PD97ES Components List

	Part Lists	Passage	Entry	Patio/Exit	Storeroom
A	X Series Trim / Surface Pull	1 EA	1 EA	1 EA	1 EA
B	Cylinder & Keys	-	1 EA	-	1 EA
C	Thumbturn	-	1 EA	1 EA	-
D	Mortise Lock & Faceplate	1 EA	1 EA	1 EA	1 EA
E	Strike Plate with Dust Box	1 EA	1 EA	1 EA	1 EA

A

5 - Compression Inserts

2 - M4x1-3/8" (35mm) Machine Screw

2 - Safety Lock Washer

2 - M4.2x19mm Self Tapping Screw for Metal Door

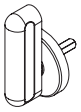
2 - M4x19mm Wood Screw for Wood Door

1 - 3mm Allen Key

B

1 - Wave Washer

C

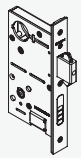


4 - M4x19mm Self Tapping Screw

4 - M4x19mm Wood Screw

1 - 3mm Allen Key

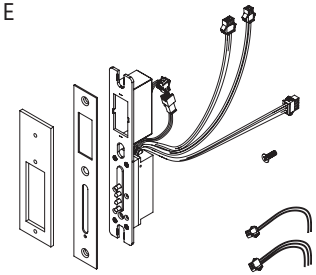
D



2 - M4x30mm Combo Screw

3 - M4x6mm Machine Screw

E



4 - M4x14 Machine Screw

1 - pc of 2P Extension Wire

1- pc of 3P Extension Wire

1 - pc of 4P Extension Wire

Installation Instructions

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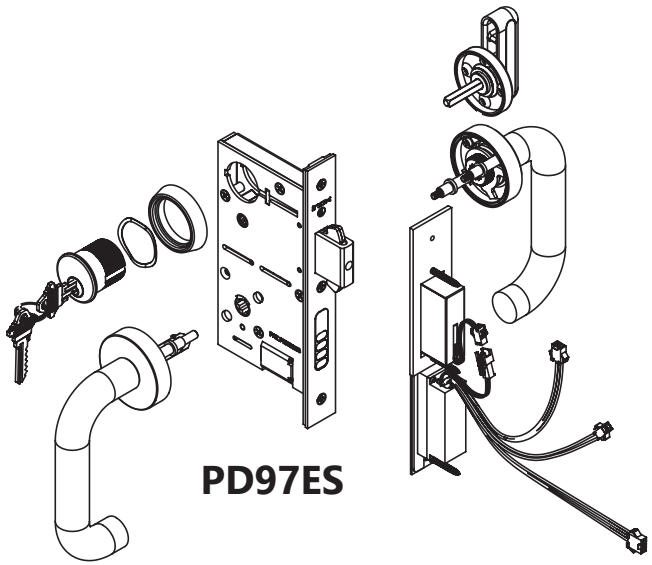
PD97ES Electrified Mortise Lockset for Sliding Door
with Autolocking and Monitoring Switches
with X Series Trim / Surface Pulls



PD97ES = PD97PT-ATL+ REX + DBM + DPS

- PD97PT-ATL = PD97 with Built-in Power Contacts and Auto-locking
- REX = Request-to-Exit Monitoring Switch
- DBM = Deadbolt Monitoring Switch
- DPS = Door Position Switch

This product has been tested and certified for UL1034 and UL294.

It is intended to be installed in accordance with the installation wiring diagram, mechanical assembly drawings provided with each product, the local authority having jurisdiction (AHJ) and the National Electric Code, NFPA 70. When installed in fail secure mode, the local authority shall be consulted with regard to the use of possible panic hardware to allow emergency exit from the secure area.

For UL294 compliance, the product is to be installed in the protected premises area. Only the lock-body was evaluated to UL1034, accessories are shown for reference only.

UL1034 Static and Dynamic Rating		UL 294 Performance Rating
Static Strength	500 lbs	Level I - Line Security
Dynamic Strength	70 ft lbs	Level IV - Endurance
Endurance	250K cycle of operations	Level I - Standby Power
		Level I - Attack

PM-ISPD97ES
V20220119

PD97ES Electrified Mortise Lockset with Sensors
Installation Instructions Notes

WARNING:
Make sure the connected relay has a timed function to control the power supply. PD97ES lock only requires 3~6 seconds of continuous power to engage or retract the deadbolt. Continuous power longer than needed will damage the motor. The range of the power supplying duration is subject to the soft close or weatherstripping conditions on the sliding door.

Autolocking

- When the sliding door closes, a Built-in Door Position Switch (DPS) provides a signal to the Strike PCB, which triggers a wire connected to the Relay REX input port to send power to the strike.
- The strike will transfer power to the lock via the Power Contacts, which then activates the built-in motor to engage the deadbolt into the strike, enabling the door opening to be locked automatically.
- A built-in deadbolt monitoring switch (DBM) will confirm once the deadbolt is fully engaged into the strike.

Abnormality Checking and Relocking

- In an autolocking cycle, if Deadbolt Monitoring Switch (DBM) does not sense the deadbolt is set in the proper position, a new signal will be sent to relay for the power contact to actives the motor to dis-engage then re-engage the deadbolt. This checking and relocking operation will be repeated automatically up to three (3) times, or until deadbolt is detected in correct position.

Alarm

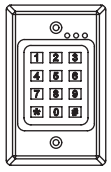
- After 3 relocking operations, if DBM switch still cannot detect the deadbolt is situated in the right position, an integrated speaker will chime 60 seconds to notify the user that the opening has failed to lock.
- Once the door is reopened, the auto-locking and alarm functions will reset.

**To ensure this function is activated properly, please ensure the Purple and Orange wires are properly connected to the Relay REX Input port. Please refer to wiring diagram.*

***DPS and DBM sensors have been programmed internally to support this function. There is no need to connect the DPS/DBM to any monitoring device to support this function.*

Optional Accessories:


Handwave


Keypad


Monitor Panel

Accessories are shown for reference only and not evaluated for UL294 or UL1034.
Make sure the connected relay has a timed function to control the power supply.

Installation Instructions for Passage Function:
PD97ES10 with X Series Trim or Surface Pulls

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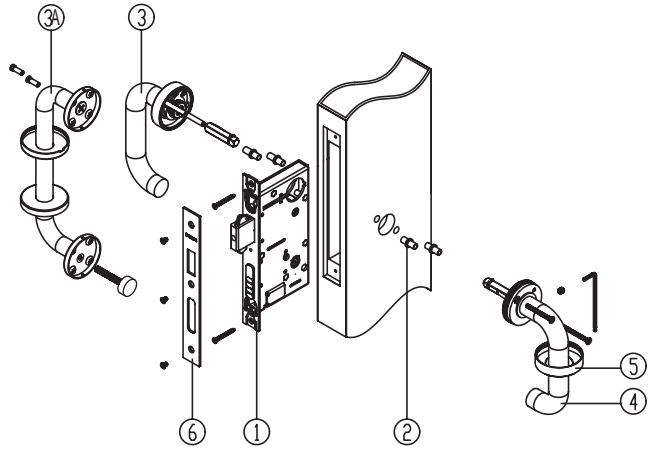
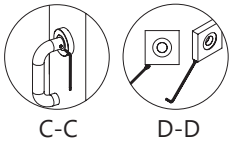


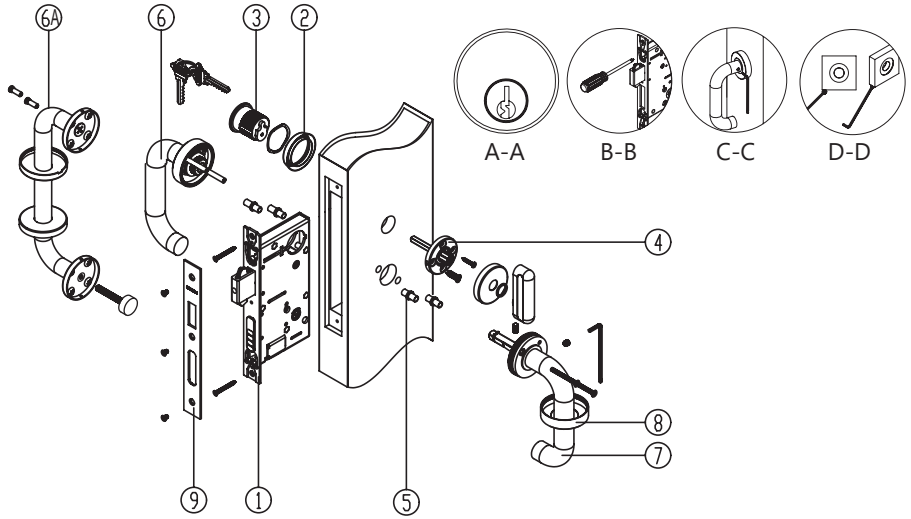

C-C D-D

1. Install mortise lockcase in door prep.
2. Install the compression inserts on both sides.
3. Install the outside X series trim with spindle, do not tighten the set screws.

3A. Alternative Option: Install outside surface pull without spindle and do not tighten the set screws.

4. Install outside X series trim, do not tighten the set screws.
5. Install the inside rose cover. XGT is threaded, XGS requires a set screw. **NOTE:** After the lever is installed, fully tighten the set screws on both the inside and outside trims. See Section C-C. **NOTE:** XGS square roses needs to be aligned prior to tightening the set screw on bottom of rose cover. See Section D-D.
6. Install armored faceplate with M4x6mm screws.

Installation Instructions for Entry Function: PD97ES53 with X Series Trim or Surface Pulls

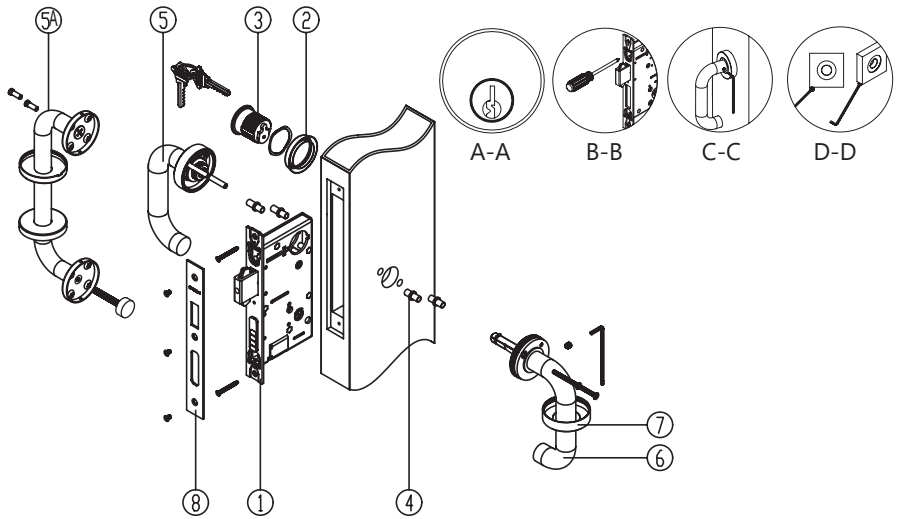


1. Install mortise lockcase in door prep. **NOTE:** DO NOT tighten faceplate screws until the cylinder has been installed.
2. Screw on outside cylinder escutcheon ring with spacer.
3. Install mortise cylinder. **NOTE:** Key slot on cylinder should be on lower center position. See section A-A. Using a screwdriver, tighten the screws on the lockcase to position the cylinder into place. See Section B-B.
4. Mount inside privacy thumbturn rose with M4x19mm screws. Mount rose cover and clear washer before mounting thumbturn piece. Use Allen Key to tighten set screws.
5. Install the compression inserts on both sides.
6. Install outside X series trim, do not tighten the set screws

6A. Alternative Option: Install outside surface pull without spindle and do not tighten the set screws.

7. Install inside X series trim and tighten the M4x1-3/8" screws.
8. Install the inside rose cover. XGT is threaded, XGS requires a set screw. **NOTE:** After the lever is installed, fully tighten the set screws on both the inside and outside trims. See Section C-C. **NOTE:** XGS square roses needs to be aligned prior to tightening the set screw on bottom of rose cover. See Section D-D.
9. Install armored faceplate with M4x6mm screws.

Installation Instructions for Storeroom Function: PD97ES80 with X Series Trim or Surface Pulls

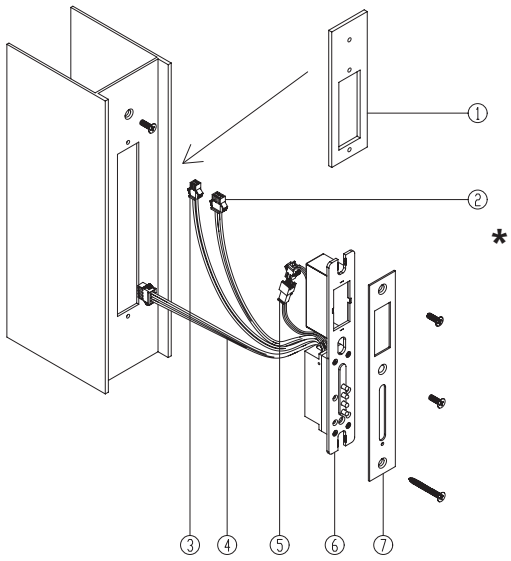


1. Install mortise lockcase in door prep. **NOTE:** DO NOT tighten faceplate screws until the cylinder has been installed.
2. Screw on outside cylinder escutcheon ring with spacer.
3. Install mortise cylinder. **NOTE:** Key slot on cylinder should be on lower center position. See section A-A. Using a screwdriver, tighten the screws on the lockcase to position the cylinder into place. See Section B-B.
4. Install the compression inserts on both sides.
5. Install outside X series trim, do not tighten the set screws.

5A. Alternative Option: Install outside surface pull without spindle and do not tighten the set screws.

6. Install outside X series trim, do not tighten the set screws.
7. Install the inside rose cover. XGT is threaded, XGS requires a set screw. **NOTE:** After the lever is installed, fully tighten the set screws on both the inside and outside trims. See Section C-C. **NOTE:** XGS square roses needs to be aligned prior to tightening the set screw on bottom of rose cover. See Section D-D.
8. Install armored faceplate with M4x6mm screws.

Installation Instructions for PD97ES Strike: Aluminum Frame with One Hole Prep



*** WARNING:**
Make sure the connected relay has a timed function to control the power supply. PD97ES lock only requires 3~6 seconds of continuous power to engage or retract the deadbolt. Continuous power longer than needed will damage the motor. The range of the power supplying duration is subject to the soft close or weatherstripping conditions on the sliding door.

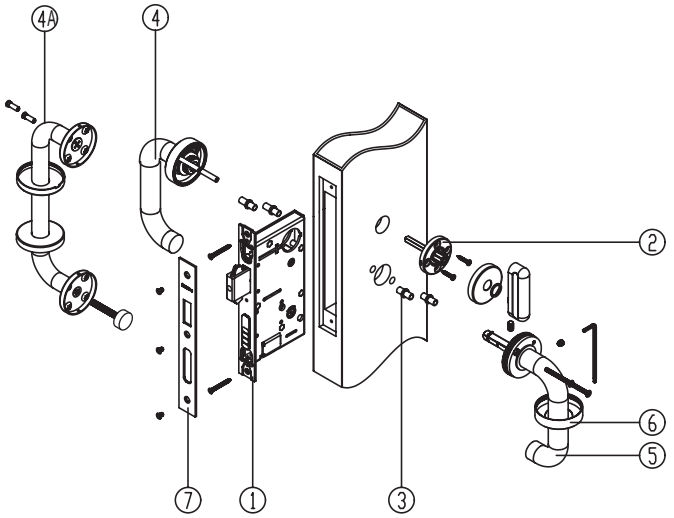
1. Install reinforcement plate behind the door frame cut out, secure the plate with machine screws and tighten.
2. Connect the red/black/white Molex receptor to the power and output relays.*
3. Connect the orange/blue Molex receptor to the Input REX port of the relay.
4. Connect purple/yellow/green/grey Molex receptor to a monitoring device.
5. Connect the black/black Molex receptor between deadbolt and main PCB unit on the strike to enable the deadbolt sensor to active autolocking. See Section E-E.
6. Install the dust box.
7. Install the buckle plate and tighten the screws.

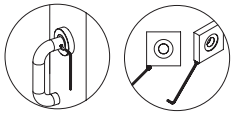
Electrical rating for this product = Lock / Strike Rated 10-26VDC 1.5 Amps.

Door Position Switch (DPS): Deadbolt Monitoring Switch (DBM): Request to Exit (REX): Max Voltage 30VDC Max Current: 1.5A 250K cycles of operation resistive load	For UL compliance the product is to be powered via a UL 294 or UL 603 or UL 2610 power supply with a class 2 power limited output suitable for the power requirement of the product.

This product for UL compliance shall be used with UL Listed access control and burglar alarm control panels / peripheral devices.

Installation Instructions for Patio Function: PD97ES60 with X Series Trim or Surface Pull



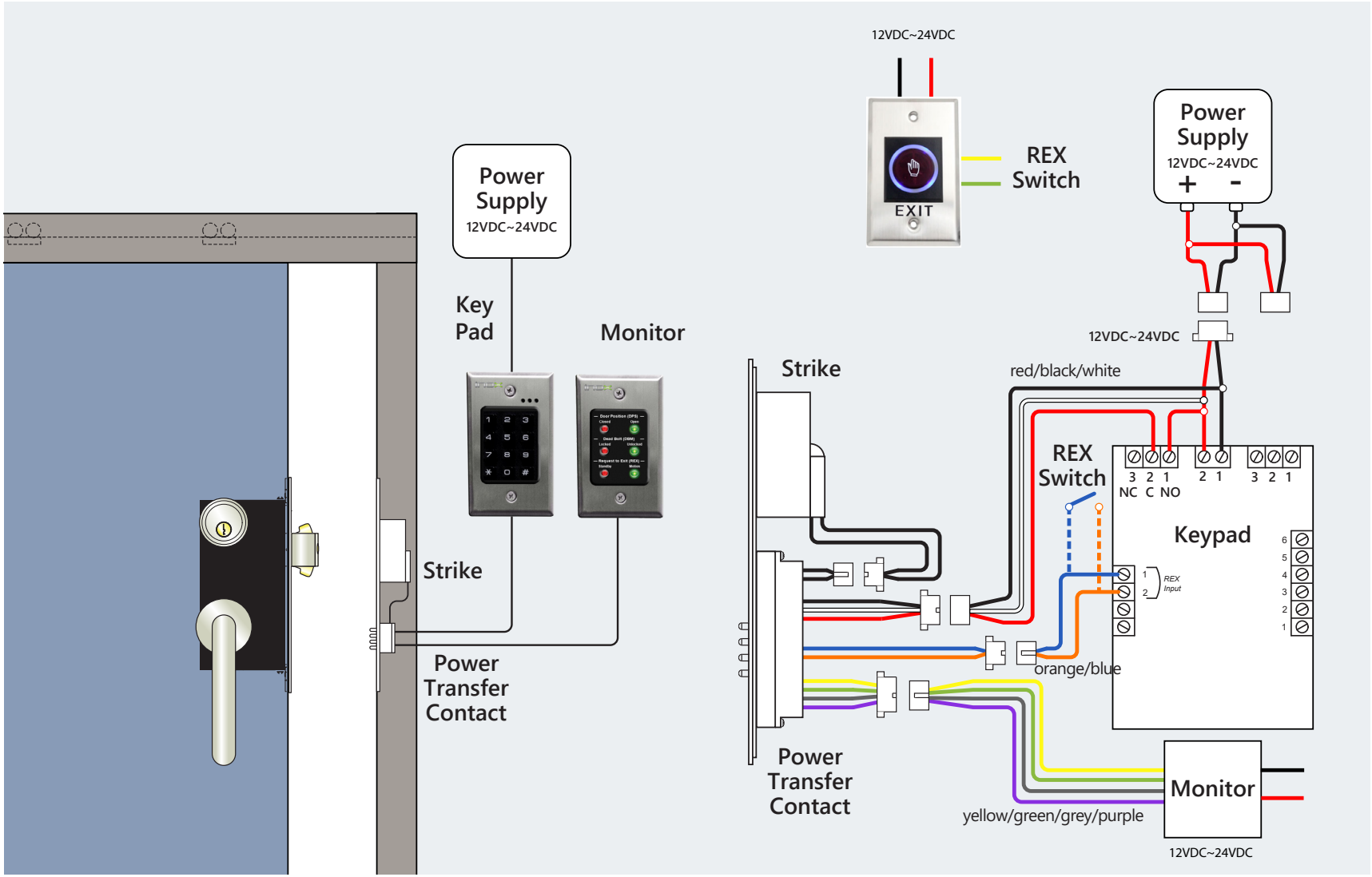


1. Install mortise lockcase in door prep. **NOTE:** DO NOT tighten faceplate screws until the cylinder has been installed.
2. Mount inside privacy thumbturn rose with M4x19mm screws. Mount rose cover and clear washer before mounting thumbturn piece. Use Allen Key to tighten set screws.
3. Install the compression inserts on both sides.
4. Install outside X series trim, do not tigthen the set screws.

4A. Alternative Option: Install outside surface pull without spindle and do not tighten the set screws.

5. Install outside X series trim, do not tighten the set screws.
6. Install the inside rose cover. XGT is threaded, XGS requires a set screw. **NOTE:** After the lever is installed, fully tighten the set screws on both the inside and outside trims. See Section C-C. **NOTE:** XGS square roses needs to be aligned prior to tightening the set screw on bottom of rose cover. See Section D-D.
7. Install armored faceplate with M4x6mm screws.

PD97ES Wiring Diagram



This product for UL compliance shall be used with UL Listed access control and burglar alarm control panels / peripheral devices. Accessories are shown for reference only and not evaluated for UL294 or UL1034.

PD97ES Electrified Locks are designed to operate at 12/24V. Complete INOX system maximum current draw is 780 mA. INOX breakdown of individual items:

Lock Body	560mA
Strike	40 mA
Keypad	90 mA
Handwave	30 mA
Relay	30 mA
Monitor	30 mA

For UL compliance the product is to be powered via a UL294 or UL603 or UL2610 power supply with a class 2 power limited output suitable for the power requirement of the product.

Door Position Switch (DPS), Deadbolt Monitoring Switch (DBM), Request to Exit (REX): 250K cycles of operation resistive load