

# **IoT Well Management System**

### **Additional Information for Install**



#### Wi-Fi Requirements

The XLink Control requires a Wi-Fi connection to take full advantage of features.

The XLink Control is a NEMA 3R rated housing, enabling the control to be installed both indoors and outdoors.

It is recommended that the XLink Control be installed near the pressurized well tank. This will allow the sensor in the XLink Control to read the most accurate pressure for an optimized system application.

In both indoor and outdoor applications, the signal strength from the XLink Control to the router is important for its full functionality. The further the XLink Control is away from the router and/or the more interference there is between the router and the XLink Control the worse the signal will be. To determine what the signal strength is, download a "WiFi Signal Strength Analyzer" to a separate mobile device.

Note: WiFi connection is measured on a scale from -100db to 0db, with 0db being the strongest. The signal strength needed to initially connect is -50db and a sustaining signal strength of at least -70db to stay connected. <u>Rule of thumb:</u> if your mobile device can connect to home Wi-Fi, the control should be able to connect to the home Wi-Fi.

If the location of your well system is not within the -50db to make the initial connection, a WiFi repeater can be used to extend the range and strength.

The XLink Control requires a 2.4Gz WiFi connection and will not connect to a 5.0Gz signal. The 2.4Gz signal allows for better strength through floors and walls.



Examples of indoor applications:

Note: The colored circles in the image represent the WiFi signal range.

#### **Initial Startup**

### WARNING! It is recommended that a licensed professional follows federal, state and local codes when installing the control.

1. ADJUST TANK PRECHARGE to manufacturer's recommendations for the system's intended pressure range. Pressure range should be within pump capabilities. If pump capabilities are unknown, check with pump manufacturer.

Note: THE XLINK CONTROL WILL AUTOMATICALLY READ THE PRECHARGE. Failure to properly set the precharge will cause the system to not run as intended or require the control/system to setup again. For accurate system measurement, ensure that no water draw (fixtures, drains, etc.) are open.

Note: The allowable pre-charge range is 8-88psi. The control will not accept a pre-charge outside this range. Well tanks come from the factory with a 38 psi precharge. With this default precharge, the system will run at a 40-60 psi pressure range.

## **WARNING!** Before continuing, check for open drain valves or other sources of flooding before starting unit.

- 2. Turn on power and XLink's LEDs illuminate flashing.
- 3. Once the power to the XLink is turned on, the control will automatically detect the tank pre-charge and set the cut-in pressure +2 from read precharge. The cut-out pressure will then be set to +20 psi from the cut-in. If pump does not start, check installation. Refer to page 7 for details.

Note: If the startup sequence does not turn on the pump within 5 minutes, carefully relieve any residual pressure in the system to below 5 psi. See following page for more information.

- 4. The XLink control will automatically charge the tank to the determined pressure range based of the pre-charge.
- 5. The Precharge, Pressure Range, Initial Run Time and Amp Cycle Graph will be saved by the XLink. The control will now function on its own from this point or the settings can be changed if necessary. To change settings the control will need to be accessed from a smart device.

Reset Precharge – In order to reset the recorded precharge, maintenance mode will have to be access through the Amtrol companion app.

#### **Residual Pressure on Startup (IF NEEDED)**

## WARNING! It is recommended that a licensed professional follows federal, state and local codes when installing the control.

When installing the XLink control onto a system with an existing pressure tank, there is a possibility the pressure tank will retain some water pressure within the diaphragm during draining. This means when the XLink control is installed and the system is allowed to equalize, that water pressure will release and cause the control to experience more than 4 psi of pressure on startup.

If the system was completely drained, control powered on, and the pump has not started up in 5 minutes, follow the steps below:

- 1. Disconnect power to the system.
- 2. Utilize a drain valve in close proximity to the well tank.
- 3. To release residual pressure from the tank, actuate the valve open then close 3-5 times, with 5 seconds delay between actuations. A small amount of water may drain from the system.

# WARNING! Before continuing, check for open drain valves or other sources of flooding before starting unit.

- 4. Return power to the control to initiate startup.
- 5. Allow the commissioning cycle to complete and confirm measured precharge through the accompanying XLink mobile application.

### **Connecting to a Mobile Application**

#### <u>STEP 1</u>

When no controls have been connected, select the "Connect to Control" to begin the setup process.

If there are multiple tanks in the system, use the quantity dropdown to accommodate. Enter the volume of your well tank(s) provided by the manufacturer. Relief setting should match the relief valve rating on the well system. Once complete, select 'NEXT' and will be brought to a "Connect Your Phone to the Amtrol Network" page.

**IMPORTANT:** The volume quantity entered in this process will be used to calculate usage data in the mobile application. It is crucial that this information to be accurate for proper system usage recording.

#### <u>STEP 2</u>

After reaching this page, the user will need to leave the application to their devices WiFi settings. Follow instruction on the app. This page will look slightly different for an Android device.

**IMPORTANT:** Android devices <u>do not</u> need to exit the app. Follow prompts in app to connect device to control.

Leave the XLink app and enter your devices WiFi settings.

- 1. Inside your devices WiFi settings, select your XLink device.
- 2. When prompted for a password, enter your <u>devices serial number</u>. Password is CASE SENSITIVE.

Once successfully connected, return to your XLink app and proceed in the connection process.

- 1. Once back in the Amtrol app, select the *"Connected to Amtrol WiFi"* button to move onto connecting a home router.
- 2. Select the home router and enter the <u>home</u> Wi-Fi password. Password is case sensitive.
- 3. The "Control Setup: Success" screen will be displayed if/when the control and app are connected. This process may take up to 2 minutes to complete. Select the back button on the top left of the screen to return to the home page.

# How to add a photo of your install (homeowner):

- 1. Select the "Diagnostics" tab from the home screen
- 2. Select "Notes" from the options at the bottom

When in notes, select the "+" at the top to add a note.

This note can contain any information you'd like. We recommend to title it something unique to the system like your last name, installer name, or both.

The note will give you an option to "ADD PHOTO" (shown below)

Take a photo of the install to best capture the pressure tank, XLink switch, etc

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Back	New Note	ADD PHOTO
Title		
Description		
	Save Note	
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