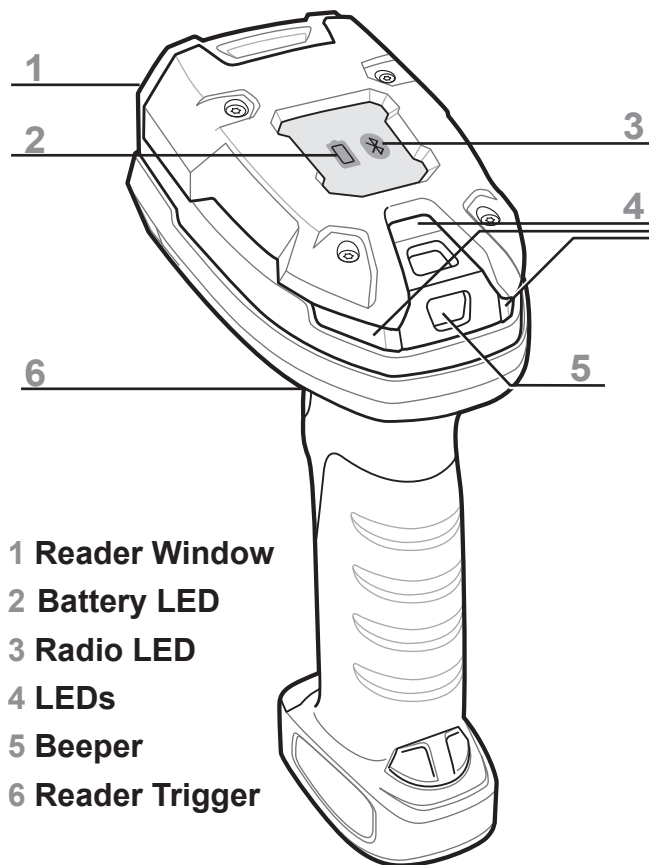
1 Reader Window
2 Battery LED
3 Radio LED
4 LEDs
5 Beeper
6 Reader Trigger

Cradle Insertion

Page Button
LEDs (two)
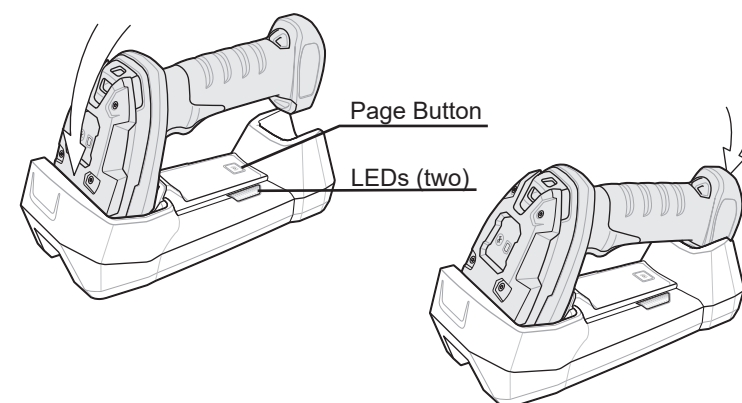
Battery Insertion and Removal

1 Lock — Unlock   2
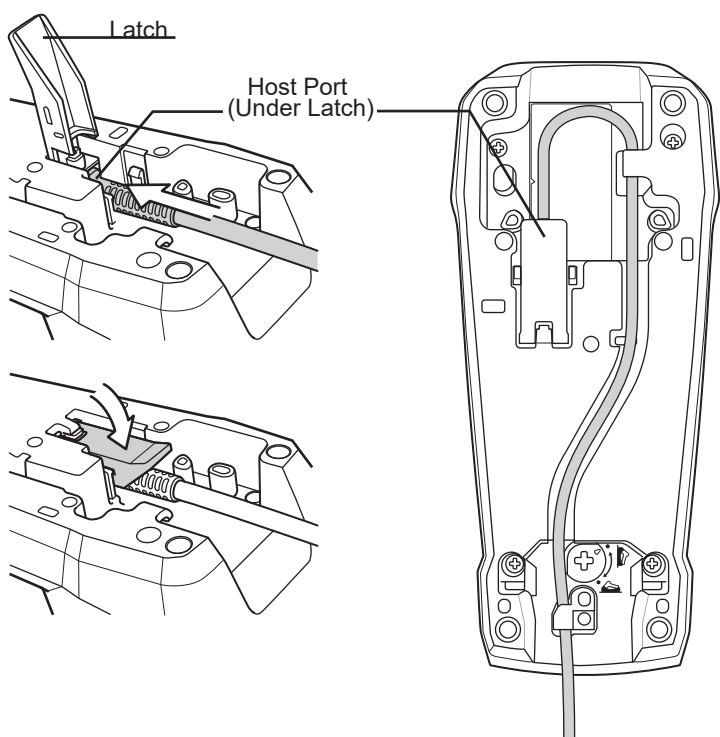3   4
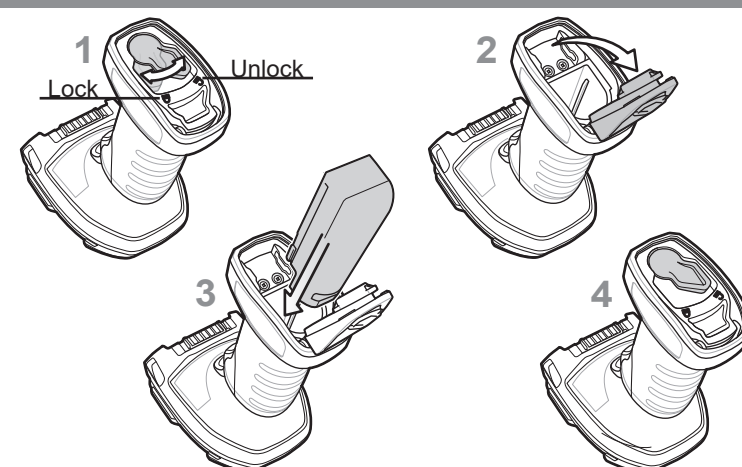
Important: A PowerPrecision+ 3100 mAh Li-Ion rechargeable battery is included with the wireless version of the V450-H.

Cradle Cable Connection

Latch
Host Port (Under Latch)

Return to Factory Defaults / Add an Enter Key

Return to Factory Defaults
Decode the symbol below to return reader parameters to factory defaults.

Add an Enter Key
(Carriage Return / Line Feed)
Decode the symbol below to add an Enter key after decoded data.

Add a Tab Key

Add a Tab Key
Decode the symbol below to add a Tab key after decoded data.

USB Caps Lock Override Options

USB - OVERRIDE CAPS LOCK KEY (ENABLE)

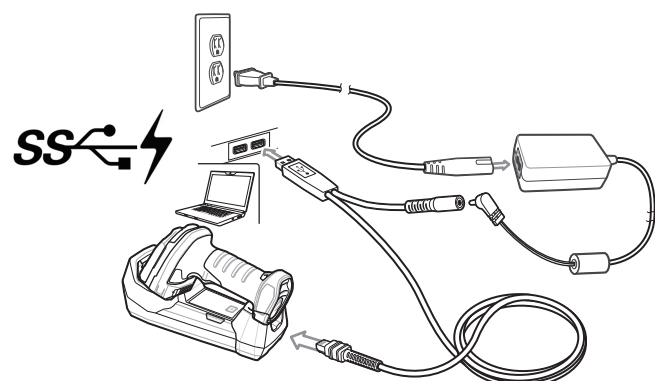*USB - DO NOT OVERRIDE CAPS LOCK KEY (DISABLE)

Step 1 – Set Up Host Interface

USB

Note: Cables may vary depending on configuration.

When connecting the V450-H and cradle to a PC, look for a USB port with a lightning bolt icon similar to the one below. This icon indicates that the port is higher-powered and is intended for charging USB devices.

Decode one of the symbols below.

The interface cable automatically detects the host interface type and uses the default setting. If the default (*) does not meet your requirements, decode the other host symbol below.

*USB HID KEYBOARD EMULATION

SNAPI WITH IMAGING INTERFACE

USB CDC HOST (VIRTUAL COM)

Step 2 – Install WebLink_PC and Connect

Install
The WebLink_PC installer is found on Omron's Download Center at **www.automation.omron.com/weblinkpc**
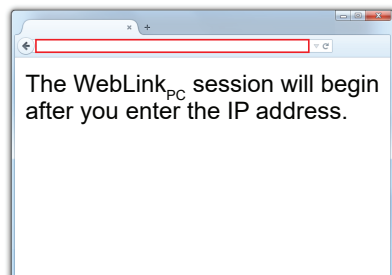
Minimum PC Requirements
- Intel® Core™2 Duo Processor (Core™i3 recommended)
- Microsoft Windows 7 32-bit (Windows 7 64-bit or Windows 10 recommended)
- Internet Explorer 11 or higher, Edge, Firefox, or Opera (Chrome recommended)
- 1 GB/128 MB Video RAM (2 GB RAM/128 MB Video RAM recommended)
- 100 MB hard drive space (500 MB recommended)
- 16-bit color display (32-bit recommended)
- 3.0 Windows Experience Index (4.0 recommended)

Connect
To start WebLink_PC, double-click the icon placed on your desktop during installation.

WebLink_PC

You can also start WebLink_PC by opening a browser of your choice and typing **http://localhost:8090** or **http://127.0.0.1:8090** in the address bar.

The WebLink_PC session will begin after you enter the IP address.

Step 3 – Explore the Start View

The **Start** view shows all the readers available to the system. The **Reader Model**, **Serial Number**, and **Firmware Version** of each reader are displayed. This view also allows you to choose **Assisted Setup**, **Create a New Setup**, or **Load a Setup**. The **Gear icon** in the upper right brings up the **Settings Menu**.
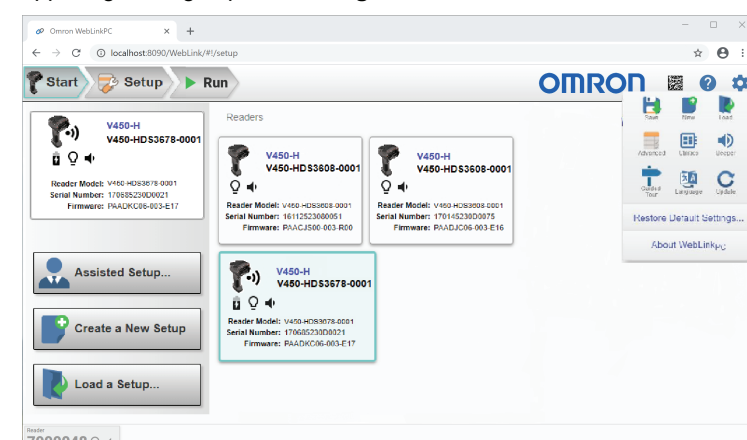
## Step 4 – Create or Load a Setup

Assisted Setup
When you click the **Assisted Setup** button in the **Start** view, a dialog appears asking a series of application-related questions. Based on your answers, WebLink_PC generates your initial setup automatically. Once the setup is created, you can fine-tune its parameters in the **Setup** view.

Create a New Setup
The **Start** view also allows you to create a **New Setup** without using **Assisted Setup**. When you click the **Create a New Setup** button, WebLink_PC searches for any differences from default in the reader parameters. If no differences from default are found, the **Setup** view appears. If differences from default are found, an alert appears asking if you want to restore default settings.

Load a Setup
Select **Load a Setup** to load an existing **.rls** WebLink_PC setup file.

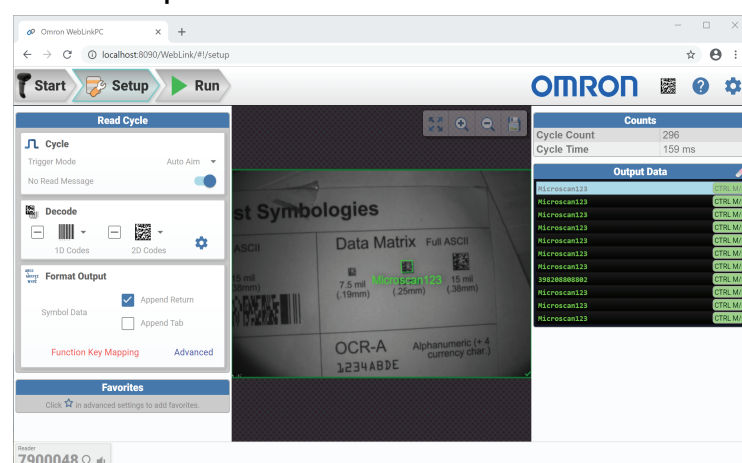Assisted Setup
Create a New Setup
Load a Setup...
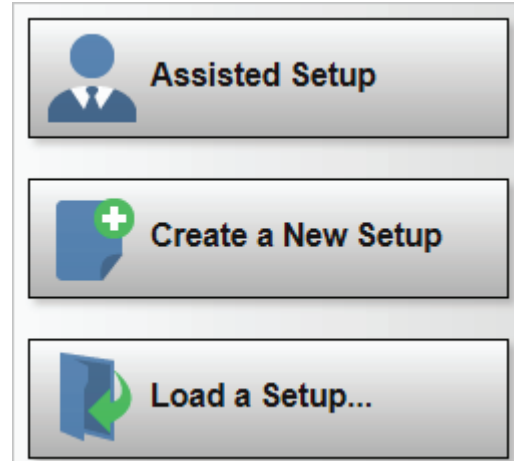
Step 5 – Explore the Setup View

The **Setup** view allows you to configure the reader, view the current captured image, and view decoded symbol data.

The following read cycle steps are shown at the left side of the screen:
- **Cycle**
- **Performance**
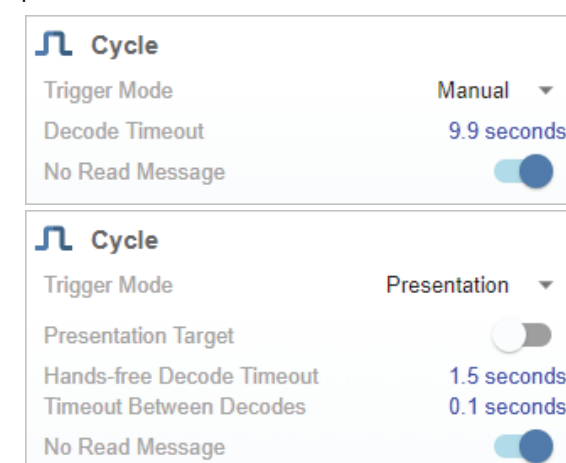- **Decode**
- **Format Output**

Step 6 – Configure the Reader

Cycle Step
The **Cycle** step allows you to choose between **Manual** and **Presentation** trigger modes. In Manual mode, a decode is attempted when you pull the trigger. In Presentation mode, the read cycle begins when a symbol is detected moving into the reader's field of view.

Note: The reader is automatically set to Presentation mode when placed in the V450-H Stand.

Cycle	
Trigger Mode	Manual
Decode Timeout	9.9 seconds
No Read Message	

Cycle	
Trigger Mode	Presentation
Presentation Target	
Hands-free Decode Timeout	1.5 seconds
Timeout Between Decodes	0.1 seconds
No Read Message	

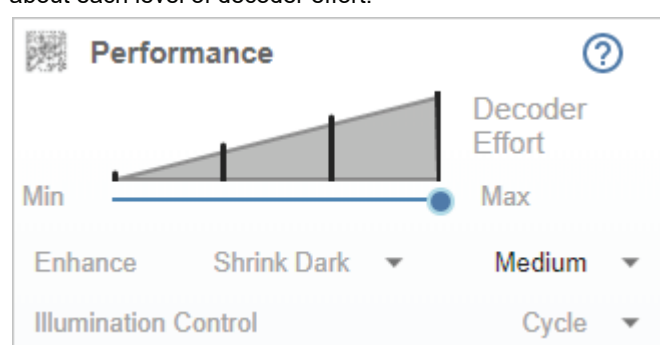## Step 6 – Configure the Reader (Continued)

Performance Step (DPM Optimization)
The **Performance** step allows you to optimize the reader for **Direct Part Mark** (**DPM**) decoding. A DPM is a permanent mark created by laser etch, chemical etch, or other method, directly on a substrate. DPMs are often harder to read than other symbols, and may require a few attempts before finding optimal settings. The **Decoder Effort** slider has four settings: **Level 1**, corresponding to **Min** on the slider; **Level 2**; **Level 3**; and **Level 4**, corresponding to **Max** on the slider. As Decoder Effort is moved toward **Max**, the decoder spends an increasing amount of time trying to decode the symbol.

In **Level 4**, you can also enable the **Enhance** option, which improves readability by allowing additional processing for poorly-formed marks.

The **Illumination** options are **Direct**, **Indirect**, and **Cycle**.

Clicking the **Question Mark icon** brings up a dialog with more detail about each level of decoder effort.

Performance
Decoder Effort
Min — Max
Enhance   Shrink Dark   Medium
Illumination Control   Cycle
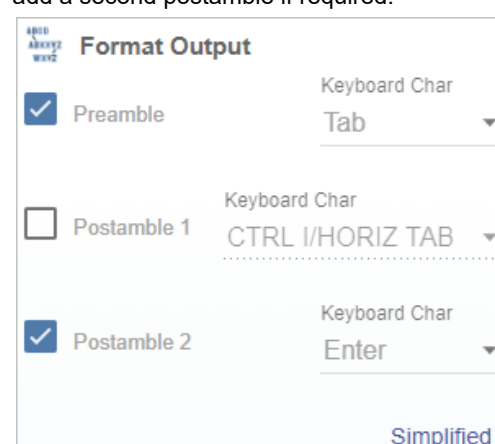
Step 6 – Configure the Reader (Continued)

Decode Step
The **Decode** step allows you to select which symbologies to enable and disable. Clicking the **1D** and **2D** checkboxes will enable or disable all the symbologies in that group. The **Gear icon** brings up a **Symbology Settings** dialog, allowing you to modify specific parameters.

Decode
1D Codes   2D Codes
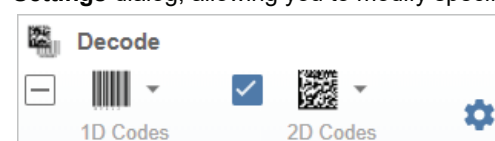
Format Output Step
Format Output allows you to configure preambles and postambles to add to symbol data output. The **Simplified** version of this control allows you to **Append Return** or **Append Tab** after each string of data output. The **Advanced** version allows you to choose from a wide variety of keyboard characters that can be output as a preamble or postamble. You can also add a second postamble if required.

Format Output
Preamble — Keyboard Char — Tab
Postamble 1 — Keyboard Char — CTRL I/HORIZ TAB
Postamble 2 — Keyboard Char — Enter
Simplified

Step 7 – Run the Application

The **Run** view allows you to keep track of your application during runtime. The current captured image is shown along with a row of image control tools. A history of decoded symbol data is shown in the right pane along with any preambles or postambles that have been defined.
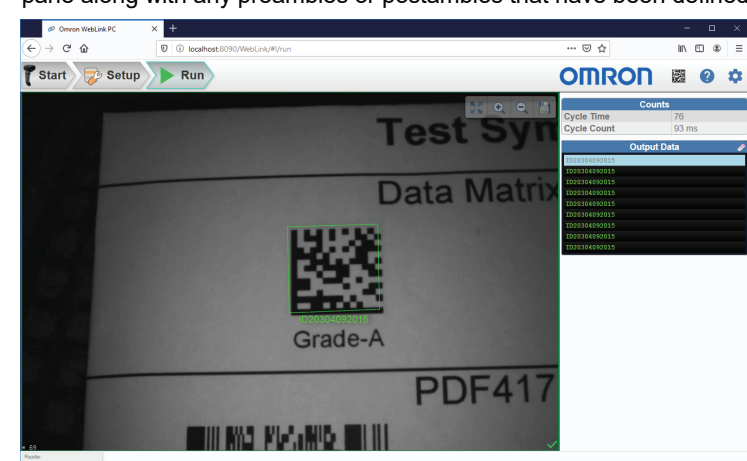
The **Output Data** display in the right pane shows a list of previous read cycle results. Each result is selectable and erasable.

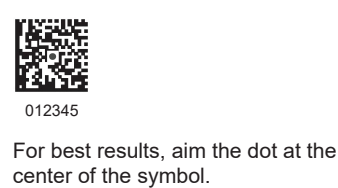Image control tools are available at the upper right of the image view.

Resize Image to Fit Image Area   Zoom In   Zoom Out   Save Full-Size Image
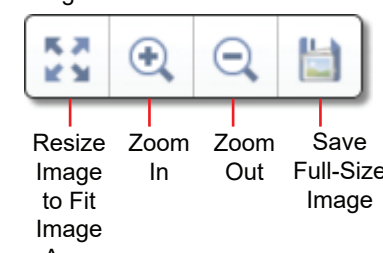
V450-H Aiming

012345

For best results, aim the dot at the center of the symbol.

Sample Symbols

Data Matrix
OmronMicroscan1234567890

QR Code
OmronMicroscan1234567890

Code 39
OMRON1234

Interleaved 2 of 5
1234567890

RECOMMENDED USAGE GUIDE - OPTIMUM BODY POSTURE

Avoid Extreme Wrist Angles

AVOID EXTREME WRIST ANGLES

Avoid Bending

AVOID BENDING

Avoid Reaching

AVOID REACHING

Health and Safety Recommendation

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
• Reduce or eliminate vibration
• Perform tasks at correct heights
• Keep objects that are used frequently within easy reach
• Reduce or eliminate direct pressure
• Provide adjustable workstations
• Provide adequate clearance
• Provide a suitable working environment
• Improve work procedures.

BEEPER INDICATIONS

Indication	Beeper Sequence
Power up	Low/medium/high beep
Barcode decoded	Medium beep
Transmission error detected; data is ignored	4 long low beeps
Successful parameter setting	High/low/high/low beep
Correct programming sequence performed	High/low beep
Incorrect programming sequence, or **Cancel** barcode decoded	Low/high beep

Note: In addition to the System/Decode LEDs, the V450-HDS3678 cordless digital Reader has a Radio and Battery LED gauge. Refer to the *V450-HDS3678 Product Reference Guide* for detailed information.

LED INDICATIONS

Handheld Decoding

Indication	LED Indicator
Reader is on and ready to decode, or no power to reader	Off
Barcode is successfully decoded	Green
Transmission error	Red

Hands-Free (Presentation) Decoding

No power to reader	Off
Reader is ready to decode	Green
Barcode is successfully decoded	Off Momentarily
Transmission error	Red

TROUBLESHOOTING

Reader not Working

No power to reader	Check system power
Reader is disabled	Ensure correct host interface cable is used

Reader Decoding Barcode, but Data not Transmitting to Host

Host interface not configured properly	Decode appropriate host parameter barcodes
Interface cable is loose	Ensure all cable connections are secure
Invalid rule	Program the correct rules
Reader not paired to cradle	Decode cradle pairing barcode

Reader not Decoding Barcode

Reader not programmed for barcode type	Ensure reader is programmed to decode the type of barcode being scanned
Barcode unreadable	Ensure barcode is not defaced; try decoding test barcode of same barcode type
Distance between reader and barcode incorrect	Move reader closer to, or farther from barcode

Decoded Data Incorrectly Displayed on Host

Host interface not configured properly	Decode appropriate host parameter barcodes
Region improperly configured	Select appropriate country and language encoding scheme

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REGULATORY INFORMATION

Waste Electrical and Electronic Equipment (WEEE)

[Multilingual WEEE disposal instructions in English, Bulgarian, Czech, Danish, German, Greek, Spanish, French, Italian, Latvian, Lithuanian, Hungarian, Dutch, Polish, Portuguese, Romanian, Slovak, Slovenian, Finnish, Swedish, Turkish, and Chinese.]

TURKISH WEEE Statement of Compliance
EEE Yönetmeliğine Uygundur

China RoHS

This table was created to comply with China RoHS requirements.

Regulatory Information

This device is approved under Omron Microscan Systems.

This guide applies to Model Number DS3678. All Omron devices are designed to be compliant with rules and regulations in locations they are sold, and will be labeled as required. Local language translations are available at the following website: https://www.ia.omron.com.
Any changes or modifications to Omron equipment, not expressly approved by Omron, could void the user's authority to operate the equipment.

Caution: Only use Omron Microscan-approved and UL-listed accessories, battery packs, and battery chargers. Do NOT attempt to charge damp/wet mobile computers or batteries. All components must be dry before connecting to an external power source.
Declared Model: DS3678 maximum operating temperature: 50°C.
Declared maximum operating temperature when used with Cradle model V450-AK: 50°C.

Bluetooth® Wireless Technology
This is an approved *Bluetooth®* product. For more information or to view the End Product Listing, visit https://www.bluetooth.org/tpg/listings.cfm.

Wireless Device Country Approvals
[approval notices]

Radio Frequency Interference Requirements - FCC

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation...

Radio Transmitters (Part 15)

Radio Frequency Interference Requirements - Canada
CAN ICES-3 (B)/NMB-3(B)

Marking and European Economic Area (EEA)

Bluetooth® Wireless Technology for use through the EEA has the following restrictions:
• Maximum radiated transmit power of 100mW EIRP in the frequency range 2.400-2.4835 GHz.

Statement of Compliance

Other Countries

Japan (VCCI) - Voluntary Control Council for Interference

Korea Warning Statement for Class B ITE

Brazil (UNWANTED EMISSIONS - ALL PRODUCTS)

Chile

China

Ukraine

Taiwan
臺灣

S. Korea

Thailand

Eurasian Customs Union

Battery Safety Guidelines