



General recommendations for
maintenance of Doorsets
2026



Principal Doorsets Ltd

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ABOUT US

Principal Doorsets, a 'phoenix' company, was established in 2014 by Rob Llewellyn and Stan Bond who had previously been multisite Directors of a major doorset manufacturer that had one of its larger successful sites in North Devon. The Principal Doorsets commercial and manufacturing teams have been in the doorset industry with a combined service, well in excess of 400 years. Having positively supplied over this time, extensively to prestigious buildings in Healthcare, Education, Leisure, Commercial Building, Hotels and "high end" Residential properties with the most demanding specification and finish requirements. The Company are committed to continuing the heritage of door manufacturing within Devon.

The 80,000 sq. ft. unit on a 3.75-acre site in North Devon is geared specifically to manufacture to the most demanding of specifications for you. Accredited to ISO 9001, Q-Mark, PAS24 and FSC® standards with third party support ranging from Environmental, Health and Safety to National Standards. A capital investment program with carefully selected process machines to deliver the quality, reliability and more importantly, consistency necessary to ensure the best product and service is presented to our customers. The latest CNC machinery gives guaranteed precision and flexibility. You can rest assured that their fresh approach is supported by generations of experience to provide you the support service and quality that you demand.

We seek to set ourselves apart, by focusing on our service experience, quality and value for money that is the best in the market.

Our fire and enhanced security doorsets are provided under third party accreditation by BM Trada, Q-Mark scheme. This offers assurance that the products we supply are regularly tested along with our processes to ensure that our products comply to their original tested criteria.

We pride ourselves in ensuring we are as carbon free as possible, are accredited under the FSC scheme, and all our timber-based product is covered under this third-party scheme with no additional premium for this.

We carefully manufacture product, are accredited under ISO9001-2015 and have a robust, well managed quality management system (QMS).

We have provided doorsets for many projects across residential, healthcare, commercial, education and leisure sectors. From one off door up to 5000 doorsets.



INTRODUCTION

Fire doors are a critical safety feature of any building in which people work or visit, as they resist the spread of fire and smoke, limiting its effect, whilst allowing enough time for occupants to shield, allowing time for them to evacuate to a place of safety.

Fire doors are required to offer two main functions:

- a) maintain any compartmentation of buildings to limit fire spread
- b) enable access to protected escape routes such as corridors, lobbies and stairways whilst maintaining fire resistance and limiting smoke movement.

Source: BS 8214:2016 The locations and ratings for fire doors for means of escape are given in relevant guidance under building regulations in the UK and applicable design standards such as BS 9991 and BS 9999 founded on risk-based design considerations. In more complex buildings, designs may be based on fire safety engineering approaches governed by procedures defined in BS 7974.

This guide provided by Principal Doorsets Ltd. should not be used as a substitute for relevant British Standards or any other instructions received from the Local Fire and Rescue Service and/or Building Control Authorities.

TESTING AND DOOR MARKING

A doorsets fire performance is tested in accordance with either BS 476-22 or BS EN 16341 and marked accordingly.

When tested to the BS 476-22 standard such doors are marked by the prefix FD, followed by minute-based resistance rating.

Therefore, a door marked FD 30 can resist integrity failure for 30 minutes.

When tested to BS EN 1634-1 standard and classified in accordance with BS EN 13501-2, doors are identified by the prefix E followed by the integrity rating expressed in minutes e.g., E 60.

Restriction of 'Cold' Smoke Spread

As well as providing fire resistance, legislation requires certain doors to limit the spread of ambient temperature 'cold' smoke. These doors are identified by the suffix 'S' when tested in accordance with BS 476-31.1, e.g., FD 30S, and suffix 'S a' when tested in accordance with BS EN 1634-3 and classified under BS EN 13501-2, e.g., FD 30S a.

Fire Door Markings

Fire doors should always be clearly marked with their declared fire resistance period immediately post manufacture or inspection, or prior to despatch.

It's worth knowing that whilst some marking systems are controlled as part of third-party certification schemes, some others are purely identification in their own right, and don't imply such certification. For further information on fire door markings refer to BSI Standards Publication: BS 8214:2016



its



MAINTENANCE

Introduction

Doorset performance products along with their associated hardware, need care and maintenance to ensure they achieve the performance for which they were designed and manufactured.

Adding hardware post manufacturing could invalidate certification. Check with Technical Sales or your Lead Project Co-ordinator for free advice to ensure certification is maintained.

The safety and security of the building and its occupants can be seriously jeopardised if doors, especially those which form part of the building's fire escape route or fire integrity, are not operating effectively. Doors designated as being on a fire route exit or fire or smoke resistant doors have to be periodically inspected to make sure that they meet the same standards as when they were originally installed.

This is particularly Important in the case of fire doors and therefore, the maintenance recommendations contained herein can only indicate minimum requirements for your continued safety.

Both the Workplace (Health, Safety and Welfare) Regulations 2002 and the Fire Precautions (Workplace) Regulations 2007 contain requirements on the safety of doors and also require that any system capable of developing dangerous faults are subject to a suitable system of maintenance. This implies among other things that maintenance is carried out regularly, that defects are remedied and suitable records kept.

All Principal Doorsets products are designed and manufactured to require the lowest possible levels of routine maintenance. However, it is recognised that the working life of nearly all door hardware items will be significantly reduced if basic maintenance procedures are not carried out, especially where items are subject to relatively high levels of use. In addition, recently introduced European standards specifically recommend that certain maintenance routines should be carried out at designated intervals in order to ensure that there is no breach of Health & Safety requirements.

However, in recognition that specialist assistance is always the most effective way of proving ongoing confidence in any product, we are happy to offer you access to our centre of excellence through our Technical Sales Team. Therefore, should you need assistance please call or email:

01237 439152 or info@principaldoorsets.co.uk.

General Guidance

The recommendations provided within this document offer general guidance. The type and application of doors is numerous and vary accordingly so each door will need to be treated as the case dictates. Much will depend on how the door is utilised and where it is installed. For example:

- External doors will need to be checked for any seasonal changes.
- Applications in severe atmospheric conditions will need additional consideration e.g., coastal locations or swimming pool applications.
- Whilst many final emergency exit doors may be used very infrequently, those used for example as staff 'smoke break' exits may be subject to high usage.
- Internal fire resisting doors are equally important as final exit doors but may well have completely different hardware fitted to them.
- Vandalism and abuse will cause the majority of problems, so such applications may need to be checked more regularly than otherwise indicated.

The onus is on the building owner/employer/occupier to ensure that the maintenance routine is carried out and that:

- The work is carried out by suitably proficient individuals.
- Any remedial work is carried out immediately, especially on doors which form part of the fire safety or security of the building.
- Only parts of equal or better standard should be fitted as anything else could compromise the performance of the door. In the case of fire doors, it could invalidate fire certificates.
- To comply with the requirements of BS EN179:2008 and BS EN1125:2008, emergency exit and panic exit devices should be subjected to routine maintenance checks at intervals of not more than one month by the owner or occupier or his approved representative.
- Records of maintenance check and items changed or repaired must be kept.

The maintenance routines contained in the following pages are recommended on the understanding that all standard Bills of Quantity inclusions such as easing, adjusting, and where required, lubrication of door hardware items have been carried out as necessary to ensure correct operation of any component.

- a) Fixing screws for all components should be checked periodically to ensure they have not worked loose through use.

Loosening of Screw Fixings

Screw fixing may become loosened as a result of over stressing. The cause should be remedied as soon as noted and any damage repaired immediately. Frequently Found Causes:

- Absence of floor or wall mounted doorstops or adequate restraint to the door, which can loosen hanging screws and may cause fracture of the leaf if continually racked.
 - Excessive tension on closing devices and loss of damping effect to springs which can loosen hanging screws and closer fixings.
 - The most common symptoms of loosening hanging fixings is leading edge of door dropping and binding on the floor, at the meeting edges or in the lock jamb of frame. Take remedial action immediately in these circumstances.
- b) Door closer and floor springs should be checked for leaks and correct adjustment. These items are generally pre-lubricated or immersed in oil and good quality items should give long service with little actual maintenance. Cleanliness is important to preserve performance and life of these items.
 - c) Hinges should be checked for excessive wear and may require occasional lubrication with a light oil. Oiling should be completed immediately after installation.
 - d) The action of flush bolts and locks in external doors should be checked. Occasional lubrication with light oil may be required to ensure performance.
 - e) When fixing ironmongery to new positions, always pilot drill a full depth of screw using drill sizes as follows:
 - N° 6 Screw = 1/6" drill (3.5mm screw – 2mm drill)
 - N° 8 Screw = 5/64" drill (4mm screw – 2.5mm drill)
 - N° 10 Screw = 3/32" drill (5mm screw – 3mm drill)
 - N° 12 Screw = 1/8" drill (5.5mm screw – 3.5mm drill)

Conclusion

The conclusion is that building owners/employers/occupiers should ensure that doors are kept in good working order by a properly documented regime of regular and appropriate maintenance, carried out by suitably qualified and competent individuals.

The most important factor is that the door and hardware is designed to protect human life and nothing should be done which could compromise this.

Building Control Officers may include such inspections in their regular fire drills and fire precaution inspections.

For door leaf and frames maintenance please see page 20 onwards

Door Furniture

Lever handles require very little general maintenance. Annually check for smooth operation and ensure the lever freely returns to the horizontal position.

Annually check pull handles, bolts, door stops, signs and indicators.

General cleaning procedures should be followed in accordance with the “Care of Finishes” recommendations on page 20.



Lock Cases

The correct operation of your lock is important as it has a bearing on the correct functioning of fire doors.

Annual checks should be carried out in conjunction with checks on door closers and lever furniture.

Locks should not require lubrication during their lifetime.

However, a light oil or WD40 can help in dusty environments.



Cylinders

Cylinders should require very little routine maintenance. Their operation should be checked as part of the procedure for checking mortice locks.

A small application of flaked graphite may be used in the keyway.

Routine care of finishes should be carried out as necessary.



Door Controls

When installed as part of a fire precaution system the door closing mechanism, including the door selector if used on a double door arrangement, should be checked in accordance with standing periodic fire testing procedures. Routine care of finishes should be carried out as necessary.



Electromagnetic Door Controls

Units should be tested weekly in accordance with the procedures described in the “fire precautions (workplace) regulations 2097” or the “fire precautions (workplace) (amendment) regulations 2099”.

Routine care of finishes should be carried out, as necessary.



Panic and Emergency Exit Hardware

Specific maintenance checks must be carried out as required by BS EN1125:2008 (Panic Exit Devices) and BS EN179:2008 (Emergency Exit Devices), and as detailed in the relevant fixing instructions. Failure to carry out these checks will invalidate the certification.

At monthly intervals check correct functioning of the unit as part of the standing periodic fire test procedures. This should include the outside access device if fitted and the door selector if used on a pair of rebated double doors.

Routine care of finishes should be carried out as necessary.



Product Type	Description
Overhead door closers and floor springs	fully in the closed/latched position from a variety of opening angles. See pages 10 & 11 for further information and recommended routines. Check door selector if used on rebated double door applications <i>Under no circumstances should the closer mechanism be dismantled.</i>
Electromagnetic door controls	Check correct functioning of the door closer and the ancillary equipment including the transformer/rectifier (power supply). The units must be tested in accordance with the procedures set out in the fire precautions regulations (see page 12). <i>Any problems with the system must be rectified immediately.</i>

WEEKLY

Weekly Schedule

These items should be checked weekly, and adjustments made where necessary. To maintain the safety of the building's occupants, all fire precaution hardware MUST be checked in accordance with the procedures described in the "Fire Precautions (workplace) regulations 2097" or the "Fire Precautions (workplace) Amendment Regulations 2099

Product Type	Description
Panic exit devices & Emergency exit devices	Check correct functioning of the panic device, including the outside access device, in accordance with the standing periodic fire test procedures and ensure all keeps and sockets are free from obstruction. A specific test procedure should be carried out as detailed on pages 14 to 16. <i>Any problems with the unit must be rectified immediately.</i>
Flush bolts	Check for operation and make sure keeps are free from dirt (especially those built into the floor)
All products	Check for build-up of dirt and grease and keep clean as directed in the "Care of Finishes" section on page 20.

MONTHLY

Monthly Schedule

In addition to the Weekly Schedule, these items should be checked on a monthly basis and adjustments made where necessary.

Product Type	Description
Hinges	Check that all hinge screw fixings are tight and apply a little light machine oil to the hinge knuckle as necessary.
Panic exit devices	Check that all screw fixings are tight and lubricate the shoots or latch bolts, ensuring they engage correctly in the keep/strike plate. Occasionally apply a little light machine oil to all pivot points.

QUARTERLY

Quarterly Schedule

In addition to the Weekly and Monthly Schedules, the following items should be checked on a quarterly basis and adjustments made where necessary.

	If necessary, lubricate the cylinder keyway of the outside access device by applying flaked graphite or a WD40 type preparation.	QUARTERLY
Door closers Floor springs	Check that all screw fixings are tight and periodically apply a little light machine oil to the arm knuckle joint. Check the closing and latching speeds are correctly set to ensure the door closes fully into the frame. Apply a little light machine oil to all accessories (i.e., top centre and bottom strap)	
Locks, cylinders & Lever furniture	Check all fixings are tight including the lever retaining grub screws. Check levers operate smoothly and return fully to the horizontal position. Strike plates should be correctly located and adjusted to allow free movement of the bolts. Locks, latches & cylinders should not normally need to be lubricated but if it is necessary to lubricate the keyway apply flaked graphite.	
Mortice roller catches	Ensure the roller bolt engages correctly in the keeper plate. If necessary, adjust the tension of the roller bolt.	

Types of Maintenance

Much of the routine maintenance recommended consists of a combination of visual and mechanical checks, cleaning, and lubrication. Look out for the icons below which provide a 'quick glance' reminder of the maintenance required.

Visual checks



Primarily making a visual check on the product and surrounding door/frame looking for wear, damage, and general condition.

Fixings Check



Fixings need to be checked regularly and tightened when necessary. Check that no projection of fixings prevents the door from swinging freely.

Cleaning



Build-up of grease, dust and harmful chemicals (e.g. from floor cleaning) should be removed to prevent corrosion and maintain the product finish

Mechanical Check



Consists of checking that the product functions properly without any binding or undue force required. Check that any seals or weather-stripping do not inhibit correct operation of the door.

Lubricating



Lubricating

Some products will benefit from periodic lubrication using a light machine oil or as instructed.

Accessibility



Electromagnetic door controls and low energy operators are an essential part of providing accessibility. Routine checks should be carried out to ensure continued performance.

Product Type	Description
Flush & barrel bolts	Check that all fixings are tight and apply a little light machine oil to the lever pivot or shoot component. Ensure the mechanism operates correctly and that any floor sockets are free from obstruction.
General hardware (plates, signs, symbols, on page 20.	Check that all fixings are tight and follow the recommended procedures for "Care of Finishes"

ANNUALLY

Annual Schedule

In addition to the Weekly, Monthly and Annual Schedules, the following items

Should be checked on an annual basis and adjustments made where necessary.

Lever Furniture

Provided it has been installed correctly and is used in conjunction with a suitable lock case your lever furniture should require only occasional checking and cleaning. Highly finished items which are regularly handled should be checked more frequently and kept clean.

The operation of the lever handles should be checked in association with the lock case.

Monthly

Check the lever furniture for dirt and grease and wipe clean as directed by the 'Care of Finishes'



Quarterly

Check that all the fixings are tight (this may mean removing the press on covers of roses or plates) and that the levers are properly aligned each side of the door. Make sure the levers are firmly seated in the rose/backplate and tighten the grub screw fixing of the lever to the



Check the operation of the lever handles ensuring that they operate smoothly and return to the horizontal position at all

Check the operation of thumb turns and indicator/emergency release on bathroom locks ensuring they operate the



Pull handles

M O



Quarterly

Quarterly

Check pull handles and push plates for dirt and grease and wipe clean as directed by the “Care of Finishes” section on page 20.



Check that the fixings are tight on bolt through and back to back pull handles (this may mean removing the push plate on single sided applications, or removing the inside handle on back to back assemblies in order to tighten the fixings). Make sure the grub screw or pin fixings on back to back assemblies are tight.

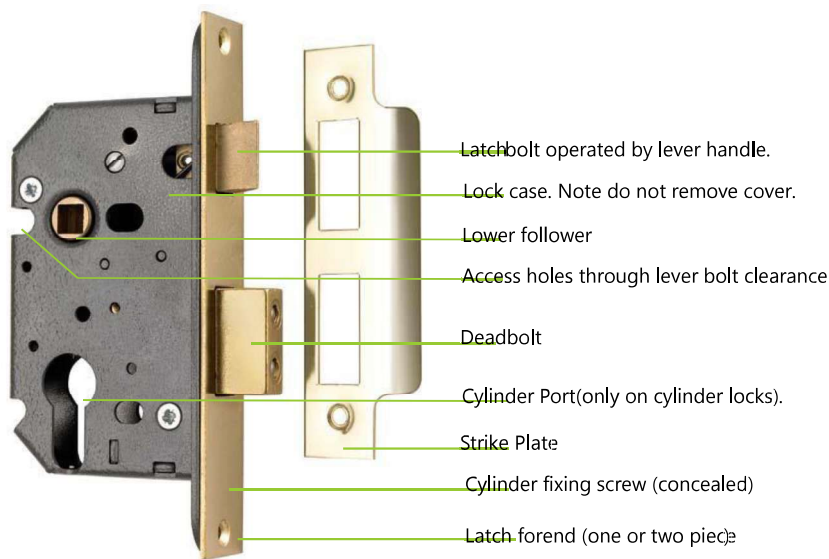


Accessories

Check all other items for dirt and grease and wipe clean as directed by the ‘Care of Finishes’ section on page 20.

Check that fixings are tight.





There are two principal types of mortice lock; cylinder locks and lever locks. The cylinder lock is a two-part lock, having a separate locking cylinder which fits into the lock case. The cylinder protrudes from the face of the door and accepts the key which operates the locking function (see overleaf). Provided the lock and its hardware have been correctly installed and the door has not been subject to any distortion, the lock and hardware should not need to be adjusted or lubricated.

Monthly

Mortice escape or anti-panic lock cases that are classified as Emergency Exit Devices must be maintained in accordance with the requirements of BS EN 178:2008 as detailed on page 11.

Check the lock forend and the lever furniture for dirt and grease and wipe clean as directed by the 'Care of Finishes' on page 17.



Quarterly

Check that the latch and deadbolt operate smoothly and that the levers return to the horizontal position.

Check that the latch and/or deadbolt locate fully into their respective strike plate(s).

Any misalignment of the lock and strike should be rectified.

Check that the key enters the cylinder smoothly and that the key (and thumb turn if fitted) operates the lock smoothly.



Check that fixings are tight on the lock and the lever furniture, including the grub.

screw fixing of the lever handles.



If necessary, a small amount of light machine oil (e.g. 3 in 1) can be used around the shank of the levers.



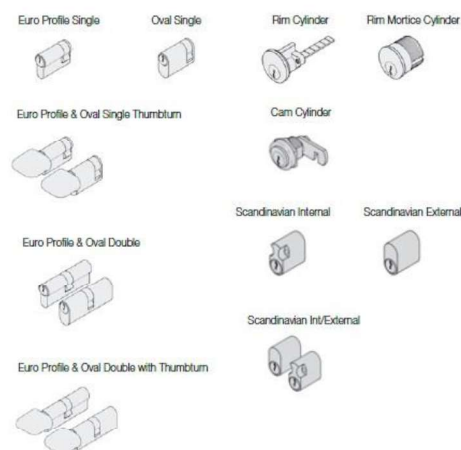
MAINTENANCE - CYLINDERS



Cylinder Replacement

One of the primary advantages of the cylinder lock is that security can be quickly and easily reinstated if keys are lost or stolen.

The cylinder can be replaced within seconds by removing the cylinder fixing screw (marked A opposite) and inserting a new cylinder. (The cylinder screw may be concealed beneath the face plate on locks with a 2-piece forend).



If your locking system is set up as a master key system, you will need to contact Principal Doorsets Technical Consultant. Replacement cylinders may need to be specially made to fit the master key system.

Master keyed Systems

The term Master Keying refers to any organisation of a keyed locking system where there is a hierarchy of access, or where one key is required to operate several individual locks, each of which has its own operating key.

The Master Key system can vary in complexity depending on its application and can involve many levels of Master Key or just a single Master.

To enable the construction of the Master Key System Principal Doorsets use a Lock chart which establishes the precise relationship of the cylinders to the access required, linked to the architects' building plans. The Lock chart should be kept safely by the building owners/ occupiers.

To Order Replacement Keys

In order to supply replacement keys, you must supply the key reference code for unrestricted cylinders. For restricted cylinders you must also send a letter of authorisation with the key reference code.

To Order Replacement Cylinders

If keys are lost or stolen from a system of individual cylinders, then security can be easily and quickly restored by replacing the individual cylinder or cylinders affected. However, should keys be lost from a master keyed system, replacing individual cylinders will not be effective. Door thickness or cylinder length must be adv when ordering.

Maintenance

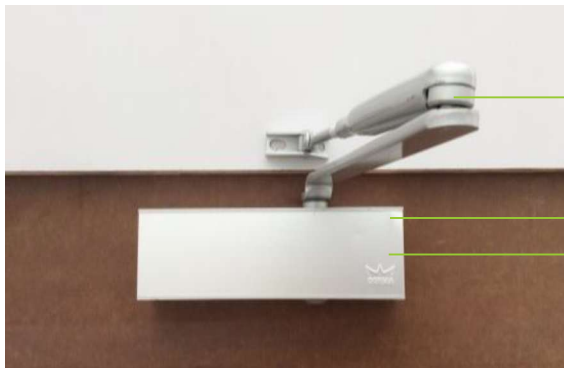
A small amount of flaked graphite only may be used to lubricate the keyway. Oil or other types of spray lubricant should not be used.



Overhead Door Closers

In research it is recognised that 95% of all problems associated with overhead door closers can be attributed directly to errors in installation rather than problems with the door closer itself. If the door is not closing properly into the frame, you should first disconnect the door closer (disconnect the arms) and determine that there is not an underlying problem with the door, frame or any smoke/draft seals that might be fitted.

The power of the door closer should not be used to overcome problems associated with the door or other items of hardware fitted to it.



Armset.

Depending on the application the armset may be projecting (as shown), lie parallel to the door or be a single arm with a slide track.

Closer cover can be secured to the closer in various ways, by screw fixings from the end or top face, push, or clip on or slide cover.

Closer body, usually of aluminium or cast iron. Adjustment screws are located on the closer body.

Under no circumstances should the closer body be dismantled, or the adjustment screws removed.

Weekly

Release the door from the fully open position and ensure that it closes fully into the frame and that the latch (if fitted) engages fully into the strike plate. Repeat the process a few times from different opening angles to ensure the door closes fully each time.

Check and adjust the closing and latching speeds if necessary.

Check that the backcheck (if fitted) comes into operation at the desired angle and readjust if necessary.

Check the delayed action (if fitted) and adjust the time delay if necessary.

Check that the door or hardware does not come into contact with the door frame or the surrounding structure.



Quarterly

The fixings of the closer body and the bracket (or track in the case of slide track closers) are subject to stress and should be carefully checked to make sure they are tight.

Periodically apply a little light machine oil to the moving joints of the arm and bracket or arm and slide track.

Check any fire and smoke seals to ensure they do not foul the action of the door.

Check for any loss of fluid from the closer body which would indicate a failing device.

Clean the closer body, arms and/or track if necessary, following the guidance on 'Care of Finishes' on page 17.



If for whatever reason, the door closer fails to operate properly, contact Principal Doorsets Technical Sales Consultant at 01237 439152.

MANINTENANCE – ELECTROMAGNETIC DOOR CONTROLS

In situations where a fire door in a high traffic area is fitted with a door closer an electromagnetic hold open device may be fitted which allows the door to be held open or allowed to swing free during normal use. However, in the event of fire the electromagnetic hold open facility will be deactivated, and the door will close under the action of the door closer.



- The system is powered by a 24V DC supply which is normally located close to the door either in a ceiling void or convenient cupboard.
- The system must be connected into a separate smoke detection system and/or the building's fire alarm system.
- There are several types of electromagnetic devices including integral hold open closers, hold open floor springs or separate hold open devices which must be used in conjunction with conventional overhead door closers or floor springs.

Weekly

It is vitally important that the integrity of the fire door is maintained in the event of a fire. All electromagnetic hold open devices and the ancillary equipment, including the transformer/rectifier (power supply), must be tested weekly in accordance with the procedures set out in the fire precautions regulations.



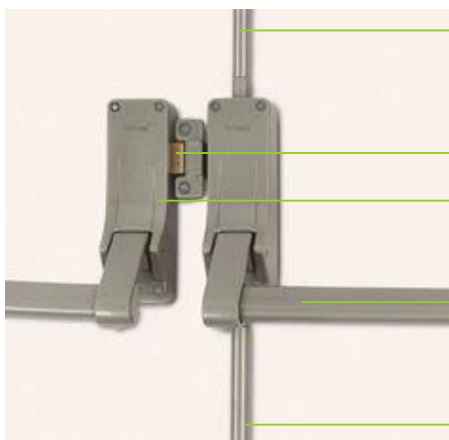
It is recommended that the following procedure be followed:

- With the door in the hold-open position simulate the fire alarm activation and check that the door is released immediately and closes fully into the frame, fully engaging the latch if fitted. The fire alarm may be simulated in a number of ways including activation of a break glass unit or by a built-in test switch on the hold open unit.

- With the door in the hold-open position switch off the power to the hold open device to simulate power failure. The door should be released and close fully into the door frame, fully engaging the latch if fitted.
- With the door in the hold-open position check that the door can be pulled manually off the hold open and will close fully into the frame, fully engaging the latch if fitted. ANY FAILURE OF THE DOOR TO CLOSE MUST BE RECTIFIED IMMEDIATELY
- Check whether the failure is due to the power supply or the relay not operating in the alarm system.
- Electronic failure should be checked by a qualified technician to determine the fault.
- If the closer fails to close the door, please refer to the Door Closer section of this manual.
- Additional magnetic items to consider.



MAINTENANCE - PANIC EXIT HARDWARE



Top shoot

(only on multi point latching or panic bolts) to connect active bar with top latch or bolt.

Latch bolt

Main casing contains the operating mechanism and latch. The cover is removable for maintenance.

Active 'push bar'.

The latch or bolts must be released when this bar is pushed at any position along its length.

Bottom shoot (only on multi point latching or panic bolts) to connect active bar with bottom latch or bolt.

Panic exit devices are operated by a horizontal bar, for use on escape routes on doors that have to be operated in a panic situation with one single operation by hand and/ or body pressure to release the panic exit device, with minimum effort and without prior knowledge of the panic exit device.

To comply with the requirements of BS EN1125:2008, the following routine maintenance checks should be undertaken at intervals of not more than one month by the building owner or their approved representative, to ensure performance in accordance with the standard.



IMPORTANT

If for some reason the panic device does not operate properly, contact Technical Sales on 01237 439 152

Monthly

- 1.** Inspect and operate the panic exit device to ensure that all components are in a satisfactory working condition; using a force gauge, measure and record the operating forces to release the exit device.
 - a)** After being pushed, the 'push-bar' or 'touch-bar' should return automatically to its initial position.
 - b)** When pushed from the 'end casing' side (hinge side), the side latch-bolt and any additional latch-bolt/s (if fitted) should completely withdraw from their strikers as if it were pushed from the main casing side. Immediate exit must be permitted.
 - c)** With the door closed, the latch-bolts should be fully engaged into their strikers. They should not withdraw if pushed but should only withdraw if operated by the 'push-bar' or 'touch-bar' (the only exception to this is the additional side Pullman latch).
 - d)** Check that latch keeps are securely fixed where Pullman latches are used.
- 2.** Ensure that the striker(s) is (are) free from obstruction.
- 3.** Check that the panic exit device is lubricated in accordance with the details contained within the fixing instructions.
- 4.** Check that no additional locking devices have been added to the door since its original installation.
- 5.** Check periodically that all components of the system are still correct in accordance with the list of approved components originally supplied with the system.
- 6.** Check periodically that the operating element is correctly tightened and, using a force gauge, measure the operating forces to release the exit device. Check that the operating forces have not changed significantly from the operating forces recorded when originally installed.
- 7.** Ensure the door closes fully into the frame and there are no obstructions.
- 8.** Check that the door has not become distorted in some way. If the door does not meet the frame stops and cannot be pulled in by the door closer, the door may need to be replaced.
- 9.** Check that the hinges are operating smoothly and lubricate if necessary.
- 10.** Check that the latches are operating freely. If necessary, remove the end box covers and/or Pullman covers and lubricate if necessary.
- 11.** Check that all fixings are tight.



Operating the inside lever withdraws the latch and the deadbolt if it is thrown. The inside lever handle is always free to escape

Escape sash-lock

Inside lever is able to withdraw the latch and deadbolt.

Outside lever is for pull only and does not operate latch/bolt

Latch

Dead-bolt is operated by cylinder key from one or both sides

Cylinder operation can be from one or both sides

Emergency exit devices are operated by a lever handle or push pad, for use on escape routes to give safe and effective escape through a doorway with one single operation to release the emergency exit device, although this might require prior knowledge of the door situation (e.g. inwardly opening).

To comply with the requirements of BS EN179:2008, the following routine maintenance checks should be undertaken at intervals of not more than one month by the building owner or their approved representative, to ensure performance in accordance with the standard.



If for some reason the exit device does not operate properly, contact your Technical Sales Consultant on:

01237 439152

Monthly

Inspect and operate the exit device to ensure that all components are in a satisfactory working condition; using a force gauge, measure and record the operating forces to release the exit device. Ensure that the striker(s) is (are) free from obstruction

Check that the panic exit device is lubricated in accordance with the details contained within the fixing instructions.

Check that no additional locking devices have been added to the door since its original installation. Check periodically that all components of the system are still correct in accordance with the list of approved components originally supplied with the system.

Check periodically that the operating element is correctly tightened and, using a force gauge, measure the operating forces to release the exit device. Check that the operating forces have not changed significantly from the operating forces recorded when originally installed. Ensure the door closes fully into the frame and there are no obstructions.

Check that the door has not become distorted in some way. If the door does not meet the frame stops and cannot be pulled in by the door closer, the door may need to be replaced. Check that the hinges are operating smoothly and lubricate if necessary. Check that all fixings are tight.

MAINTENANCE – FLOOR SPRINGS

Principal Doorsets floor springs require very little general maintenance if fitted correctly. The long-term durability of the floor spring is largely dependent on the accuracy of fitting and the durability of the door and frame construction.

Doors designated as being on a fire route exit have to be periodically inspected to make sure that they meet the same standards as when they were originally installed. No regular maintenance is required but the tests and inspections detailed below should be carried out to ensure the door and the floor spring is operating correctly.

Single action top centre
provides an off-centre pivot point for the door.

Top centre covers (optional) are fixed to the upper
lower section of the top centre.

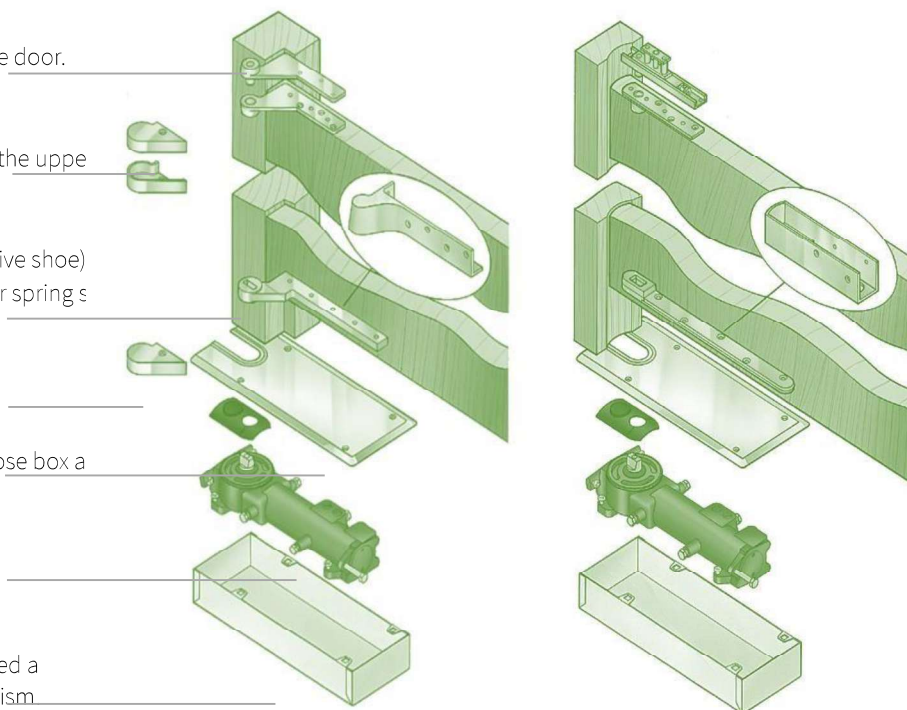
Single action bottom strap (and alternative shoe)
supports & connects the door to the floor springs

Bottom strap cover (optional)

Floor spring cover plate is fixed to the loose box a
provides a neat finish to the floor.

Floor spring mechanism

Loose box built into the floor and provided a
firm location for the floor spring mechanism



The floor spring unit is accessed by removing the cover plate without having to remove the door. Adjustment screws on the unit allow the door to be accurately aligned within the frame. Removal of the cover plate also provides access to the adjustment screws for power, closing speed and other features of the floor spring.

Weekly

Carefully inspect the lower pivot and remove any debris and corrosive liquids which may have been deposited. Inspect the upper pivot for any signs of wear. Failure to replace any worn pivots could result in the door jamming at critical times.
Test the operation of the floor spring and the door by releasing the door from the fully open position and ensure that it closes fully into the frame and that the latch (if fitted) engages fully into the strike plate. Repeat the process a few times from different opening angles to ensure the door closes fully each time.

Quarterly

One of the primary causes of floor spring problems can be attributed to poorly aligned or misaligned doors, particularly in double door configurations. Check that the floor spring mechanism is firmly fixed within the loose box and that there is no movement of the mechanism. Make any necessary fine adjustments of the alignment screws to ensure the doors are perfectly aligned within the frame and with each other in a double door configuration.

Please follow the instructions provided with each unit.	Weekly Backcheck (if fitted) - Check that the backcheck comes into operation at the desired angle and that the door or hardware does not come into contact with the surrounding structure. Readjust if necessary. Delayed action (if fitted) - Check the delayed action and adjust the time delay if necessary. Backcheck (if fitted) - Check that the backcheck comes into operation at the desired angle and that the door or hardware does not come into contact with the surrounding structure. Readjust if necessary. Delayed action (if fitted) - Check the delayed action and adjust the time delay if necessary.   	Quarterly Check the fixings of the top and bottom pivot are tight and apply a little light machine oil to the top and bottom pivots. Make sure the pivot covers and the floor spring cover is clean and free from dirt and grease as directed by the 'Care of Finishes' on page 17.   
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MAINTENANCE – SUNDRY HARDWARE PRODUCTS

FLUSHBOLTS



Flush bolts and barrel bolts should require very little maintenance. However, it is advisable to check their operation from time to time to ensure they are operating correctly. Check periodically that sockets, particularly floor sockets, are free from dirt and dust which may have accumulated and can prevent the bolt from being fully thrown. Check fixings remain tight and keep bolts free from dirt, wiping occasionally with a damp cloth.



HINGES

Many hinges are self-lubricating and require little or no regular maintenance. It is advisable to check their operation from time to time to ensure they rotate freely as this can have an effect on the operation.

of door controls. A little light machine oil can be applied to the bearing surfaces occasionally, making sure to wipe off any lubricant, from the surface of the hinge. Check fixings remain tight and keep hinges clean and free from buildup of dirt.



DOOR SEALS

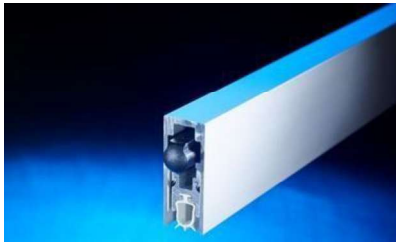
From time-to-time check door seals to make sure they are functioning correctly. Distorted, split, or over compressed seals should be replaced as they will have become ineffective or may even prevent proper closure of the door. Make sure fixings are tight and that self-adhesive seals are not coming away.



THRESHOLDS

Removable thresholds, including thresholds for wheelchair access, should not require any maintenance but regular inspection of the condition of the threshold, its seals and fixings is recommended to ensure they are functioning correctly. Clean off any accumulated dirt or obstructions. Distorted or damaged thresholds or damaged seals may impede the proper closing of the door and must be replaced.

Accumulations of dirt on the threshold and seals must be removed and the surface of the threshold wiped clean from time to time to maintain its life and appearance.



ACOUSTIC DROP SEAL

Check seals as for Thresholds above. In addition, check the operation of the drop seal and the alignment of the strike to ensure that the seal is triggered and continues to drop across the entire length of the seal. Any defective, distorted, or damaged seals should be replaced.



FINGER PROTECTION – By SAFEHINGE

Provided the Finger protection has been correctly fitted it should continue to function safely without the need for any regular maintenance. However, as with all safety products, it should be checked from time to time to ensure it is in good working condition.



Check the PVC Finger protection on each side of the door has no splits and that when the door is opened the Finger protection carrier strips remain flat to the door and the frame along the entire length. Any marks can be wiped away from the PVC surface using mild soapy water. Wipe clean and dry.

CARE OF FINISHES

Our products have a high-quality finish, including those with a powder coated finish. In order to maintain the quality of the finish we recommend products are generally kept clean. Cleaners which have a scouring or abrasive action should never be used, as this will damage the surface finish. For general cleaning the following methods are recommended.

Satin Stainless Steel - Regular dusting and periodic washing with a mild solution of washing detergent and warm water, then dry and polish with a soft cloth. No additional treatment is required.

Polished Stainless Steel - Regular dusting and periodic washing with a mild solution of washing detergent and warm water, then dry and polish with a soft cloth. No additional treatment is required.

Anodised Aluminium - Regular dusting and periodic washing with a mild solution of washing detergent and warm water, then dry and polish with a soft cloth. Silicone wax furniture cream may be applied with a soft cloth after cleaning for protection.

Polished & Lacquered Brass - Wash regularly with a mild solution of washing detergent and warm water using a soft cloth, then dry and polish. Silicone wax furniture cream may be applied with a soft cloth after cleaning for protection. Under no circumstances should lacquered coatings be subjected to cleaning with abrasive cleaning preparations.

Nylon - Nylon material should be washed regularly with a mild washing detergent and warm water and dried with a clean, soft cloth, then wiped over with an anti-static application.

Powder Coated Finishes - Regular dusting and periodic washing with a mild solution of washing detergent and warm water, then dry and polish with a soft cloth. No additional treatment is required.

Door and Frame Inspection Schedules

The suggestions shown within this manual are of a general nature, situations not covered by this document should be discussed with our technical sales department.

The inspection period may vary depending on the location of product; therefore, the user of the establishment should define the doors' use and produce an inspection schedule accordingly.

Duty ratings

Medium duty usage – i.e., areas with some incentive to take care – e.g., offices Inspect every 6 months

Heavy duty usage - i.e., areas in very frequent use, used by the general public and by people with little incentive to exercise care. Frequent passage of heavy trolleys (e.g., ends of corridors, service areas, plant rooms etc.). Inspect every 3 months.

External Doorsets,

Particularly outward opening doorsets.

Inspected every 3 months with attention before and after the winter period.

Inspection & Maintenance Procedure

Doors and Frames

- a) Facing and lips on leading edges should be checked for scratches and impact damage.

Painted finishes

These facings can be repaired with hard waterproof external grade fillers, sanded back, primed and redecorated in accordance with the original painting specifications.

Hardwood veneers

Light scratches can be removed by lightly rubbing with 00-00 grade wire wool followed by wore wool. coated in a soft wax. If marks are very light the wax coated wire wool should be used from the beginning (this will reduce the abrasive action of the wire).

Where practicable, heavier scratches should be first prepared with bees was or special coloured. waxes and a further coat of lacquer applied. It may be advisable in these circumstances to utilise the services of a professional French Polisher.

- b) External doors should be examined for signs of ingress of moisture and “forced entry”.
- c) Any broken or damaged glass in vision panels should be replaced without delay, particularly in the case of a fire resisting doorsets where performance of the assembly must be maintained at all times.
- d) *Intumescent seals on fire resistant doors and frames along with any weather seals on external doors should be inspected regularly and replaced if damaged.*
- e) *Ensure all fire doors are fitted with the correct fire signs at all times.*
- f) *Doors fitted with overhead closers must be checked to ensure they are not being wedged open as this may result in twist and/or bow.*

Note in no circumstance should fire doors be wedged open, their function is to act as a barrier to passage of fire.



Painted and Decorative Laminate Faces

A soft duster dampened with warm water and a nonabrasive detergent should be sufficient to maintain the appearance of painted and laminate facings.

Hardwood Veneer Facings

Cleaning with a soft duster should be sufficient to preserve your veneered doorsets, if desired proprietary furniture polishes can be applied, however, please ensure doors are dusted first.

PVC Facings

Warm water and a nonabrasive detergent should be sufficient to maintain the appearance of your PVC faced doors, frames, and ancillaries, however, where necessary suitable proprietary anti-static solutions can be used.
Note: These doorsets should always be cleaned with a soft "lint

Re-Decoration

External – Painted Finishes

We would suggest that these doorsets be re-decorated within 1 – 3 years depending on the exposure. For example, an outward opening, fully exposed south facing door will require re-decorating far sooner than an inwardly opening door protected by a canopy.

Re-decoration can be accomplished with a light sanding down and a further application of the finish coat detailed in the original specification. In areas of severe weathering an additional undercoat may be required.

External – Veneered Finishes

We would suggest these doorsets are re-decorated twice a year. Once before the onset of summer, and once before the onset of winter., depending on the degree of exposure.

However, experience has shown that despite using exterior grade adhesives and decorating with proprietary exterior varnishes and sealers, exposure to our climate often results in shrinkage and splitting of the finish surfaces, allowing the ingress of moisture and eventually, leading to discolouration and blistering of the veneer. We therefore, regret that Principal Doorsets Ltd are unable to offer a normal guarantee in respect of door hung in these situations. Please refer to the varnish and sealer manufacturers' recommendations for the re-decoration of these doors.

Internal

Re-decorated as and when required.

Important

When carrying out repairs to fire rated doorsets, care should be taken to retain undamaged materials behind lips and in the top edge. If intumescent materials become damaged, the affected seal strips within the lip of frame parts

must be replaced immediately. If any doubt, please do not hesitate to contact our technical sales team on 01237 439152 or info@principaldoorsets.co.uk.

Reduced Swing Doorsets



RSD are supplied factory assembled for easy installation on site into prepared structural openings. All prepared openings should be equal in wall thickness at all points and plumb and square with tolerances of $\pm 5\text{mm}$.

We recommend when drilling fixing holes for frames, plastic shims are used to enable access to fixings after installation for adjustment of tolerances and maintenance.

The doorset has a standard 10mm undercut to bottom edge of the leaf's except the single swing FD30s which will be 3mm to meet the requirements of BS476 part 31.1.

Care and Maintenance

On delivery, doorsets should be carefully stacked and stored in dry conditions where relative humidity is between 40 and 60%.

The veneered doorsets with hardwood polished frames can be maintained using wax furniture polish and minor damage should be repaired with beeswax and finished with semi-matt lacquer.

Fully painted doorsets can be maintained using a non-abrasive detergent or soap and any minor damage should be filled and painted with a matching BS/RAL colour satin finish paint.

Laminate faced doors can be maintained using a non-abrasive detergent and any minor damage should be filled and painted with a matching colour or Colorfill (Colorfill is a registered trademark of UNICA).

An electromagnetic closer when fitted should be tested weekly in accordance with the Fire Safety Order 2005, Fire certificate, schedule 2 based on recommendations contained in Home Office Circular 29 – 2073. Closer units should be kept clean, free of dust and dirt; all internal working parts are immersed in oil to ensure a long working life. Check quarterly to ensure correct setting of door closing and latching speeds and that fixing screws are tight. A small quantity of light machine oil applied to arm knuckle joint and to door hinges will assist in optimum performance.

TO AVOID LIABILITY,
CHECK THEM EVERY SIX MONTHS.

THE CONSEQUENCES OF THE
FAILURE OF A FIRE DOOR COULD
BE CATASTROPHIC.

The lives of your colleagues are in your hands.

The Regulatory Reform (Fire Safety) Order, effective from October 2006, makes the fire safety of your work place the responsibility of one selected person.

AS THE FACILITY OFFICE OR MAINTENANCE
MANAGER YOU COULD BE RESPONSIBLE.

Use this checklist to make sure your building, staff and yourself are fully covered.

Fire doors are an essential part of any fire safety plan, but they will only fulfil their role if they are in correct working order. Use the maintenance checklist overhead every 6 months (2 months for a high usage building) to ensure the safety of your colleagues is maintained.



WE ARE HERE TO HELP

If your fire doors fail any of the elements on the checklist, visit www.bwff.org.uk/firedoors for a list of certified fire door and component suppliers in your area that you can trust to ensure your fire doors meet all the safety requirements.

If you have any questions about the checklist and your responsibilities, or to find out more about the BWFF CERTIFIED Scheme, visit www.bwff.org.uk/firedoors, e-mail freeddoors@bwff.org.uk or call 0870 458 8528.

Further free copies of the maintenance checklist can be downloaded from our website, along with a guide to fire doors and fact cards about key elements of fire door safety.

Mr. John Smith
63 Street Road
Suburb
XXX XXX

Door Leaf

Does the door leaf sit against the door stop and is it free from distortion? ☐

If the door is veneered or lipped, is the glue still holding these products firmly in place? ☐

Is the door free from damage including dents and holes? ☐

Door Frame

Is the door frame firmly attached to the wall? ☐

If a painted door stop is present, is it firmly attached? ☐

Is the frame to door leaf gap consistently 3mm? (tolerance of +/- 1mm) ☐

Intumescent/Smoke/Acoustic Seals

Are intumescent seals in place? (if not, install immediately) ☐

Are the seals well attached inside the groove in the frame or door leaf? ☐

Are the seals continuous around the frame? ☐

Are the seals free from damage? ☐

If you have a brush or fin type seal, is it free from damage? ☐

Hinges

Are there a minimum of 3 hinges with all the screws fitted? ☐

Are all the screws the correct size? ☐

Are the hinges free from metal fragments and oil leakage, which are signs of wear? ☐

Are the hinges free from packing? ☐

Door Closers

Open the door to 5 degrees or 75mm. ☐

Does it close and engage with the latch? ☐

Is the closer correctly attached to the door and frame? ☐

Is the closer free from damage and not leaking? ☐

If unlatched, does the closer hold the door in line with the frame and intumescent seal? ☐

If hung in pairs, do they close in line if both opened and released together? ☐

Hold Open Devices

(only electronically powered allowed)

Does the hold open device release the door when required? ☐

Lock and Latch

Does the latch hold the door firmly in place without rattling? ☐

Glazing and Glass

Is the intumescent seal continuous and attached to the glass and bead? ☐

Are the glazing beads well attached to the frame and free from damage? ☐

Is the glass free from damage and cracking? ☐

If the glass has been replaced, is it fire rated glass? ☐

If glazing panels are below 1500mm from the bottom of the door, is the glass safety glass? ☐

Threshold Gap

Is there a consistent gap under the door that allows it to swing without touching the floor covering? ☐

Is the door to floor covering gap consistently 10mm or less when the door is closed? ☐

For an easy way to check for gaps and labels, e-mail us at freeddoors@bwff.org.uk for a free Gap Tester.



BRITISH WOODWORKING
FEDERATION MEMBER
Made in Britain

Principal Doorsets

Delivering Your Commitments

