

S24 Physical security for homes: Guidance for occupiers



Acknowledgements

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Summary of Key Points

Insurers often recommend, or may require, a certain standard of physical security at homes they insure	<ul style="list-style-type: none">• Insurer's expectations are usually outlined in a document/policy condition typically referred to as a 'Minimum Security Standard' (MSS), or a similar term. This will identify the doors and windows that need to be secured at the perimeter of your home and specify the recommended/required security devices. It may also set out when the devices need to be used.
Carefully establish your current security level	<ul style="list-style-type: none">• It can be difficult to determine exactly what level of security you already have, and in particular how it may comply with, or deviate from, an insurer's MSS. However, by making a systematic assessment using this guide, you should feel more confident in both undertaking the task and in reaching a reliable conclusion.
Ensure any replacement/ additional doors/windows and security devices are of good quality	<ul style="list-style-type: none">• If buying new doors/windows or security devices, always give preference to those having independent 'certification' or 'approval' to a relevant standard.
Safe means of escape and good security are not incompatible	<ul style="list-style-type: none">• Any possible conflict between the need to maintain good security whilst still permitting quick emergency escape for occupants, can be minimised by careful selection of security devices—and ensuring that any keys to them are removed and kept securely nearby, ie in a place where they can't be seen or reached by a person outside your home, e.g. via perimeter glazing or letter flaps.
You may need to seek out more information/guidance	<ul style="list-style-type: none">• Help and advice is often available from insurers, but can also be sourced from trade and other bodies, eg the Master Locksmiths Association or Secured by Design. It may also be available from your local police crime prevention team and/or a neighbourhood watch group.
Routinely use all security devices to avoid being 'caught out' by intruders	<ul style="list-style-type: none">• Opportunists taking advantage of unsecured doors/windows are the cause of many thefts from homes, so it is vital that all vulnerable doors/windows are kept secure whenever your home is unattended—even for a short time, for example when you may be in your garden.

Symbols used in this guide



Good practice



Bad practice



Discussion topic



Frequently asked question

1 Introduction

The range of materials used to construct doors and windows used in homes has expanded over time from traditional timber to include metal, plastic (PVCu) and various combinations of materials ('composites'). As a result, a widening range of security devices exist designed to secure them to best advantage; some also taking account of the need to recognise legal (Building Regulations) requirements to facilitate emergency (fire) escape.

Note

Unless use of a more specific term is appropriate, for simplicity the term 'security device' is used in this guide to refer to any type of mechanical lock/fastening that holds a door or window in its closed position and which, once secured (locked) requires, with the exception of rebate bolts, use of a key (in the case of doors at least from the outside and for windows from the inside) to release (unlock) it.

The wide range of doors/windows and related security devices now encountered/available can make it quite difficult for home owners or tenants (for simplicity, referred to in this guide as 'occupiers') to assess what is appropriate in securing a home to a reasonable standard, and/or gauging/ensuring compliance with any related requirements/advice from their insurer or insurance broker (for simplicity, referred to in this guide as 'insurers').

This guide has therefore been prepared to assist occupiers in this task, by briefly summarising some of the main issues relating to possible insurer requirements and security device standards, then providing guidance via two Appendices:

Appendix 1 outlines 10 basic steps to consider when reviewing, installing and then using security devices to protect your home.

Appendix 2 contains a 'model' Minimum Security Standard (MSS), which recommends types of security devices likely to be most suitable for securing typical doors/windows at your home.

Should you require more detailed information/advice you may wish to speak to your insurers and/or read a related but more detailed RISC Authority insurer's guide on the topic, ie, **Physical Security at Homes: Guidance for Insurer's**, which is available for download from the RISC Authority website.

In reading this document and its 'model' MSS, occupiers are advised that it is not intended for application to:

- homes where living accommodation is shared with other households, eg 'bedsits' and Homes in Multiple Occupation (HMOs);
- electromechanical, electronic and code operated security devices; or
- outbuildings, sheds and garages.

For all of the above it will usually be appropriate to seek the advice of your insurer or a competent locksmith.

2 Insurer requirements

Occupiers may find that their home insurer offers advice upon and/or requires the fitting and use of a particular range of door/window security devices. This may be referred to by insurers as a Minimum Security Standard (MSS), Minimum Security Requirement or Minimum Security Condition. For simplicity, this guide uses the term 'MSS' throughout.

As part of its MSS, your insurer is likely to state:

- which areas of the 'home'* require protection (eg all buildings at an address or only certain buildings/areas);
- which doors/windows require the specified security devices (eg all 'perimeter'* doors/windows or for windows perhaps just those which are 'accessible'*);



Storage of keys in an external keybox (as sometimes suggested to facilitate easy/quick access by carers or alarm response personnel) can undermine security, and should never be undertaken without reference to your insurer.

- how and when you need to use the specified security devices (eg to put them into 'full operation' when the home is left without occupants and/or when they have retired to bed – but perhaps with an associated dispensation for rooms where people are sleeping); and
- what needs to be done with keys to locked security devices (eg remove them from security devices and store them out of sight/reach of accessible perimeter glazing or letter flaps).

Note

The words marked with a * above may be defined by your insurer in any policy or related MSS documentation, but if not you should follow the advice given in the relevant portion of Appendix 1.

Each insurer's MSS will vary in form and content, but by following the 'model' MSS occupiers should find that they have a baseline level of physical security in place that is likely to comply with most insurers' general expectations. However, in all cases of doubt you should check with your insurer.

Important

Where an insurer's MSS forms part of your policy terms and conditions (whether for risk acceptance reasons or in return for a premium discount), those requirements should be regarded as taking precedence over the content of this guide. In cases of apparent omission/conflict between this guide and any MSS formally applied by your insurer, you should always seek their advice.

3 Standards

FAQ

What is the advantage of referring to standards?

A major benefit of referring to recognised standards is that it avoids the need for occupiers to understand the technical details of security devices. All that is needed is to look for evidence of independent testing to that standard, or sometimes a defined security level within it.

Whilst some manufacturers will give their own claimed rating to security devices, for example using subjective terms like 'High Security' or 'Heavy Duty', wherever possible it is preferable to seek objective proof of security value via independent testing against a relevant published standard. This process is often referred to as independent (third party) 'certification' or 'approval' or, in its most basic form, 'type testing'.

When considering security device performance, it is therefore helpful to be aware of various British Standards (BS) and European Standards the UK has adopted (BS EN), relating to security devices for doors (there is no BS/EN standard in use for window security devices) and a specific one for security of whole door or window assemblies, ie Publicly Available Specification (PAS) 24: 2012.

Note

Locks certified solely to the main European Standard for door locks, BS EN 12209, are infrequently encountered in the UK, as the relevant British Standards for locks (the BS x621 series) already reflect its main requirements. However, if such locks are encountered occupiers need to be aware that they have a rather complicated security grading system and, often, separately supplied BS EN 1303 cylinders which have their own security grading system; all of which will need consideration when assessing overall security provision.

Although such locks are referenced in the 'model' MSS (for just two specific door lock applications where the BS x621 series lock standards are unlikely to be applied), they are not likely to be routinely encountered/available, and thus it is not felt necessary to provide specific details of BS EN 12209 in this guide.

3.1 PAS 24

PAS 24 provides a level of security against external attack considerably in excess of that likely to be stated in any insurer's MSS; as it not only requires the door/window to have security devices of the same or comparable performance to those mentioned in the 'model' MSS, but also requires the door/window structure and frame to be tested for resistance to forced entry.



Whether as a result of Building Regulations, a home security approval scheme (eg Secured by Design status) or just good practice, some homes will be fitted with PAS 24 doors/windows. If you have such doors/windows then, to maintain your home's security level/compliance with external rules/regulations, any replacement doors/windows should also be PAS 24 certified.

Should just the lock or a lock cylinder in a PAS 24 certified door need replacement, the accepted advice is to, respectively, only use a certified BS x621 series lock or a TS 007 3 Star cylinder. If a window securing mechanism needs replacement, then a 'like for like' replacement from the original manufacturer/supplier (if known) should be sought, or advice taken from a competent locksmith/glazier.

FAQ

Do my security devices need to meet the latest version of a standard?

Because standards evolve over time, security devices will exist approved to different date versions of them. When buying a new security device you will usually be sold, and should always seek, the latest version. However, when it comes to insurer's acceptance of security devices meeting a standard, for simplicity they will usually accept any version of it. For this reason, and to avoid the need for frequent updates, the 'model' MSS does not give date versions of the standards mentioned.

If a PAS 24 door/window has glazing and/or a letter flap, and is fitted with security devices that could be opened from the inside without a key, it will also be required to have laminated glazing and/or protection against external manipulation (via the letter flap) of the internal release mechanism(s).

Note

Use of PAS 24 doors/windows represents the best security advice for new installations; but as insurers typically will not ask customers to change a whole door or window to meet any MSS, reference to PAS 24 is not incorporated in the 'model' MSS.

Nonetheless, if you have, or are planning to have, a PAS 24 door/window installed you may find that, upon referral to your insurer, it is deemed to provide acceptable security vis a vis any applied MSS.

3.2 BS 3621 and the 'BS x621' series

When it comes to door security devices, reference is most usually made by insurers to BS 3621, which started life in the late 1960s catering only for single point, five lever mortice deadlocks, ie door locks that are built (morticed) into a door and whose key engages with five levers inside the lock to permit the key to turn and operate the single moving lockbolt.

Over the years the original BS 3621 has been adapted/expanded to cater for:

- new forms of lock eg single point cylinder rim locks (such locks are fitted to the inner face of a door and have a key that engages with the pins of a pin cylinder mechanism to permit locking), and multi-point locks (such locks are built into a door and have several moving locking bolts operated by a handle that is then locked by a pin cylinder mechanism);
- the introduction of European Standards for door locks (BS EN 12209) and cylinder mechanisms (BS EN 1303);
- Building Regulation requirements to permit key free escape, as may be required in certain properties, eg upper floor flats; and
- new methods of criminal attack, which are dealt with by a group of industry experts carrying out a General Vulnerability Assessment (GVA) based on past/current experience of crime.

As a result, in the UK we now have a very well developed suite of BS 3621 derived standards catering for most types of single or multi-point locks; which are often referred to as the BS x621 series of standards, as summarised below:

For single point locks:

- BS 3621: **Thief resistant lock assemblies—Keyed egress.** This standard applies to mortice (lever or cylinder mechanisms) or rim (cylinder mechanism) locks that can be locked/unlocked, from both inside or outside, with a key.
- BS 8621: **Thief resistant lock assemblies—Keyless egress.** This standard is as per BS 3621 but, to permit emergency escape of occupants, these locks can always be unlocked from the inside without use of a key, eg by turning/releasing an internal handle or knob, etc.
- BS 10621: **Thief resistant dual—mode lock assemblies.** This standard is as per BS 8621 but users, by additional action(s) taken outside, can disable the internal emergency escape function.

For multi-point locks:

- PAS 3621: **Multi-point locking assemblies: Keyed egress—Performance requirements and test methods.** This standard reflects the requirements of BS 3621, but caters for multi-point (cylinder mechanism) lock assemblies, as typically used in most plastic doors.
- PAS 8621 and 10621. These standards are versions of PAS 3621 that mirror the emergency escape requirements shown in BS 8621/10621.

Notes

1. Although originally expected to be used mainly on the sole entry door to upper floor flats (as may be required by Building Regulations), BS or PAS 8621 locks may be encountered fitted to various other types of homes, and typically many which carry the National House Builders Council (NHBC) 'Buildmark Warranty'.
2. BS or PAS 10621 locks need to be selected/used with great care, ie disabling the escape function should only be done when the home is knowingly left without any occupants. Even then, the risk of occupants being inadvertently locked in means that a second means of escape (not fitted with a BS or PAS 10621 lock) is always desirable. Because of the risks associated with their use, these locks have not been included as a main recommendation of the 'model' MSS.

3.3 Lock cylinders

In recent years a new form of criminal attack has been seen to affect certain cylinder lock mechanisms (mainly Oval or Euro profile types) forming part of a door security device, ie in which a protruding cylinder is gripped with a wrench, or similar tool, and broken off in what is termed a 'snapping' attack.

Cylinder mechanisms provided as part of a BS x621 series lock, or in a PAS 24 doorset lock, are tested as part of the overall requirements for those standards and will (if certified to those standards from 2012 onwards) also include testing for snapping attack resistance. The level of cylinder protection against such attacks will be broadly equivalent to TS 007 3 Star (see below); but this is likely to be achieved by the cylinder having some form of protective collar or escutcheon fitted, so it is vital that the lock is fitted as supplied, ie with all its associated protective hardware.

However, most door security devices with cylinder mechanisms are capable of (legitimately) having the cylinder taken out and replaced, eg after lock failure or theft/loss of keys, so what standard should a 'stand-alone' (replacement) cylinder ideally meet?

3.3.1 BS EN 1303

If sold as a stand-alone cylinder, the relevant baseline standard to which cylinders may be certified is BS EN 1303 – but ideally with a security level equivalent to that outlined for cylinders in the BS x621 series, ie Key Security Grade 5, Attack Grade 2. However, this standard was developed before snapping attacks became an issue, so even at a 'good' (BS x621 series equivalent) security level does not provide adequate protection against such attacks.

3.3.2 TS 007 and SS 312

As a result of the deficiencies of BS EN 1303 in respect of snapping attacks, two new (differently derived but similar in outcome) UK schemes, known as TS 007 and SS 312, have been developed by the Door and Hardware Federation (DHF) and Sold Secure (SS), respectively. These specifically test and grade cylinders for snapping attack resistance, and in doing so recognise various levels of protection:

- TS 007 has a top level of '3 Star' (for stand-alone cylinders), and a lower level of '1 Star' for cylinders which must be used with '2 Star' door furniture to provide overall snapping attack resistance comparable with 3 Star rated cylinders. The easiest way to identify TS 007 rated cylinders/door furniture is to look for the BSI 'Kitemark' plus Star rating on products/packaging, see figure 1.
- SS 312 has a top level of 'Diamond' (for stand-alone cylinders), and a lower level of 'Gold' for cylinders which must be used with Sold Secure Domestic Security Standard (SS 301) 'Bronze' level door furniture to provide overall snapping attack resistance comparable to Diamond rated cylinders. Sold Secure approved cylinders/door furniture can be identified by looking for the Sold Secure logo/grading on product packaging, see figure 1.



Figure 1: An example of British Standards Institution 3 Star TS 007 cylinder 'Kitemarking' and Sold Secure SS 312 Diamond labelling.

Note

A prerequisite for achieving TS 007 or SS 312 status is that a cylinder must already have obtained certification as per BS EN 1303 (at the BS x621 series equivalent security level) and have passed a BS x621 series GVA.

3.3.3 Lock cylinders - Overview

If you have a 2012 (or onwards) BS x621 series certified lock in a door (such locks will typically be marked with the BSI 'Kitemark', reference to the standard and its date version) or a PAS 24 certified doorset—and in each case the lock has an Oval or Euro profile cylinder mechanism within it then, provided the lock was fitted with all its supplied protective hardware and the cylinder has not subsequently been changed, the cylinder should have snapping attack resistance broadly equivalent to the TS 007 3 Star level.

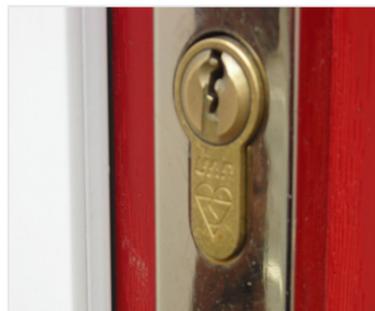
Of course, it might not be possible to vouch for the nature of past fitting or whether changes of cylinder have occurred, so if you have any doubts about the snapping attack status of an existing lock cylinder, or are otherwise buying a new stand-alone cylinder, then the safest option is to buy a TS 007 3 Star or SS 312 Diamond rated example.

In addition to having a suitably tested cylinder, having one that is also of the right size (length) to suit the door and its door furniture (handle surround) is a further important step in reducing vulnerability to snapping attacks, see figure 2.

Figure 2



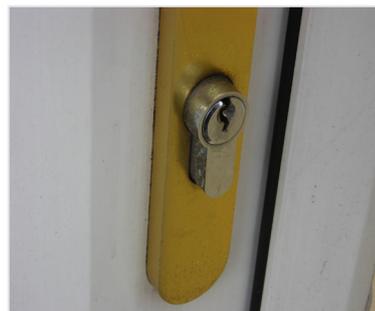
This cylinder is too short, leaving the door furniture more vulnerable to being gripped and broken away.



This cylinder (Note it's 'Kitemarked' but not TS 007 Star rated) sits correctly flush with the door furniture.



This cylinder protrudes slightly, so may be vulnerable to a snapping attack.



This cylinder protrudes several millimetres and is very vulnerable to a snapping attack.

Important

If you suffer a break in as a result of a snapping attack it is particularly important that you take steps, either on your own account or in conjunction with your insurer, to ensure that a damaged (possibly uncertified) cylinder is not simply replaced 'like for like' – as doing so will increase the chance of you suffering a repeat incident. In such cases it is strongly recommended that you fit a more secure (TS 007 3 Star or SS 312 Diamond) cylinder.

FAQ

Where else can I go to for home security advice?

Your insurer or bodies such as the Master Locksmiths Association (MLA), Secured by Design and the Door and Hardware Federation (DHF)

When considering whether or not your home has a reasonable level of physical security in place, there are an ever expanding number of issues to consider, eg a variety of door/window types, new standards and Building Regulations—plus the related interpretations of them made by bodies that may have been involved in ‘approving’ new homes, eg the National House Builders Council (NHBC) and Secured by Design (SBD).

Whilst this task can seem complicated, armed with a little background knowledge (as contained in this guide) and by reference to the ‘model’ MSS, and perhaps other sources of home security advice, it can be undertaken in a methodical manner—and any necessary improvements then more confidently made.

If you are at all unsure how to proceed, and particularly where your insurer is applying a compulsory MSS, do seek their advice and, as appropriate, that of a competent locksmith and/or glazier.

Appendix 1: 10 steps to securing your home

In ensuring adequate physical security exists at your 'home', there are 10 basic steps to consider. Reading these will assist your understanding and implementation of the advice contained in the 'model' MSS shown in Appendix 2.

Important

Before acting upon any of the issues outlined below, you should check to see if your insurer has any specific related requirements, definitions or advice of its own.

1. Determine the areas of your 'home' that need protecting

Unless defined otherwise by your insurer, for the purposes of this guidance and the 'model' MSS your 'home' should be regarded as all buildings, or areas within buildings, designed to provide, or being used as, living accommodation, ie excluding garages and outbuildings.

Note

A wide variety of doors/windows will be found in garages/outbuildings and such areas may still need securing; either to protect their contents, to deny intruders access to tools that could be used to break into your home or, where the garage/outbuilding provides internal access to it, to help prevent intruders gaining easy access and then being concealed when attempting forced access to the home. Whilst some garage/outbuilding doors/windows might be capable of being secured as per the 'model' MSS, for others, especially vehicular access doors, the advice of a competent locksmith should be sought.

FAQ

Insurers are often asked whether a 'very small' opening window needs locking. As any window, even if arguably not large enough to permit human entry, may if opened enable intruders to readily attack/compromise security devices on adjacent doors or other windows, or even 'fish' valuable objects out, the usual (and most secure) approach is to disregard size.

2. Determine which doors/opening windows need securing at the 'perimeter' of your home

Unless defined otherwise by your insurer, your homes' 'perimeter' doors/windows should be regarded as all those that lead out into the open air and also, if present, those that lead into integral/attached garages or outbuildings, into another person's home or, at flats, into internal communal areas, eg shared corridors/lobbies, etc.

Notes

1. Other than in exceptional cases, all perimeter doors should be regarded as 'accessible' and will need adequately securing. However, subject to any contrary insurer requirements, when it comes to windows, and if you feel comfortable making the necessary assessment, it may be considered sufficient to protect only those windows regarded as 'accessible'.
2. Unless defined otherwise by your insurer, 'accessible' perimeter windows should be regarded as all those that an intruder could* reach from adjoining/adjacent ground, or via adjoining/adjacent structures or objects that could* be readily climbed.

* In considering potential for access, a good rule of thumb is to always consider the following as accessible:

- all basement/ground floor windows;
- 1st floor windows overlooking single storey portions of your home and structures such as porch canopies, door pediments, etc; and
- for any other windows, those that a fit and/or determined person might reach by climbing up/along adjoining/adjacent rainwater or sewage downpipes, sheds, trees, walls and fences, etc.

If in doubt, always fit a window with a suitable security device.



Can keys help identify types of security devices?

Lever and cylinder locks have very different keys, as shown below. This difference in form can be a help in starting to identify a lock type.



Figure 3: Lever lock keys (left) and cylinder lock keys (right)

3. Ascertain the types of perimeter doors/windows currently fitted and their related security devices

This task isn't as easy as you may wish, as many different types of doors/windows exist, with a related wide variation in fitted security devices and types of glazing.

When it comes to security devices, there are two main types to recognise, ie those that fit within a door/window (referred to as 'mortice') and those that fit to the surface of it (referred to as 'rim'). Where a mortice lock for a door includes a separate handle operating a door latch it is often referred to as a mortice sash lock.

In the case of doors, a mortice or rim lock is likely to have one of two common lock mechanisms, ie either a lever or pin cylinder mechanism. For windows a cylinder lock or simple screw mechanism is most common.

Figure 4: Examples of rim and mortice door locks



Figure 5: Examples of door cylinders



Round profile



Oval profile



Euro profile

The process of identifying what may already be fitted can, if security devices/glazing are not clearly marked, be rather protracted, but the notes on the following page should assist.



If after reading/acting upon the advice on identification in this section you are in any doubt about recognising particular security devices and/or laminated glass, you should consult a competent locksmith or glazier, for example:

A member of the Master Locksmiths Association (MLA). Tel 0800 783 1498 or 01327 262255 or see www.locksmiths.co.uk



A member of the Glass and Glazing Federation (GGF). Tel 020 7939 9101 or see www.ggf.org.uk



Glass and Glazing Federation

Identifying security devices

Once fitted, and assuming no original packaging/instructions are available, establishing what type of security device is present can be difficult. In such circumstances you need to examine the security device, step by step, to glean what information you can:

- look at the external parts of the security device for markings relating to certification to a required standard; noting that when an insurer specifies a particular standard they will usually accept a security device that meets any dated version of it, ie they will not usually require an upgrade to the latest version;
- if the marks seen do not appear to be of the required type, it is possible you have a security device or door/window that meets another standard or an external security approval scheme. For example, a complete door/window assembly might be marked to show that it meets PAS 24 and/or has Secured by Design status;
- if there is no external marking, you may be able to establish that it meets an insurers functional requirements (if so described in their MSS). An example of this might relate to the type of pin cylinder multi-point lock assembly fitted to plastic (PVCu) doors, where a suitable standard has only recently been developed; and
- if unable to establish satisfactory information via the above steps, you may wish to:
 - remove it yourself (to look for internally applied marks, or perhaps count the visible ends of the pins in a cylinder barrel);
 - consult a competent locksmith (who after examining it and/or the key, as removed or in-situ, should be able to determine its type); or
 - obtain and fit a replacement security device of the required type.

Identifying glazing

A piece of glass in a door or window is most likely to show some sort of permanent marking if Building Regulations require that 'safety glazing' be used there. The two most common forms of safety glazing are toughened and laminated glass, but only laminated glass also provides a security function. To check whether a piece of glass is laminated you should:

- Look for a suitable mark on the surface of the piece of glass, the current (Building Regulation) requirements being that safety glazing shows:
 - the manufacturers name;
 - the manufacturing standard – BS EN 14449 for laminated glass; and
 - a safety classification from BS EN 12600 – either in abbreviated form, ie Class 1, 2 or 3 (where 1 is the safest), or as a full classification code in this form: a number (1-3) followed by a letter (B for laminated) and then another number (1-3), eg use of the code 1B1 would be typical for most laminated glass.
- If the mark(s) seen do not appear to match those mentioned above it is possible you still have laminated glazing, but of a type that meets another standard or external security approval scheme. For example:
 - older safety glass may be marked with the manufacturers name and a safety classification from BS 6206, ie Class A, B or C (where A is the safest), but it will only be laminated glass if the word 'Laminated' and/or a code letter 'L' also forms part of the Class coding, eg Class 'LB'.
 - Reference may be made to a standard for laminated security glazing, BS EN 356, with an associated classification code in this form - a letter (P) followed by a number (1-5) and then another letter (A). For homes, the minimum BS EN 356 glass classification, P1A, is most commonly used.
- If unable to establish satisfactory information via the above steps, it is recommended that you consult a competent glazier for advice.

4. Compare and contrast

Consider how your current perimeter doors/windows compare to the advice contained in the 'model' MSS, and consider the need for suitable door/window or security device replacements/upgrades.

5. Seek proven security

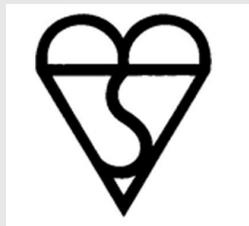
Subject to availability, buying new creates the perfect opportunity to prefer those products that have evidence of suitable independent (third party) 'certification', or other forms of 'approval', to a relevant security standard or scheme.

The most commonly used scheme for proving compliance with the provisions of a standard is the certification scheme operated by the British Standards Institution (BSI). BSI certified devices will show an impressed BSI 'Kitemark' on the security device plus, if space permits, reference to the standard passed, eg BS 3621 and the date version of that standard. The packaging will show all this information.

Various other marks/logos are associated with security devices, the two most common in the domestic sphere being those of the police operated Secured by Design scheme and the MLA operated Sold Secure scheme. Whilst packaging/labels might show these other marks/logos, an impressed mark on the security device is not usually required—which can make later identification difficult.

Notes

1. Where the words 'certified' or 'approved' are used in the 'model' MSS, the terms should be considered as meaning that a security device has been proven to meet a stated standard or security approval scheme by a test body independent of the manufacturer. This is most easily ascertained by looking for products displaying common marks such as the BSI 'Kitemark' or the Secured by Design or Sold Secure logos, ie



British Standards Institution
www.bsigroup.com



Secured by Design
www.securedbydesign.com



Sold Secure
www.soldsecure.com

Other security approval schemes exist, so if in any doubt refer to your insurer.

2. Stand alone/retrofit window security devices are not designed to a recognised security standard, so instead look for robust devices offered by reputable suppliers/manufacturers.

6. Buying complete new doors/windows

If buying new doors/windows (and you can find ones to suit your home and particular application), always give preference to those certified as meeting PAS 24 and which, if your door requires an emergency exit facility without use of a key (eg upper floor flats with only one entry/exit door) have a suitably certified lock, eg BS or PAS 8621—also noting that such doors should, if glazed, contain laminated glass and if having a letter flap, have one fitted with an access restrictor.

7. Buying new security devices

If buying a stand-alone new security device, look for those most likely to suit the type and use of the door/window under consideration and which, wherever possible, meet the highest of any listed options shown in the 'model' MSS – which will typically be devices that are certified as meeting a relevant standard.

When it comes to choosing a security device, you may need to be mindful of the possible impact on emergency escape; a matter which is sometimes covered by Building Regulations and which may also be reflected in the security device requirements of bodies that might have been involved in providing a warranty for new homes, eg the National House Building Council (NHBC), or in issuing a security scheme approval, eg Secured by Design (SBD).

Different Building Regulations exist in England, Wales, Scotland and Northern Ireland, but they have relatively little to say on door/window security that is restrictive, other than typically requiring that a lock on the only entry/exit door to certain homes (eg many upper floor flats) can always be opened from inside without use of a key.

Homes built under NHBC or SBD auspices will take account of local Building Regulations relating to security devices and means of escape, but may then extend those emergency escape requirements to further doors and/or windows. However, they will then typically require additional security measures to be implemented, by way of compensation for potentially introduced security weaknesses, eg by the use of laminated (security) glazing or letter flap restrictors.

Important

To avoid any possible conflict with external influences, eg Building Regulations, NHBC or SBD requirements/advice, the 'model' MSS does not distinguish between types of homes, eg houses or flats and related possibly appropriate/inappropriate security devices. That said, it should be noted that 'Cautions' may be listed in the 'model' MSS in relation to use of certain types of security devices. In all cases of query concerning Building Regulations and possible means of escape via a suitable security devices, refer to your local authority Planning/Building Control department for further advice.

8. Ensure correct fitting

New doors/windows and security devices should be fitted as per the manufacturer's advice. If this isn't readily available, then security devices should be fitted in a conventional position, ie for single point door locks, at or near the mid point of the door's opening edge, and for other devices as per the advice contained in the 'model' MSS.

In all cases of doubt, refer to a competent locksmith, eg a member of the Master Locksmiths Association (MLA).

Note

Whilst many security devices are suitable for self fitting, the wrong one fitted to the wrong door/window in the wrong way may result in poor security, and may even damage or weaken a door/window. In this regard, a particular area of difficulty can be retrofitting extra security devices to plastic doors/windows – with all their different profiles/internal construction and fittings, and sometimes also retrofitting to metal ones. As such, this is a job often best entrusted to a competent locksmith.



You should note that some locks (for example many 'automatic' latching BS 3621 cylinder rim locks and locks meeting BS or PAS 10621) require a second key turn, or other mechanical action, to be completed before they are fully operational (secured) – such action typically being required to prevent intruders who gain access to the hand release mechanism, eg through adjacent glazing or a letter flap, from releasing it. In most cases manufacturers' instructions should give adequate advice on security device use, but if in doubt consult a competent locksmith.

9. Correct use of security devices

Always use your security devices to their full designed extent, ie put them into full and effective operation, whenever your home is left without occupants—even if only left for a short time. Also do so at night when any occupants have retired to bed, with the possible exception, subject to any contrary insurer requirement, of accessible windows in occupied bedrooms –which occupants may wish to leave open for ventilation. That said, such windows should, where permitted by their design/security devices, ideally be secured in a lockable 'ventilation' position.

10. Security device keys

The best security devices become ineffective if criminals can obtain easy access to their keys, so consider key security from the following two perspectives:

- If you are moving into/have just moved into your home, and especially if you are not its first occupier, consider whether you have possession of all keys to security devices, but especially those that control external access to the home - typically two keys are supplied with most new door locks. If you are in any doubt, or you otherwise simply wish to ensure you have the best security, consider lock replacement.
- Once locked, remove keys from security devices and, subject to any contrary insurer requirements, either take them with you or keep them in a safe (but accessible in emergencies) place inside the home, ie in a place where they can't be seen or reached from outside your home - to prevent intruders obtaining them after breaking perimeter glazing or 'fishing' them out through a letter flap.

Appendix 2: RISC Authority 'model' Minimum Security Standard (MSS)

This 'model' MSS outlines RISC Authority recommendations for mechanical* security devices that are likely to be regarded as most suited to securing a range of typical perimeter doors and opening windows at homes, and to a reasonably comparable level of basic security. It is presented in two tables:

- Table 1 shows a coded range of options matched to the types/uses of commonly encountered doors and windows. For types of door and window not shown, eg doors of composite materials, frameless glass, double sliding doors (ie both slide), multi-panel folding doors and garage doors, etc. seek competent locksmith and/or insurer advice.
- Table 2 describes the type of security device and, as appropriate, the recommended number/nature of fitting, for each of the codes shown in table 1. Also included are any necessary 'Caution(s)' plus, where felt helpful, photographs or notes.

Note

* The 'model' MSS is not intended to cater for use of electromechanical, electronic or code, etc, operated security devices. For these seek competent locksmith and/or insurer advice.

Table 2 makes reference to security device standards wherever relevant/practical; however, where availability of such products may now, or historically, be absent/limited it suggests other options. Where a series of main or sub options are shown, the first of the options will generally provide the best security - and should therefore be preferred.

Important

1. The 'model' MSS does not set out which areas of your home require protection nor when/how security devices should be used or where their keys should be kept. Where your insurer applies a MSS, such matters will be usually be set out within it. In the absence of any contrary insurer requirements, it is recommended that you follow the relevant advice shown in Appendix 1.
2. Where your insurer applies a MSS it may differ from the 'model' MSS, ie it may be presented in a different fashion, may merge or omit some options, may accept security devices without reference to door/window materials or types of windows, etc. It may also include other (less secure) options not shown in the 'model' MSS, eg any 'five lever mortice deadlock' rather than requiring one meeting BS 3621.
3. If in any doubt as to how to proceed, always check with your insurer/insurance broker or, as appropriate, a competent locksmith/glazier.

Table 1

Mechanical Security Devices Recommended For Securing Perimeter Doors and Opening Windows		
DOOR TYPES	Options for doors used as a final exit	Options for all other doors
Personnel doors		
<i>Single doors – hinged</i>		
Timber	A or B	A or H
Plastic	C or D	C or H
Metal	E or F	E or F or H
<i>Stable doors – hinged</i>		
Timber	A (each door)	A or H (each door)
Plastic	C (each door)	C or H (each door)
<i>Single doors – sliding</i>		
Timber or Plastic	(C or F) + J	(C or F or G) + J
Metal	F + J	(F or G) + J
<i>Single doors – ‘tilt/slide’</i>		
Plastic	Not Applicable	C
<i>Double doors – hinged</i>		
<i>1st closing door (leaf):</i>		
Timber, Plastic or Metal	I	I
<i>2nd closing door (leaf):</i>		
Timber	A	A or H
Plastic	C	C or H
Metal	E or F	E or F or H
Other doors		
<i>Cellar trap door(s)-hinged</i>		
Timber or metal	Not Applicable	K
WINDOW TYPES		
<i>Hinged (inc roof/sky lights)</i>		
Plastic	W	
Timber or Metal	X	
<i>Tilt and Turn (Plastic)</i>	W	
<i>Vertical sliding</i>	X	
<i>Horizontal sliding</i>	X + Y	
<i>Louvered</i>	Z	
Note		
Door height windows, commonly called ‘French’ or ‘Patio’ windows, should be regarded as doors and be secured accordingly		

Table 2: Guide to codes used in Table 1

Mechanical Security Device Options		
Code	Description	Notes
A	<p>A lock 'certified' as meeting BS 3621.</p> <p>Caution</p> <p>A BS 3621 mortice lock provides acceptable security only if it has a suitable (as usually supplied) boxed striking plate fitted (a rebated type will need to be purchased for use with most double doors).</p>	 <p>Example of a BS 3621 mortice sash lock (ie with a separate handle operated latch) and a boxed striking plate.</p> <p>Note</p> <p>BS 3621 mortice locks are operated by a key from outside and inside, and may have a lever or cylinder lock mechanism.</p>
		 <p>Example of a BS 3621 rim lock</p> <p>Note</p> <p>A BS 3621 rim lock is operated by a key from outside, but may have an optionally lockable hand release knob/handle inside. Such locks will only be fully secured when the knob/handle is locked out of use – an especially important precaution if there is adjacent non laminated glazing or a letter flap that doesn't restrict external access.</p>
B	<p>A lock 'certified' as meeting BS 8621.</p> <p>Caution</p> <ul style="list-style-type: none"> • A BS 8621 lock is most appropriately used at homes with only one perimeter entry/exit door and where emergency escape facilities have been deemed necessary, eg some flats. • A BS 8621 lock provides acceptable security only if: <ul style="list-style-type: none"> • it has a suitable (as usually supplied) boxed striking plate fitted (a rebated type will need to be purchased for use with most double doors). • any glazing in the door, or in any window (fixed or opening) adjoining either side of the door, is laminated glass. • any letter flap in the door, or next to it, has an access restrictor or internal mailbox that prevents external access, by hand or tools, to the internal lock release mechanism. 	 <p>Example of a BS 8621 rim lock</p> <p>Notes</p> <ol style="list-style-type: none"> BS 8621 locks can always be opened from the inside without using a key; if selected and used with care a more secure alternative is a BS 10621 lock—as with such locks the internal knob/handle can be locked out of use (from outside) when the home is left without occupants. To avoid inadvertently trapping anyone, such locks should only be fitted where a second perimeter door (which leads to safety and which does not itself have a BS 10621 lock fitted) exists; where a BS 8621 or 10621 lock is used it is vital, in order to maintain security, to deny intruders ready access to the internal lock release mechanism—hence the glazing/letter flap Cautions; and letter flap restrictors/mailboxes 'certified' as meeting security standard TS 008 are recommended.

Table 2: Guide to codes used in Table 1

Mechanical Security Device Options	
<p>C</p> <p>EITHER:</p> <ul style="list-style-type: none"> • A multi-point lock assembly 'certified' as meeting PAS 3621. <p>OR</p> <ul style="list-style-type: none"> • A multi-point lock assembly having at least three moving fastening points operated by a handle secured by either: <ul style="list-style-type: none"> • a lock cylinder 'certified' as meeting the 3 Star level of TS 007 <p>Or</p> <ul style="list-style-type: none"> • a lock cylinder 'certified' as meeting BS EN 1303 at Key Security Grade 5, Attack Grade 2. <p>Or</p> <ul style="list-style-type: none"> • a lock cylinder with five (or more) pins. 	<div style="display: flex; align-items: flex-start;">  <div style="margin-left: 10px;"> <p>Example of a plastic door having a multi-point lock assembly.</p> </div> </div> <div style="background-color: #f0f0f0; padding: 5px; margin-top: 10px;"> <p>Note</p> <p>A comparable alternative to a 3 Star TS 007 cylinder is one 'approved' by Sold Secure as meeting the Diamond level of SS 312.</p> </div>
<p>D</p> <p>A multi-point lock assembly 'certified' as meeting PAS 8621.</p> <p>Caution</p> <ul style="list-style-type: none"> • A PAS 8621 lock is most appropriately used at homes with only one perimeter entry/exit door and where emergency escape facilities have been deemed necessary, eg, some flats. • A PAS 8621 lock provides acceptable security only if: <ul style="list-style-type: none"> • any glazing in the door, or in any window (fixed or opening) adjoining either side of the door, is laminated glass. • any letter flap in the door, or next to it, has an access restrictor or internal mailbox that prevents external access, by hand or tools, to the internal lock release mechanism. 	
<p>E</p> <p>EITHER:</p> <ul style="list-style-type: none"> • A mortice swing lock 'certified' as meeting BS EN 12209 at Security Grade 7 <p>OR</p> <ul style="list-style-type: none"> • A mortice swing (MS) lock <p>AND</p> <p>In both cases being fitted with either:</p> <ul style="list-style-type: none"> • a lock cylinder 'certified' as meeting the 3 Star level of TS 007 <p>Or</p> <ul style="list-style-type: none"> • a lock cylinder certified as meeting BS EN 1303 at Key Security Grade 5, Attack Grade 2. <p>Or</p> <ul style="list-style-type: none"> • a lock cylinder having five (or more) pins. 	<div style="display: flex; align-items: flex-start;">  <div style="margin-left: 10px;"> <p>Example of a MS lock (this one ready to take a separate Round profile cylinder).</p> </div> </div> <div style="background-color: #f0f0f0; padding: 5px; margin-top: 10px;"> <p>Notes</p> <p>a. TS 007 is only applicable to Euro and Oval profile cylinders, not round profiles; and</p> <p>b. A comparable alternative to a 3 Star TS 007 cylinder is one 'approved' by Sold Secure as meeting the Diamond level of SS 312.</p> </div>

Table 2: Guide to codes used in Table 1

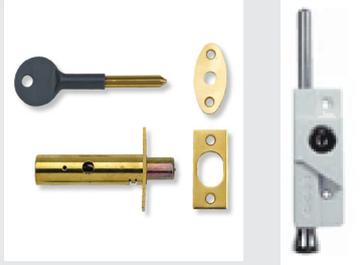
Mechanical Security Device Options		
F	<p>EITHER:</p> <ul style="list-style-type: none"> • A mortice hook lock ‘certified’ as meeting BS EN 12209 at Security Grade 7 <p>OR</p> <ul style="list-style-type: none"> • A mortice hook lock <p>AND</p> <p>In both cases being fitted with either:</p> <ul style="list-style-type: none"> • a lock cylinder ‘certified’ as meeting the 3 Star level of TS 007 <p>Or</p> <ul style="list-style-type: none"> • a lock cylinder ‘certified’ as meeting BS EN 1303 at Key Security Grade 5, Attack Grade 2. <p>Or</p> <ul style="list-style-type: none"> • a lock cylinder having five (or more) pins. 	 <p>Example of a mortice hook lock (this one ready to take a separate Euro profile cylinder).</p>
G	<p>Any type of factory fitted* lock or lockable fastening.</p> <p>PLUS</p> <p>A ‘patio door’ lock fitted internally at (or near) the top or bottom corner of the non-fastening side.</p> <p>Caution</p> <p>*If the door has no factory fitted lock or lockable fastening, a second patio door lock should be fitted internally at (or near) one of the other corners of the door.</p>	 <p>Example of a patio door lock.</p> <p>Note</p> <p>The fitting of extra security devices to plastic and metal doors requires particular care and should be entrusted to a competent locksmith.</p>
H	<p>Any type of rim or mortice door lock.</p> <p>PLUS</p> <p>Fitted internally, at (or near) both the top and bottom corners of the closing edge of the door, either:</p> <ol style="list-style-type: none"> key operated mortice rack bolts. <p>Or</p> <ol style="list-style-type: none"> lockable surface mounted bolts. 	 <p>Example of a mortice rack bolt and lockable bolt.</p> <p>Note</p> <p>Option H i. is unlikely to be suitable for use with plastic or metal doors.</p>

Table 2: Guide to codes used in Table 1

Mechanical Security Device Options	
<p>I</p> <p>EITHER:</p> <ul style="list-style-type: none"> • A multi-point lock assembly having at least two moving fastening points operated by a handle secured by either: <ul style="list-style-type: none"> • a lock cylinder 'certified' as meeting the 3 Star level of TS 007 <p>Or</p> <ul style="list-style-type: none"> • a lock cylinder 'certified' as meeting BS EN 1303 at Key Security Grade 5, Attack Grade 2. <p>Or</p> <ul style="list-style-type: none"> • a lock cylinder having five (or more) pins. <p>OR</p> <ul style="list-style-type: none"> • One of the following: <ul style="list-style-type: none"> • rebate bolts fitted at both the top and bottom of the closing edge of the door: <p>Or</p> <ul style="list-style-type: none"> • key operated mortice rack bolts fitted at (or near) both the top and bottom corners of the closing edge of the door: <p>Or</p> <ul style="list-style-type: none"> • lockable surface mounted bolts fitted internally at (or near) both the top and bottom corners of the closing edge of the door. 	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Example of a rebate bolt.</p> </div> </div> <p>Notes</p> <p>a. As rebate bolts are installed within the closing edge of a door, they do not need to be locked because access to them requires prior opening of the other (locked) door of the pair;</p> <p>b. Mortice rack bolts are unlikely to be suitable for use with plastic or metal doors.</p>
<p>J</p> <p>Two anti-lift devices fitted within the top retaining track, one being located at (or near) each corner of the door.</p>	<div style="display: flex; align-items: center;">   <div style="margin-left: 10px;"> <p>Example of an anti-lift device (left) and (right) as installed - a cutaway image.</p> </div> </div>
<p>K</p> <p>Single doors:</p> <p>EITHER:</p> <ul style="list-style-type: none"> • Bolts as per H i. or ii. above, fitted internally at (or near) both the top and bottom corners of the closing edge of the door. <p>OR</p> <ul style="list-style-type: none"> • A padlock and padbar fitted internally at (or near) the midpoint of the closing edge of the door. <p>Double Doors:</p> <p>EITHER:</p> <ul style="list-style-type: none"> • Bolts as per H i. or ii. above, fitted internally at (or near) both the top and bottom corners of the closing edge of both doors. <p>OR</p> <ul style="list-style-type: none"> • Both doors fastened together by a padlock and padbar fitted internally at (or near) the mid-point of the closing edges of the doors. 	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Example of a typical padlock (open shackle type) with padbar.</p> </div> </div> <p>Notes</p> <p>a. Metal doors – Option H i. is unlikely to be suitable;</p> <p>b. Timber doors – Where their design permits it, padbars that are coachbolted through a door (rather than just being fixed to it by screws) will provide enhanced security.</p>

Table 2: Guide to codes used in Table 1

Mechanical Security Device Options		
W	<p>EITHER:</p> <ul style="list-style-type: none"> • A multi-point fastening device, having two (or more) moving fastening points, operated by a lockable handle. <p>OR</p> <ul style="list-style-type: none"> • A fastening handle with integral lock. 	 <p>Example of a plastic window having a multi-point fastening device.</p>
X	<p>A single point, key operated or released, fastening device.*</p> <p>Caution</p> <p>Windows with an opening edge of greater length than 1.2 metres should be fitted with two security devices</p> <p>* Some examples include:</p> <ul style="list-style-type: none"> • a fastening handle with integral lock; • a sliding window catch with integral lock; • a mortice rack bolt or a screw in bolt; • a surface mounted lock or lockable bolt; • a window stay with integral lock; • a stay lock. 	 <p>Example of a handle with integral lock.</p>  <p>Example of a locking catch for a sliding (sash) window.</p>
	<p>Note</p> <p>Many types of window security device exist, and the examples shown/listed above are not exhaustive. Whatever its type, the principal requirement is that it is suited to the window type and, however it is secured (locked), a 'key', ie a removable device, is required to release (unlock) it.</p>	 <p>Example of a surface mounted locking window catch and a push bolt lock.</p>
	 <p>Example of a window stay with integral lock.</p>	
Y	<p>Two anti-lift devices fitted within the top retaining track, one being located at (or near) each corner of the window.</p>	 <p>Example of an anti-lift device.</p>
Z	<p>EITHER:</p> <ul style="list-style-type: none"> • The louvered window having a fixed internal or external steel grille or set of steel bars. <p>OR</p> <ul style="list-style-type: none"> • Where the glazing brackets are metal, each louvre to be glued in place using epoxy resin adhesive. 	<p>Note</p> <p>These windows are rarely encountered fitted in homes, but if present are usually inherently weak. Unless protected as per the first bulleted option their replacement with conventional windows is recommended.</p>



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