

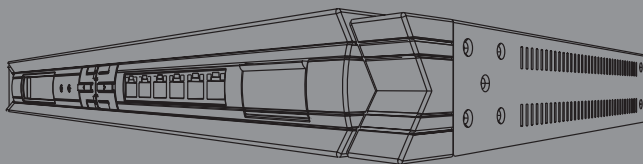


**NETDEFEND**

## **NETWORK SECURITY FIREWALL**

This Quick Guide will guide you through the installation Process. You are only moments away from using your new D-Link Network Security Product

**DFL-1600**



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# DFL-1600 Before You Begin

# 1

## 1.1 Check Your Package Contents

Your NetDefend Network Security Firewall package should contain all the items listed below. If any of these items is found damaged or missing in your package, report it to your reseller immediately for replacement.

- One (1) DFL-1600 NetDefend™ Network Security Firewall
- One (1) Power Cord
- One (1) Console Cable (RS-232 cable)
- One (1) Ethernet (CAT5 UTP/Straight Through) Cable
- One (1) Ethernet (CAT5 UTP/Cross-over) Cable
- One (1) CD-ROM (containing QIG/Manual )
- Two (2) Rack Mount Brackets



DFL-1600



Power Cord



Rack Mount Brackets



Ethernet Cable  
(Straight-Through)



Ethernet Cable  
(Cross-over)



Console Cable



CD-ROM

# Identifying Components

## 2

The following illustrates the front panel of the DFL-1600 and explains the front panel's key components:

### 2.1 Front View

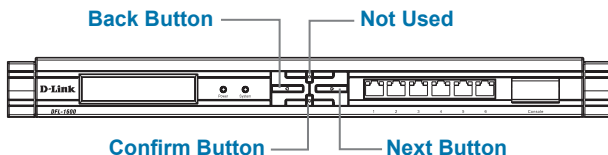


- |                          |                                                                                                                                                           |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. <b>LCD Panel</b>      | Used to display operation messages and various status of the DFL-1600. See the following section for details.                                             |
| 2. <b>Power LED</b>      | Power indication of the DFL-1600.                                                                                                                         |
| 3. <b>System LED</b>     | System status indication of the DFL-1600.                                                                                                                 |
| 4. <b>Keypad</b>         | Operation keys used in conjunction with the LCD panel.                                                                                                    |
| 5. <b>Ethernet ports</b> | Connect to Ethernet cables that connect to broadband modems and network switches.                                                                         |
| 6. <b>Console Port</b>   | Connects to RS-232 console cable that connects to PC. The console port is hidden behind a protection coverlid that can be opened by pulling down the lid. |

## 2.2 LCD Panel and Keypad

When you turn on the power of the DFL-1600, the LCD panel will display the following message: **“Press Keypad to enter setup”** and press any key on the keypad to enter the startup menu. If after five seconds, you do not press any key on the keypad, the DFL-1600 will automatically start the system.

### 2.2.1 Startup Menu



Keypad buttons definition in Startup Menu

If you press any key within five seconds after power-on, the LCD will display two options:

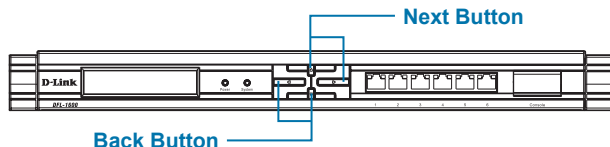
1. **Start Firewall**: If you select this option, the system will start, using the configuration saved inside the device.
2. **Reset Firewall**: If you select this option, the system will start, using the factory default configuration.



**Note:**

If you select **“Reset Firewall”** and confirm this option, all previous configurations that you saved in this device will be lost forever.

## 2.2.2 Device Status and Information



Keypad buttons definition in Status Information

After the DFL-1600 has completed its system startup, the LCD panel is ready to display the status and information of this device. You can use the keypad to select a desired display option. The following shows status and information that can be displayed on the LCD panel.

Item	Description
<b>Model name:</b>	Display the device model name.
<b>System Status:</b>	Display system working status.
<b>CPU Load:</b>	It will show the CPU utilization and
<b>Connections:</b>	concurrent session
<b>Total BPS:</b>	Concurrent traffic statistics per second.
<b>Total PPS:</b>	Concurrent packets statistics per second.
<b>Date:</b>	Device current date.
<b>Time:</b>	Device current time.
<b>Uptime:</b>	Device boot up time.
<b>Mem:</b>	System memory utilization.
<b>IDS Sigs:</b>	It will display IDS signature information.
<b>WAN1:</b>	Display each interface IP address
<b>WAN2:</b>	
<b>DMZ:</b>	
<b>LAN1:</b>	
<b>LAN2:</b>	
<b>LAN3:</b>	
<b>Core Version:</b>	Display firewall firmware version.

## 2.3 LED Indicators

LED	Status	Color	Description
Power	Solid green	Green	The device is powered on.
	Light off		The device is powered off.
System	Solid green	Green	System is operating properly.
	Light off		The device is not working.
	Blinking green		System is defective, such firmware upgrade fail.
Phone Jack LED light (right)	Light off	Green	No link
	Solid Green		Link present
	Blinking Green		Port is sending or receiving data.
Phone Jack LED light (left)	Light off	Green/	Port is operating at 10Mbps.
	Solid green	Orange	Port is operating at 100Mbps.
	Solid orange		Port is operating at 1000Mbps.

## 2.4 Default Interface Attribute Definition

Wording on Front plate	Default name in firewall	Default interface type definition	Default interface IP Address	Default DHCP Status
1	WAN1	DHCP client	N/A	Enabled
2	WAN2	Static IP	192.168.120.254/24	Disable
3	DMZ	Static IP	172.17.100.254/24	Disable
4	LAN1	Static IP	192.168.1.1/24	Disable
5	LAN2	Static IP	192.168.2.1/24	Disable
6	LAN3	Static IP	192.168.3.1/24	Disable



### Note:

**NetDefendOS only allows Web GUI access from LAN 1 port by default for security consideration. Please refer to user manual for more detail about how to change this configuration.**

## 3.1 Connecting Firewall to Your Network

- A. First, connect the power cord to the receptor at the back panel of the DFL-1600 and then plug the other end of the power cord to a wall outlet or power strip. Then powered on the DFL-1600 using the on/off switch. Now the Power LED will turn ON to indicate proper operation. After the power LED turns on, you need to wait 1-2 minutes for the DFL-1600 to boot up completely.
- B. Connect an Ethernet cable from the DFL-1600 to your Cable/DSL modem. If the Cable/DSL modem is powered on, wait for the WAN1 LED on the DFL-1600 to light up to show a proper connection. Otherwise, turn off your Cable/DSL modem, connect the Ethernet cable from the DFL-1600 to your Cable/DSL modem, and turn on the Cable/DSL modem. Some Cable/DSL modems may not have an on/off switch and will require you to unplug the power adapter.

### **Note:**

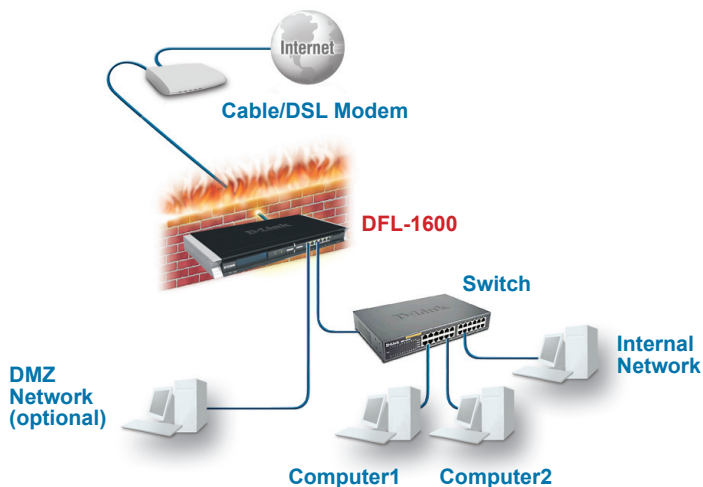
The default management IP address of the DFL-1600 is 192.168.1.1. If you have are using a router that uses DHCP, there may be a conflict if the router uses the same IP address as the DFL-1600. If this is the case, either disconnect the DFL-1600 from the router and change the management IP address of the DFL-1600, or change the DHCP settings on your router.

- C. Insert an Ethernet cable to the LAN1 port on the front panel of the DFL-1600 and connect it to a port on your network hub or switch. The LED light above the Ethernet port on the DFL-1600 will illuminate to indicate proper connection
- D. Connecting the computer that you will use to configure the DFL-1600 to the network hub or switch.

## 4.1 Configure Your Computer's IP Address

Make sure that the network adapter in your computer is configured to use a static IP address with 192.168.1.1 as default gateway and 255.255.255.0 as netmask. Instructions on how to configure the network adapter can be found in the appendix.

When you have completed the steps in this *Quick Installation Guide*, your connected network should look similar to this:



## 4.2 Using the Setup Wizard

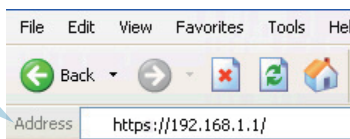
The DFL-1600 provides Web based configuration. You can configure your DFL-1600 through Internet Explorer 6 and later or Firefox 1.0 and later browser in MS Windows, Macintosh or UNIX based platforms.

Activate your browser, and ensure your built-in Pop-Up Blocker has been disabled, so that the Pop-Up Blocker will not block the Startup Wizard while you initiate the NetDefend Firewall for the first time.

Additionally, in order to reduce the impact of Pop-Up Blocker, a user-friendly mechanism has been implemented in NetDefend Firewalls. A "Startup Wizard" button is shown on the toolbar since firmware v2.20. This button is available on the WebGUI while the appliance is initiated with Configuration Version 1. Once you complete configuration and save/activate the setting, the Startup Wizard button will be removed automatically from the toolbar while you login WebGUI next time.

Now, let's start on WebGUI login, type the IP address of the DFL-1600, e.g. <https://192.168.1.1>, in the Location (for Netscape) or Address (for IE) field and press "Enter".

Open your Web browser and type <https://192.168.1.1> into the URL address box. Then press the Enter or Return key.



### Note:

**DFL-1600 allows either HTTP or a secure HTTPS connection from any management host. However, for security reason, by default only a secure HTTPS connection is allowed.**

### Log on to the DFL-1600 web interface.

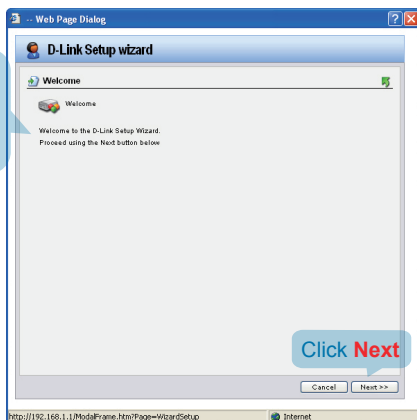
To start using the DFL-1600 web interface you need to log on using the default username and password.

Type the default Username/Password  
Username: admin  
Pasword: admin  
and click Login

 A screenshot of the 'Authentication Required' login page. The title bar says 'Authentication Required'. The main content area says 'Please enter your username and password.' and contains three input fields: 'Username:', 'Password:', and 'Language:' (with a dropdown menu currently set to 'English'). Below these fields is a 'Login' button. To the right of the input fields is a large padlock icon. At the bottom of the page, it says 'Optimized for Internet Explorer 6 (and later), Firefox and Netscape 8'.

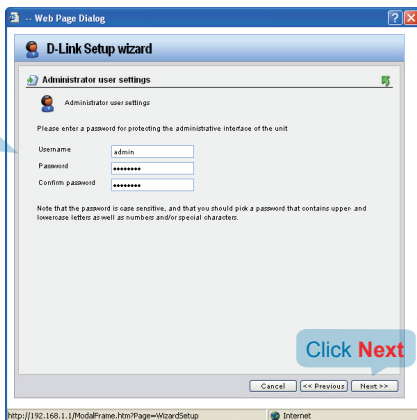
### Step1 - Welcome to the DFL-1600 setup wizard!

This wizard will guide you through the setup of your DFL-1600



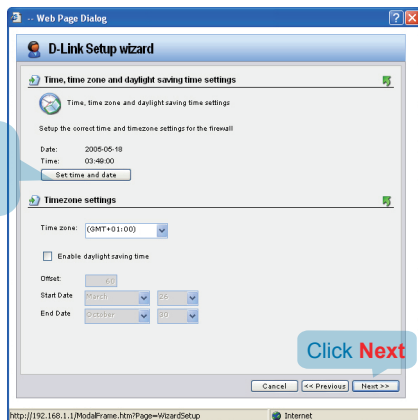
### Step2 - Set up firewall administrator password

First **Enter** the username that you want to use for the admin account.  
**Enter** the password that you want to use for the admin account.

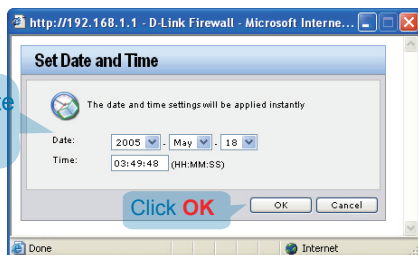


### Step 3 - Set up time and date

Click Set time and date button for setting device



Select the appropriate date  
Enter the appropriate time



### Step 4 - Set up timezone

Select the appropriate timezone.  
Enter the appropriate daylight saving time settings.

The screenshot shows the 'D-Link Setup wizard' window with the 'Time, time zone and daylight saving time settings' tab selected. The 'Timezone settings' section is active. It includes a 'Time zone' dropdown menu set to '(GMT+01:00)', a checked 'Enable daylight saving time' checkbox, and fields for 'Offset' (60), 'Start Date' (March 26), and 'End Date' (October 30). A blue callout bubble points to the 'Time zone' dropdown with the text 'Select the appropriate timezone. Enter the appropriate daylight saving time settings.' Another blue callout bubble points to the 'Next >>' button with the text 'Click Next'. The window title bar says 'Web Page Dialog' and the address bar shows 'http://192.168.1.1/ModeFrame.htm?Page=WizardSetup'.

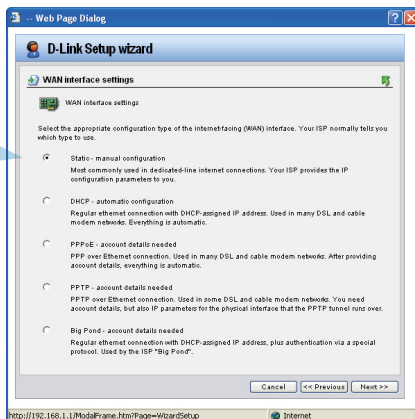
### Step 5 - Select WAN interface

Select the WAN interface that you want to use.

The screenshot shows the 'D-Link Setup wizard' window with the 'WAN interface settings' tab selected. The 'WAN interface settings' section is active. It includes a 'Select the interface that is connected to the ISP' instruction and a dropdown menu for 'Interface' set to 'wan1'. A blue callout bubble points to the 'Interface' dropdown with the text 'Select the WAN interface that you want to use.' Another blue callout bubble points to the 'Next >>' button with the text 'Click Next'. The window title bar says 'Web Page Dialog' and the address bar shows 'http://192.168.1.1/ModeFrame.htm?Page=WizardSetup'.

## Step 6 - Configure WAN interface

Select the appropriate configuration for the WAN interface, Click **Next** and continue to step 7.1 further down.

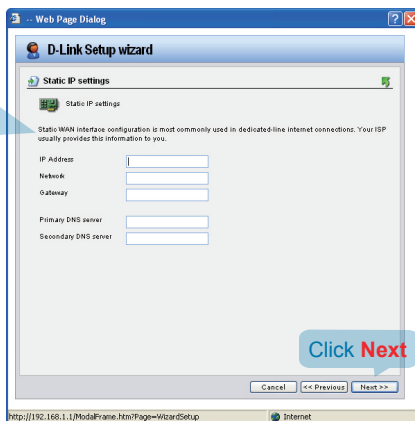


**Note:**

If you are unsure of which setting to select, please contact your Internet Service Provider.

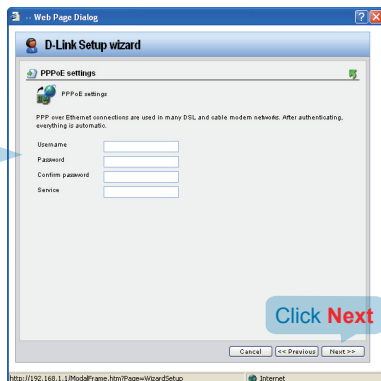
### Step 7.1 - WAN Interface Type is Static IP

If you selected Static IP you have to fill out the IP address information provided to you by your ISP. You will need to complete all the required fields except for Secondary DNS Server.



### Step 7.2 - WAN Interface Type is PPPoE

If you selected PPPoE (Point-to-Point Protocol over Ethernet) you will have to fill out the user name and password provided to you by your ISP. The PPPoE Service Name field should be left blank unless your ISP informs you otherwise.

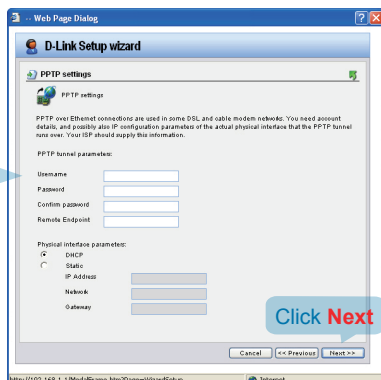


### Step 7.3 - WAN Interface Type is PPTP

Enter Username, Password and the PPTP Server IP address provided by your ISP.

**DHCP:** If your ISP is using DHCP you should select the DHCP radio button.

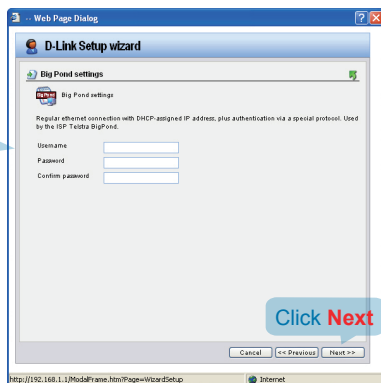
**Static IP:** If your Internet Service Provider is using Static IP you should select the Static IP radio button and enter IP Address, choose a Subnet Mask and enter the Gateway IP address.



## Step 7.4 - WAN Interface Type is Big Pond

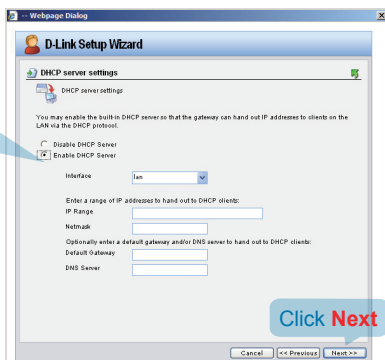
If you selected Big Pond you will have to fill out the user name and password provided to you by your ISP.

Click **Next** and continue to step 8.



## Step 8 - Set up built-in DHCP server

If you want to use the built-in DHCP Server in the DFL-1600, choose **Enable DHCP Server** in this screen. You then need to specify a range of IP addresses to hand out to the DHCP clients. This range is entered in the format **“Start IP - Stop IP”** i.e. 192.168.0.100 - 192.168.0.200. If you don't want to use the built-in DHCP Server or configure it later, choose Disable DHCP Server.



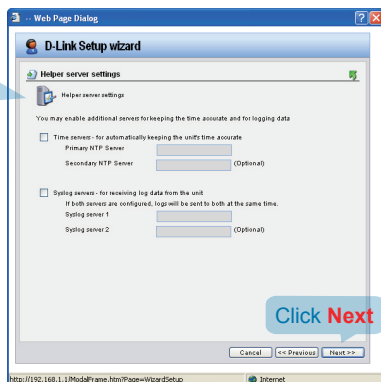
### Step 9 - Configure helper servers

#### NTP Servers

If enabled, specify which NTP Servers that should be used to synchronize the firewall time

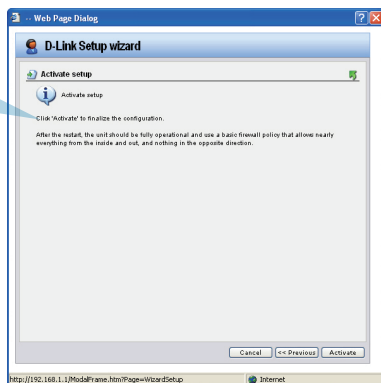
#### Syslog Servers

If enabled, specify where the firewall should log, you can specify up to two Syslog receivers



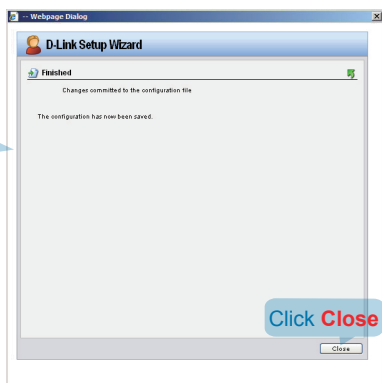
### Step10 - Setup Wizard Complete

Click **Activate** to complete your configuration.



## Step 11 - Confirmation

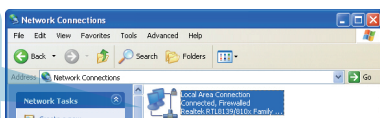
Confirm the changes committed to the configuration file and it has been saved now.



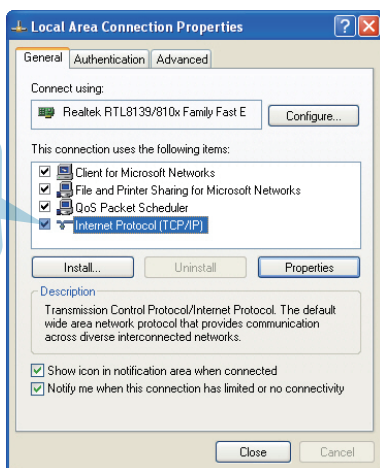
To connect to the DFL-1600 Network Security Firewall, make sure the network adapter in your computer is configured properly. Here is how to configure the network adapter manually to the correct IP-address.

## 5.1 How to configure Static IP Manually on Microsoft Windows XP

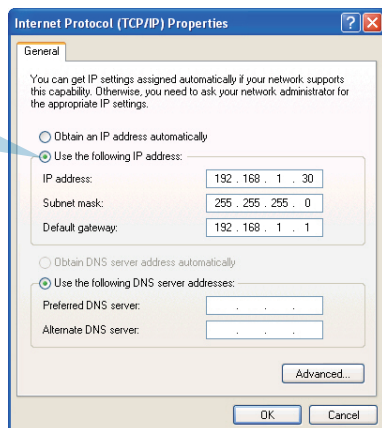
Go to **Start > right click on My Network Places > select Properties > Right-click on the Network Connection** of the Ethernet adapter connecting to the DFL-1600 and select **Properties**.



Click **Internet Protocol (TCP/IP)**  
Click **Properties**



Select **Use the following IP address**  
Set IP address to **192.168.1.30**,  
Subnet mask to **255.255.255.0**  
and Default gateway to **192.168.1.1**  
Click **OK**

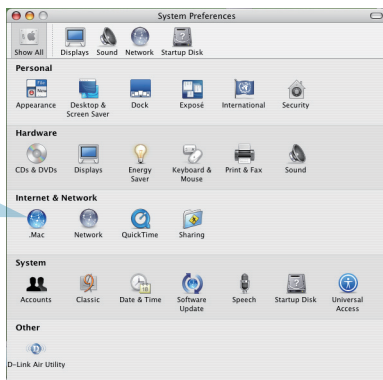


**Note:**

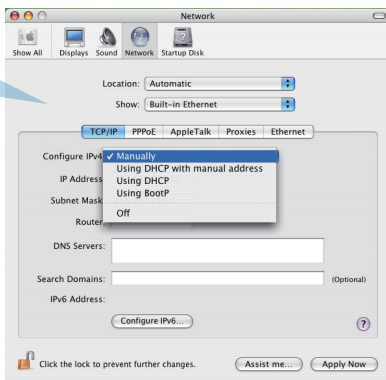
Except for 192.168.1.1, you could set your PC with any IP addresses that same as the 192.168.1.0/ 255.255.255.0 subnet.

## 5.2 How to Configure Static IP Manually on Apple Mac OS X

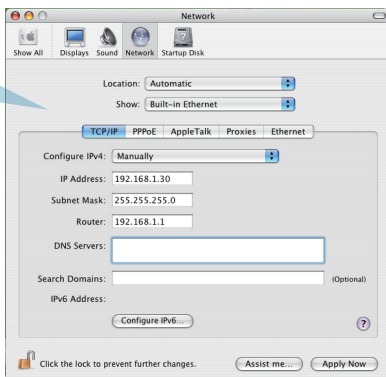
Go to the **Apple Menu**  
Click on **Network**  
and **Select System Preferences**  
Click on **Network**



Select **Built-in Ethernet** in the show pull down menu  
Select **Manually** in the Configure pull down menu



Set IP Address to **192.168.1.30**,  
Subnet Mask to **255.255.255.0**  
and Router to **192.168.1.1**.  
Click on **Apply Now**



## EMI Statement

### **FCC Warning**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### **CE Mark Warning**

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

### **Warnung!**

Dies ist ein Produkt der Klasse A. Im Wohnbereich kann dieses Produkt Funkstörungen verursachen. In diesem Fall kann vom Benutzer verlangt werden, angemessene Massnahmen zu ergreifen.

### **Precaución!**

Este es un producto de Clase A. En un entorno doméstico, puede causar interferencias de radio, en cuyo caso, puede requerirse al usuario para que adopte las medidas adecuadas.

### **Attention!**

Ceci est un produit de classe A. Dans un environnement domestique, ce produit pourrait causer des interférences radio, auquel cas l'utilisateur devrait prendre les mesures adéquates.

### **Attenzione!**

Il presente prodotto appartiene alla classe A. Se utilizzato in ambiente domestico il prodotto può causare interferenze radio, nel cui caso è possibile che l'utente debba assumere provvedimenti adeguati.

### **VCCI Warning**

この装置は、クラス A 情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

### **BSMI Warning**

#### **警告使用表**

這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下使用者會被要求採取某些適當的對策。