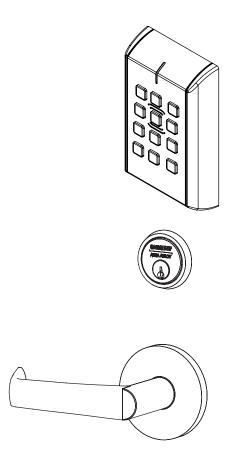
Installation Instructions



IN120 WiFi/ IN220 PoE

EcoFlex CLX33100



Attention Installer:

Please read these instructions carefully to prevent missing important steps. Improper installations may result in damage to the lock and void the factory warranty. The accuracy of the door preparation is critical for proper functioning and security of this lock. Misalignment can cause premature wear and a lessening of security.

For specific security information, please contact your local ASSA ABLOY Door Security Solutions sales consultant or call 800-810-9473.



This product can expose you to lead which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to: www.P65warnings.ca.gov.

Ce produit peut vous exposer au plomb qui, dans l'état de la Californie, est reconnu pour causer le cancer, des anomalies congénitales ou d'autres problèmes de reproduction.

Pour plus d'informations, visitez: www.P65warnings.ca.gov.

$1\text{-}800\text{-}810\text{-}9473 \bullet tech support.corb in russ win @assaabloy.com$

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EcoFlex CLX33100

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EcoFlex CLX33100

Installation Instructions

1. Warning

Changes or modifications to this device not expressly approved by ASSA ABLOY could void the user's authority to operate the equipment.

FCC:

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.
- The card reader shall be installed and used such that parts of the user's body other than the hands are maintained at a distance of approximately 20 cm (8 inches) or more.

Innovation, Science and Economic Development Canada:

Under Innovation, Science and Economic Development Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication. Conformément à la réglementation d'Innovation, Sciences et Développement économique Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

General Regulatory Compliance:

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). 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 of the device.

Ce dispositif contient des émetteurs/réceptuers exemptés de licence conformes aux RSS d'Innovation, Sciences et Développment économique Canada. L'opération est sujette aux deux conditions suivantes: (1) ce dispositif peut ne pas causer l'interférence, et (2) ce dispositif doit accepter n'importe quelle interférence reçue, y compris l'interférence qui peut causer l'opération peu désirée a le dispositif.

This equipment complies with FCC and IC radiation exposure limits set forth for general population (uncontrolled environment). This device must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux radiations de la FCC et IC définies pour la population générale (environnement non contrôlé). Cet appareil ne doit pas être co-localisé ou fonctionner en conjonction avec une autre antenne ou un autre émetteur.



CAUTION: When using hard power, DO NOT install batteries.

AVERTIR: Ne pas installer de batteries si vous utilisez l'alimentation électrique.

CAUTION: Risk of Explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions. **AVERTIR:** Risque d'explosion si la batterie est remplacée par un type incorrect. Jetez le batteries usagées conformément aux instructions.

Any retrofit or other field modification to a fire rated opening can potentially impact the fire rating of the opening, and SARGENT Manufacturing makes no representations or warranties concerning what such impact may be in any specific situation. When retrofitting any portion of an existing fire rated opening, or specifying and installing a new fire-rated opening, please consult with a code specialist or local code official (Authority Having Jurisdiction) to ensure compliance with all applicable codes and ratings.



To avoid possible damage from electrostatic discharge (ESD), some basic precautions should be used when handling electronic components:

- Minimize build-up of static by touching and/or maintaining contact with unpainted metal surfaces such as door hinges, latches, and mounting plates
 especially when mounting electronic components such as readers and controllers onto the door.
- Leave components (reader and controller) protected in their respective anti-static bags until ready for installation.
- Do not touch pins, leads or solder connections on the circuit boards.

EcoFlex CLX33100

Installation Instructions



2. Regulatory and Power Specifications

Electronic Authentication Specifications (Mobile Credentials)

- Mobile Credentials are transmitted to the lock via Bluetooth Smart or NFC ISO/IEC14443 and must use a mobile device enabled with these technologies.
- Credential and mobile device versions are specified by the credential provider.
- User must acquire the latest HID Mobile Access application (if applicable) available from Google Play or on the App Store.

This product is not intended for outside wiring as covered by Article 800 in the National Electrical Code, NFPA 70.

Compliance with IEEE 802.3 (at or af) specifications was not verified as part of UL294/B $\,$

The system shall not be installed in the fail-secure mode unless permitted by the local authority having jurisdiction and shall not interfere with the operation of listed panic hardware.

- UL Listed UL 294 Outdoor Use
- CUL Listed ULC-60839-11-1, Grade 1, Environmental Class: Outdoor Use
- UL 294 Access Control Ratings:

Destructive Attack	Level 1
Line Security	Level 1
Endurance	Level 4
Standby Power	Level 1

Reader with HID® OMNIKEY® reader core technology offers support for the following credentials:

High Frequency (13.56 MHz):

- HID iCLASS®
- HID iCLASS SE® (SIO-enabled)
- HID iCLASS® Seos™
- HID MIFARE® SE
- HID DESFire® EV1 SE
- HID MIFARE Classic SE
- DESFire EV1
- DESFire EV2/EV3 (EV1 Compatibility)

NFC & BLE-enabled Mobile Phones:

- HID Mobile Access® (BLE and NFC)
- Supports the use of employee badge and/or Student ID in Apple Wallet
- Android Wallet (MIFARE 2GO)

Low Frequency (125 kHz):

HID Prox®

PIV/PIV-1:

40-bit BCD

- 64-bit BCD
- 75-bit output
- 128-bit output
- 200-bit output

Optional Keypad:

PIN-only usage or dual authentication

Power Supply Specifications

IN120 (WiFi version):

Battery Power:

Alkaline AA Batteries (6): 9V, 300mA To comply with Fire Listed doors, batteries must be replaced with alkaline batteries only

 Optional Hard Power (UL 294 Listed Power Supply Required): 9-24VDC, 200mA

CAUTION: When using Hard Power, DO NOT install batteries.

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

IN220 (PoE version):

- Power over Ethernet: Use UL 294 Listed, PoE Injector or Class 2 power limited power supply (55VDC, 90mA)
- UL testing was conducted on product powered by UL listed model POE20U-560(G) PoE Injector, manufactured by Phihong

Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), CSA 22.1, Canadian Electrical Code (CEC), Part I, Safety Standard for Electrical Installations, local codes and the authorities having jurisdiction. Equipment installed in outdoor use applications shall employ NEC Class 3 wiring methods.



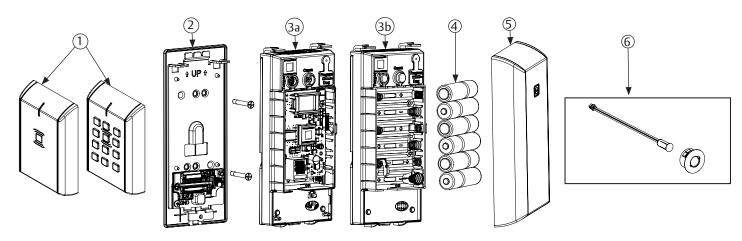
EcoFlex CLX33100

Installation Instructions

See document FM646 for part numbers.

3. Product Illustrations

IN120/220 Assembly



Tools Required:

- #2 Phillips screwdriver
- · Flat head screwdriver
- 1/8" Security hex key

Item No.	Description	
1*	Reader Assembly (Keypad Version Optional)	
2	Mounting Plate Assembly (Includes Gasket)	
3a	PoE Controller Assembly	
3b	WiFi Controller Assembly* (Batteries Included)	
4	AA Alkaline Batteries (6)	
5	Inside Escutcheon Assembly with Privacy Button	
6	Door Position Switch (Optional)	

Prior to installation, please confirm receipt of all parts.



To comply with Fire Listed doors, the batteries must be replaced with alkaline batteries ONLY.

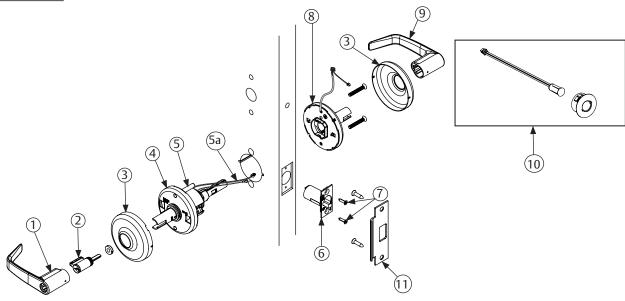
EcoFlex CLX33100

Installation Instructions



3. Product Illustrations (continued)

Mortise Lock



Item No.	Description	
1	Outside Lever (Reference Catalog for Available Styles)	
2	Cylinder Assembly (Reference Catalog for Available Cylinders)	
3	Rose (Reference Catalog for Available Styles)	
4	Outside Rose Spring Assembly	
5	Lockbody Assembly CLX33134	1
5a	Lockbody Harness	1
6	Latch Assembly	
7	Screw Pack	
8	Inside Rose Spring Assembly	
9	Inside Lever (Reference Catalog for Available Styles)	1
10	Door Position Switch Kit	1
11	Strike	1

For parts not listed, refer to CLX3300 Parts and Service Manual

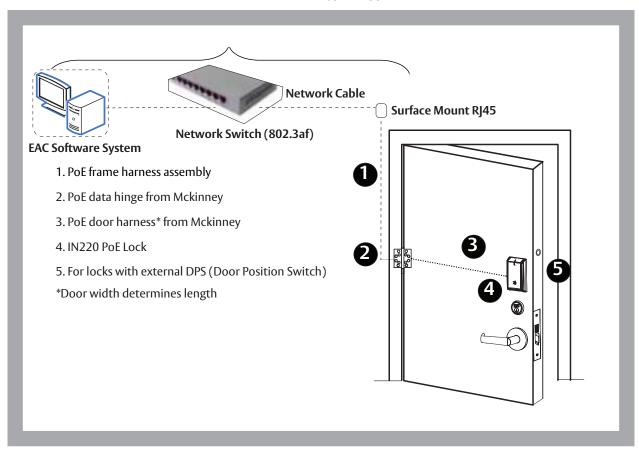


EcoFlex CLX33100

Installation Instructions

4. IN220 PoE Installation Wiring

Corbin IN220 PoE Typical Application



Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), CSA 22.1, Canadian Electrical Code (CEC), Part I, Safety Standard for Electrical Installations, local codes, and the authorities having jurisdiction.

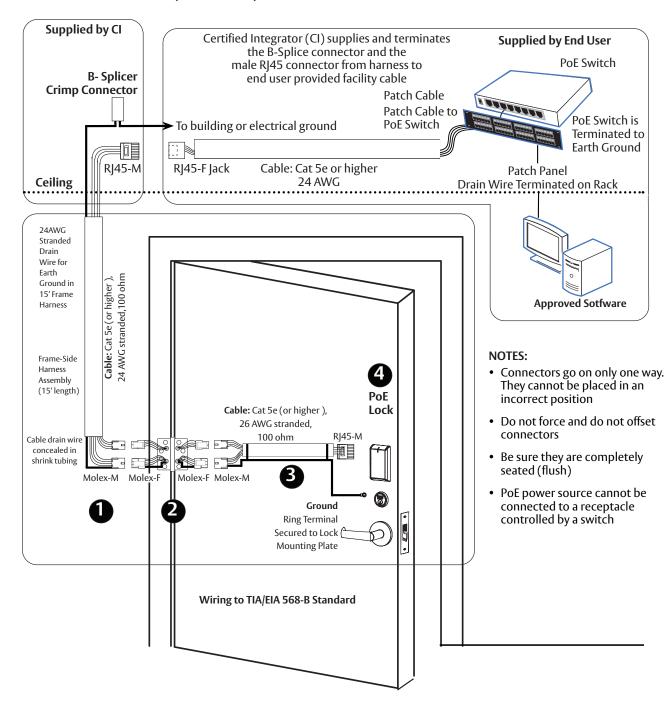
EcoFlex CLX33100

Installation Instructions



4. IN220 PoE Installation Wiring (continued)

Installation Overview (continued)



4. IN220 PoE Installation Wiring (continued)

1 Frame Harness Installation

Supplied by CI **B-Splicer** Crimp Connector RJ45-M Ceiling 24AWG Stranded Drain Wire for Earth Cable: Cat 5e (or higher), 24 AWG stranded,100 ohm Ground in 15' Frame Harness Frame-Side Harness Assembly (15' length) Cable drain wire concealed in

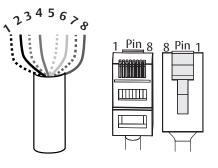
shrink tubing

Molex-M

Components and wire harness supplied by McKinney. Suggested installation:

Cut end / ceiling-side PoE harness:

TIA/EIA 568-B Standard Wiring



Pin	Wire	Pair Number
1	White/Orange	2
2	Orange	2
3	White/Green	3
4	Blue	1
5	White/Blue	1
6	Green	3
7	White/Brown	4
8	Brown	4

Do not confuse pair numbers with pin numbers. A pair number is used for reference only (eg: 10BaseT Ethernet uses pairs 2 & 3). The pin numbers indicate actual physical locations on the plug and jack.

Hinge side of PoE (Frame) harness:

- 1. Feed cut end of harness into hole on hinge-side through single access hole.
- 2. Push one connector back through the hole and feed into the other access hole.

 Each of the hinge-side harness connectors should end up threaded through a different access hole and matched to the same size pin connector from the door harness:
 - 4-pin male molex connector
 - 6-pin male molex connector with ground wire

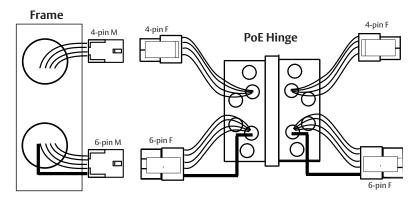
EcoFlex CLX33100

Installation Instructions



4. IN220 PoE Installation Wiring (continued)

2 PoE Data Hinge



Hinge-side harness connectors:

- 4-pin female molex connector
- 6-pin female molex connector with ground wire

Lock-side harness connectors:

- 4-pin female molex connector
- 6-pin female molex connector with ground wire

3 PoE Door Harness

Order of installation may vary. Refer to appropriate sections for instructions. **Hinge-side harness connectors:**

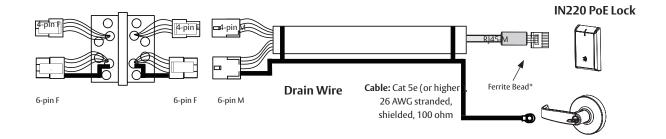
- 4-pin male molex connector
- · 6-pin male molex connector with ground wire

Lock-side harness connectors:

- · Ring terminal
- Male R|45 connector (Crimped after cable is fed through door)

NOTES:

- Connectors go on only one way. They cannot be plugged to incorrect position
- Do not force and do not offset connectors
- Be sure they are completely seated (flush)





EcoFlex CLX33100

Installation Instructions

4. IN220 PoE Installation Wiring (continued)

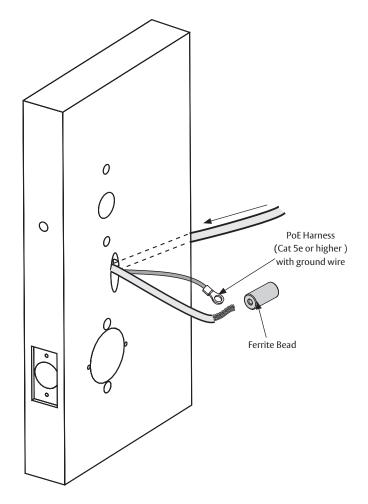
4 PoE Lock

Order of installation may vary. Refer to appropriate sections for instructions.

- 1. Prop door open.
- 2. Using the ring terminal, carefully route the assembly through the door channel toward lock.

IMPORTANT: DO NOT TERMINATE POE HARNESS (WITH RJ45 M) UNTIL CABLE HAS BEEN ROUTED THROUGH DOOR AND INSIDE MOUNTING PLATE ASSEMBLY.

See Section 6.3, Installation of Connectors.



Installation Instructions



"RHRB"

Lock Installation

1. Prepare Door

Illustrations shown are as viewed from outside or secure side of opening. (Figure 5-1A)

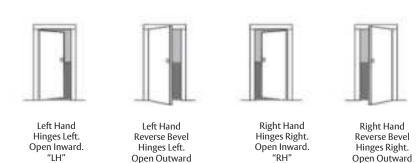


Figure 5-1A

"LHRB"

A. Verify Hand and Bevel of Door

- Check hand of door. (Stand on outside of locked door when determining door hand).
- · Door should be fitted and hung.
- B. Verify exit device is correct hand for door.
- C. Verify Product Label
- D. Door Preparation: mark and drill door

If mullion is used, install prior to installing hardware.

Prior to installation, all holes must be free of burrs, debris, and sharp edges.

Prepare door according to appropriate template (www.corbinrusswin.com)

- Field Template (ships with product): FM569
- Door manufacturer template: T31203

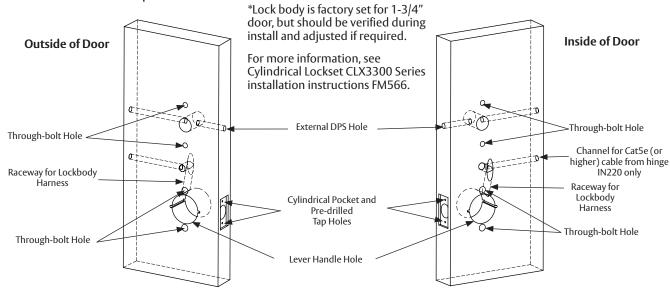


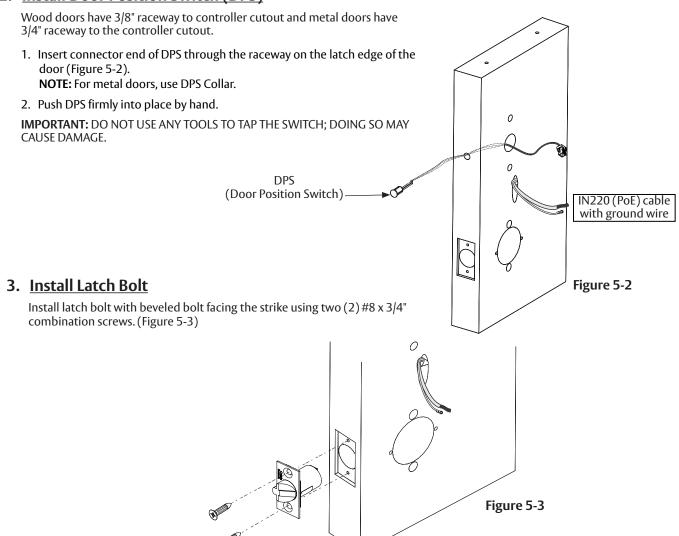
Figure 5-1B Wood Door Preparation

EcoFlex CLX33100

Installation Instructions

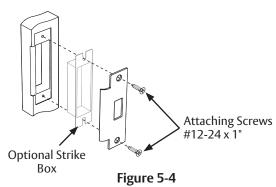
5. Lock Installation (continued)

2. Install Door Position Switch (DPS)



4. <u>Install Strike Plate</u>

Install strike plate using two (2) #12-24 x 1" combination screws. (Figure 5-4)



EcoFlex CLX33100

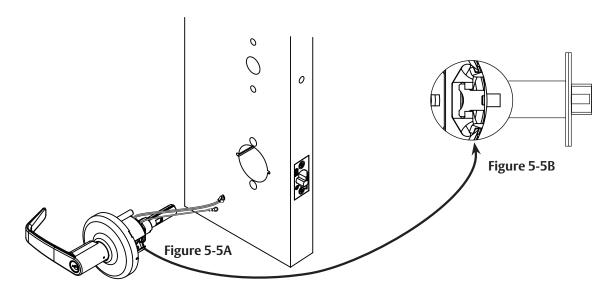
Installation Instructions



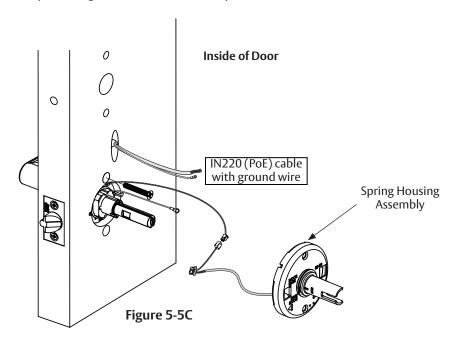
5. Lock Installation (continued)

5. Install Lockbody

- 1. Feed lock body and wire through 2-1/8" diameter hole from outside of door (Figure 5-5A). Be sure latch engages lockbody as shown (Figure 5-5B).
- 2. Connect 4-pin connector from lock body to 4-pin on cassette. (Figure 5-5C)



3. Temporarily install top throughbolt to hold chassis in door. (Figure 5-5C) **IMPORTANT:** Door must remain open during installation. Use door stop.





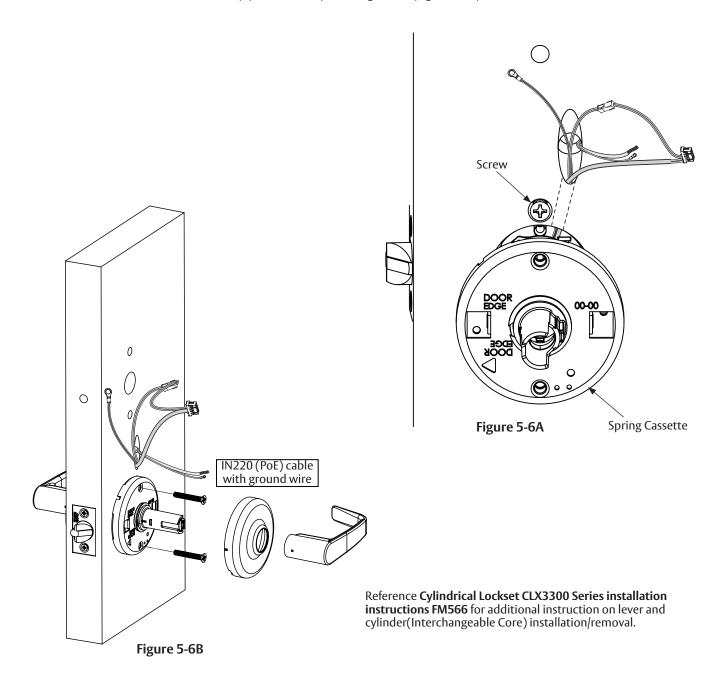
EcoFlex CLX33100

Installation Instructions

5. Lock Installation (continued)

6. Install Inside Spring Housing Assembly

- 1. Feed harness wires and ground wire up through raceway. (Figure 5-6A).
- 2. Remove screw from previous step.
- 3. Slide on cassette and secure with (2) #12-24 x 1-1/2" through-bolts (Figure 5-6B) and then install rose and lever.



EcoFlex CLX33100

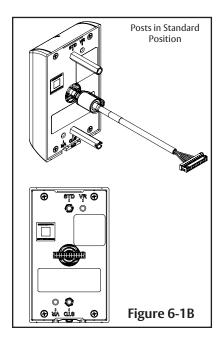
Installation Instructions

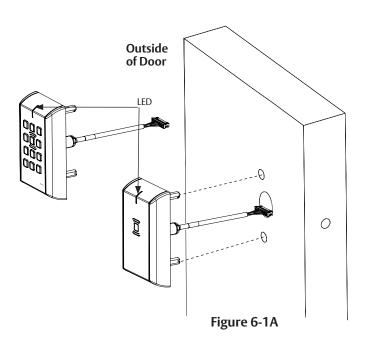


6. IN120/220 Installation

1. Outside Reader Installation

- 1. Orient reader so LED lens is at the top.
- 2. Feed the cable/connector through the door (from outside to inside).
- 3. Install reader to the outside of the door by aligning mounting posts with the door preparation holes. Hold reader flush against door while ensuring proper alignment.





Note: Cable lengths exaggerated for illustrative purposes.

6. IN120/220 Installation (continued)

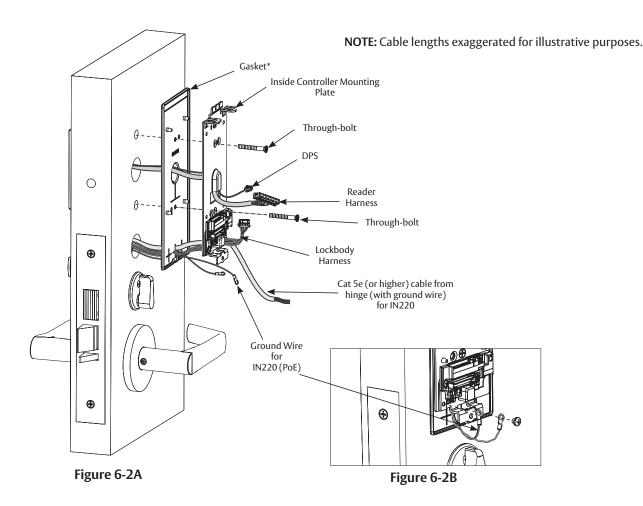
2. Inside Mounting Plate Installation

- 1. Feed cables/connectors through the inside controller mounting plate assembly (and gasket if required*).
- **IMPORTANT:** Door must remain open during installation. Use door stop.
- 2. Tuck excess cable into wire hole on inside of door.
- 3. Insert and partially tighten two (2) through-bolts prior to installation of connectors.
- 4. Secure ground lug(s) with #6-32 machine screw. (Figure 6-2A)

*Gasket is required for outdoor installations.

NOTE: Do not use gasket for fire-rated openings.

NOTE: If installing with gasket, separate gasket from controller mounting plate to feed cables/connectors through holes as indicated (Figure 6-2B). Once cables/connectors are fed through, reattach gasket to controller mounting plate.



Installation Instructions



NO WIRES THRU THIS

OPENING

6. IN120/220 Installation (continued)

3. Installation of Connectors

CAUTION:

- Do not touch or allow debris to enter connector contacts
- Ensure connectors are covered with silicone dielectric compound (grease)*
- 1. Snip end of packet to dispense grease.
- 2. Ensure all connector pins and contacts (Figure 6-3A) are covered. (Do not overfill or over-apply**)
 - *Supplied tube contains 5 grams of silicone dielectric compound (grease)
 - *Evenly distribute grease; full application requires approximately 2.5 grams

IMPORTANT: Do not run wires through bottom flange hole in plate - it will damage wires and controller connector. Route wires around flange (See Figures 6-3A - 6-3B).

- 3. Secure the following connectors (Figure 6-3B, Figure 6-3C).
 - A. Secure the 4-pin DPS connector.
 - B. Secure the 10-pin lock body assembly connector.
- 4. Secure mounting plate
 - Tuck excess cable into wire hole on inside of door
 - Secure the mounting assembly while ensuring proper alignment of outside reader and fully tighten the (2) through-bolts on the inside of the door to se cure the reader and plate to the door
 - C. Secure the 24-pincard reader connector. (Figure 6-3B, Figure 6-3C)
 - D. Ensure all openings on back of secured reader connector are covered completely with grease. (Figure 6-3C)

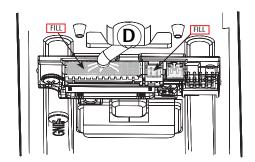


Figure 6-3C



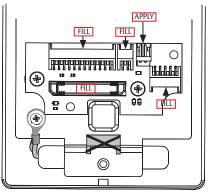
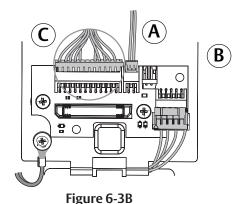


Figure 6-3A



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EcoFlex CLX33100

Installation Instructions

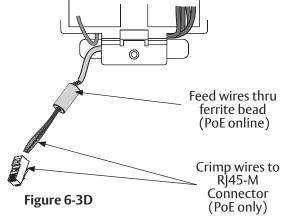
IN120/220 Installation (continued)

If installing IN220 (PoE)*

- 1. Strip Ethernet cable jacket (3) inches.
- 2. Seperate (untwist) and straighten (8) Ethernet wires before carefully feeding through ferrite bead (Figure 6-3D).
- 3. Crimp RJ45 (male) connector on end of wires.

*For more detail, refer to Section 4 IN220 PoE Installation Wiring

"1 - Frame Harness Installation".



4. Installing the Controller

CAUTION:

- · Do not touch or allow debris to enter connector contacts
- Ensure connectors are covered with silicone dielectric compound (grease)*
- 1. Insert bottom tab of controller (ensure a clear path) into slot on mounting plate (Figure 6-4D, Figure 6-4E).
- 2. Ensure proper alignment of board-to-board connectors (Figure 6-4E) while pivoting controller toward door until two tabs on top click securely into place on mounting plate. (Figure 6-4D)

CAUTION: To avoid possible damage to board-to-board connectors, care should be taken when securing controller to mounting plate. If there is resistance when securing, detach controller to determine cause before re-attaching controller.

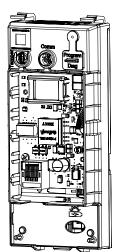
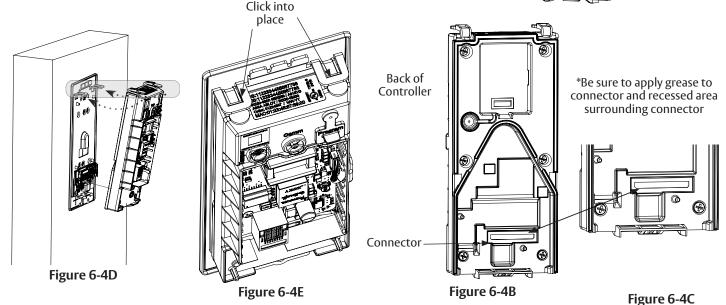


Figure 6-4A



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Installation Instructions



IN120/220 Installation (continued)

5. Supplying Power to the Controller

NOTE: Before inserting PoE plug into connector, apply dielectric grease to top of plug, covering the pin area. (Figure 6-5A)

A. IN220 (PoE)

- Once controller is securely in place, connect RJ45 male connector to female RJ45 port on controller board. (Figure 6-5A)
- 2. If power is enabled, LED will flash, and lock motor will cycle.

B. IN120 (WiFi)

- 1. Once controller is securely in place, place (6) "AA" alkaline batteries in the compartment, being careful to align polarity properly. (Figure 6-5B)
- 2. After batteries are installed, there is a slight delay; LED will flash and the lock motor will cycle.

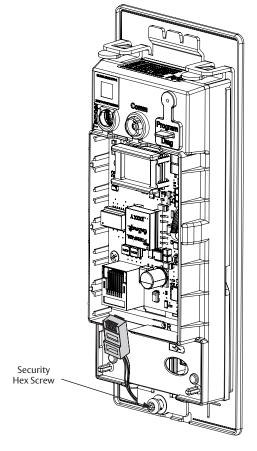


Figure 6-5A

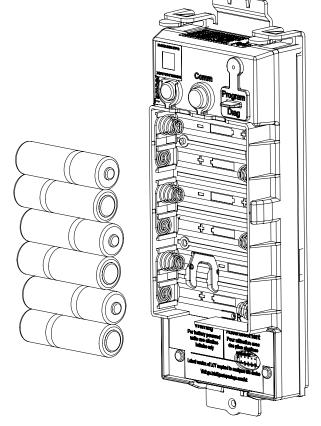


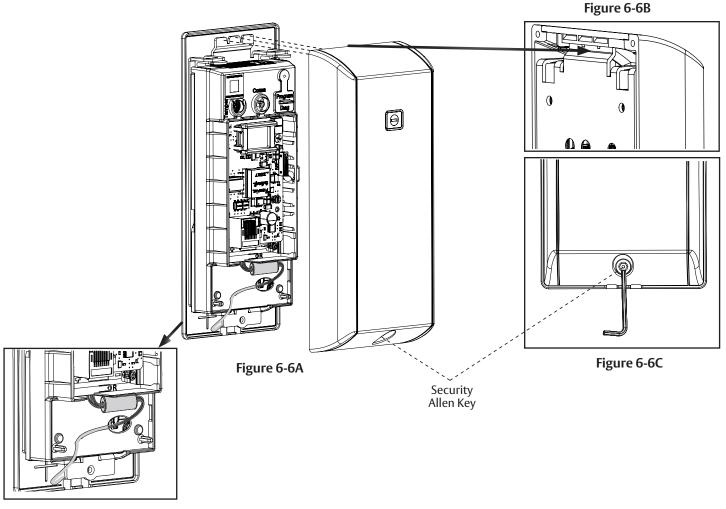
Figure 6-5B

6. IN120/220 Installation (continued)

6. Inside Cover Installation

- 1. Assemble cover by hooking top edge on inside mounting plate taking care not to pinch gasket (top edge goes between plate and gasket). (Figure 6-6A)
- 2. Carefully press bottom of cover toward door without pinching any wires.
- 3. Secure the cover with a Security Allen key. (Figure 6-6A)

NOTE: Use of power tools on this step is strongly discouraged. Over-torquing security pin hex screw will result in battery cover damage.



EcoFlex CLX33100

Installation Instructions



7. Operational Check

When lock is fully installed, perform the following steps:

IMPORTANT: Be sure to test functions prior to closing door.

- 1. Insert key into cylinder and rotate. There should be no friction against lock case, wire harness or any other obstructions.
- 2. Check that the key retracts the latch; the key should rotate freely.
- 3. Throw the deadbolt (if present); check that the key retracts both the deadbolt and the latch.
- 4. Try the inside lever; ensure it retracts latch (if installed).
- 5. Use a valid credential* set up with the Lock Configuration Tool to unlock outside lever and retract latch.

Refer to Network and Lock Configuration Tool user manual (WFMN1) for information on how to configure and program locks.

*Twenty (20) seconds after lock initialization (single beep with lock motor actuation).

NOTE: The credential should approach the inscription on the reader as indicated to ensure that the credential is read properly. Do not wave credential.

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In all cases, perform the following checks:

- For units without a keypad, add card using LCT software* and test.
- For units with a keypad, add pin and card using LCT software* and test.

LED signalling:

- After using a valid credential, a green flash followed by motor unlock indicates normal operation (lock unlocks)
- After using a valid credential, a green flash followed by 4 beeps and 4 fast purple flashes indicates low power. Check the input
 voltage.
- If the input voltage is low, disconnect lock from power source and check power source voltage. If power source voltage is correct, inspect lock wiring for a possible short.
- If the lock loses power, it will rapidly flash blue for approximately one minute. Lock will default to programmed fail safe or fail secure.
- After that, the lock will no longer be functional.
- When you have completed the tests, close the door, ensuring latchbolt fully extends into strike plate without binding.

*Refer to Lock Configuration Tool user manual (WFMN1) for information on how to configure and program locks.

The ASSA ABLOY Group is the global leader in access solutions. Every day, we help billions of people experience a more open world.

ASSA ABLOY Opening Solutions leads the development within door openings and products for access solutions in homes, businesses and institutions. Our offering includes doors, frames, door and window hardware, mechanical and smart locks, access control and service.

