

Enabling Peer-To-Peer Networking with the FS-5

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Peer-To-Peer refers to the ability to connect the FS-5 with other Wi-Fi capable devices without going through a separate wireless router. This is useful for video production professionals, since they only need to bring the FS-5 and a Wi-Fi capable device into the field for wireless metadata logging.

When working with Peer-To-Peer networking on the FS-5, it is considered an ad-hoc network, meaning the connection between the FS-5 and the Wi-Fi capable devices are networked only for the duration of the session and while they are in Wi-Fi range.

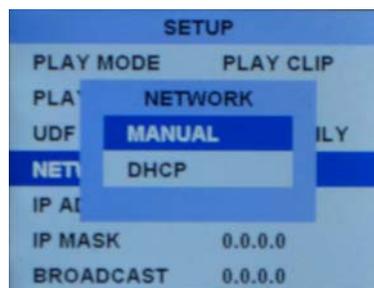
NOTE: In order to use Peer-To-Peer networking, you must be using the latest firmware and an 802.11 USB dongle utilizing the Ralink chipset. A list of approved dongles will be published shortly. For the purpose of this review, use one of the following:

- Linksys WUSB54GC
- Belkin F5D7050
- ASUS WL-167G

NOTE: During Peer-To-Peer set-up, it is recommended to have the FS5 and WiFi device less than 5 feet away from each other to reduce interference and have the best signal strength between the devices.

Setting up the FS-5

1. Connect one of the approved 802.11 USB dongles to the FS-5. Power up the FS-5.
2. Once booted, navigate to the SETUP menu on the FS-5 and scroll down to NETWORK. Press the center key of the scroll wheel to select this menu item. Scroll to the MANUAL selection and press the center key of the scroll wheel to select this item.



NOTE: If this is the first time you are setting the FS-5, the IP ADDRESS, IP MASK, BROADCAST and GATEWAY will have default values. If you have used the "System Reset" feature in the Utilities menu, the IP ADDRESS, IP MASK, BROADCAST and GATEWAY information will be cleared – and you will need to re-enter information for each setting.

3. Scroll to the IP ADDRESS, IP MASK, BROADCAST and GATEWAY settings if you wish to modify any of these settings.

Examples:

IP ADDR:

This is the actual IP address of the FS-5 unit, and it must be unique. The most common IP addresses generally begin with 192.168.1.xxx. Because this is the address that is used typically in un-configured routers, you should pick a different and unique address. For the xxx part of the IP address, use a number in the range of 2-254. Do not use 0, 1, or 255.

Sample: 192.168.10.25

IP MASK:

This “mask” is a binary mask, which basically says that our network must be within the range of 192.168.10.xxx. It is advised that you use **255.255.255.0**

BROADCAST:

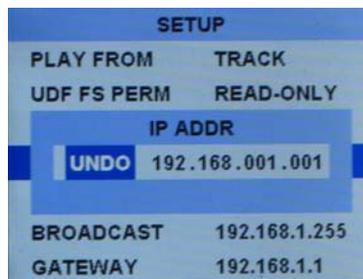
The **BROADCAST address** is an IP Address that allows information to be sent to all machines on a given subnet rather than a specific machine. Use the following value if you used the IP address in the example above:

Sample: 192.168.10.255

GATEWAY:

A gateway is a network point that acts as an entrance to another network. In the case of the FS-5 and P2P networking, this value is not used, but as an example, use the value in the sample below.

Sample: 192.168.10.1



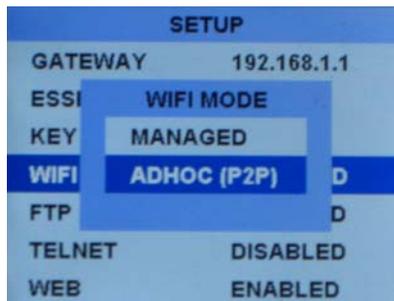
4. Scroll to ESSID and set the desired name of the wireless network. Press the center key of the scroll wheel to open the ESSID edit window. Press the F2 key to edit the ESSID. Using the F1 (Insert) or F4 (delete) keys, edit the current ESSID as desired. To add characters, scroll the FS-5 scroll wheel to the left or right. When you’ve reached the desired value, press the right navigation key button to move to the next ESSID value. When complete, press the center select button on the scroll wheel.

Use “FS5” as the ESSID for this example. If you are using more than one FS-5 unit at the same time, change the ESSID (use the examples below to help you):

- FS5-Unit 1
- FS5-Unit 2
- FS5-Unit 3



5. Scroll to WI-FI MODE setting and select the AD HOC (P2P) setting.



6. Ensure and confirm that WEB is set to ENABLED by exiting this menu screen – cycle to the “main FS5 screen – then back to the “SETUP” menu screen.

Setting Up the iPod Touch (or iPhone)

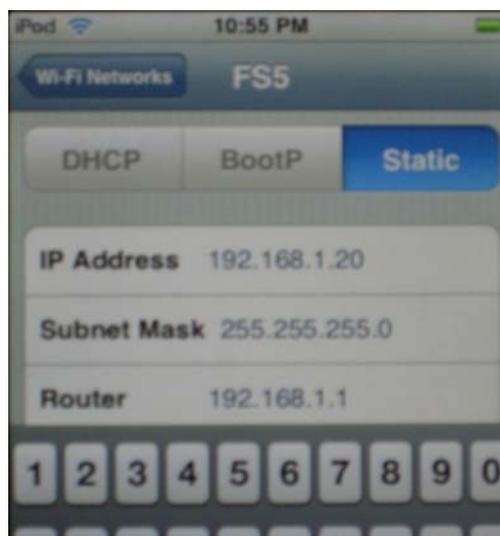
Note: Use similar settings on other Wi-Fi capable devices

1. Once the iPod is unlocked, select the SETTINGS button.
2. Once inside SETTINGS, select the Wi-Fi setting. Locate the ESSID you set on FS-5 and select it by touching the name. A check mark should appear next to your selection. Next, press the right arrow in the blue circle to open the Network setting for this Wi-Fi selection.



NOTE: After going into HDD bypass, always recheck and confirm that the connection to the FS-5 is still checked in this window. (Going into HDD bypass may release the FS-5 ESSID system in the iPod. Long periods of non-use (for either the iPod or FS-5) may also release the ESSID system in the iPod.

3. Once open, press the STATIC button at the top of the screen. You can now add a custom IP address in the same range as you set on the FS-5. Select an IP address where the last value is within 20 or 30 of that which was set on the FS-5. For instance, if the FS-5's IP address is 192.168.10.25, then set the iPod touch to 192.168.10.99. Set SUB NET MASK to match the value on the FS-5 (usually 255.255.255.0). Set ROUTER to 192.168.10.1. Exit this window by pressing the middle key at the base of the iPod display.



4. Launch the Safari web browser and type the IP address of the FS-5 into the URL window. The FS-5 web page should now appear.

Setting Up the Mac

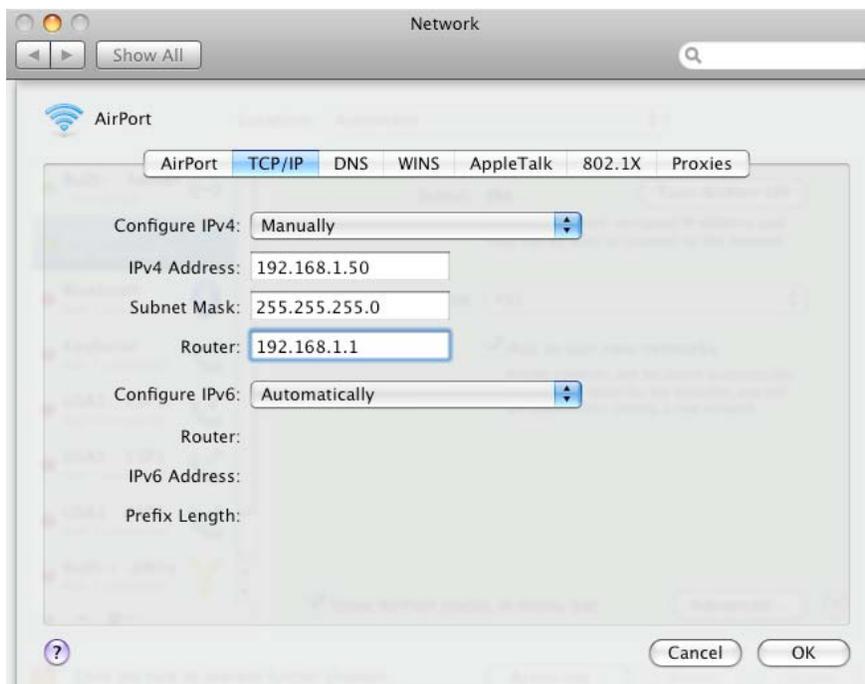
Note: Use similar settings on other Wi-Fi capable computers

1. On the right side of the Mac's menu bar, select the Wi-Fi selector by pressing the Wi-Fi symbol. Under Devices, you should see the ESSID you assigned on the FS-5 earlier. Select it. The Wi-Fi symbol on the menu bar will change to a Wi-Fi device symbol.



NOTE: After going into HDD bypass, always recheck and confirm that the FS-5 is still checked in this window. Going into HDD bypass may release the FS-5 ESSID system in the Mac.

2. Open the Mac's SYSTEM PREFERENCES. Under INTERNET AND NETWORK, open NETWORK. Locate the AirPort network Icon on the left hand side and select it. Make sure the FS-5 ESSID you selected above is the current Network name. If it is not, select it. Then click the ADVANCED button.



NOTE: It is important that the IPv4 address “not” match the IP address that is entered in the FS-5 (manual IP). Having the same addresses will cause Peer-To-Peer connection problems. Use 192.168.10.75.

In newer versions of the MAC 10.5.x, the advance setting will include “Preferred Networks.” Drag networks into the order you prefer to join – and list the FS-5 device at the top of the list. You can either use the following:

“Select the network you want to add” (see screen shot below)



Using the “Other UI button”

“Enter the ESSID name of FS5 unit ” (see screen shot below)

For this example, the FS-5 ESSID is “FS5”



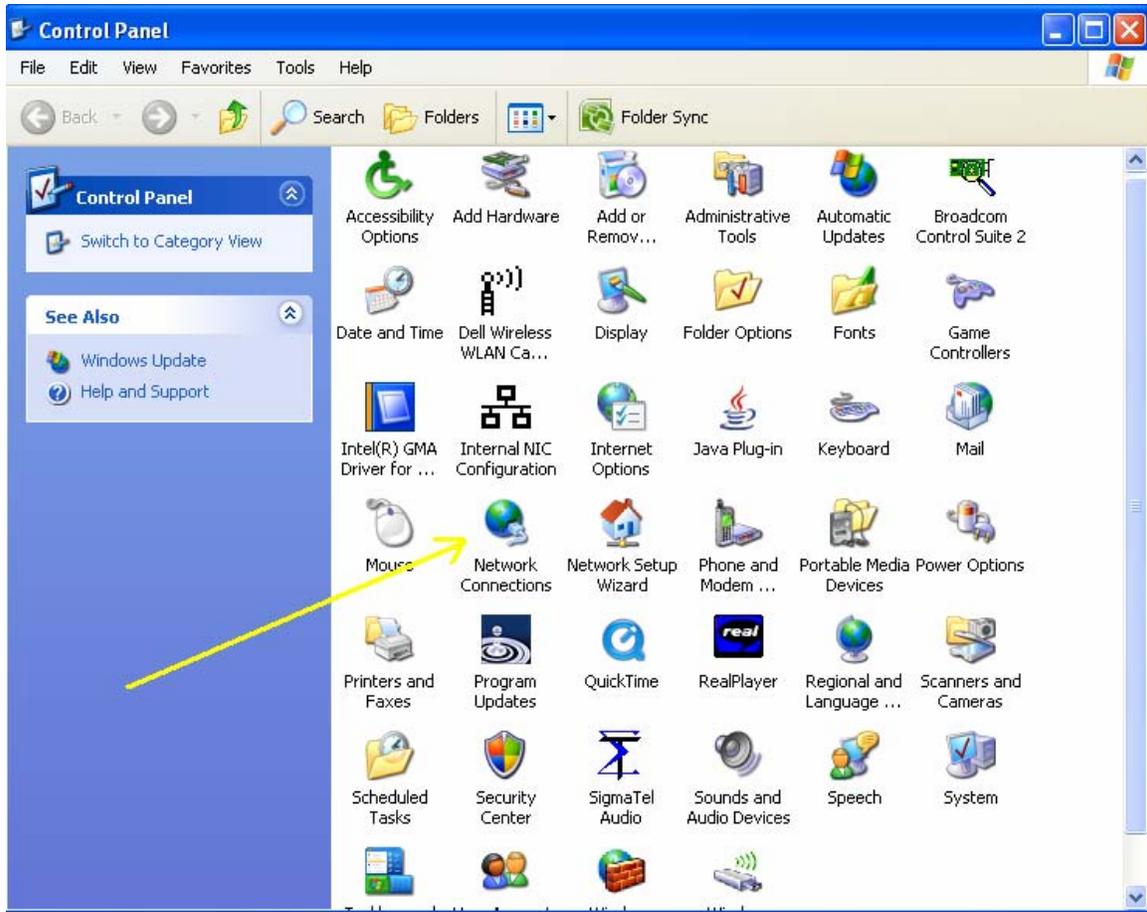
Once this is done, the FS-5 ESSID you entered will now appear in this section, as shown in the screen shot below.



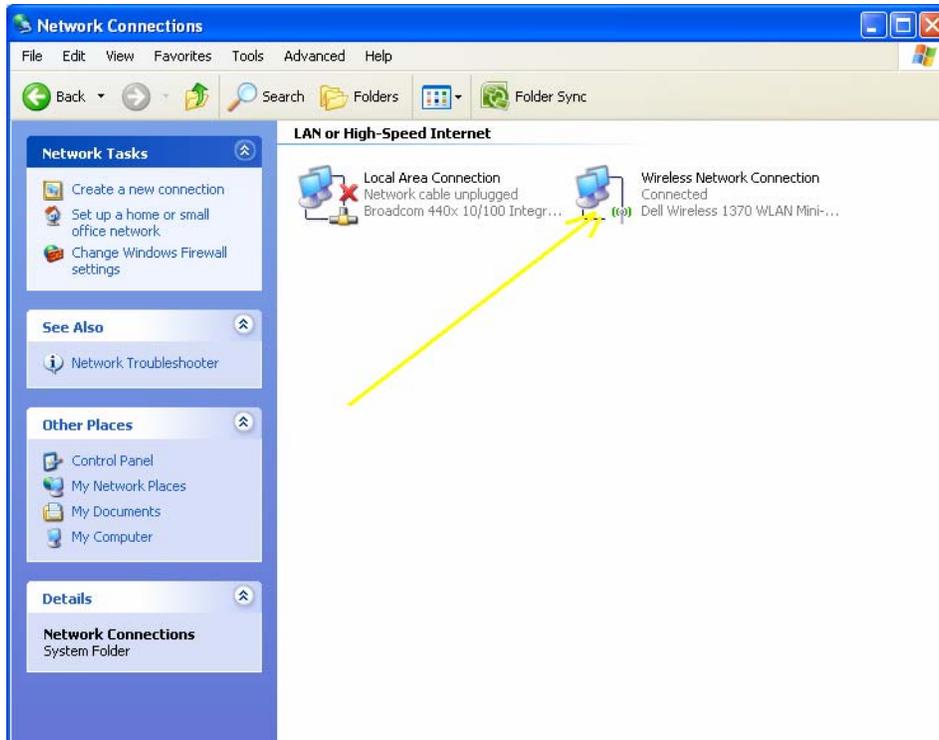
3. Click on TCP/IP. Set CONFIGURE IPv4 to MANUALLY. Enter a new IP Address under IPv4 ADDRESS (it should be within the IP range set on the FS-5 and on other Wi-Fi devices you have connected). For this example, use 192.168.10.75. Set SUBNET MASK to the same value that is set on the FS-5. Set ROUTER to 192.168.10.1. Then press OK. Followed by APPLY. Confirm that the "Apply" UI button turns grey to confirm the change. If the "Apply" UI button is still black, your changes have not been confirmed and will revert back to the previous settings after you close the window.
4. Open Safari on the Mac. Enter the IP address of the FS-5.

Setting Up the PC (XP version)

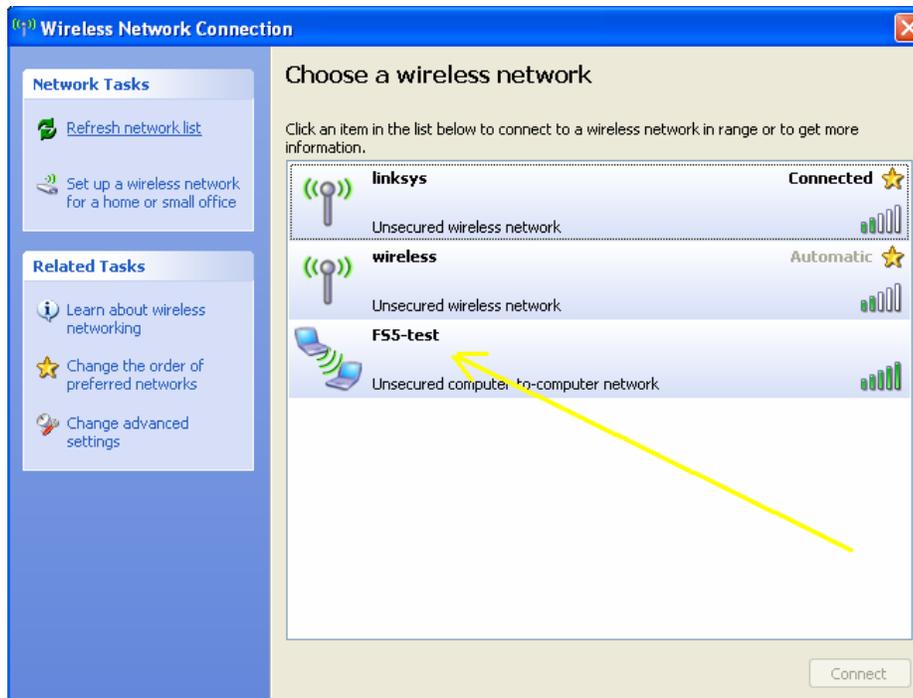
1. Open the PC's Control Panel by clicking the "Start" icon on your task bar > Go to and highlight "Settings > Go to and highlight "control panel" (shown below). Locate and highlight (left click with mouse) "Network Connections"



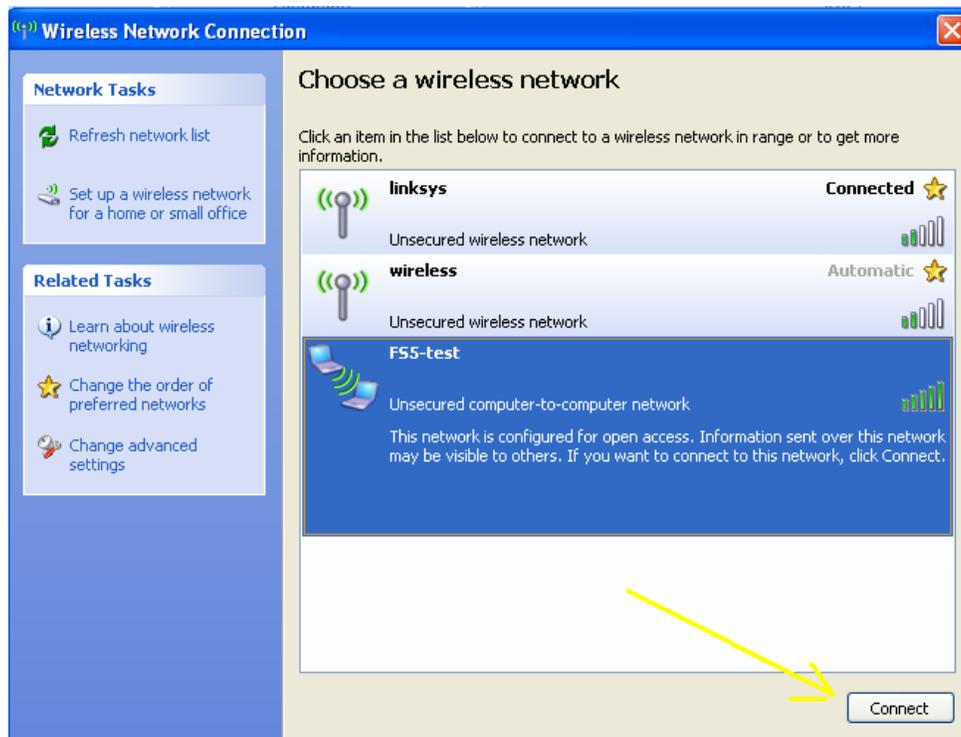
2. Once the "Network Connection" window is open, locate and highlight "Wireless Network Connections." This will bring up a new window.



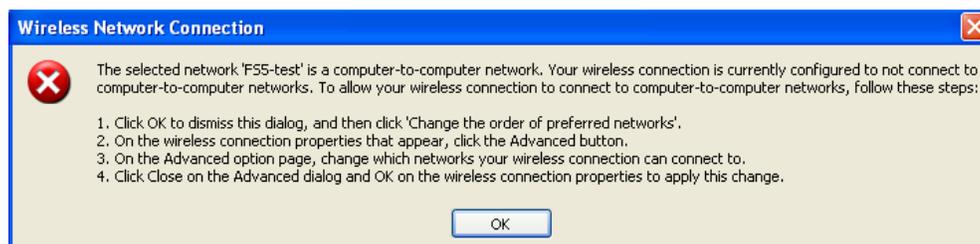
3. Once the “Wireless Network Connection” window is open, locate and highlight (left click with mouse) “FS-5 computer-to-computer network”. Clicking on this selection will highlight the selected network.



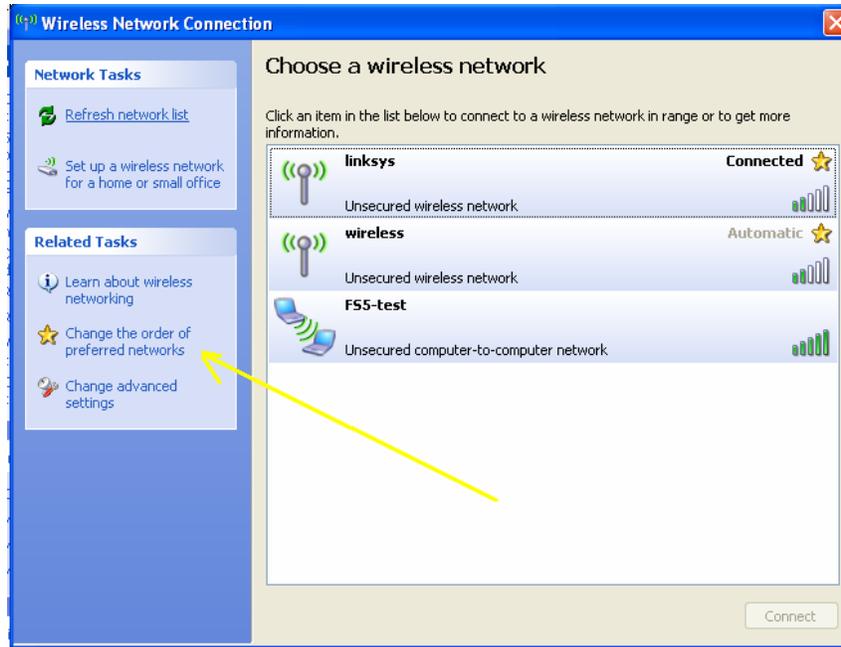
After highlighting “FS-5 computer-to-computer network”, click on the Connect button.



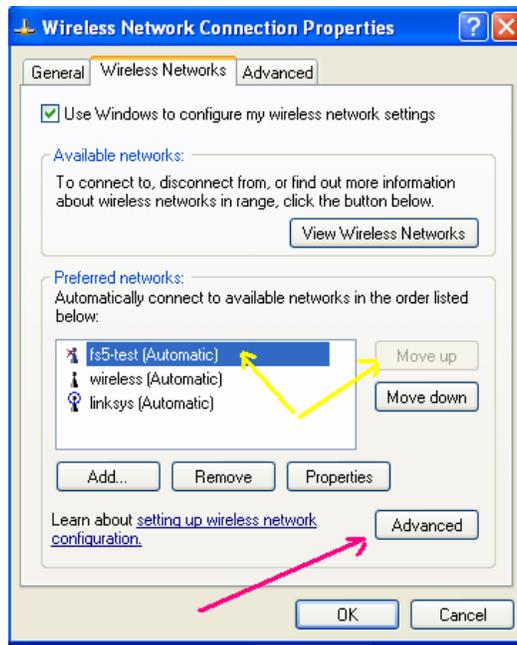
This following message or messages will appear. Go ahead and click the “Connect Anyway” and “OK” UI buttons to complete the connection. Note: please read the steps below – you will need this to complete the set up.



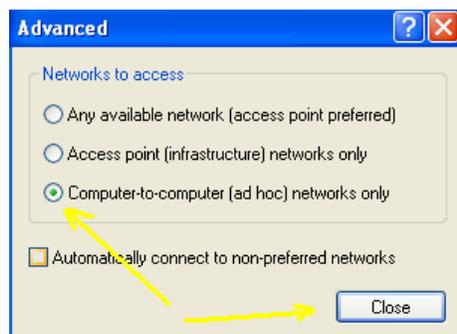
4. Click on “change the order of the preferred network” in the left panel.



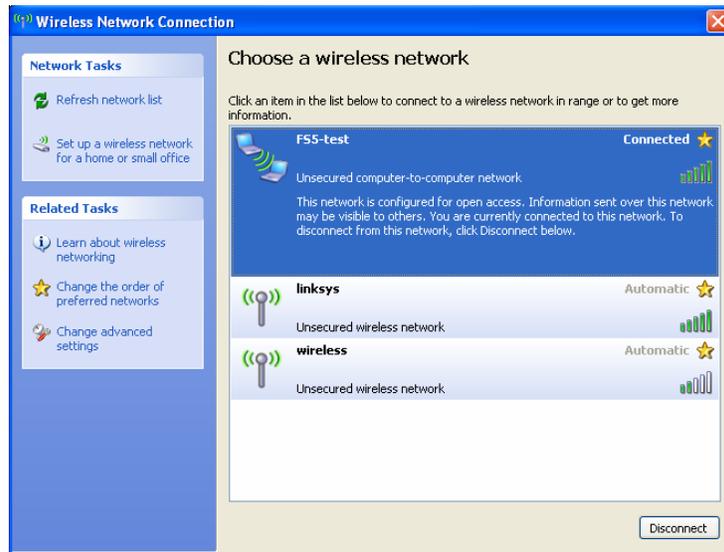
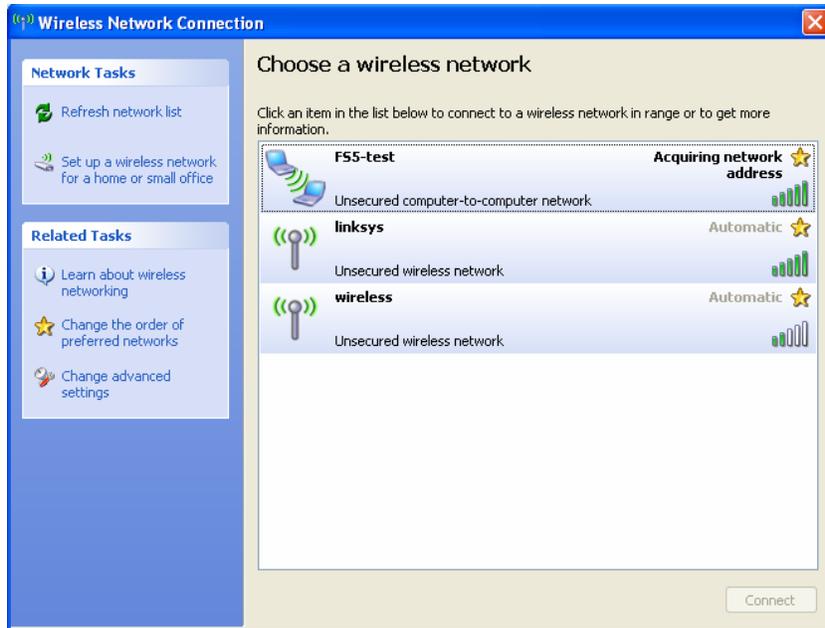
5. Select the UI tab "Wireless Network". Left click and highlight "FS-5". Next, use the "Move up" UI to move the FS-5 selection to the top. The "Move up" button will turn gray once FS-5 gets to the top of the window. After this is done, click the "Advanced" button in "Wireless Network Connection Properties to go into the next connection window.



6. In the Advanced window – select “Computer to Computer (adhoc) networks only.” Then close the window to complete this area.



The following series of screen shots show a PC connecting wirelessly to the FS-5. You should see the message “Acquiring network address,” followed by “Connected” once a connection has been established.



Using the window UI, you can determine the “Signal Strength” of the connection between your PC and FS-5.

