

C.CRANE



# QUICK START GUIDE

PLEASE READ ALL INSTRUCTIONS COMPLETELY BEFORE USE AND SAVE THIS MANUAL FOR FUTURE REFERENCE

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## Introduction

Thank you for purchasing the Super USB WiFi Antenna 3. To ensure many years of service, please read this manual carefully.

## **Included Contents**

USB Antenna Software CD 15' USB cable Suction Cups (2) Hook and Loop Mounting Strip Cable Tie Rubber Grommets (2) Lanyard

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## Compatability

- Windows 2000<sup>™</sup> through Windows 7<sup>™</sup>
- Mac OS® 10.3 (Tiger) through 10.7 (Lion)
- Linux operating systems
- USB 1.1 2.0 interface
- 802.11b, 802.11g, and 802.11n
- WEP, WPA, and WPA2 encryption
- Wireless Routers up to 2.4 GHz (*Note:* Not compatible with 5 GHz Networks)

## Features

- Line of sight (no obstructions) operation of up to one mile.
- WiFi Strength: 28db EIRP (+/- 2db)
- · Waterproof design (IP65 Standard)
- High-quality 15' USB cable (Optional 30' cable available at www.ccrane.com/SPC)
- Up to 150MBps file transfer rate

## Introduction to Software Installation

Since not all operating systems are the same (e.g. Windows, Apple/Mac, Linux), we have supplied installation directions for each type. Please read and follow each step of the installation and connection instructions for your operating system.

Please install the software on the CD according to the instructions in this Quick Start Guide, BEFORE the antenna is plugged in.

Windows Vista/7 users can automatically install the drivers without using the CD, provided that your computer is currently connected to the internet. With the internet currently connected, then plug in the antenna to the computer. The drivers will install automatically.

Linux users: See instructions on the Software CD.

Windows is a registered trademark of Microsoft Corporation in the United States and other countries. Windows 7 is a registered trademark of Microsoft Corporation in the United States and other countries. Mac OS is a registered trademark of Apple Inc.

#### Installation

NOTE: Please install the software on the CD according to the instructions in this Quick Start Guide, BEFORE the antenna is plugged in.

- Insert the supplied CD into your computer's disk drive. The setup software should start automatically after a few seconds. Windows Vista/7 users, please read Introduction to Software Installation on page 3. Windows Vista/7 will show an AutoPlay window. Click "Run Autorun.exe." A security shield or message will appear in the Task Bar at the bottom of the screen. Click to open the message. Click "Do you want to allow the following program to make changes to this computer?" Click "Yes" or "Allow".
- 2. When the first screen appears, click "Driver Installation".



3. When the "License Agreement" screen appears, click "I accept the terms ... ", then click "Next".



4. When the "Setup Type" screen appears, click "Install driver only", then click "Next".

**Note:** Installing the "**Driver Only**" is the easiest way to use your antenna. We recommend that only advanced users and Windows 2000 users install the Ralink WLAN Utility. For more assistance using the Ralink WLAN Utility, refer to the full user manual on the supplied CD.

Ralink Wireless LAN - InstallSt	nield Wizard	
Setup Type Select the setup type that best sui		
	Instell driver and Relink WLAN Utility	
	Install driver only	
2000		
A Railnk		
losta(Sheid	< Back Next >	Cancel

- 5. Click "Install" to continue the installation.
- 6. When the computer has finished installing the driver, click "**Finish**" to exit the setup and begin using your antenna.

Ralink Wireless LAN - InstallS	hield Wizard
	InstallShield Wizard Complete
Ralink	The InstalShed Woard has successfully installed Ratink Windess LAN. Click Finish to exit the woard.
Instal Shrekd	Cancel

7. Connect the USB cable between the Super USB WiFi Antenna 3 and your computer's USB port. If you have two USB ports available, both connectors can be plugged in for better performance. If only one USB port available, plug in the main USB cable connector (not the optional Power Boost connector). USB cables plug in just one way and should not be forced in.

**Note:** When connecting the USB cable to the Super USB WiFi Antenna, be sure that it is tightly connected and that there is no gap between.

**For Outdoor Use:** We recommend using the supplied rubber grommet between the antenna and the cable, to protect the antenna connector from weather.

**For Boat and Extended Outdoor Use:** We recommend wrapping coaxial sealant (sold separately) around the base of the antenna, covering the connection and part of the cable for more protection.

## Connecting to a WiFi Site

Access the built-in Windows wireless utility using the icon that shows up in the clock task bar. For each Windows operating system, the utility works differently. Please follow the directions below.

### Windows XP

1. Left click the icon below. A small window will appear titled "Wireless Network Connection Status".



**Note:** If there are more than one wireless icon that appear in this area, hover your cursor over each icon and choose the one with highest number after "Wireless Connection" (example: "Wireless Connection 2").

- 2. Left click "View Wireless Networks".
- 3. Left click the network of your choice from the list, then left click "**Connect**".

**Note:** If the network site shows "Security-enable wireless network", you are required to enter the correct key to make a successful connection. If the network site shows "Unsecured Wireless Network" then a key is not required before connecting. Successful connection to a wireless network usually requires a minimum of 2 bars of signal.

 Once connected to the network, you will be able to access the internet using your default web browser (provided that the network offers internet access).

### Windows Vista

1. Left click the icon below. A small window will appear titled "Wireless Network Connection Status".



- 2. Left click "Connect to a Network".
- 3. Left click the network of your choice from the list, then left click "**Connect**".

**Note:** If the network site shows "Security-enable wireless network", you are required to enter the correct key to make a successful connection. If the network site shows "Unsecured Wireless Network" then you will not need to enter a key before connecting. Successful connection to a wireless network usually requires a minimum of 2 bars of signal.

4. Once connected to the network, you will be able to access the internet using your default web browser (provided that the network offers internet access).

### Windows 7

1. Left click the icon below. A small window will pop up showing wireless networks that can be detected.



**Note:** If you have built-in WiFi in your computer, you may have to scroll down the list of networks to see the additional ones that your new antenna can detect. Successful connection to a wireless network usually requires a minimum of 2 bars of signal.

- 2. Left click the network of your choice from the list, then left click "**Connect**".
- Once connected to the network, you will be able to access the internet using your default web browser (provided that the network offers internet access).

### Windows 2000

**Note:** Since Windows 2000 does not have its own built-in wireless utility, you will be required to install the Ralink WLAN Utility from the CD. Refer to the full user's manual supplied on the CD for more assistance.

#### Installation

NOTE: Please install the software on the CD according to the instructions in this Quick Start Guide, BEFORE the antenna is plugged in.

- 1. Insert the supplied **CD** into your computer's **disk drive**.
- 2. Double click on the **CD icon**.
- 3. Double click on the "Mac" folder.
- 4. Double click on your Mac OS version.
- 5. When the "Introduction" screen appears, click "Continue". 10.7 screen appears slightly different.

MAC



6. When the "Destination Select" screen appears, click "Continue".



7. When the "Installation Type" screen appears, click "Install".



8. When prompted, enter your "Name" and "Password". 10.7 "Okay" button is "Install Software".

	🥪 Install USB Wireless Utility - Leopard	
	Standard Install on "Diamond"	
O Introduction		
O Destina O Installa O Installat	Installer requires that you type your password.	er. of
adminin	Name: User Name Password:	3
0	Cancel	$\supset$
Real Property lies	Co Back	(Install

9. When prompted, click "Continue Installation".



10. When the "Summary" screen appears, click "Restart".



**Note:** During Restart, an "**Updating Boot Caches**" screen will appear. Click "**OK**" and the restart will continue.

11. When the computer is fully powered on, plug in the **Super WiFi USB Antenna** into your computer's **USB port**. If you have two USB ports available, both connectors can be plugged in for better performance. If you only have one USB port available, the antenna will still work well. USB cables plug in just one way and should not be forced in.

**Note:** When connecting the USB cable to the Super USB WiFi Antenna, be sure that it is tightly connected and that there is no gap between.

**For Outdoor Use:** We recommend using the supplied rubber grommet between the antenna and the cable, to protect the antenna connector from weather.

12. MAC OS 10.5 and MAC OS 10.6 users: Click "Network Preferences ... " and then click "Apply" to activate the antenna. 10.7 skips this step.

Show All	Network	Q
	Location: Automatic	
Ethernet 1 Connected & Ethernet 2 Not Connected &	-> Status:	Cable Unplugged The cable for USB Ethernet (en3) is not plugged in.
FireWire Not Connected USB Etet (en2) Not Connected USB Etet (en3) Not Connected	Configure: IP Address: Subnet Mask: Router:	Using DHCP
	DNS Server: Search Domains:	
+  -   ¢-		Advanced

**MAC OS 10.3 and 10.4 users:** Go to the "**System Preferences**" panel and then click "**Network**". A message displays "New Port Detected". Click "**OK**" and then click "**Apply**" to activate the antenna.



#### Connecting to a WiFi Site

 From the dock, click the "Ralink" icon to activate the "WLan" utility, or find it in the "Applications"/ "Utilities" menu. *Note:* 10.7 does not show the "Ralink" icon in dock. Ralink will be shown in your "Apple System Preferences".



2. Select your desired WiFi network from the "Site Survey" list, then click "Connect". Begin 10.7 here.

	Profile Lin	k Status	Site Surve	y St	atistics	Advance	d WP	5 About
				AP Lis	R R			
	SSID	BS	SID	Signal	Channel	Authe	Encr	Network Type
	2WIRE367	00-0D-72	2-89-07-0	99	6	WPA-PSK	TKIP	Infrastructure
	Wall Family	00-23-69	-C8-88-9	26	6	WPA-PSK	TKIP	Infrastructure
	CC1	68-7F-74	-22-81-3	100	6	Open	WEP	Infrastructure
	cindy	00-26-F2	-18-E8-E4	37	6	WPA-PSK	TKIP	Infrastructure
	TOWNSCHOOL	00-14-60	-E0-E9-2.	37	6	WPA-PSK	TKIP	Infrastructure
	2WIRE857	00-24-56	-4F-34-D	42	6	Open	WEP	Infrastructure
	1440 5563	00-24-93	-32-2F-E	47	6	Open	WEP	Infrastructure
	5201 7667	00-24-37	-A8-38-8	78	6	Open	WEP	Infrastructure
	2WIRE939	00-25-30	-CC-A5-E	52	7	Open	WEP	Infrastructure
	2WIRE441	00-1D-5/	A-2C-67-5	52	10	Open	WEP	Infrastructure
	multiply	00-16-B6	-F5-AC-1	52	11	WPA-PSK	TKIP	Infrastructure
		00-09-58	-AA-D7-7	26	11	Open	WEP	Infrastructure
	ccrane	00-17-C	-42-54-0	94	2	WPA-PSK	AES	Infrastructure
	Private	00-24-B2	-F9-EB-0:	42	6	WPA-PSK	TKIP+A	Infrastructure
-	onected			10	PESCA		NARCT	

 If the selected network requires a WPA security key, enter it into the corresponding space. If your network requires a WEP key, then enter it into the space after "Key #1" Hexadecimal. Then click "OK".

	Authentication Type	WPA-PSK
	Encryption Type	ТКІР
	WPA Pre-Shared Key	YourSecurityKey
WEP SETTING		
• Key #1	Hexadecimal	•
○ Key #2	Hexadecimal	*
O Key #3	Hexadecimal	•
○ Key #4	Hexadecimal	•
		OK CANCEL

4. When you are successfully connected to the wireless site, a handshake icon will appear in the first column, next to your SSID (network name).

At this point, you will be able to access the internet using your default web browser.

-	Profile Lini	k Status	Site Surve	y St	atistics	Advance	ed WF	S About
				- AP Lis	k			
-	SSID	85	SID	Signal	Channel	Authe	Encr	Network Type
	SETUP	1E-37-2	8-8E-88-8E	26	11	Open	NONE	Ad Hoc
4	multiply	00-16-8	6-F5-AC-1			WPA-PSK	TKIP	Infrastructure
	ccrane	00-17-C	5-42-54-0	100	2	WPA-PSK	AES	Infrastructure
	2WIRE367	00-0D-7	2-89-07-0	100	6	WPA-PSK	TKIP	Infrastructure
	CC1	68-7F-7	4-22-81-3	57	6	Open	WEP	Infrastructure
	cindy	00-26-F	2-18-E8-E4	42	6	WPA-PSK	TKIP	Infrastructure
	2WIRE857	00-24-5	6-4F-34-D	42	6	Open	WEP	Infrastructure
	ap123	00-16-B	6-9E-51-2.	42	6	Open	WEP	Infrastructure
	5201 7667	00-24-3	7-A8-38-8	78	6	Open	WEP	Infrastructure
	2WIRE939	00-25-3	C-CC-AS-E	37	7	Open	WEP	Infrastructure
	TOWNSCHOOL	00-1F-3	3-FB-BE-SC	37	11	WPA-PSK	TKIP	Infrastructure
		00-09-5	8-AA-D7-7	42	11	Open	WEP	Infrastructure

## **Creating a Profile**

We recommend that you create a profile for your wireless connection so that you will not need to re-enter your network information every time your computer is turned on.

To get started, click your desired SSID from the "**Site Survey**" list, then click "**Add Profile**". You will need to reenter your wireless security key again, then click "**OK**".

	Profile Lin	k Status Site Surve	y St	atistics	Advance	ed WP	S About			
_	SSID	BSSID	Signal	Channel	Authe	Encr	Network Type			
	SETUP	1E-37-28-8E-88-81	26	11	Open	NONE	Ad Hoc			
3	multiply	00-16-86-F5-AC-1	83	1	WPA-PSK	TKIP	Infrastructure			
1	ccrane	00-17-C5-42-54-0	100	2	WPA-PSK	AES	Infrastructure			
	2WIRE367	00-0D-72-89-07-0	100	6	WPA-PSK	TKIP	Infrastructure			
	CC1	68-7F-74-22-81-3	57	6	Open	WEP	Infrastructure			
	cindy	00-26-F2-18-E8-E4	42	6	WPA-PSK	TKIP	Infrastructure			
	2WIRE857	00-24-56-4F-34-D	42	6	Open	WEP	Infrastructure			
	ap123	00-16-86-9E-51-2.	42	6	Open	WEP	Infrastructure			
	5201 7667	00-24-37-A8-38-8	78	6	Open	WEP	Infrastructure			
	2WIRE939	00-25-3C-CC-AS-E	37	7	Open	WEP	Infrastructure			
	TOWNSCHOOL	00-1F-33-FB-BE-5C	37	11	WPA-PSK	TKIP	Infrastructure			
		00-09-58-AA-D7-7	42	11	Open	WEP	Infrastructure			
_			_				-			

 Once your profile is complete, you can activate it by selecting it from the "Profile" tab and then click "Connect". For more WiFi Tips, see the C. Crane web site at: www.ccrane.com/US3

# 1. Receiving an outside signal while inside a building:

Place the Super USB WiFi Antenna oriented vertically in the center of a window. It is best to place it in a window that is facing the WiFi source. Obstructions between the source of the WiFi signal and the antenna will greatly reduce the effective WiFi range.

# 2. Receiving a better signal with the antenna mounted outside:

For an even better signal, place the antenna outside where it is not inhibited by walls or windows. It is best to place the antenna as high as possible and at least 3ft away from metal objects. There is also an optional 30ft cable available at *www.ccrane.com/SPC* which will allow you to place the antenna in a farther location. Be sure to use the rubber grommet between the antenna and the cable to protect the connection from weather.

**For Boat and Extended Outdoor Use:** We recommend wrapping coaxial sealant (sold separately) around the base of the antenna, covering the connection and part of the cable for more protection.

# 3. Receiving an inside signal from within the same building:

If the WiFi source is located on the same floor, orient the Super USB WiFi Antenna vertically. If the WiFi source is located on a floor above or below, it may be necessary to adjust the angle of the antenna to receive in the direction of WiFi source.

#### 4. Mounting Options:

Supplied with the antenna are mounting options for most situations.

- For mounting on a vertical pole, use the Cable Tie. Place it around the narrowest part of the antenna, near the middle, to secure it to the pole.
- For mounting on a horizontal tree branch, clothesline, or other object, use the supplied Lanyard. Loop the small section through the hole at the top of the antenna. Loop the larger ribbon section around, or hang it on the object. Both sections of the Lanyard detach for easy installation and removal.
- For smooth surfaces like a window or back of a laptop screen, use the supplied Suction Cups. Slide the suction cups onto the antenna and

dampen the cup portion before application.

• For a porous wall or shelf, you can use the sticky Hook and Loop material. Attach one piece to the antenna and the other to the mounting surface.

## FAQs and WiFi Troubleshooting

- Q. My computer is not showing that the antenna is plugged in. What is wrong?
- A. Check the connection between the antenna and the cable to be sure they are tightly connected. If only one USB port is available, make sure to use the main USB cable connector, not the optional Power Boost connector (single loose connector).
- Q. I have Windows 7/Vista and inserted the software CD. I clicked on "Run Autorun.exe" but nothing is happening.
- A. Check the bottom Task Bar area for a security shield or message that is asking permission to install the software. Also, if your computer has a third party Firewall or Virus protection installed, you may have to disable it. Please read the manufacturer's instruction manual.
- Q. My software shows that the antenna is connected but when I try to use my internet browser I am unable to view anything. What should I do?
- A. You may not have a strong enough WiFi connection. Successful connection to a wireless network usually requires a minimum of 2 bars of signal. If the signal is low, you can try relocating or repositioning the antenna with a better line-of-sight view to the WiFi source; or the wireless network does not offer internet service; or a firewall/virus protection is preventing access.
- Q. I purchased the USB WiFi Antenna and when it is hooked up it does not improve my WiFi reception. Is there something I can do to make it work better?
- A. Be sure that the antenna is positioned vertically in the center of the window, if the WiFi source is outside your location. Using the optional 30ft accessory cable, you can mount your antenna outside and up high for best reception. Visit *www.ccrane.com/SPC* for more information or to purchase the 30ft cable or coaxial sealant.
- Q. Can I use a passive USB extension cable to add on

to the existing length of the cable that came with the Super USB WiFi Antenna?

- A. No, the Super USB WiFi Antenna should not be connected to an additional passive USB extension cable. Please use the 15ft USB cable that came with the antenna or replace it by purchasing an optional 30ft USB cable. It is not recommended to exceed the 30ft USB cable, as it can cause severe signal loss.
- Q. Is there a location on the web to download another copy of the software CD?
- A. Yes, see the C.Crane web site at this address: www.ccrane.com/US3
- Q. My computer is a Mac and I connect to a Secure Network but everytime I shut my computer down, I have to reenter the Encryption Key.
- A. Connect to the network and click on "Add Profile". See "Creating a Profile" on page 12 for more information.
- Q. My computer has an internal WiFi antenna; is it necessary to disable it before installing the software and the Super USB WiFi Antenna?
- A. It is not required, but it is recommended. If both WiFi connections are going at the same time, it will require more power from your computer and create extra heat. Usually there is a button, switch, or key on a laptop that disables the built-in WiFi device.
- Q. Which side (front or back) faces the window when using the suction cups?
- A. It is up to you. The Super USB WiFi Antenna is omnidirectional, and so it can receive the signal from any direction.
- Q. Can I use the antenna with my iPad<sup>®</sup> or iPhone<sup>®</sup> to increase my WiFi reception?
- A. No. The Super USB WiFi Antenna 3 requires installation of software drivers. The iPad<sup>®</sup> and iPhone<sup>®</sup> are not capable of installing software drivers.
- Q. What do the blue and red lights on the antenna mean?
- A. The flashing blue light means the antenna is getting power and the intermittent red light means the antenna is communicating with the computer.

For more troubleshooting and FAQs, see the C. Crane web site at: *www.ccrane.com/US3* 

#### Federal Communication Commission Interference Statement

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

Operation is subject to the following two conditions:

- 1. This device may not cause harmful interface, and
- 2. This device must accept any interface received, including interface that may cause undesired operation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
  - a. Reorient or relocate the receiving antenna.
  - b. Increase the separation between the equipment and receiver.
  - c. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - d. Consult the dealer or an experienced radio technician for help.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

#### CAUTION:

- 1. To comply with FCC RF exposure compliance requirements, a separation distance of 20 cm (about 8 inches must be maintained between the antenna of this device and all persons.
- 2. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC ID: TKZAWUHN2405

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES.

OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

- (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFER-ENCE, AND
- (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RE-CEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.