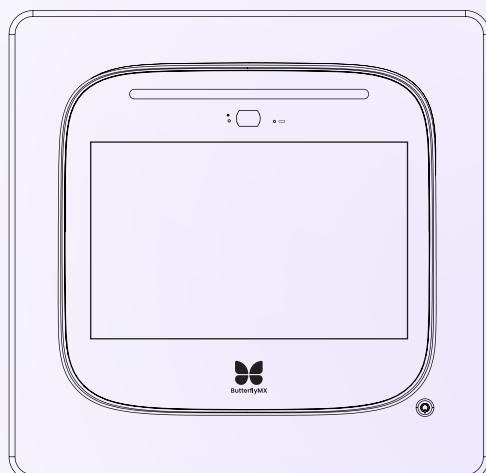




# Recessed Intercom

Quick Start Guide





Find more resources, including the **Installation Guide for the ButterflyMX Intercoms**, by scanning the QR code.

## ButterflyMX Support

(800) 398-4416, ext. 2  
Mon—Fri 6am-10pm ET  
Sat—Sun 8am-8pm ET

[support@butterflymx.com](mailto:support@butterflymx.com)

# Quick Start Guide

- 03** Package contents
- 05** Intercom overview
- 07** Installation steps
- 29** Compliance information

# Package contents

**8" or 12" Intercom**  
with I/O port cover using  
8x captive screws

**Faceplate**  
pre-installed on the Intercom

**Power dongle**

**AC power cord**

**24VDC power supply**

**For recessed configurations:**

Key	Twelve PIN Phoenix Connector
I/O screwdriver (port cover screws)	2x six PIN Phoenix Connectors
Pocket level	2x electrical components (diode, varistor)
Pocket screwdriver (winged connectors)	Back box (shipped separately)

# What is NOT Included

Items below are *not* included with the ButterflyMX Intercom and must be sourced prior to installation. Note that this is not an exhaustive list.

## **Uninterrupted Power Supply (UPS)**

The Intercom warranty is void without an installed UPS (minimum 600VA / 300W). We recommend the APC *UPS Battery Backup and Surge Protector, model BE600M1 Back-UPS*.

## **Electric Locking Hardware**

The ButterflyMX Intercom can only operate doors that have electric locking hardware installed (such as electric strikes, magnetic locks, automatic doors, electrified panic bars, etc.). Please see the installation manual of your electric locking hardware for the wiring requirements and best installation practices.

## **Low Voltage Cables**

Connect the Intercom to electric locking hardware and any other accessories. These cables should be rated to handle the voltage and amperage necessary for their particular use case.

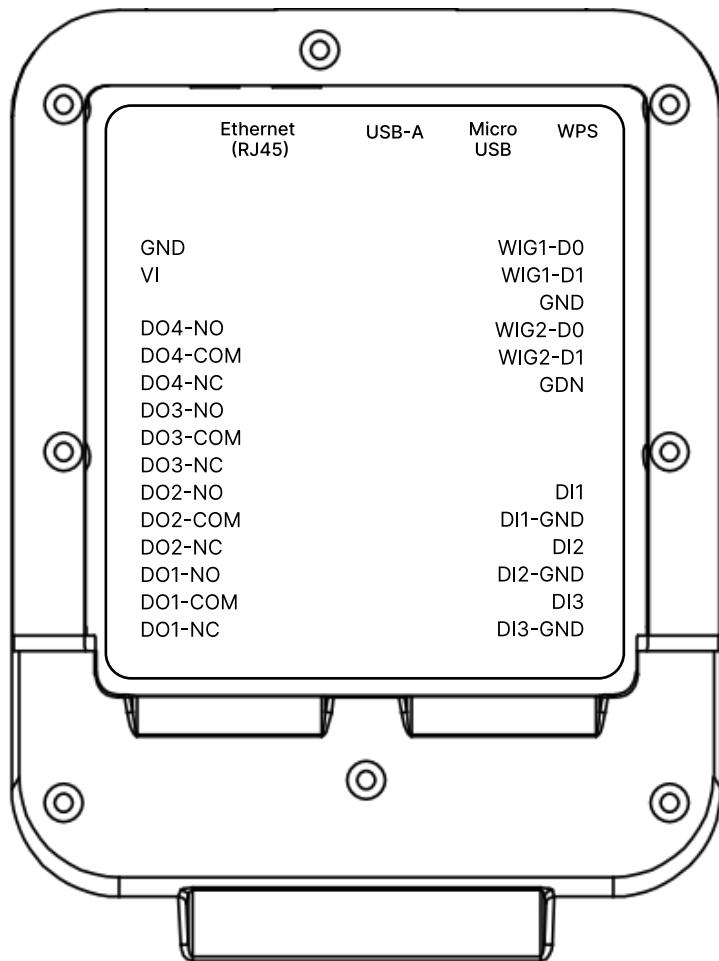
## **Network Cable**

Required to connect the Intercom to the Ethernet router; must be Cat5e or higher. If the distance is greater than 300 ft, a switch or repeater is required.

## **Request to Exit (REX) Device**

The door's exit hardware should allow for mechanical-free egress. If it does not, refer to local codes and jurisdictions for requirements.

# Intercom overview



### **Ethernet (RJ45)**

Connect with RJ45 using a Cat5e-rated cable or higher. Wi-Fi is supported if Ethernet is not available.

### **USB-A**

Input for keyboard and mouse required for programming and troubleshooting.

### **WPS**

Lever for triggering WPS Wi-Fi connection when pressed in conjunction with router's WPS button.

### **Power Supply (GND / VI)**

Connect using provided 24VDC power supply. Power supply is compatible with a 120V AC wall outlet.

### **Dry Relay Outputs (DO1, DO2, DO3, DO4)**

Four outputs for electric locking hardware, powered by an external power supply. Each output is rated up to 2A/30VDC and 0.5A/125VAC.

### **COMING SOON Digital Inputs (DI1, DI2, DI3)**

Three digital inputs, programmable for request-to-exit or door-state-sensor devices (such as a push-to-exit button or motion sensor).

### **COMING SOON Wiegand Reader Port (WIG1, WIG2)**

Two, three-wire Wiegand ports. For use in existing systems where third-party Wiegand readers are required at the Intercom's location. Replaces existing Wiegand readers and connects directly to third-party access control systems.

# Installation steps

## Prepare the Intercom for installation

1.

If connecting via Wi-Fi, **you must conduct a Wi-Fi site analysis/heat map prior to installation**, so placement of the intercom is within the optimal range of the Wi-Fi. This will ensure a strong and stable signal and minimize signal attenuation.

Consider using Wi-Fi signal boosters or extenders if needed.

2.

Identify the internet router and confirm internet connection method and access. If connecting via Wi-Fi, take note of the SSID and password.

3.

Ensure there is enough space behind the mounting location for excess wiring.

4.

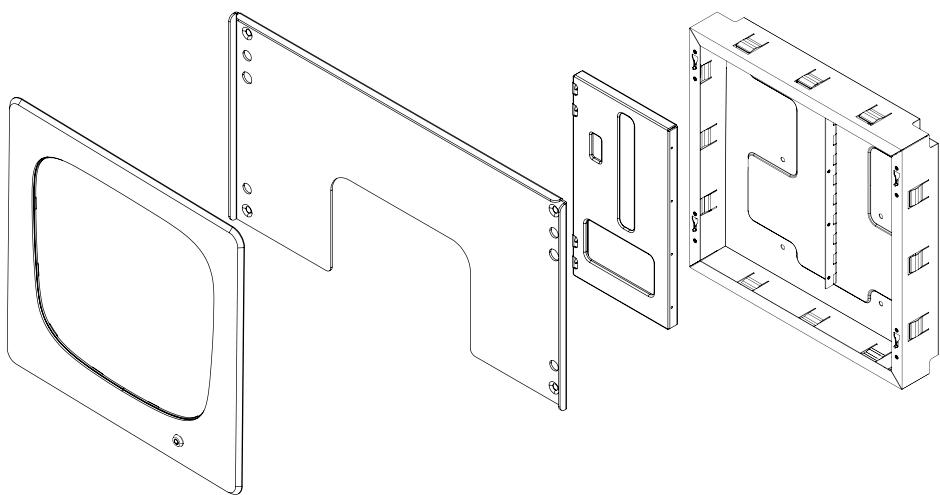
Review the cut sheets to determine the dimensions of the hole needed for installing.

*The Intercom comes attached to the faceplate and faceplate mount, and should not be removed.*

*The back box should be flush with the wall, regardless of substrate material, a maximum of 2.4" depth in the wall.*

5.

Be sure to note the **serial number** as it will be required during activation.



# Installation steps

## Mount the Back Box

1. Cut a rectangular opening in the wall, following the back box dimensions specified in the cut sheet.

8" recessed back box:

15.36" H x 8.72" W x 2.34" D

12" recessed back box:

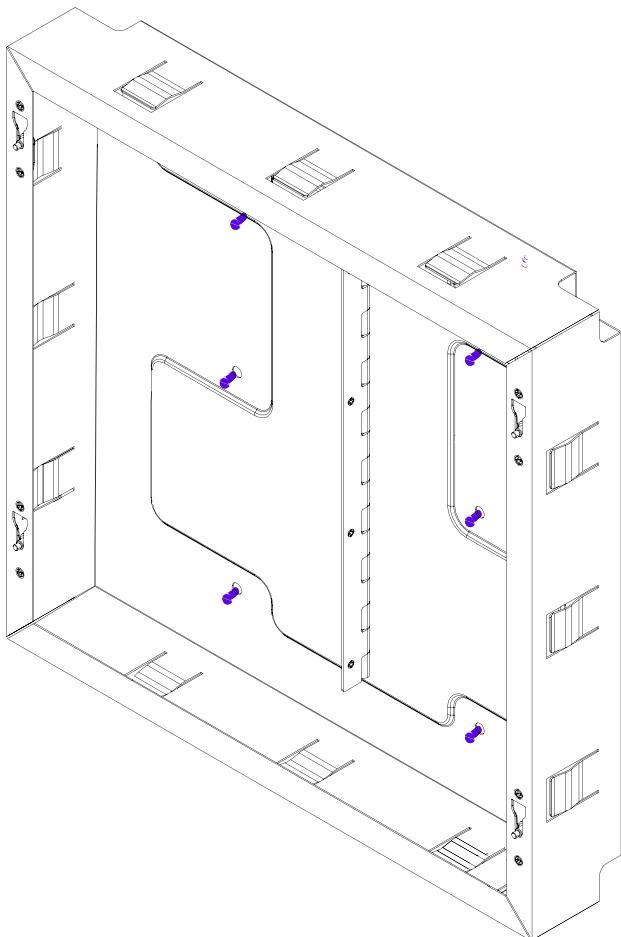
13.31" H x 13.64" W x 2.34" D

2. To ensure a snug fit and prevent gaps between the faceplate and back box, use shims to align the back box so that the faceplate is flush with the wall surface.

The faceplate should lay flat against the wall in order to prevent gaps. *Failure to close any gaps may result in water damage to both the intercom system and the surrounding wall.*

3. Secure the back box to the wall by drilling 6x screws through the designated holes (see diagram).

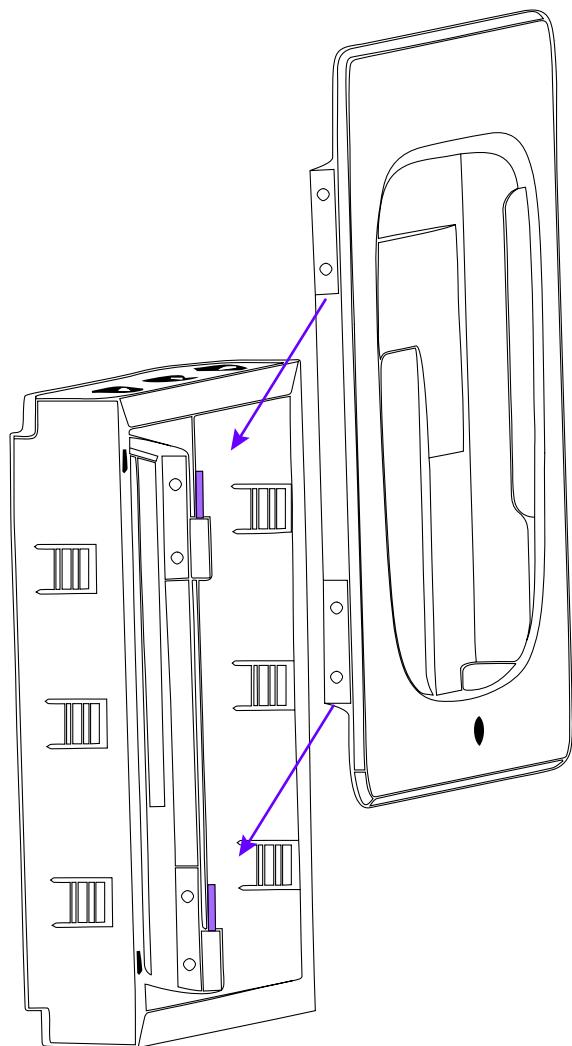
Screw type should be no smaller than 6mm in diameter and vary based on substrate material. We recommend self-tapping screws.



# Installation steps

## Mount the Faceplate

- 1.** Extend the articulating door outward from the back box and locate mounting hinges and pins.
  
- 2.** Looking at the faceplate, locate the mounting hinges on the edge of the back.
  
- 3.** Insert the intercom and faceplate onto the mounting hinges of the back box door by sliding them in, ensuring proper alignment of the hinges between the faceplate and the back box.
  
- 4.** Do not push the faceplate against the wall, as all wiring must be completed and tested prior to final mounting.



# Installation steps

## Wiring Termination Sequence

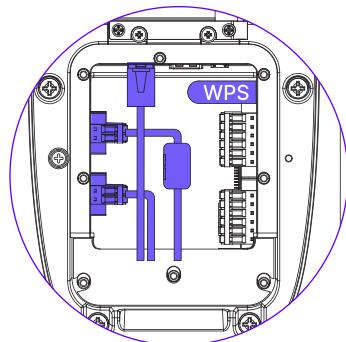
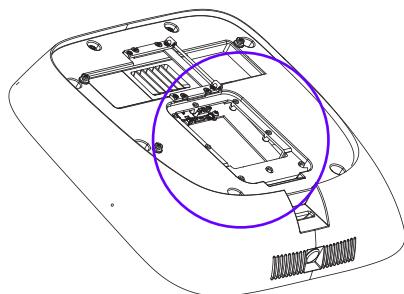
**Attention:** Please ensure network connections are disconnected at the network switch and power is disconnected at the UPS power location before starting these steps.

It's important to create an appropriate service loop to facilitate Intercom movement and accommodate future service requirements.

1. **Thread all cables through the back box**, passing them through the openings at the back..

Ensure an even distribution of cables horizontally to prevent bunching or difficulties when closing the Intercom's I/O plate.

2. **Connect the power dongle to the Intercom's terminal block.**



- 3.** **Secure the winged screws on the power dongle's 2-PIN terminal block connector** with the pocket screwdriver included in the installation kit.
- 4.** **Connect all required relays and I/O connectors.** Secure screws on all 2-PIN terminal block connections.
- 5.** **Plug in the Ethernet cable** if the internet is coming from Ethernet or Wi-Fi without WPS. If using Wi-Fi with WPS, no Ethernet connection is required.

# Installation steps

## Connect Network (Ethernet + Wi-Fi without WPS)

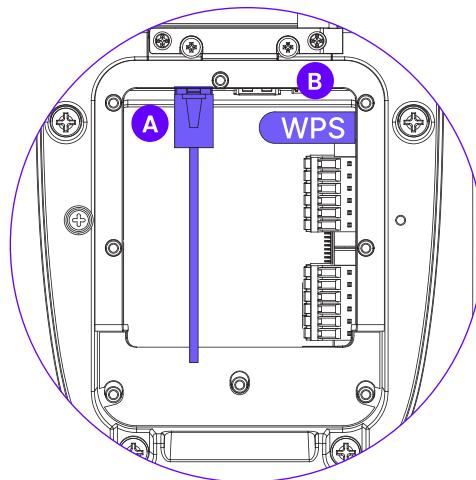
The ButterflyMX Intercom can be connected to the network through Ethernet or Wi-Fi. Whenever possible, Ethernet connections are preferred to ensure connection stability. If connecting through Wi-Fi without WPS, you must first connect the Ethernet cable to the Intercom.

Proceed to the next step, "Connect Power," if you plan to establish a Wi-Fi connection using WPS.

### Option A

#### 1. Connect via Ethernet Cable.

Plug one end of the Cat5e or higher cable into the Ethernet port on the Intercom, and the other end to an available port on the building's network equipment.



## Option B

1.

### Connect via Wi-Fi (Without WPS).

For Wi-Fi connectivity in a building lacking a router with a WPS button, **installers must perform a pre-installation site visit** to assess Wi-Fi signal strength at the intended Intercom installation location.

To connect the Intercom to Wi-Fi without a WPS button, there must be an established wired internet connection for the setup. If opting for Wi-Fi, ensure the Intercom is connected via Ethernet before connecting power.

The Intercom must first be installed and activated prior to connecting Wi-Fi. Call ButterflyMX Support during the activation process detailed in Step 7 to activate Wi-Fi.

### ATTENTION!

If connecting through Wi-Fi without WPS, you must first connect the Ethernet cable to the Intercom.

# Installation steps

## Connect Power

**Attention:** These steps must be followed in order. Do not connect AC power cord to power supply before completing the steps below. Never connect the AC power cord directly to the Intercom.

1. Verify the connection from the power dongle to the Intercom is secure.

*Be sure the winged screws on the power dongle's 2-PIN terminal block connector are fastened.*

2. Attach the 24V power supply to the open end of the power dongle.

3. Connect the AC power cord to the 24V power supply.

4. Connect the full Intercom power supply (dongle, 24V power supply, and AC power cord) to a UPS battery backup + surge protector.



## 5. Connect UPS to a power source, plugging into 120V 3-prong wall outlet.

*The UPS should be used for the ButterflyMX Intercom only.*

## 6. Wait for 45-60 seconds for the Intercom startup screen to appear.

If the touchscreen does not illuminate after 60 seconds, the Intercom is not connected to power. Use caution if splicing to extend the required ButterflyMX power cable.

If installing this Intercom outside of the United States, contact [SolutionsArchitecture@butterflymx.com](mailto:SolutionsArchitecture@butterflymx.com) for installation guidance prior to on-site installation.

# Installation steps

## Connect Network (Wi-Fi through WPS)

If your router has a WPS button and the Intercom hasn't been connected through Ethernet (either for hardwired or Wi-Fi setups), follow the steps below for connection. If WPS connection fails or your router lacks a WPS button, revisit the 'Connect Network' section in this guide to set up Ethernet.

Note: A site visit is necessary if Wi-Fi is the sole intended method for internet connectivity.

- 1.** **Ensure the Intercom has been successfully connected to power.**
- 2.** Push the WPS button on the router and press down on the WPS lever on the Intercom at the same time.
- 3.** **Wait 5 minutes** for the WPS Wi-Fi connection to be established with the ButterflyMX backend.
- 4.** **Testing and verification will happen during activation.** WPS Wi-Fi connection will be verified and tested later in the installation, after contacting ButterflyMX Support to complete activation.

## **Connect Relay(s)**

The Intercom requires diodes (for DC locks) or varistors (for AC locks). This ButterflyMX Intercom does not require an isolation relay; however, if installed, maintain separate power supplies for the circuit powering the lock and the circuit powering the relay.

### **If an ACS is present:**

- 1.** **Connect relay to designated input.**  
A relay from the Intercom will need to connect to the third-party ACS designated input. Consult with your third-party ACS support to configure the input to unlock the lock.
- 2.** **Or, connect relay to existing REX input.**  
If a designated input is not available, connect the Intercom relay into the existing REX input on the ACS, as it may already be programmed to release the door.

### **If an ACS is not present:**

- 1.** **Connect relay to lock's power supply.**  
The Intercom relay will need to interface with the lock's power supply.
- 2.** **Ensure the diode/varistor is installed properly**  
Position the diode/varistor as close as possible to the electric locking hardware.

# Installation steps

## Connect the Intercom to Electric Locking Hardware (Option 1 of 2)

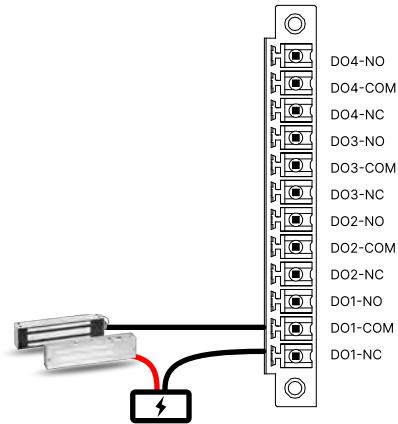
Before you install the electric locking hardware, check the manufacturer's documentation to set the mode of operation.

1.

Connect to electric locking hardware.

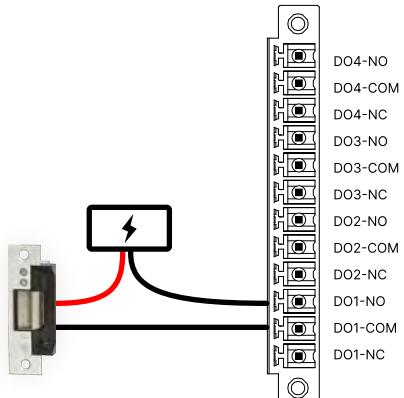
### Fail safe

Electric locking hardware (fail safe) powered by external power supply.



### Fail secure

Electric locking hardware (fail secure) powered by external power supply.



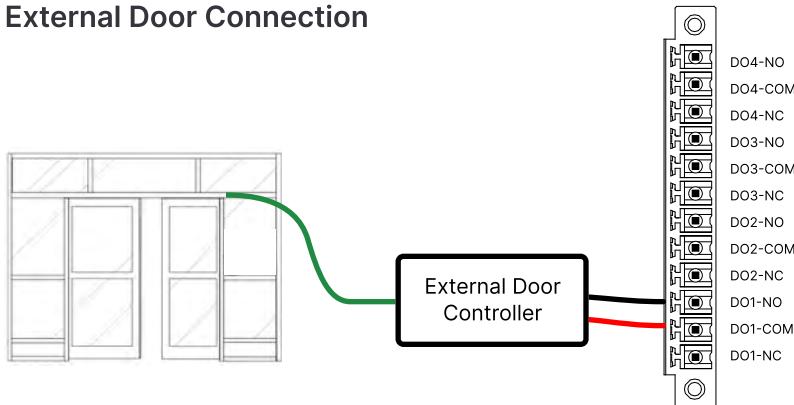
## Connect the Intercom to Electric Locking Hardware (Option 2 of 2)

1. Connect automatic door or externally controlled door to the Intercom.

Be sure to connect the wires to the correct terminals (N.O. and COM) on the dry relay output.

Follow the manufacturer's documentation to connect the external door controller for desired operation.

### External Door Connection



# Installation steps

## Activate and Test

All systems must be activated once installation is complete and while the installer is on-site. Please schedule installations with this requirement in mind.

1. **Call ButterflyMX Support while the installer is on-site at (800) 398-4416, ext 2. to activate the intercom.** Activation will verify all systems are operational, document installed hardware, and activate the ButterflyMX system.

*Be prepared to provide wiring specifications, building address, and Intercom serial number.*

2. **ButterflyMX Support will work with the installer to test video calls and PIN codes** for confirmation of installation steps and verification Intercom functionality.

## Wi-Fi Configuration

**ButterflyMX Support must configure the Wi-Fi set-up when connecting via Wi-Fi without WPS.**

Be prepared to provide the desired network's SSID and password.

Once ButterflyMX Support connects the Intercom to Wi-Fi:

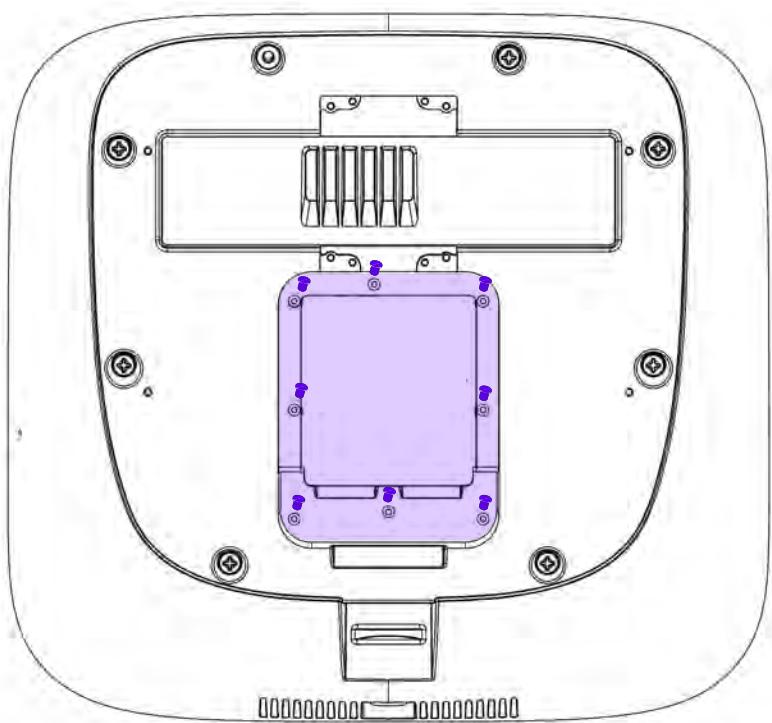
- Disconnect Ethernet cable from the Intercom, and verify Intercom's Wi-Fi connection in its current location
- Verify that there is still an established Wi-Fi connection once the Intercom is installed in its permanent location

# Installation steps

## Secure the Faceplate to the Back Box

- 1.** **Ensure all wiring fits within the I/O port**, and all 2-PIN terminal block connection wing screws have been fastened.
- 2.** **Distribute wiring evenly** through the bottom of the I/O port and opening of the back box.
- 3.** **Re-install the I/O plate using attached captive screws.** Tighten screws using included screwdriver to approximately 6 ft-lbs (foot-pounds).

*I/O plate must be level with the back of the Intercom to complete the installation and maintain IP65 rating. The Intercom will not be secured to if the I/O plate is not flat against it.*



# Installation steps

## Mount the Intercom

**1.**

**Push the face plate towards the back box to retract the articulating door.**

**2.**

**Secure the faceplate to the back box.**

Align the security screws on the faceplate to the corresponding holes on the edges of the back box and press the screws into place.

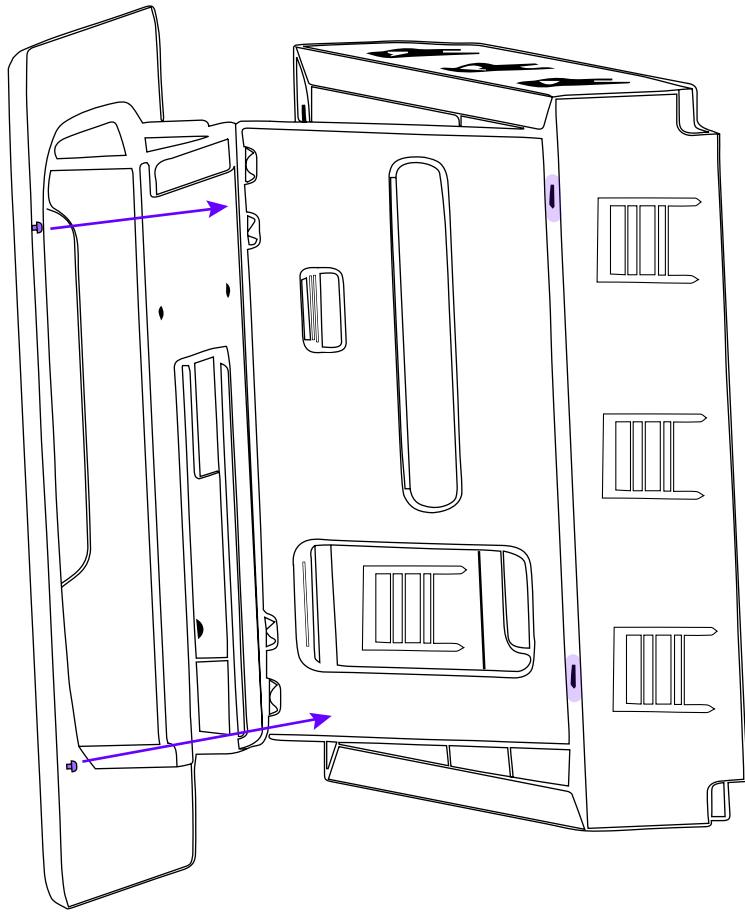
**3.**

**Once the security screws are inside the hole cutouts, push down on the faceplate to lock it into the back box.**

The back box housing should be flush to the wall when completed properly.

**4.**

**Lock the faceplate onto the backplate using the keys provided.**





## Activation is required.

Call ButterflyMX Support (800) 398-4416, ext 2.  
while the installer is on-site.

ButterflyMX will notify the client that installation is complete and will begin onboarding.

All documentation can be found on:

<https://butterflymx.com/resources/installers/documentation>

# Compliance

## Federal Communications Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## **Canada, Industry Canada (IC) Notice**

*Canada, avis d'Industry Canada (IC)*

This device complies with Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

*Cet appareil est conforme avec Industrie Canada exemptes de licence RSS standard(s).*

*Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.*

## **Radio Frequency (RF) Exposure Information**

*Informations concernant l'exposition aux fréquences radio (RF)*

The radiated output power of the Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.

This device has also been evaluated and shown compliant with the IC RF Exposure limits under mobile exposure conditions (antennas are greater than 20 cm from a person's body).

*La puissance de sortie émise par l'appareil de sans fil est inférieure à la limite d'exposition aux fréquences radio d'Industry Canada (IC). Utilisez l'appareil de sans fil de façon à minimiser les contacts humains lors du fonctionnement normal.*

*Ce périphérique a également été évalué et démontré conforme aux limites d'exposition aux RF d'IC dans des conditions d'exposition à des appareils mobiles (antennes supérieures à 20 cm à partir du corps d'une personne).*

# Compliance

## UL 294

UL 294 Performance Levels

Destructive	Line Security	Endurance	Standby Power
Level I	Level I	Level IV	Level I

ULC60839-11-1: Grade 1, Environment: Outdoor

Ethernet, USB, WPS, Wiegand, Network, WI-FI, and UPS were not evaluated during intercom UL testing.

*Ethernet, USB, WPS, Wiegand, Network, WI-FI et UPS n'ont pas été évalués lors des tests UL d'interphone.*

## Power Adapter Information

**Model:** EDAC Power Elec. EA10681H

**Output:** 24 V 2A

To maintain certification, do not use any power supply other than the one provided with this Intercom.

*Pour maintenir la certification, n'utilisez aucune autre source d'alimentation que celle fournie avec cet interphone.*

## **UNII devices**

The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems. For devices with detachable antenna(s), the maximum antenna gain permitted for devices in the band 5725–5850 MHz shall be such that the equipment still complies with the e.i.r.p. limits as appropriate.

Where applicable, antenna type(s), antenna models(s), and worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in section 6.2.2.3 shall be clearly indicated.

*Les dispositifs fonctionnant dans la bande de 5 150 à 5 250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux. Pour les dispositifs munis d'antennes amovibles, le gain maximal d'antenne permis (pour les dispositifs utilisant la bande de 5 725 à 5 850 MHz) doit être conforme à la limite de la p.i.r.e. spécifiée, selon le cas.*

*Lorsqu'il y a lieu, les types d'antennes (s'il y en a plusieurs), les numéros de modèle de l'antenne et les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, énoncée à la section 6.2.2.3, doivent être clairement indiqués.*

# Compliance

The product is intended to be supplied by a UL Listed Power Unit marked "L.P.S." (or "Limited Power Source") and is rated 9-24Vdc, 2.5-0.88A min., Tma 40 degree C. *Le produit est destiné à être alimenté par une unité d'alimentation UL répertoriée marquée "L.P.S." (ou "Limited Power Source") et est noté 9-24Vcc, 2,5-0,88A min., Tma 40 degrés Celsius.*

If further assistance with purchasing the power source is needed, please contact AVALUE TECHNOLOGY CORPORATION. *Si vous avez besoin d'une assistance supplémentaire pour l'achat de la source d'alimentation, veuillez contacter AVALUE TECHNOLOGY CORPORATION.*

Adapter is used for interior circuit only. *L'adaptateur est utilisé uniquement pour le circuit intérieur.*

## **Do not replace batteries of the EUT.**

Risk of explosion may occur if the battery is replaced by an incorrect type. Dispose of used batteries according to the instructions:

- Leaving an EUT in an extremely high temperature surrounding environment can result in an explosion or the leakage of flammable liquid or gas.
- EUT subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.
- Explosion may occur due to disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery.

## **Ne remplacez pas les piles de l'EUT.**

Un risque d'explosion peut survenir si la pile est remplacée par un type incorrect.  
Éliminez les piles usagées conformément aux instructions suivantes:

- Laisser un EUT dans un environnement extrêmement chaud peut entraîner une explosion ou une fuite de liquide ou de gaz inflammable.
- Un EUT soumis à une pression atmosphérique extrêmement basse peut entraîner une explosion ou une fuite de liquide ou de gaz inflammable.
- Une explosion peut survenir en cas d'élimination d'une pile dans le feu ou un four chaud, ou en cas d'écrasement ou de coupe mécanique d'une pile.

## **Warranty Information**

ButterflyMX has a two-year limited warranty to end customers.  
For full details, see <https://butterflymx.com/warranty>



Find more resources, including the **Installation Guide for the ButterflyMX Intercoms**, by scanning the QR code.