

PaxLock Pro - Mortise - Installation and Commissioning Guide

Overview

When installing a PaxLock Pro - Mortise, it is important to ensure the environment the PaxLock Pro - Mortise is to be installed in is fit for purpose.

This application note covers the preparation that should be carried out before, during and after installation to ensure the longevity of the product as well as correct installation.

This application note also covers a few common problems which may impact the performance and quality of the PaxLock Pro - Mortise.

Checks to make prior to installation

If door mortising is required prior to installing the PaxLock, we recommend the use of a door mortising jig or seek the assistance of a carpenter. When preparing a new door, follow this drilling template: www.Paxton.Info/6464

For the 901-053-US PaxLock Pro – Latchbolt Mortise lock, follow the instructions and drill holes:

- Outside: A, B, E,
- Inside: A, E

For the 901-054-US PaxLock Pro – Deadbolt Mortise lock, follow the instructions and drill holes:

- Outside: A, B, E
- Inside: A, C, E, F

Note: The F markings are to hold the rose of the thumbturn in place. These are not very deep and can be done when the thumbturn is being installed.

Before installing the PaxLock Pro - Mortise onto the door, it is important to check that the door, frame and any relevant door furniture are in good working order. This is important to ensure both the longevity and the smooth operation of the product once installed.

Door usage

The PaxLock Pro – Mortise can be installed on an exterior facing door and is recommended for use on doors being operated up to 75 times per day. For usage above this number, we would recommend a Paxton hard wired solution.



Through door holes

The PaxLock Pro - Mortise has been designed to work with the Yale 8800 series lockset as shown in Figure 1.

The through door holes must be $5/16"$ diameter and the central follower must have at least $15/16"$ clearance around it.

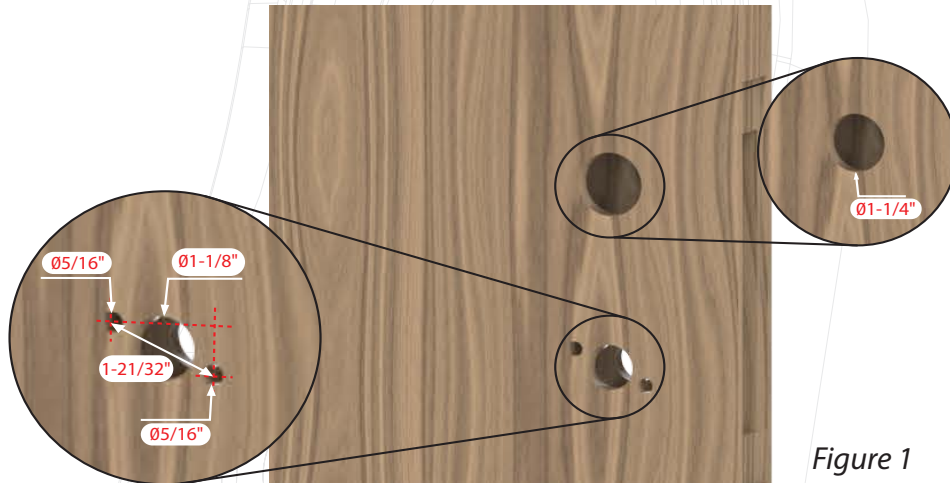


Figure 1

Lock case

The PaxLock Pro - Mortise is compatible with the PaxLock Pro – Latchbolt Mortise lock or the PaxLock Pro – Deadbolt Mortise lock, both of which are available from Paxton.

Sales Codes:

901-053-US PaxLock Pro – Latchbolt Mortise lock

901-054-US PaxLock Pro – Deadbolt Mortise lock

The lockset must be both horizontally and vertically aligned to the door as shown in Figure 2.

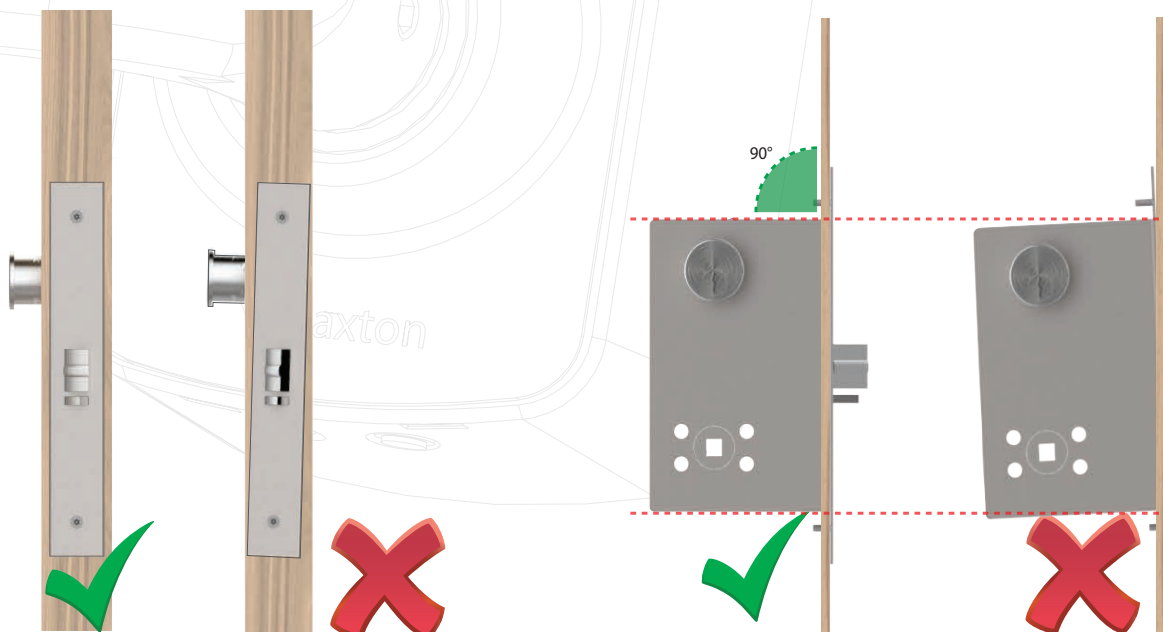


Figure 2

Fire doors

The PaxLock Pro - Mortise is certified to UL10C 3 hour fire test. All door furniture used in the installation must have equivalent fire certification in order to comply. This includes the use of interdens as recommended by the lockset manufacturer.

Door Frame

It is best practice to ensure there is a gap of 1/8" from the door edge to the frame. This is to ensure that if a deadbolt is present on the lock case, it can function correctly.

The door strike plate should also be 5/8" to avoid clashing with the PaxLock Pro - Mortise when the door is closed.

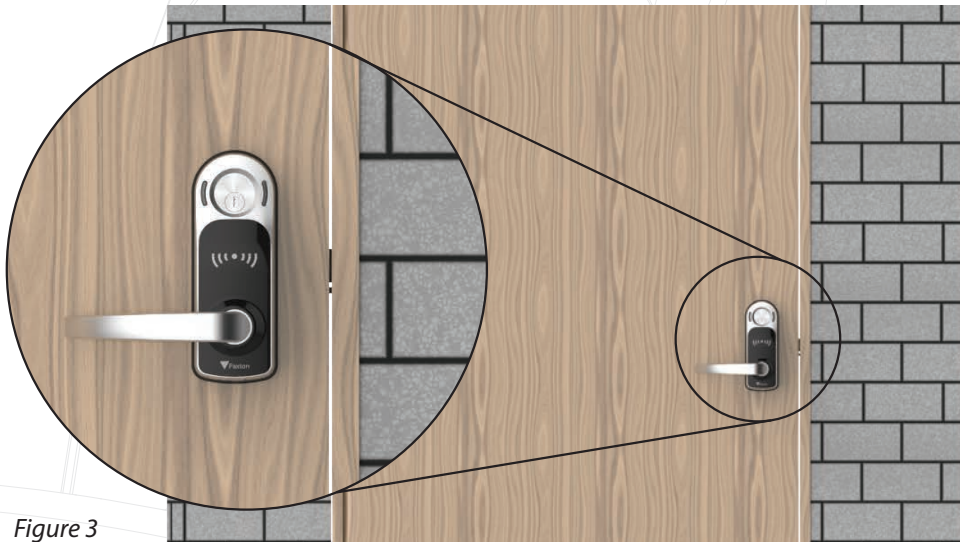
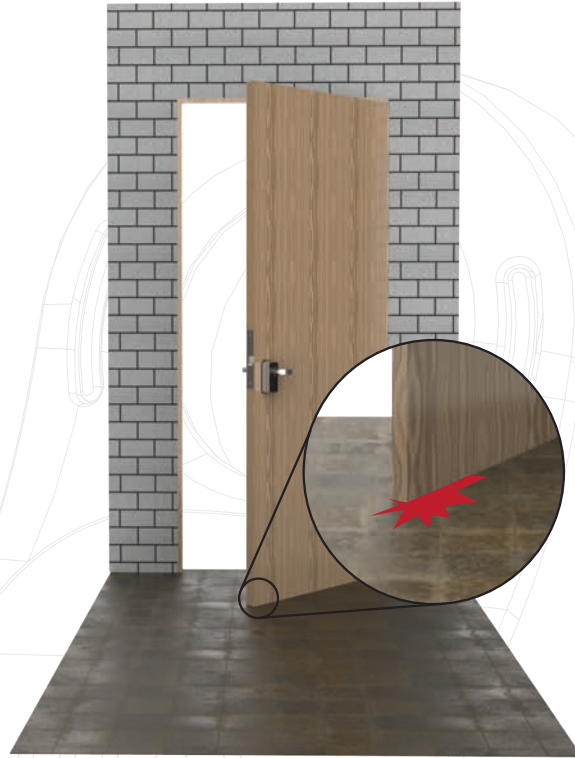


Figure 3

Floor

The distance between the bottom of the door and the floor must be sufficient to allow the door to freely open and close without rubbing on the floor.

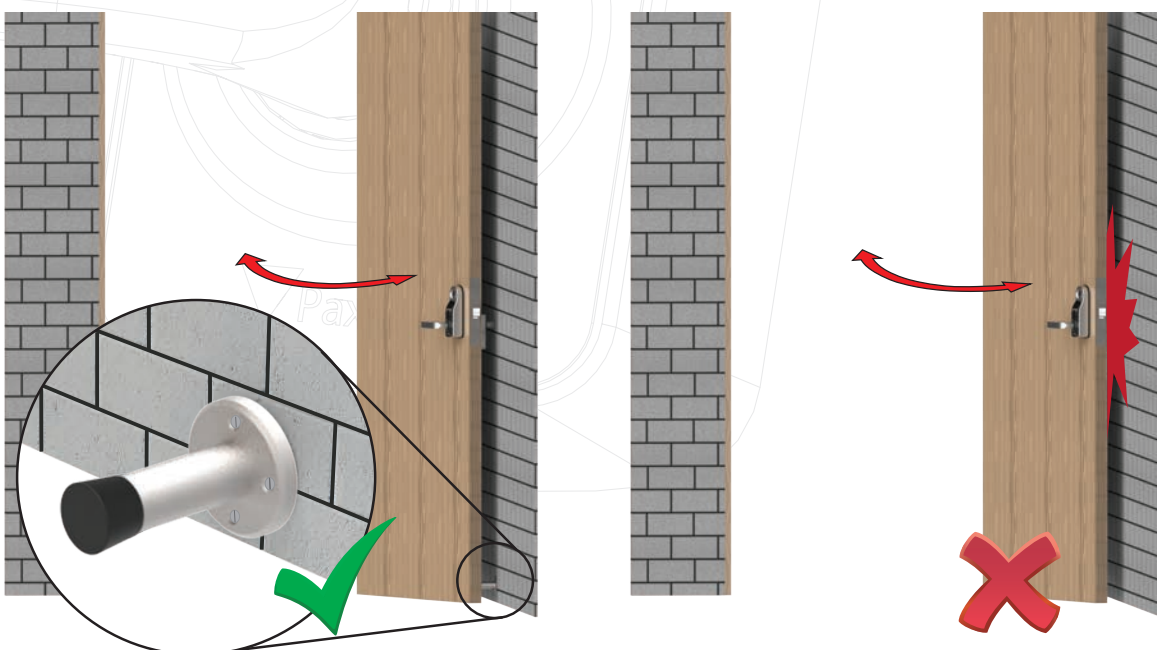


Door Closer

If a door closer is being used it must be adjusted to ensure the door closes without slamming but does not require excessive force to open.

Door Stop

The use of a door stop is advised on doors that can hit an adjacent wall when fully opened. This will prevent damage being caused to the PaxLock Pro - Mortise.



Acoustic and draft seals

Should a door have either an acoustic or draft seal around the outer edge, it is important that the door can still easily close without putting undue stress on the latch and strike plate. If this is not the case, the strike plate may need adjusting.

Metal doors

The PaxLock Pro - Mortise is suitable for installation onto metal doors providing both the width and lockset are within the specifications outlined on the PaxLock Pro - Mortise datasheet.

To ensure correct operation, the following must be checked:

- If using in online mode, the Net2Air bridge or Paxton10 Wireless Connector may have to be positioned well within the 50ft range as a metal door will reduce the range of communication. To ensure reliable operation, standalone mode may be more appropriate.

Ordering the right equipment

Once you are happy the site is suitable for the PaxLock Pro - Mortise, you will need to ensure you have the right information to order the correct products.

There are 4 sales codes to choose from for PaxLock Pro - Mortise. You'll need to know if you prefer the Galaxy or Eclipse handle as well as if you would like the black or white fascia.

Door Widths

Notes will need to be taken on the door thicknesses across a potential site, this information will be required when ordering the PaxLock Pro - Mortise.

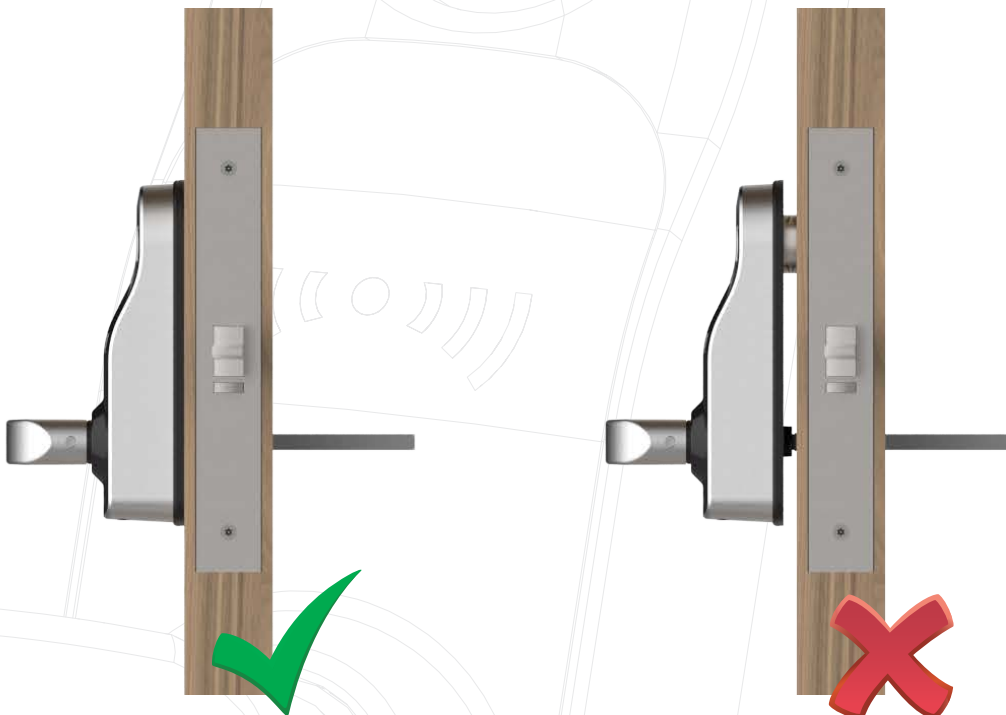
- Out of the box, the PaxLock Pro - Mortise will work with 1-3/4" door widths.
- For door widths of 2" or 2-1/4" a separate Wide Door kit will need to be purchased.

During installation

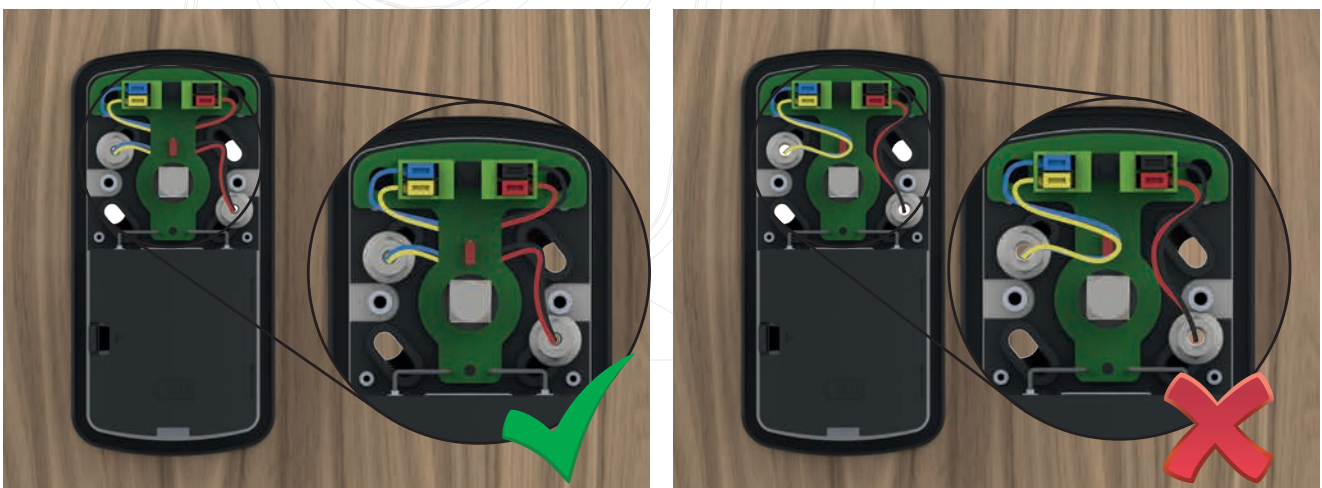
The supplied template <www.paxton.info/3586> should be used to check that the holes in the door are in the right location and correctly sized for the PaxLock Pro - Mortise.

To ensure the PaxLock Pro - Mortise is perpendicular to the door edge it is important to mark and drill the anti-rotation screw in the correct location, as indicated below.

When passing the PaxLock - Mortise through the door to fit it, the unit must sit completely flush against the face of the door. If this is not the case, the holes in the door may need adjusting.



After terminating the power and data cables, it is important to tuck the cables behind the PCB in the center of the device, as indicated below.



Post installation commissioning

Once the PaxLock Pro - Mortise has been installed, there are several checks that can be made to ensure the product has been installed correctly and is functioning correctly.

When the PaxLock Pro - Mortise is first powered up it will remain in an unlocked state. This will give you the chance to check the following;

1. Does the latch fully retract when depressing the handle?
2. Does the door open smoothly without rubbing on the frame, latch or floor?
3. When letting go of the handle, does the latch fully return to its natural position?
4. Is it smooth and easy to open the door?
5. When closing the door, does the latch sit within the strike plate?
6. When the door is closed does the deadbolt (if present) project smoothly into the keep?

If the answer is yes to all the above, then the unit can be bound to a Net2 or Paxton10 system, or a standalone pack can be enrolled. If the answer is no, refer to the troubleshooting guide below.

Please note: In the event a door has been manually locked via the key cylinder, if a token is subsequently presented to the PaxLock Pro - Mortise and access granted, excessive force applied to the lever when rigid can damage the unit.

Replacing the Batteries

To replace the batteries of the PaxLock Pro - Mortise:

1. Carefully insert a terminal screwdriver into the groove at the bottom of the secure-side fascia and angle downwards to pop off the fascia
2. Open the battery case lid
3. Replace the 4 AA batteries inside and close the battery case lid
4. Feed the rear fascia over the handle and fix to the chassis, inserting it at the top first and then pushing down on the bottom, until you hear a click

Lock Case

It is recommended that the PaxLock Pro – Mortise is installed with a new lock case to ensure the smooth operation of the PaxLock Pro – Mortise.

The PaxLock Pro - Mortise is compatible with the Yale® Latchbolt Mortise Lock or the Yale® Deadbolt Mortise Lock, both of which are available from Paxton.

Sales Codes:

901-053-US Yale® Latchbolt Mortise lock

901-054-US Yale® Deadbolt Mortise lock

Troubleshooting

To help improve the quality of the installation and the longevity of the product, several common issues and potential solutions are listed below.

Problem	Recommendation
Lock case	
Lock case is old, worn, or not freely moving.	Applying the manufacturer recommended lubricant may improve this operation. If not, a replacement lock case is recommended. A broken or worn lock case could cause permanent damage to the PaxLock Pro - Mortise which would not be covered under the warranty.
The latchbolt is not fully retracting when the handle is fully depressed?	The turning angle of the lock case must be 45° or lower for the PaxLock Pro - Mortise to fully retract the latch. If it is over this, the lock case will need replacing.
When the door is closed the latch does not sit in the strike plate.	The position of the strike plate should be adjusted so that the latch sits comfortably in the strike plate when the door is closed. Failure to do this compromises the security of the door.
The lock cases will not retract the latch when the door is closed, even from the secure side of the door.	Check the distance from edge of door to frame is no more than 1/8". Failure to do this can in some cases cause lock case issues or compromise the security of the door.
PaxLock Pro - Mortise	
The edge of the PaxLock Pro - Mortise or handle is clipping the door frame when opening and closing the door.	If this occurs, it may be a result of the backset on the lock case being too low. We recommend a minimum measurement of 2 1/8" to be suitable for most doors. If this is the case, the lock case will need to be replaced for one with an increased backset measurement.
The PaxLock Pro - Mortise will not sit flush against the door when installed.	The through door holes must be 5/16" diameter and the central follower must have at least 15/16" clearance around it. If this is not the case it will need correcting before installing the PaxLock Pro - Mortise.

<p>The PaxLock Pro - Mortise is not responding when I present a token.</p>	<p>Make sure the secure side handle assembly is installed. This is required for the PaxLock Pro - Mortise to function.</p>
<p>The through door cables have sheered when installing the handle assembly.</p>	<p>This may be because the door is too narrow for the bolts that have been used. Refer to the template for the correct bolt and spindle sizes for each door thickness.</p>
<p>There is free play in the handles.</p>	<p>It is important the grub screws on both handles are fully tightened to remove any free play.</p>
<p>Door Hardware</p>	
<p>The door rubs against the frame/floor when opened.</p>	<p>The door or frame may need shaving down to ensure smooth operation.</p>
<p>The door is hitting the wall when opened.</p>	<p>It is important that a door stop is installed to prevent the handle hitting a wall or object when the door is opened fully. Failure to do this can damage the PaxLock Pro - Mortise when swung open.</p>
<p>Door seals installed post install are applying too much pressure to the latch and deadbolt.</p>	<p>Door seals must be routed into the frame to prevent excessive force on the latch when the door is closed. The strike plate may need to be moved if seals have been installed without accounting for the tolerance needed.</p>
<p>Net2</p>	
<p>Event in Net2: "Handle held down during operation"</p>	<p>This occurs when the handle of the PaxLock Pro - Mortise is held down when a token is presented to the reader. To correctly use the PaxLock Pro - Mortise present your token, wait for green LED & beep, then depress the handle</p>
<p>Event in Net2: "Secure-side handle stuck" or "Unsecure-side handle stuck"</p>	<p>These events indicate the respective PaxLock Pro - Mortise handle has been held down for more than 30 seconds. Most likely someone holding the handle down for too long or something has been hung or left on the handle.</p>