> **DO NOT INSTALL** the thermostat until you have the Wi-Fi network connection information, including the *SSID*, *Security Type* and *Password*, and the *Router's IP address, User Name and Password*.

STEP 1: INSTALL THE Wi-Fi THERMOSTAT BACKPLATE

A. Turn off the power to the HVAC unit and then follow the directions included with the thermostat for detailed instructions. Make sure the wires are connected to the correct terminals. In addition to the thermostat wires, there are three (3) wires from the Wi-Fi backplate. Connect the RED wire to the R terminal (along with the Red wire in the thermostat cable), the BLACK wire to the 24(c) terminal (along with the common wire in the thermostat cable), and the WHITE wire to the X1 terminal. These wires are shipped in the proper locations and are noted here for completeness.

Figure 1 – Wi-Fi Backplate

B. After installing the thermostat cable, study the thermostat installation pages and set the DIP switches on the back of the thermostat to the desired settings. Some DIP switch settings are required for proper HVAC equipment operation and others are features that may be engaged, as desired.

After setting the DIP switches, set the thermostat aside. Do NOT install the thermostat on the backplate.

C. Turn on the power for the HVAC equipment. When power is applied, the Green LED will start flashing (indicating the thermostat backplate is operating in 'Ad Hoc' Wi-Fi mode), and the Red LED will be on steady (indicating the thermostat backplate is not connected to the thermostat).
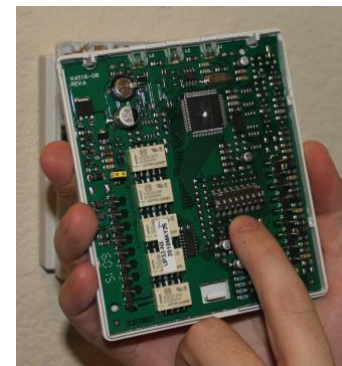

Figure 2 – DIP Switch Location

Do *NOT* install the thermostat on the Wi-Fi backplate yet!

STEP 2: CHOOSE AD HOC OR WPS CONNECTION TO YOUR NETWORK

There are two methods that can be used for connecting your NetX™ Wi-Fi thermostat to your Wi-Fi network. If your router or access point has WPS (Wi-Fi Protected Setup) capabilities, using this method will be quickest.

Follow either the WPS or Ad Hoc connection method instructions below.

WPS Connection Method

WPS Step A: VERIFY YOU HAVE A WPS CAPABLE ROUTER / ACCESS POINT

If you have a router or Wi-Fi access point with WPS capabilities, getting your NetX™ Wi-Fi thermostat onto your network is 'push-button' simple. To verify, check your equipment instructions and verify 'WPS' is a connection option. Typically, there will be a WPS button on the router. Sometimes it is on the front or side, sometimes on the back.

Figure 3 – Router & Access Point with WPS Button

WPS Step B: CONNECT TO THE Wi-Fi THERMOSTAT USING WPS

Press the WPS button on your router or Wi-Fi access point. Typically, it will stay in WPS mode for 2 minutes. While in this mode, go to the thermostat and press and release the SETUP button ONE TIME on the backplate. It will take 30-45 seconds for the router and thermostat to negotiate with each other.

While in WPS connection mode, the red and green LEDs will flash alternately, and when negotiation is completed the green LED will turn off while the security encryption is wrapped up (this could take another 20-30 seconds… be patient). Upon completion, the green LED will stay on continually, indicating the thermostat is on the Wi-Fi Network.
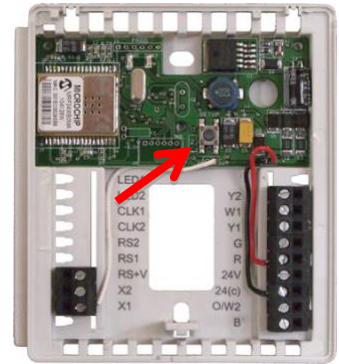
Figure 4 – SETUP Button Location

WPS Step C: JUMP TO STEP 3 BELOW.

Ad Hoc Connection Method

Ad Hoc Step A: DOWNLOAD THE NetX™ DEVICE EXPLORER TOOL

The NetX™ Device Explorer tool can be downloaded here.
NetX Device Explorer for PC
http://www.networkthermostat.com/software/netx-explorer-pc

NetX Device Explorer for Mac
http://www.networkthermostat.com/software/netx-explorer-mac

Figure 5 – NetX™ Device Explorer

NT™ network thermostat

Ad Hoc Step B: CONNECT TO THE Wi-Fi THERMOSTAT USING 'AD HOC' MODE

IF SETUP IS BEING PERFORMED WITH A COMPUTER, UNPLUG ANY HARDWIRE ETHERNET CABLE BEFORE CONTINUING.

Connect to the thermostat using a Windows 7 or earlier PC (Microsoft has removed ad-hoc connectivity from the Windows 8 and 10 operating systems) or any Apple device with a Wi-Fi radio and a web browser. With the device, search for the Wi-Fi network with the SSID name **netx-setup** and connect to it. This is the name of the SSID on the Wi-Fi backplate, and there is no password. It may take up to a full minute for the device to connect to the backplate.

Once connected, open the browser and enter **169.254.1.1** into the address bar. This is the Ad Hoc address of the Wi-Fi backplate.

When the password dialog box is displayed, enter the defaults. (Both are *lower case*).
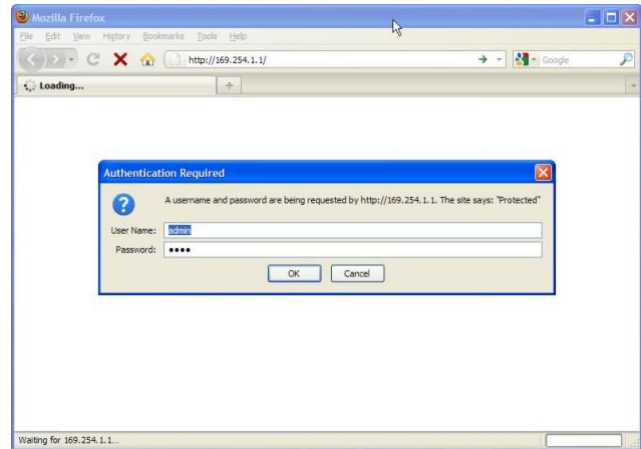
User Name: **admin**
Password: **netx**

Figure 6 - Ad Hoc Connection at 169.254.1.1

Ad Hoc Step C: CONNECTING TO YOUR LOCAL Wi-Fi NETWORK

When the device connects to the thermostat, the screen below will be displayed in the browser.

Enter your Wi-Fi Network Information:
On the left side of the screen,

1 Click 'Scan for Networks'.

2 A pop-up dialog will display all available Wi-Fi networks. Select your network.

3 The Security Mode will be automatically entered.

4 Wireless network's Pass Phrase. If your network uses WEP, it will be necessary to know the length of the Pass Phrase and if it is ASCII or HEX. (Note: WEP networks have significant security vulnerabilities and are easily hacked. It is recommended that WPA or WPA2 network security mode be used).

5 Enter the Wi-Fi password.

6 Leave 'Enable DHCP' checked.

7 Then click 'Save & Reboot'.

When you click 'Save & Reboot', the Wi-Fi backplate will then reboot.
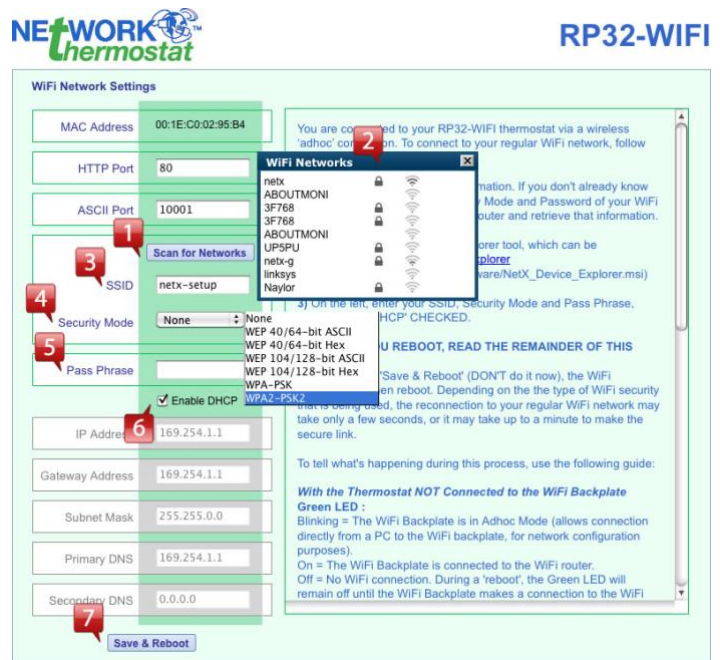

Figure 7 - Network Settings

Depending on the type of Wi-Fi security that is being used, the reconnection to your regular Wi-Fi network may take only a few seconds, or it may take up to a minute to make the secure link.

During reboot and connection, LEDs will flash. This is what's going on with the Wi-Fi Backplate:

Green LED:

Blinking = The Wi-Fi Backplate is in Ad Hoc Mode (allows connection directly from a PC to the Wi-Fi backplate, for network configuration purposes).

ON = The Wi-Fi Backplate is connected to the Wi-Fi router.

OFF = No Wi-Fi connection. During a 'reboot', the Green LED will remain off until the Wi-Fi Backplate makes a connection to the Wi-Fi router and the security credentials are validated.

Red LED:

ON = The Wi-Fi Backplate is not communicating with the thermostat (the thermostat is not on the backplate)

NOTE: After the Wi-Fi backplate reboots, if a Wi-Fi connection does not happen within a few minutes, a wrong SSID, Security Mode and/or Password has been entered.

To recover, press-and-hold the small pushbutton on the backplate for 10 seconds to reset to the factory defaults for network settings. The Wi-Fi Backplate will reboot and return to Ad Hoc mode (Green LED = Blinking, Red LED = On) so you can reconnect and re-enter your information.

STEP 3: WRITE DOWN THE THERMOSTAT BACKPLATE MAC ID.

There is a sticker on the backplate with a long number called a MAC ID. This is a unique number for each thermostat. Get a piece of paper and write down the number. IMPORTANT: Make sure you write down the MAC ID properly.

<u>NOW</u> install the thermostat faceplate (display) on the Wi-Fi Backplate!

STEP 4: ENROLL YOUR THERMOSTAT

See the QuickEnroll document for finishing the enrollment process and claiming your thermostat for use.

If you're installing the thermostat on a stand-alone private network with no Internet connection, refer to the detailed instructions 240094-NetX-WIFI-DirectConnect-Quick-Start-Guide.