EtherRain to WiFi

Easy and Economical

EtherRain™ can easily be connected to a WiFi network using a WiFi bridge. A WiFi bridge brings the network (via WiFi) to the approximate install location of the EtherRain controller and a short Ethernet cable connects EtherRain to the WiFi bridge thereby seamlessly connecting EtherRain into your network.

The benefit of using a WiFi bridge is that it can be positioned in the room for best WiFi reception. Then a short cable can be run between the bridge and the EtherRain. This architecture benefits your installation by optimizing WiFi performance. It can also provide additional local Ethernet ports.

A number of devices are available that will economically provide WiFi bridge functionality. These devices are typically called “range extenders” and “media bridges.” Care must be taken when selecting a device however because the device must provide a mode of operation called “client bridge mode.” Some range extender devices will offer client bridge mode without specifically stating it. To the left you’ll see recommended typical WiFi products that offer client bridge mode. WiFi bridges can be found with price points ranging from $15.00 to $70.00 depending on performance and feature set.

Setting up a WiFi Bridge is Easy

Setting up a WiFi bridge involves connecting to the device, selecting the operating mode, and entering the WiFi network authentication parameters (SSID and password).

The easiest way to connect to a WiFi bridge is via WiFi. These devices are usually configured initially as an access point and so they broadcast a unique SSID. Using a laptop or computer, connect to the device’s SSID via the WiFi setup utility. Then open a browser and enter the device’s default IP address. The configuration page will be presented. If the device doesn’t broadcast the default SSID then you may have to first reset the device using the reset button. Some devices will also provide a way to connect via an Ethernet cable. This is usually a little more involved so consult your device operating manual for instructions. The device’s unique SSID and default IP address should be shown on the device label.

The first step in configuration is to place the device into the desired operating mode. Depending on your device, the mode will be either “Client Bridge Mode” or “Repeater.” The next step is to enter the WiFi access information so that your device can join your WiFi network. If both your existing WiFi router and your device has the WPS feature, then you can use the standard WPS join procedure. Just place the device in range of your WiFi network, press the WPS button on your existing WiFi router, and then press the WPS button on your Bridge device. The network connection information will be wirelessly transferred to your device and setup will be complete. If you cannot use WPS then enter your WiFi network access information via the device configuration pages. Refer to the device user manual.

Confirm Connectivity

Most WiFi bridge devices will have a front panel LED indicator to indicate that a WiFi signal is being received. Check to make sure this indicator is illuminated. In addition, in order to maintain reliable operation, it is important that your WiFi bridge is receiving a strong signal from your wireless router. Use a laptop to connect to your WiFi network and place the laptop near the install location of the bridge. View the signal status from the laptop's WiFi channel selection utility. The status should reflect a strong signal. If not, walk the laptop around the room to find the strongest signal location. If you don’t have a strong signal you may need to install a separate WiFi range extender device somewhere between your existing WiFi router and the install location.

After configuring your WiFi bridge, use a laptop to confirm connectivity. Turn off the laptop’s WiFi reception and, using an Ethernet cable, plug the laptop into a port on the WiFi bridge. Open a browser window and confirm that the Internet is reachable.