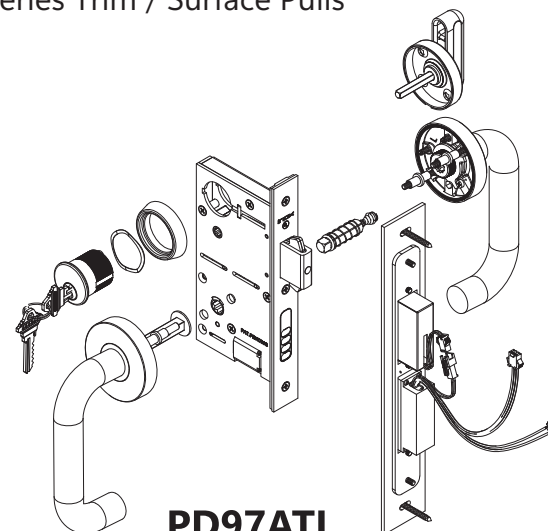


Installation Instructions

PD97ES & PD97ATL Electrified Mortise Locksets
with Autolocking (ES & ATL) and Monitoring Switches (ES only)
with X Series Trim / Surface Pulls



PD97ATL
PD97ES (shown)

PD97ES = PD97ATL + REX + DBM + DPS

- PD97ATL = 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.

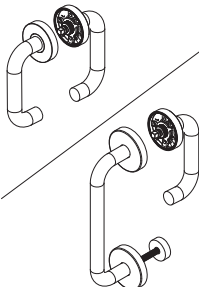
UL1034 Static and Dynamic Rating	
Static Strength	500 lbs
Dynamic Strength	70 ft lbs
Endurance	250K cycle of operations

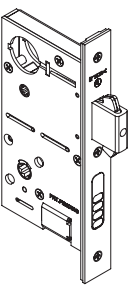
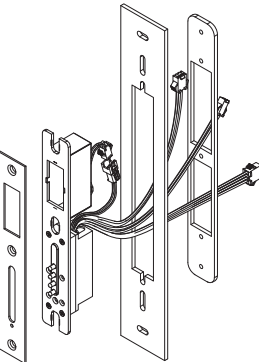
UL 294 Performance Rating	
Level I	- Line Security
Level IV	- Endurance
Level I	- Standby Power
Level I	- Attack

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PD97ES & PD97ATL Components List

A X Series Trim / Surface Pull	
	5* - Compression Inserts 2 - M4x35mm Machine Screw 2 - FS-SLM M4x40-OHX 2 - Safety Lock Washer 4 - M4.2x19mm Self Tapping Screw 4 - M4x19mm Wood Screw 1 - 3mm Allen Key
B Cylinder & Keys	
	1 - Wave Washer
C Thumbturn	
	2 - M4x19mm Self Tapping Screw for Metal Doors 2 - M4x16mm Wood Screw for Wood Doors 1 - 3mm Allen Key

D Mortise Lock & Faceplate	
	2 - M4x30mm Combo Screw 3 - M4x6mm Machine Screw
E Strike Plate w/ Dust Box	
	2 - M4x30mm Wood Screw 2 - M4x12mm Pan Head Machine Screw 3 - M4x12mm Machine Screw 1 - pc of 2P Extension wire 1 - pc of 3P Extension wire 1 - pc of 4P Extension wire *(PD97ES only)

* Extra fasteners provided for convenience

	Part Lists	10 (ATL only)	53	60	80
A	X Series Trim / Surface Pull	1EA	1EA	1EA	1EA
B	Cylinder & Keys	-	1EA	-	1EA
C	Thumbturn	-	1EA	1EA	-
D	Mortise Lock & Faceplate	1EA	1EA	1EA	1EA
E	Strike Plate w/ Dust Box	1EA	1EA	1EA	1EA

PD97ES/PD97ATL Electrified Mortise Lockset with Sensors Installation Instructions Notes

WARNING:

Make sure the connected relay has a timed function to control the power supply. PD97ES / PD97ATL 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 activates 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.

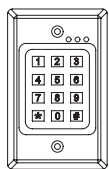
**To ensure this function is activated properly, the Purple and Orange wires must be connected to the Relay REX Input port in accordance with wiring diagram.*

***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.*

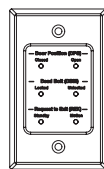
Optional Accessories:



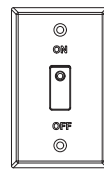
Handwave



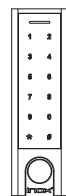
Keypad



Monitor Panel



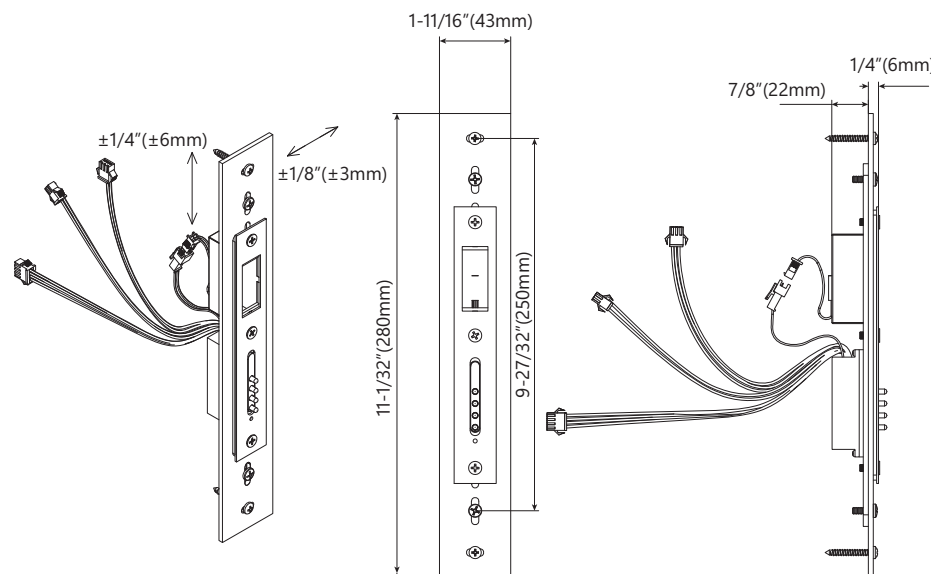
On/Off Switch



ISK-B300

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.

Dimensions for Adjustable Strike: PD97ES & ATL Series with X Series Trim



The INOX 3D Adjustable Strike offers a distinctive, patent pending construction that allows adjustment of the dust box.

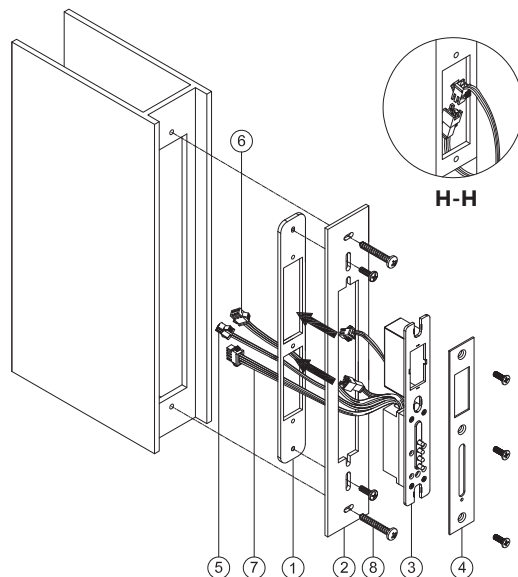
The optional INOX 3D Adjustable Strike gives the installer the ability to fine-tune the gap between door and frame with a simple adjustment of the built-in strike screws, ensuring a perfect fit.

- Can be adjusted before or after installation
- No modification to the door frame is necessary for adjustment
- Dust box remains locked in place while the faceplate is adjustable in 3 directions
- Once set, our unique slotted system holds the dust box and faceplate rigid for smooth door opening and closing.
- With INOX Adjustable strike, the plate screws pull the lock/door closer to the frame to minimize the gap, or widen the gap between door and frame to allow tolerances for weather stripping.
- INOX Adjustable Strikes ensure perfect fit with easy installation.

Installation Instructions for PD97ES & PD97ATL Strike: Aluminum Frame with One Hole Prep

* WARNING:

Make sure the connected relay has a timed function to control the power supply. PD97ES/PD97ATL 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.



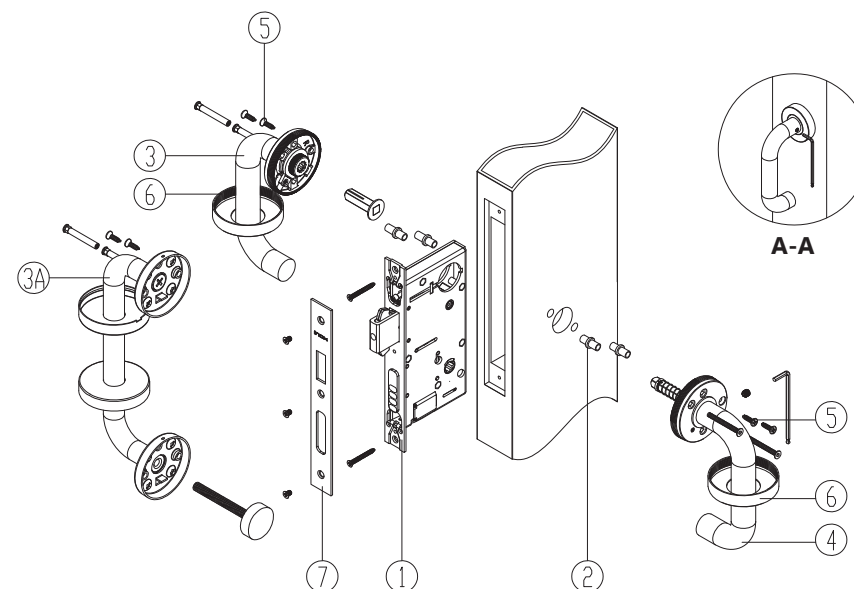
1. Vertical adjustment plate.
2. Horizontal adjustment plate.
Note: The vertical and horizontal adjustment plates are connected using (2) M4x12mm Pan Head Machine Screws.
3. Connect the Dead Bolt Monitoring (DBM) plugs from the strike box. Route each of the two plugs through the two holes in the vertical adjustment plate. See H-H; then install the strike box into the assembled vertical and horizontal adjustment plates.
4. Install the Strike Faceplate using (3) M4x12mm Machine Screws.
5. Wire/Connect REX Switches.
6. Wire/Connect Power & Normally Open (NO) Switches.
7. Wire/Connect the Monitoring Switches (ES Version Only).
8. Strike Box position can be adjusted within the frame; the two brackets allow for 6mm of vertical adjustability and 3mm of horizontal adjustability.
Note: It's important to perfectly align the strike with the lock body. All pogo pins (on strike) must be perfectly aligned with the magnetic contacts (on lock face). Strike box (on strike) must be perfectly aligned with the deadbolt (from lock).
9. Once alignment is confirmed, use the M4 x 30mm Combo Screws to secure the adjustable brackets and strike into the door frame.

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

Door Position Switch (DPS):	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.
Deadbolt Monitoring Switch (DBM):	
Request to Exit (REX):	
Max Voltage 30VDC Max Current: 1.5A 250K cycles of operation resistive load	

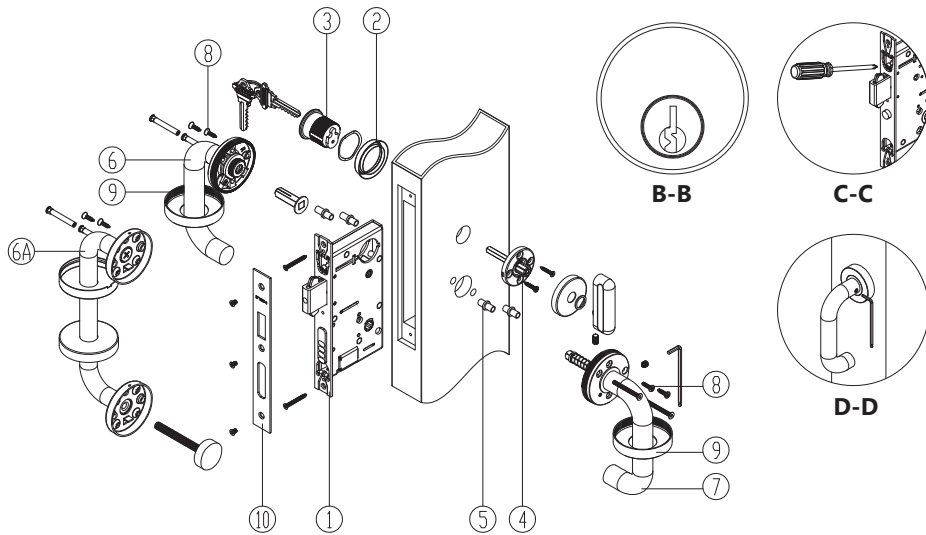
This product for UL compliance shall be used with UL Listed access control and burglar alarm control panels / peripheral devices.

Installation Instructions for Passage Function: PD97ATL10 with X Series Trim or Surface Pulls



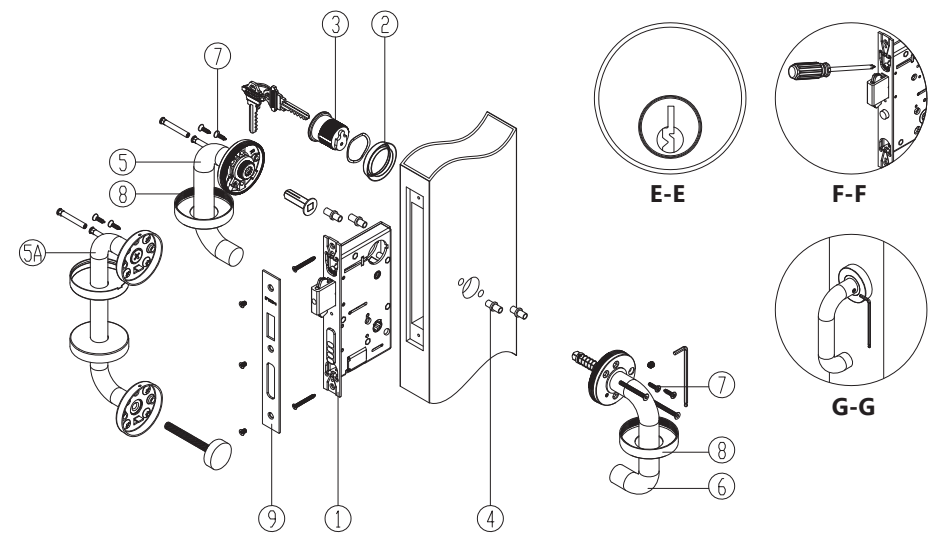
1. Install the Lockcase into the door and then tighten the M4x30mm combo screws.
2. Install the compression inserts on both sides.
3. Install the outside X series trim and insert the FS-SLM M4x40-OHX nuts. Do not tighten the set screws.
- 3A. *Alternative Option: Install outside surface pull without spindle and do not tighten the set screws.*
4. Install inside X series trim and tighten the M4x35mm screws.
5. Install the XRA trim. For wooden doors, use M4x19mm wood screws on both the inside and outside door bases; for metal doors, use M4.2x19mm self-tapping screws.
***If installing an XGT trim, these screws are not required.**
6. Install the inside and outside rose covers.
NOTE: After the lever is installed, fully tighten the set screws for both inside and outside trim. See A-A.
7. Install armored faceplate with M4 screws

Installation Instructions for Entry Function: PD97ES53/PD97ATL53 with X Series Trim or Surface Pulls



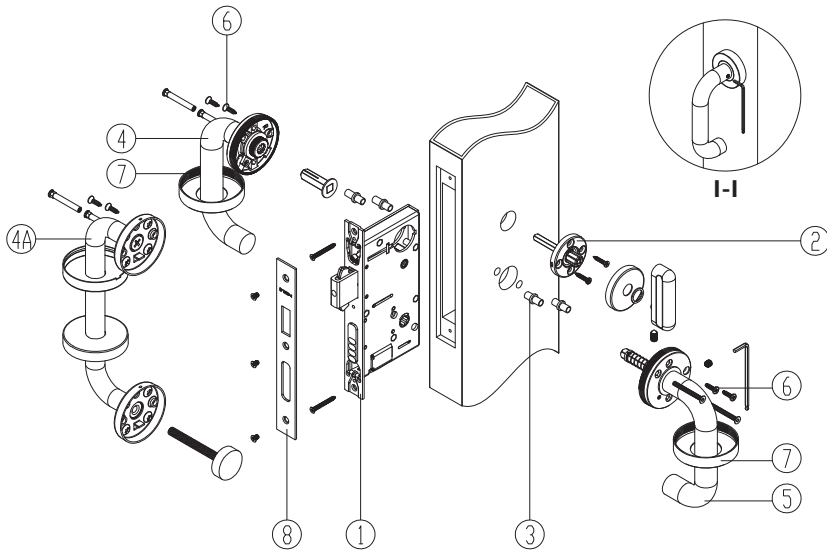
1. Install the Lockcase into the door and then tighten the M4x30mm combo screws.
2. Screw on outside cylinder escutcheon ring with spacer.
3. Install mortise cylinder.
NOTE: Key slot on cylinder should be on lower center position. See B-B.
Using a screwdriver, tighten the M4 screws on the lockcase to position the cylinder into place. See C-C.
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. Mount the outside thumbturn release rose cover.
Thumbturn is only available in round version
5. Install the compression inserts on both sides.
6. Install the outside X series trim and insert the FS-SLM M4x40-OHX nuts. 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 M4x35mm screws.
8. Install the XRA trim. For wooden doors, use M4x19mm wood screws on both the inside and outside door bases; for metal doors, use M4.2x19mm self-tapping screws.
*If installing an XGT trim, these screws are not required.
9. Install the inside and outside rose covers.
NOTE: After the lever is installed, fully tighten the set screws for both inside and outside trim. See D-D.
10. Install armored faceplate with M4 screws.

Installation Instructions for Storeroom Function: PD97ES80/PD97ATL80 with X Series Trim or Surface Pulls



1. Install the Lockcase into the door and then tighten the M4x30mm combo screws.
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 E-E.
Using a screwdriver, tighten the M4 screws on the lockcase to position the cylinder into place. See F-F.
4. Install the compression inserts on both sides.
5. Install the outside X series trim and insert the FS-SLM M4x40-OHX nuts. Do not tighten the set screws.
- 5A. *Alternative Option: Install outside surface pull without spindle and do not tighten the set screws.*
6. Install inside X series trim and tighten the M4x35mm screws.
7. Install the XRA trim. For wooden doors, use M4x19mm wood screws on both the inside and outside door bases; for metal doors, use M4.2x19mm self-tapping screws.
*If installing an XGT trim, these screws are not required.
8. Install the inside and outside rose covers.
NOTE: After the lever is installed, fully tighten the set screws for both inside and outside trim. See G-G.
9. Install armored faceplate with M4 screws.

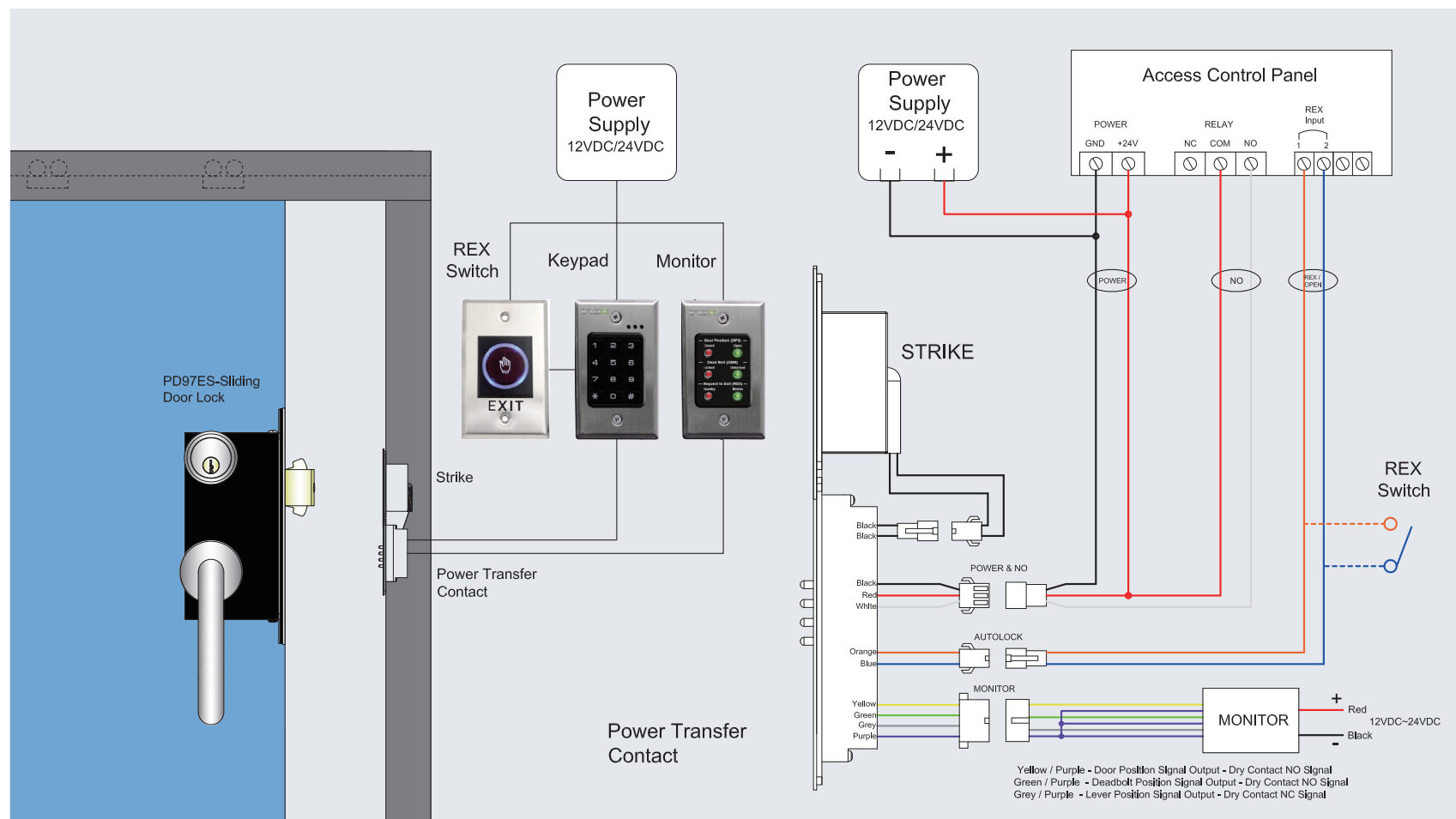
Installation Instructions for Patio Function: PD97ES60/PD97ATL60 with X Series Trim or Surface Pulls



1. Install the Lockcase into the door and then tighten the M4x30mm combo screws.
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. Mount the outside thumbturn release rose cover.
Thumbturn is only available in round version
3. Install the compression inserts on both sides.
4. Install the outside X series trim and insert the FS-SLM M4x40-OHX nuts. Do not tighten the set screws.
- 4A. *Alternative Option: Install outside surface pull without spindle and do not tighten the set screws.*
5. Install inside X series trim and tighten the M4x35mm screws.
6. Install the XRA trim. For wooden doors, use M4x19mm wood screws on both the inside and outside door bases; for metal doors, use M4.2x19mm self-tapping screws.
*If installing an XGT trim, these screws are not required.
7. Install the inside and outside rose covers.
NOTE: After the lever is installed, fully tighten the set screws for both inside and outside trim. See I-I.
8. Install armored faceplate with M4 screws.

PD97ES & ATL Wiring Diagram

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.

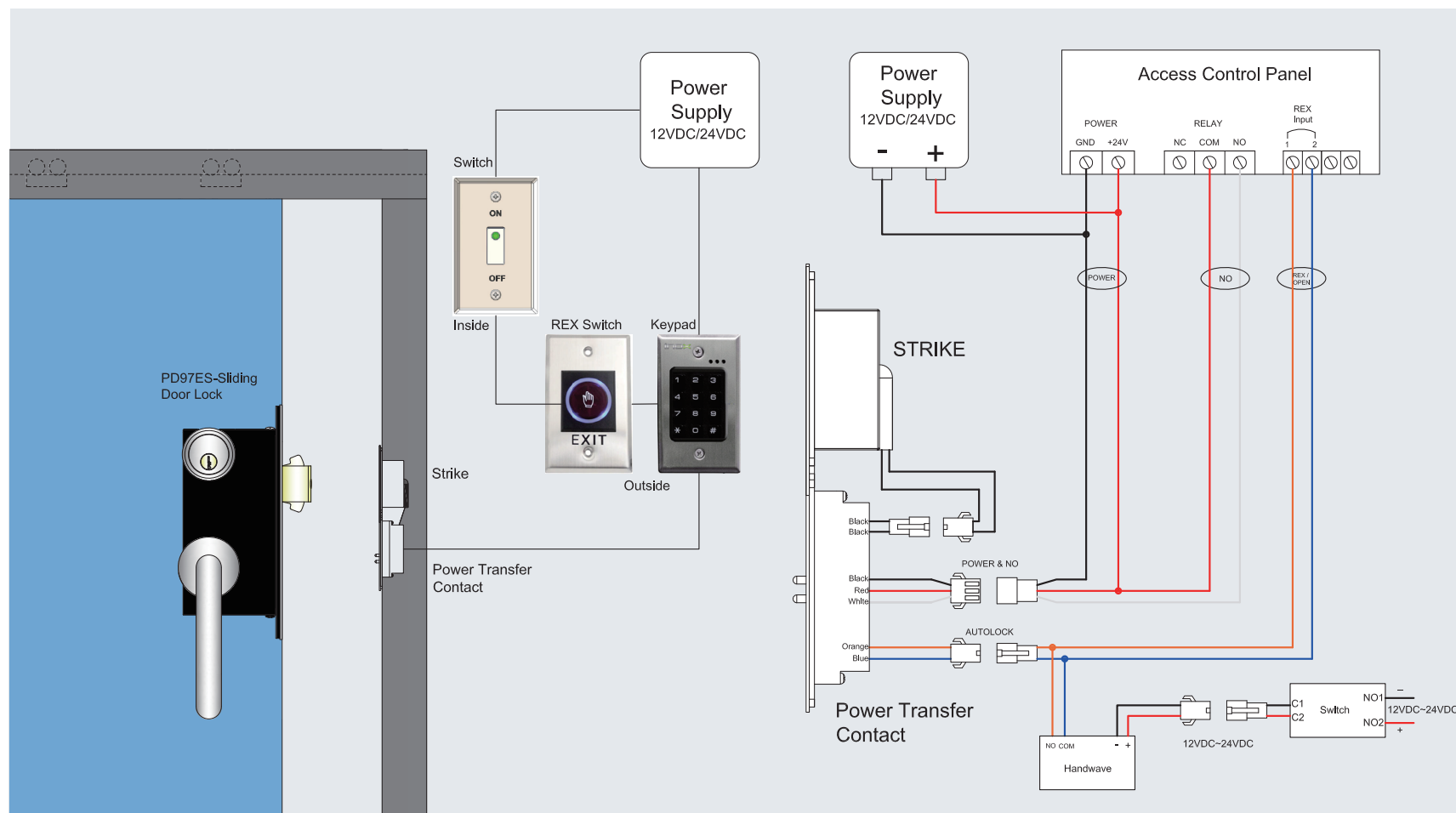
PD97ES Electrified Locks are designed to operate at 12/24V. Complete INOX system maximum current draw is 780 mA. INOX breakdown of individual items:

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

PD97ATL 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.

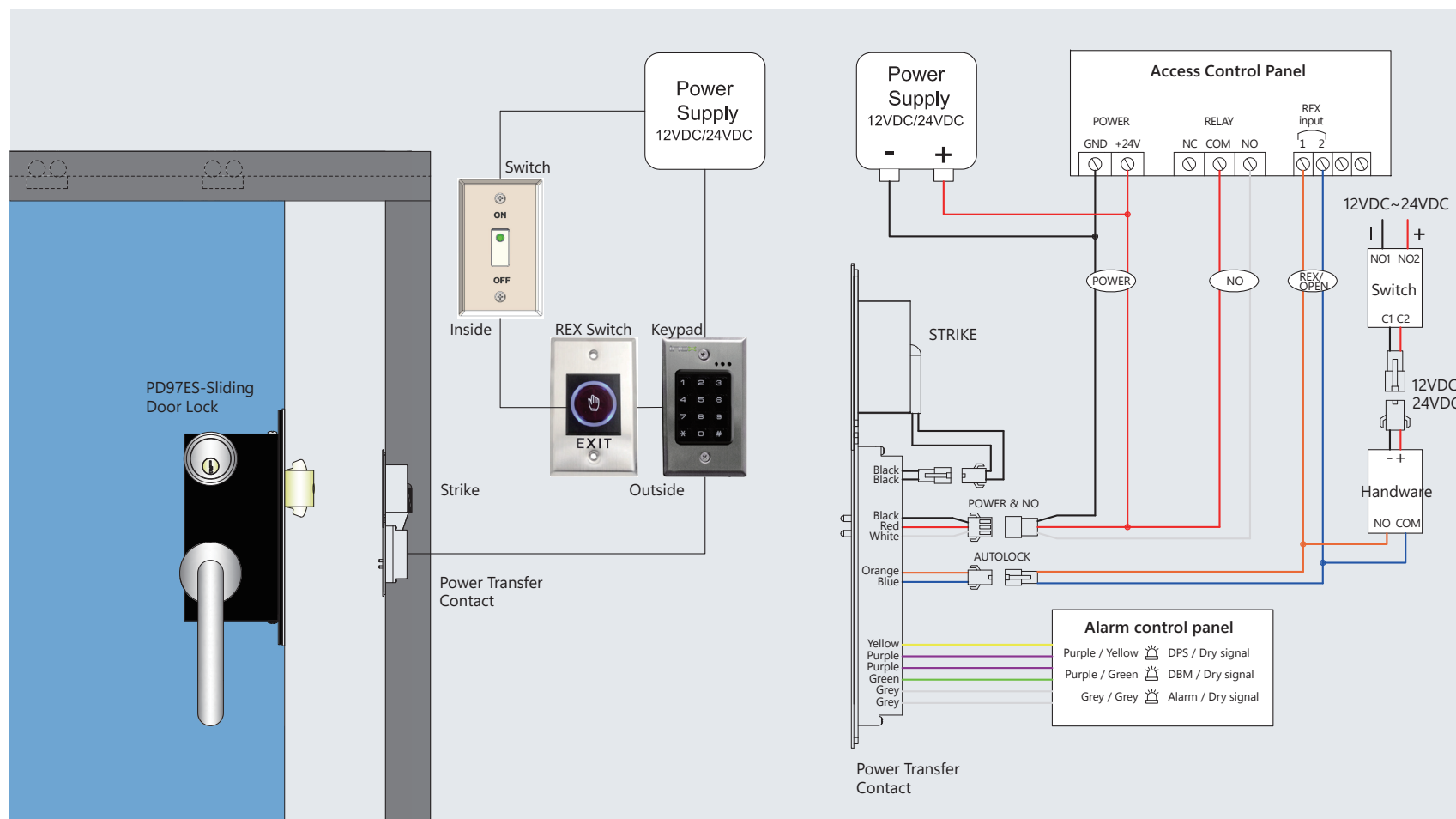
PD97ATL Electrified Locks are designed to operate at 12/24V. Complete INOX system maximum current draw is 780 mA. INOX breakdown of individual items:

Lock Body	560mA
Strike	40 mA
Keypad	90 mA
Handwave	30 mA
Relay	30 mA
Switch	20 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

PD97ATLC1 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.

PD97ATL 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
Switch	20 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

