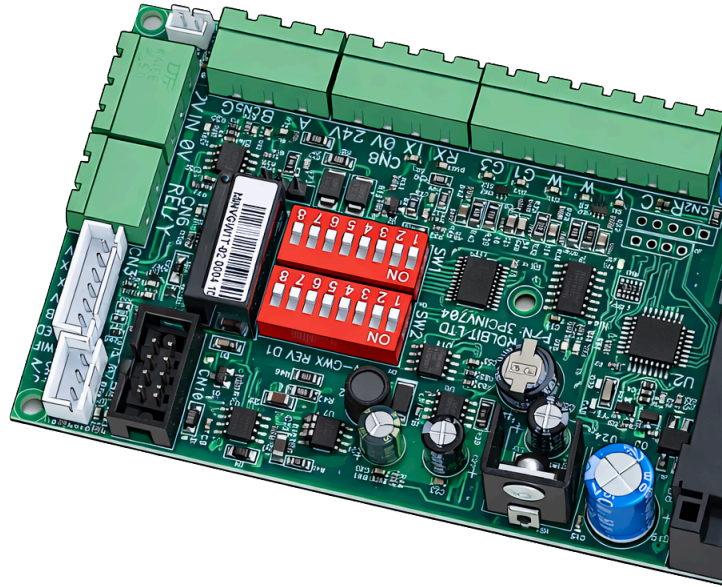


AIO™ GWX Gateway for AIO™ Heat Pumps

Installation Guide



CONTACT INFO

VIP Customer/Technical Support

Email: vip@innova.co

Phone: [\(212\) 204-2700](tel:(212) 204-2700)

DISCLAIMER



IMPORTANT – TRAINING IS REQUIRED PRIOR TO PERFORMING ANY INSTALLATION.

While this guide outlines the general installation requirements for the unit, it does not replace required installer training. Before commencing installation, the project manager must contact the INNOVA VIP Department at (212) 204-2700 to coordinate training for the installer.

Failure to ensure that installation is performed by INNOVA-trained personnel may result in improper operation or equipment damage, and may void the warranty.

Training may be conducted in person or remotely (online).

This documentation is intended for informational use only and should not be construed as a binding representation or contract. This documentation is provided “as is” without warranty of any kind, either express or implied. INNOVA and its affiliates disclaim all liability arising from the use or misuse of this documentation.

Illustrations may not be to scale, and all information and dimensions stated herein are subject to change at any time at the sole discretion of INNOVA. Benefits described herein apply only to the extent that the product is installed correctly in the correct application and used for its intended purpose.

INNOVA is constantly innovating and improving its products and reserves the right to modify product design and specifications without notice and without incurring any obligations.

REVISION HISTORY

Rev	Date	
A	2026-03-26	
B	2026-04-29	
C	2026-07-30	
D	2026-08-03	

AIO® is a registered trademark of INNOVA.
Copyright © 2026 INNOVA. All rights reserved.

CONTENTS

1. ABOUT THIS GUIDE.....	4
1.1 Specific language.....	4
1.2 Safety notices, icons, and symbols.....	4
2. QUICK GUIDE – INSTALLING THE GWX GATEWAY IN AIO™ UNITS.....	5
3. GWX GATEWAY OVERVIEW.....	5
3.1 AIO™ unit compatibility.....	6
3.2 GWX gateway specifications.....	6
4. SAFETY GUIDELINES – READ BEFORE INSTALLING.....	6
4.1 Fire/explosion hazards.....	6
4.2 Electrical hazards.....	7
4.3 Moving parts hazards.....	7
4.4 General safety guidelines.....	7
4.5 Installer responsibilities.....	7
5. PREPARING FOR INSTALLATION.....	8
5.1 Shipping configuration.....	8
5.2 Inspecting the package.....	8
5.3 Required tools and supplies.....	8
6. SUPPORTED APPLICATIONS.....	8
6.1 Occupancy detection.....	8
6.2 Relay operation modes.....	8
7. INSTALLING THE GWX GATEWAY IN THE AIO™ WALL MOUNTED (GEN 2) UNIT.....	9
7.1 Opening the unit.....	9
7.2 Attaching the GWX gateway to the unit.....	10
7.3 Connecting the gateway cables.....	11
7.4 Closing the unit.....	12
8. INSTALLING THE GWX GATEWAY IN THE AIO™ WALL MOUNTED (GEN 3) UNIT.....	13
8.1 Opening the unit.....	13
8.2 Attaching the GWX gateway to the unit.....	13
8.3 Connecting the gateway cables.....	15
8.4 Closing the unit.....	15
9. INSTALLING THE GWX GATEWAY IN THE AIO™ CEILING DUCTED / CEILING SUSPENDED (WITH ERV OPTION) UNIT.....	16
9.1 Opening the unit.....	16
9.2 Attaching the GWX gateway to the unit.....	16
9.3 Connecting the gateway cables.....	18
9.4 Closing the unit.....	20
10. INSTALLING THE GWX GATEWAY IN THE AIO™ CEILING SUSPENDED (WITHOUT ERV OPTION) UNIT.....	20
10.1 Opening the unit.....	21
10.2 Attaching the GWX gateway to the unit.....	21
10.3 Connecting the gateway cables.....	23
10.4 Closing the unit.....	25

11. INSTALLING THE GWX GATEWAY IN THE AIO™ VERTICAL STACK UNIT.....	25
11.1 Opening the unit.....	25
11.2 Attaching the GWX gateway to the unit.....	26
11.3 Connecting the gateway cables.....	27
11.4 Closing the unit.....	29
12. INSTALLING THE GWX GATEWAY IN THE AIO™ VERTICAL STACK XL UNIT.....	29
12.1 Opening the unit.....	29
12.2 Attaching the GWX gateway to the unit.....	30
12.3 Connecting the gateway cables.....	32
12.4 Closing the unit.....	34
13. CONFIGURING THE GWX GATEWAY.....	34
13.1 Configuring SW1 DIP switches.....	34
13.1.1 SW1 BACnet DIP switch settings.....	35
13.1.2 SW1 Modbus DIP switch settings.....	36
13.2 Configuring SW2 DIP switches.....	39
13.3 JMP2 jumper.....	39
13.4 Wi-Fi terminal.....	39
13.5 Controllers and thermostats.....	40
14. COMMUNICATION PROTOCOLS AND REGISTERS/OBJECTS MAP.....	41
14.1 BACnet Registers/Objects Map.....	41
14.2 Modbus Registers/Objects Map.....	41
15. WARRANTY TERMS AND CONDITIONS.....	43
15.1 Exclusions and limitations.....	43

1. ABOUT THIS GUIDE

This guide outlines the required procedures for safely installing the GWX gateway in an AIO™ heat pump unit. Following these instructions reduces the risk of equipment damage, improper installation, and potential safety hazards.

Important: Read the entire installation guide before beginning any installation tasks. Pay close attention to all safety warnings and notices.

Note: This guide is shipped with the gateway and is the property of the customer. Make sure this guide is left in the customer's possession.

1.1 Specific language

Some language and symbols in this guide have specific meanings.

Reference to the product

Any reference to "the unit" or "the AIO™ unit" is meant to refer to the specific AIO™ heat pump unit described in that section of the document.

Unit orientation

All directions in this guide (left, right, top, and bottom) are given from the perspective of facing the unit.

Role definitions

This guide is primarily intended for installers. The roles of end users and service technicians are also defined here for reference.

- **User:** A nonexpert who can safely operate the unit and perform basic diagnostics and maintenance.
- **Installer:** An INNOVA-trained and certified HVAC installation technician responsible for the correct installation of the unit as indicated in the installation guide and in accordance with all local and national codes.
- **Service technician:** A trained and qualified HVAC professional who performs service or maintenance in compliance with OSHA safety requirements, recognized industry best practices, and all applicable federal, state, and local codes and standards.
- **Trained HVAC technicians:** A group term for both installation and service technicians.

1.2 Safety notices, icons, and symbols

Warnings, Cautions, and Annotations are included throughout this guide. Read each carefully and follow the stated instructions.

Safety notices

Each safety notice represents the level and immediacy of risk. Each warning panel displays a background color and a signal word and includes an icon to specify the topic.

DANGER

A red notice with the **DANGER** title indicates an imminently hazardous situation that could result in death or serious injury if not avoided.

WARNING

The orange notice with the **WARNING** title indicates a potential hazard that, if not avoided, could result in death or serious injury.

CAUTION

The yellow notice with the **CAUTION** title indicates a hazardous situation that, if not avoided, could result in minor to moderate injury or property damage.

Warning icons

The warning icons used in conjunction



The f
relate
haza



The li
warn



The h
relate
parts



The e
gene
and c

Annotation icons

Annotations are pr
important to read
stated instructions



Indicate
is impo
installa



Indicate
or usefu

2. QUICK GUIDE – INSTALLING THE GWX GATEWAY IN AIO™ UNITS

WARNING

IMPORTANT! Before beginning any installation, read the Safety Guidelines in [Section 4](#).

This Quick Guide provides links to the sections in this document that describe how to install a GWX gateway control board in each type of AIO™ heat pump unit.

[To install in an AIO™ Wall Mounted \(Standard/Pro\) unit \(Gen 2\)](#)

[To install in an AIO™ Wall Mounted \(Standard/Pro\) unit \(Gen 3\)](#)

[To install in an AIO™ Ceiling Ducted unit \(with or without ERV\)](#)

[To install in an AIO™ Ceiling Suspended unit \(with ERV option\)](#)

[To install in an AIO™ Ceiling Suspended unit \(without ERV option\)](#)

[To install in an AIO™ Vertical Stack unit](#)

[To install in an AIO™ Vertical Stack XL unit](#)

3. GWX GATEWAY OVERVIEW

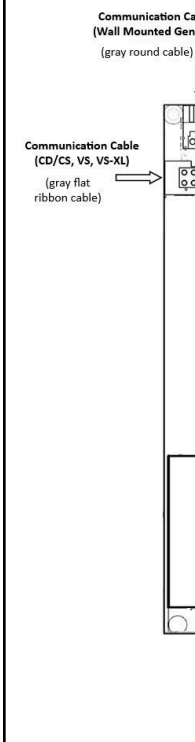
The GWX gateway provides an interface between AIO™ units and wall thermostats, as well as Building Management Systems (BMS) protocols, including Modbus, BACnet, and Wi-Fi.

The following Layout shows the connections between the GWX gateway and the following:

- Power from the AIO™ unit: **CN1 Power Line In**
- Communication with the AIO™ Vertical Stack, Vertical Stack XL, and Ceiling Ducted/ Suspended units: **CN10**
- Communication with the AIO™ Wall Mounted Gen 2 and 3 units: **CN4 A/C**
- Wi-Fi module: **CN3 Wi-Fi**
- External heater or fresh air module: **CN6 RELAY**
- Motion detector: **CN7**
- External temperature sensor: **CN9 SENSOR**
- Building management port: **CN5**
- Communication to an INNOVA controller TFTH20 or LTCH20: **CN8**
- Communication to a third-party thermostat: **CN2**

Figure 1 shows the

Figure 1. GWX gateway



The GWX
Modbus

The GWX gateway

- **INNOVA controller**
AIO™ Basic To
AIO™ Advanced
[Section 13.5.](#)
- **Third-party controller**
[13.5.](#)
- **Building Management System**
remote communication
protocols. See
- **Wi-Fi module**
application for
computers. See
- **External module**
with external e
baseboard he
air. [See Section](#)
- **External temperature sensor**
operation of t
temperature c
[Section 13.2.](#)
- **Motion detector**
unit operation
[Section 6.1.](#)

3.1 AIO™ unit

The GWX gateway

AIO™ units:

- AIO™ Wall Mounted Standard/Pro (Gen 2+)
- AIO™ Ceiling Ducted (with and without ERV)
- AIO™ Ceiling Suspended (with and without ERV option)
- AIO™ Vertical Stack (Gen 3 only)
- AIO™ Vertical Stack XL



- All references to the AIO™ Wall Mounted unit refer to both the Wall Mounted Standard and the Wall Mounted Pro units.
- The GWX gateway is not used with the Wall Mounted (Gen 1) unit. For these units, use the GWN gateway. Refer to the [GWN Gateway Installation Guide for AIO™ Heat Pumps](#) for more information.
- The GWX gateway cannot be used with Gen 1 or 2 of the Vertical Stack unit. See [Section 11](#).

3.2 GWX gateway specifications

The following are the specifications of the GWX gateway:

- DIP switches for the mode of operation and network address.
- Modbus and BACnet communication port via RS485.
- Relay Rating: Dry Contact - 1 amp.
- LTCH20 and TFTH20 controller inputs via four-screw terminals (CN8).
- Third-party thermostat inputs via seven-screw terminals (CN2).
- Operating temperature: 40°F (4.4°C) - 158°F (70°C).
- Storage temperature: 0°F (-17.8°C) - 158°F (70°C), 90% relative humidity, non-condensing.
- Power supply: Switchable between 115/230V at 50/60 Hz.
- Power consumption: 2.4 watts.
- Fuse: 0.315-amp ceramic fuse.
- Dimensions: 6" x 2.7" x 1" (152.4 mm x 68.6 mm x 25.4 mm)



CAUTION

The relay on the GWX is a Pilot-Duty relay and is rated at only 24 VAC and 1 amp. When connecting an external device, do not exceed this capacity.



The GWX gateway is an optional component for the AIO™ unit. It must only be used for this purpose.

4. SAFETY BEFORE INSTALLATION

This guide details the safety precautions for installing the GWX gateway in a residential setting. Failure to follow these instructions, the risk of personal injury cannot be ruled out.

Read the entire installation manual before installing the gateway. Pay careful attention to the safety instructions and warnings.

Failure to apply the safety precautions may result in malfunctions in the system. The manufacturer of a system is not responsible for damage to persons or property.

All safety regulations and standards must be followed, as well as common-sense safety practices.

The precautions listed in this manual are intended to supplement the safety instructions of the manufacturer in the case of a direct contact with the system. These practices and this manual are not a substitute for a precaution taken by the user.

Failure to follow the safety instructions may result in property damage or personal injury.

4.1 Fire/explosion



- In the event of a fire, turn off the power source immediately and notify the distributor.
- Servicing should be performed according to the recommendations of the manufacturer.

4.2 Electrical



- Only trained personnel should install the gateway. Improper installation by unqualified personnel may result in injury or death. When working on the gateway, observe all safety instructions and labels attached to the gateway.
- Before installing the gateway, disconnect the power to the gateway. That power is not disconnected, remote disconnection is not possible in the electrical system, and the gateway is not connected to the network.



DANGER

- Follow all OSHA-compliant Lockout/Tagout (LOTO) procedures.



WARNING

- All electrical connections, wiring, and grounding must be done by a qualified electrician and must comply with the National Electrical Code (NEC/NFPA-70) and all local codes that hold jurisdiction. Improper wiring or loose connections may cause overheating, fire, or electric shock.
- Use only the supplied installation-specific components. Using different components could lead to water leakage, electric shock, or fire.
- Do not open access panels to the interior of the unit without first disconnecting the power and/or turning off the breaker.
- The unit contains capacitors that may retain an electrical charge after the power is disconnected. Thus, before beginning any installation or servicing, to avoid electrical shock or serious injury, be sure to:
 - Discharge all motor start-run capacitors.
 - Verify (using a voltmeter) that no power is running into the unit.
 - Wait at least five minutes for the AIO™ unit to cool down and for the capacitors inside the unit to discharge.



CAUTION

- In the event of a blackout or thunderstorm, turn the unit off and disconnect it from the power source immediately.

4.3 Moving parts hazards



DANGER

- Do not operate the equipment with panels, guards, or covers removed, except when specifically instructed by the procedures below to test the installation.
- Ensure power is disconnected and components have come to a complete stop before accessing the interior. Internal fans, motors, and other moving components may start automatically when power is supplied.



WARNING

- Keep hands, hair, tools, and loose clothing away from fans and moving components. Contact with moving parts can cause serious injury.
- Do not remove, bypass, or disable protective covers, guards, or safety interlocks.

4.4 General safety



- Do not modify the unit or its controller. Use only the components specified in the installation conditions, or as otherwise specified.
- Wear appropriate personal protective equipment (PPE) when working on the unit. Wear safety glasses during installation and servicing.
- Only a qualified professional should install, service, or repair this unit. The installer must be trained, licensed, insured, or bonded in accordance with local regulations.



Install the unit only by a qualified professional.

4.5 Installer requirements

- Install the unit in accordance with the applicable local, state, and federal regulations.
- Ensure that the installer is qualified and the installation is performed correctly. Beginning installation and servicing may involve greater complexity than operation.
- Provide the customer with the necessary information for safe installation.

The safety precautions in this manual are recognized industry standards. If a safety hazard occurs, follow the requirements.

5. PREPARING FOR INSTALLATION

Before beginning the installation procedure, verify that all required components have been received and that all required materials and accessories are present.

5.1 Shipping configuration

The GWX gateway is shipped in a single package containing the following:

- GWX gateway board
- Two double-sided adhesive foam strips
- Five white plastic spacer (stand-up) clips
- Alcohol pad

The GWX gateway may be ordered with or without cables. If the configuration with cables was ordered, the package should also contain:

- Flat ribbon (gray) communication cable (for use with Vertical Stack, Vertical Stack XL, and Ceiling Ducted/Suspended units)
- Round (gray) communication cable (for use with Wall Mounted Gen 2 and Gen 3 units)
- Black power cable (for use with all units)

5.2 Inspecting the package

When the shipment is received, inspect it thoroughly before proceeding to installation:

1. Ensure that the contents match the order and shipping documents.
2. Inspect the entire gateway board and any accessories for any damage that may have occurred during shipping.
3. If the package or contents appear damaged:
 - a. Photograph all damage and all sides of the component to support a damage claim.
 - b. Clearly document the damage on the freight bill.
 - c. Notify your INNOVA representative or distributor.



Report all damage within two weeks of delivery to be eligible for a claim.

5.3 Required tools and supplies

- #2 Phillips-head screwdriver
- Mini ($\frac{1}{8}$ " [3.2 mm]) flathead screwdriver

6. SUPPORT

The following apply to the requisite accessories:

- **Occupancy detection:** The GWX gateway board must be configured to determine whether the area is unoccupied. If occupancy detection is disabled to save energy, the unit will not turn on with the last occupied mode.
- **External heating:** The GWX gateway board must be configured to determine whether the area is unoccupied. If occupancy detection is disabled to save energy, the unit will not turn on with the last occupied mode.
- **Fresh air:** The GWX gateway board must be configured to determine whether the area is unoccupied. If occupancy detection is disabled to save energy, the unit will not turn on with the last occupied mode.



The GWX gateway board must be configured to determine whether the area is unoccupied. If occupancy detection is disabled to save energy, the unit will not turn on with the last occupied mode.

6.1 Occupancy detection

Occupancy detection is used to determine whether the area is unoccupied. If occupancy detection is disabled to save energy, the unit will not turn on with the last occupied mode.



Occupancy detection is used to determine whether the area is unoccupied. If occupancy detection is disabled to save energy, the unit will not turn on with the last occupied mode.

6.2 Relay operation

The external heating relay is used to determine whether the area is unoccupied. If occupancy detection is disabled to save energy, the unit will not turn on with the last occupied mode.

When using an external heating relay, the unit will not turn on with the last occupied mode.

Figure 2. GWX Relay control board



The Relay control board is used to determine whether the area is unoccupied. If occupancy detection is disabled to save energy, the unit will not turn on with the last occupied mode.

- **Fresh Air:** The GWX gateway board must be configured to determine whether the area is unoccupied. If occupancy detection is disabled to save energy, the unit will not turn on with the last occupied mode.
- **Internal:** The GWX gateway board must be configured to determine whether the area is unoccupied. If occupancy detection is disabled to save energy, the unit will not turn on with the last occupied mode.
- **Basic External:** The GWX gateway board must be configured to determine whether the area is unoccupied. If occupancy detection is disabled to save energy, the unit will not turn on with the last occupied mode.

temperature sensor reads below 41°F (5°C).

- **Low-Temperature External Heat Control:** The relay output activates an external heat source when the temperature sensor reads below 23°F (-5°C).

These four modes are configured using the SW2 DIP switches on the GWX. For the configuration process and complete logic tables, refer to [Section 13](#).



For the External Heat Controls to work, an external NTC sensor (not included) must be connected. Without a sensor attached, these controls have no effect.

To reduce wear on the external-heat relay, the gateway applies two protections:

1. Deadband between ON and OFF thresholds:

In External Heat modes, the gateway uses separate ON/OFF temperatures. External heat turns ON when the measured temperature drops below the mode's ON threshold, and turns OFF only after the temperature rises above the corresponding OFF threshold. A "deadband" is defined with the OFF threshold set at 3.6°F (2°C) above the ON threshold, and no new heating command is sent while the temperature is within this band.

- a. For **Basic External Heat Control mode**, the deadband is between 41°F (5°C) and 44.6°F (7°C).
- b. For **Low-Temperature External Heat Control mode**, the deadband is between 23°F (-5°C) and 26.6°F (-3°C).

2. 5-minute activation delay:

Even after the temperature crosses the ON threshold, external heat turns ON only if the temperature stays below the ON threshold (i.e., outside the deadband on the low side) for at least five consecutive minutes.

7. INSTALLING THE GWX GATEWAY IN THE AIO™ WALL MOUNTED (GEN 2) UNIT

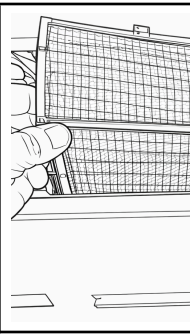
To install the GWX gateway in an AIO™ Wall Mounted (Gen 2) unit:

1. [Configure the GWX gateway](#) (recommended*).
2. [Open the unit](#).
3. [Attach the gateway to the unit](#).
4. [Connect the power and communication cables between the gateway and the unit](#).
5. [Close the unit](#).

***Gateway configuration:**



To simplify the installation process, we recommend configuring the GWX gateway before installing it in the unit. However, configuration can also be performed after installation if needed. For detailed configuration instructions, refer to [Section 13](#).



- 3. Remove the return air filter and grille.**
Remove the two decorative panels and remove the return air filter.



Keep the return air filter separate.

7.1 Opening the unit

To open the AIO™ Wall Mounted (Gen 2) unit:

1. **Disconnect the power supply.**
Disconnect the unit from the power supply and wait at least five minutes after it was last operated.
2. **Remove the return air filter and grille.**
Lift off the top grille from the unit. Then pull up on the plastic around the return air filter and remove the filter.

Figure 3. Lift off the top grille

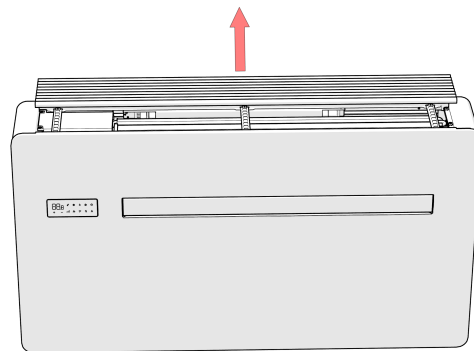
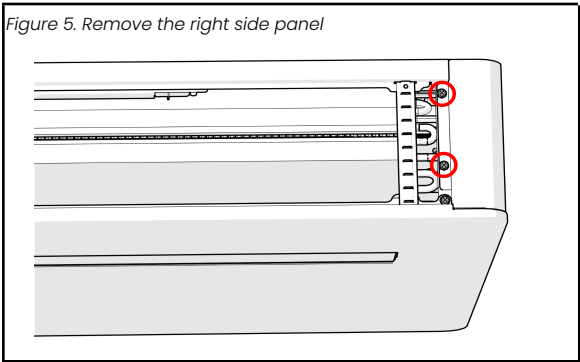


Figure 4. Remove the filter



7.2 Attaching the GWX gateway to the unit

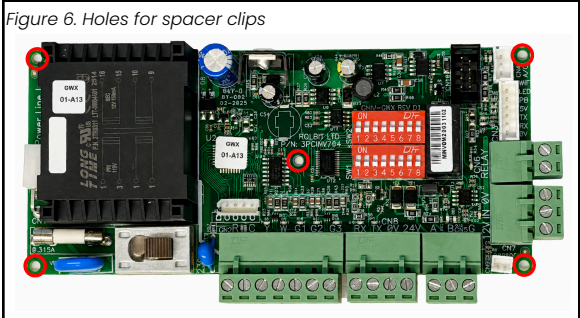
⚠ CAUTION

Handle the control board and all electronic components with care to avoid damage.

To attach the GWX gateway to the AIO™ Wall Mounted (Gen 2) unit:

1. Mount the GWX gateway board to the unit.

- If there are five mounting holes on the inner metal panel:
 - a. Insert the five plastic spacer (stand-up) clips (provided with the gateway) into the holes.
 - b. Mount the GWX gateway board onto the clips, using the holes in the gateway.



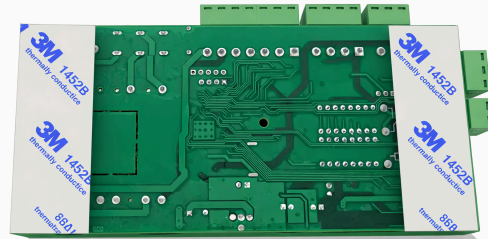
It is recommended to use spacer clips if there are holes, since the spacers raise the gateway board ¼" (6.4 mm) above the metal chassis, preventing contact and ensuring safe clearance.

- If there are no mounting holes on the panel:
 - a. Clean the mounting location on the inside of the right side metal panel with an alcohol pad to ensure proper adhesion.
 - b. Remove the backing from one side of the two double-sided adhesive foam strips and attach the strips to the back of the GWX gateway board.



The foam in the adhesive strips provides insulation to prevent short-circuits.

Figure 7. Adhesive strips on the gateway board



- c. Remove the backing from the other side of the adhesive strips and mount the gateway board on the inside of the right side metal panel. Press firmly to ensure it is securely attached.

⚠ CAUTION

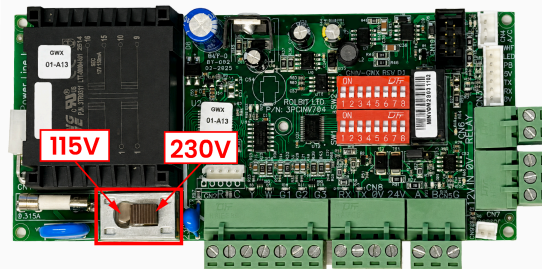
Make sure there is no direct contact between the gateway board and the metal panel.

2. Set the correct voltage.

The GWX gateway board includes a switch for 115 V or 230 V, so it can work with both configurations of AIO™ unit.

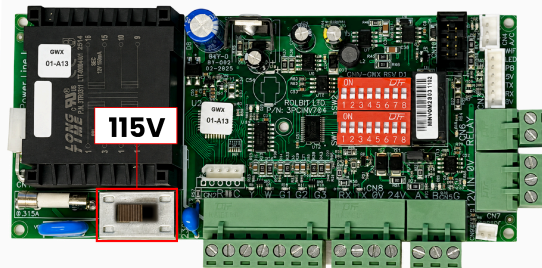
As you hold the gateway board so the text on the board is right-side up, moving the switch to the left sets the gateway for 115 V, and moving the switch to the right sets the gateway for 230 V.

Figure 8. GWX gateway board voltage switch



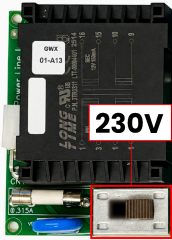
Thus, if the unit is configured for 115 V, set the switch as shown:

Figure 9. GWX gateway voltage set for 115



If the unit is configured for 230 V, set the switch as shown:

Figure 10. GWX gateway board voltage switch



A dab of the switch. If the switch is accidentally moved, use of the hot surface. To reapply the switch.



7.3 Connecting the GWX gateway to the unit

To connect the power supply between the GWX gateway and the AIO™ Wall Mounted (Gen 2) unit:

1. Open the Access Panel.

Locate the access panel on the bottom left of the unit. Remove the screw from the panel and slide the panel open.

Figure 11. Wall Mounted unit access panel



A	Power Supply for gateway
B	Communication port for gateway
C	Power for the heat pump on the condensate

2. Connect the communication cable to the unit.

Connect the end of the gray communication cable (with the black connector) to the dedicated gateway communication port on the accessory connection block (labeled B in Figure 11). Ensure the connector is inserted completely and securely.

3. Connect the power cable to the unit.

Connect the three-pronged end of the black power cable to the dedicated gateway power supply port on the accessory connection block (labeled A in Figure 11). Ensure the connector is inserted completely and securely.

Figure 12. Power and communication cable connections

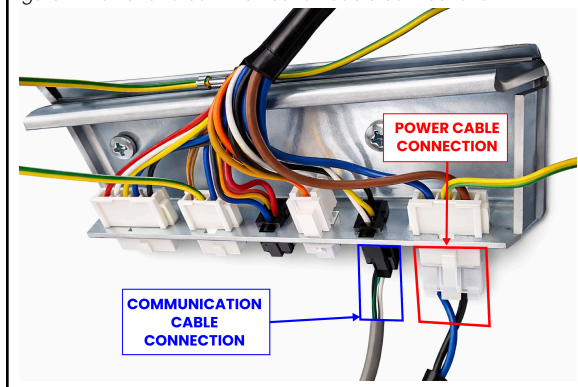
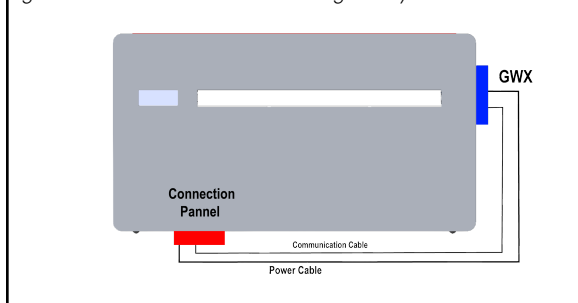


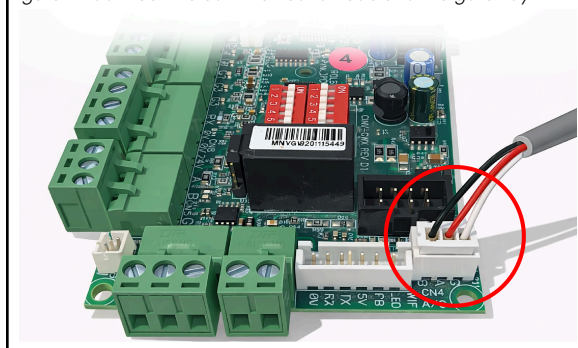
Figure 13. Connected cables from the gateway to the unit



4. Connect the communication cable to the gateway.

Insert the white connector on the round gray communication cable into the "A/C" port on the GWX gateway.

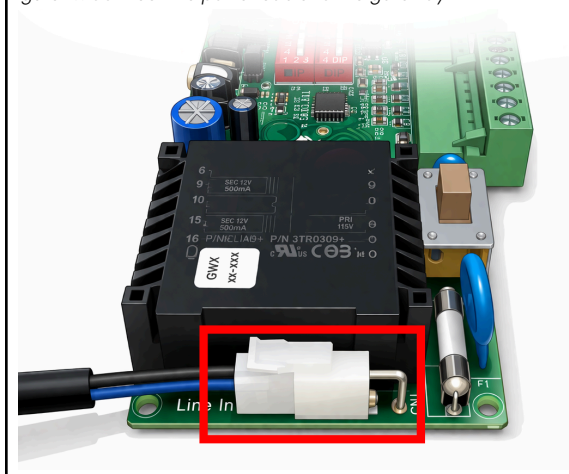
Figure 14. Connect the communication cable to the gateway



5. Connect the power cable to the gateway.

Insert the two-pronged end of the black power cable into the "Power Line In" port on the GWX gateway board.

Figure 15. Connect the power cable to the gateway



CAUTION

Ensure that all wire insulation is intact and that there are no exposed conductive parts that could cause short circuits or other electrical issues.

7.4 Closing the unit

To close the AIO™ Wall Mounted (Gen 2) unit:

1. Test the onboard touch controller.

- Reconnect the power supply to the unit and power it on.
- Test the onboard touch controller to verify that it changes the temperature setting and modes of operation as selected. Refer to the [AIO™ Wall Mounted \(Gen 2/3\) User Guide](#) for more information.
 - If the touch controller works as expected, power off the unit and wait at least five minutes for the capacitors inside the unit to discharge.
 - If the test fails, repeat the applicable steps in Sections 7.1 through 7.3 to verify that all connections are secure, and then repeat the test. If the test still fails, contact an INNOVA-trained service technician.

2. Close the accessory connection block cover and side panel.

- Replace the accessory connection block cover and slide it to the left, ensuring the tab on the left side of the cover slides into the slot on the unit, and secure it with the screw removed in Section 7.3, Step 1.
- Replace the right side panel and secure it to the frame of the unit using the two screws removed in Section 7.1, Step 3.

c. Reinstall the unit.

3. Reconnect the unit.

8. INSTALLING THE GWX GATEWAY IN THE AIO™ WALL MOUNTED (GEN 3) UNIT

To install the GWX gateway in an AIO™ Wall Mounted (Gen 3) unit:

1. [Configure the GWX gateway](#) (recommended*).
2. [Open the unit](#).
3. [Attach the gateway to the unit](#).
4. [Connect the power and communication cables between the gateway and the unit](#).
5. [Close the unit](#).

*Gateway configuration:

To simplify the installation process, we recommend configuring the GWX gateway before installing it in the unit. However, configuration can also be performed after installation if needed. For detailed configuration instructions, refer to [Section 13](#).



8.1 Opening the unit

To open the AIO™ Wall Mounted (Gen 3) unit:

1. **Disconnect the power supply.**
Disconnect the unit from the power supply and wait at least five minutes after it was last operated.
2. **Remove the return air filter and grille.**
Lift off the top grille from the unit, and then gently pull up on the plastic around the return air filter and carefully lift the filter to remove it.

Figure 16. Lift off the top grille

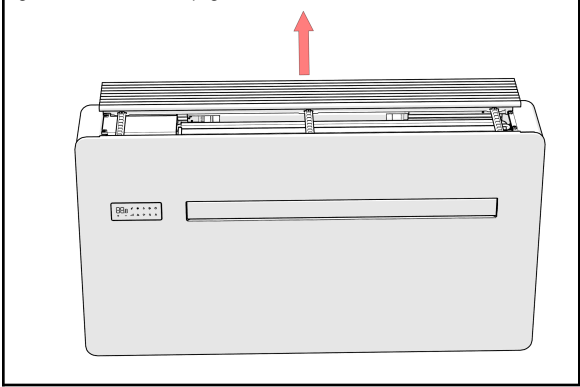
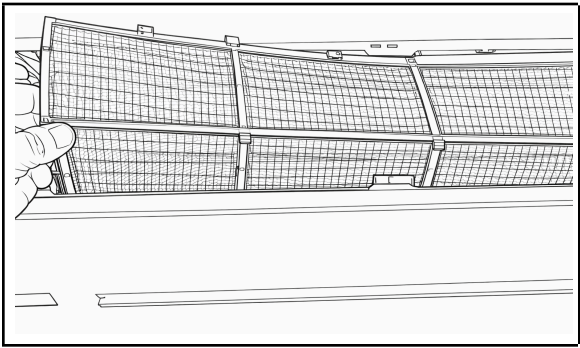


Figure 17. Remove the filter



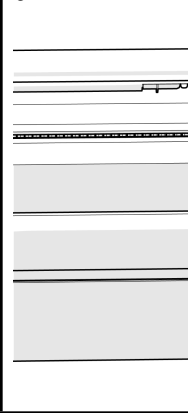
3. Remove the right side panel.

Remove the two screws from the right side decorative panel of the unit, and then lift and remove the right side panel.



Keep the screws removed in each step separate.

Figure 18. Remove the



After re
will see
are the
cables
used in

8.2 Attaching unit



Handle the contr
components wit

To attach the GWX
(Gen 3) unit:

1. Mount the GW

- If there are
metal pa
- a. Insert
clips
the h
- b. Mount
clips

Figure 19. Holes for sp



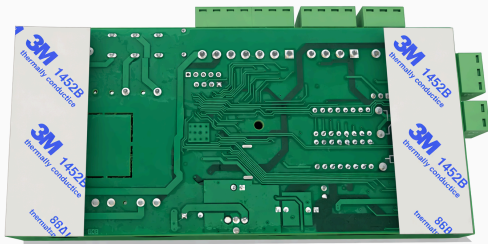
It is reco
there a
the gat
the me
and en

- If there are no mounting holes on the panel:
 - a. Clean the mounting location on the inside of the right side metal panel with an alcohol pad to ensure proper adhesion.
 - b. Remove the backing from one side of the two double-sided adhesive foam strips and attach the strips to the back of the GWX gateway board.



The foam in the adhesive strips provides insulation to prevent short-circuits.

Figure 20. Adhesive strips on the gateway board



- c. Remove the backing from the other side of the adhesive strips and mount the gateway board on the inside of the right side metal panel. Press firmly to ensure it is securely attached.

⚠ CAUTION

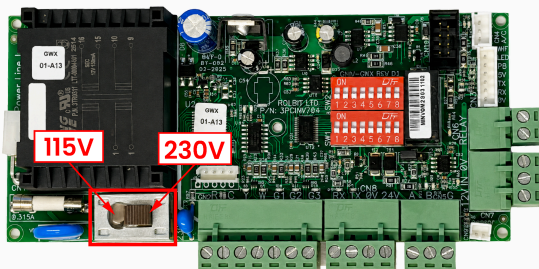
Make sure there is no direct contact between the gateway board and the metal panel.

2. Set the correct voltage.

The GWX gateway board includes a switch for 115 V or 230 V, so it can work with both configurations of AIO™ unit.

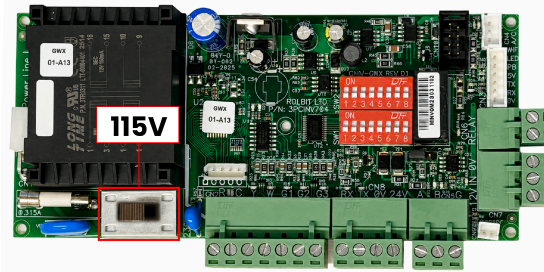
As you hold the gateway board so the text on the board is right-side up, moving the switch to the left sets the gateway for 115 V, and moving the switch to the right sets the gateway for 230 V.

Figure 21. GWX gateway board voltage switch



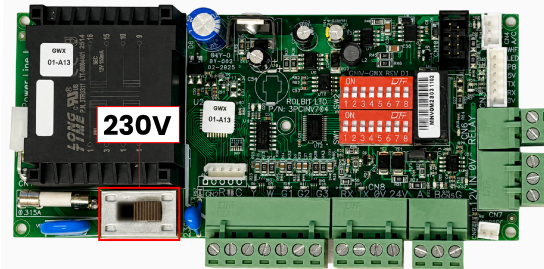
Thus, if the unit is configured for 115 V, set the switch as shown:

Figure 22. GWX gateway voltage set for 115



If the unit is configured for 230 V, set the switch as shown:

Figure 23. GWX gateway board voltage switch



A dab of hot glue has been applied to the switch to prevent it from being accidentally moved. If you need to move it, use a screwdriver to carefully remove the hot glue. It is recommended to reapply a dab of hot glue to keep the switch in the new position.

8.3 Connecting the gateway cables

To connect the power and communication cables between the GWX gateway and the AIO™ Wall Mounted (Gen 3) unit:

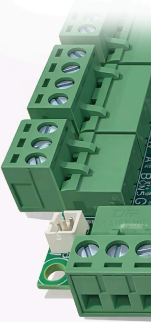
1. Connect the communication cable to the gateway.



The black power cable and round grey communication cable are pre-attached to the Gen 3 Wall-Mounted unit and hang down under the right side decorative panel, and only need to be connected to the gateway.

Insert the white communication cable into the GWX gateway.

Figure 24. Connect the communication cable to the GWX gateway



2. Connect the power cable to the gateway. Insert the free end of the power cable into the "Power Line" terminal on the gateway board.

Figure 25. Connect the power cable to the gateway



Ensure that all wires are properly connected and there are no exposed wires that could cause short circuits.

8.4 Closing the unit

To close the AIO™ unit:

1. Test the on-board power.

- a. Reconnect the power cable to the gateway.
- b. Test the on-board power by turning the unit on. The unit should be in the "Power On" mode. For more information, see the [AIO™ Wall Mounted \(Gen 3\) User Manual](#).

- If the unit is not in the "Power On" mode, the unit is not properly configured.

- If the test fails, repeat the applicable steps in Sections 8.1 through 8.3 to verify that all connections are secure, and then repeat the test. If the test still fails, contact an INNOVA-trained service technician.

2. Close the side panel.

- Replace the right side panel and secure it to the frame of the unit using the two screws removed in Section 8.1, Step 3.
- Reinstall the return air filter and the grille into the unit.

3. Reconnect the power supply to the unit.

9. INSTALLING THE GWX GATEWAY IN THE AIO™ CEILING DUCTED / CEILING SUSPENDED (WITH ERV OPTION) UNIT

To install the GWX gateway in an AIO™ Ceiling Ducted / Ceiling Suspended (with ERV option) unit:

1. [Configure the GWX gateway](#) (recommended*).
2. [Open the unit.](#)
3. [Attach the gateway to the unit.](#)
4. [Connect the power and communication cables between the gateway and the unit.](#)
5. [Close the unit.](#)



*Gateway configuration:

To simplify the installation process, we recommend configuring the GWX gateway before installing it in the unit. However, configuration can also be performed after installation if needed. For detailed configuration instructions, refer to [Section 13](#).



- The instructions in this section describe Gen 3 of the AIO™ Ceiling Ducted (with and without ERV) and the Ceiling Suspended (with ERV option), but the procedure is similar for Gen 1 and Gen 2 of both unit types.
- The illustrations in this section show the AIO™ Ceiling Suspended (with ERV option) unit, but the installation is very similar for the Ceiling Ducted units.

9.1 Opening the

To open the AIO™ (with ERV option) u

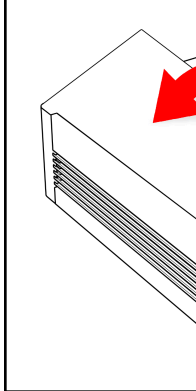
1. Disconnect th

Disconnect th
wait at least fi
operated.

2. For Ceiling Su decorative bo

The Ceiling Su
bottom panel
expose the m
panel.

Figure 26. Open the de



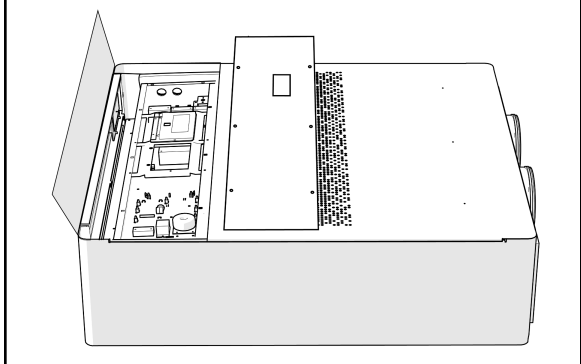
3. Open the elec

Remove all th
panel, and ren
electrical pan



Keep th
separa

Figure 27. Access the electrical panel



9.2 Attaching the GWX gateway to the unit

⚠ CAUTION

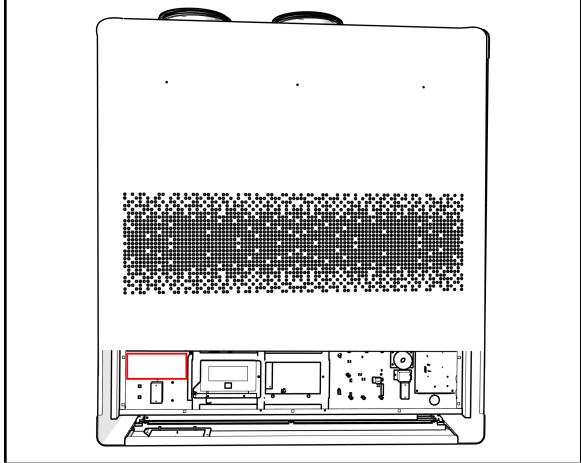
Handle the control board and all electronic components with care to avoid damage.

To attach the GWX gateway to the AIO™ Ceiling Ducted / Ceiling Suspended (with ERV option) unit:

1. Mount the GWX gateway to the unit.

The electrical panel has a space near the terminal block for mounting the gateway.

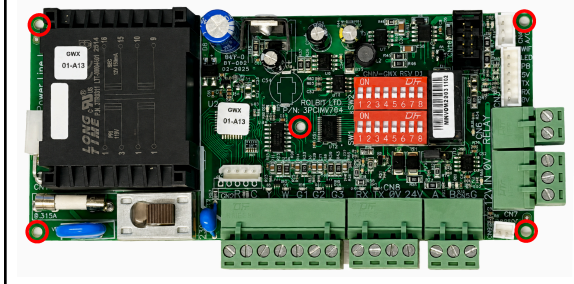
Figure 28. Mounting location for gateway on the electrical panel



Mount the gateway board as follows:

- If there are five mounting holes on the electrical panel:
 - a. Insert the five plastic spacer (stand-up) clips (provided with the gateway) into the holes.
 - b. Mount the GWX gateway board onto the clips, using the holes in the gateway.

Figure 29. Holes for spacer clips



It is recommended to use spacer clips if there are holes, since the spacers raise the gateway board $\frac{1}{4}$ " (6.4 mm) above the metal chassis, preventing contact and ensuring safe clearance.

- If there are no mounting holes on the panel:
 - a. Clean the mounting location on the electrical panel with an alcohol pad to ensure proper adhesion.
 - b. Remove the backing from one side of the two double-sided adhesive foam strips and attach the strips to the back of the GWX gateway board.

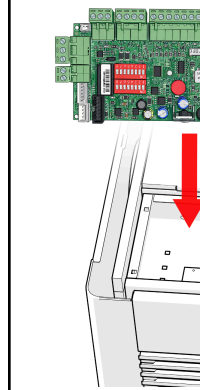


The foam in the adhesive strips provides insulation to prevent short-circuits.

Figure 30. Adhesive strips



Figure 31. Mount the gateway board



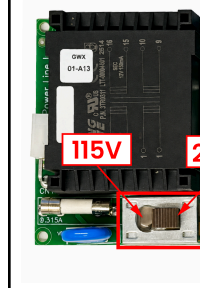
Make sure there is no contact between the gateway board and the electrical panel.

2. Set the correct voltage

The GWX gateway is configured for 115 V or 230 V, depending on the configuration.

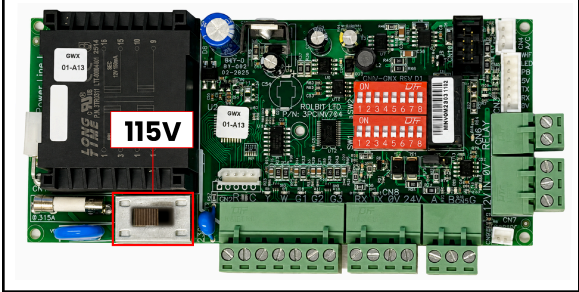
As you hold the gateway board in place, the right switch sets the voltage and the left sets the gateway mode.

Figure 32. GWX gateway board



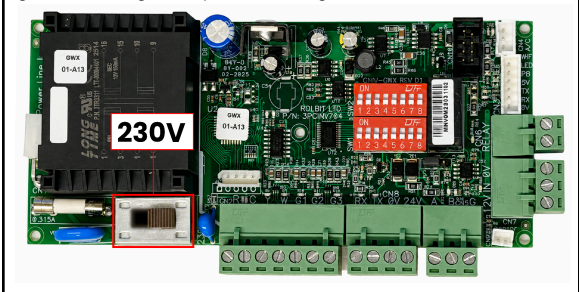
Thus, if the unit is configured for 115 V, set the switch as shown:

Figure 33. GWX gateway voltage set for 115



If the unit is configured for 230 V, set the switch as shown:

Figure 34. GWX gateway board voltage switch



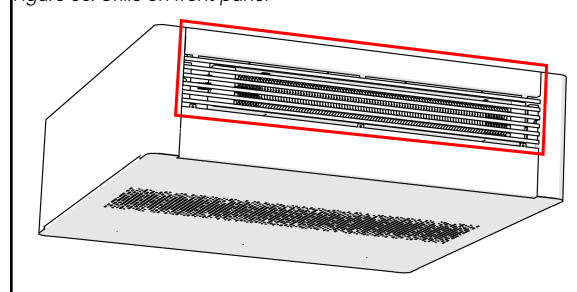
A dab of hot glue has been applied to the switch to prevent it from being accidentally moved. If you need to move it, use a screwdriver to carefully remove the hot glue. It is recommended to reapply a dab of hot glue to keep the switch in the new position.

9.3 Connecting the gateway cables

To connect the power and communication cables between the GWX gateway and the AIO™ Ceiling Ducted / Ceiling Suspended (with ERV option) unit:

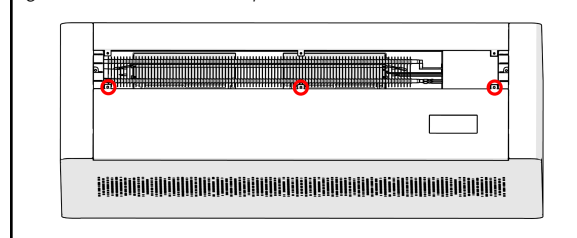
1. **Access the onboard touch controller.**
 - a. Remove the supply grille on the front panel.

Figure 35. Grille on front panel



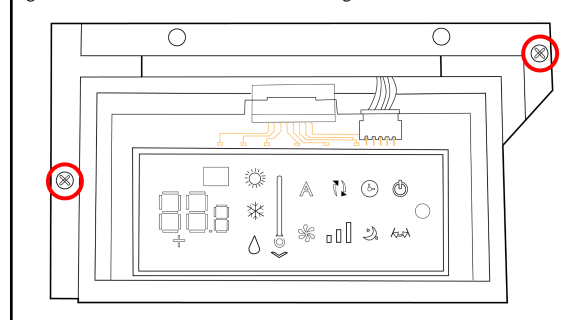
- b. **For Ceiling Suspended units only:** Remove the three screws from the decorative front panel to access the onboard touch controller.

Figure 36. Remove the front panel



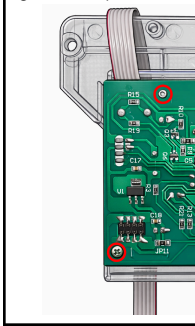
- c. Remove the two screws to detach the onboard touch controller housing from the unit.

Figure 37. Detach the controller housing



- d. Remove the four screws to remove the controller from the housing.

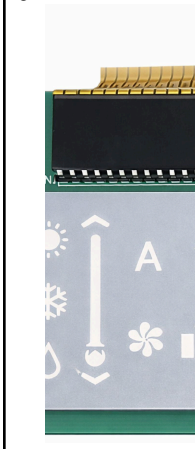
Figure 38. Open the co



2. Connect the c

- a. Locate th
the right
circuit bo

Figure 39. Wi-Fi socket



If there
remove
commu
not use
enable
[13.4.](#)



- b. On the gr
cable, fin
right-ang
connecto

Figure 40. Communic
header



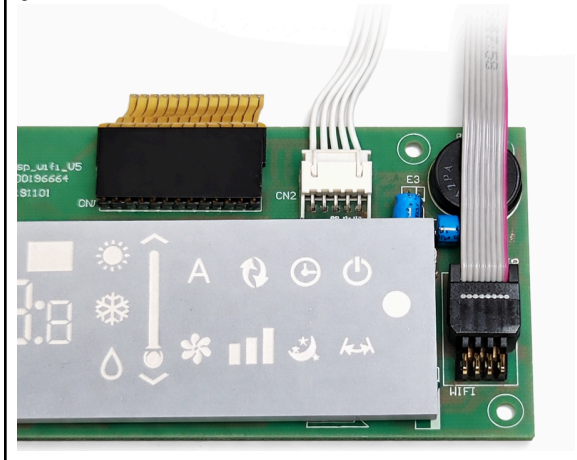
- c. Connect
follows:



Ensure that the communication cable is inserted with the red stripe on the cable facing away from the display.

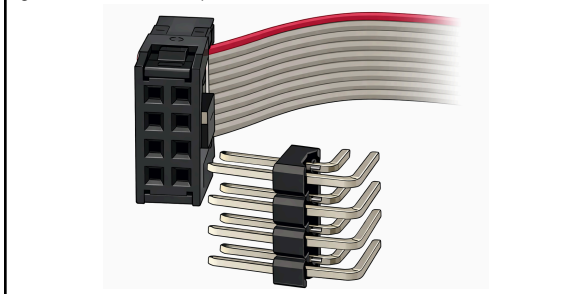
- If the Wi-Fi socket is empty:
Insert the eight pins on the cable connector securely into the Wi-Fi socket as shown.

Figure 41. Connect the communication cable to the unit



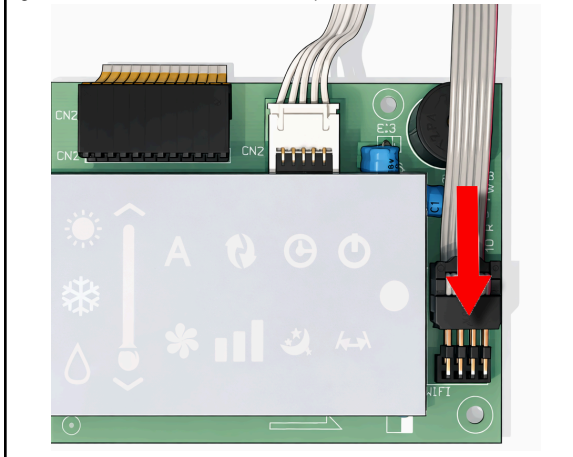
- If there is already a right-angle pin header in the Wi-Fi socket:
 - Remove the right-angle pin header from the cable connector.

Figure 42. Remove the pin header from the connector



- Push the cable connector securely onto the pins in the Wi-Fi socket as shown.

Figure 43. Connect the cable to the pin header in the Wi-Fi socket

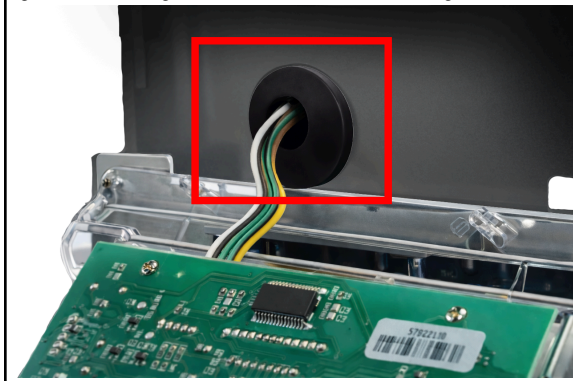


- Route the free end of the communication cable through the rubber cable grommet behind the controller housing

⚠ CAUTION

Be careful not to damage the colored wires (shown below) that are already routed through the grommet.

Figure 44. Rubber grommet in the controller housing



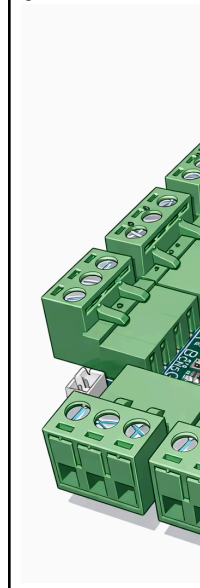
3. Reattach the onboard touch controller.

- Replace the controller in its housing and secure it using the four screws removed in Step 1d above.
- Reattach the controller housing to the unit using the two screws removed in Step 1c above.

4. Connect the communication cable to the gateway.

Connect the communication cable (connector) to the 8-pin communication socket on the gateway board.

Figure 45. Connect the communication cable to the gateway



5. Connect the power cable to the gateway.

The black power cable must be connected to the Ceiling Display Unit. It must be hardwired to the power supply.

6. Connect the communication cable to the gateway board.

Insert the two communication cables into the communication socket on the gateway board.

Figure 46. Connect the communication cable to the gateway board



Ensure that all wires are properly connected and that there are no exposed wires that could cause short circuits.

9.4 Closing the unit

To close the AIO™ Ceiling Ducted / Ceiling Suspended (with ERV option) unit:

1. Test the onboard touch controller.

- Reconnect the power supply to the unit and power it on.
- Test the onboard touch controller to verify that it changes the temperature setting and modes of operation as selected. Refer to the [AIO™ Ceiling Ducted User Guide](#) for more information (since the Ceiling Suspended units use the same controller).
 - If the controller works as expected, power off the unit and wait at least five minutes for the capacitors inside the unit to discharge.
 - If the test fails, repeat the applicable steps in Sections 9.1 through 9.3 to verify that all connections are secure, and then repeat the test. If the test still fails, contact an INNOVA-trained service technician.

2. Close the unit.

- For Ceiling Suspended units only:** Replace the front panel using the three screws removed in Section 9.3, Step 1b.
- Replace the supply grille (see Section 9.3, Step 1a).
- Replace the metal panel that covers the electrical panel, and secure it using all of the screws removed in Section 9.1, Step 3.
- For Ceiling Suspended units only:** Close the decorative bottom panel (see Section 9.1, Step 2).

3. Reconnect the power supply to the unit.

10. INSTALLING THE GWX GATEWAY IN THE AIO™ CEILING SUSPENDED (WITHOUT ERV OPTION) UNIT

To install the GWX gateway in an AIO™ Ceiling Suspended (without ERV option) unit:

- [Configure the GWX gateway](#) (recommended*).
- [Open the unit](#).
- [Attach the gateway to the unit](#).
- [Connect the power and communication cables between the gateway and the unit](#).
- [Close the unit](#).



*Gateway configuration:

To simplify the installation process, we recommend configuring the GWX gateway before installing it in the unit. However, configuration can also be performed after installation if needed. For detailed configuration instructions, refer to [Section 13](#).



The instructions and illustrations in this section refer to Gen 3 of the AIO™ Ceiling Suspended (with ERV option), but the procedure is similar for Gen 1 and Gen 2.

10.1 Opening

Figure 47. Open the Ce



1	Supply grille
2	Front panel

To open the AIO™ (without ERV option) unit:

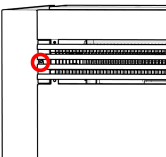
1. Disconnect the power supply.

Disconnect the power supply and wait at least five minutes for the unit to be fully powered down.

2. Remove the supply grille and front panel.

- Remove the supply grille, and

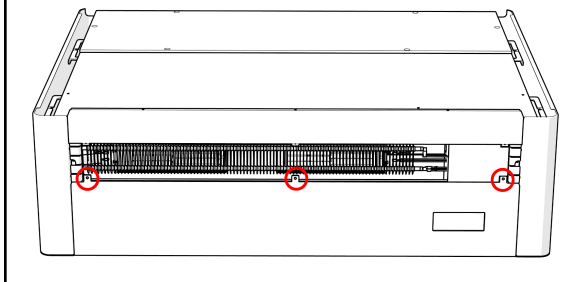
Figure 48. Remove the



Keep the GWX gateway separate from the unit.

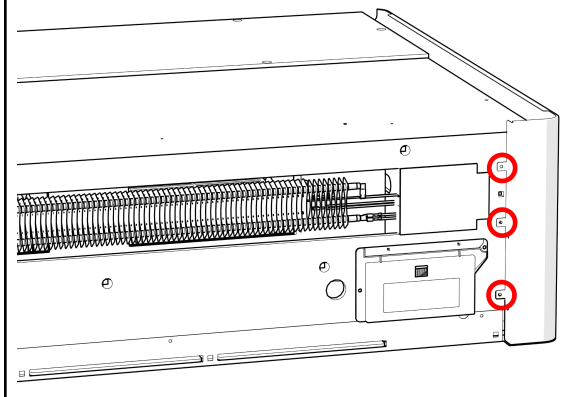
- b. Remove the three screws from the front panel, and remove the front panel.

Figure 49. Remove the front panel



- c. Remove the three screws from the right side panel, and remove the right side panel (the side next to the display).

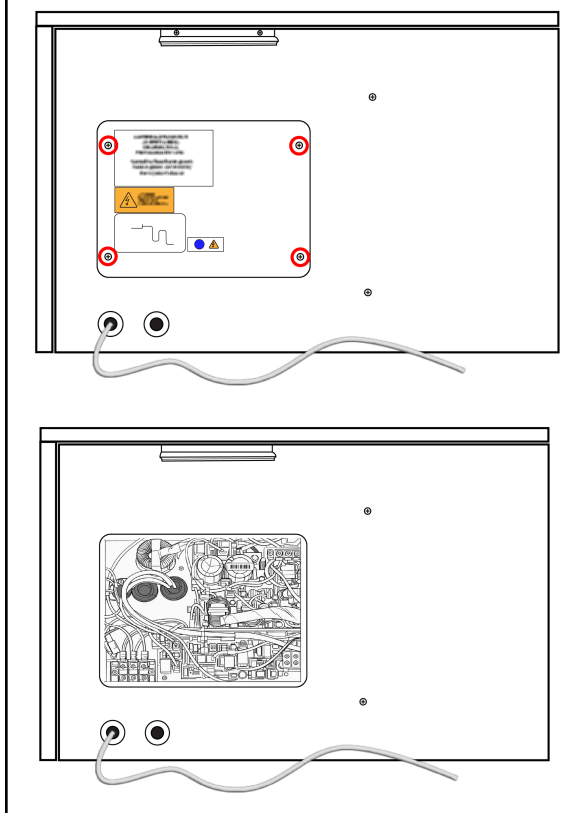
Figure 50. Remove the right side panel



3. Open the electrical panel.

On the side of the unit next to the display, remove the four screws from the electrical panel cover, and remove the cover to expose the electrical panel.

Figure 51. Open the electrical panel



10.2 Attaching the GWX gateway to the unit

⚠ CAUTION

Handle the control board and all electronic components with care to avoid damage.

To attach the GWX gateway to the AIO™ Ceiling Suspended (without ERV option) unit:

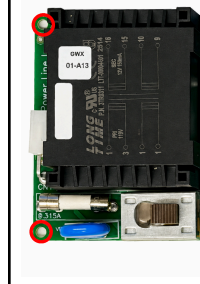
1. Mount the GWX gateway to the unit.

The electrical panel has a space on the side wall for mounting the gateway, as shown in Figure 54 below.

Mount the gateway board as follows:

- If there are five mounting holes on the electrical panel:
 - a. Insert the five plastic spacer (stand-up) clips (provided with the gateway) into the holes.
 - b. Mount the GWX gateway board onto the clips, using the holes in the gateway.

Figure 52. Holes for spacer



It is recommended that there are no other components on the gateway board and ensure that the gateway board is properly installed.

- If there are five mounting holes on the electrical panel:
 - a. Clear the area around the electrical panel to ensure proper installation.
 - b. Remove the top of the gateway board and the strips of the gateway board.



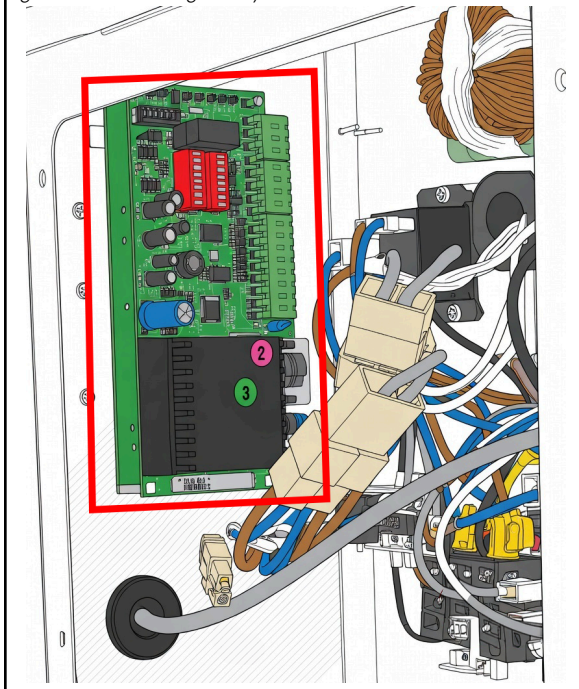
The foam insulation is provided with the gateway board.

Figure 53. Adhesive strip



- c. Remove the top of the gateway board and the strips of the gateway board.

Figure 54. Mount the gateway board



⚠ CAUTION

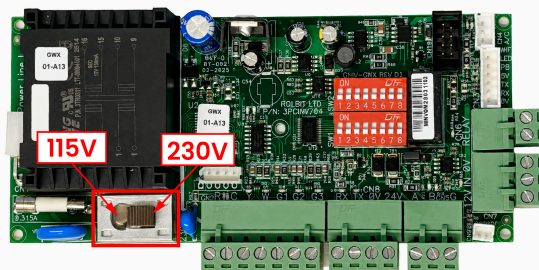
Make sure there is no direct contact between the gateway board and the metal panel.

2. Set the correct voltage.

The GWX gateway board includes a switch for 115 V or 230 V, so it can work with both configurations of AIO™ unit.

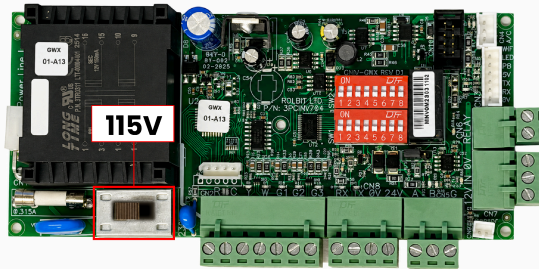
As you hold the gateway board so the text on the board is right-side up, moving the switch to the left sets the gateway for 115 V, and moving the switch to the right sets the gateway for 230 V.

Figure 55. GWX gateway board voltage switch



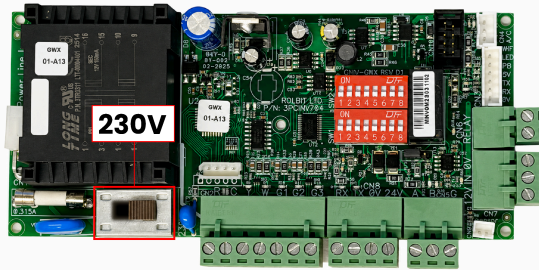
Thus, if the unit is configured for 115 V, set the switch as shown:

Figure 56. GWX gateway voltage set for 115



If the unit is configured for 230 V, set the switch as shown:

Figure 57. GWX gateway board voltage switch



A dab of hot glue has been applied to the switch to prevent it from being accidentally moved. If you need to move it, use a screwdriver to carefully remove

the hot
reapply
switch

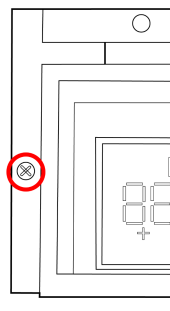
10.3 Connect

To connect the po
between the GWX
Suspended (witho

1. Access the or

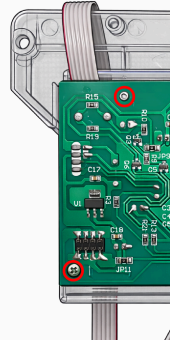
- Remove t
onboard
unit.

Figure 58. Detach the



- Remove t
controller

Figure 59. Open the co

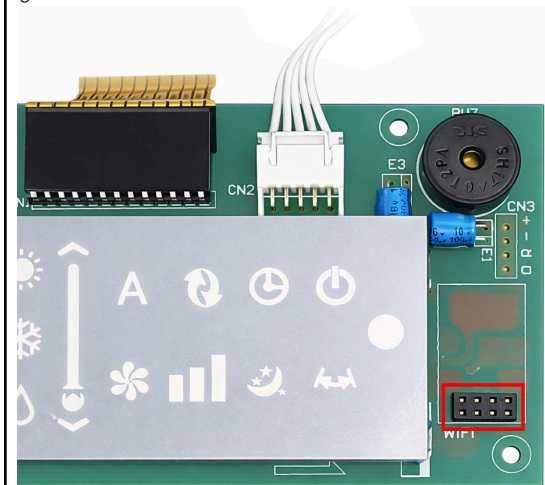


Handle the contr
components wit

2. Connect the c

- Locate th
the right
circuit bo

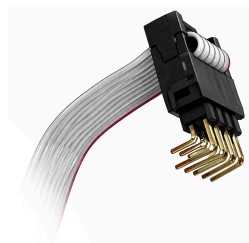
Figure 60. Wi-Fi socket on the controller board



If there is a Wi-Fi chip in the Wi-Fi socket, remove this chip to enable installing the communication cable. This Wi-Fi chip is not used with the GWX gateway. To enable Wi-Fi communication, see [Section 13.4](#).

- b. On the gray flat ribbon communication cable, find the end with an eight-pin right-angle pin header in the black connector.

Figure 61. Communication cable connector with right-angle pin header



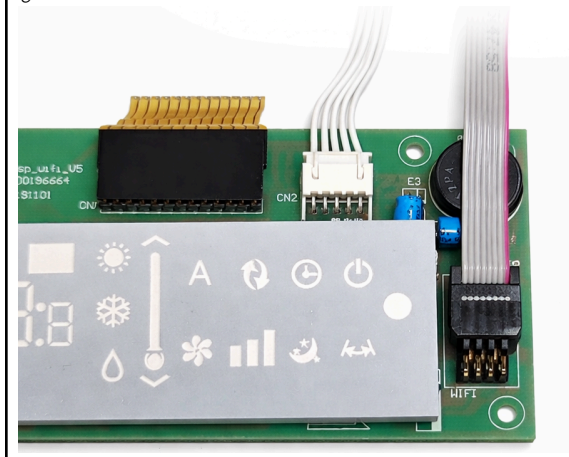
- c. Connect the cable to the Wi-Fi socket as follows:



Ensure that the communication cable is inserted with the red stripe on the cable facing away from the display.

- If the Wi-Fi socket is empty:
Insert the eight pins on the cable connector securely into the Wi-Fi socket as shown.

Figure 62. Connect the communication cable to the unit



- If there is already a right-angle pin header in the Wi-Fi socket:
 - i. Remove the right-angle pin header from the cable connector.

Figure 63. Remove the



ii.

Figure 64. Connect the



- d. Route the cable through the hole in the back of the unit behind the display.



Be careful not to damage the cable (shown below) through the hole in the back of the unit behind the display.

Figure 65. Rubber grommet



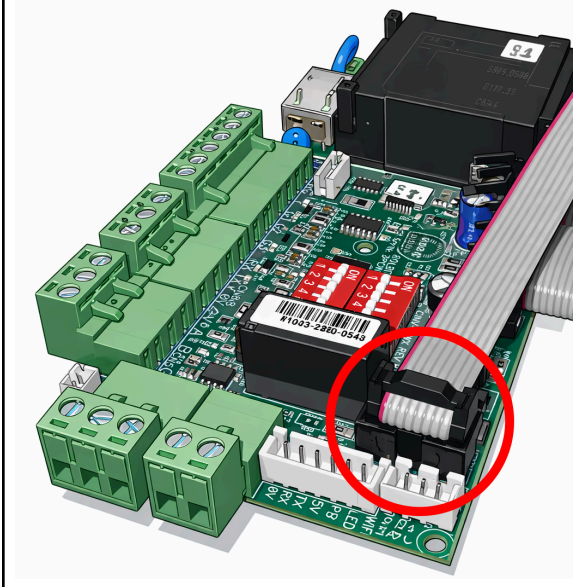
3. Reattach the onboard touch controller.

- Replace the controller in its housing and secure it using the four screws removed in Step 1b above.
- Reattach the controller housing to the unit using the two screws removed in Step 1a above.

4. Connect the communication cable to the gateway.

Connect the end of the gray flat ribbon communication cable (with the 8-hole connector) to the GWX gateway via the black 8-pin communication port (CN10).

Figure 66. Connect the communication cable to the gateway



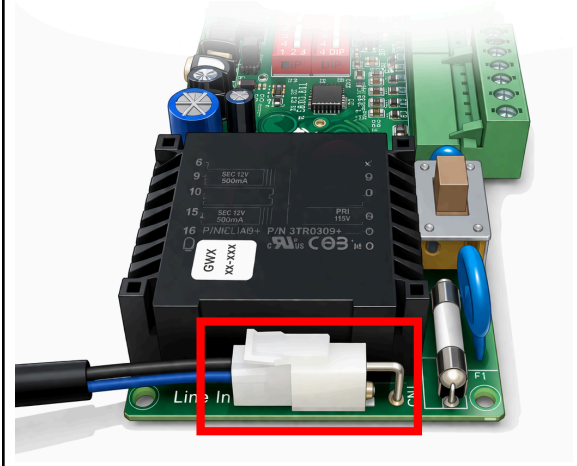
5. Connect the power cable to the unit (if needed).

The black power cable may come pre-installed in the Ceiling Suspended unit. If it does not, it must be hard-wired to the unit by the installer.

6. Connect the power cable to the gateway.

Insert the two-pronged end of the black power cable into the "Power Line In" port on the GWX gateway board.

Figure 67. Connect the power cable to the gateway



CAUTION

Ensure that all wire insulation is intact and that there are no exposed conductive parts that could cause short circuits or other electrical issues.

10.4 Closing the unit

To close the AIO™ Ceiling Suspended (without ERV option) unit:

1. Test the onboard touch controller.

- Reconnect the power supply to the unit and power it on.
- Test the onboard touch controller to verify that it changes the temperature setting and modes of operation as selected. Refer to the [AIO™ Ceiling Ducted User Guide](#) for more information (since the Ceiling Suspended units use the same controller).
 - If the controller works as expected, power off the unit and wait at least five minutes for the capacitors inside the unit to discharge.
 - If the test fails, repeat the applicable steps in Sections 10.1 through 10.3 to verify that all connections are secure, and then repeat the test. If the test still fails, contact an INNOVA-trained service technician.

2. Close the unit.

- Replace the electrical panel cover using the four screws removed in Section 10.1, Step 3.
- Replace the right side panel using the three screws removed in Section 10.1, Step 2c.
- Replace the front panel using the three screws removed in Section 10.1, Step 2b.
- Replace the supply grille using the two screws removed in Section 10.1, Step 2a.

3. Reconnect the power supply to the unit.

11. INSTALLING IN THE AIO™ UNIT



The GWX in a Ver... later, si... located... unit and... gateway

To install the GWX (Gen 3) unit:

- [Configure the](#)
- [Open the unit](#)
- [Attach the ga](#)
- [Connect the p](#)
[between the c](#)
- [Close the unit](#)



***Gateway**
To simp... recom... gateway... However... perform... detailed... [Section](#)

11.1 Opening t

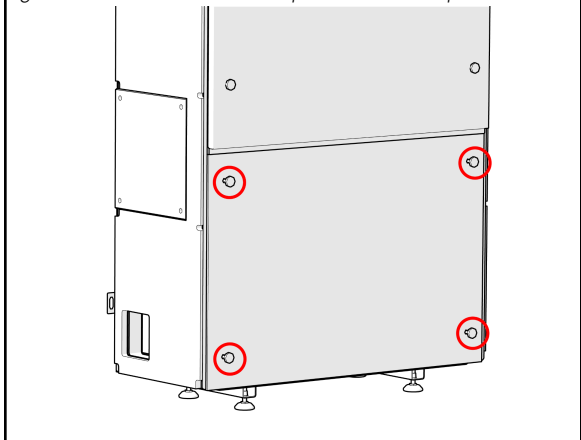
To open the AIO™

- 1. Disconnect th**
Disconnect th... wait at least fi... operated.
- 2. Open the elec**
Open the elec... knobs.



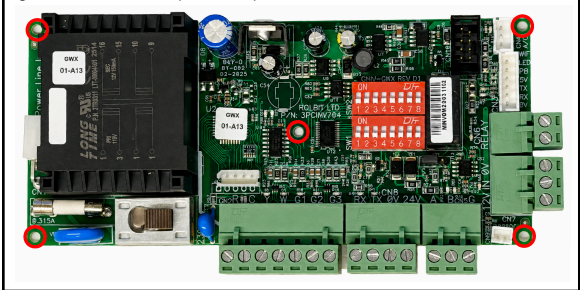
Keep th... each st

Figure 68. Remove the knobs to open the electrical panel



b. Mount the GWX gateway board onto the clips, using the holes in the gateway.

Figure 70. Holes for spacer clips



11.2 Attaching the GWX gateway to the unit

⚠ CAUTION

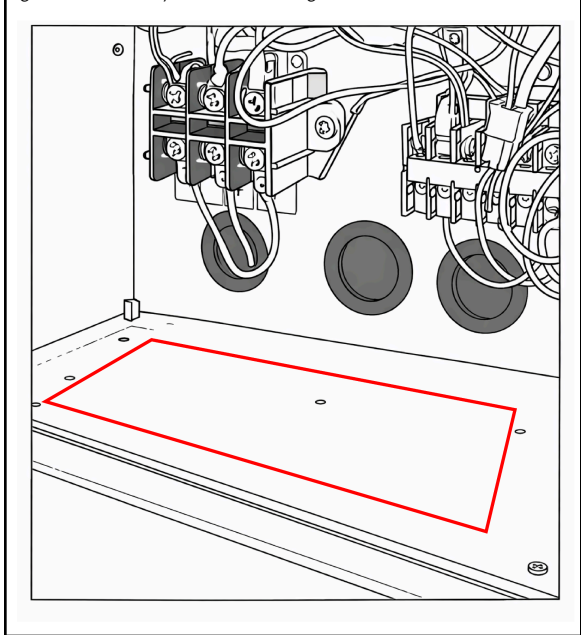
Handle the control board and all electronic components with care to avoid damage.

To attach the GWX gateway to the AIO™ Vertical Stack unit:

1. Mount the GWX gateway to the unit.

The electrical panel has a space at the bottom, near the terminal block, for mounting the gateway.

Figure 69. Gateway board mounting location



Mount the gateway board as follows:

- If there are five mounting holes on the electrical panel:
 - a. Insert the five plastic spacer (stand-up) clips (provided with the gateway) into the holes.



It is recommended that there are no other components in the gateway area to ensure proper operation.

- If there are other components in the gateway area:
 - a. Clear the area of the gateway area to ensure proper operation.
 - b. Remove the components from the gateway area to ensure proper operation.



The foam insulation is not required.

Figure 71. Adhesive strips

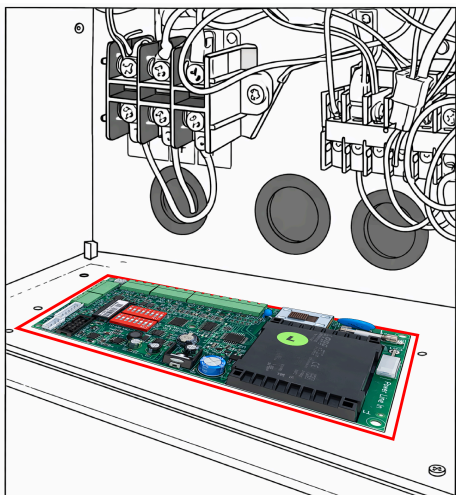


- c. Remove the adhesive strips from the back of the gateway board to ensure proper operation.



Make sure there is no other components in the gateway area to ensure proper operation.

Figure 72. Mount the gateway board

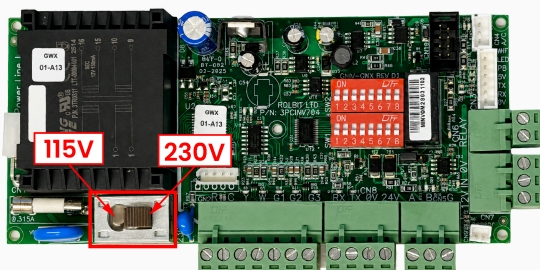


2. Set the correct voltage.

The GWX gateway board includes a switch for 115 V or 230 V, so it can work with both configurations of AIO™ unit.

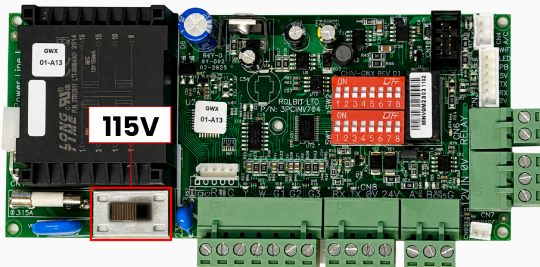
As you hold the gateway board so the text on the board is right-side up, moving the switch to the left sets the gateway for 115 V, and moving the switch to the right sets the gateway for 230 V.

Figure 73. GWX gateway board voltage switch



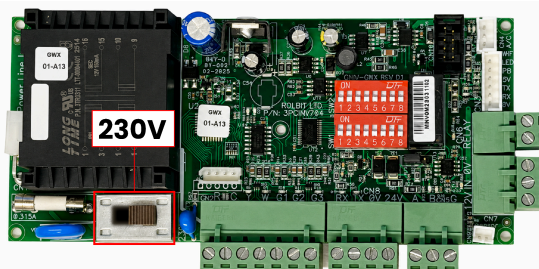
Thus, if the unit is configured for 115 V, set the switch as shown:

Figure 74. GWX gateway voltage set for 115



If the unit is configured for 230 V, set the switch as shown:

Figure 75. GWX gateway board voltage switch



A dab of hot glue has been applied to the switch to prevent it from being accidentally moved. If you need to move it, use a screwdriver to carefully remove the hot glue. It is recommended to reapply a dab of hot glue to keep the switch in the new position.

11.3 Connecting the gateway cables

To connect the power and communication cables between the GWX gateway and the AIO™ Vertical Stack unit:

1. Access the onboard touch controller.

- Remove the two screws to detach the onboard touch controller housing from the unit.

Figure 76. Access the onboard touch controller

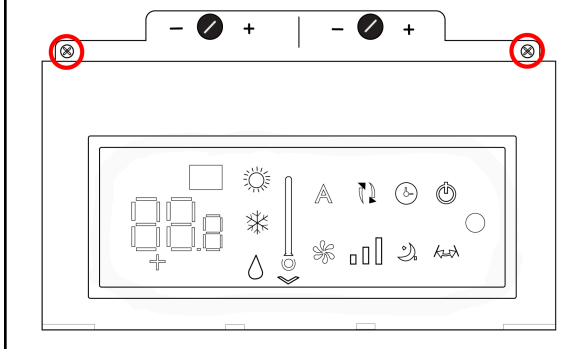
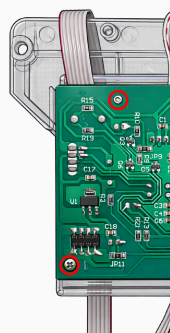


Figure 77. Open the cover



2. Connect the cables

- Locate the right-angle connector on the circuit board.

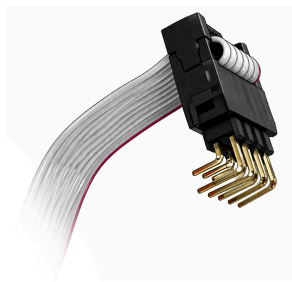
Figure 78. Wi-Fi socket



If there is no Wi-Fi socket, the unit cannot use Wi-Fi. For more information, see [13.4](#).

- On the gateway board, find the right-angle connector and connect it to the Wi-Fi socket.

Figure 79. Communication cable connector with right-angle pin header



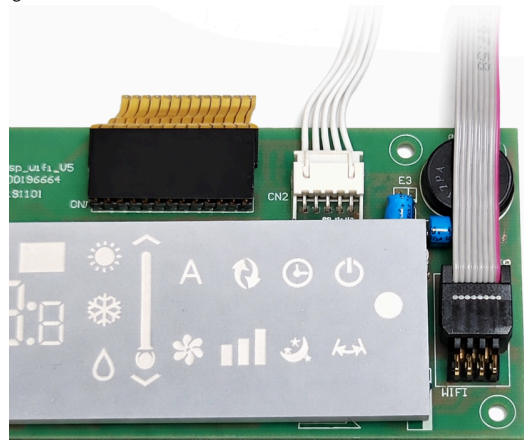
c. Connect the cable to the Wi-Fi socket as follows:



Ensure that the communication cable is inserted with the red stripe on the cable facing away from the display.

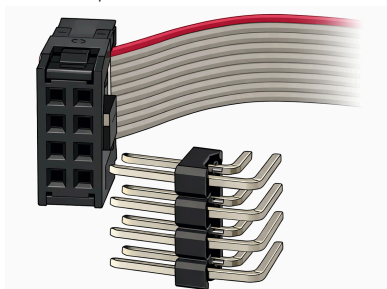
- If the Wi-Fi socket is empty: Insert the eight pins on the cable connector securely into the Wi-Fi socket as shown.

Figure 80. Connect the communication cable to the unit



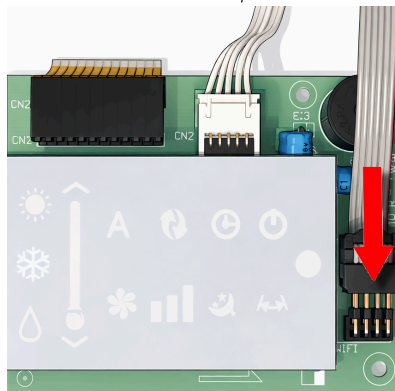
- If there is already a right-angle pin header in the Wi-Fi socket:
 - Remove the right-angle pin header from the cable connector.

Figure 81. Remove the pin header from the connector



- Push the cable connector securely onto the pins in the Wi-Fi socket as shown.

Figure 82. Connect the cable to the pin header in the Wi-Fi socket



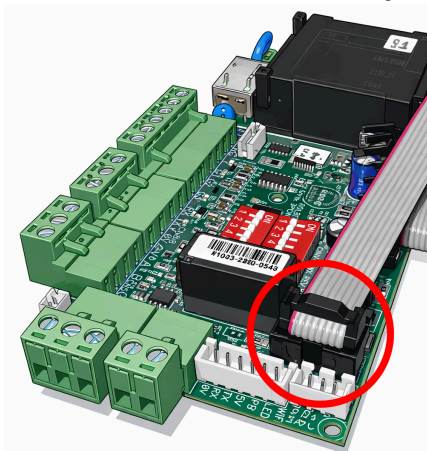
3. Reattach the onboard touch controller.

- Replace the controller in its housing and secure it using the four screws removed in Step 1b above.
- Reattach the controller housing to the unit using the two screws removed in Step 1a above.

4. Connect the communication cable to the gateway.

Connect the end of the gray flat ribbon communication cable (with the 8-hole connector) to the GWX gateway via the black 8-pin communication port (CN10).

Figure 83. Connect the communication cable to the gateway



5. Connect the power cable to the unit (if needed).

The black power cable may come pre-installed in the Vertical Stack unit. If it does not, it must be hard-wired to the unit by the installer.

6. Connect the power cable to the gateway.

Insert the two-pronged end of the black power cable into the "Power Line In" port on the GWX gateway board.

Figure 84. Connect the



Ensure that all wires are properly connected and there are no exposed wires that could cause short circuits.

11.4 Closing the

To close the AIO™

1. Test the onboard

- Reconnect the power cable to the unit and power it on.
- Test the unit to ensure that it has entered the modes of operation. For more information, see the [AIO™ Ceiling Fan](#) user manual. Use the steps in the manual to test the unit.

- If the unit does not power on, check the power cable connection and the unit's power switch.
- If the unit powers on but does not operate, check the unit's settings and the remote control's settings.

2. Close the unit

Close the electrical panel by tightening the screws in Step 2.

3. Reconnect the

12. INSTALLING THE GWX GATEWAY IN THE AIO™ VERTICAL STACK XL UNIT

To install the GWX gateway in an AIO™ Vertical Stack XL unit:

1. [Configure the GWX gateway](#) (recommended*).
2. [Open the unit](#).
3. [Attach the gateway to the unit](#).
4. [Connect the power and communication cables between the gateway and the unit](#).
5. [Close the unit](#).

*Gateway configuration:

To simplify the installation process, we recommend configuring the GWX gateway before installing it in the unit. However, configuration can also be performed after installation if needed. For detailed configuration instructions, refer to [Section 13](#).



The instructions and illustrations in this section refer to Gen 3 of the AIO™ Vertical Stack XL, but the procedure is similar for Gen 1 and Gen 2.

12.1 Opening the unit

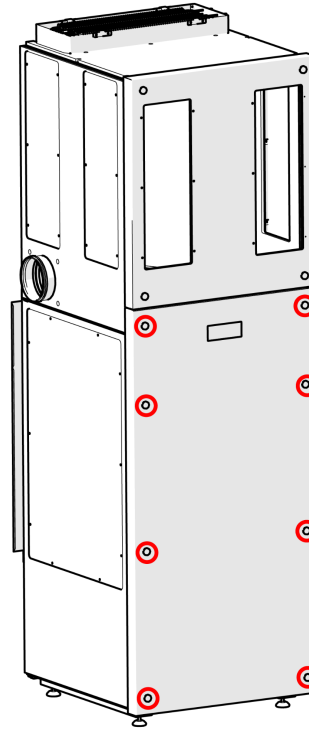
To open the AIO™ Vertical Stack XL unit:

1. **Disconnect the power supply.**
Disconnect the unit from the power supply and wait at least five minutes after it was last operated.
2. **Remove the decorative panel.**
Remove the eight knobs from the decorative panel. Then remove the decorative panel.



Keep the screws or knobs removed in each step separate.

Figure 85. Remove the knobs from the decorative panel



3. Open the electrical panel.

Remove the four screws and the two metal panels to access the electrical panel.

Figure 86. Remove the metal panels

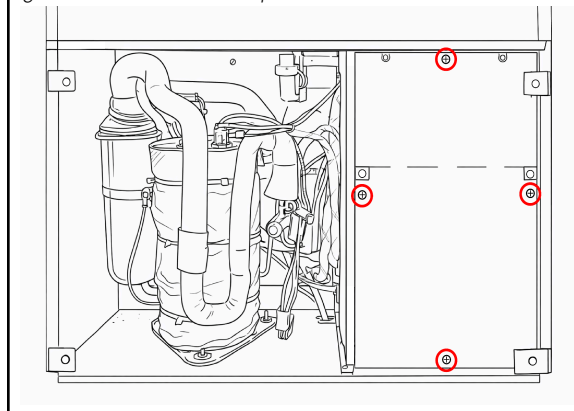


Figure 87. Open the electrical panel

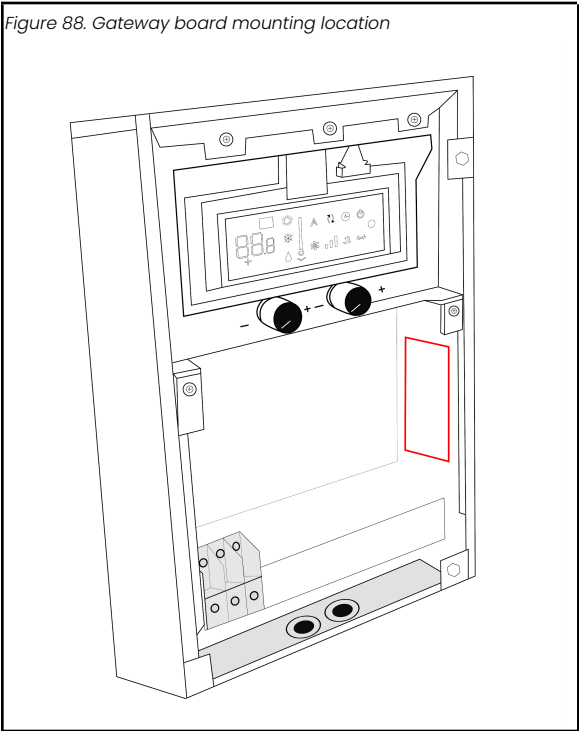
12.2 Attaching the GWX gateway to the unit

**CAUTION**

Handle the control board and all electronic components with care to avoid damage.

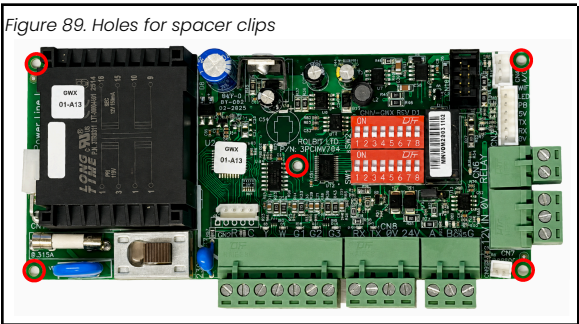
To attach the GWX gateway to the AIO™ Vertical Stack XL unit:

1. **Mount the GWX gateway to the unit.**
The electrical panel has a space on the side wall for mounting the gateway.



Mount the gateway board as follows:

- If there are five mounting holes on the electrical panel:
 - a. Insert the five plastic spacer (stand-up) clips (provided with the gateway) into the holes.
 - b. Mount the GWX gateway board onto the clips, using the holes in the gateway.





It is recommended to use spacer clips if there are holes, since the spacers raise the gateway board ¼" (6.4 mm) above the metal chassis, preventing contact and ensuring safe clearance.

- If there are no mounting holes on the panel:
 - a. Clean the mounting location on the electrical panel with an alcohol pad to ensure proper adhesion.
 - b. Remove the backing from one side of the two double-sided adhesive foam strips and attach the strips to the back of the GWX gateway board.



The foam in the adhesive strips provides insulation to prevent short-circuits.



c. Remove the backing from the other side of the adhesive strips and attach the strips to the back of the GWX gateway board.



Make sure there is no contact between the GWX gateway board and the metal chassis.

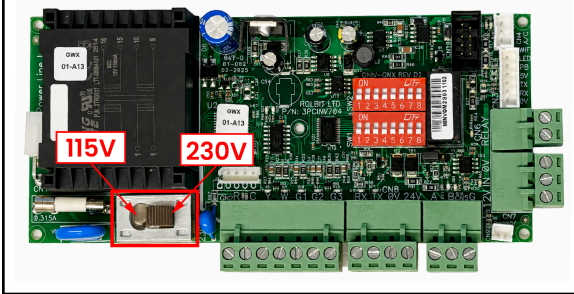


2. Set the correct voltage.

The GWX gateway board includes a switch for 115 V or 230 V, so it can work with both configurations of AIO™ unit.

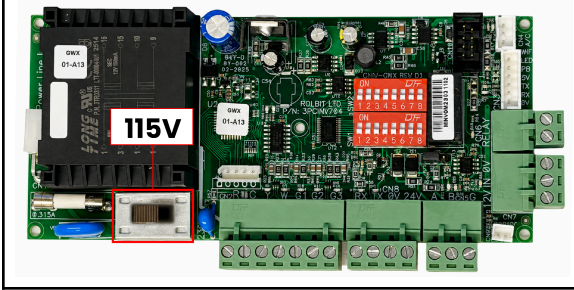
As you hold the gateway board so the text on the board is right-side up, moving the switch to the left sets the gateway for 115 V, and moving the switch to the right sets the gateway for 230 V.

Figure 92. GWX gateway board voltage switch



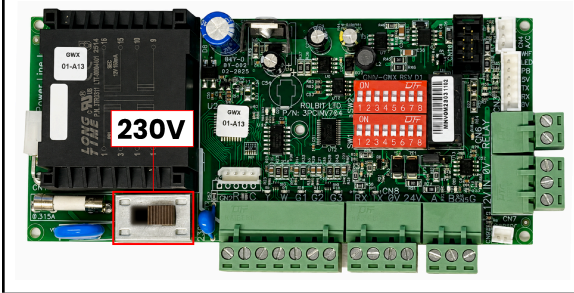
Thus, if the unit is configured for 115 V, set the switch as shown:

Figure 93. GWX gateway voltage set for 115



If the unit is configured for 230 V, set the switch as shown:

Figure 94. GWX gateway board voltage switch



A dab of hot glue has been applied to the switch to prevent it from being accidentally moved. If you need to move it, use a screwdriver to carefully remove the hot glue. It is recommended to reapply a dab of hot glue to keep the switch in the new position.

12.3 Connecting the gateway cables

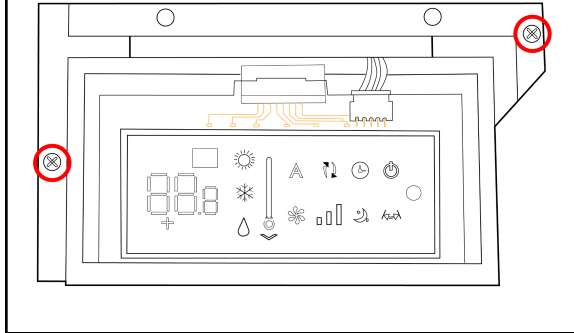
To connect the power and communication cables

between the GWX gateway and the AIO™ Vertical Stack XL unit:

1. Access the onboard touch controller.

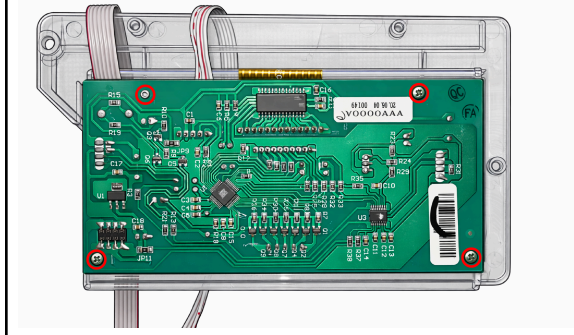
- Remove the two screws to detach the onboard touch controller housing from the unit.

Figure 95. Access the onboard touch controller



- Remove the four screws to remove the controller from the housing.

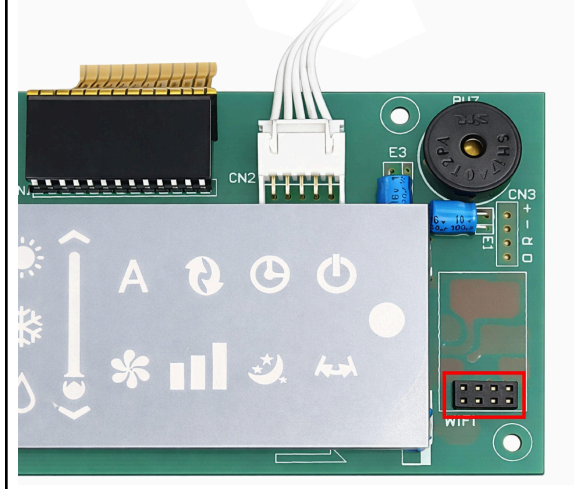
Figure 96. Open the controller housing



2. Connect the communication cable to the unit.

- Locate the black, eight-hole Wi-Fi socket on the right side of the onboard touch controller circuit board.

Figure 97. Wi-Fi socket on the controller board



If there is a communication cable, it should not be used. See the AIO™ Vertical Stack XL unit installation guide for more information.

- On the right side of the communication cable, find the right-angle connector.

Figure 98. Communication cable header

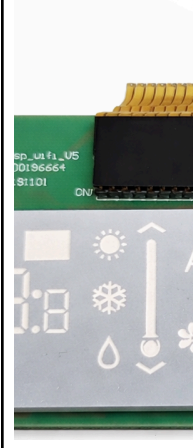
- Connect the communication cable as follows:



Ensure the communication cable is inserted correctly, facing the correct direction.

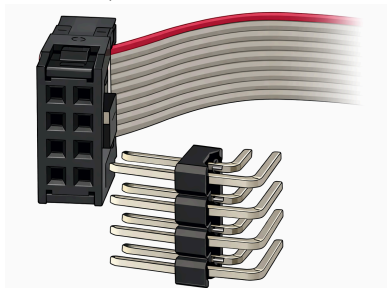
- If the communication cable is not inserted correctly, as shown in the image, it will not work.

Figure 99. Connect the communication cable



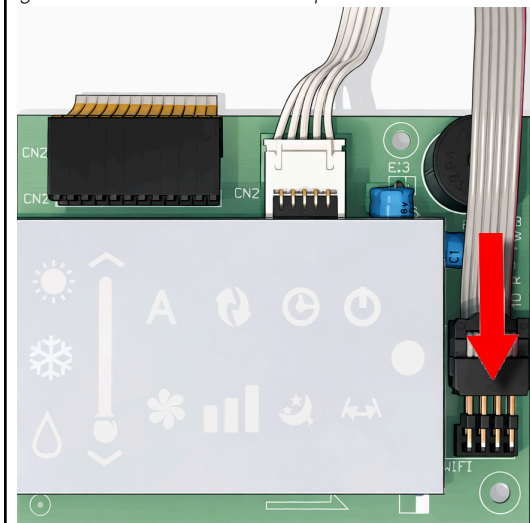
- If the communication cable is not inserted correctly, as shown in the image, it will not work.

Figure 100. Remove the pin header from the connector



- ii. Push the cable connector securely onto the pins in the Wi-Fi socket as shown.

Figure 101. Connect the cable to the pin header in the Wi-Fi socket



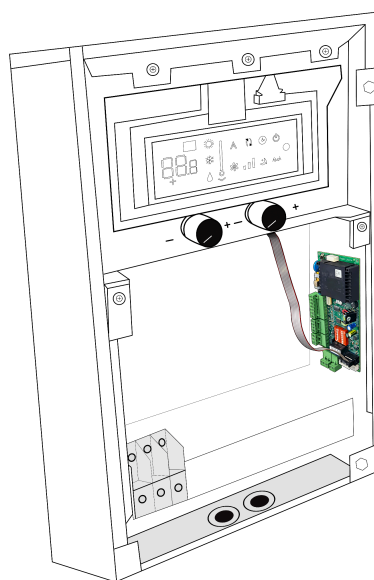
3. Reattach the onboard touch controller.

- a. Replace the controller in its housing and secure it using the four screws removed in Step 1b above.
- b. Reattach the controller housing to the unit using the two screws removed in Step 1a above.

4. Connect the communication cable to the gateway.

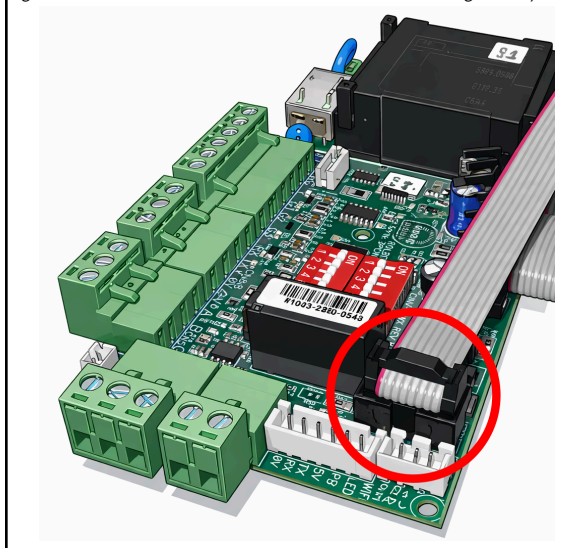
- a. Route the free end (with the 8-hole connector) of the gray flat ribbon communication cable from behind the controller to enable connecting it to the gateway.

Figure 102. Route the communication cable from the controller



- b. Connect the end of the gray flat ribbon communication cable (with the 8-hole connector) to the GWX gateway via the black 8-pin communication port (CN10).

Figure 103. Connect the communication cable to the gateway



5. Connect the power cable to the unit (if needed).

The black power cable may come pre-installed in the Vertical Stack XL unit. If it does not, it must be hard-wired to the unit by the installer.

6. Connect the power cable to the gateway.

Insert the two-pronged end of the black power cable into the "Power Line In" port on the GWX gateway board.

Figure 104. Connect the



Ensure that all wires are properly connected and there are no exposed wires that could cause short circuits.

12.4 Closing the unit

To close the AIO™

1. Test the onboard

- a. Reconnect the power cable to the unit and power it on.
- b. Test the unit to ensure that it can be controlled via the AIO™ Ceiling Light remote control. For more information, see the AIO™ Ceiling Light remote control user manual.

- If the unit does not power on, wait 1 minute and then try again.
- If the unit still does not power on, contact your local AIO™ representative for assistance.

2. Close the unit

- a. Replace the touch controller in its housing and secure it with the four screws removed in Section 12.2.
- b. Replace the touch controller housing to the unit by replacing the two screws removed in Section 12.2.

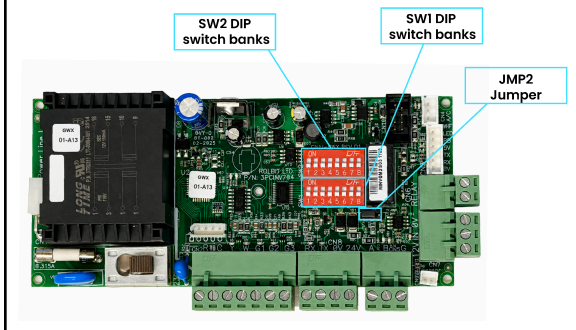
3. Reconnect the

13. CONFIGURING THE GWX GATEWAY

We recommend configuring the GWX gateway before installing it in an AIO™ unit. However, it can also be configured after installation.

The GWX gateway board includes two rows of DIP switches (SW1 and SW2) and a jumper (JMP2) for activating the termination resistor in the chain.

Figure 105. DIP switches and jumper



SW1 switches are used to set the gateway's network address. SW2 switches are used to configure the gateway's modes and settings.

To configure the AIO™ GWX gateway, set the SW1 and SW2 DIP switches to the desired configuration as detailed in the sections below.

13.1 Configuring SW1 DIP switches

The SW1 DIP switches on the GWX gateway are used to configure the gateway's network address when connecting the unit to a building management system (BMS).

DIP switches 1-8 are used to configure the address. The configuration is different when using the BACnet protocol or the Modbus protocol. By default, DIP switches 1-8 are OFF.

The BACnet DIP switch settings and the Modbus DIP switch settings are provided in [Section 13.1.1](#) and [Section 13.1.2](#), respectively.

13.1.1 SW1 BACnet DIP switch settings

When using the BACnet protocol to communicate with the BMS, the BACnet protocol requires each device on the network to have a globally unique ID, called the "Device Object Instance Number". This ID is created by adding the MAC address of the device to a unique base number, as follows:

1. Set the MAC address (0-127).

This is the local network identifier, which is set using DIP switches #1 through #7 on SW1. These switches are added to represent a binary address between 000 and 127. The default address is 000. (For BACnet protocol, DIP switch #8 on SW1 is always OFF.)

- Create the Device Instance:** This is the global BACnet identifier, which is set to the base number plus the MAC address. For AIO™ units, the base number 369,000 is used. For example, if the MAC address of the device on the local network is 002, the Device Object Instance Number is 369,002.



When using the BACnet protocol, SW2 DIP switch #3 must be ON for SW1 to function.

Table 1 shows the DIP switch settings for each address:



SW1 DIP switch #8 must always be OFF for BACnet protocol addresses.

Table 1. SW1 BACnet DIP Switch Settings

Add ress	DIP Switch 1	DIP Switch 2	DIP Switch 3	DIP Switch 4	DIP Switch 5	DIP Switch 6	DIP Switch 7
0	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	ON	OFF	OFF	OFF	OFF	OFF	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF
19	ON	ON	OFF	OFF	ON	OFF	OFF
20	OFF	OFF	ON	OFF	ON	OFF	OFF
21	ON	OFF	ON	OFF	ON	OFF	OFF
22	OFF	ON	ON	OFF	ON	OFF	OFF
23	ON	ON	ON	OFF	ON	OFF	OFF
24	OFF	OFF	OFF	ON	ON	OFF	OFF
25	ON	OFF	OFF	ON	ON	OFF	OFF
26	OFF	ON	OFF	ON	ON	OFF	OFF
27	ON	ON	OFF	ON	ON	OFF	OFF
28	OFF	OFF	ON	ON	ON	OFF	OFF
29	ON	OFF	ON	ON	ON	OFF	OFF
30	OFF	ON	ON	ON	ON	OFF	OFF

Add ress	DIP Switch 1	DIP Switch 2
31	ON	ON
32	OFF	OFF
33	ON	OFF
34	OFF	ON
35	ON	ON
36	OFF	OFF
37	ON	OFF
38	OFF	ON
39	ON	ON
40	OFF	OFF
41	ON	OFF
42	OFF	ON
43	ON	ON
44	OFF	OFF
45	ON	OFF
46	OFF	ON
47	ON	ON
48	OFF	OFF
49	ON	OFF
50	OFF	ON
51	ON	ON
52	OFF	OFF
53	ON	OFF
54	OFF	ON
55	ON	ON
56	OFF	OFF
57	ON	OFF
58	OFF	ON
59	ON	ON
60	OFF	OFF
61	ON	OFF
62	OFF	ON
63	ON	ON
64	OFF	OFF
65	ON	OFF
66	OFF	ON
67	ON	ON
68	OFF	OFF
69	ON	OFF
70	OFF	ON
71	ON	ON
72	OFF	OFF
73	ON	OFF
74	OFF	ON
75	ON	ON

Add ress	DIP Switch 1	DIP Switch 2	DIP Switch 3	DIP Switch 4	DIP Switch 5	DIP Switch 6	DIP Switch 7
76	OFF	OFF	ON	ON	OFF	OFF	ON
77	ON	OFF	ON	ON	OFF	OFF	ON
78	OFF	ON	ON	ON	OFF	OFF	ON
79	ON	ON	ON	ON	OFF	OFF	ON
80	OFF	OFF	OFF	OFF	ON	OFF	ON
81	ON	OFF	OFF	OFF	ON	OFF	ON
82	OFF	ON	OFF	OFF	ON	OFF	ON
83	ON	ON	OFF	OFF	ON	OFF	ON
84	OFF	OFF	ON	OFF	ON	OFF	ON
85	ON	OFF	ON	OFF	ON	OFF	ON
86	OFF	ON	ON	OFF	ON	OFF	ON
87	ON	ON	ON	OFF	ON	OFF	ON
88	OFF	OFF	OFF	ON	ON	OFF	ON
89	ON	OFF	OFF	ON	ON	OFF	ON
90	OFF	ON	OFF	ON	ON	OFF	ON
91	ON	ON	OFF	ON	ON	OFF	ON
92	OFF	OFF	ON	ON	ON	OFF	ON
93	ON	OFF	ON	ON	ON	OFF	ON
94	OFF	ON	ON	ON	ON	OFF	ON
95	ON	ON	ON	ON	ON	OFF	ON
96	OFF	OFF	OFF	OFF	OFF	ON	ON
97	ON	OFF	OFF	OFF	OFF	ON	ON
98	OFF	ON	OFF	OFF	OFF	ON	ON
99	ON	ON	OFF	OFF	OFF	ON	ON
100	OFF	OFF	ON	OFF	OFF	ON	ON
101	ON	OFF	ON	OFF	OFF	ON	ON
102	OFF	ON	ON	OFF	OFF	ON	ON
103	ON	ON	ON	OFF	OFF	ON	ON
104	OFF	OFF	OFF	ON	OFF	ON	ON
105	ON	OFF	OFF	ON	OFF	ON	ON
106	OFF	ON	OFF	ON	OFF	ON	ON
107	ON	ON	OFF	ON	OFF	ON	ON
108	OFF	OFF	ON	ON	OFF	ON	ON
109	ON	OFF	ON	ON	OFF	ON	ON
110	OFF	ON	ON	ON	OFF	ON	ON
111	ON	ON	ON	ON	OFF	ON	ON
112	OFF	OFF	OFF	OFF	ON	ON	ON
113	ON	OFF	OFF	OFF	ON	ON	ON
114	OFF	ON	OFF	OFF	ON	ON	ON
115	ON	ON	OFF	OFF	ON	ON	ON
116	OFF	OFF	ON	OFF	ON	ON	ON
117	ON	OFF	ON	OFF	ON	ON	ON
118	OFF	ON	ON	OFF	ON	ON	ON
119	ON	ON	ON	OFF	ON	ON	ON
120	OFF	OFF	OFF	ON	ON	ON	ON

Add ress	DIP Switch 1	DIP Switch 2	DIP Switch 3	DIP Switch 4	DIP Switch 5	DIP Switch 6	DIP Switch 7
121	ON	OFF	OFF	ON	ON	ON	ON
122	OFF	ON	OFF	ON	ON	ON	ON
123	ON	ON	OFF	ON	ON	ON	ON
124	OFF	OFF	ON	ON	ON	ON	ON
125	ON	OFF	ON	ON	ON	ON	ON
126	OFF	ON	ON	ON	ON	ON	ON
127	ON	ON	ON	ON	ON	ON	ON

13.1.2 SW1 Modbus DIP switch settings

When using the Modbus protocol to communicate with the BMS, DIP switches 1-8 are used to set the device's address. These switches are added to represent a binary address between 002 and 255.



When the Modbus protocol is in use, SW2 DIP switch #3 must be OFF for SW1 to function.

Table 2 shows the DIP switch settings for each address:



Addresses 0 and 1 cannot be used in Modbus communication with the BMS, since they are reserved for separate Modbus communication between the gateway and the unit. When configuring the Modbus protocol, always start at address 2.

Table 2: SW1 Modbus DIP Switch Settings

Add ress	DIP Switch 1	DIP Switch 2	DIP Switch 3	DIP Switch 4	DIP Switch 5	DIP Switch 6	DIP Switch 7	DIP Switch 8
0	N/A	-	-	-	-	-	-	-
1	N/A	-	-	-	-	-	-	-
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF
13	ON	OFF	ON	ON	OFF	OFF	OFF	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF	OFF

Add ress	DIP Switch 1	DIP Switch 2	DIP Switch 3
19	ON	ON	ON
20	OFF	OFF	OFF
21	ON	OFF	OFF
22	OFF	ON	ON
23	ON	ON	ON
24	OFF	OFF	OFF
25	ON	OFF	OFF
26	OFF	ON	ON
27	ON	ON	ON
28	OFF	OFF	OFF
29	ON	OFF	OFF
30	OFF	ON	ON
31	ON	ON	ON
32	OFF	OFF	OFF
33	ON	OFF	OFF
34	OFF	ON	ON
35	ON	ON	ON
36	OFF	OFF	OFF
37	ON	OFF	OFF
38	OFF	ON	ON
39	ON	ON	ON
40	OFF	OFF	OFF
41	ON	OFF	OFF
42	OFF	ON	ON
43	ON	ON	ON
44	OFF	OFF	OFF
45	ON	OFF	OFF
46	OFF	ON	ON
47	ON	ON	ON
48	OFF	OFF	OFF
49	ON	OFF	OFF
50	OFF	ON	ON
51	ON	ON	ON
52	OFF	OFF	OFF
53	ON	OFF	OFF
54	OFF	ON	ON
55	ON	ON	ON
56	OFF	OFF	OFF
57	ON	OFF	OFF
58	OFF	ON	ON
59	ON	ON	ON
60	OFF	OFF	OFF
61	ON	OFF	OFF
62	OFF	ON	ON
63	ON	ON	ON
64	OFF	OFF	OFF
65	ON	OFF	OFF
66	OFF	ON	ON
67	ON	ON	ON
68	OFF	OFF	OFF
69	ON	OFF	OFF
70	OFF	ON	ON

Add ress	DIP Switch 1	DIP Switch 2	DIP Switch 3	DIP Switch 4	DIP Switch 5	DIP Switch 6	DIP Switch 7	DIP Switch 8
71	ON	ON	ON	OFF	OFF	OFF	ON	OFF
72	OFF	OFF	OFF	ON	OFF	OFF	ON	OFF
73	ON	OFF	OFF	ON	OFF	OFF	ON	OFF
74	OFF	ON	OFF	ON	OFF	OFF	ON	OFF
75	ON	ON	OFF	ON	OFF	OFF	ON	OFF
76	OFF	OFF	ON	ON	OFF	OFF	ON	OFF
77	ON	OFF	ON	ON	OFF	OFF	ON	OFF
78	OFF	ON	ON	ON	OFF	OFF	ON	OFF
79	ON	ON	ON	ON	OFF	OFF	ON	OFF
80	OFF	OFF	OFF	OFF	ON	OFF	ON	OFF
81	ON	OFF	OFF	OFF	ON	OFF	ON	OFF
82	OFF	ON	OFF	OFF	ON	OFF	ON	OFF
83	ON	ON	OFF	OFF	ON	OFF	ON	OFF
84	OFF	OFF	ON	OFF	ON	OFF	ON	OFF
85	ON	OFF	ON	OFF	ON	OFF	ON	OFF
86	OFF	ON	ON	OFF	ON	OFF	ON	OFF
87	ON	ON	ON	OFF	ON	OFF	ON	OFF
88	OFF	OFF	OFF	ON	ON	OFF	ON	OFF
89	ON	OFF	OFF	ON	ON	OFF	ON	OFF
90	OFF	ON	OFF	ON	ON	OFF	ON	OFF
91	ON	ON	OFF	ON	ON	OFF	ON	OFF
92	OFF	OFF	ON	ON	ON	OFF	ON	OFF
93	ON	OFF	ON	ON	ON	OFF	ON	OFF
94	OFF	ON	ON	ON	ON	OFF	ON	OFF
95	ON	ON	ON	ON	ON	OFF	ON	OFF
96	OFF	OFF	OFF	OFF	OFF	ON	ON	OFF
97	ON	OFF	OFF	OFF	OFF	ON	ON	OFF
98	OFF	ON	OFF	OFF	OFF	ON	ON	OFF
99	ON	ON	OFF	OFF	OFF	ON	ON	OFF
100	OFF	OFF	ON	OFF	OFF	ON	ON	OFF
101	ON	OFF	ON	OFF	OFF	ON	ON	OFF
102	OFF	ON	ON	OFF	OFF	ON	ON	OFF
103	ON	ON	ON	OFF	OFF	ON	ON	OFF
104	OFF	OFF	OFF	ON	OFF	ON	ON	OFF
105	ON	OFF	OFF	ON	OFF	ON	ON	OFF
106	OFF	ON	OFF	ON	OFF	ON	ON	OFF
107	ON	ON	OFF	ON	OFF	ON	ON	OFF
108	OFF	OFF	ON	ON	OFF	ON	ON	OFF
109	ON	OFF	ON	ON	OFF	ON	ON	OFF
110	OFF	ON	ON	ON	OFF	ON	ON	OFF
111	ON	ON	ON	ON	OFF	ON	ON	OFF
112	OFF	OFF	OFF	OFF	ON	ON	ON	OFF
113	ON	OFF	OFF	OFF	ON	ON	ON	OFF
114	OFF	ON	OFF	OFF	ON	ON	ON	OFF
115	ON	ON	OFF	OFF	ON	ON	ON	OFF
116	OFF	OFF	ON	OFF	ON	ON	ON	OFF
117	ON	OFF	ON	OFF	ON	ON	ON	OFF
118	OFF	ON	ON	OFF	ON	ON	ON	OFF
119	ON	ON	ON	OFF	ON	ON	ON	OFF
120	OFF	OFF	OFF	ON	ON	ON	ON	OFF
121	ON	OFF	OFF	ON	ON	ON	ON	OFF
122	OFF	ON	OFF	ON	ON	ON	ON	OFF

Add ress	DIP Switch 1	DIP Switch 2	DIP Switch 3	DIP Switch 4	DIP Switch 5	DIP Switch 6	DIP Switch 7	DIP Switch 8
123	ON	ON	OFF	ON	ON	ON	ON	OFF
124	OFF	OFF	ON	ON	ON	ON	ON	OFF
125	ON	OFF	ON	ON	ON	ON	ON	OFF
126	OFF	ON	ON	ON	ON	ON	ON	OFF
127	ON	ON	ON	ON	ON	ON	ON	OFF
128	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON
129	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON
130	OFF	ON	OFF	OFF	OFF	OFF	OFF	ON
131	ON	ON	OFF	OFF	OFF	OFF	OFF	ON
132	OFF	OFF	ON	OFF	OFF	OFF	OFF	ON
133	ON	OFF	ON	OFF	OFF	OFF	OFF	ON
134	OFF	ON	ON	OFF	OFF	OFF	OFF	ON
135	ON	ON	ON	OFF	OFF	OFF	OFF	ON
136	OFF	OFF	OFF	ON	OFF	OFF	OFF	ON
137	ON	OFF	OFF	ON	OFF	OFF	OFF	ON
138	OFF	ON	OFF	ON	OFF	OFF	OFF	ON
139	ON	ON	OFF	ON	OFF	OFF	OFF	ON
140	OFF	OFF	ON	ON	OFF	OFF	OFF	ON
141	ON	OFF	ON	ON	OFF	OFF	OFF	ON
142	OFF	ON	ON	ON	OFF	OFF	OFF	ON
143	ON	ON	ON	ON	OFF	OFF	OFF	ON
144	OFF	OFF	OFF	OFF	ON	OFF	OFF	ON
145	ON	OFF	OFF	OFF	ON	OFF	OFF	ON
146	OFF	ON	OFF	OFF	ON	OFF	OFF	ON
147	ON	ON	OFF	OFF	ON	OFF	OFF	ON
148	OFF	OFF	ON	OFF	ON	OFF	OFF	ON
149	ON	OFF	ON	OFF	ON	OFF	OFF	ON
150	OFF	ON	ON	OFF	ON	OFF	OFF	ON
151	ON	ON	ON	OFF	ON	OFF	OFF	ON
152	OFF	OFF	OFF	ON	ON	OFF	OFF	ON
153	ON	OFF	OFF	ON	ON	OFF	OFF	ON
154	OFF	ON	OFF	ON	ON	OFF	OFF	ON
155	ON	ON	OFF	ON	ON	OFF	OFF	ON
156	OFF	OFF	ON	ON	ON	OFF	OFF	ON
157	ON	OFF	ON	ON	ON	OFF	OFF	ON
158	OFF	ON	ON	ON	ON	OFF	OFF	ON
159	ON	ON	ON	ON	ON	OFF	OFF	ON
160	OFF	OFF	OFF	OFF	OFF	ON	OFF	ON
161	ON	OFF	OFF	OFF	OFF	ON	OFF	ON
162	OFF	ON	OFF	OFF	OFF	ON	OFF	ON
163	ON	ON	OFF	OFF	OFF	ON	OFF	ON
164	OFF	OFF	ON	OFF	OFF	ON	OFF	ON
165	ON	OFF	ON	OFF	OFF	ON	OFF	ON
166	OFF	ON	ON	OFF	OFF	ON	OFF	ON
167	ON	ON	ON	OFF	OFF	ON	OFF	ON
168	OFF	OFF	OFF	ON	OFF	ON	OFF	ON
169	ON	OFF	OFF	ON	OFF	ON	OFF	ON
170	OFF	ON	OFF	ON	OFF	ON	OFF	ON
171	ON	ON	OFF	ON	OFF	ON	OFF	ON
172	OFF	OFF	ON	ON	OFF	ON	OFF	ON
173	ON	OFF	ON	ON	OFF	ON	OFF	ON
174	OFF	ON	ON	ON	OFF	ON	OFF	ON

Add ress	DIP Switch 1	DIP Switch 2	DIP Switch 3
175	ON	ON	ON
176	OFF	OFF	ON
177	ON	OFF	ON
178	OFF	ON	ON
179	ON	ON	ON
180	OFF	OFF	ON
181	ON	OFF	ON
182	OFF	ON	ON
183	ON	ON	ON
184	OFF	OFF	ON
185	ON	OFF	ON
186	OFF	ON	ON
187	ON	ON	ON
188	OFF	OFF	ON
189	ON	OFF	ON
190	OFF	ON	ON
191	ON	ON	ON
192	OFF	OFF	ON
193	ON	OFF	ON
194	OFF	ON	ON
195	ON	ON	ON
196	OFF	OFF	ON
197	ON	OFF	ON
198	OFF	ON	ON
199	ON	ON	ON
200	OFF	OFF	ON
201	ON	OFF	ON
202	OFF	ON	ON
203	ON	ON	ON
204	OFF	OFF	ON
205	ON	OFF	ON
206	OFF	ON	ON
207	ON	ON	ON
208	OFF	OFF	ON
209	ON	OFF	ON
210	OFF	ON	ON
211	ON	ON	ON
212	OFF	OFF	ON
213	ON	OFF	ON
214	OFF	ON	ON
215	ON	ON	ON
216	OFF	OFF	ON
217	ON	OFF	ON
218	OFF	ON	ON
219	ON	ON	ON
220	OFF	OFF	ON
221	ON	OFF	ON
222	OFF	ON	ON
223	ON	ON	ON
224	OFF	OFF	ON
225	ON	OFF	ON
226	OFF	ON	ON

Add ress	DIP Switch 1	DIP Switch 2	DIP Switch 3	DIP Switch 4	DIP Switch 5	DIP Switch 6	DIP Switch 7	DIP Switch 8
227	ON	ON	OFF	OFF	OFF	ON	ON	ON
228	OFF	OFF	ON	OFF	OFF	ON	ON	ON
229	ON	OFF	ON	OFF	OFF	ON	ON	ON
230	OFF	ON	ON	OFF	OFF	ON	ON	ON
231	ON	ON	ON	OFF	OFF	ON	ON	ON
232	OFF	OFF	OFF	ON	OFF	ON	ON	ON
233	ON	OFF	OFF	ON	OFF	ON	ON	ON
234	OFF	ON	OFF	ON	OFF	ON	ON	ON
235	ON	ON	OFF	ON	OFF	ON	ON	ON
236	OFF	OFF	ON	ON	OFF	ON	ON	ON
237	ON	OFF	ON	ON	OFF	ON	ON	ON
238	OFF	ON	ON	ON	OFF	ON	ON	ON
239	ON	ON	ON	ON	OFF	ON	ON	ON
240	OFF	OFF	OFF	OFF	ON	ON	ON	ON
241	ON	OFF	OFF	OFF	ON	ON	ON	ON
242	OFF	ON	OFF	OFF	ON	ON	ON	ON
243	ON	ON	OFF	OFF	ON	ON	ON	ON
244	OFF	OFF	ON	OFF	ON	ON	ON	ON
245	ON	OFF	ON	OFF	ON	ON	ON	ON
246	OFF	ON	ON	OFF	ON	ON	ON	ON
247	ON	ON	ON	OFF	ON	ON	ON	ON
248	OFF	OFF	OFF	ON	ON	ON	ON	ON
249	ON	OFF	OFF	ON	ON	ON	ON	ON
250	OFF	ON	OFF	ON	ON	ON	ON	ON
251	ON	ON	OFF	ON	ON	ON	ON	ON
252	OFF	OFF	ON	ON	ON	ON	ON	ON
253	ON	OFF	ON	ON	ON	ON	ON	ON
254	OFF	ON	ON	ON	ON	ON	ON	ON
255	ON	ON	ON	ON	ON	ON	ON	ON

13.2 Configuring SW2 DIP switches

The SW2 switches configure the settings and modes of the GWX gateway.

The functionality of each switch is described below.

1. DIP Switches #1 and #2

DIP switches #1 and #2 control the baud rate of communication.

Table 3: Baud Communication Rate Controls

DIP #1	DIP #2	Baud
OFF	OFF	9,600
ON	OFF	19,200
OFF	ON	38,400
ON	ON	BACnet: 76,800 Modbus: 57,600

2. DIP Switch #3

DIP switch #3 selects BACnet or Modbus protocol.

- DIP switch #3 ON = BACnet protocol.
- DIP switch #3 OFF = Modbus protocol.

3. DIP Switches #4 and #5

DIP switches #4 and #5 control the heating modes.

Table 4: Heating Mode Controls

DIP #4	DIP #5	Heating mode	External heater used when:
OFF	OFF	Internal Heat	Never
ON	OFF	Low-Temperature External Heat	Outside temp < -5°C
OFF	ON	Basic External Heat	Outside temp < 5°C
ON	ON	Invalid - no action	N/A

- Internal mode = heating is always controlled by the AIO™ unit.
- Both External Heat modes = heat is controlled by a baseboard heater or other external heater when the outside temperature is below the listed threshold. When the outside temperature is above this threshold, heating is controlled by the AIO™ unit.
- Both External Heat modes assume an external NTC sensor (not included) is connected. If no sensor is connected, the system will revert to Internal mode.
- Cooling mode is controlled by the AIO™ unit regardless of the heating mode selected.
- The external heater can be operated using the LTCH20 or TFTH20 controllers.

4. DIP Switch #6

DIP switch #6 controls Fresh Air mode.

- DIP switch #6 ON = Fresh Air mode is operational.
- DIP switch #6 OFF = Fresh Air mode is not operational.



Fresh Air mode requires a pre-installed external ventilation unit (such as an ERV, HRV, or other fresh-air system).

5. DIP switch #7

DIP switch #7 selects the type of AIO™ unit.

- DIP switch #7 ON = GWX is configured for use with an AIO™ unit with the original Onboard Touch Controller, i.e., Ceiling Ducted / Suspended or Vertical Stack / Vertical Stack XL.
- DIP switch #7 OFF = GWX is configured for use with an AIO™ unit with the original Onboard Touch Controller, i.e., Wall Mounted (Gen 2+) unit.

6. DIP switch #8

DIP switch #8 selects the normal configuration of the motion sensor contact for when the room is occupied.

- DIP switch #8 is ON = Normally Closed (N.C.) contact type. Motion is detected when the contact is open.

- DIP switch #8 is OFF = Normally Open (N.O.) contact type. Motion is detected when the contact is closed.



Ensure matches connected configuration of the GWX device to avoid failure to operate.

13.3 JMP2 jumper

The JMP2 jumper is located at the end of the resistor at the end of the jumper is shown in the image.

- Set to Terminated for GWX device in the network.
- Set to Normal for the network.

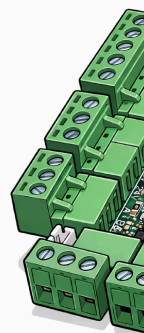


Incorrect termination can cause communication failure.

13.4 Wi-Fi termination

The GWX gateway is configured via Wi-Fi by providing the GWI-WIFI Wi-Fi module below.

Figure 106. GWX Wi-Fi module



For information on the module, refer to the [Smart Life App Instructions](#).

13.5 Controller

The GWX gateway is configured for the controller/thermostat or controller/thermostat.

- To use the GWX together with the LTCH20 Basic Touch Controller, refer to the [AIO Basic Touch Controller \(LTCH20\) Installation Guide](#).
- To use the GWX together with the TFTH20 Advanced Touch Controller, refer to the [AIO Advanced Touch Controller \(TFTH20\) Installation Guide](#).
- To use the GWX together with a third-party controller/thermostat, connect it as described below.

To connect a third-party thermostat to the GWX gateway:

1. Connect the control cable to the gateway.

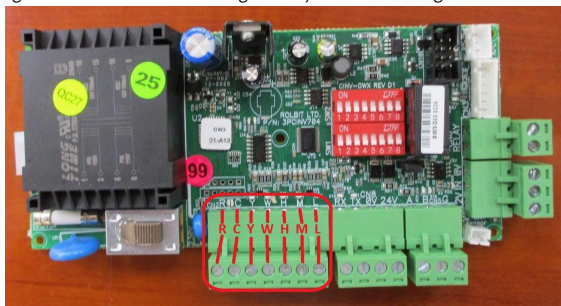
With the power remaining disconnected, connect the seven* wires of the control cable through the back of the AIO™ Wall Mounted unit to the following terminals on the GWX gateway board:

- R – Power 24 VAC
- C – Common
- Y – Cool
- W – Heat
- H – High Fan Speed
- M – Medium Fan Speed
- L – Low Fan Speed



If using a thermostat that has only a single fan speed, use only five wires. In this case, you must choose the fan speed at which you want the AIO™ unit to operate by attaching the wire for the fan to either H, M, or L. We recommend using the M terminal for medium fan speed.

Figure 107. Terminals on the gateway for connecting the wires



⚠ CAUTION

When using a third-party thermostat with this gateway, you must use both the R and C wires, even if it is a smart thermostat. Do not use any workarounds to the C-wire that steal or bleed power from the R or the Y1 wire.

2. Connect the control cable to the thermostat.

Follow the manufacturer's instructions for the thermostat you are using to connect the wires of

the control cable from the TPG015 gateway board to the corresponding inputs on the thermostat.

Where the inputs do not match the terminal labels exactly, refer to the following table:

If the thermostat has:	Connect this gateway wire:	To this thermostat input:
RC and RH	R	Either one (RC and RH use the same transformer)
Y1 and Y2	Y	Y1
W1 and W2	W	W1
Only one G	M	G
	H, L	Not used

Figure 108. Connect the wires to the thermostat (reference only)



The image above illustrates a particular type of third-party thermostat for reference only. The appearance of the thermostat and the connections required may vary from the illustration.

⚠ CAUTION

Ensure that all wire insulation is intact and that there are no exposed conductive parts that could cause short circuits or other electrical issues.

14. COMMUNICATIONS AND REGISTER OBJECTS

The following section describes the registers/objects of the AIO™ unit. The registers/objects are organized by BACnet and Modbus respectively. The registers/objects are organized by switch #3 on SW2.

Registers/objects are organized by the AIO™ unit. The registers/objects are organized by numbers, including the maximum values for the registers/objects.



For all the registers/objects, the response is the same.

14.1 BACnet Registers

The following configuration table shows the BACnet protocol objects.

Table 5: BACnet Object Configuration

ID #	Name	Description
AV.0	Mode	Mode of the unit
AV.1	Set Point	Set Point of the unit
AV.2	Fan Mode	Fan Mode of the unit
AV.3	Louver/ Swing Mode (Flap)	Louver/ Swing Mode (Flap) of the unit
AV.4	Night Mode	Night Mode of the unit
AV.5	Min. Temp. setting in Cool mode	Min. Temp. setting in Cool mode of the unit
AV.6	Max. Temp. setting in Cool mode	Max. Temp. setting in Cool mode of the unit
AV.7	Min. Temp. setting in Heat mode	Min. Temp. setting in Heat mode of the unit
AV.8	Max. Temp. setting in Heat mode	Max. Temp. setting in Heat mode of the unit
AV.9	Set Back Adjustment in Heat mode	Set Back Adjustment in Heat mode of the unit

ID #	Name	Description	Unit	R/W	Min.	Max.
AV.10	Set Up Adjustment in Cool mode	Setpoint offset applied in Cooling mode when unoccupied*	°C	R/W	16°C	22°C
			°F		61°F	72°F
BO.0	AC OFF Display ON	On/Off	–	–	–	–
BO.1	Fan ON Compressor OFF	On/Off	–	–	–	–
NP.0	Network Port	N/A	–	–	–	–
AI.0	Ambient Temp.	Room Air Temperature	°C	R		N/A
			°F			



* Although the software enables values across the entire range, a value that is 1–10°F (≈0.5–5.5°C) offset from the setpoint is recommended.

Table 6: BACnet AI.2 –ALARMS1

Bit	Display	R/W	Description
0	E1	R	Room temperature probe fault
1	E2	R	Indoor heat exchanger temperature probe fault
2	E3	R	Outdoor heat exchanger temperature probe fault
3	E4	R	Outdoor temperature probe fault
4	E5	R	Indoor fan failure
5	E6	R	Outdoor fan failure
6	E7 disp	R	Display communication failure
7	E7 drv	R	Driver communication failure

Table 7: BACnet AI.1 –ALARMS2

Bit	Display	R/W	Description
AI.1	E8	R	Discharge temperature probe fault

Table 8: BACnet AI.3 – MISC_IN

Bit	Display	R/W	Description
0,1	OF	R	Condensate pan overflow: • overflow = 11 • normal_op = xx
2	CP	R	Unit activation external contact • unit_off = 1 • unit_on = 0

Figure 109. Example of BACnet diagnostics

14.2 Modbus Registers/Objects Map

The following configuration and mapping apply when the Modbus protocol is used with the GWX gateway.

Default configuration:

- Serial: 9600–8N1
- Protocol: Modbus RTU
- Modbus address: 1 (set by DIP switches)
- First address is 2 (2–255). Refer to [Section 13.1.2](#).
- Support Modbus function codes:
 - FC03: Read holding register/object (maximum register for single request: 1)
 - FC04: Read input register/object (maximum register for single request: 1)
 - FC06: Write a single register/object
- Minimum time between Modbus commands: 250 mSec

Table 9: Modbus Holding Registers/Objects

Reg.#	Name	Description	Unit	R/W	Min.	Max.
1	Mode	Operation Mode: • Heating = 0 • Cooling = 1 • Standby = 2 • Dehumidification = 3 • Fan Only = 4 • Auto = 5	–	R/W	–	–
5	Set Point	Temperature Set Point	°C °F	R/W	16°C 61°F	31°C 88°C
6	Fan mode	• Fan Speed: • Auto = 0 • Low = 1 • Med. = 2 • High = 3	–	R/W	–	–
7	Louver/ Swing Mode (Flap)	• Swing = 0 • Stop = 7	–	R/W	–	–
8	Night	Night mode: • Disable = 0 • Enabled = 1	–	R/W	–	–
9	Low Set Point °C	16°C – 22°C	°C	R/W	16°C	22°C
10	High Set Point °C	23°C – 31°C	°C	R/W	23°C	31°C
11	Low Set Point °F	61°F – 72°F	°F	R/W	61°F	72°F
12	High Set Point °F	73°F – 88°F	°F	R/W	73°F	88°F
13	Fahrenheit display	• No = 00 • Yes = 01	–	R (*) R/W (**)	–	–
14	LOCK	Key lock: • No = 00 • Yes = 01 • Reserved = 10, 11	–	R (*) R/W (**)	–	–
4098	Set Point Status	Actual Temp. Set Point	°C	R	10°C	40°C
4099	Mode + Level	Running mode status: • Auto = 0000 • Cooling = 0001 • Dehum = 0010 • Heating = 0100	–	R	–	–

Reg.#	Name	Description
4101	–	–
4129	Ambient	–



For some dependent controls (*). Indicate with the control Ceiling Stack (*). Indicate with the i.e., Wall

Table 10: Reg. 4142 – AL

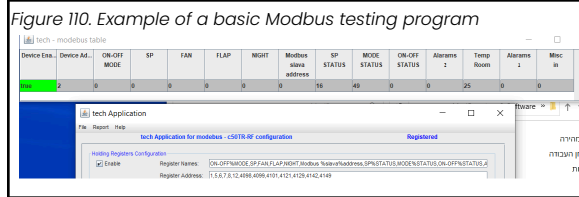
Bit	Display	R/W	Description
0	E1	R	Room temperature probe fault
1	E2	R	Indoor heat exchanger temperature probe fault
2	E3	R	Outdoor heat exchanger temperature probe fault
3	E4	R	Outdoor temperature probe fault
4	E5	R	Indoor fan failure
5	E6	R	Outdoor fan failure
6	E7 disp	R	Display communication failure
7	E7 drv	R	Driver communication failure

Table 11: Reg. 4121 – ALA

Bit	Display	R/W	Description
5	E8	R	Discharge temperature probe fault

Table 12: Reg. 4145 - MISC_IN

Bit	Display	R/W	Description
0,1	OF	R	Condensate pan overflow: • overflow = 11 • normal_op = xx
2	CP	R	Unit activation external contact • unit_off = 1 • unit_on = 0



15. WARRANTY TERMS AND CONDITIONS

Controllers and gateways carry a two-year warranty.

15.1 Exclusions and limitations

The above-noted warranty shall not cover:

- Any damage resulting from improper voltage supplied to the AIO™ unit.
- Damage to a controller or gateway where there is a corrosive atmosphere containing any damaging chemical, such as chlorine or fluorine.
- Failure of the controller or gateway due to acts of God, natural disasters, power failures, interruptions, brownouts or power spikes, or due to incorrect or inadequate electrical service, or failure of internet services or home networks.
- Damages or personal injury caused directly or indirectly by failure or malfunction of the controller or gateway as a result of any cause, including natural disasters, accidents, misuse, improper wiring, or installation.

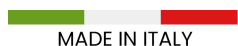
For additional information and any product inquiries, contact:

innova.co | **USA:** 216-710-1000 **Canada:** 416-739-1000



With over 20 years of experience in the climate comfort sector, we have a clear goal: growth through innovation. Our team is laser-focused on the conception, development, and production of innovative heating, ventilation, and air conditioning solutions. This mission has developed through bringing together technical skills, creativity, technology, design, Italian passion, and a global vision to achieve the best energy efficiency and performance.

innova.co | **USA:** 216-710-1000 **Canada:** 416-739-1000



© 2026 INNOVA. All rights reserved.

Revised August 03, 2026

AIO™ GWX Gateway for AIO™ Heat Pumps

Installation Guide