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**...reset and reconfigure a WiSP**

To reset the Digi WiSP wi-fi to serial interface, please follow the steps explained in detail below. All configuration is performed via a live wireless link, and it is assumed that a Netgear wi-fi card, as supplied by XTA, has already been installed on the laptop/PC and is working correctly.

Select the serial interface type

**It is recommended that the interface is chosen to be RS485.** The supplied adapter cable converts the 9-pin D-type on the WiSP to a balanced XLR, suitable for plugging directly into a network of units. Set the DIP switches on the bottom of the WiSP as shown below.

The settings for RS485 operation are: Switches 1&2 OFF, switch 3 ON and switch 4 OFF. If this is the only adjustment being made, remember to reboot the WiSP as these switch selections are only checked on start-up.

RS232 mode may be used for direct connection to a single unit, but there is no advantage in doing so, and the cable length becomes restricted to approximately 7 metres, instead of 100 metres using RS485.

Connect Wi-SP  
 MAC Addr 00409D:320E4D  
 MAC Address

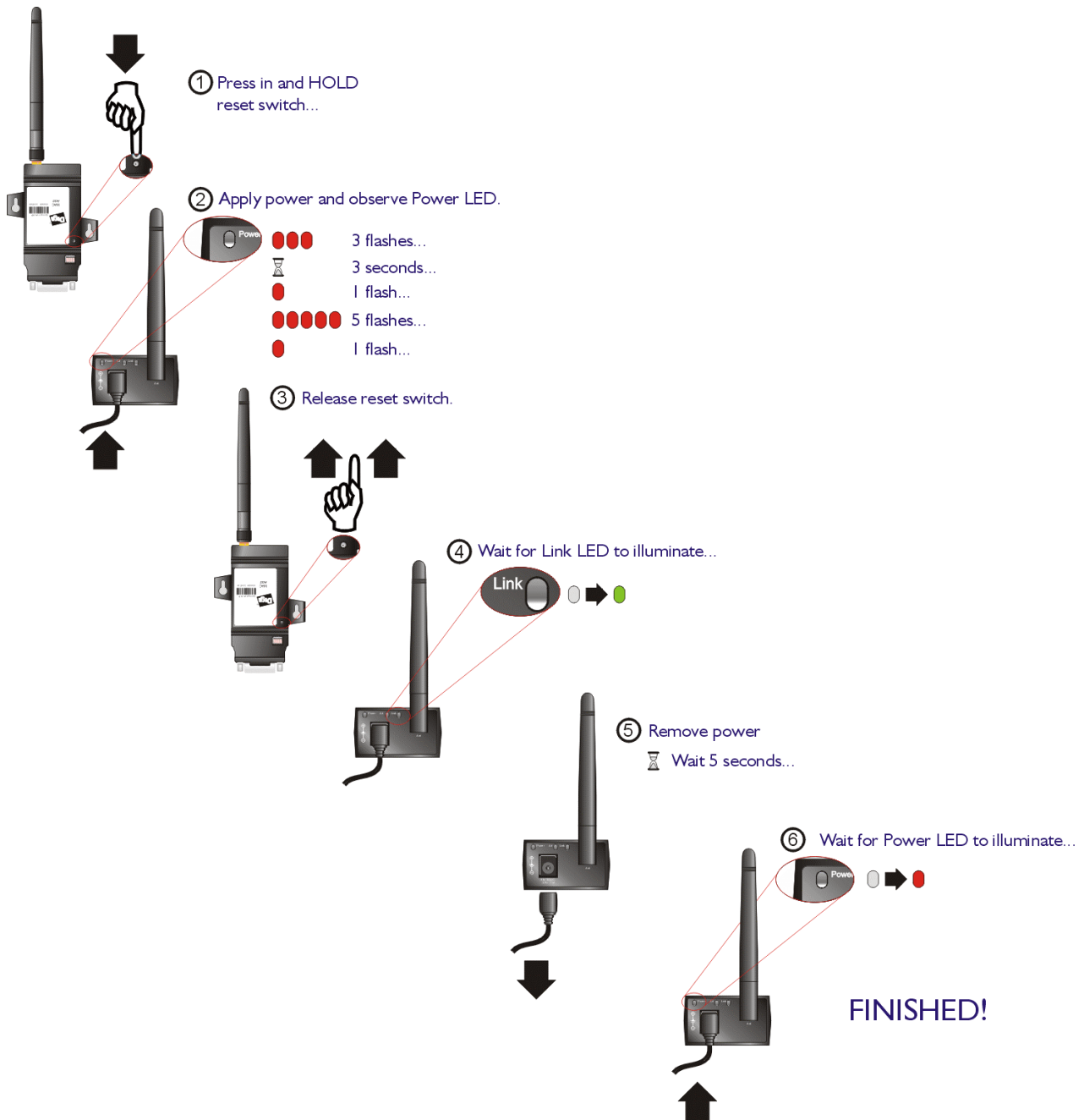
Reset Switch

DIP Switches RS485 Mode

DIP Switches RS232 Mode

## Reset the device to factory defaults

The diagram on the previous page highlights the reset switch. It is not as simple as pressing this switch to reset the device's configuration. A single press will simply reboot the WiSP. Follow the steps explained below, EXACTLY to achieve a full factory reset.



The device will now have to be configured in two stages. First, it will require the setting of a valid IP address, achieved through the use of Digi's own discovery software application. Following this, the configuration interface for the WiSP may be opened in a web browser and adjusted.

## Discovery of the device on the wireless network

Open the Netgear Wireless Assistant by clicking on the icon in the system tray. On the first (Settings) tab, change the Network Name (SSID) to "Connect" and disable the Security features, as shown. Set the Network Type to "Ad-Hoc" and press the "Apply" button.



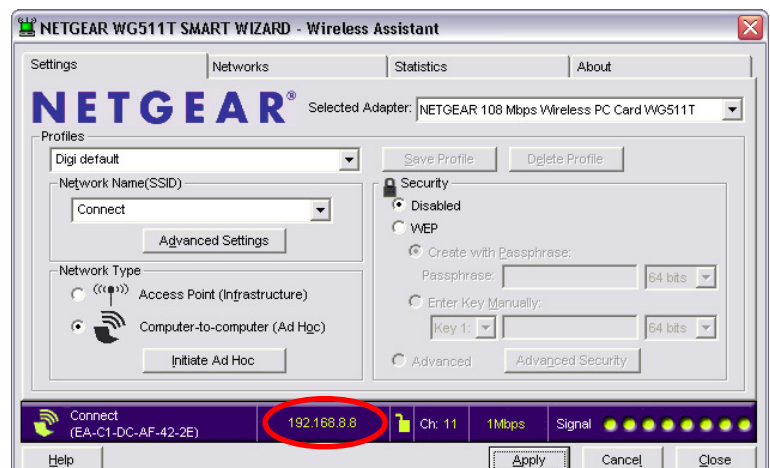
The Netgear card will now try to associate with the WiSP, the progress of which is indicated by the text in the blue pane turning red as the channels are cycled through.

Once an association has been made, the text will turn yellow as shown below...

**HOWEVER...if the IP address of the Netgear card does not appear HERE within a few seconds of the connection being established, the process has not correctly executed. Reboot the WiSP by pulling the power, waiting a few seconds, then reconnecting. Then press "Apply" again on the Netgear wizard.**

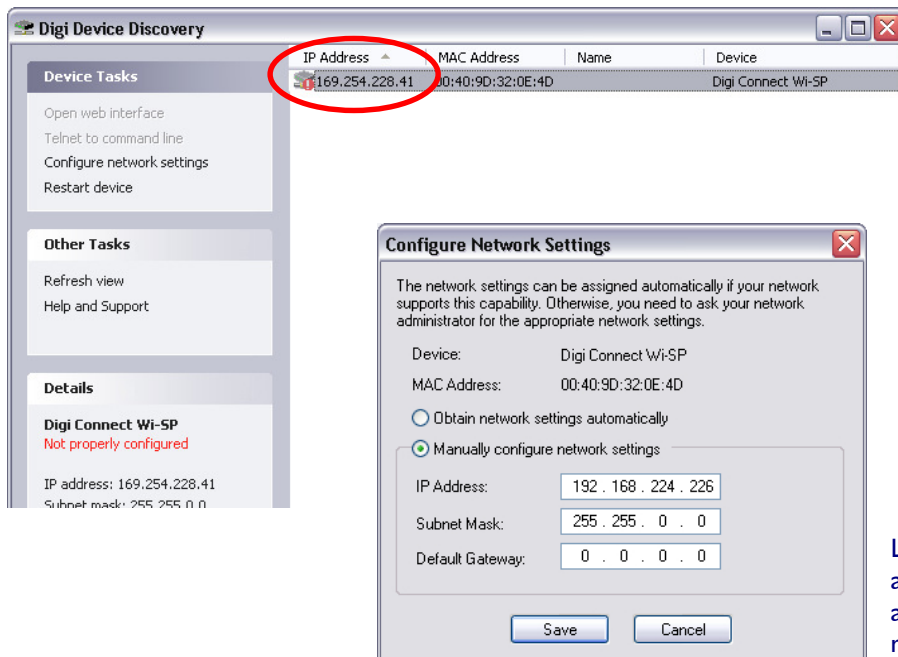


The correct association is shown below, with the card's IP address displayed.



Having established a default link with the WiSP, it will now be necessary to correctly set its IP address and all other communication parameters, to enable AudioCore to connect using TCP/IP.

Run the Digi Device Discovery utility, as supplied on the XTA Walkabout CD. The program should be able to find a WiSP at this stage, but its IP address will either be 0.0.0.0, or just a random number.



Double clicking on the table entry at this stage will allow the IP address to be set, along with the sub-net mask. Set the IP address to match that used in AudioCore by default, that is

**192.168.224.226**

and the subnet mask to

**255.255.0.0**

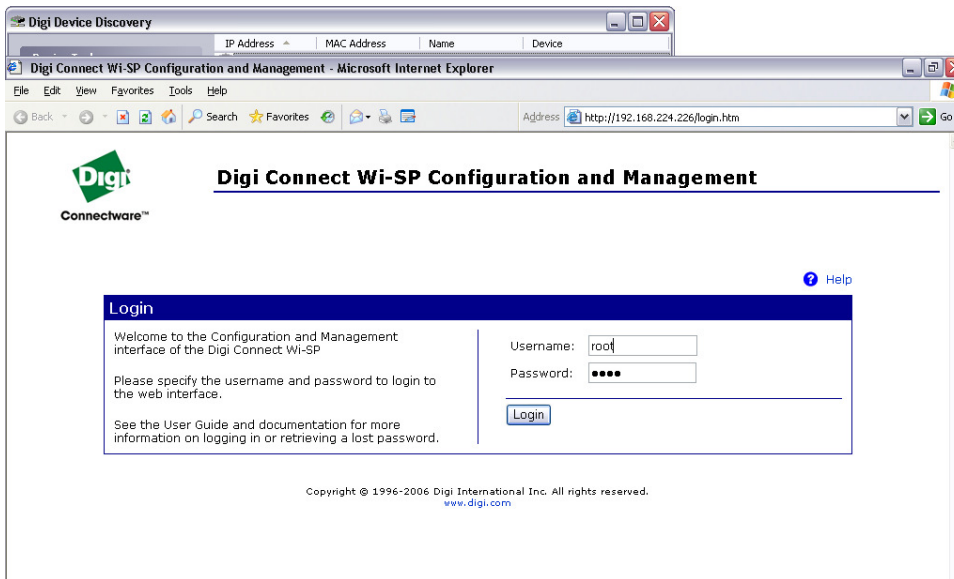
Leave the default gateway at zero and press "Save". You will be asked to confirm that it's OK to reboot the device.

There will be a delay whilst the WiSP reboots, at which point the table entry should refresh with the correct IP address. It will now be possible to open the configuration interface, which is achieved through a web interface in Internet Explorer.

This time, a double click on the device's details will now open Internet Explorer, and load the home page of the WiSP's configuration interface. Just to explain further – the web pages seen from this point on are actually sent directly from the WiSP itself, over the wireless network, and all adjustments to the parameters shown will update the device accordingly – clever eh?!

Each section will be explained in turn – please assume that if any section is skipped, then the settings within that section do not need adjustment. This does not mean they do not matter, so...

## Please do not change anything unless it has been expressly mentioned in the following pages!

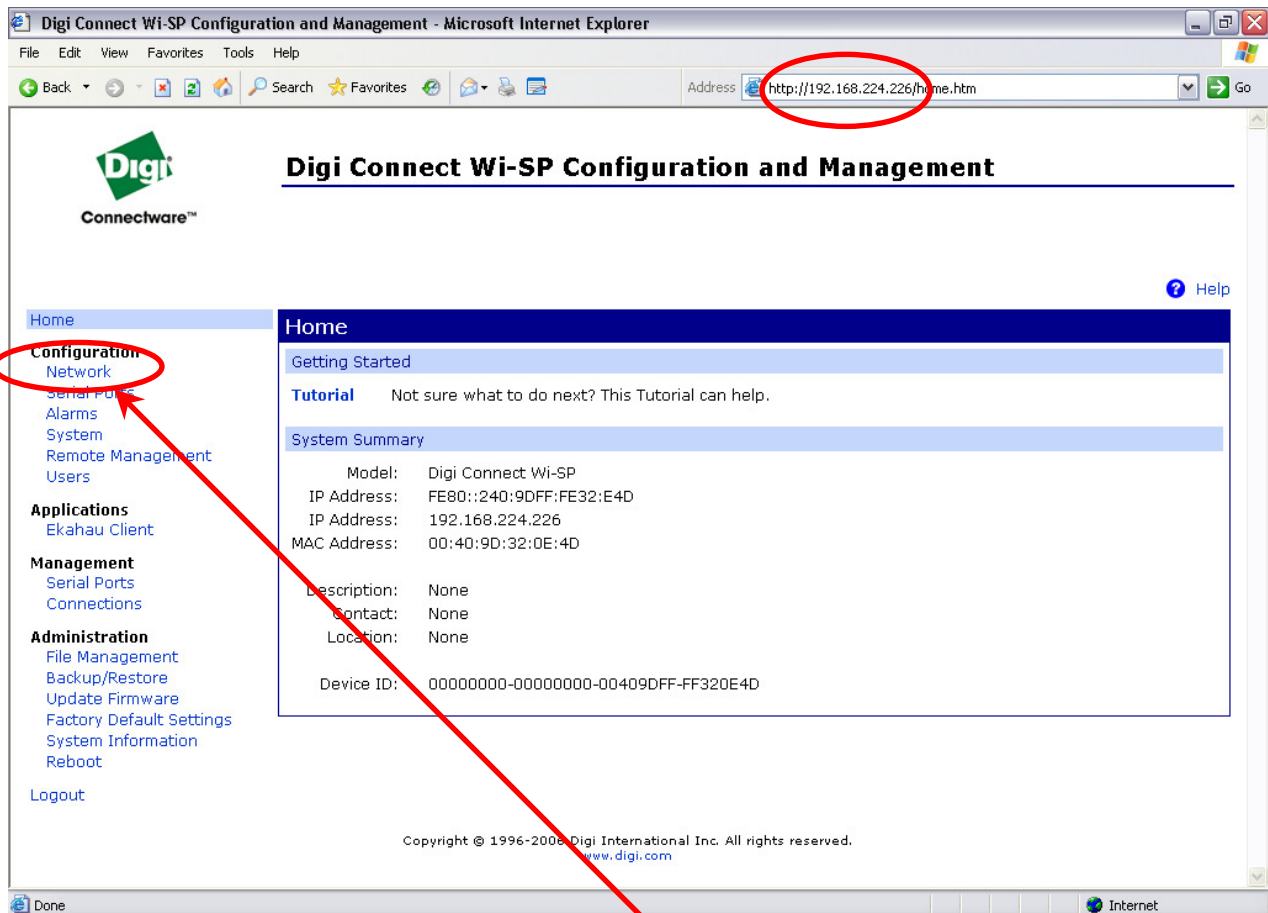


A username and password are required to view or change any of the WiSP's configuration parameters. A login screen will now appear - the default settings are:

**Username: root**  
**Password: dbps**

The settings are case sensitive, so make sure CAPS LOCK is off when you type them in.

Below is the home page of the WiSP's device configuration. Note the IP address in the address window is the one that's just been set.



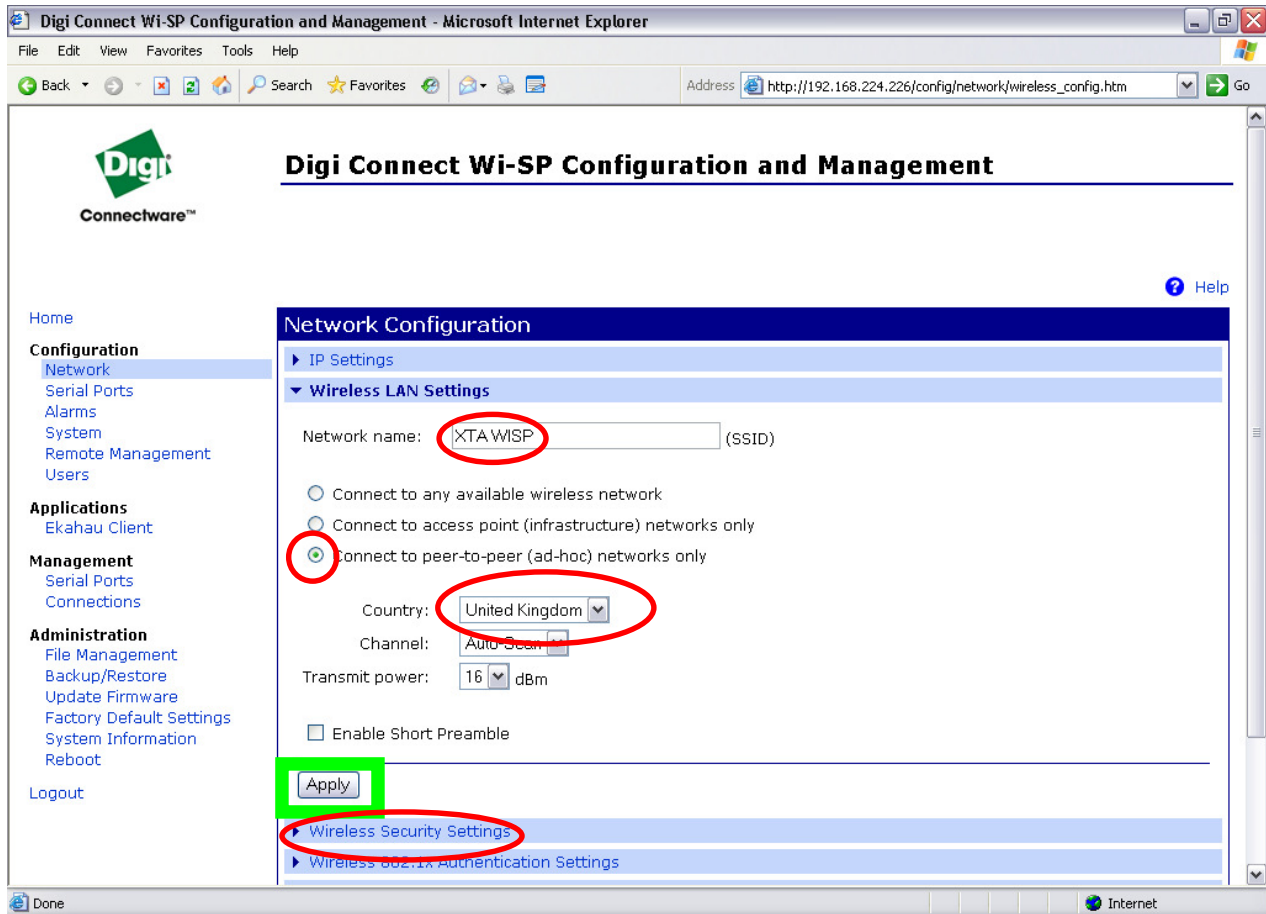
Click on the Network link on the left hand side menu list – here. Once logged in, we can make the required changes to the default settings.

The IP address and Subnet mask have already been set, so this is just to double-check the settings.

**Always press Apply when any changes have been made, at each stage, as only the currently displayed settings will be applied along the way!**



Click on the Wireless LAN Settings to move to the next section, displayed below.



Type in the network name – XTA WISP (all in capitals, with a space between the words). Change the connection type to ad-hoc networks only, and the country to United Kingdom.

**PRESS APPLY!**


Next, click on the “Wireless Security Settings” link. It’s a long page so it’s shown overleaf in full...

Digi Connect Wi-SP Configuration and Management - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Go

Address http://192.168.224.226/config/network/wireless\_security\_config.htm Go



## Digi Connect Wi-SP Configuration and Management

Home

- Configuration
  - Network**
  - Serial Ports
  - Alarms
  - System
  - Remote Management
  - Users
- Applications
  - Ekahau Client
- Management
  - Serial Ports
  - Connections
- Administration
  - File Management
  - Backup/Restore
  - Update Firmware
  - Factory Default Settings
  - System Information
  - Reboot
- Logout

Help

### Network Configuration

- IP Settings
- Wireless LAN Settings
- Wireless Security Settings**

This device is currently configured to connect to **peer-to-peer (ad-hoc) networks** - this means only limited authentication and encryption options are valid. The connection mode can be changed on the **Wireless LAN Settings** tab.

#### Network Authentication

Use any available authentication method

Use the following selected method(s):

- Open System
- Shared Key
- WEP with 802.1x authentication
- WPA with pre-shared key (WPA-PSK)
- WPA with 802.1x authentication
- Cisco LEAP

#### Data Encryption

Use any available encryption method

Use the following selected method(s):

- Open System (no encryption)
- WEP
- TKIP
- CCMP

#### WEP Keys

Transmit key:  1  2  3  4

Encryption Keys:

1:	<input type="text" value="XXXXXXXXXX"/>
2:	<input type="text"/>
3:	<input type="text"/>
4:	<input type="text"/>

#### WPA PSK

A Network SSID is required before a passphrase can be entered for WPA-PSK authentication. *Note: Enter the Network name (SSID) on the Wireless LAN Settings tab.*

Passphrase:

Confirm:

#### Username/Password

Enter a username/password when the following network authentication methods are enabled: WEP with 802.1x authentication, WPA with 802.1x authentication, or LEAP.

Username:

Password:

Confirm:

- Wireless 802.1x Authentication Settings
- Network Services Settings
- Socket Tunnel Settings
- Advanced Network Settings

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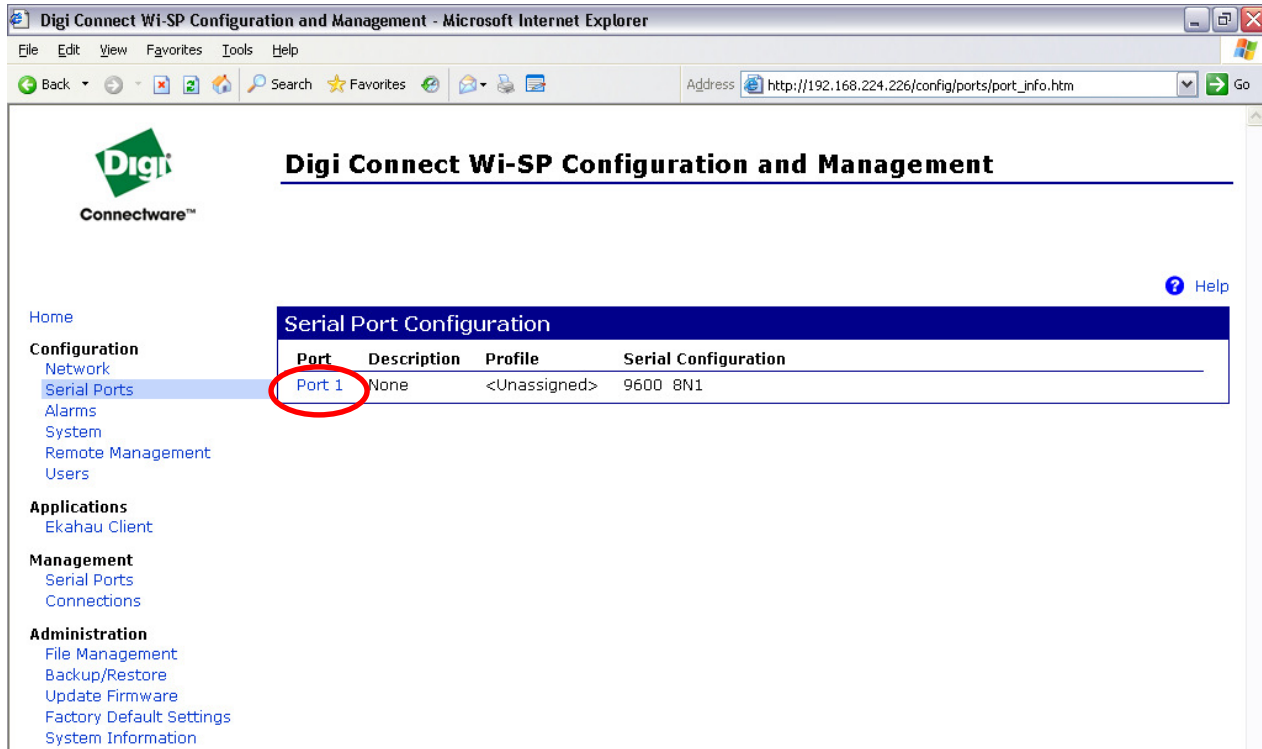
Internet



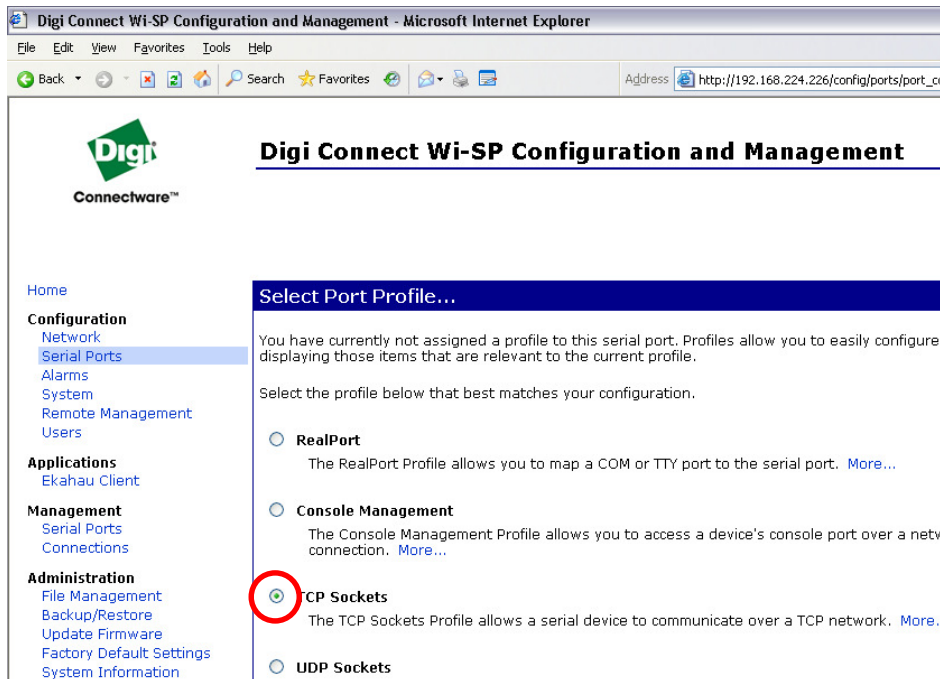
Under the “Data Encryption” section, select to use “Open System” and “WEP”, and under “WEP Keys” type in a key for the WiSP to use. The chosen default is “1234567890”. **Be careful not to get this wrong as it will appear as a line of asterisks as entered.**

**PRESS APPLY!**

Next, click on the “Serial Ports” link back up at the top of the page on the left as highlighted.



There is only one serial port on the WiSP, and as can be seen above, it’s not yet been set up to our requirements, being both unassigned to any particular profile, and the actual serial settings being rather slow for AudioCore.



Click on the “Port 1” highlighted above, to begin the configuration. This will display the page shown here.

Select “TCP Sockets” as the profile type and...

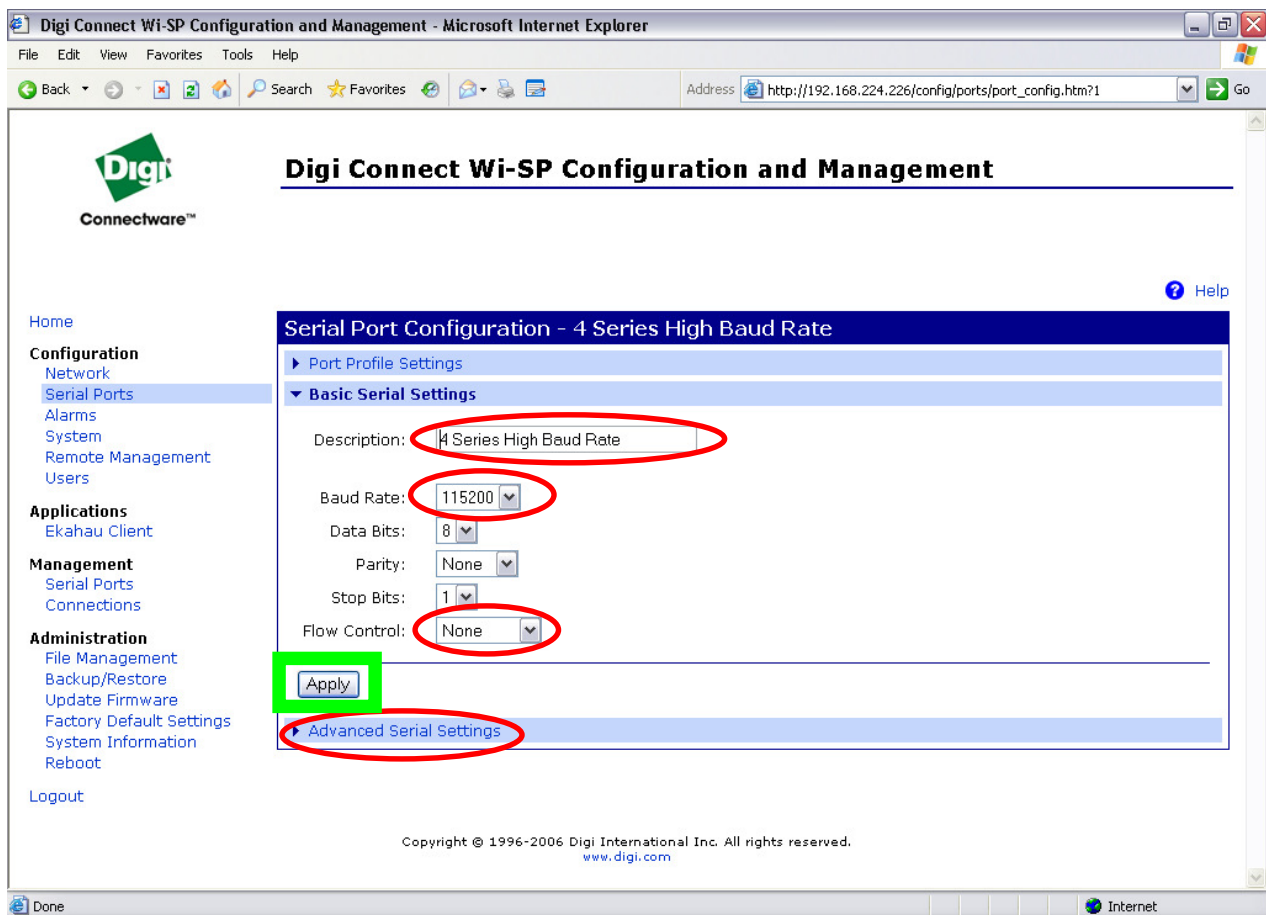
**PRESS APPLY!**

The page overleaf will load next...

Under the TCP Server Settings, change the TCP port number to 8002, and...

**PRESS APPLY!**

Next, click on the “Basic Serial Settings” link to load the page overleaf, where the baud rate is set.



Change the description to one appropriate to the settings used – it’s not crucial what this says – it is for identification only. IN the example above the port is being set for an exclusive 4-Series system, so can run at 115k. If the system to be connected contained both 4-Series and older DP224/6/6i unit, or was only the older units, the baud rate would have to be set to 38400.

In either case, change the Flow Control to be “None” and...

**PRESS APPLY!**

Finally, click on the “Advanced Serial Settings” link to load the page overleaf, for the final stage in the configuration.

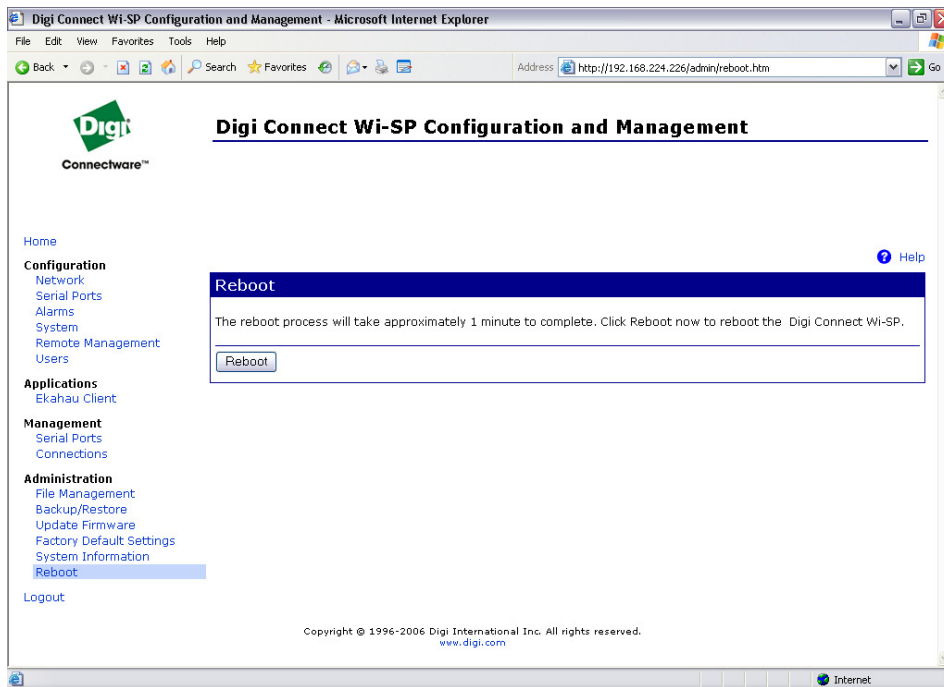
Under the TCP Settings section, check the box to enable “Send data under any of the following conditions:” and then choose the condition of “Send after the following number of idle milliseconds” and type in “5” (default was 1000).

And for the last time(!)

**PRESS APPLY!**

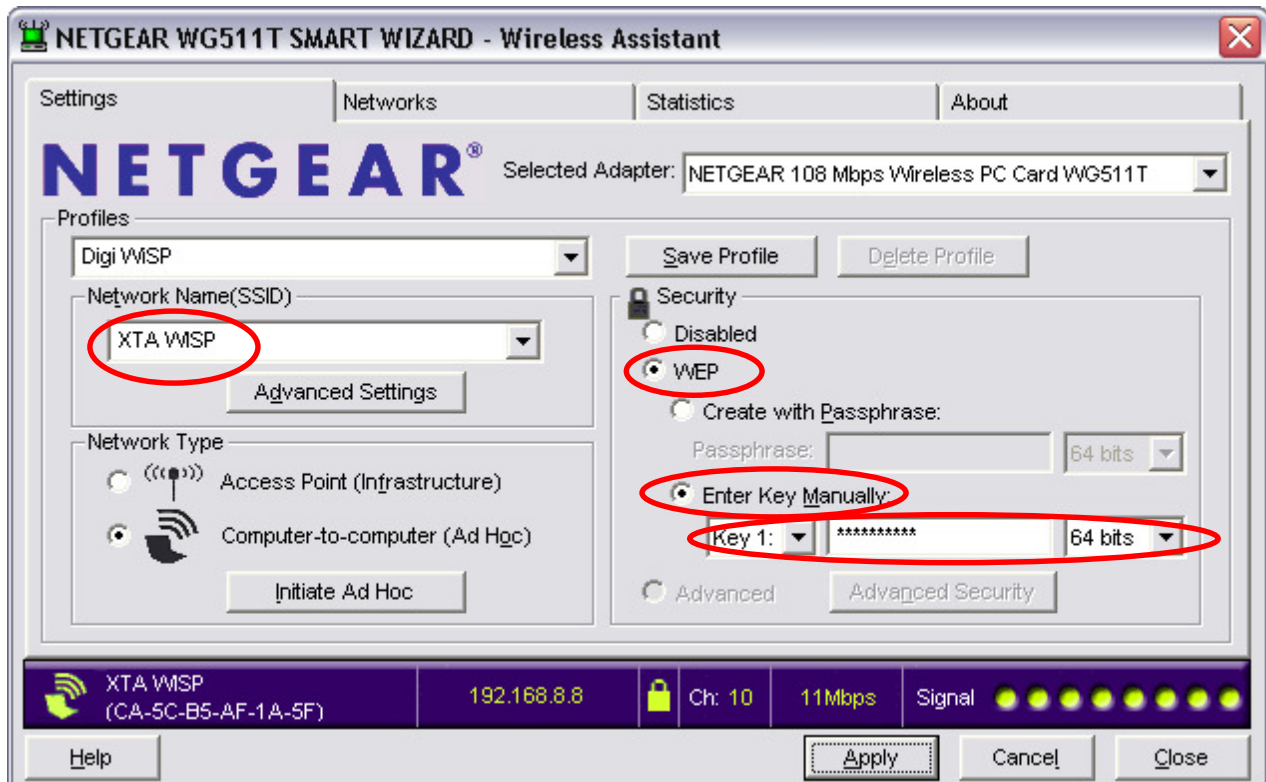
That's the end of the configuration setup. All that remains is to reboot the WiSP, re-establish a connection with the Netgear card, and confirm that AudioCore is happy with the TCP/IP settings.

Reboot the WiSP by clicking on the "Reboot" link on the left hand side. The window below will appear - press the "Reboot" button to begin the process.



It is now safe to close the Explorer window and let the WiSP reboot. This will take about 1 minute. In the intervening period, the Netgear wizard can be reconfigured to work with the new settings of the WiSP.

The SSID, and WEP encryption setting need to be changed, as shown below.



Set the Network Name to be "XTA WISP" - all capital letters, one space between the words (was previously set to "Connect"). Select WEP under the security settings (was previously set to "Disabled"), and enter the WEP key manually as "1234567890", and 64bit encryption.

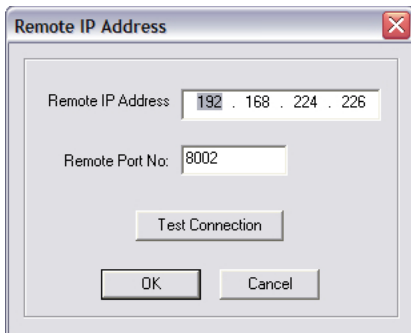
Having checked to see that the WiSP's power LED is on again, meaning the reboot is complete, press "Apply" and within a few seconds the Netgear wizrd should have associated correctly with the WiSp's new settings.

### Checking (or setting) the TCP/IP parameters in AudioCore

We can now open AudioCore and confirm that a TCP/IP socket has been established correctly.

You will need to install AudioCore version 8.00 or greater on the PC to be used with the wireless system.

Start AudioCore as normal and then choose the menu Remote -> TCP/IP. The window below will be displayed.



Pressing the "Test Connection" button should display a message saying "Connected to TCP/IP!" and the address/port number.

Assuming this works, you should now be able to go on-line, and use AudioCore as normal. Nothing concerned with the operation of AudioCore has changed – you will be able to upload and download as normal, and the real-time metering and status monitor will be working as before.