

IN120 Wi-Fi **IN220 PoE** **PED5000 Series Exit Devices**

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.

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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.

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/récepteurs exemptés de licence conformes aux RSS d'Innovation, Sciences et Développement 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 à 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.



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.

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

2 Regulatory and Power Specifications

Electronic Authentication Specifications (Mobile Credentials)

For Mobile Credential-Enabled versions of this electronic lock (Indicated by the credential code in the product order string):

- 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 available from Apple iStore or Android PlayStore.

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 UL 294/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 Indoor Use
- CUL Listed - ULC-60839-11-1, Grade 1
- UL 294 Access Control Ratings:

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

Power Supply Specifications

IN120 (Wi-Fi 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, 300mA
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

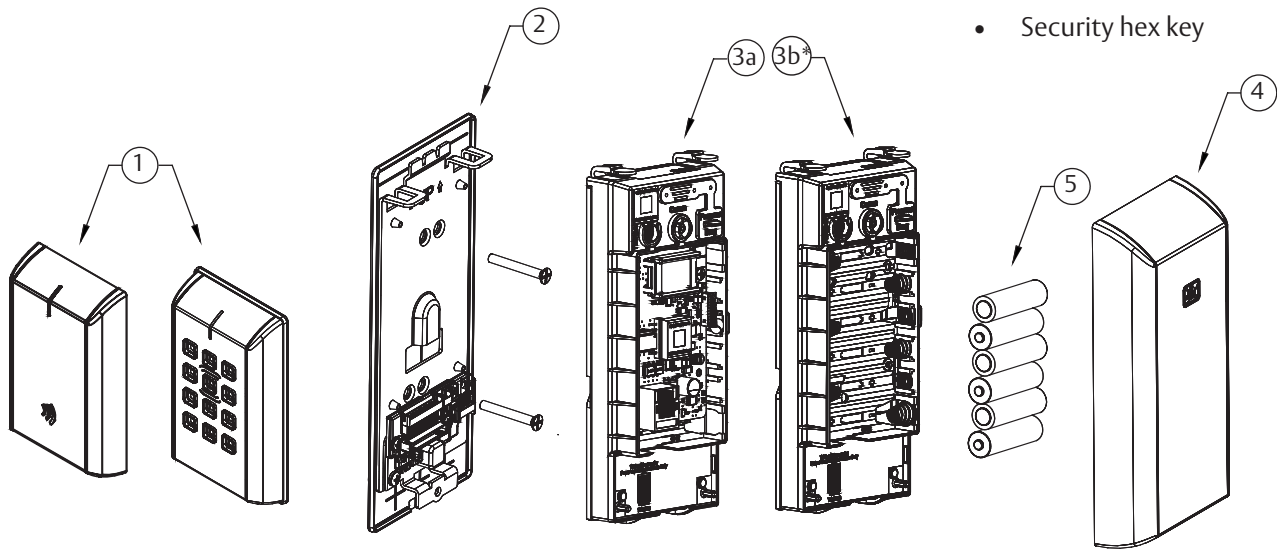
Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), CSA 22.1, Canadian Electrical Code (CEC), Part I, Safety Standard for Electrical Installations, local codes and the authorities having jurisdiction.

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

3 **Parts Illustrations IN120/IN220**

Tools Required:

- #2 Phillips screwdriver
- Flat head screwdriver
- Security hex key

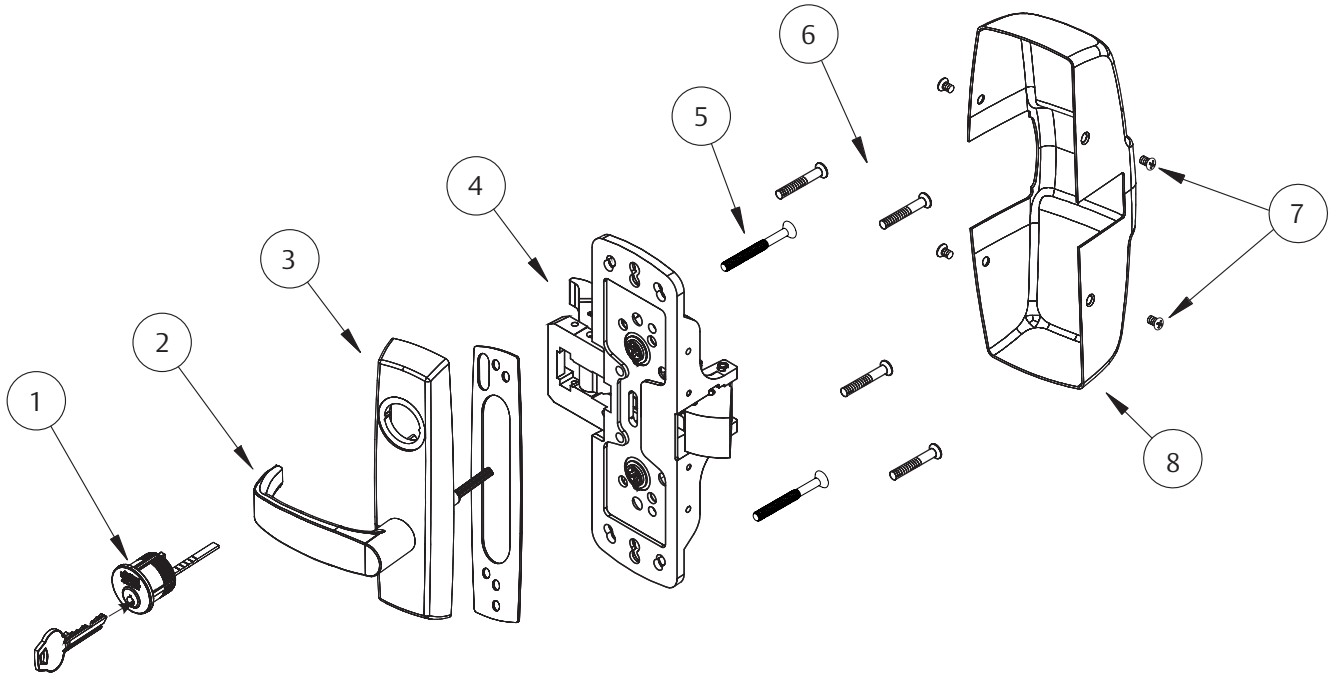


ITEM No.	DESCRIPTION
1	Outside Escutcheon Assembly
2	Inside Mounting Plate Assembly (includes Gasket)
3a	PoE Controller Assembly
3b	Wi-Fi Controller Assembly* (batteries included)
4	Inside Escutcheon Assembly with Privacy Button
5	AA alkaline batteries (6)

See Parts Manual FM644 for part numbers

3 Parts Illustrations PED5200 Rim Exit Device

33 / 34 Function x Trim x Lever Design

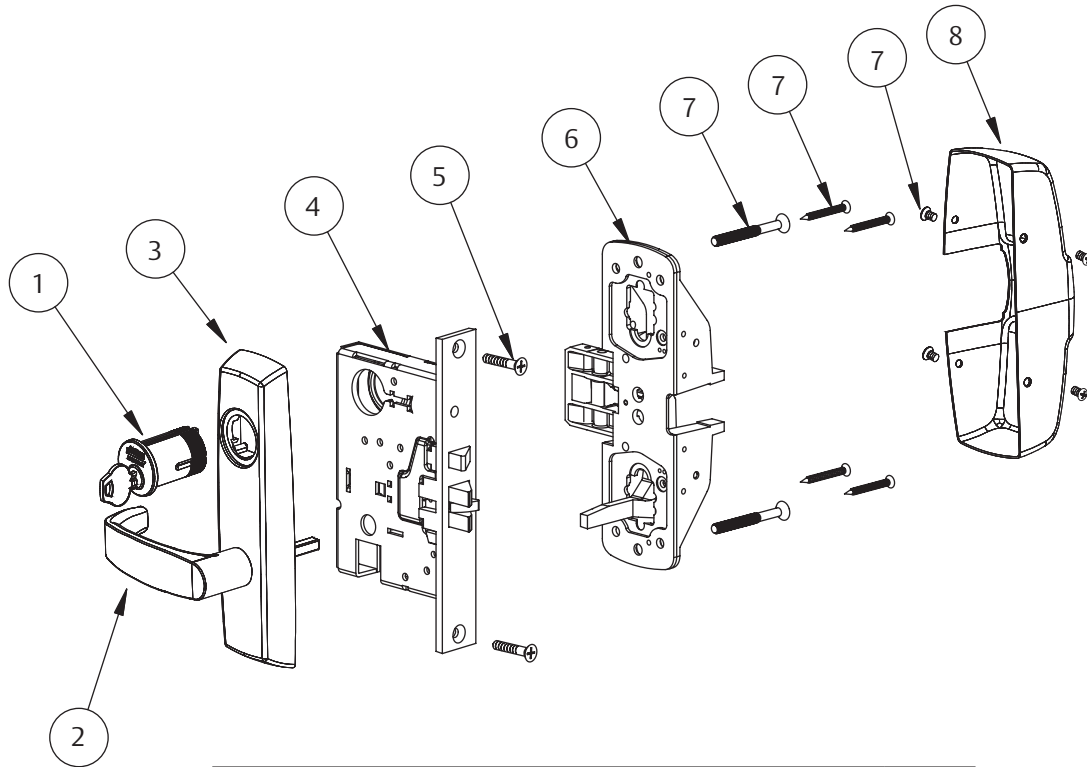


ITEM	DESCRIPTION	REQ'D
1	Cylinder Assembly (Reference Catalog for Available Cylinders)	1
2	Lever (Reference Catalog for Available Styles)	1
3	Exit Trim With Cylinder	1
	Exit Trim Without Cylinder	
	Motor Assembly (Separate - not shown)	1
4	Chassis Assembly	1
	Chassis Assembly (Fire Rated)	
	Chassis Assembly (Latch Guarding)	
	Chassis Assembly (Fire Rated Latch Guarding)	
5	Trim Screws 1/4-20 x 2-3/8"	2
6	Chassis Screw Pack	1
	#10 x 1-1/4"	4
	#10-24 x 3/4"	4
7	Cover Screw pack	1
	#8-32 x 5/16"	2
	#8-32 x 5/8" (rail side)	2
8	Chassis Cover	1
	Chassis Cover (With Guarding)	

See Parts Manual FM644 for part numbers

3 Parts Illustrations PED5600 Mortise Exit Device

33 / 34 Function x Trim x Lever Design

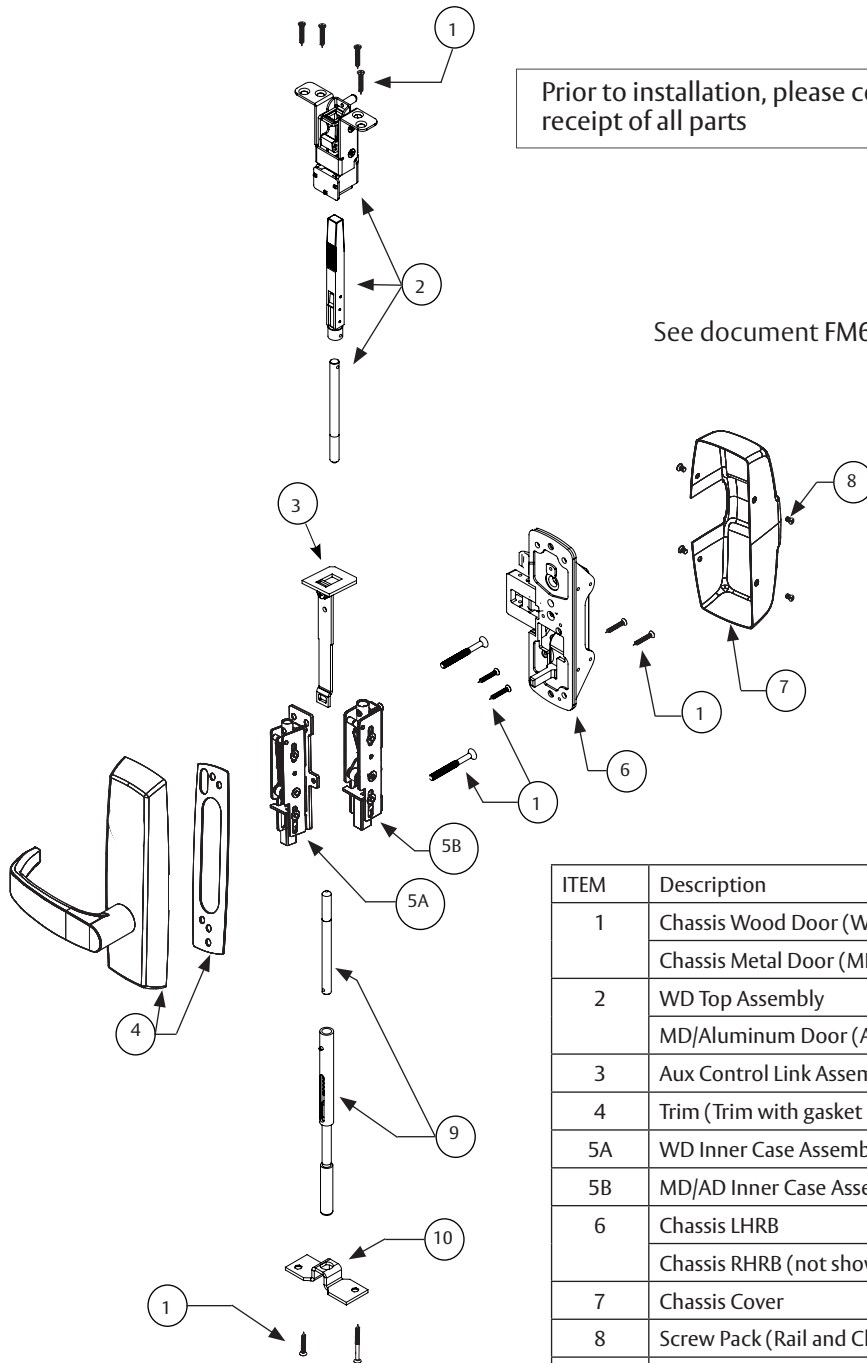


ITEM	DESCRIPTION	REQ'D
1	Cylinder Assembly (Reference Catalog for Available Cylinders)	1
2	Lever (Reference Catalog for Available Styles)	1
3	Exit Trim With Cylinder	1
	Exit Trim Without Cylinder	
	Motor Assembly (Separate - not shown)	
4	Lock Body Assembly LHR	1
	Lock Body Assembly RHR	
	Lock Body Assembly LHR (Non-Beveled Door)	
	Lock Body Assembly RHR (Non-Beveled Door)	
5	Screw Pack	1
6	Chassis Assembly LHR	1
	Chassis Assembly RHR	
7	Screw Pack	1
8	Chassis Cover	1

See Parts Manual FM644 for part numbers

3 Parts Illustrations PED5800 CVR Exit Device

**PED5800 Concealed Vertical Rod (CVR) Exit Device
33 Function**



Prior to installation, please confirm receipt of all parts

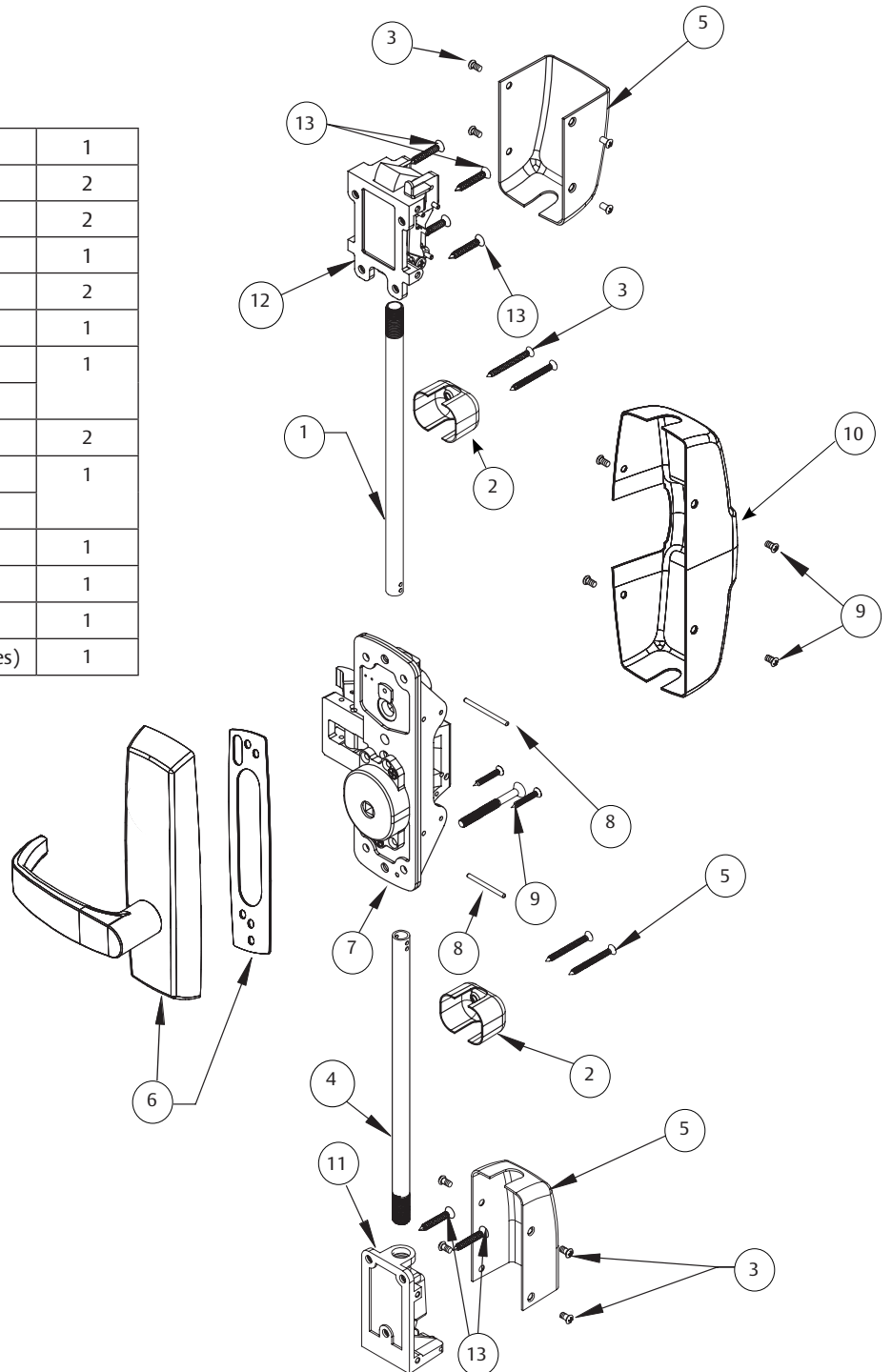
See document FM646 for part numbers

ITEM	Description	Req.
1	Chassis Wood Door (WD) Screw Pack	1
	Chassis Metal Door (MD) Screw Pack (not shown)	
2	WD Top Assembly	1
	MD/Aluminum Door (AD) Top Assembly (not shown)	
3	Aux Control Link Assembly	1
4	Trim (Trim with gasket shown)	
5A	WD Inner Case Assembly	1
5B	MD/AD Inner Case Assembly	1
6	Chassis LHRB	1
	Chassis RHRB (not shown)	
7	Chassis Cover	1
8	Screw Pack (Rail and Chassis Cover)	1
9	Bottom Bolt	1
10	Bottom Plate	1

3 **Parts Illustrations PED5400 SVR Exit Device**

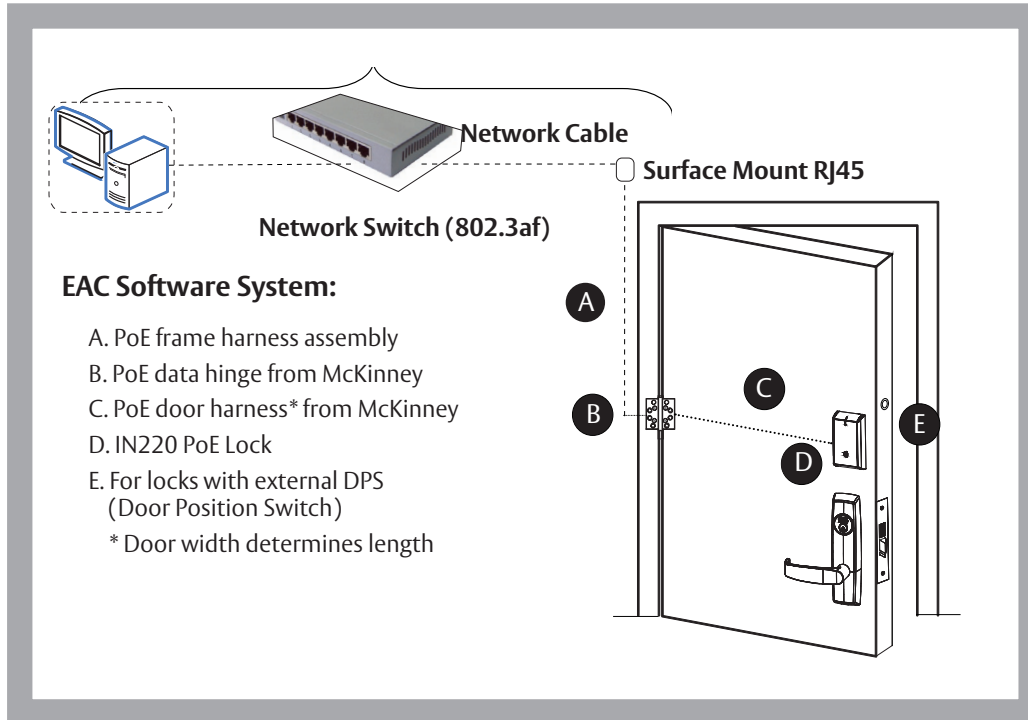
PED5400 Surface Vertical Rod (SVR) Exit Device
33 Function

1	Top Rod (consult factory)	1
2	Guide for Rod	2
3	Screw Pack for Guide and Covers	2
4	Bottom Rod (consult factory)	1
5	Case Assembly Cover	2
6	Trim (Trim with gasket shown)	1
7	Chassis Assembly LHRB	1
	Chassis Assembly RHRB	
8	Rod Adjustment Pin	2
9	Screw Pack "B"	1
	Screw Pack "A"	
10	Chassis Cover	1
11	Bottom Case Assembly	1
12	Top Case Assembly	1
13	Screw Pack (Top and Bottom Cases)	1



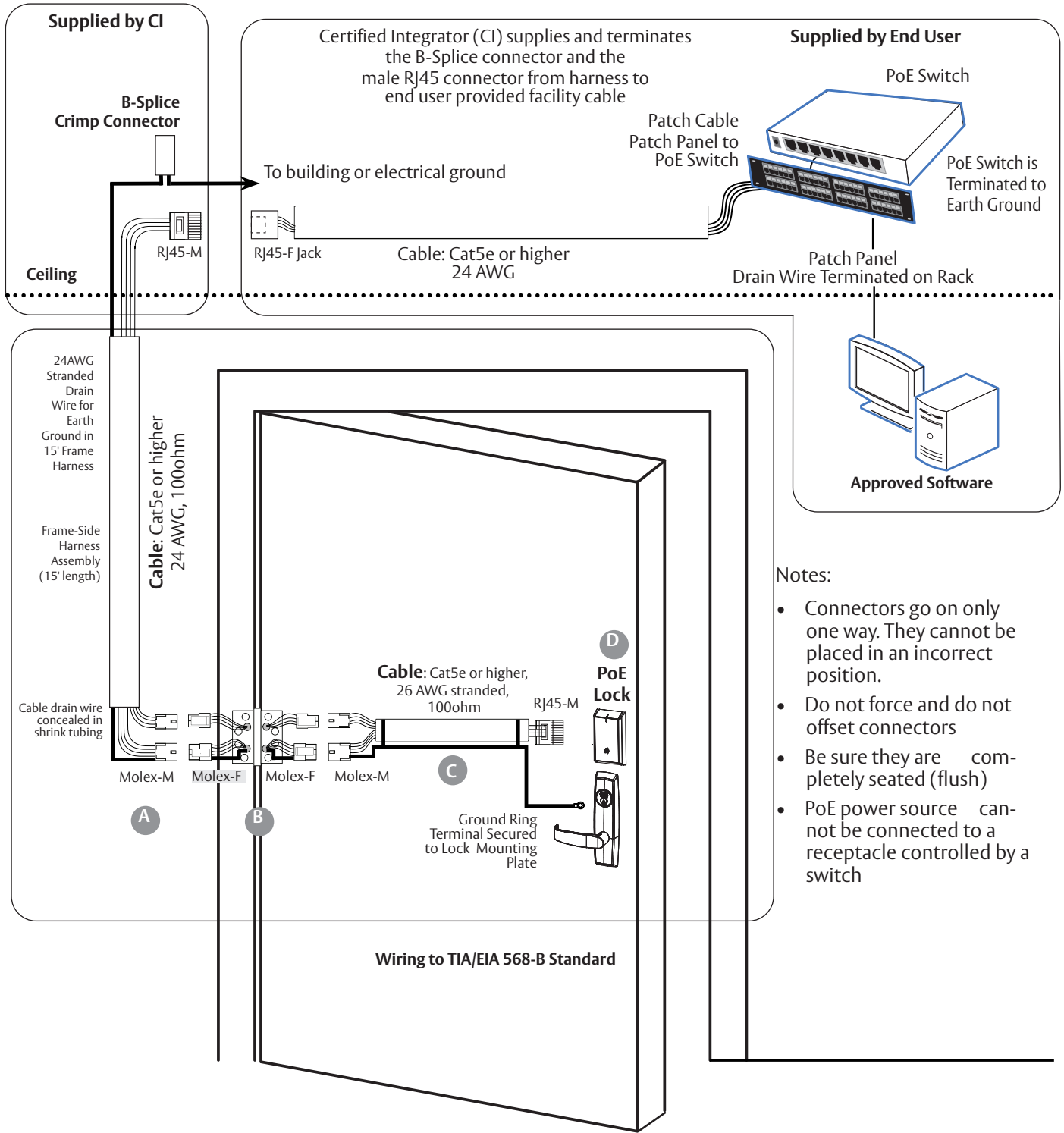
Overview

Corbin Russwin IN220 PoE Typical Application



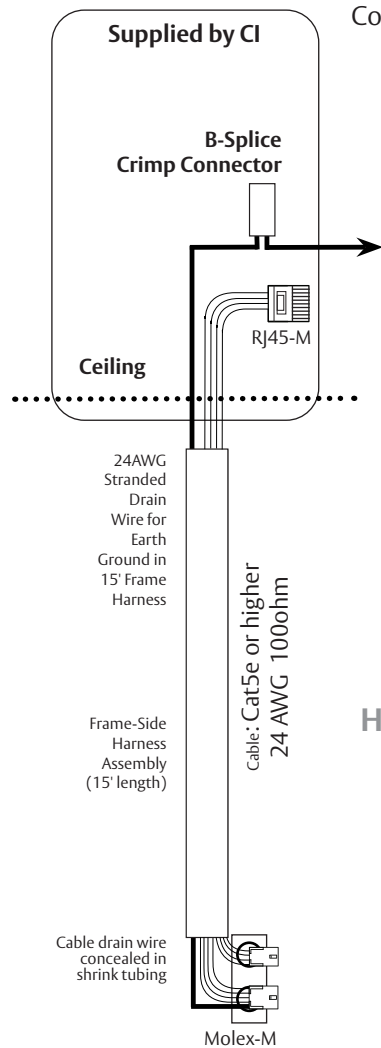
"Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), CSA 22.1, Canadian Electrical Code (CEC), Part I, Safety Standard for Electrical Installations, local codes, and the authorities having jurisdiction."

4 IN220 (PoE) Installation Wiring (Continued)



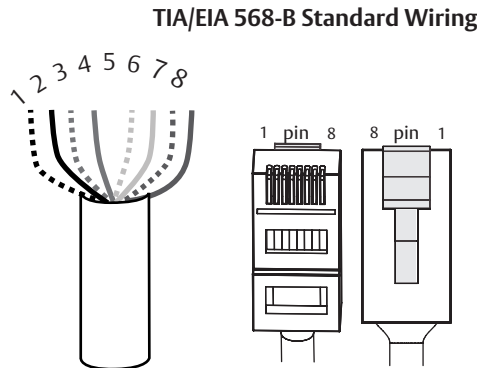
4 IN220 (PoE) Installation Wiring (Continued)

A Frame Harness Installation



Components and wire harness supplied by McKinney. Suggested installation:

Cut end / ceiling-side PoE harness:



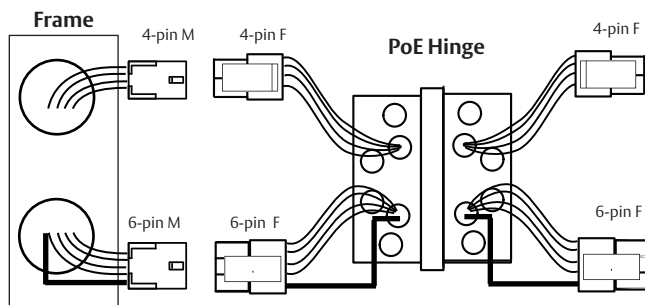
PIN	Wire	Pair Number
1	White/Orange	2
2	Orange	2
3	White/Green	3
4	Blue	1
5	White/Blue	1
6	Green	3
7	White/Brown	4
8	Brown	4

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

B 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

4 IN220 (PoE) Installation Wiring (Continued)

C PoE Door Harness

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

Hinge-side harness connectors:

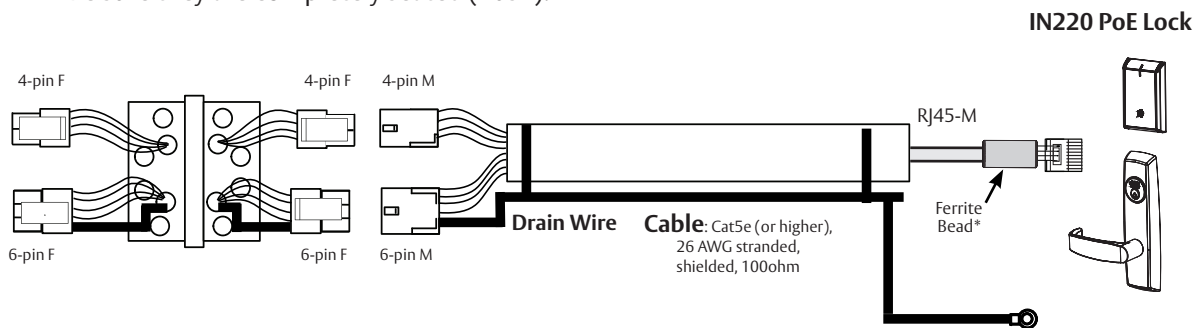
- 4-pin male Molex connector
- 6-pin male Molex connector with ground wire

Lock-side harness connectors:

- Ring terminal
- Male RJ45 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).

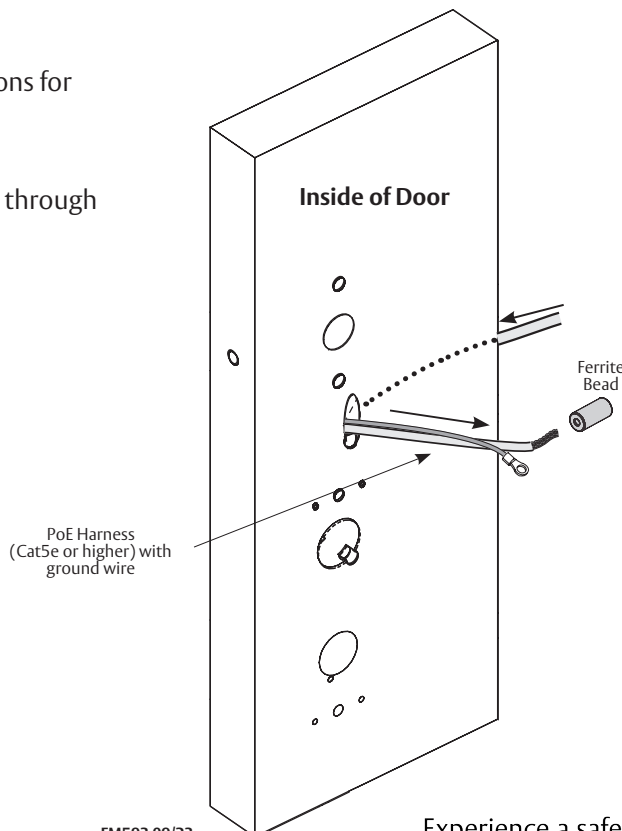


D PoE Lock

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.

***Do not terminate PoE harness (with RJ45 M) until cable has been routed through door and inside mounting plate assembly. See Section 7, STEP 3 - Installation of Connectors**



5 Installation Instructions PED5200 Rim Exit Device

1 Prepare Door

A. Verify Hand and Bevel of Door

- Check hand of door.
The exit device is non-handed and the trim is field reversible.
- Door should be fitted and hung.

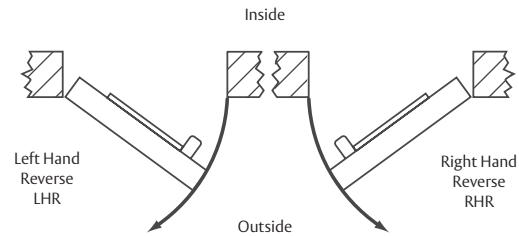


Fig. 1A

B. Verify Product Label

C. Door Preparation

Prior to installation, all holes must be free of burrs, debris and sharp edges.
Prepare door according to appropriate template (see website).

- Field Template (ships with product): **MEFT18** (MEFT26 for EA option)
- Door Manufacturer's Template(online): **MEDT53**
- Exit Device Installation Instructions: **FM577**

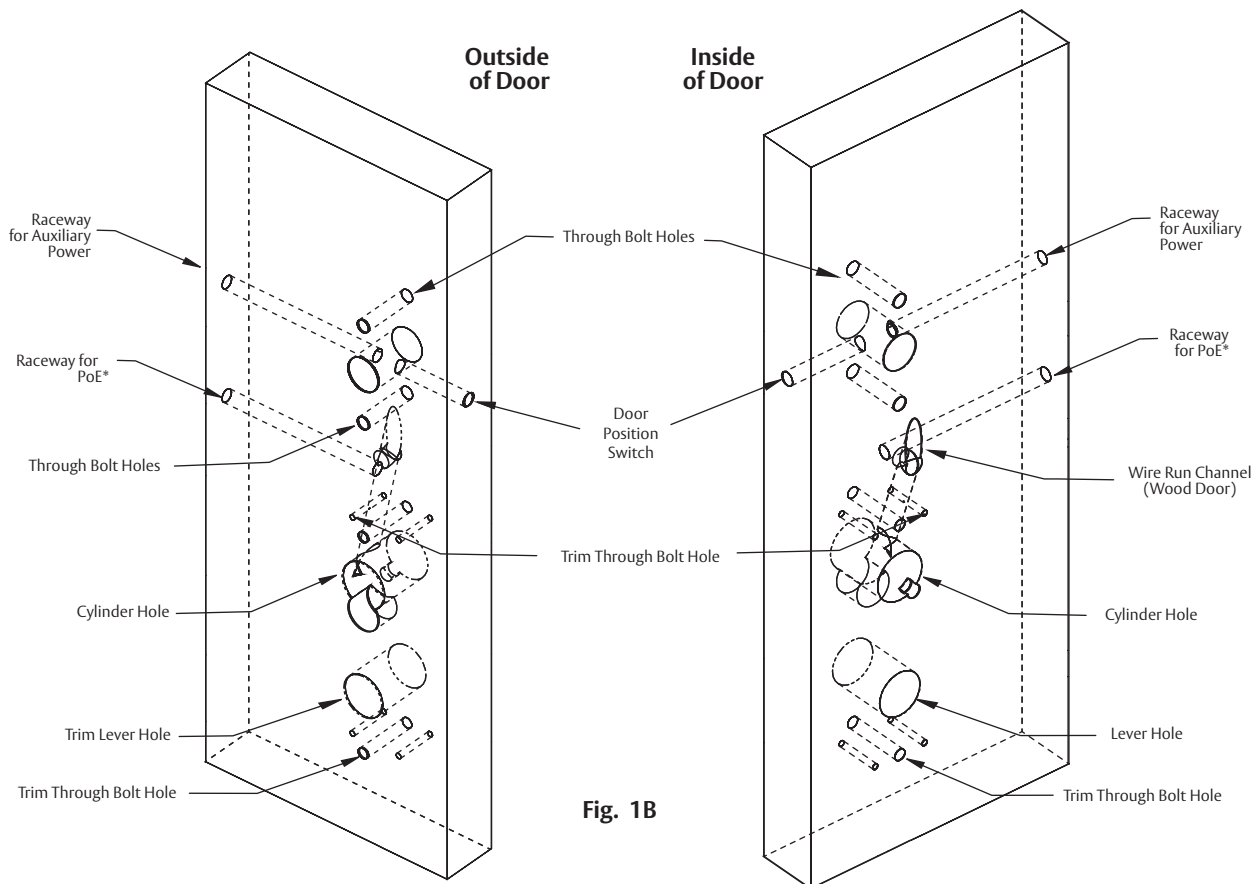


Fig. 1B

Fig. 1B Wood Door Preparation

***IN220 (PoE) Wiring and Installation See Section 4**

5 Installation Instructions PED5200 Rim Exit Device

2 Install Door Position Switch (DPS)

NOTE: Wood doors have 3/8" raceway to controller cutout and metal doors have 3/4" raceway to the controller cutout.

Refer to template (online): **MEFT18** (**MEFT26** for EA option)

1. Insert connector end of DPS through the raceway on the latch edge of the door (Fig. 2A).

Note: For metal doors, use DPS Collar.

2. Push DPS firmly into place by hand.

IMPORTANT: DO NOT TAP SWITCH WITH ANY TOOL.

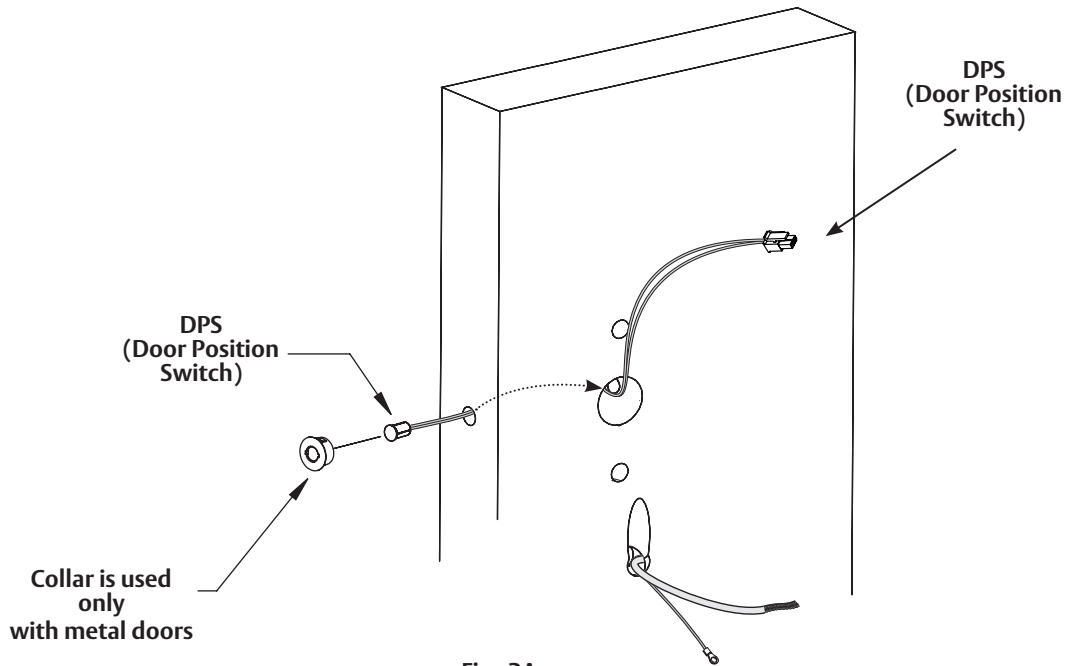


Fig. 2A

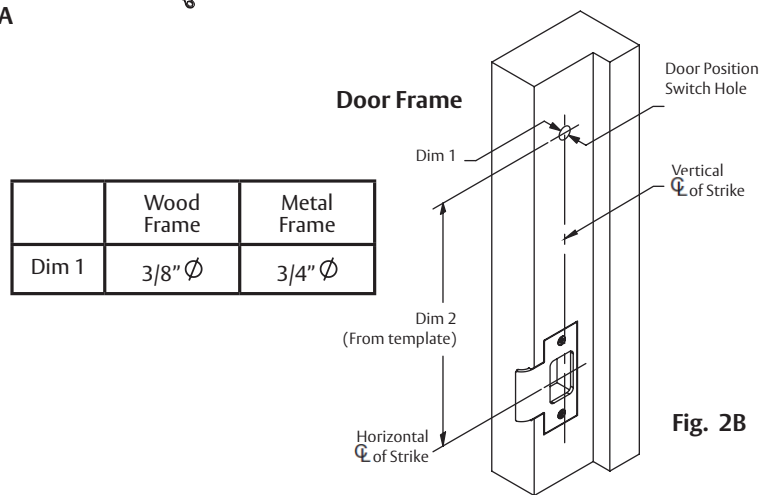


Fig. 2B

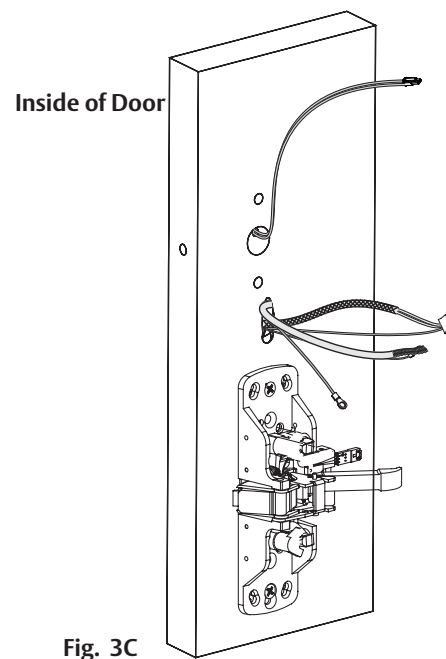
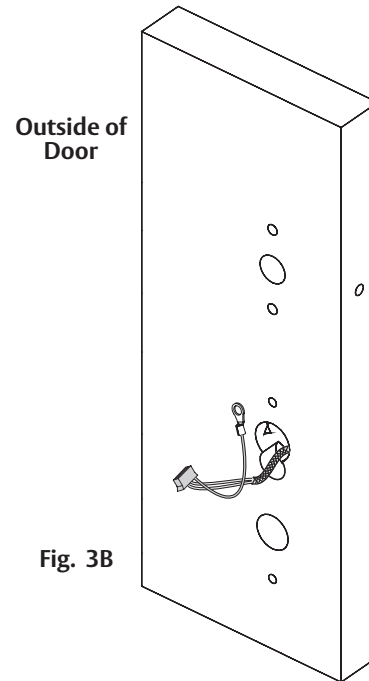
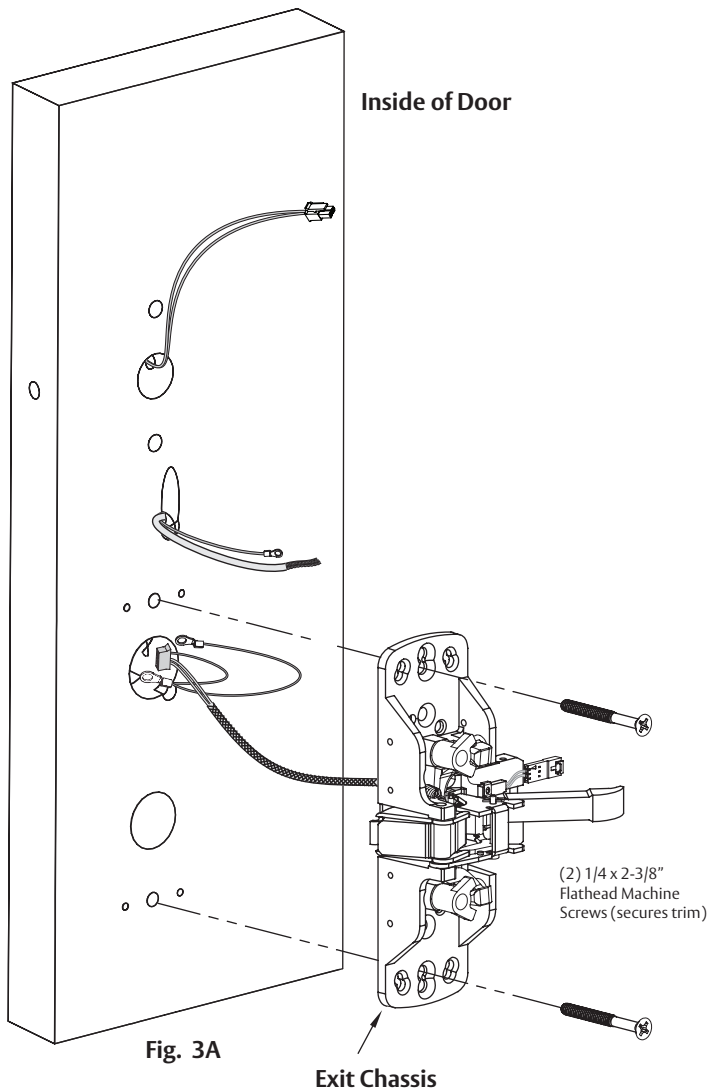
3 Mount Exit Device Chassis

NOTE: Exit chassis harness consists of a 6-pin female connector and two (2) different-sized ground wire terminals (Fig. 3A)

1. Feed 6-pin connector and larger ground lug straight through to outside of door (Fig. 3A, B) while feeding smaller ground lug into wire hole, up through wire channel and out through inside of door (Fig. 3C).

DO NOT PINCH THE WIRE HARNESS.

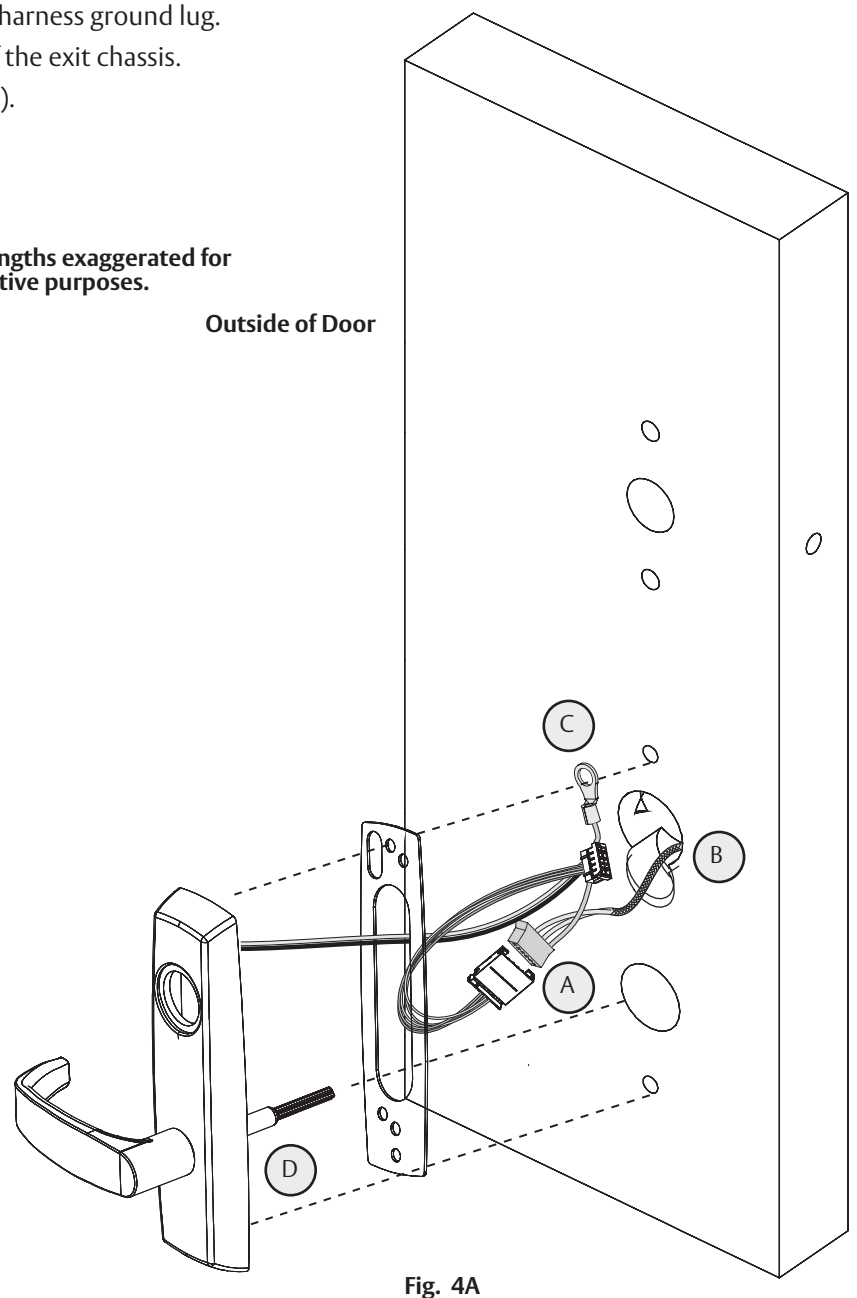
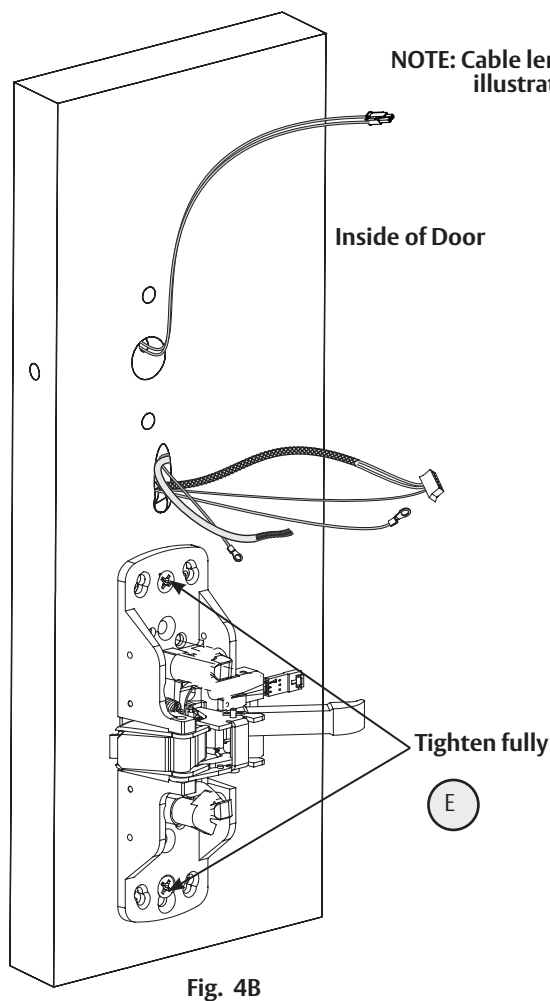
2. Begin to secure the exit chassis with through bolts to the trim using (2) 1/4 -20 x 2-3/8" flat head machine screws.



4 Mount Exit Trim

NOTE: For exterior applications, use trim gasket (869F629 for 800PT Series trim or 869F639 for 900PT Series trim) to seal between trim escutcheon and outside door surface.

- A. Connect motor harness adapter to chassis harness connector (Fig. 4A).
- B. For wood doors: Route trim wire harness connector through the cylinder hole, up and through the wire run channel to the controller cutout.
 For metal doors: Route trim wire harness through the cylinder hole out the controller cutout.
- C. Pass top trim mounting post through chassis harness ground lug.
- D. Ensure trim spindle engages the lower hub of the exit chassis.
- E. Fully tighten (2) chassis through bolts (Fig. 4B).



5 Install Rim Exit Cylinder

For devices without cylinder, go to Step 6.

1. While installing the rim cylinder, support the tail piece of the cylinder, verifying its engagement with the top hub of the exit chassis.

Note: Be sure 800PT / 900PT trim harness is clear of cylinder and tailpiece.

2. Secure the cylinder by through-bolting the cylinder through the exit chassis using (2) #12-24 x 1-7/8" connecting screws (see Fig. 6).
3. Verify that the key retracts latchbolt.

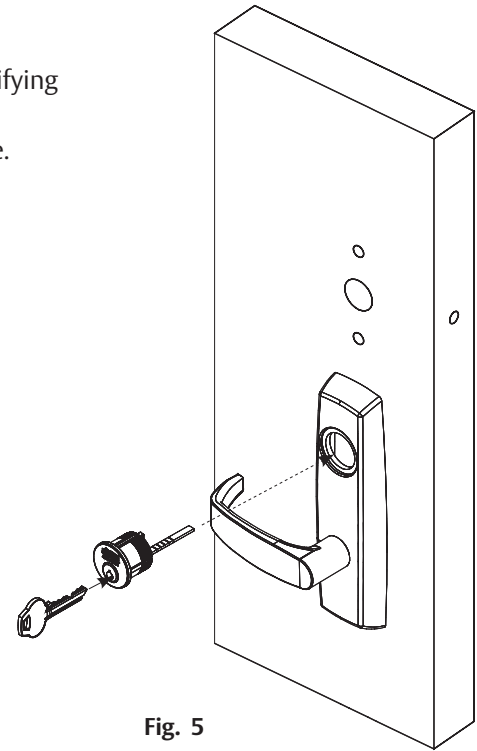


Fig. 5

6 Secure Exit Chassis

To comply with UL certifications and for security:

Fasten exit chassis to door using (4) #10 wood screws (for wood door) or (4) #10-24 machine screws (for metal door).

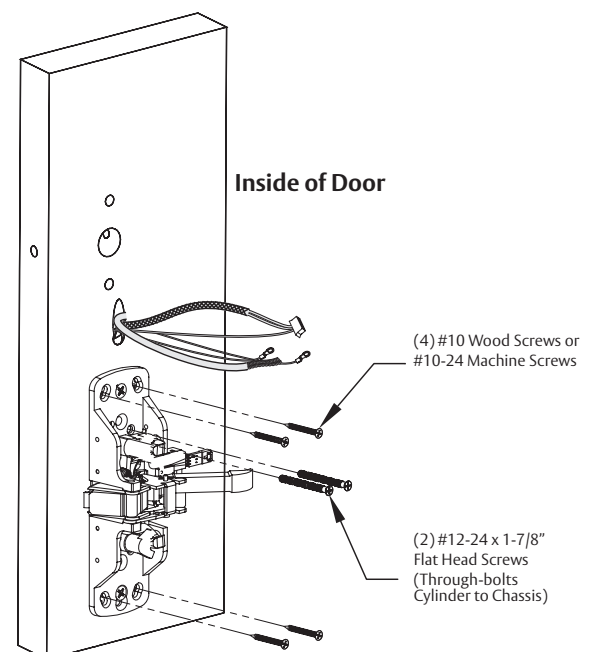


Fig. 6

7 Install Rail Assembly (Figure 7)

- a. Retrieve harness from end of rail. Harness has limited travel and can be damaged.
- b. Attach harness to female connector on chassis.
- c. Install rail and tighten chassis, trim, and cylinder screws.
Attach end bracket per exit device instructions.
- d. Secure chassis cover to chassis using four (2) #8-32 x 5/16" and
(2) #8-32 x 5/8" (rail side) oval head machine screws.

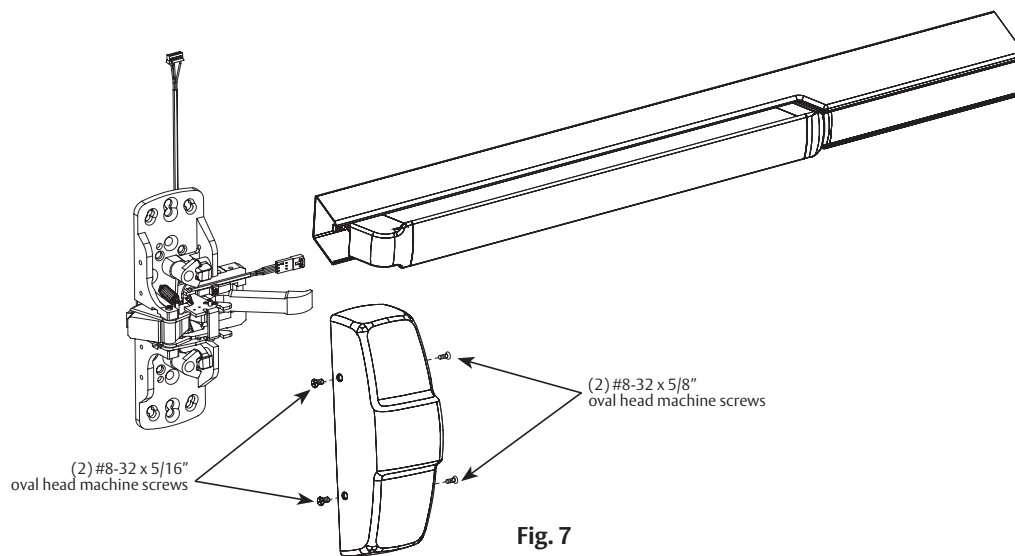


Fig. 7

Important Note:
IN120/220 Rim Exit Installation Continues With Section 9

6 Installation Instructions PED5600 Mortise Exit Device

1 Door Preparation

A. Verify Hand and Bevel of Door

- Check hand of door.
This exit device is handed and is not reversible.
- Door should be fitted and hung.

B. Verify Product Label

C. Prepare Door

1. If using a mullion, install it prior to installing hardware.
2. Doors should be pre-prepped (recommended).
3. Prepare door according to appropriate template:
 - Field template (ships with product): **MEFT18**
 - Door manufacturers template (online): **MEDT54**
 - Exit Device Installation Instructions: **M580**

Note: Instruction examples show wood door installation.
For metal doors, route cables inside door.

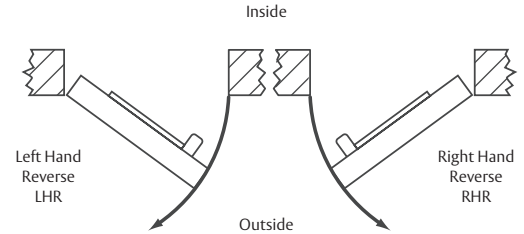


Fig. 1A

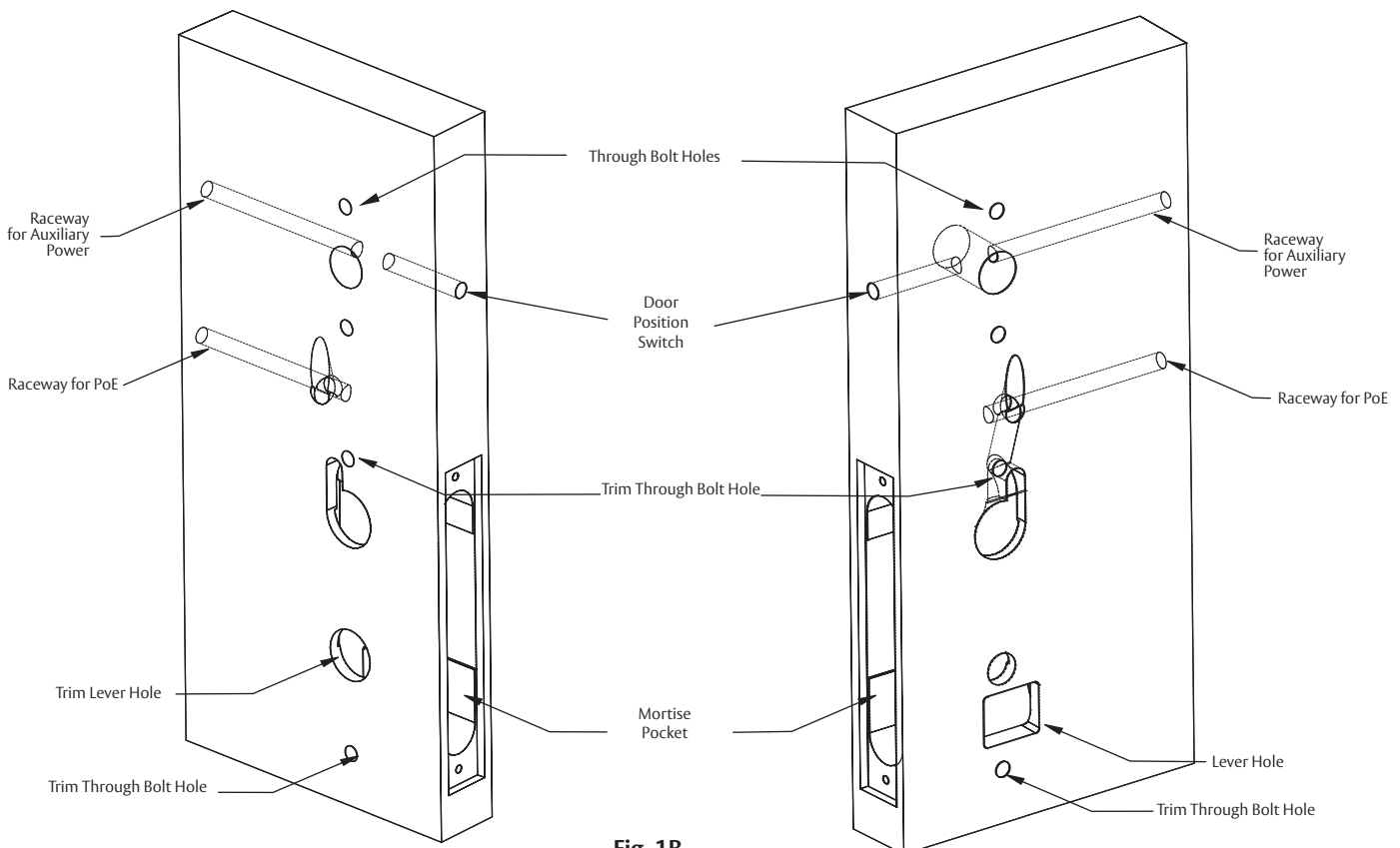


Fig. 1B

***IN220 (PoE) Wiring and Installation See Section 7**

6 Installation Instructions PED5600 Mortise Exit Device

2 Install Door Position Switch (DPS)

Wood doors have 3/8" raceway to controller cutout and metal doors have 3/4" raceway to the controller cutout.

Refer to template MEFT18.

1. Insert connector end of DPS through the raceway on the latch edge of the door (Fig. 2A).

Note: For metal doors, use DPS Collar.

2. Push DPS firmly into place by hand.

IMPORTANT: DO NOT TAP SWITCH WITH ANY TOOL

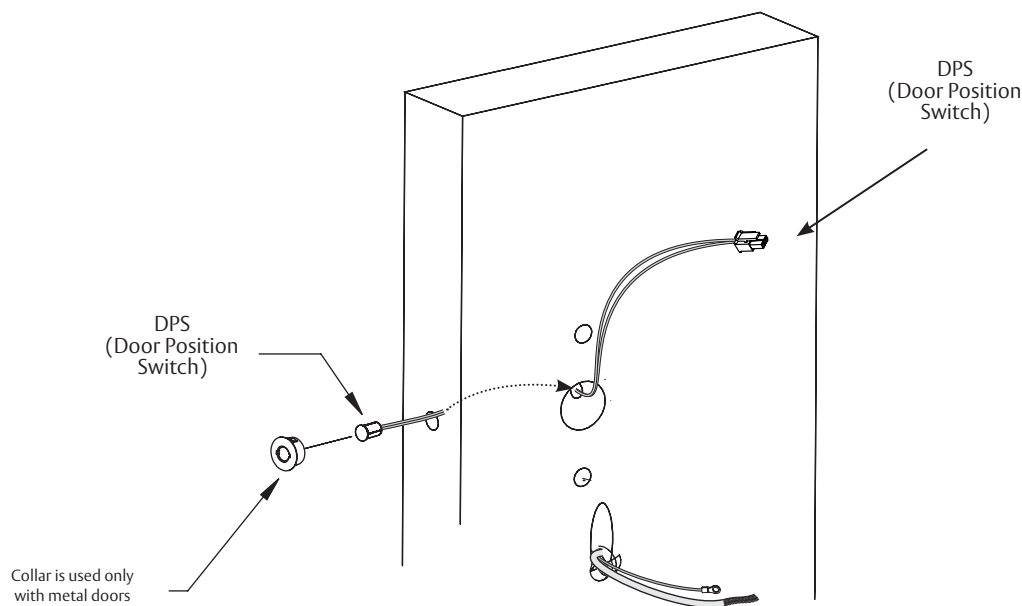
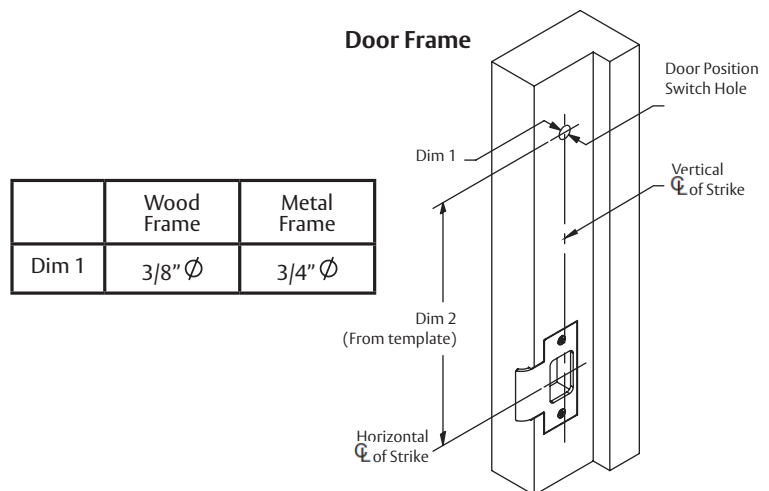
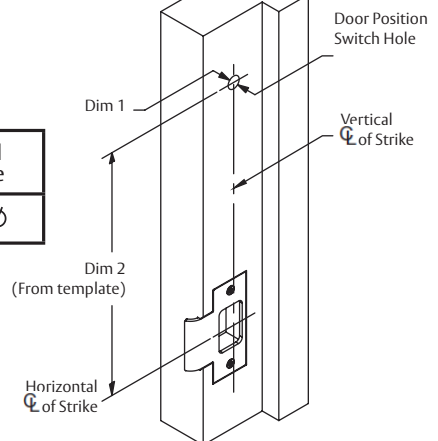


Fig. 2A



Door Frame



	Wood Frame	Metal Frame
Dim 1	3/8" ϕ	3/4" ϕ

Fig. 2B
 FM593 09/23

3 Mount Mortise & Exit Device Chassis

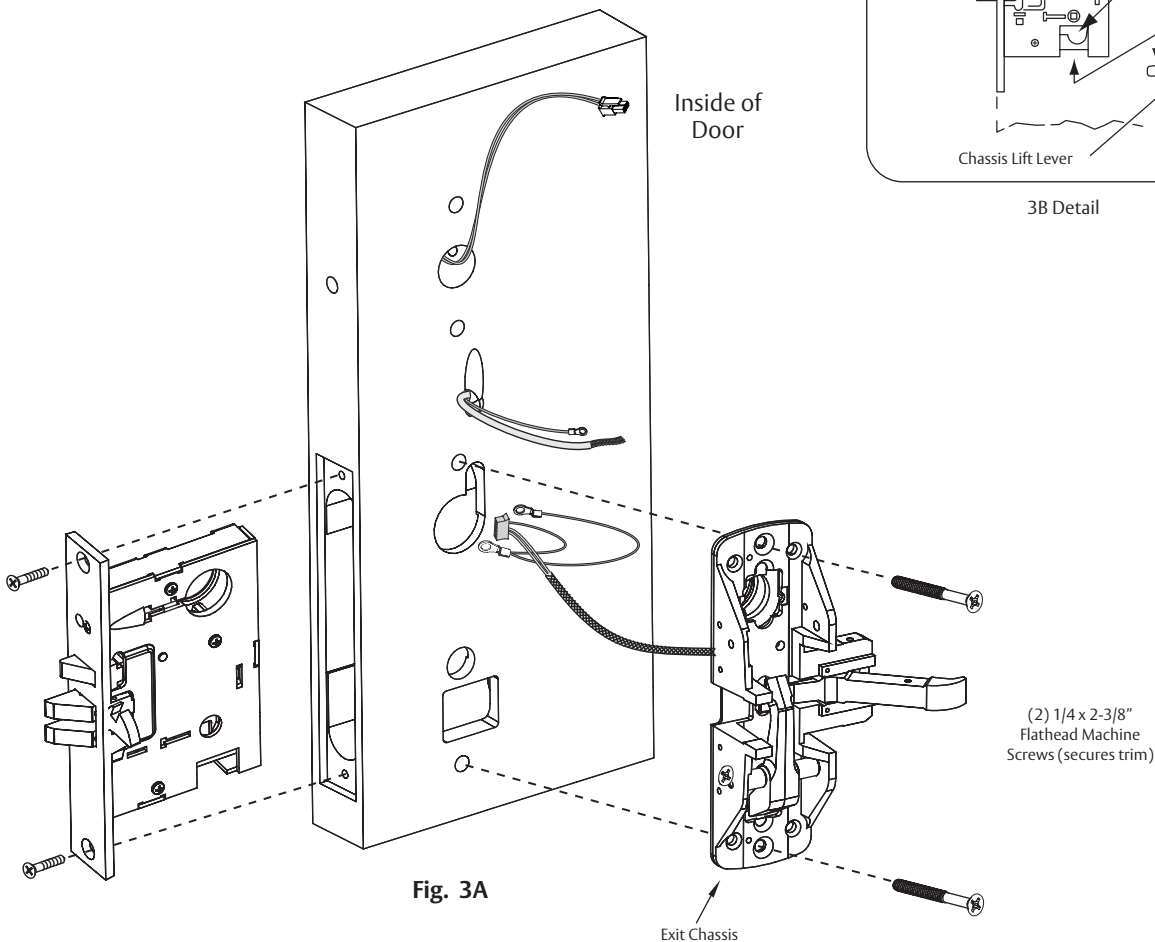
1. Slide mortise lock into door and loosely secure with (2) flat head screws.

NOTE: Exit chassis harness consists of a 6-pin female connector and two different-sized ground lugs (Fig. 3A)

2. Feed 6-pin connector and larger ground lug straight through to outside of door (Fig. 3A, B) while feeding smaller ground lug into wire hole, up through wire channel and out through inside of door (Fig. 3A).

DO NOT PINCH THE WIRE HARNESS.

3. Begin to secure the exit chassis with through bolts to the trim using (2) 1/4 -20 x 2-3/8" flat head machine screws.

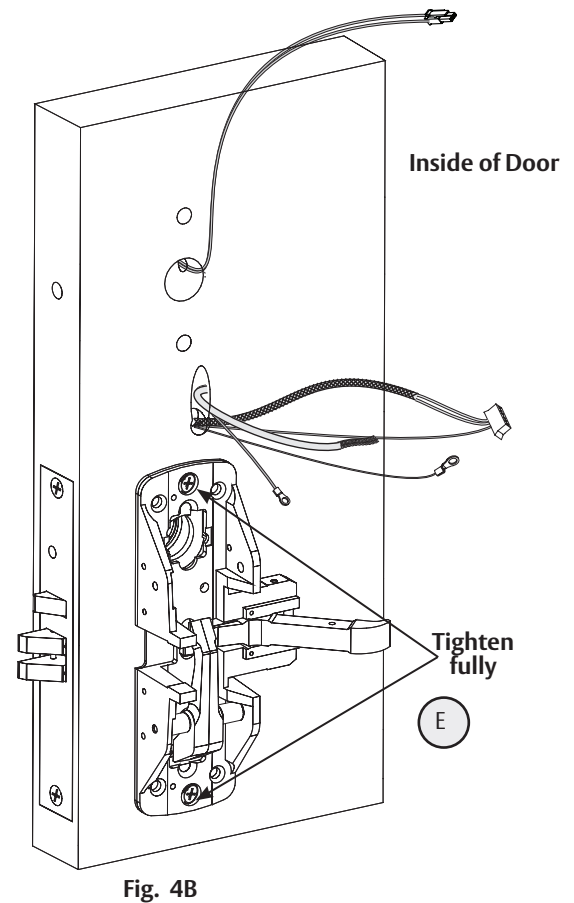
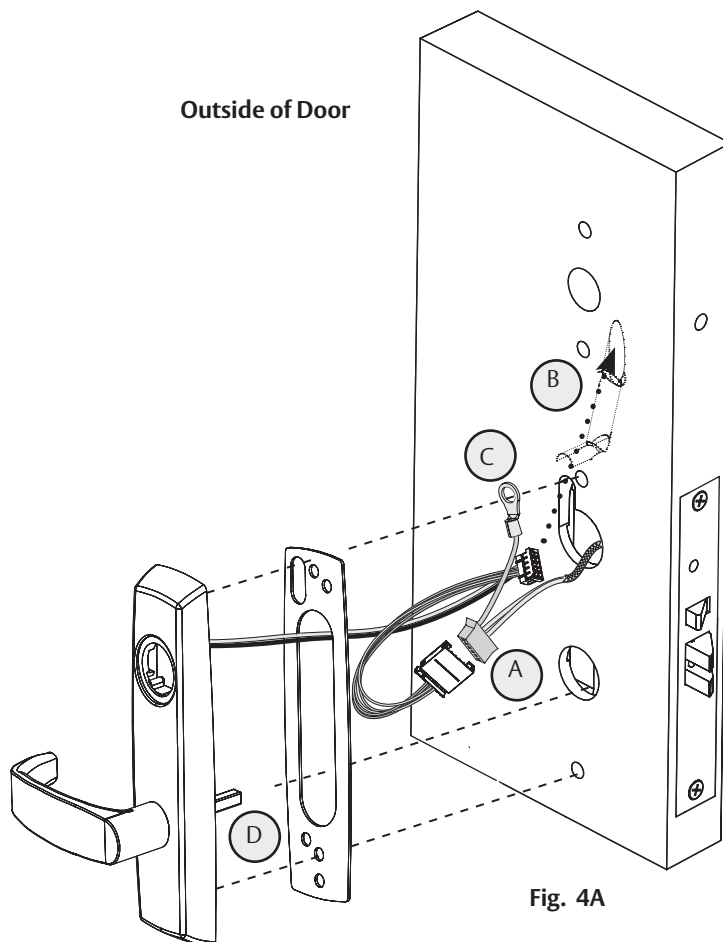


4 Position Exit Trim

NOTE: For exterior applications, use trim gasket (869F629 for 800PT Series trim or 869F639 for 900PT Series trim) to seal between trim escutcheon and outside door surface.

- A. Connect motor harness adapter to chassis harness connector (Fig. 4A).
- B. For wood doors: Route trim wire harness connector through the cylinder hole, up and through the wire run channel to the controller cutout.
For metal doors: Route trim wire harness through the cylinder hole out the controller cutout.
- C. Pass top trim mounting post through chassis harness ground lug.
- D. Ensure trim spindle engages the lower hub of the exit chassis.
- E. Fully tighten (2) chassis through bolts (Fig. 4B).

NOTE: Cable lengths exaggerated for illustrative purposes



5 Install Cylinder

For devices without cylinder, go to Step 6.

1. Secure cylinder by threading into lockbody.
2. After cylinder is installed, tighten cylinder lock screw (clockwise) through front of mortise lock.
3. Verify that key retracts latchbolt.

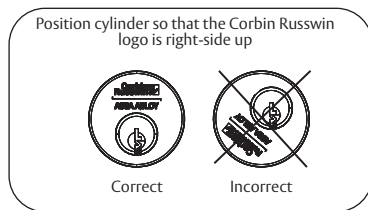


Fig. 5A

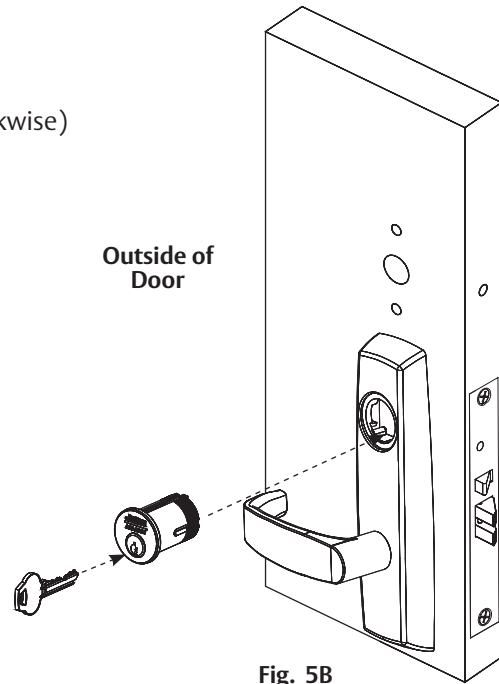


Fig. 5B

6 Secure Exit Chassis

To comply with UL certifications and for security:

Fasten exit chassis to door using (4) #10 wood screws (for wood door) or (4) #10-24 machine screws (for metal door).

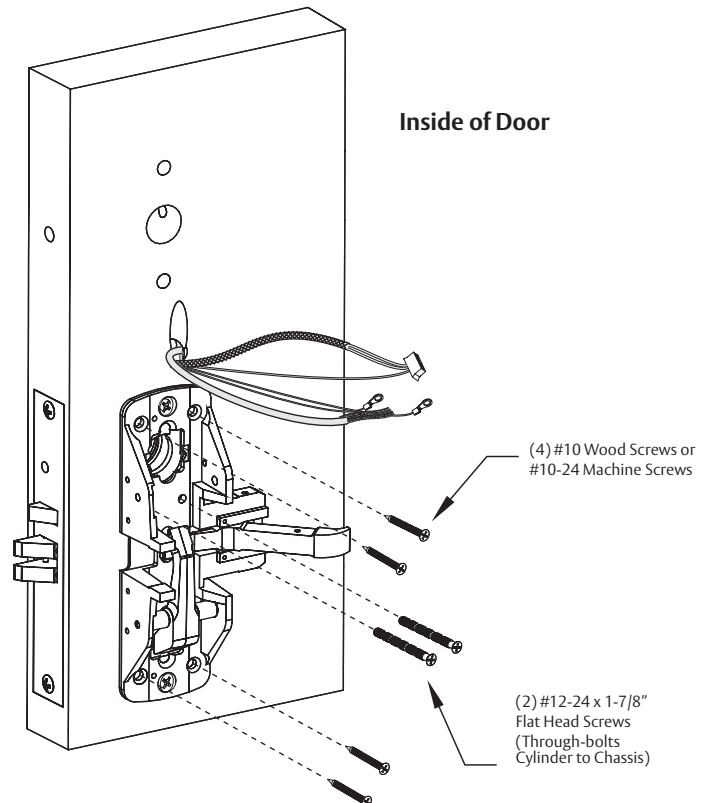
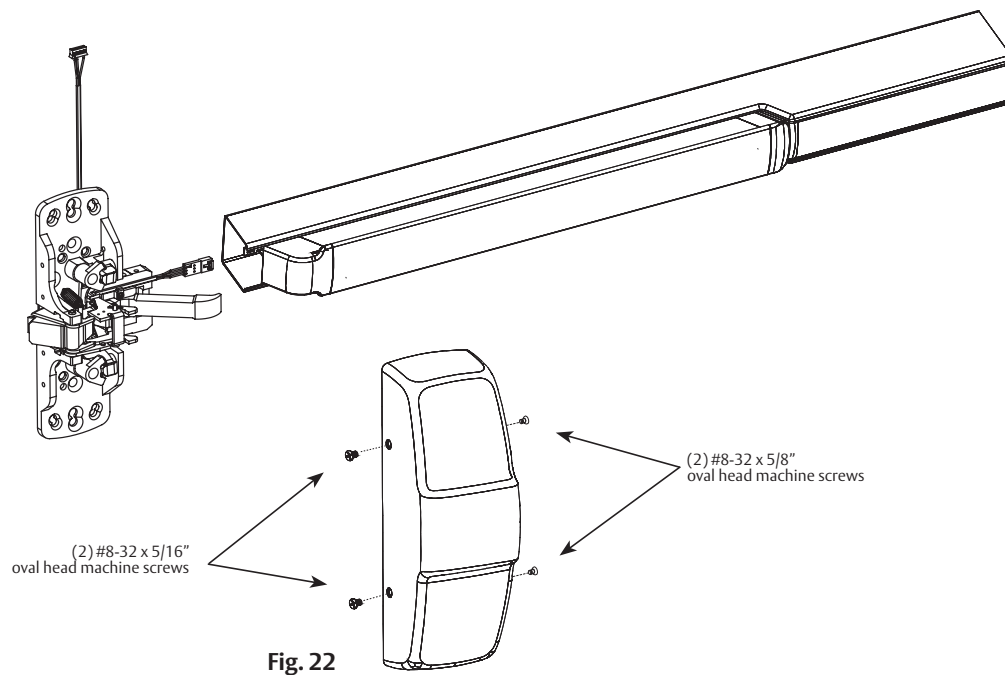


Fig. 6

7 Install Chassis Cover

- Retrieve harness from end of rail. Harness has limited travel and can be damaged.
- Attach harness to female connector on chassis.
- Install rail and tighten chassis and trim screws. Attach end bracket per exit device instructions.
- Secure chassis cover to chassis using four (2) #8-32 x 5/16" and (2) #8-32 x 5/8" (rail side) oval head machine screws.



Important Note:
IN120/220 Mortise Exit Installation Continues With Section 9

1. Prepare door

a. Verify hand and bevel of door. (Fig. 1)

NOTE: Stand on outside of locked door when determining door hand.

b. Verify exit device is correct hand for door.

c. Per CVR instructions, exit device is installed with door removed from frame.

d. Verify product label.

e. Mark and drill door. (Fig. 2)

- If mullion is used, install prior to installing hardware
- Doors should be pre-prepped (recommended)

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

Prepare door according to appropriate template (see website).

- Door Manufacturer's Template (online): **MEDT68**
- Exit Device Installation Instructions: **FM581 (MD)** or **FM608 (WD)**

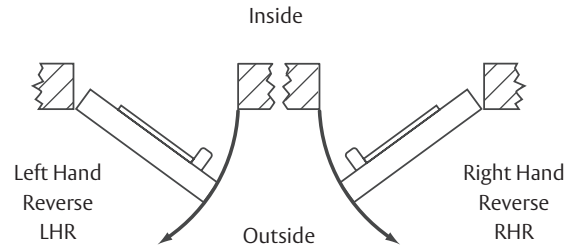
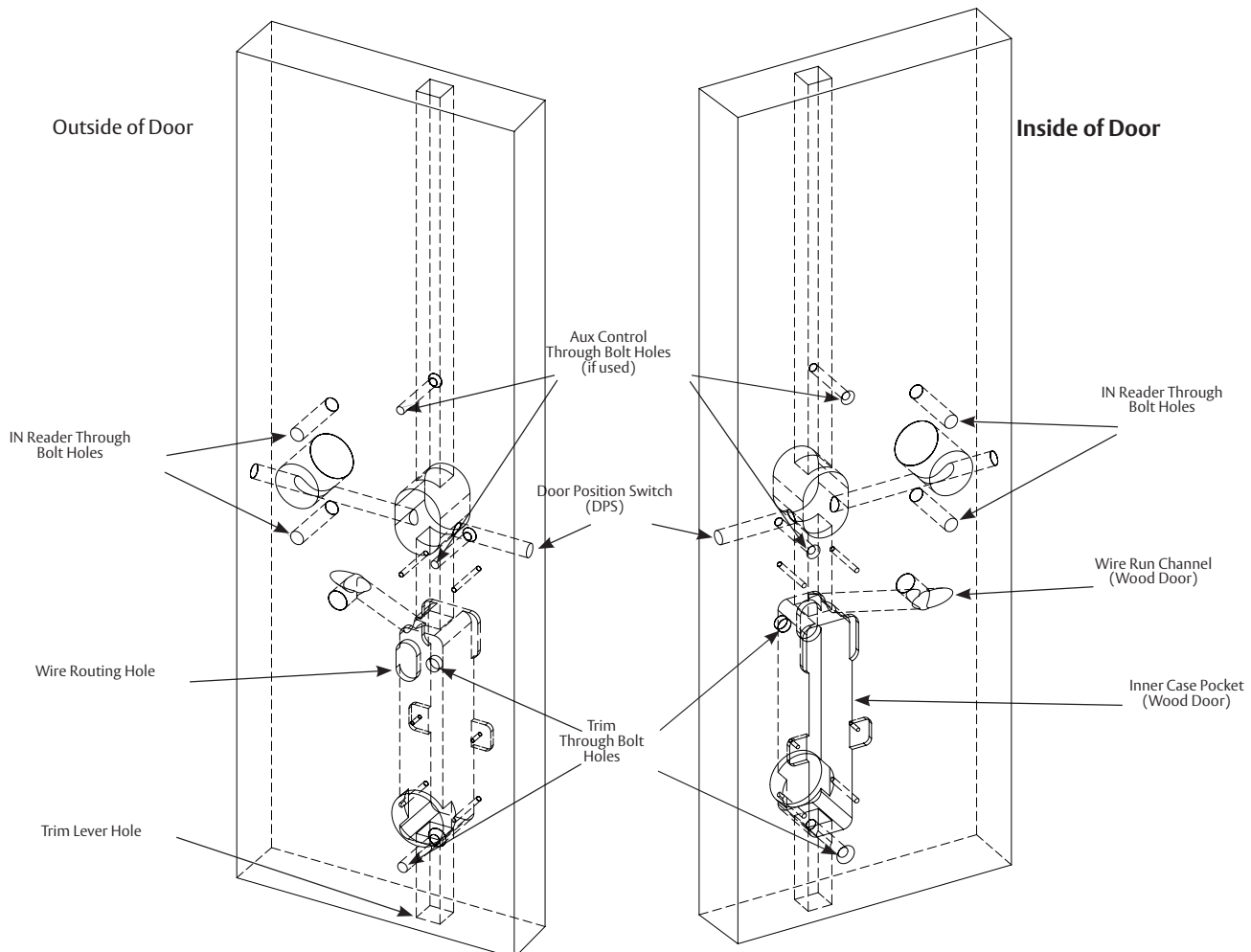


Fig. 1



7 Installation Instructions for PED5800 Concealed Vertical Rod (CVR) Exit Device (EA Option)

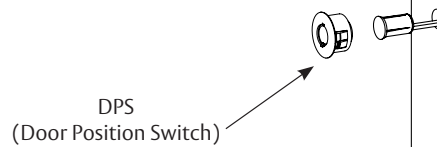
2. Install door position switch* (DPS).

NOTE: Wood doors have 3/8" raceway to controller cutout and metal doors have 3/4" raceway to controller cutout.

a. Insert connector end of DPS through raceway on latch edge of door. (Fig. 3)

NOTE: For metal doors, use DPS collar.

b. Push DPS firmly into place by hand.



CAUTION: DO NOT TAP SWITCH WITH ANY TOOL

*For double door applications (unless second door is inactive), an alternative for this DPS must be used. Options (sold separately) include a hinge DPS or a DPS at top of door.

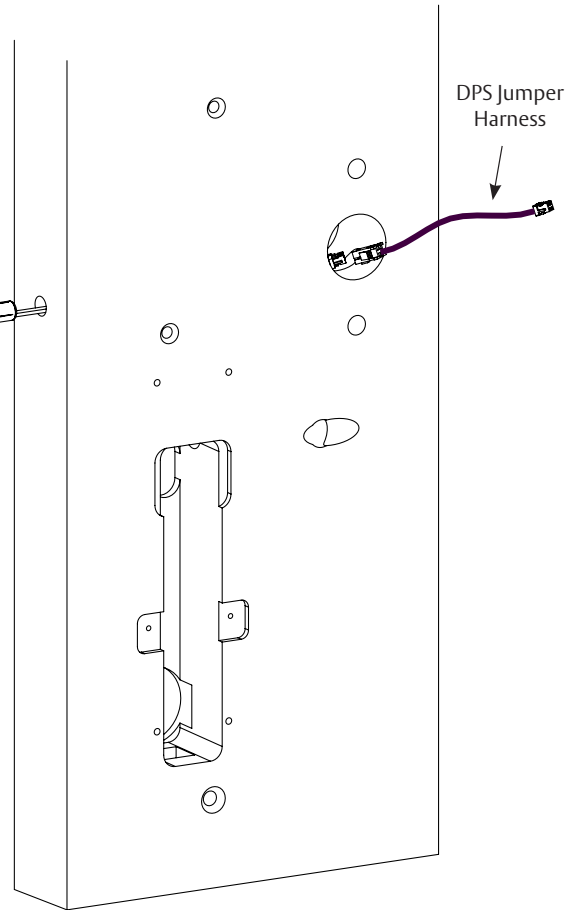


Fig. 3

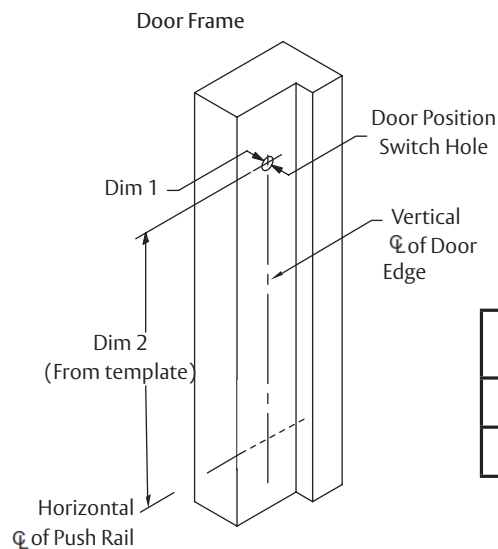


Fig. 4

	Wood Frame	Metal Frame
Dim 1	3/8" ϕ	3/4" ϕ
Dim 2	4-7/8"	4-7/8"

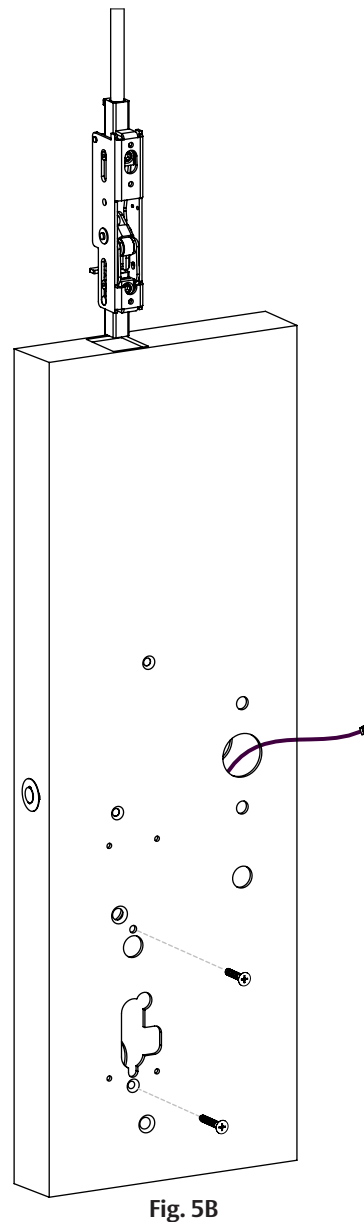
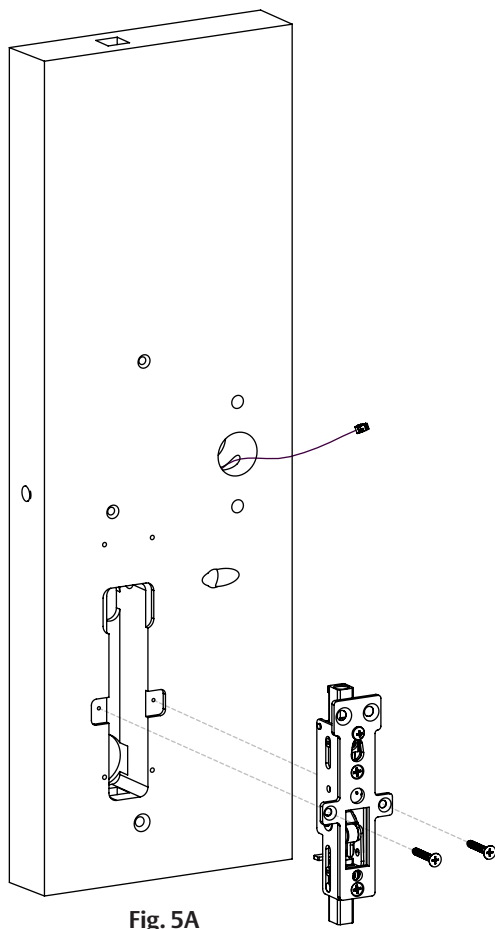
3. Install Inner Case Assembly

A. Wood Door (WD)

1. Install the inner case assembly with (2) #12 x 1" Phillips flathead screw (Fig. 5A).

B. Metal Door (MD/AD)

1. Assemble rods to inner case.
2. Slide rod assembly into door and secure with #10-24 x 3/8" screw for top inner case assembly and #10-24 x 1/2" screw for bottom inner case assembly (Fig. 5B).



4. Mount exit device chassis.

a. Mount exit chassis loosely, using only the top left mounting screw. Screw should support the weight of the chassis but allow it to move freely while routing the wiring and mounting exit trim.

NOTE: Exit chassis harness consists of a 6-pin female connector and (2) ground wire terminals (Fig. 6B).

b. Feed 6-pin connector and larger ground wire terminal straight through to outside of door. (Fig. 6B, 7)

c. Insert (2) trim mounting screws (Fig. 6A).

5. Mount exit trim. (Fig. 8)

NOTE: For exterior applications, use trim gasket as seal between trim escutcheon and outside door surface.

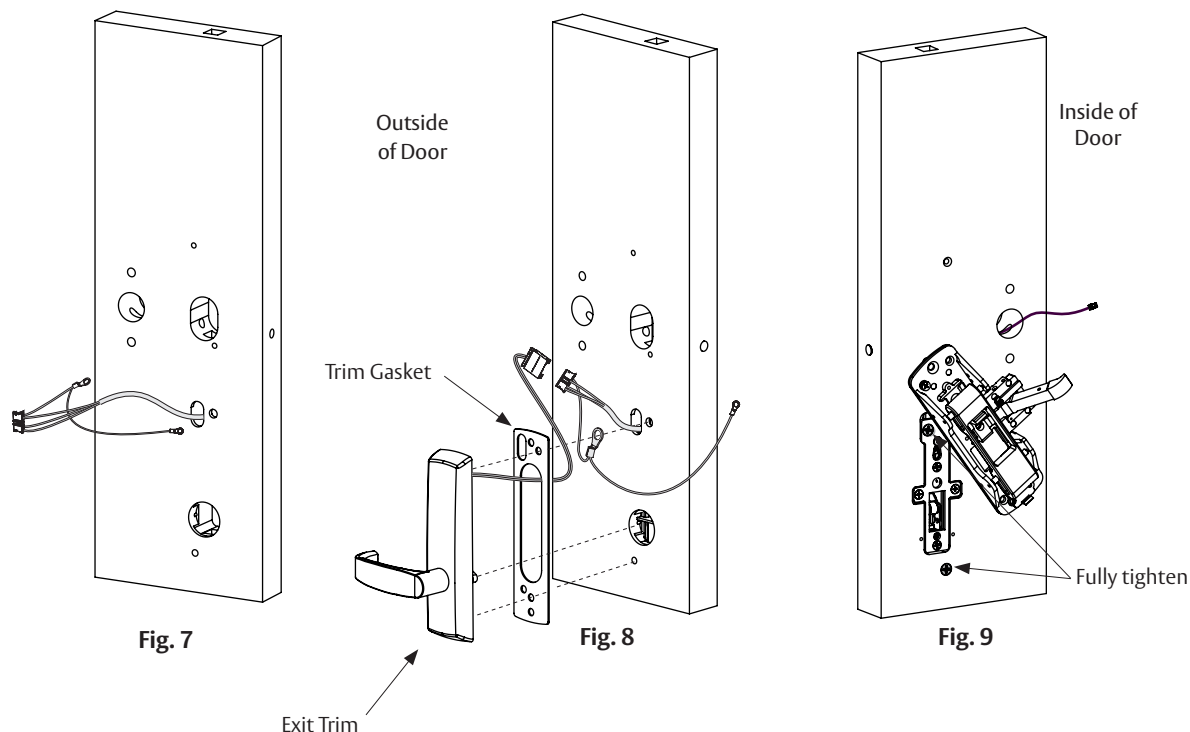
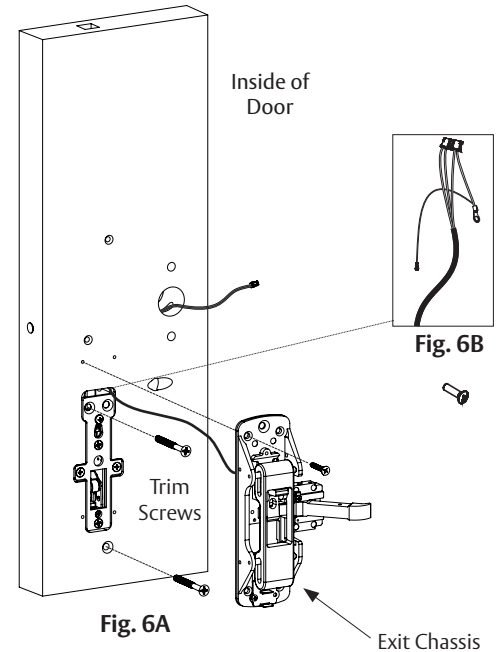
a. Connect motor harness adapter to chassis wire harness connector.

b. For wood doors: Route trim wire harness connector through oval wire routing hole, up and through wire run channel to controller cutout.

For metal doors: Route trim wire harness through oval wire mounting hole and out controller cutout.

c. Pass top trim mounting post through chassis harness ground lug.

d. Fully tighten (2) trim mounting screws. (Fig. 9)



6. Secure exit chassis. (Fig. 10)

To comply with UL certifications and for security:

- a. Fasten exit chassis to door using three (3) remaining #10 wood screws (for wood door) or four (4) #10-24 machine screws (for metal door).

NOTE: Cable lengths exaggerated for illustrative purposes.

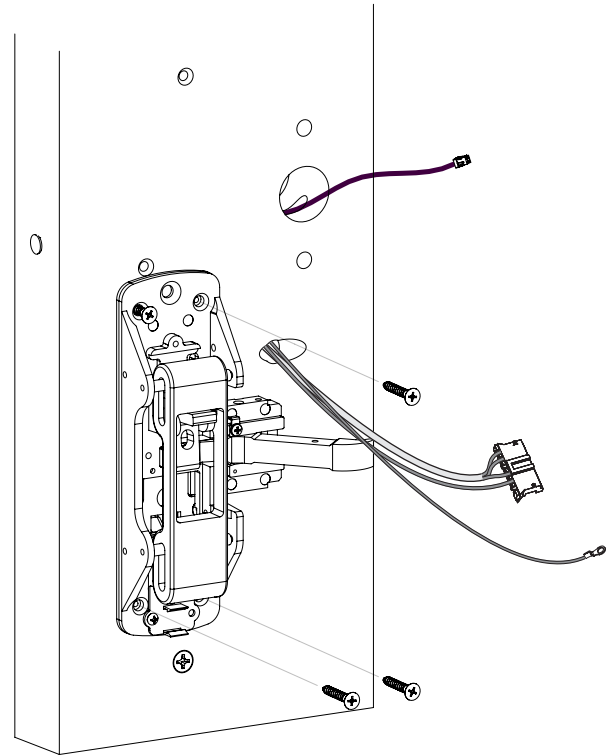


Fig. 10

7. Install rail assembly. (Fig. 11)

- a. Retrieve harness from end of rail. Harness has limited travel and can be damaged.
- b. Attach harness to female connector on chassis.
- c. Install rail and screws per exit device instructions.

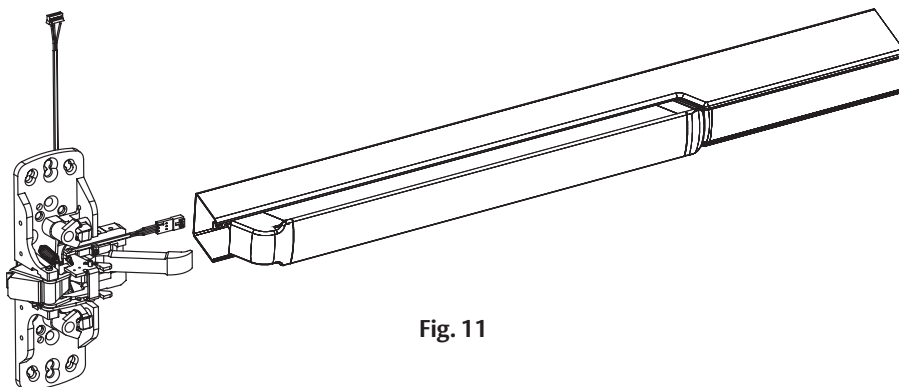


Fig. 11

**Important Note:
IN120 / 220 CVR Exit Installation Continues With Section 9**

8 Installation Instructions for PED5400 Surface Vertical Rod (SVR) Exit Device (EA Option)

1. Prepare door

a. Verify hand and bevel of door. (Fig. 1)

NOTE: Stand on outside of locked door when determining door hand.

b. Verify exit device is correct hand for door.

c. Door should be fitted and hung.

d. Verify product label.

e. Mark and drill door. (Fig. 2)

- If mullion is used, install prior to installing hardware
- Doors should be pre-prepped (recommended)
 Prior to installation, all holes must be free of burrs, debris and sharp edges.

Prepare door according to appropriate template (see website).

- Field Template (ships with product): **MEFT25**
- Door Manufacturer's Template (online): **MEDT69**
- Exit Device Installation Instructions: **FM583**

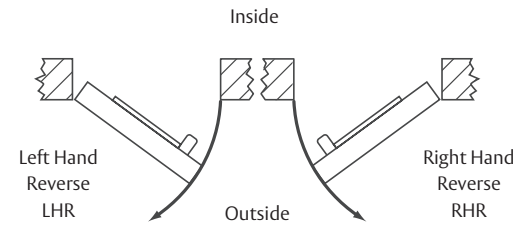


Fig. 1

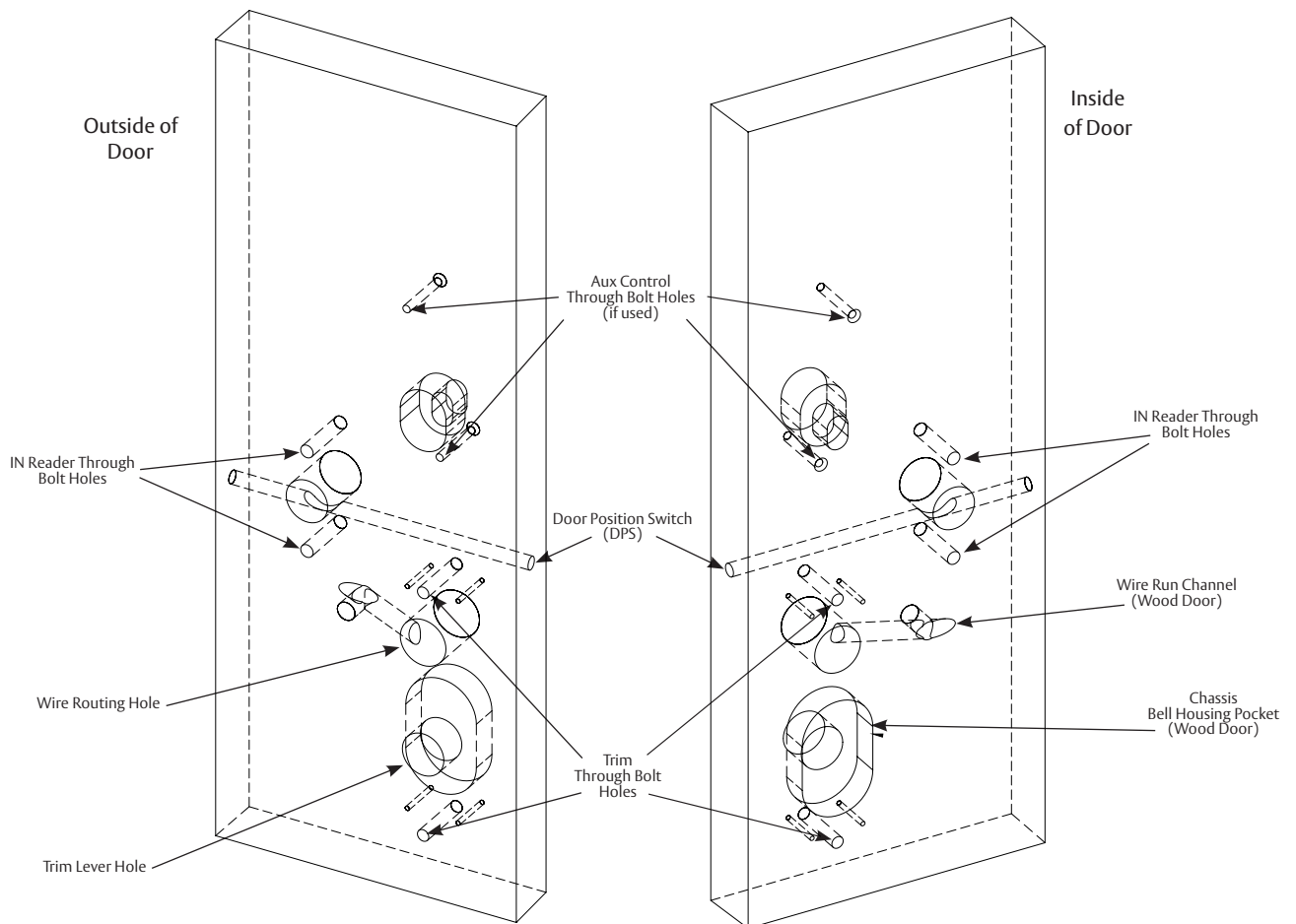


Fig. 2

8 Installation Instructions for PED5400 Surface Vertical Rod (SVR) Exit Device (EA Option)

2. Install door position switch* (DPS).

NOTE: Wood doors have 3/8" raceway to controller cutout and metal doors have 3/4" raceway to controller cutout.

a. Insert connector end of DPS through raceway on latch edge of door. (Fig. 3)

NOTE: For metal doors, use DPS collar.

b. Push DPS firmly into place by hand.

CAUTION: DO NOT TAP SWITCH WITH ANY TOOL

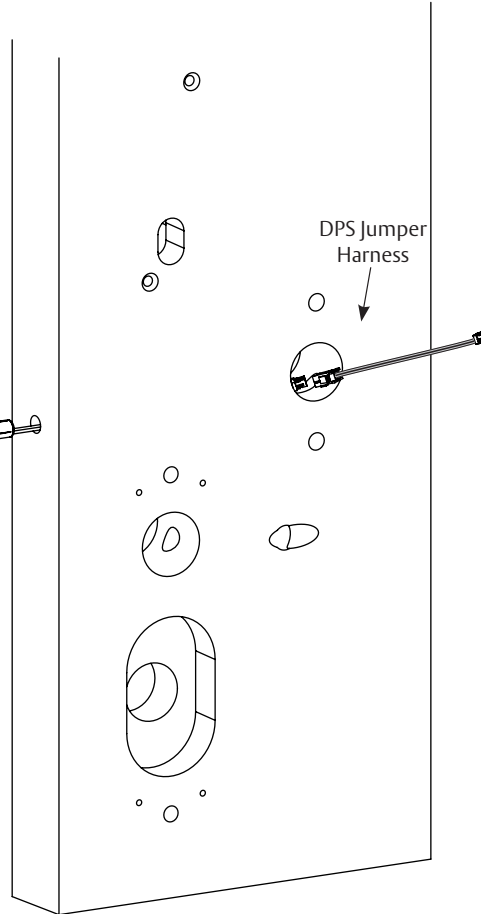
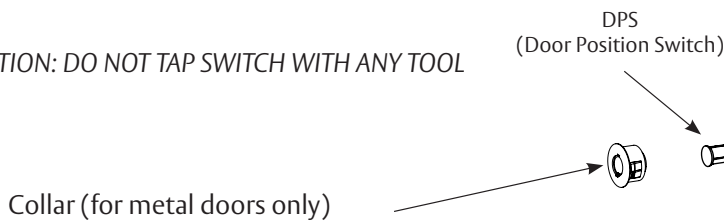


Fig. 3

*For double door applications (unless second door is inactive), an alternative for this DPS must be used. Options (sold separately) include a hinge DPS or a DPS at top of door.

NOTE: Cable lengths exaggerated for illustrative purposes.

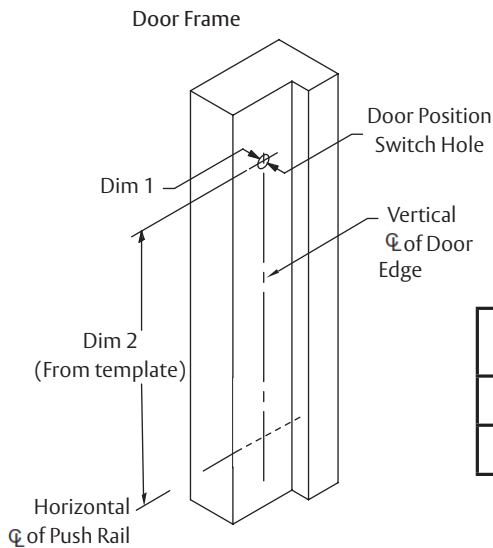


Fig. 4

	Wood Frame	Metal Frame
Dim 1	3/8" ϕ	3/4" ϕ
Dim 2	4-7/8"	4-7/8"

3. Mount exit device chassis

NOTE: Exit chassis harness consists of a 6-pin female connector and (2) ground wire terminals. (Fig. 5, 6)

1. a. Feed 6-pin connector and larger ground lug straight through to outside of door. (Fig. 5, 6)
1. b. For exterior application, use trim gasket to seal between trim escutcheon and outside door surface (Fig. 5).

4. Mount exit trim. (Fig. 6)

NOTE: For exterior applications, use trim gasket as seal between trim escutcheon and outside door surface.

- a. Connect motor harness adapter to chassis harness connector.

1. NOTE: For MELR install, skip next step (b.)

- b. For wood doors: Route trim wire harness connector through cylinder hole, then up and through wire run channel to controller cutout.

For metal doors: Route trim wire harness through cylinder hole and out controller cutout.

- c. Pass top trim mounting post through chassis harness ground lug.

- d. Ensure trim spindle engages lower hub of exit chassis.

- e. Partially tighten two (2) chassis through bolts.

Do not fully tighten chassis screws until after rail installation Step 5)

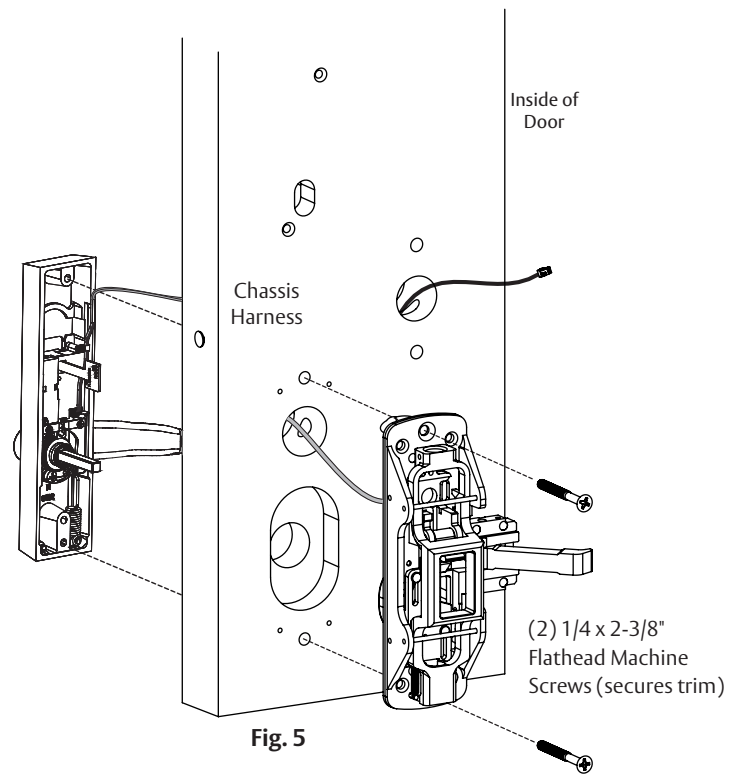


Fig. 5

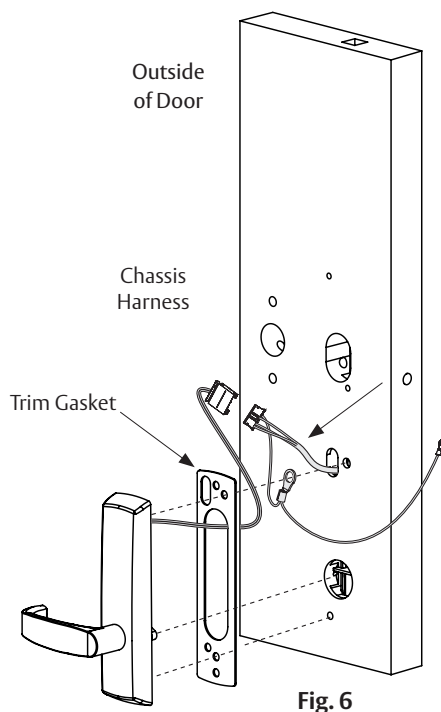


Fig. 6

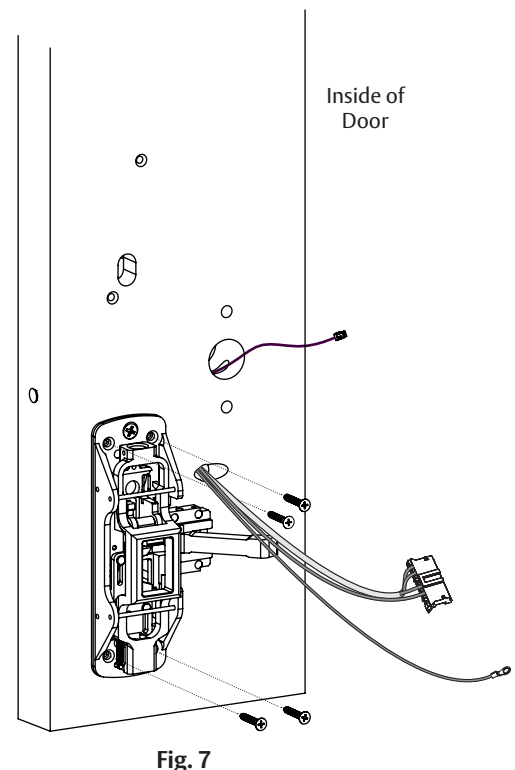


Fig. 7

4. Install rail assembly. (Fig. 8)

- a. Retrieve harness from end of rail. Harness has limited travel and can be damaged.
- b. Attach harness to female connector on chassis.
- c. Install rail and screws per exit device instructions.
- d. Tighten trim and chassis screws.

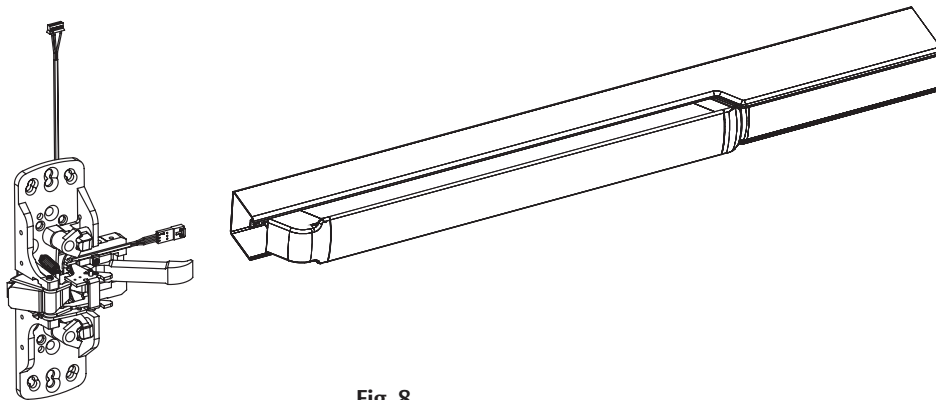


Fig. 8

- e. Install top and bottom cases and pin vertical rods to chassis per exit device instructions.
- f. Attach covers.

**Important Note:
IN120 / 220 SVR Exit Installation Continues With Section 9**

1 Outside Reader and Mounting Plate Assembly Installation

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

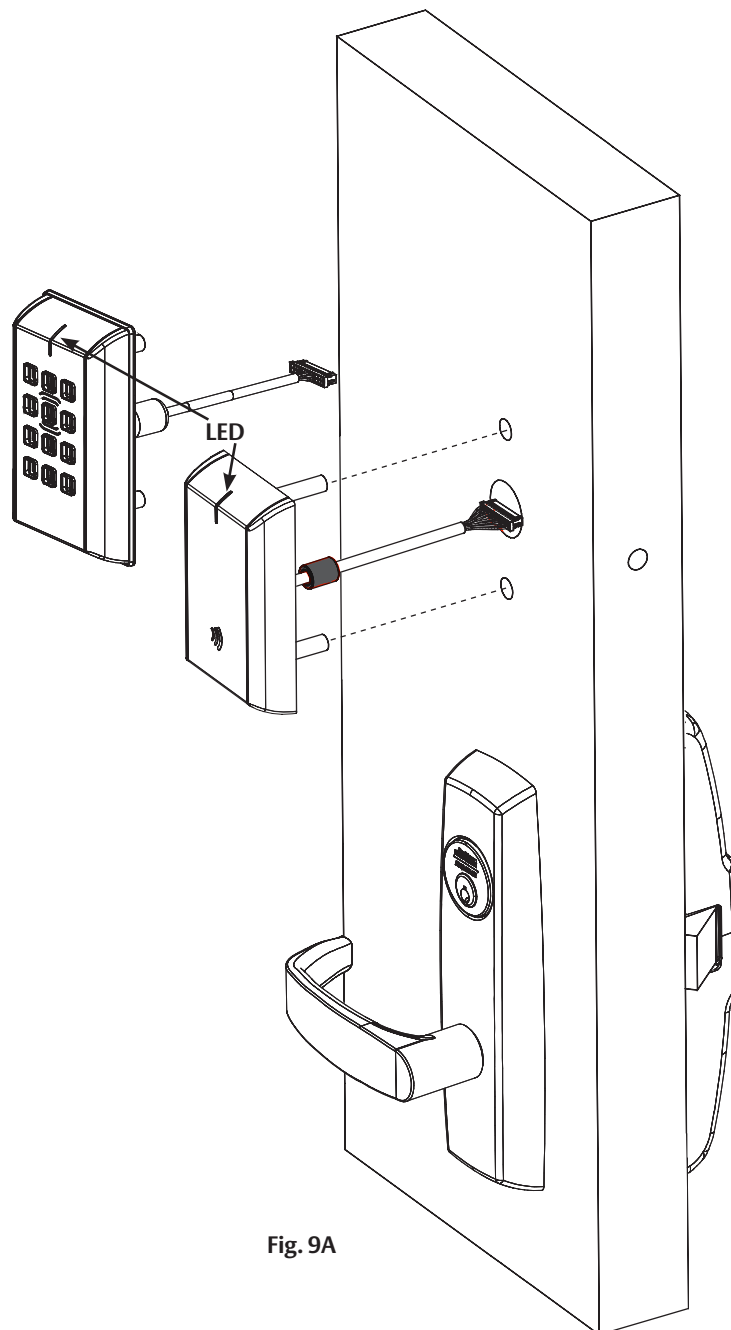
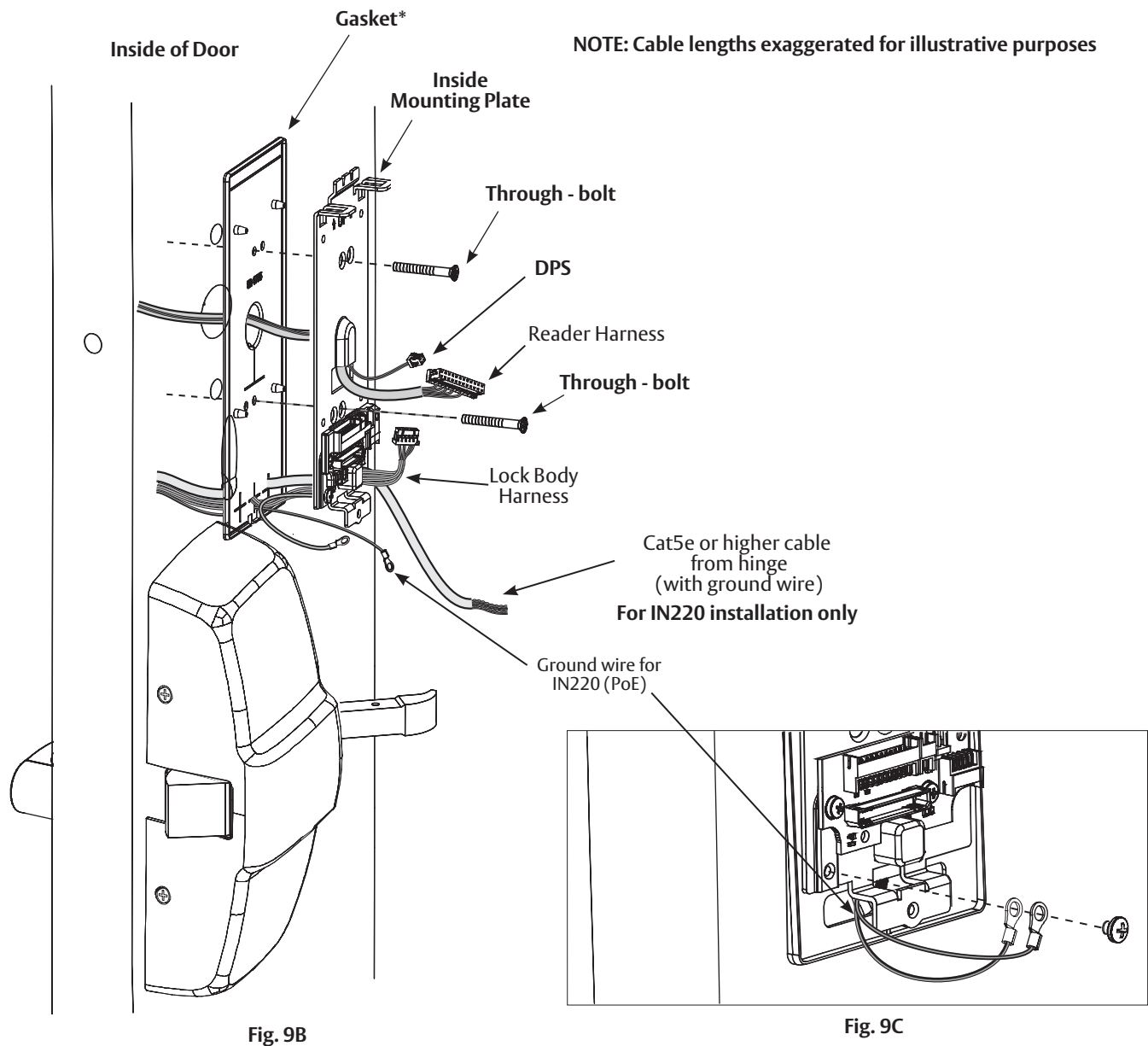


Fig. 9A

1 Outside Reader and Mounting Plate Assembly Installation (Continued)

- e. Next feed cables/connectors through the inside mounting assembly (and gasket if required*).
- f. Insert and partially tighten (2) through-bolts prior to installation of connectors.



- g. Secure ground lug(s) with #6-32 machine screw (Fig. 2B).

*Gasket is required for outdoor installations.

If installing with gasket; separate gasket from mounting plate to feed cables/connectors through holes as indicated (Fig. 2A).

Once cables/connectors are fed through, reattach gasket to mounting plate.

2 Installation of Connectors

Important Note: Before you secure the connectors

CAUTION - Do not allow debris to enter connector contacts

Ensure connectors are covered with silicone dielectric compound (grease)*



- Snip end of packet to dispense grease
- Ensure all connector pins and contacts (Fig. 10A) 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 hole in plate (Fig. 3A, B) - it will damage wires and the controller connector. Route wires around flange, do not route wires through the flange hole (Fig. 10B).

Secure the following connectors (Fig. 10A, B):

- Secure the 4-pin DPS connector.
- Secure the 10-pin lock body assembly connector.

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 secure the reader and plate to the door
- Secure the 24-pin card reader connector (Fig. 10B)
- Ensure all openings on back of secured connectors are covered completely with grease (Fig. 10C).

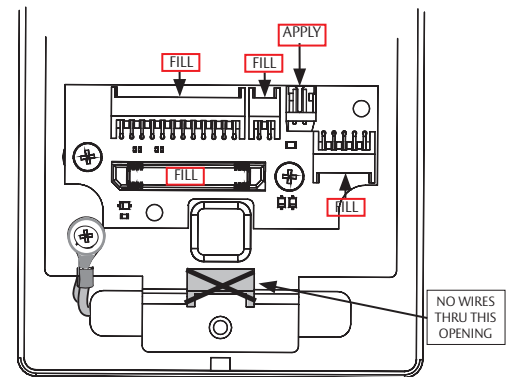


Fig. 10A

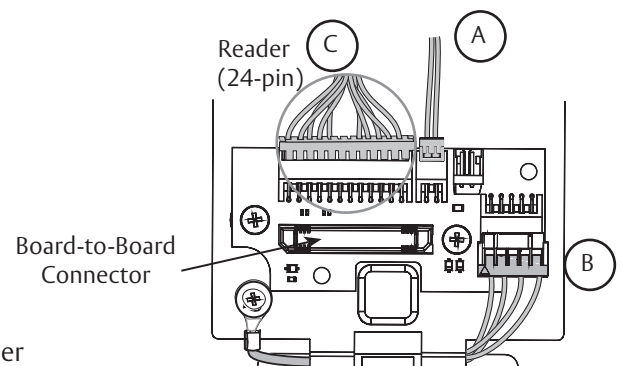


Fig. 10B

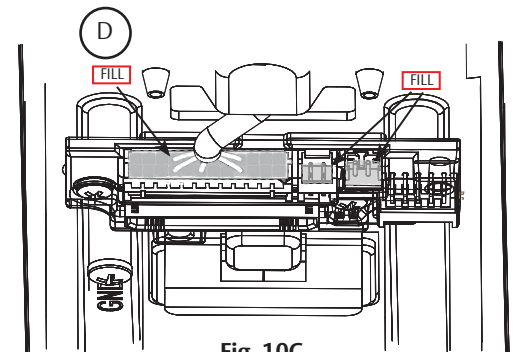


Fig. 10C

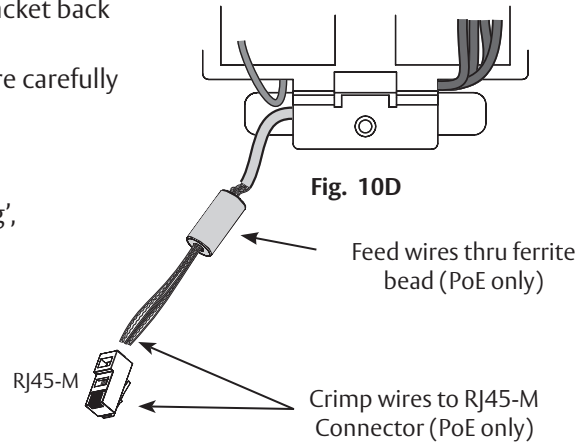
9 IN120 / IN220 Installation Instructions

2 Installation of Connectors (Continued)

Important Note: If you are installing IN220 (PoE)*:

- E. Pull 5 1/2 inches of Ethernet cable from hole. Strip cable jacket back 3 1/2 inches.
- F. Separate (untwist) and straighten (8) Ethernet wires before carefully feeding through ferrite bead (Fig. 10D).
- G. Crimp RJ45 (male) connector on end of wires.

*For more detail, refer to section (7) 'Installation Wiring', "A - Frame Harness Installation".

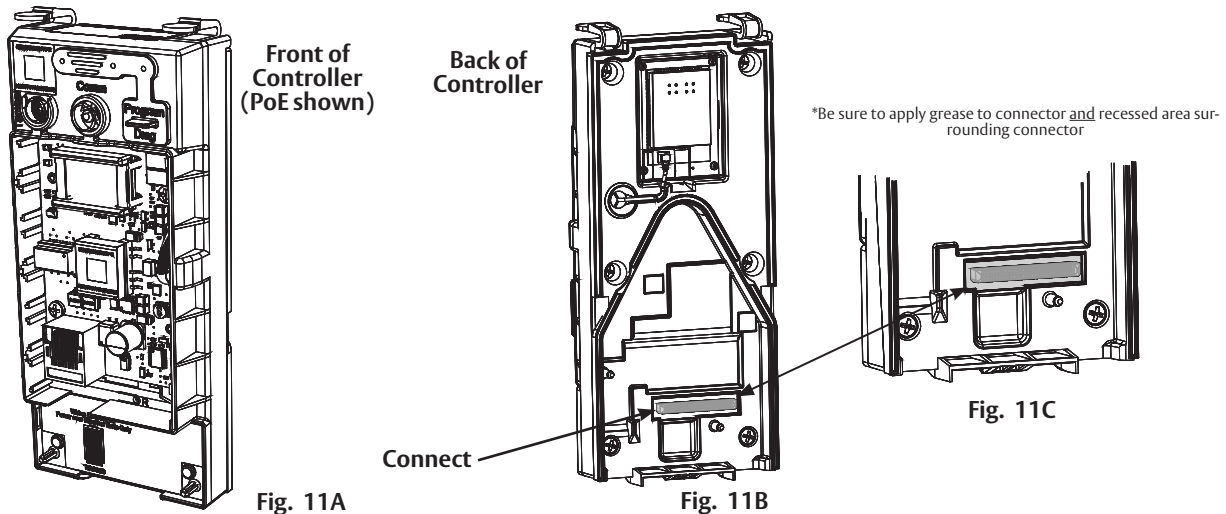


4 Installing the Controller

Important Note: Before you install the controller

Apply dielectric grease to connector* located on back of Controller (FIG. 11B, C).

CAUTION - Do not allow debris to enter connector contacts.

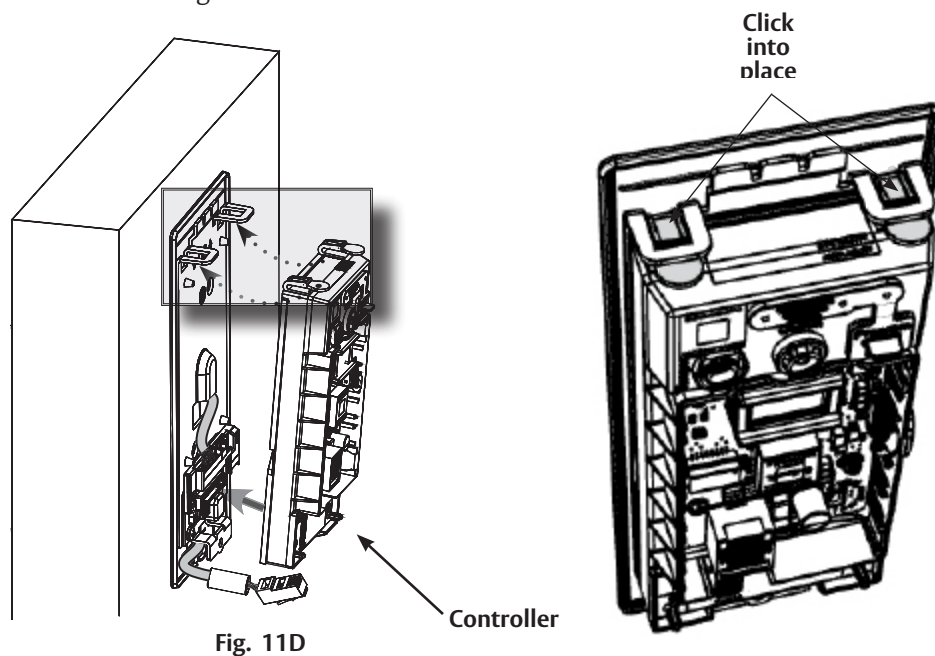


9 IN120 / IN220 Installation Instructions

4 Installing the Controller (Continued)

1. Insert bottom tab of controller (ensure a clear path) into slot on mounting plate (Fig. 11D, E).
2. Ensure proper alignment of board-to-board connectors (Fig. 11E) while pivoting controller toward door until two tabs on top snap securely into place on mounting plate (Fig. 11D).

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.

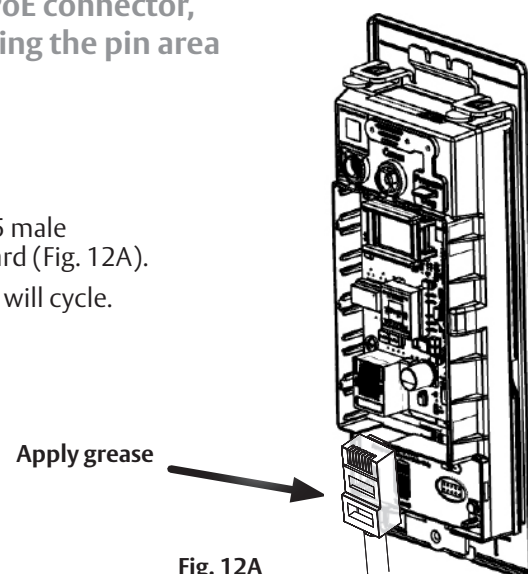


5 Supplying Power to the Controller

Important - before inserting PoE plug into PoE connector, apply dielectric grease to top of plug, covering the pin area (Fig. 12A).

A. IN220 (PoE)

1. Once controller is securely in place, connect RJ45 male connector to female RJ45 port on controller board (Fig. 12A).
2. If power is enabled, LED will flash and lock motor will cycle.



9 IN120 / IN220 Installation Instructions

5 Supplying Power to the Controller

B. IN120 (WIFI)

1. Once controller is securely in place, place (6) "AA" alkaline batteries in the compartment, being careful to align polarity properly.
2. After batteries are installed, there is a slight delay; then an audible "beep" will sound and the lock motor will cycle.

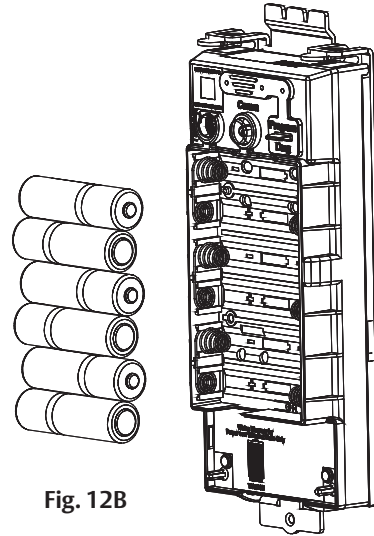
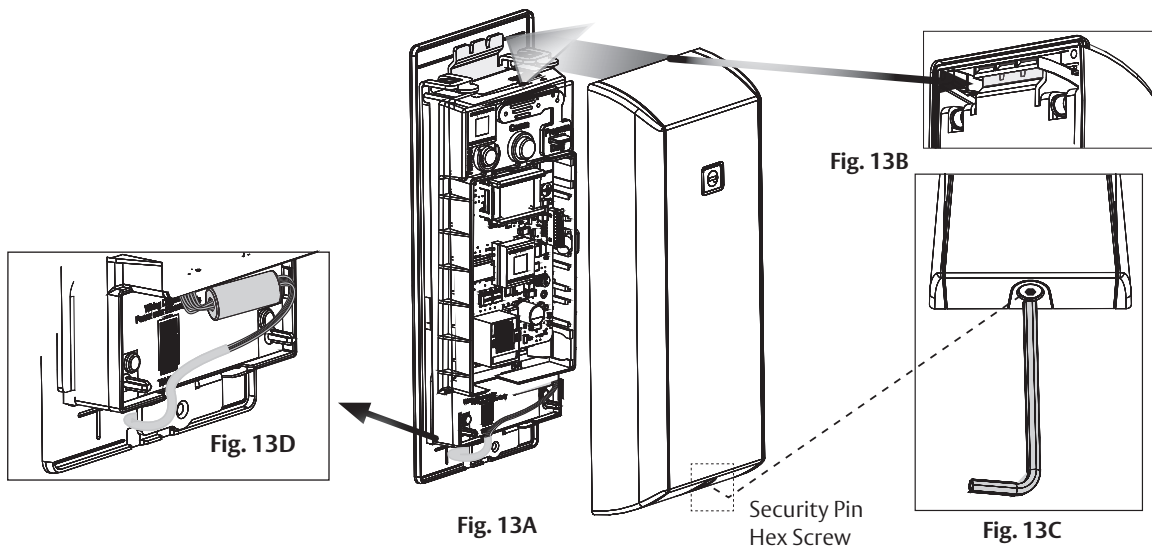


Fig. 12B

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).
2. Carefully press bottom of cover toward door without pinching any wires.
3. Secure the cover with a 1/8" security hex key.

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



Note location of installed ferrite bead (IN220 PoE) and excess wires (Fig. 13A, D).

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

In all cases, perform the following checks:

1. Ensure that inside exit bar retracts latch.
 - To test cylinder, the following checks apply:
Insert key into cylinder and rotate:
 - a. There should be no friction against lock case, wire harness, or any other obstructions. If friction or binding occurs, readjust cylinder and wiring harness to eliminate issues.
 - b. The key should unlock the outside lever and the lever should rotate freely.
 - For units without a keypad, add card using LCT software* and then test.
 - For units with a keypad, add pin and card using LCT software* and then test.

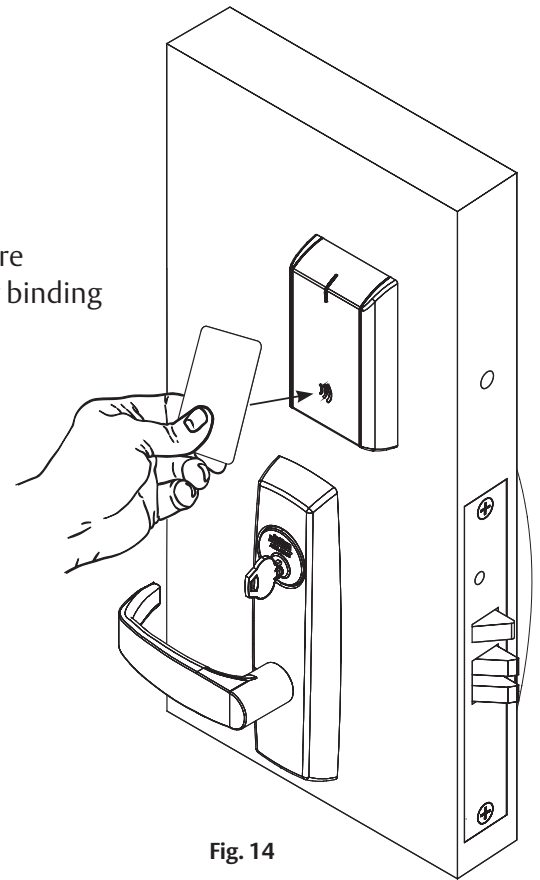


Fig. 14

If the lock loses power, it will flash rapid 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.

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

IN120 & IN220 Series
PED5000 Series
Exit Devices



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