PENTAIR

INTELLICONNECT™
CONTROL AND MONITORING SYSTEM

WIRELESS ROUTER PAIRING GUIDE

BEFORE PERMANENTLY INSTALLING THE INTELLICONNECT SYSTEM, IT IS BEST TO MAKE SURE THAT THE SYSTEM WILL BE ABLE TO MAINTAIN A RELIABLE WIRELESS CONNECTION FROM THE EQUIPMENT PAD TO THE HOME ROUTER.

READ AND FOLLOW THE INSTRUCTIONS BELOW TO HELP ENSURE A RELIABLE WIRELESS CONNECTION BETWEEN THE INTELLICONNECT SYSTEM AND A HOME ROUTER.

Testing Wireless Signal Strength Using IntelliConnect

1. Ensure the power is turned off at the circuit breaker before wiring the IntelliConnect system.
2. Open the enclosure by unfastening the two retaining clips at the top of the enclosure
3. Remove the retaining screw securing the high voltage wiring compartment cover and remove the high voltage cover.
4. At the proposed mounting location, bring 120/240V power into the high voltage wiring compartment and temporarily wire to screw terminals marked L1 and L2 (see **Figure 1**).

   Note: Cap the ground wire to ensure electricity does not arc to a hot wire or the control board.
5. Reinstall the high voltage cover over the high voltage wiring compartment and secure with the retaining screw.

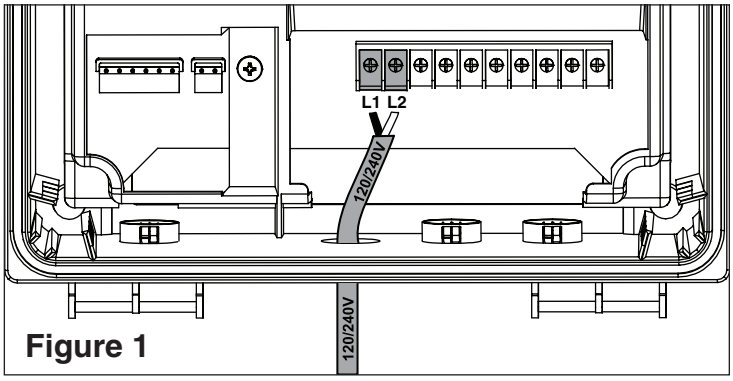

Figure 1

6. Return power to the enclosure at the circuit breaker. The IntelliConnect will now enter access point mode for ten (10) minutes and the LINK LED will blink green.
7. Open your computer, smartphone or tablet's wireless settings.

   To open Wireless Settings on smartphones or tablets: Go to Settings>Wireless or Settings>Connections>Wireless.

   To open Wireless Settings on computers: Click on the wireless icon [or] in the desktop system tray.
8. You should see an available access point titled "IntelliConnectPIFxxxxxxx". Select this access point to connect to IntelliConnect.
9. Once connected to "IntelliConnectPIFxxxxxxx", open your smartphone, tablet or computer's web browser.
10. Type **192.168.123.1** into the address bar and press enter. This will take you to the pairing page.

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Testing Wireless Signal Strength Using IntelliConnect (Cont.)

11. Select your home router from the drop down SSID list and enter your router security key into the security key field. See **Figure 2**.

    Note: When the SSID drop down arrow is pressed the menu may be empty. Press done and then press the down arrow again this should populate the drop down menu.

    Note: Security keys are case sensitive.

    Note: If your home router does not display in the SSID drop down list and the LINK LED is solid red, the router may be too far from the IntelliConnect enclosure to receive a strong enough signal. Refer to Step 14 for suggestions for correcting this issue.

12. Tap the Connect button. See **Figure 2**.

13. After a few seconds the IntelliConnect's LINK LED (see **Figure 3**) will either be:

    a. **BLINKING GREEN:** Indicates the IntelliConnect is in access point mode and has not yet established a connection with the router.

    b. **SOLID GREEN**: Indicates a successful wireless connection between the IntelliConnect and the home router has been established. PROCEED TO STEP 16.

    c. **BLINKING RED:** Indicates an unnsuccessful wireless connection between the IntelliConnect and that access point mode has timed out. Power down the IntelliConnect for ten (10) seconds to reset access point mode and proceed to Step 14 for recommendations on improving the signal/connection strength.

       Note: Ensure the router security key entered in Step 11 is correct before continuing to Step 14. Entering an incorrect router security key will result in an unsuccessful connection.

       Note: If the IntelliConnect drops a wireless connection, it may take up to three (3) minutes before the LINK LED begins to blink red.

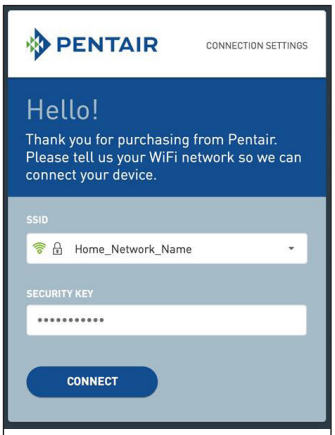
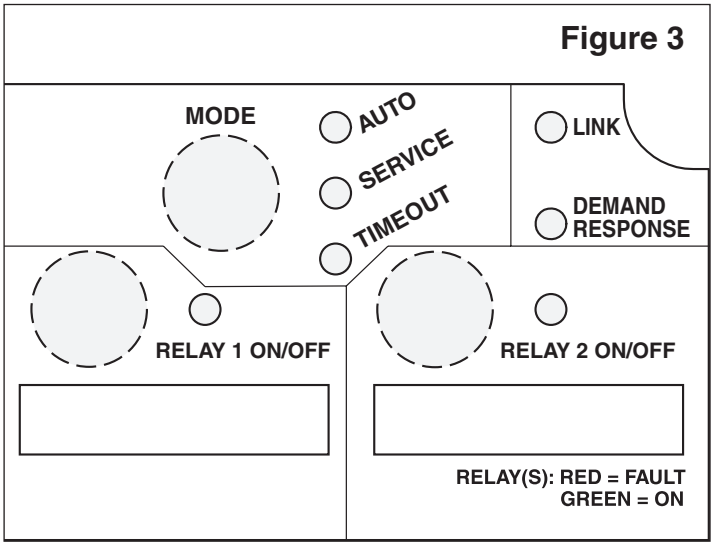


Figure 2

Figure 3



14. If the wireless signal from the router is not strong enough to successfully pair with the IntelliConnect system, the signal strength may be improved by:

    a. Moving the router to an area that minimizes the distance and obstructions between it and the enclosure.

    b. Repositioning the enclosure so that the distance and obstructions between it and the wireless router are minimized.

    c. Purchasing and installing a wireless range extender to bridge the wireless signal between the home router and IntelliConnect enclosure. See *Wireless Range Extender FAQ* on the next page.

15. Continue to test the signal strength until the LINK LED turns solid green.

    Note: The IntelliConnect must be powered down for a minimum of ten (10) seconds before it will reenter access point mode (blinking Green LINK LED).

16. Before permanently installing the IntelliConnect enclosure, log into the Pentair Link$_2$O™ Technology app.

    The wireless signal strength is displayed at the bottom of the app's IntelliConnect dashboard screen. If the signal strength is between -75 and -95dBm, a wireless range extender should be installed (see *Wireless Range Extender FAQ* on the next page).

    Note: The wireless signal strength displayed in the app is updated each time the IntelliConnect is powered on.

17. Refer to the *IntelliConnect Control and Monitoring System Installation Guide* (P/N 523338) for instructions on permanently installing your IntelliConnect enclosure.

Testing Wireless Signal Strength with a Smart Device

There are many apps and tools available on smartphones or other mobile devices that allow a user to check the strength of wireless signals.

Wireless router signal strength can vary over time and just because a signal is strong today does not guarantee a strong signal tomorrow. Signal strength can be affected by other users in close proximity accessing their routers.

When using a Wireless Signal Monitoring app the lower the dBm reading the better. For example, a signal strength of -40dBm is good and a strength of -80dBm is considered bad. A signal strength between -30dBm and -60dBm is considered very good. When the signal strength at the equipment pad is below -75dBm refer to Step 14 of *Testing Wireless Connection Using IntelliConnect* for corrective actions or refer to the FAQ below.

Wireless Range Extender FAQ

What is a Wireless Range Extender?

A Wireless Range Extender is used to extend a wireless router's coverage area. A range extender needs to be installed within the existing router's coverage area so that it can receive a wireless signal from the router. It then rebroadcasts that signal to the areas around it.

Range extenders suffer from the same issues as wireless routers, so avoid obstables like concrete, stucco or brick walls, metal objects and microwaves.

Which Wireless Range Extender Should I Purchase?

Pentair recommends the use of a 2.4 GHz extender. Since the IntelliConnect does not require a high speed connection, it is not necessary to purchase a high speed range extender.

> **Note:** If you install a range extender to improve the connection of the IntelliConnect make sure to connect the IntelliConnect to the extender. A wireless extender's router name (SSID) will frequently end with the letters "EXT", indicating that it is the extender.

Removing an IntelliConnect from Your Account

Once an IntelliConnect™ Control and Monitoring System is paired to a Pentair Link$_2$O account, that device's PIF number must be erased from the account before it can be assigned to a new or separate account. This can be performed within the Pentair Link$_2$O app.

1. While signed into the app, navigate to the Device Details screen and open the Status drop down menu.
2. Select "Install Details" from the drop down menu.
3. Press the "Cancel Equipment" button at the bottom of the Install Details page to remove the IntelliConnect from your Pentair Link$_2$O account.

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P/N 523326 Rev. A 8/15/18