

NETX™ WiFi THERMOSTAT : STEP-BY-STEP INSTALLATION GUIDE FOR **CLOUDCONNECT™** COMMUNICATIONS

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: GET YOUR Wi-Fi NETWORK INFORMATION

Confirm your Wi-Fi network information. If you don't already know the SSID (Wi-Fi network name), Security Mode and Password of your Wi-Fi router, you'll need to log into your router and retrieve that information (which means you'll need the router login information also!). Enter the IP address of your router in the address bar of your browser and log in. The SSID and Security Mode will be listed in the wireless settings. Alternately, the label on your router may list the router's IP address, Security Mode and Password.

STEP 2: DOWNLOAD THE NetX™ DEVICE EXPLORER TOOL

The NetX™ Device Explorer tool can be downloaded here.

<http://www.networkthermostat.com/software/netx-explorer-mac-and-pc>



Figure 1 – NetX™ Device Explorer

STEP 3: 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 2 – 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 Soft AP (Soft Access Point) Wi-Fi mode), and the Red LED will be on steady (indicating the thermostat backplate is not connected to the thermostat).

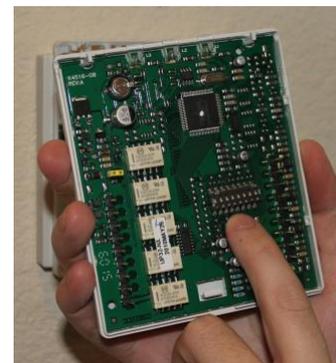


Figure 3 – DIP Switch Location

DO NOT INSTALL THE THERMOSTAT ON THE Wi-Fi Backplate YET!

NETX™ WiFi THERMOSTAT : STEP-BY-STEP INSTALLATION GUIDE FOR **CLOUDCONNECT™** COMMUNICATIONS

STEP 4: CONNECT TO THE Wi-Fi THERMOSTAT USING 'SOFT AP' MODE

Using any Windows PC or Apple Computer with a Wi-Fi radio and a web browser, search for the Wi-Fi network with the SSID name that NetX-XXXXXX where the XXXXXX matches the last six digits of the Wi-Fi Backplate MAC ID.

Log on to the NetX-XXXXXX network. This is an open network and does not have a password. It may take up to a full minute for your computer to connect to the Wi-Fi Backplate.

Once connected. Use your internet browser and navigate to 192.168.7.1. This is the Soft AP address for the Wi-Fi Backplate.

The default credentials for login are listed below.

User Name: admin
Password: netx

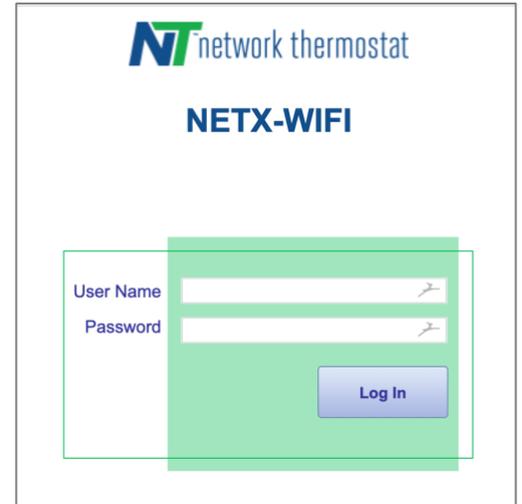


Figure 4 – Soft AP Connection at 192.168.7.1

NOTE: For Additional information on using Soft AP on Android devices click link Here – <http://www.networkthermostat.com/app-notes/soft-ap-android-tips/>

STEP 5: CONNECTING TO YOUR LOCAL Wi-Fi NETWORK

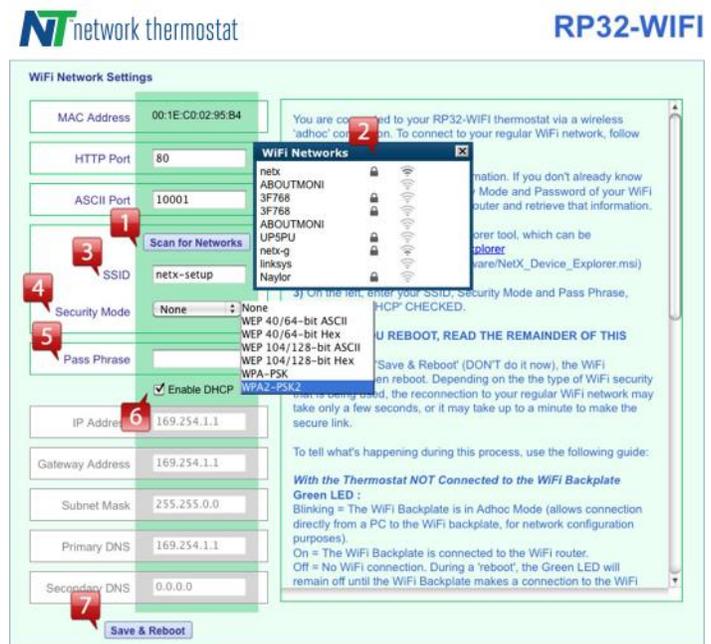
When the device connects to the thermostat, the screen below will be displayed in the browser.

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.



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.

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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 Soft AP 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 Faceplate (the Faceplate is not on the Wi-Fi 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. This can be fixed by using the Recovery Mode outlined below.

Recovery Mode

There are two options for recovery mode: Soft Reset and Factory Reset. Soft Reset only changes your network settings all other setting are retained. Factory reset, removes all your changes and returns your Wi-Fi Backplate to it original factory configuration. See below how to use each reset.

Soft Reset

Press and hold the SETUP button (yellow arrow) for 10 seconds. When both the WIFI Green LED (green arrow) and Red STAT LED (red arrow) flash together, release the SETUP button and the Wi-Fi Backplate will remove the network settings, reboot, and return to Soft AP Mode. Follow the instructions in **STEP 4** above to connect to your Wi-Fi Plate.

NOTE: This reset maintains your current username and password.

Factory Reset

Press and hold the SETUP button (yellow arrow) for 10 seconds. When both the WIFI Green LED (green arrow) and Red STAT LED (red arrow) flash together, release the SETUP button. While the LEDs are flashing, press the SETUP button with three short presses and the Wi-Fi Backplate will remove **ALL** settings, reboot, and return to Soft AP Mode. Follow the instructions in **STEP 4** above to connect to your Wi-Fi Plate.

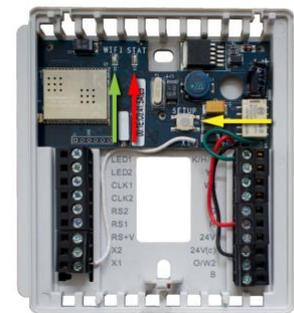


Figure 6 – Wi-Fi Backplate

STEP 6: RECONNECT YOUR COMPUTER TO YOUR WIRELESS NETWORK

While the thermostat is rebooting (it only take a few seconds), go back to your computer's Network Settings, locate your wireless connection, and reconnect to your regular wireless network. (This will be the SSID and password you just entered).

The screen shot to the right shows typical PC wireless network. In this case, the regular network has the SSID name **NETGEAR67**.

When the backplate connects to your wireless network, the Green LED will be on steady (indicating the thermostat is connected to a regular network).

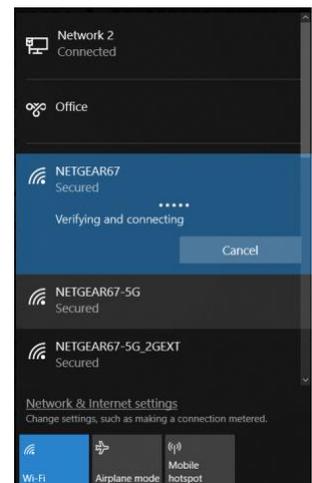


Figure 7 – PC Network Dialog

IF A HARDWARE ETHERNET CABLE WAS REMOVED IN STEP 4, IT CAN BE PLUGGED BACK INTO THE COMPUTER NOW.

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STEP 7: INSTALL THE THERMOSTAT ONTO THE BACKPLATE

Follow the instruction sheet to install the thermostat onto the Wi-Fi Backplate. When connected, either the Soft AP icon (Red Arrow) or the Wi-Fi icon (Blue Arrow) on the thermostat will turn on.



LED Condition		Thermostat Status
Soft AP (Red Arrow)	Wi-Fi (Blue Arrow)	
ON	OFF	Thermostat is in Soft AP Mode
OFF	ON	Thermostat is connected to a Wi-Fi network
OFF	OFF	Thermostat is not connected to a Wi-Fi network and it is not in Soft AP Mode

STEP 8: FIND YOUR NetX Wi-Fi THERMOSTAT USING THE NetX™ DEVICE EXPLORER

Once you have reconnected to your wireless network, start the NetX™ Device Explorer. The Device Explorer will run on any Windows PC or Mac computer allowing you to see and connect to any of your NetX Devices on your local network, using only your browser.

After launching Device Explorer, click on the 'Discover Devices' button, and when the replies appear, double-click on the thermostat to go to the thermostat's main page. If you are only going to connect to your thermostat(s) via your local network, the NetX Device Explorer is the easiest method to access your thermostats.



Figure 8 - NetX™ Device Explorer

For added convenience, go to the Basic Configuration page of the NetX thermostat and change the thermostat name to something easier to remember than the default name. If you have multiple thermostats on your network, change the name of each of the thermostats to something meaningful. Thermostat names may have a maximum length of **15 characters with no spaces**.

If connecting to the thermostat(s) using CloudConnect™ is desired, the connection of the thermostat to your wireless LAN is complete.

Local Connection using NetX™ Device Explorer:

Start the NetX™ Device Explorer and select the thermostat needed. Your default browser will launch and you'll be prompted to enter your user name and password. This simple software utility will always be able to find your thermostats if they are connected to the same network as your Windows PC or Mac computer.

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CONNECTING TO YOUR NetX™ THERMOSTAT USING the CloudConnect™ Service

STEP 9: RECONNECT TO YOUR THERMOSTAT AND CLAIM IT

Connect to your thermostat using the NetX™ Device Explorer as described above.

1 Click on the Configuration tab.
This will take you to the Basic Configuration page.

Enter the following information:

2 Thermostat Name (Use a more descriptive name for your thermostat). Click 'Apply'.

3 Site Information (Fill out all information in these fields.)
'Site Name' entry allows all thermostats with the same site name to be grouped together in the CloudConnect™ tool.
'Address/City/State/Country/Zip' allows the thermostat to access your current weather and forecast information. Click 'Apply'.

4 Login Email & Password

The login email address must be a valid address, but the password does NOT need to be the email password for the account. This password is the *Thermostat Login* password and should be different from your email password. Each user account is a unique combination of Login Email and Password.

5 Then, to claim your thermostat and have it ready for CloudConnect™, click 'Register Thermostat'.

Figure 9 - Basic Configuration & Registration

The thermostat will briefly, securely, connect to the NetX Remote Login Server and store the necessary information (encrypted, of course) so you can use your thermostat(s) with CloudConnect™. When this process is complete (usually only a few seconds), you'll see a message that reads **Claimed** just to the left of the 'Register Thermostat' button.

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STEP 10: CONNECT TO YOUR THERMOSTAT USING NetX™ CloudConnect™ SERVICE

Now that you're all set up, you can use any current release browser (Firefox, Internet Explorer, Chrome, or Safari) to log into your thermostat(s) using the CloudConnect™ service.

Simply go to networkthermostat.com and click **CloudConnect™ Login** in the upper right hand corner (or, go to <https://netx-cloud.com>). When you log in with your user name (email) and password, you will see your list of your thermostats, but the 'location' will be blank.

To update the location to the 'Site Name' you entered, simply expand each thermostat (click the '+' to the left of the thermostat name), then navigate to the Basic Configuration page under the thermostat. NetX™ CloudConnect™ will then record the site name. Follow this same process for each of your thermostats, and then log out and log in again. When you log in again, the Site Name will be seen for the location. If you'd like to separate your thermostats into different locations (groupings can be of anything that makes sense to you), just update the Site Name on the Basic Configuration page, log out and log back in.

Every thermostat is automatically enrolled for CloudConnect™ for 30 days starting the day the thermostat is registered. If you'd like to continue the subscription to the service after the 30 days, purchase a subscription at www.networkhvac.com.

If you decide you don't want or need the CloudConnect™ service, refer to the DirectConnect™ instructions and move your thermostat to a static IP address and port forward your router, as described in the DirectConnect™ documentation.