Wi-Fire

Long-range WiFi adapter

Installation Guide

Windows

Mac

Linux

Start Here

Wi-Fire

Long-range WiFi adapter

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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-Fire (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

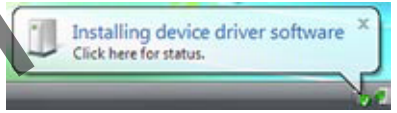
1. Installing the Wi-Fire Software

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

1. Insert the Wi-Fire CD into your computer
2. The Wi-Fire 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-Fire Installation window opens, click Install Wi-Fire.
   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-Fire Drivers

1. Plug the Wi-Fire 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-Fire 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-Fire 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)

Windows XP/Vista

Mac OS X 10.4 or 10.5

1. Installing the Wi-Fire Software

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

1. Quit all other applications. The installation process requires a restart of your computer before you can use the Wi-Fire.
2. Insert the Wi-Fire CD into your Mac.
3. Double-click on Wi-Fire 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-Fire

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

2. Your Mac will automatically detect the Wi-Fire 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-Fire, open the Network Preference panel found in your System Preferences panel under the Apple icon.
4. To add the Wi-Fire manually, click the "+" icon in the Network Preferences panel. In the next dialogue box, select "Ethernet Adapter (en2)" and click create.

5. The Wi-Fire will appear as "Ethernet Adapter" in your Network preference 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-Fire is connected. Close the Network preferences panel.

3. Configuring Wi-Fire Connections

1. The Wi-Fire Connection Manager will open in your dock. While the Wi-Fire Connection Manager is the active application, click Setup -> Open Setup Window or type Command + S to open the configuration window.
2. From the Available Networks list, double click on the wire less network you'd like to connect to.
3. Wi-Fire 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-Fire 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-Fire Driver Modules

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

In Linux the Wi-Fire 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 respons should be the line:

0ace: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 in cluding your WiFi environment and how to obtain the best performance out of your Wi-Fire once it is installed.

3. Configuring the Wi-Fire Connection

1. Like any WiFi adapter, in Linux environments you may use either your preferred Graphical User Interface, or configure the connec tion 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 comon for use with the Wi-Fire is "iwconfig".

c. For example, to connect to a network called "myAP" with the Wi-Fire (eth1 in this example), you would type "iwconfig eth1 essid myAP ". For a full listing of the commands, see iwconfig's man page.

4. Connecting to a Secure Network

1. If using a graphical user interface to control your WiFi connetions, 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-Fire (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 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. 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 on 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.

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