

Stylitis-10+ WiFi Setup

In order for **Stylitis-10+WiFi** to operate, it must be connected to an access point. The WiFi module has a default IP: 169.254.228.4. In order for it to be in the same sub-network as the access point, we may have preset it for you on demand. In this case, follow steps 1-11. If not, you must only follow the instructions of step 0.

The access point may be:

- a) Your company's **wireless network**
- b) A **separate access point**, such as *Turbo-X AP150*, which will be used as an example, which, when connected to your LAN, will create a new sub-network.
- c) Finally, you may also use an **access point which runs independently** from your LAN and create a sub-network with passwords, keys, etc, exclusively for the data loggers. In this case, its setup may be done only locally.

In order to avoid changing keys, passwords, etc in your network, the second or the third method is recommended. However, if you use the first one, omit steps 1-4.

0. The WiFi module has a default IP: 169.254.228.4, with no authentication or encryption. Therefore, follow step 3, by setting your access point's IP within the same sub-network (eg 169.254.228.88). Follow steps 5 and 6 as well to ensure that the access point has no authentication or encryption. Then, follow steps 1 and 2, by setting your PC's IP within the same sub-network (eg 169.254.228.100). Open the *Digi Device Discovery* software from Opton ('Find Logger in LAN' command). Stylitis-10 will appear in the devices list. Double-click it to enter the module's web interface. Type the default user name (root) and password (dbps) to login. Select *Network* from the upper left part and open the '*IP Settings*' section. Set an IP within the access point's sub-network (eg 192.168.0.4, if the access point's IP will be 192.168.0.254), with the appropriate Subnet mask.

Home

Configuration

- Network
- Serial Ports
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- Serial Ports
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Administration

- File Management
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- Factory Default Settings

Network Configuration

IP Settings

Configure the network below. IPv6 settings are shown here for informational purposes.

IPv6

Link Local Address: FE80::240:9DFF:FE30:9A91
Site Local Address: none

IPv4 and DNS

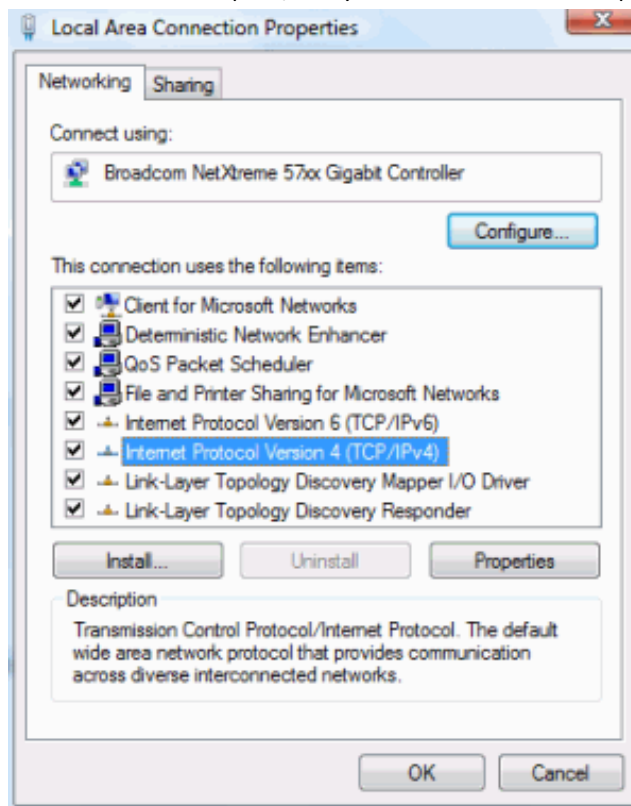
☐ Obtain an IP address automatically using DHCP *

☒ Use the following IP address:

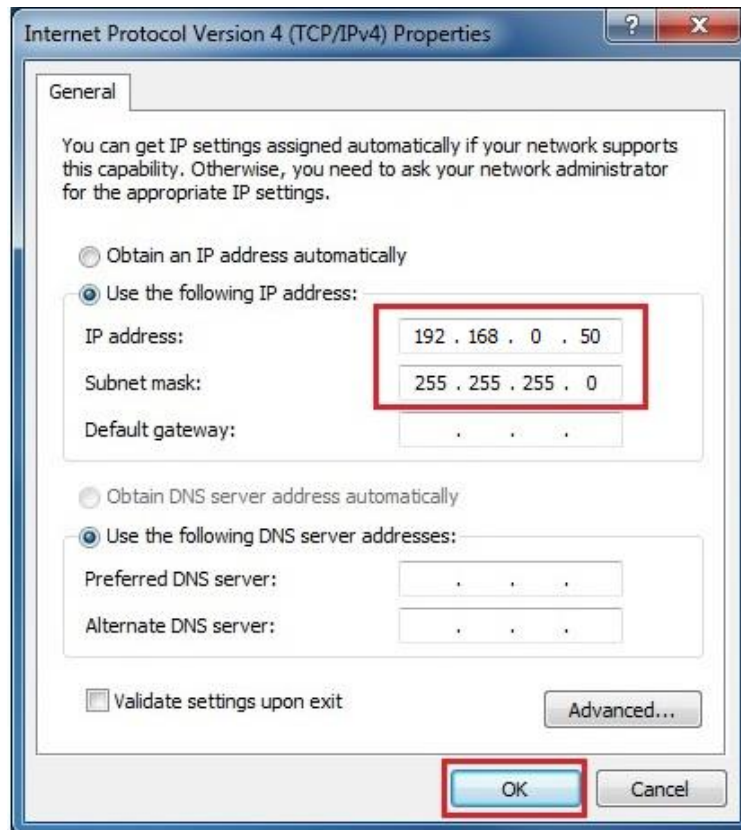
* IP Address: 192.168.0.4
* Subnet Mask: 255.255.255.0
Default Gateway: 192.168.0.1

Then, restore the access point's IP (in our example set it to 192.168.0.254, by following step 3). Finally, set your PC's IP in the same sub-network (steps 1 and 2), eg 192.168.0.100. If you wish to set an authentication method (to both the access point and the WiFi module), follow steps 7-11. In any case, now you will be able to manage the logger as if it were **Stylitis-10+Ethernet**.

1. Connect the access point directly to your PC, via an Ethernet cable. Open the *Network Connections* from the Control Panel. Double-click (or single click and then select Properties- for Windows 7) the Local Connection. Double-click the '*Internet Protocol Version 4 (TCP/IPv4)*' or '*Internet Protocol (TCP/IP)*' for Windows XP.



2. In the properties, change the PC's IP address, within the same sub-network of your access point's default IP, along with the appropriate subnet mask. The remaining settings do not matter. For instance, if the access point has a default IP: 192.168.0.254, with Subnet mask 255.255.255.0, then set for the PC, eg, IP: 192.168.0.50.



3. Via a browser, open your access point's web interface, by typing its default IP (in our example 192.168.0.254). Via the interface, change the access point's IP and set an IP within your LAN. For instance, if the PCs in your LAN obtain IP addresses 192.268.100.xxx, set its IP: 192.168.100.88, and the appropriate Subnet mask.

The screenshot shows a web browser window with the address bar displaying '192.168.0.254/advance.asp'. The browser's address bar also shows several tabs: 'Turbo-X Access Point AP1', 'Digi Connect Wi-ME Conf', and others. The page title is 'TURBOX'. Below the title, there is a navigation bar with four tabs: 'System Status', 'Wireless Settings', 'LAN Settings' (which is highlighted with a red box), and 'System Tools'. The main content area is titled 'This page is used to set the basic network parameters for LAN.' and contains several input fields. The 'MAC Address' field is set to 'C8:3A:35:F7:E1:58'. The 'Address mode' dropdown menu is set to 'Static IP'. The 'IP address' field is set to '192.168.100.88' and is highlighted with a red box. The 'Subnet Mask' field is set to '255.255.255.0' and is also highlighted with a red box. The 'Gateway' field is set to '192.168.100.1'. The 'Primary DNS address' field is set to '8.8.8.8'. The 'Alternate DNS address' field is empty. At the bottom of the form, there are two buttons: 'Apply' and 'Cancel'.

Above, you can see a web interface example, of the **Turbo-X AP150** access point, with the IP change, by clicking the *LAN Settings* section. After the change, click *Apply*.

NOTES: a. If you are using an **access point which runs independently** from your LAN, the IPs of the sub-network do not matter, but the WiFi module must be in the same one. You may as well leave the access point's default IP.

b. At the login via the browser, in the AP150, a password is initially requested, which is 'admin'. Then, an 8-character security key is requested, regardless if your network or the access point is secured or not. Do not click OK (do not type anything) because you will be forced to set a specific key, which you must deactivate or change afterwards. Click 'Advanced Settings', in order to access the settings immediately.

TURBOX

Wireless Security Settings

Security Key: (Default Security Key:12345678)

For more or advanced settings, click "[Advanced Settings](#)"

Ok

Cancel

4. (If you are using an **access point which runs independently** from your LAN, omit this step) Restore your computer's IP, ie set the IP it had within your LAN or set it to get its IP automatically via the DHCP server, and connect the access point and the PC to your LAN. Now, you will be able to set the access point via your LAN, by typing its new IP (eg 192.168.100.88 in the example) via the browser.
5. In order for Stylitis-10's WiFi module to match the access point (which may be your wireless network), they must use the same authentication, while they must have been set with the following settings: The SSID name must be 'Connect' and the access point must run in *B mode* or in *mixed mode (b/g, b/g/n)*. Set these parameters, via the *από το του* access point's web interface, by typing in the browser its IP address (If the access point **runs in your LAN**, the IP will be in the LAN). In case of the AP150, these parameters are located in the *Wireless Settings* section, in the *Wireless Basic Settings* subsection.

The screenshot shows a web browser window with the address bar displaying `192.168.100.88/advance.asp`. The browser's tab bar shows three tabs: "Digi Connect Wi-ME Conf", "Turbo-X Access Point AP1", and "Digi Connect ME Configur". The browser's address bar also shows a search bar and several icons, including "Εφαρμογές", "Symmetron", "Controlpanel - SYM...", "Email Marketing an...", "Welcome! | LinkedIn", and "Google AdWords".

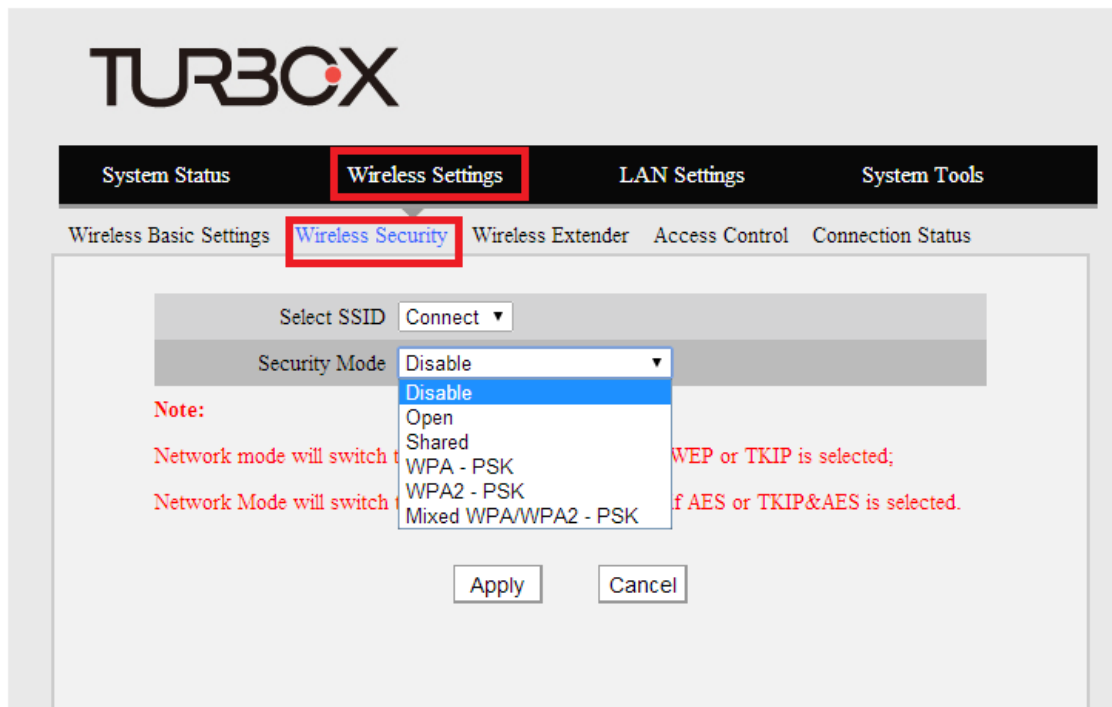
The main content area displays the "TURBOX" logo at the top. Below the logo is a navigation bar with four tabs: "System Status", "Wireless Settings", "LAN Settings", and "System Tools". The "Wireless Settings" tab is selected and highlighted with a red box. Below this tab is a sub-navigation bar with five tabs: "Wireless Basic Settings", "Wireless Security", "Wireless Extender", "Access Control", and "Connection Status". The "Wireless Basic Settings" tab is selected and highlighted with a red box.

The "Wireless Basic Settings" page contains the following settings:

- Enable wireless**: ☒
- Network Mode**:
- Primary SSID**:
- Secondary SSID**:
- Broadcast SSID**: ☒ Enable ☐ Disable
- AP Isolation**: ☐ Enable ☒ Disable
- Channel**:
- Channel Bandwidth**: ☐ 20 ☒ 20/40
- Extension Channel**:
- WMM Capable**: ☒ Enable ☐ Disable
- APSD Capable**: ☐ Enable ☒ Disable

At the bottom of the page are two buttons: "Apply" and "Cancel".

By default, the WiFi module does not have authentication (Open). Therefore, make sure that the access point has no authentication initially. In case of AP150, this is set in the *Wireless Settings* section, in the *Wireless Security* subsection. Note that the correct option for AP150 is *Disable* and not *Open*!



6. After you set the access point, you may also set the same parameters in the WiFi module as well. When both of them are using the same authentication, only then they may match with each other. That is, this case is equivalent to if they were connected with each other via an Ethernet cable (or if they were connected to a wired LAN). This is indicated via the WiFi module's yellow led. If it is permanently lit, it is matched with the access point, while if it flashes, it is not matched. By default, they will be matched, with no authentication.
7. Open the *Digi Device Discovery* software from Opton ('Find Logger in LAN' command). Since they are matched, Stylitis-10 will appear. If it does not appear, an additional reboot may be needed. Open the WiFi module's web interface, by double-clicking the device in *Digi Device Discovery*.

8. Select **Network** on the upper left part and open the **Wireless Security Settings** section. Select the authentication method you wish to use. In any case, the corresponding key/passphrase, etc will be activated to be typed. For instance, in the most widely used one (WPA-PSK) the corresponding field is activated (passphrase), in which you will type the pre-shared key.

The screenshot displays the Digi Connect Wi-ME Config web interface. The browser address bar shows the URL `192.168.100.109/config/network/wireless_security_config.htm`. The left sidebar contains a navigation menu with sections: **Configuration** (Network, Serial Ports, GPIO, Alarms, System, Remote Management, Users), **Applications** (Ekahau Client), **Management** (Serial Ports, Connections), and **Administration** (File Management, Backup/Restore, Update Firmware, Factory Default Settings, System Information, Reboot). The main content area is titled **Network Configuration** and includes tabs for **IP Settings**, **Wireless LAN Settings**, and **Wireless Security Settings**. Under **Wireless Security Settings**, the **Network Authentication** section is active, showing radio buttons for "Use any available authentication method" and "Use the following selected method(s)". The second option is selected, with checkboxes for "Open System", "Shared Key", "WEP with 802.1x authentication", "WPA with pre-shared key (WPA-PSK)" (checked), "WPA with 802.1x authentication", and "Cisco LEAP". Below this is the **Data Encryption** section, also with radio buttons for "Use any available encryption method" and "Use the following selected method(s)". The second option is selected, with checkboxes for "Open System (no encryption)", "WEP", "TKIP", and "CCMP" (all checked). The **WEP Keys** section shows a "Transmit key:" dropdown set to 1 and four "Encryption Keys:" input fields. The **WPA PSK** section contains a note: "Enter a passphrase when WPA-PSK authentication is enabled. Note: the passphrase will need to be re-entered whenever the Network SSID is changed." Below this are "Passphrase:" and "Confirm:" input fields, which are highlighted with a red rectangle. The **Username/Password** section at the bottom has a note: "Enter a username/password when the following network authentication methods are enabled: WEP with 802.1x authentication, WPA with 802.1x authentication, or LEAP." and a "Username:" input field.

9. Now the WiFi does not match with the access point (you will notice that the yellow led is flashing). In order for it to match, the access point must use the same authentication. In case of WPA-PSK and of Turbo-X AP150, the settings are shown below (type the key in the *Security Key* field)

TURBO-X

System Status **Wireless Settings** LAN Settings System Tools

Wireless Basic Settings **Wireless Security** Wireless Extender Access Control Connection Status

Select SSID: Connect ▼

Security Mode: WPA - PSK ▼

WPA Encryption Type: ☒ AES ☐ TKIP ☐ TKIP&AES

Security Key: 1234567890

Key Renewal Interval: 3600 Seconds

Note:

Network mode will switch to 11b/g mixed automatically if WEP or TKIP is selected;

Network Mode will switch to 11b/g/n mixed automatically if AES or TKIP&AES is selected.

Apply Cancel

10. Now, the WiFi is matching with the access point (you will notice that the yellow led is permanently lit), therefore you will be able to view the data logger in *Digi Device Discovery*. If you do not see it, although the yellow led is permanently lit, reboot again the data logger.
11. Now, you can manage the data logger as if it were **Stylitis-10+Ethernet**.