

BELKIN®

Wireless USB Hub

BELKIN®

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BELKIN[®]

Wireless USB Hub



User Manual

F5U303

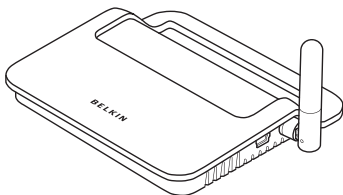
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Introduction

Congratulations and thank you for purchasing the Belkin Wireless USB Hub. This revolutionary product lets you connect your USB devices to your computer—wirelessly. Now you can print, play music, scan, download photos, and burn CDs, without the hassle of connecting cables. The Hub is easy to use and gives you the freedom to roam—and stay connected.

Please review this User Manual carefully so that you are sure to get the most from your Wireless USB Hub.



Wireless USB Hub

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Introduction

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Features

- Wireless connectivity through USB technology for printers, cameras, hard drives, and other USB devices to your computer
- Reduced cable clutter
- Ports for linking up to 4 high-, full-, and low-speed devices with your computer
- Belkin Lifetime Warranty

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System Requirements

- Windows Vista™ 32-/64-bit operating system

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Package Contents

- Wireless USB Hub
- Power Adapter
- USB Cable (A to mini-B)
- User Manual
- Quick Start Guide

Introduction

Product Description

Downstream USB Ports: 4
Per-Port Voltage: 5V
Per-Port Current: 500mA
Power Mode: Self-powered

Power Supply:

Input: 100–240 50/60Hz
Output: 5V DC, 3A
Plug Size: 3.5mm
Plug Polarity: Center-pin positive

LED Indicators on Hub:

Wireless Status LED

Color: Blue
Status: Constant on, when power supply is connected;
 blinks to indicate a wireless connection

USB Port Status LED

Color: Green
Status: Off: No USB device plugged in
 (or device not enumerated)
 Green: USB device enumerated

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Installation

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Association Procedures

Two methods exist to assist you in setting up the wireless security and association with your Hub: PIN and Cable.

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Installation

PIN-Association Procedure

When you initially set up the Hub, you must “associate” it with the host computer. To do this, enter the PIN (product identification number) found on the bottom of the Hub into the Wireless USB Manager. This “PIN association” procedure is one of two supported methods to establish a secure wireless connection.

1. Plug the power supply into the wall, and then plug the DC connector into the Hub.
2. Open the Wireless USB Manager to set up the Hub’s security.
3. Click on “New Connection”.
4. Select “PIN Association” and click “Next”.
5. Enter the PIN into the space provided. The PIN can be found on the bottom of the Hub.
6. The Wireless USB Manager will automatically detect the Hub and provide customization options for the device name and method of detection.
7. Click “Finish” to complete the setup and remove the USB cable.
8. Verify that you have established a wireless connection through the Wireless USB Manager. You should have an icon for the Hub showing two arrows pointing to each other.
9. Station the Wireless USB Hub in range and connect your devices to access them wirelessly.

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Installation

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Cable-Association Procedure

When you initially set up the Hub, you must “associate” it with the host computer. To do this, connect the Hub to your computer using the provided USB cable. This “cable association” procedure is the second optional method of establishing a secure wireless connection.

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1. Plug the power supply into the wall, and then plug the DC connector into the Hub.

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2. Attach the Hub to your computer using a standard USB cable (mini-B to USB-A connector).

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3. Open the Wireless USB Manager to set up the Hub’s security.

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4. Click on “New Connection”.

5. Select “Cable Association” and click “Next”.

6. The Wireless USB Manager will automatically detect the Hub and provide customization options for the device name and method of detection.

7. Click “Finish” to complete the setup.

8. Verify that you have established a wireless connection through the Wireless USB Manager. You should have an icon for the Hub showing two arrows pointing to each other.

9. Station the Wireless USB Hub in range and connect your devices to access them wirelessly.

Installation

Automatic Connect Feature



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When the association procedure is completed, the Hub by default automatically connects to the host computer whenever it is within operating range. If desired, you can select another method for how the Hub will wirelessly connect to your computer. This setup may be changed later.

Installation

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Confirming Proper Installation

To confirm that the Wireless USB Hub is properly installed, check the Windows Device Manager. In the Device Manager, you should see: “Belkin Wireless USB Hub” and “Dell Wireless 400 Host Wire Adapter”.

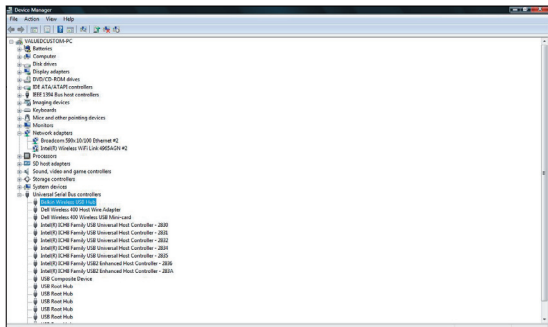
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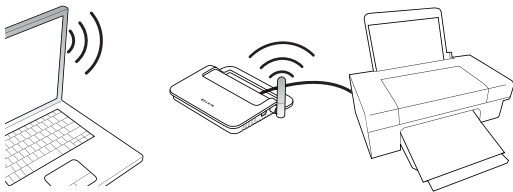
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Operation

Proper Orientation of Antennas



By design, Ultra-Wideband technology (UWB) radios transmit at very low power levels. To achieve peak performance, it is important to properly orient the antennas on the Hub and your laptop.

As a general rule, the antennas should be positioned in a vertical orientation relative to the horizontal plane. As the antenna is integrated behind the laptop screen, we recommend maintaining the screen vertical for optimal wireless communication. Please see the illustration above for an explanation. We also recommend that you place the antennas in a direct line-of-sight orientation.

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Operation

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Using the Wireless USB Manager

The user interface for the Wireless USB Manager consists of a window with three buttons. These buttons are:

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- Settings

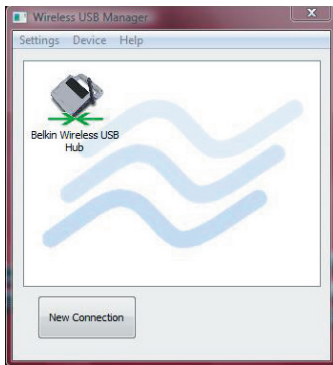
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- Device
- Help

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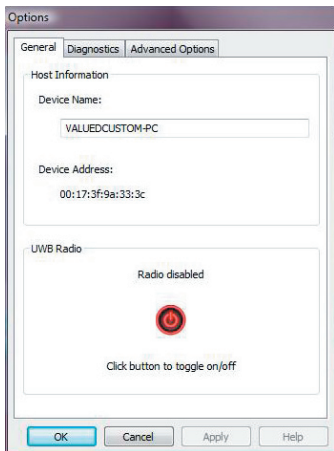
These three buttons within the Wireless USB Manager will provide diagnostics, options, customization, and help with your Wireless USB Hub. Clicking on the “Settings” button will allow you to add a new connection and more through the “Options” button.

Operation

Options

There are three tabs in the “Options” section of the Wireless USB Manager.

General: This section will show the computer name associated with your laptop as well as the MAC (media access control) address of the internal Wireless Host Adapter. There is also a toggle button to enable and disable the internal Wireless USB Adapter.



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Operation

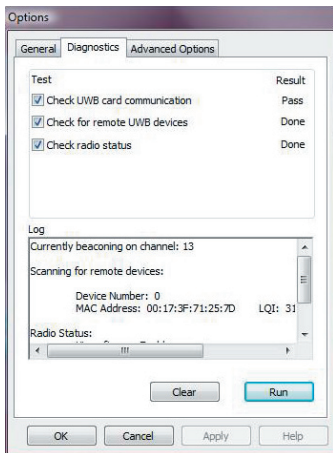
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Diagnostics: This section of the utility will allow you to diagnose problems related to the wireless connection.

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Check the desired boxes and click “Run” to perform the diagnostics test. The log will generate detailed information on the status of the hardware.

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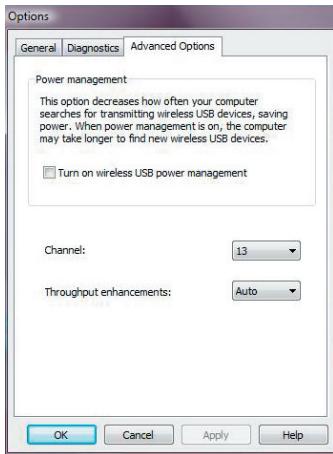
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Operation

Advanced Options: This section offers a power management option as well as the ability to change channels and throughput enhancements. If you are experiencing wireless connection problems, you may want to try changing the wireless channel. For optimal performance, use channel 13.



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Operation

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The icon on the main screen of the Wireless USB Manager will show your connection status and will allow you to disconnect from the Hub or delete a wireless entry. You can also choose the connection mode with the Hub. These options include Automatic, Prompt to Connect, or Manual. The icon for the Wireless USB Hub is not fixed and can be changed if desired. Right-click on the icon to display these options.

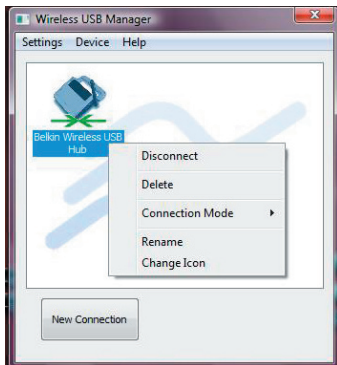
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Operation

System Tray

When the Wireless USB Manager is running, the “Wireless USB Manager” icon displays in the Windows System Tray. Place your mouse over the icon to see whether the radio is enabled or disabled.



Right-clicking this icon gives you the option to exit the application, hide/show the application window, disable/enable the radio, or access Help and About information.

Double-clicking this icon will bring up the “Wireless USB Manager” application window. Alternatively going to “Start > Programs > Dell WUSB > Wireless USB Manager” can be used to launch the application.

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Maintenance

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The following sections provide maintenance information and troubleshooting advice.

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Troubleshooting

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1. I have gone through the association procedure, but still cannot connect to the Hub.

Check that the power supply is connected and that the blue LED on the Hub is lit.

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If you are sure there is power to the Hub, open the Wireless USB Manager. On the opening screen, your Hub should be one of the devices listed. If it is not, perform the cable- or PIN-association procedure again.

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If you see your device listed, make sure there are two green arrows pointing to each other over the device icon. If the software does not show a wireless connection, move your Hub closer to the computer to see if that fixes the problem.

If neither of those steps work, try resetting your Hub by unplugging the power-supply connector from the back of the Hub, waiting a few moments, and then plugging it back in. **Note:** After doing this, you must repeat the security-association setup.

Maintenance

2. I have a device installed but I still can't seem to connect to it. What should I check before contacting Technical Support?

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Have you completed the one-time PIN- or cable-association procedure? If so, please verify that the device you set up appears in the main screen of the Wireless USB Manager. If it does not, try the security-setup process again, following the instructions carefully. You will be prompted when the process has completed successfully. **For cable-association, do not unplug the cable until you receive this message.**

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Try moving the devices very close together to determine if a connection can be made. Once the connection has been made, begin moving them further apart to determine the maximum operating distance for your environment. Note that this distance could be reduced by large solid objects placed between the two devices, such as a wall or refrigerator. The best setup places the devices in a line-of-sight orientation.

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Check the blue LED status light on the Wireless USB Hub. When there is a good wireless connection, the blue LED flashes at a constant rate.

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Open the “Wireless USB Manager” application, select the “Options” button, and try changing to a different channel under the “Advanced Options” tab. Then, see if the devices will connect.

If you used the cable-association procedure, verify that the host USB port on your computer works properly. Do this by connecting another USB device directly to it. If you are using any additional extension cables for association, please remove them and repeat the procedure.

Maintenance

1

If possible, try the entire Hub installation process on another PC to determine if there is a problem with only the current system.

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Verify the following by referring to your computer manufacturer's support information:

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A) that your system has the latest drivers (available from the manufacturer) installed for the system's chipset;

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B) that your system is using the latest BIOS ("basic input/output system", software that controls basic computer functions).

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3. I have two hubs in my house. I can only get one at a time to run.

You may have a situation in which both setups are trying to access the same channel. Open the Wireless USB Manager and click on "Settings > Options > Advanced Options". By default, both should operate instantly in the same environment. If both hubs are set to the same channel, change one of them to a different channel. The channel range is 09–15.

4. I keep getting the message, "No Channels Available", when I try to use one of my hubs. What does that mean?

If you have multiple hubs in the same environment, you may have reached the limit of available channels. Free up a channel by disconnecting Wireless USB communication on one of the configured setups.

Maintenance

Support for USB Classes

Audio devices (“USB Audio” class) and some webcams (“USB Video” class), which have isochronous end points, are not supported by the Hub.

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Technical Specifications

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Model Number F5U303 — Wireless USB Hub

UWB Chipset WiQuest® WQST110 BB/MAC
+ WQST101 RF IC

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PHY Data Rate Up to 480Mbps (automatically selected)

Frequency Range 3.1GHz to 4.8GHz; supporting
3 sub-bands, 528MHz each

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RF Modulation Type Multiband OFDM

Max. Output Power 80 μ W (-41.25 dBm/MHz max.)

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Max. Power Consumption Hub — 15W (3A @ 5VDC from
external power supply)

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USB Power Drive Powers up to 4 USB external
devices (500mA @ 5VDC each)

USB Association Type Host GUI-based association

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LED Indicators Wireless link, Hub port status

PCB Size Hub — 61mm x 94mm

Antenna Hub — external UWB
omnidirectional antenna

Operating Temperature Range 32° F to 131° F (0° C to 55° C)

Operational Humidity 30%–85%

PHY Compliance Complies with WiMedia®
PHY spec. rev. 1.0

FCC Compliance Complies with FCC CFR 47
Part 15 subpart F; UWB intentional
radiation and subpart B

USB Hub Compliance Complies with Wireless USB
Specification 1.1

OS Compliance Windows Vista 32-bit/64-bit;
Windows Plug-and-Play-compliant

Coexistence Coexists with standard
WiMedia devices

Coexistence with co-located additional
dongles or Wireless USB systems
(FFI, TFI schemes)

Information

FCC Statement

DECLARATION OF CONFORMITY WITH FCC RULES FOR ELECTROMAGNETIC COMPATIBILITY

We, Belkin International, Inc., of 501 West Walnut Street, Compton, CA 90220, declare under our sole responsibility that the product:

F5U303 to which this declaration relates:

Complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This equipment may only be operated indoors. Operation outdoors is in violation of 47 U.S.C. 301 and could subject the operator to serious legal penalties.

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Belkin International, Inc., Limited Lifetime Product Warranty

What this warranty covers.

Belkin International, Inc. (“Belkin”) warrants to the original purchaser of this Belkin product that the product shall be free of defects in design, assembly, material, or workmanship.

What the period of coverage is.

Belkin warrants the Belkin product for the lifetime of the product.

What will we do to correct problems?

Product Warranty.

Belkin will repair or replace, at its option, any defective product free of charge (except for shipping charges for the product).

Information

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What is not covered by this warranty?

All above warranties are null and void if the Belkin product is not provided to Belkin for inspection upon Belkin's request at the sole expense of the purchaser, or if Belkin determines that the Belkin product has been improperly installed, altered in any way, or tampered with. The Belkin Product Warranty does not protect against acts of God such as flood, lightning, earthquake, war, vandalism, theft, normal-use wear and tear, erosion, depletion, obsolescence, abuse, damage due to low voltage disturbances (i.e. brownouts or sags), non-authorized program, or system equipment modification or alteration.

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How to get service.

To get service for your Belkin product you must take the following steps:

1. Contact Belkin International, Inc., at 501 W. Walnut St., Compton CA 90220, Attn: Customer Service, or call (800)-223-5546, within 15 days of the Occurrence. Be prepared to provide the following information:
 - a. The part number of the Belkin product.
 - b. Where you purchased the product.
 - c. When you purchased the product.
 - d. Copy of original receipt.
2. Your Belkin Customer Service Representative will then instruct you on how to forward your receipt and Belkin product and how to proceed with your claim.

Belkin reserves the right to review the damaged Belkin product. All costs of shipping the Belkin product to Belkin for inspection shall be borne solely by the purchaser. If Belkin determines, in its sole discretion, that it is impractical to ship the damaged equipment to Belkin, Belkin may designate, in

Information

its sole discretion, an equipment repair facility to inspect and estimate the cost to repair such equipment. The cost, if any, of shipping the equipment to and from such repair facility and of such estimate shall be borne solely by the purchaser. Damaged equipment must remain available for inspection until the claim is finalized. Whenever claims are settled, Belkin reserves the right to be subrogated under any existing insurance policies the purchaser may have.

How state law relates to the warranty.

THIS WARRANTY CONTAINS THE SOLE WARRANTY OF BELKIN. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR, EXCEPT AS REQUIRED BY LAW, IMPLIED, INCLUDING THE IMPLIED WARRANTY OR CONDITION OF QUALITY, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND SUCH IMPLIED WARRANTIES, IF ANY, ARE LIMITED IN DURATION TO THE TERM OF THIS WARRANTY.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

IN NO EVENT SHALL BELKIN BE LIABLE FOR INCIDENTAL, SPECIAL, DIRECT, INDIRECT, CONSEQUENTIAL OR MULTIPLE DAMAGES SUCH AS, BUT NOT LIMITED TO, LOST BUSINESS OR PROFITS ARISING OUT OF THE SALE OR USE OF ANY BELKIN PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

This warranty gives you specific legal rights, and you may also have other rights, which may vary from state to state. Some states do not allow the exclusion or limitation of incidental, consequential, or other damages, so the above limitations may not apply to you.

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