Intercom

Installation Guide

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Model: INT1LFCNA1
Document number 770-00012 V1
Revised on 08/03/2020

Things you should know

Latch Intercom requires a Latch R in order to operate and can only be paired with one R.

Intercom installation should occur before Latch R installation.

Only use screws provided. Other screws can cause Latch Intercom to disengage from the mounting plate.

Configuration requires the iOS Manager App running on an iPhone 5S or newer.

More resources, including the electronic version of this guide, can be found online at **support.latch.com**

Included in the Box

Mounting Hardware

- Pan-head screws
- Anchors
- Gel-filled crimps
- Cable sealing components
- RJ45 male connector

Product

- Latch Intercom
- Mounting plate

Not Included in the Box

Mounting Tools

- #2 Phillips head screwdriver
- TR20 Torx security screwdriver
- 1.5" drill bit for cable routing hole
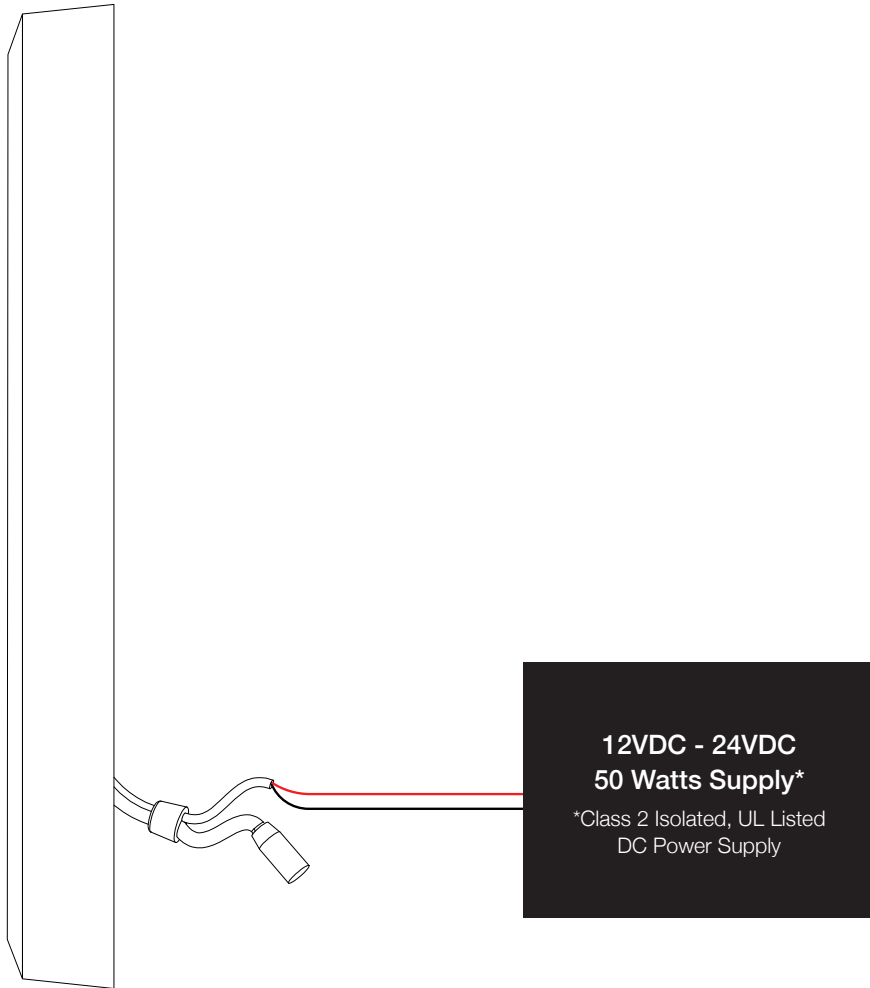
Requirements for Device

- 64 bit iOS device
- Latest version of the Latch Manager App

Product Details

Details and recommendations for power, wiring, and product specifications.
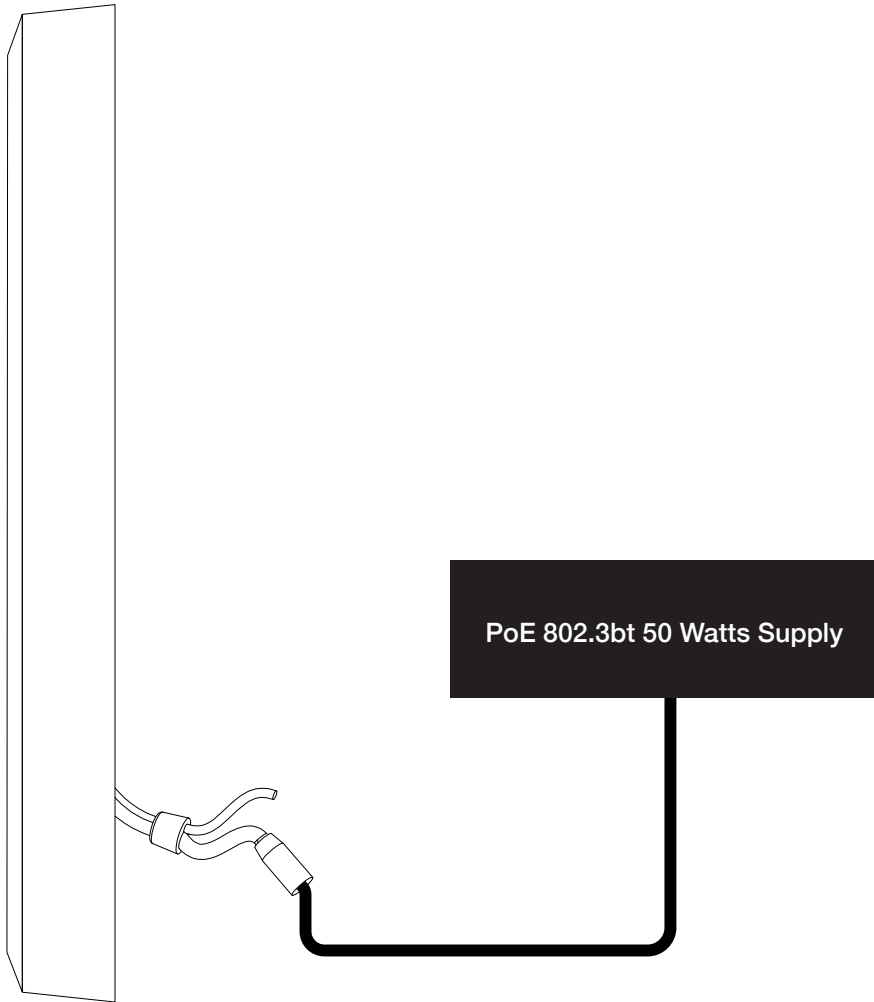
Product Details

Direct Power

Minimum wiring recommendations

Distance		< 25ft	< 50ft	< 100ft	< 200ft
Power	**12V**	22 AWG	18 AWG	16 AWG	——
	24V	24 AWG	22 AWG	18 AWG	16 AWG

**12VDC - 24VDC
50 Watts Supply***

*Class 2 Isolated, UL Listed
DC Power Supply

Choice of Ethernet, Wi-Fi, and/or LTE connection is required

Wiring
PoE

Minimum wiring recommendations

PoE Source	50W+				
Distance	328ft (100m)				
CAT Type	5e	6	6a	7	8
Shield	Shielded				
AWG	10 - 24 AWG				

*Ethernet cable recommended to meet CMP or CMR rating

PoE 802.3bt 50 Watts Supply

Choice of additional Wi-Fi and/or LTE connection is optional

Detail View of Cable
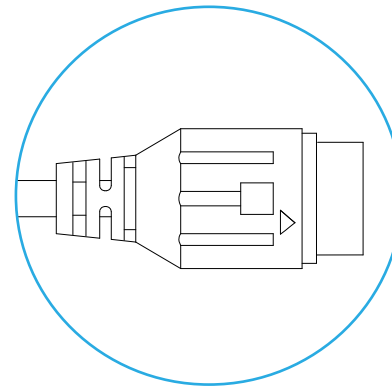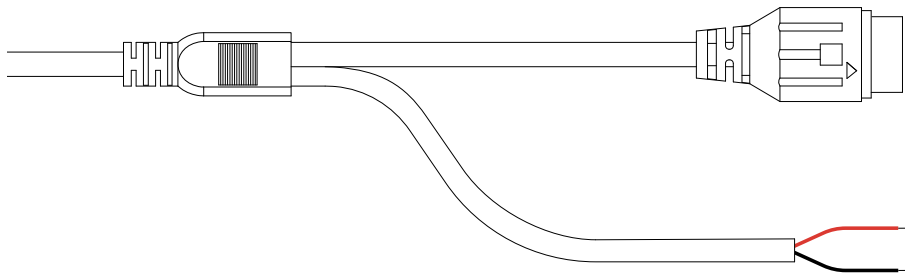
RJ45 Female Type Connector
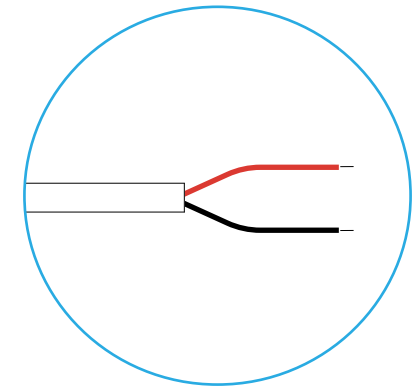
Direct Power Connection

Product Details

Mounting Plate

Centerline Mark

Procedural Numbers

LATCH

Centerline Mark

Support Cable Hook

Microphone

Microphone

Display

Navigational Buttons

Speaker Mesh

Security Screw
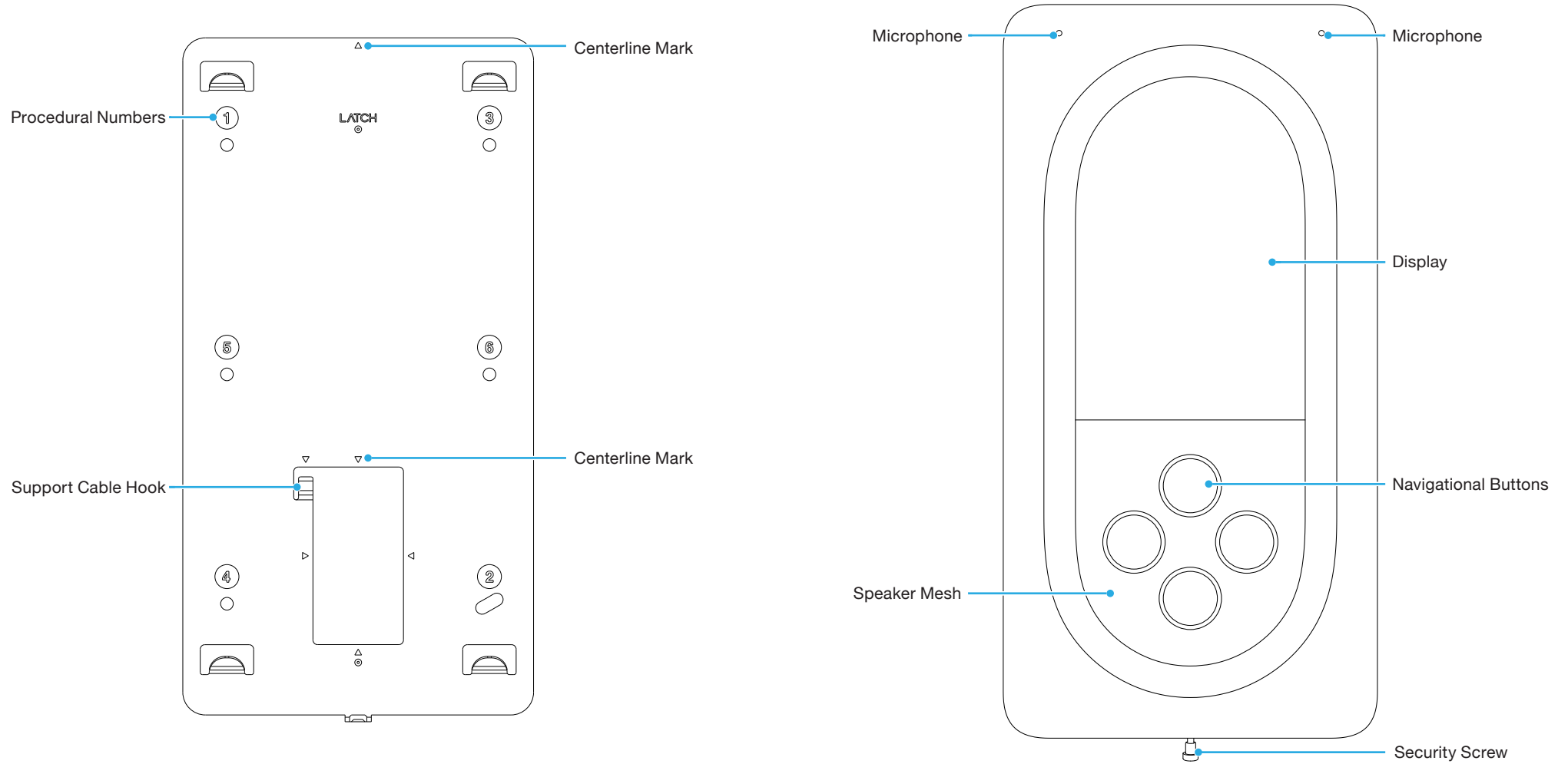
Note: Refer to ADA Guidelines on mounting height.

Specifications

Dimensions

• 12.82in (32.6cm) x 6.53in (16.6 cm) x 1.38in (3.5cm)

Network

• Ethernet: 10/100/1000
• Bluetooth: BLE 4.2 (iOS and Android compatible)
• Wi-Fi: 2.4Ghz/5Ghz 802.11 a/b/g/n/ac
• Cellular LTE Cat 1
• DHCP or Static IP

Power

• Class 2 Isolated, UL Listed Power Supply
• 2 Wire Supply Voltage: 12VDC to 24VDC
• Power over Ethernet: 802.3bt (50W+)
• Operating Power: 20W-50W (4A @12VDC, 2A @24VDC)
• For UL 294 installations, the power source must be compliant to one of the following
  standards: UL 294, UL 603, UL 864, or UL 1481. When powered via PoE, the PoE source
  must be either UL 294B or UL 294 Ed.7 compliant. For ULC 60839-11-1 installation, the power
  source must be compliant to one of the following standards: ULC S304 or ULC S318.
• DC input evaluated for UL294: 12V DC – 24V DC

Warranty

• 2-year limited warranty on electronic and mechanical components

Accessiblity

• Supports audio instructions and navigation
• Tactile buttons
• Supports TTY/RTT
• Voiceover

Audio

• 90dB output (0.5m, 1kHz)
• Dual microphone
• Echo cancellation and noise reduction

Display

• Brightness: 1000 nits
• Viewing angle: 176 degrees
• 7-inch diagonal Corning® Gorilla® Glass 3 screen
• Anti-reflective and anti-fingerprint coating

Environmental

• Materials: stainless steel, glass fiber reinforced resin, and impact resistant glass
• Temperature: Operating/Storage -22°F to 140°F (-30°C to 60°C)
• Operating Humidity: 93% at 89.6°F (32°C), non-condensing
• IP65 dust and water resistance
• IK07 impact resistance

Compliance

US

• FCC Part 15B / 15C / 15E / 24 / 27
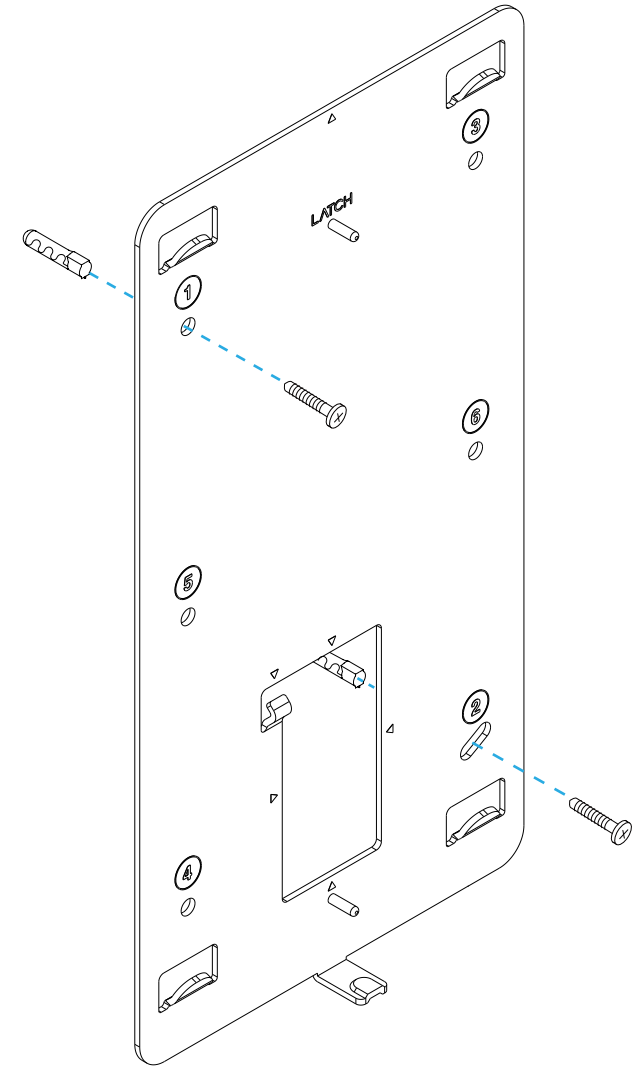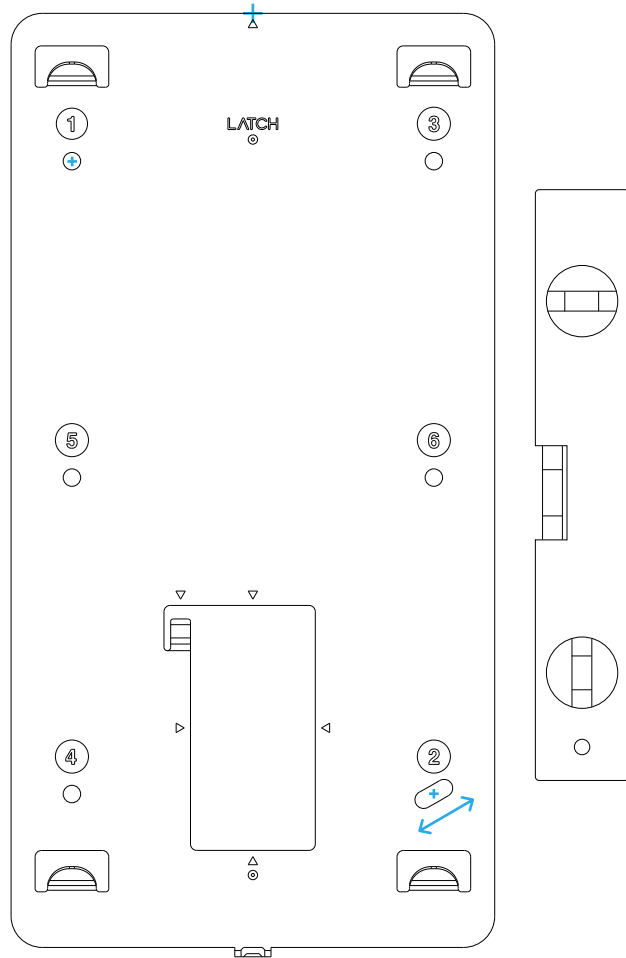• UL 294
• UL 62368-1

Canada

• IC RSS-247 / 133 / 139 / 130
• ICES-003
• ULC 60839-1 Grade 1
• CSA 62368-1

PTCRB

Installation

Follow these steps to proceed with installation.
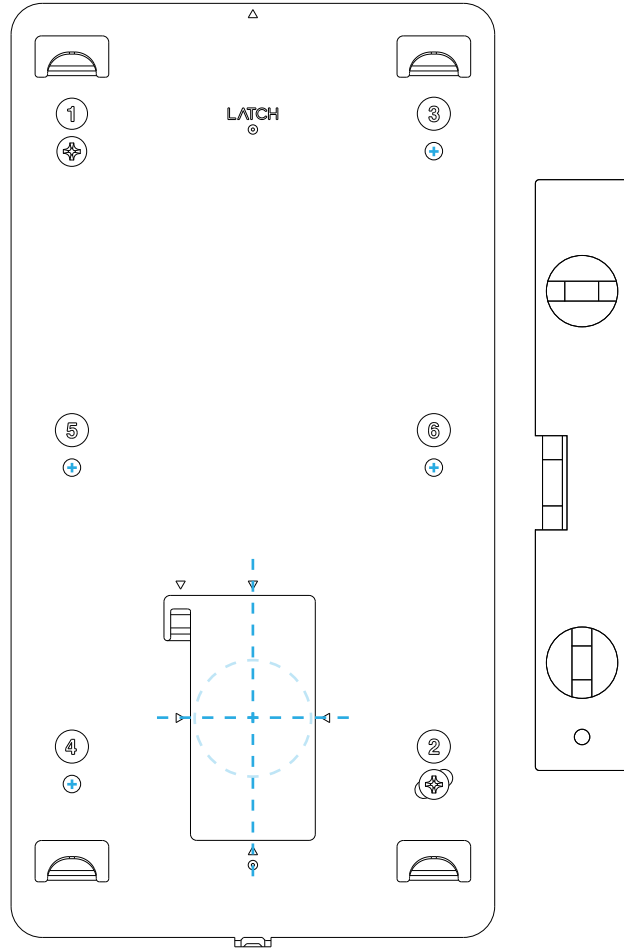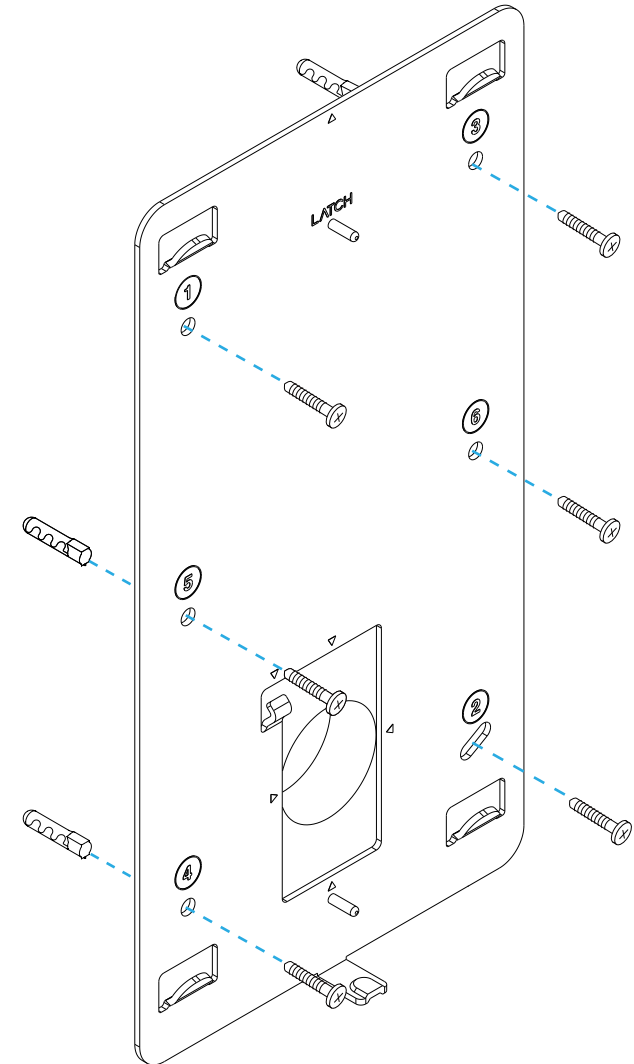
Version 1.0

1.

Align the center mark on the mounting plate and center on wall.
Level and mark holes 1 and 2. Drill, anchor, and screw in place.

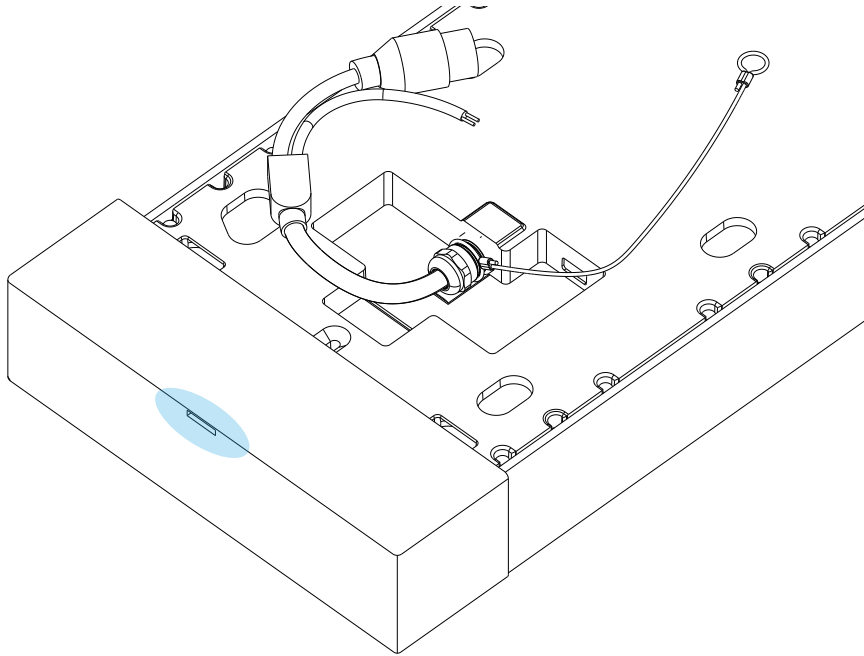**Note:** Hole 2 is slotted for adjustments.

2.

Find the center of the 1.5 inch cable bore hole using marks as a guide. Temporarily remove the mounting plate and drill a 1.5 inch hole.

Drill and set anchors for remaining holes 3-6. Reinstall the mounting plate.

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3.

Important: Keep the protective bumpers on.
Using the support cable, hook the Intercom to the mounting plate for easier wiring.
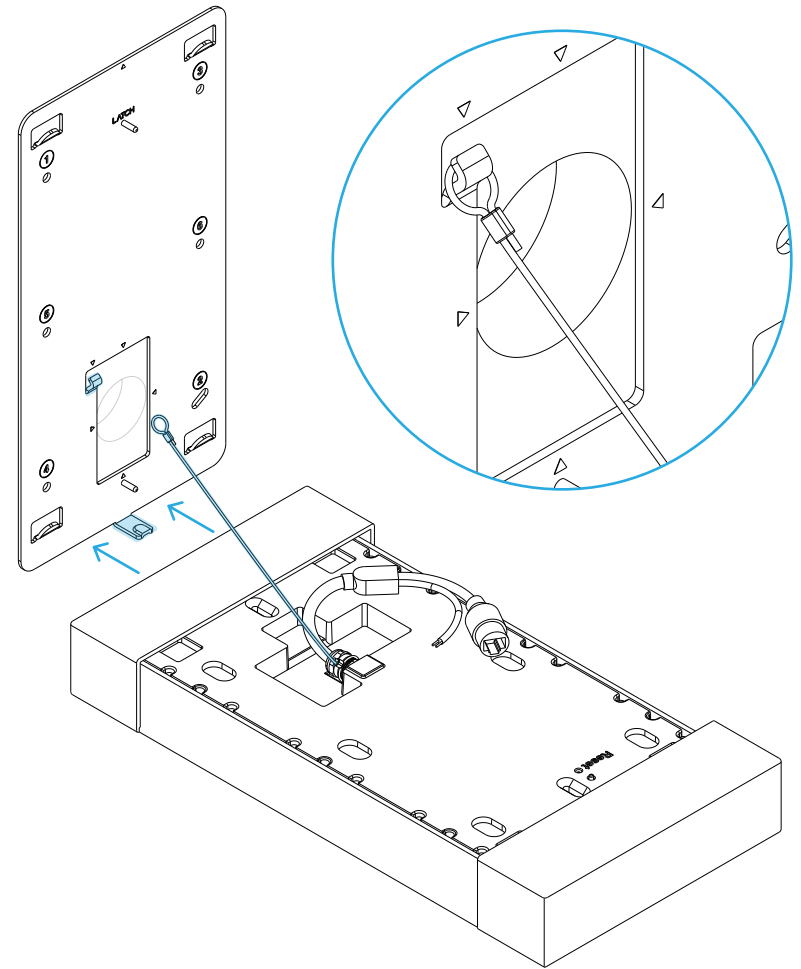
Align pocket in the bumper with the lower mounting plate tab.
Place the loop of support cable over hook.

4a.

A
Female RJ45

B
Male RJ45

C
Connector Seal

D
Split Gland

E
Cable Seal
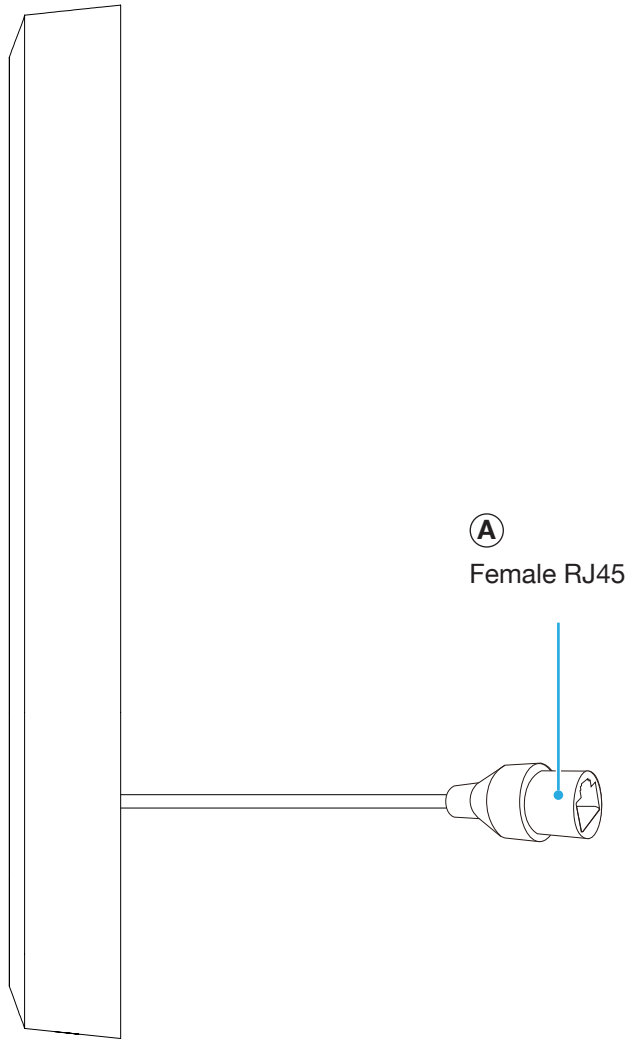
You may use an Ethernet cable to provide both power and internet to the device. Or you may utilize the direct power wires alongside onboard Wi-Fi or cellular.
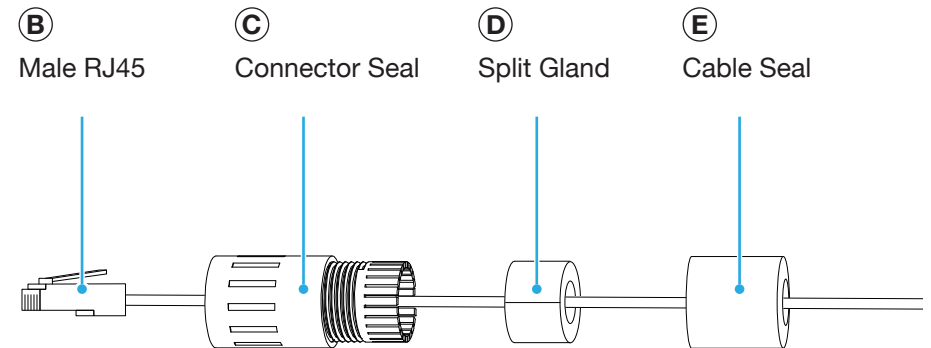
Step 1: Feed B through C and E
Step 2: Plug B into A
Step 3: Connect A to C by twisting. Add D behind C
Step 4: Screw E into C

4b.
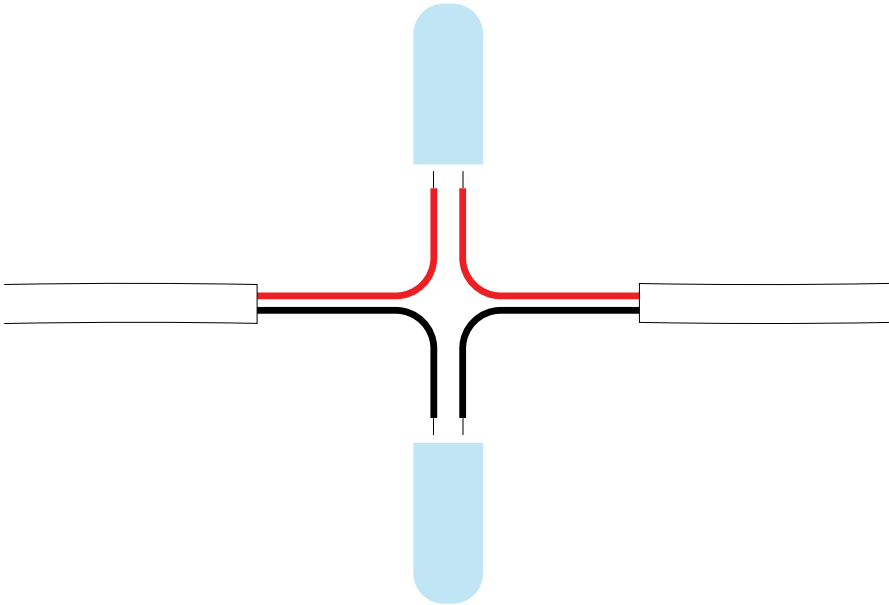
If you're not utilizing PoE, use crimps to connect to direct power.

Important: Ensure cables are dry and free of moisture before connecting.

5.
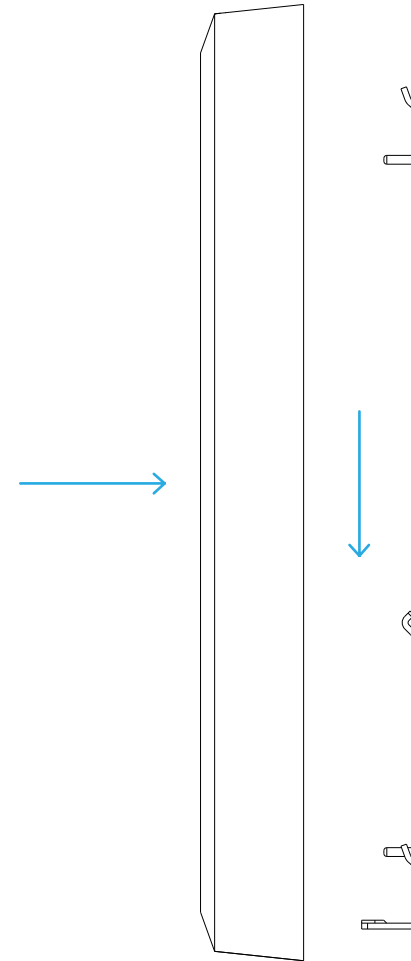
Unhook the support cable, remove bumpers, and feed all wires and cables through the wall. Use the center alignment pins to locate the product. Place the Latch Intercom flush with the mounting plate and slide down until all mounting tabs fit snugly.
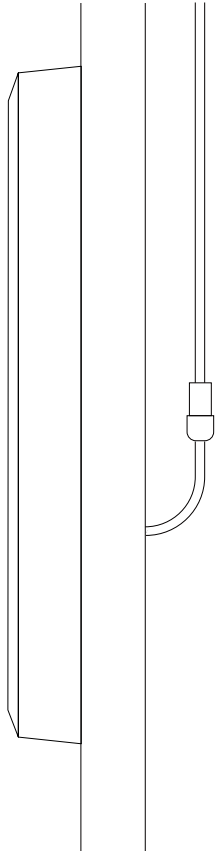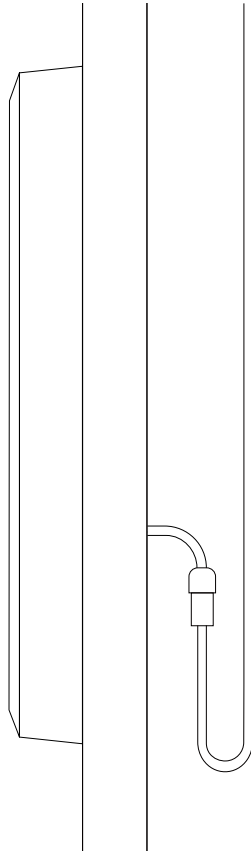
Incorrect   **Correct**

Note: We recommend forming a drip loop of cables to help avoid moisture condensation on connections or device.

6.
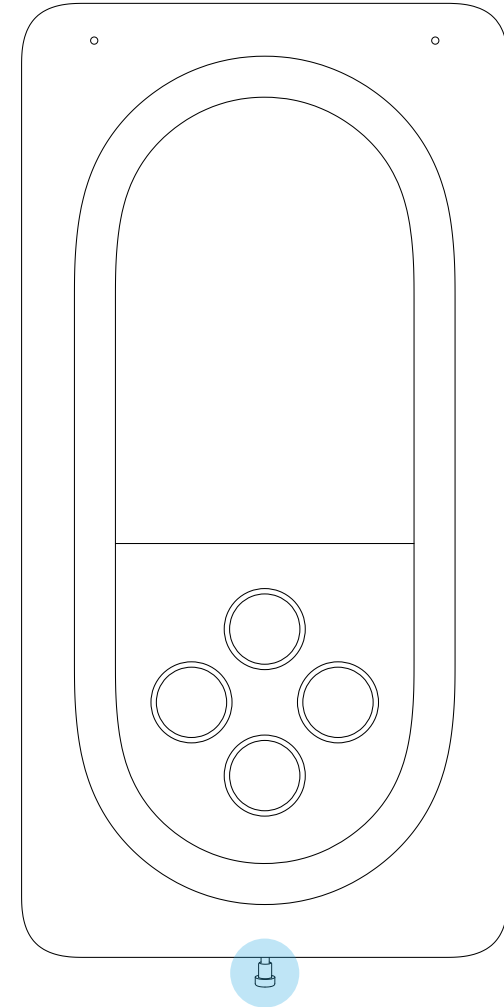
Lock into place with the TR20 security screw.

7.
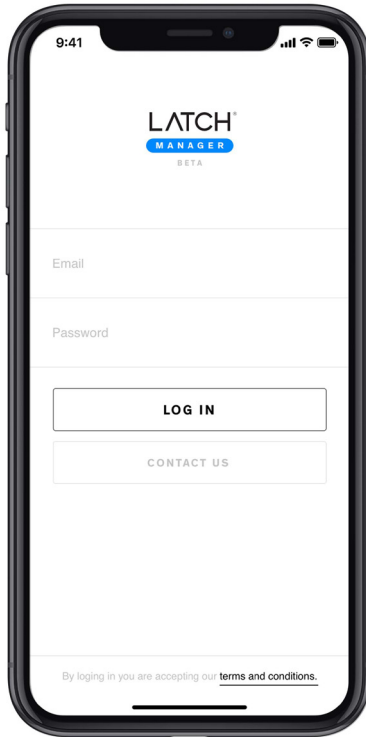
Download the Latch Manager App and configure.

Important Handling Information

Operating Environment
Device performance may be affected if operated outside these ranges:

Operating and Storage Temperature: -22°F to 140°F (-30°C to 60°C)
Relative Humidity: 0% to 93% (non-condensing)

Cleaning
Although the device is water resistant, do not apply water or liquid directly to the device. Dampen a soft cloth to wipe the exterior of the device. Do not use solvents or abrasives that might damage or discolor the device.

Cleaning the screen: Although the device is water resistant, do not apply water or liquid directly to the screen. Dampen a clean, soft, microfiber cloth with water and then wipe the screen gently.

Cleaning the speaker mesh: To clean out debris from the speaker mesh perforations, use a can of compressed air held 3" from the surface. For particles that are not removed by compressed air, painters tape can be used on the surface to pull out debris.

Water Resistance
Although the device is water resistant, do not apply water or liquid to the device, especially from a pressure washer or hose.

Magnetic Fields
The device may induce magnetic fields near the surface of the device strong enough to affect objects such as credit cards and storage media.

Regulatory Compliance

Federal Communications Commission (FCC) Compliance Statement

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.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B 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 transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

This device meets all the other requirements specified in Part 15E, Section 15.407 of the FCC Rules.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20cmbetween the radiator & your body.

Industry Canada (IC) Compliance Statement

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

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.

Radiation Exposure Statement

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with greater than 20cm between the radiator & your body.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux système de satellites mobiles utilisant les même canaux.

Déclaration D'exposition aux Radiations

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à plus de 20cm entre le radiateur et votre corps.

Requirements for Compliance with UL 294 7th Edition

This section contains information and instructions required for UL compliance. To make sure the installation is UL compliant, follow the instructions below in addition to the general information and instructions provided throughout this document. In cases where pieces of information contradict each other, the requirements for UL compliance always replace general information and instructions.

Safety Instructions

- This product shall be installed and serviced by certified professionals only
- Locations and wiring methods shall be in accordance with the National Electrical Code, ANSI/NFPA 70
- For PoE connections, Installation must be done in accordance with NFPA 70: Article 725.121, Power Sources for Class 2 and Class 3 Circuits
- There are no replacement parts available for this product

Safety Instructions (Continued)

- Outdoor electrical boxes used for mounting are recommended to be NEMA 3 or better
- Correct wiring insulation should be used during installation to prevent the risk of electrical shock

Testing and Maintenance Operation

Prior to installation, ensure that all wiring is secure. Each unit should be checked annually for:

- Loose wiring & loose screws
- Normal operation (attempt to call tenant using interface)

Impaired Operation

Units are designed to operate under adverse environmental conditions.
Under normal circumstances, they will function properly regardless of outside
conditions. However, units do not have secondary power sources and cannot function without
direct continuous power. If a unit is damaged by natural causes or deliberate vandalism, it may
not function properly depending on the level of damage.

Configuration & Commissioning Instructions

Configuration & Commissioning instructions can be found in more detail in the Technical
Certification Training as well as on the support website at **support.latch.com.**

Service Information

Service Information can be found in more detail in the Technical Certification Training as well as on
the support website at **support.latch.com.**

Applicable Products

This installation guide applies to products with the following designators on the label:

- Model: INT1LFCNA1

Troubleshooting

If the Intercom does not operate:

- Ensure the intercom is powered with DC power. Do not use AC power.
- Ensure the input voltage if using 2 wire is between 12 and 24 volts DC with 50W+
- Ensure the input PoE Type if using PoE is 802.3bt 50W+
- Further troubleshooting information is available on the support website at
  support.latch.com

Software Information

- The Latch Manager app is necessary to configure the Latch Intercom
- Further configuration information can be found on the support website at **support.latch.com**
- Latch Intercom has been tested for UL294 compliance employing firmware version INT1.3.9
- The current firmware version can be checked by using the Latch Manager app

Normal Product Operation

Condition	Indication/Use
Normal standby	LCD is displaying idle image
Access granted	Access screen displayed on LCD
Access denied	Failure screen displayed on LCD
Keypad operation	4 tactile buttons can be used to navigate the LCD display
Reset switch	Reset switch can be found on the back of the device to reboot the system
Tamper switches	Tamper switches can be found on the back of the device to detect removal from mounting position and removal of the back cover

UL 294 Access Control Performance Ratings:

Feature Level Destructive Attack	Level 1
Line Security	Level 1
Endurance	Level 1
Standby Power	Level 1

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