

Wi-Fire

Long-range WiFi adapter

Installation Guide



Windows



Mac



Linux



Start Here



Wi-Fire

Long-range WiFi adapter

Table Of Contents

What you need to get started	1
Windows XP/Vista	2-5
Mac OS X 10.4 or 10.5	6-8
Linux Kernel 2.6.24+	9-12
Using The Wi-Fire	13
How do I get the most from my Wi-Fire?	14
FCC/IC Information	15
Warranty Information	16-17

What You Need to Get Started

- A computer with the following:
 - USB 2.0 Port
 - Windows, Mac, or Linux Operating System
 - Access to public or private wireless networks
- Wi-Fi (included)
- USB 2.0 cable (included)
- Software installation disc (included)
 - Or you can download the software installer here:
<http://www.hfield.com/customer-service/>
- Wireless network login information
 - (WEP or WPA/2 passwords or passkeys) if you plan to connect to a secure network.



Windows XP/Vista

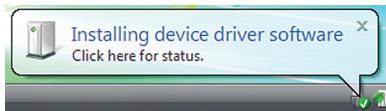
1. Installing the Wi-Fi Software

VERY IMPORTANT: Install the software BEFORE plugging your Wi-Fi into a USB Port.

1. Insert the Wi-Fi CD into your computer
2. The Wi-Fi Installer should open automatically.
 - a. If it does not automatically load, open your CD folder, then double click on “autorun”
 - b. When the blue Wi-Fi Installation window opens, click Install Wi-Fi.
 - c. The Installation Wizard will now run, proceed through its instructions until it finishes the installation process.
This may take a few minutes.
3. Restart your computer if prompted.

2. Installing the Wi-Fi Drivers

1. Plug the Wi-Fi into your computer's USB Port
2. Windows will automatically begin installing the correct drivers.
3. A balloon will appear in your System Tray telling you if the drivers were installed successfully.



The Wi-Fi is now ready to use! Continue for usage tips.



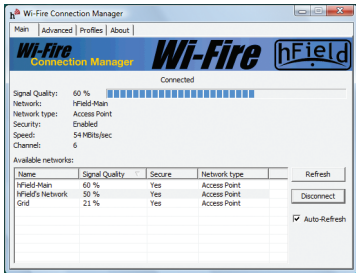
3. Configuring Wi-Fire Connections

1. Open the Wi-Fire Connection Manager by double clicking on the icon in your System Tray (it is a lowercase “h”)



(If the Wi- Fire Connection Manager is not already in your System Tray, open it by clicking on Start Menu -> All Programs -> Wi-Fire Connection Manager)

2. In the Main Tab, you'll see a list of available networks.
3. Double Click on the wireless network you'd like to connect to.





4. Connecting to a Secure Network

If you wish to connect to a secure network, you must enter the appropriate login information when prompted by the Wi-Fi Connection Manager. Contact the wireless network administrator if you do not know this information.

(To Connect to a WPA-Enterprise (802.1x) network, you'll need to connect through the Windows interface. To do this, double click on the WiFi icon in the system tray, then enter your WPA Enterprise settings and security information when prompted. Additional information can be found at www.hfield.com/8021x.htm)



Mac OS X 10.4 or 10.5

1. Installing the Wi-Fi Software

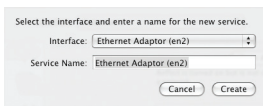
VERY IMPORTANT: Install the software BEFORE plugging your Wi-Fi into a USB Port.

1. Quit all other applications. The installation process requires a restart of your computer before you can use the Wi-Fi.
2. Insert the Wi-Fi CD into your Mac.
3. Double-click on Wi-Fi For Mac.dmg
 - a. Next, open the folder that corresponds to your version of OS X (10.4 or 10.5)
 - b. Double-click the .PKG installer file in that folder. This will begin the install process.
 - c. Follow the installations that appear on screen.
4. Restart your computer when prompted.

2. Detecting the Wi-Fi

1. After the Wi-Fi is installed, it is time for your Mac to detect the Wi-Fi as a new hardware device. Plug the Wi-Fi into any available USB 2.0 port.

2. Your Mac will automatically detect the Wi-Fi and prompt you to open Network Settings to approve. Click “OK”, then Click “Apply Now”



3. If your Mac does not automatically detect the Wi-Fi, open the Network Preferences panel found in your System Preferences panel under the Apple icon.

4. To add the Wi-Fi manually, click the “+” icon in the Network Preferences panel. In the next dialogue box, select “Ethernet Adapter (en2)” and click create.

5. The Wi-Fi will appear as “Ethernet Adapter” in your Network Preferences panel. The indicator light to the left will be red and the text will suggest that the network port is not plugged in. This is normal and will go away as soon as the Wi-Fi is connected. Close the Network Preferences panel.



3. Configuring Wi-Fi Connections

1. The Wi-Fi Connection Manager will open in your dock. While the Wi-Fi Connection Manager is the active application, click Setup -> Open Setup Window or type $\text{⌘} + S$ to open the configuration window.
2. From the Available Networks list, double click on the wireless network you'd like to connect to.
3. Wi-Fi Connection Manager needs to be running to get connected to a network. However, if you'd prefer it not load automatically when you start your computer, open System Preferences -> Account -> Login Items, and remove Wi-Fi Connection Manager from the list.

4. Connecting to a Secure Network

If you wish to connect to a secure network, you must enter the appropriate login information. You will need to know in advance whether your network is using WEP or WPA/2 encryption. Contact the network administrator if you do not know this information.



Linux Kernel 2.6.24+

1. Installing the Wi-Fi Driver Modules

The Wi-Fi will work plug-and-play right out of the box on the most widely used distributions of Linux.

In Linux the Wi-Fi uses the Open Source `zd1211rw` module. This module is included in most general Linux distributions, including Suse, Fedora, and Ubuntu. This driver is included in all kernels since 2.6.24, which was released in January 2008. If your kernel is a previous version, we strongly recommend upgrading to a more recent version.

To verify if your distribution of Linux contains this module, make sure that you have `/net/wireless/zd1211rw.c` in your drivers' directory. If you do not have this module already, it can be downloaded from www.linuxwireless.org.



2. Detecting the Wi-Fire

1. Plug the Wi-Fire into an available USB 2.0 port on your computer.
2. To verify the Wi-Fire is successfully recognized, open a Terminal Console, and type “lsusb”. Included in the Console response should be the line:

```
Oace:1215 Zydas WLA-54L WiFi
```

3. To verify the zd1211rw module is successfully loaded, open a Terminal Console, and type “lsmod”. Included in the Console response should be the line:

```
ZD1211RW      44741    0
```

The numbers after “ZD1211RW” may be different for your system. This difference does not indicate a problem with the installation.

4. The Wi-Fire is now properly setup. If you experienced any difficulty with the preceding steps, please reference our Linux Guide at <http://www.hfield.com/PDF/Linux.pdf>

Please note: Although we have made every effort to provide you with accurate and informative Linux installation and usage instructions for the Wi-Fire, please understand that due to the inherently complex nature of Linux environments, from differences in distributions, setups, and kernel versions, we will be unable to provide technical support for the Wi-Fire on Linux machines. Most often, the best support is found in the Linux community in Wiki's and Forums, including the links shown above. Of course, hField is eager to offer support and troubleshooting on other issues including your WiFi environment and how to obtain the best performance out of your Wi-Fire once it is installed.



3. Configuring the Wi-Fi Connection

1. Like any WiFi adapter, in Linux environments you may use either your preferred Graphical User Interface, or configure the connection through the Command Line interface.

a. Many of the common distributions of Linux come with a Network Manager Graphical User Interface, such as “knetmanager”.

b. Some users choose instead to use the built in command line utilities from a Terminal Console. These command line utilities include “iwconfig”, “ifconfig”, and “iwpriv”. The most common for use with the Wi-Fi is “iwconfig”.

c. For example, to connect to a network called “myAP” with the Wi-Fi (eth1 in this example), you would type “iwconfig eth1 essid myAP”. For a full listing of the commands, see iwconfig’s main page.



4. Connecting to a Secure Network

1. If using a graphical user interface to control your WiFi connections, you will be prompted for a WEP or WPA password.
2. If using a command line utility, you will need to supply the encryption key each time you connect
 - a. For example, to use the Wi-Fi (eth1 in this case) to connect to AP “myAp”, with WEP and encryption key “1234567890” type: `iwconfig eth1 enc <1234567890> essid myAP` .
 - b. However, if using a WPA or WPA2 encrypted network, you will need to start the WPA Supplicant process in the background before attempting to connect.

Please reference our Linux Guide at

<http://www.hfield.com/PDF/Linux.pdf>

Using The Wi-Fire

1. You can use your Wi-Fire by bracing it on top of any flat screen monitor, like a laptop, or sitting it on a flat surface like a tabletop.
2. The Wi-Fire is directional, which means you need to point it in the direction of the strongest signal for the best reception.
3. To find the best position, pivot and rotate the Wi-Fire while monitoring the Signal Strength in the Wi-Fire Connection Manager software. If you are gripping the Wi-Fire at any time while observing signal strength readings, make sure you are only gripping the end with the USB connection. Touching the area forward of that will distort signal readings during the time you are touching it.



How do I get the most from my Wi-Fire?

WiFi signals can be temperamental, which is why you need a powerful WiFi adapter like the Wi-Fire to get the best possible signal. But you can help ensure you always have the strongest connection possible even with the Wi-Fire.

One of the easiest ways is by always using the Wi-Fire Connection Manager (WCM) software. WCM will report a signal strength between 0 and 100% - much more precise than the 0-5 bars you normally see. We give you a wide range to help you distinguish between stronger and weaker networks.

Remember that this range does not compare well to the bars you see in other software. Those bars are typically overweighted toward the high end of the scale, so when the WCM says 60%, you might still see 5 bars with another software.

Also remember that once you're connected, the best measure of your WiFi connection is to use your computer as you normally would. Browse the Web, check e-mail, stream video, and see if the connection is reliable and adequate for your needs.

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 interference, and
- 2) This device must accept any interference received, including interference 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. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification of this equipment.

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:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet onto a circuit different from that to which the receiver is connected.
4. 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 at least 20 cm 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.

The term I.C. before the Certification/Registration number only signifies that the Industry Canada technical specifications were met.

LICENSE AND LIMITED WARRANTY

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- 2. Confidentiality.** You agree and acknowledge that the IP contains valuable trade secrets of hField. You may not disclose any hField IP relating to any third party. You must treat the hField IP with at least the same degree of confidentiality and care as you keep your own confidential information, but not less than reasonable care. All obligations of confidentiality shall survive the termination of this Agreement.
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LIMITED WARRANTY

hField warrants that every Wi-Fire Product(s) is free from physical defects in workmanship and materials for a period of one year from the date of purchase. All warranty claims must be requested of hField, prior to the expiration of the warranty period, by calling hField Customer Service and obtaining a Return Authorization Number (RMA). Returns must refer to the RMA number and be accompanied by the original proof of purchase. This warranty is not transferable by the Purchaser. Purchaser's sole remedy, and hField sole liability for a covered warranty defect, shall be for hField, at its sole discretion, to either replace or repair the defective Product. Purchaser is solely responsible for all shipping and handling charges on returned products under warranty. These warranties are void if the applicable product has been disassembled, altered in any way or damaged by accident, misuse, or abuse, including but not limited to, the use of unauthorized third party software or repairs, power surges, excessive heat, or humidity. hField warranty obligations shall not be enlarged or diminished by hField provision of technical advice to Purchaser.

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Taxes. You agree to be responsible for payment of any taxes, other than HField income taxes, resulting from this Agreement.

Patents. hField Products are protected by patents pending with the U.S. Patent Office.

Governing Law. The laws of the State of Pennsylvania, United States of America, shall govern this Agreement.

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of **Long Range
Wireless.**”

WI-FIRE

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