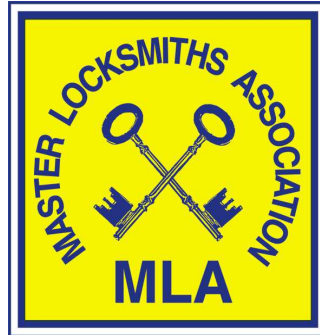


Master Locksmiths Association



**Guidelines
for
minimum
security
requirements
for
domestic
property**

Guidelines for minimum security for domestic property

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- British Hardware Federation
- Builders' Merchants Federation (BMF)
- Chief Fire Officers Association (CFOA)
- Door and Hardware Federation (incorporating Door and Shutter Manufacturer's Association and Association of Building Hardware Manufacturers).
- Glass and Glazing Federation (GGF)
- Guild of Architectural Ironmongers (GAI)
- Home Office Scientific Development Branch (HOSDB)
- RISC Authority (UK insurers technical advice body)
- Lloyds
- Sold Secure (part of MLA Group)

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Note: These Guidelines give a general description of security for domestic buildings. Neither the guidelines nor the list guarantees that these methods are suitable for specific applications. It is the responsibility of the equipment supplier and/or equipment purchaser to ensure that any system is suitable for its particular application and that it complies with all legislation, standards, codes of practice or any other requirement.

Every effort has been made to ensure the contents of these Guidelines are accurate, however the Master Locksmiths Association does not accept any responsibility for loss arising from decisions based upon them.

1. INTRODUCTION

Theft from domestic property causes major problems for the Insurance industry and for specifiers of security products who might not be familiar with the industries involved. The reasons for these guidelines are:

- the Insurers possible requirement on a policy holder to maintain a minimum level of security to protect their premises, to use it when the premises are unattended or in part when they are occupied.
- the general obligation of householders to take reasonable security precautions for their own good.
- to provide easily understood information for the use of those not familiar with the Security or Insurance industries.

These guidelines are not intended to be applied to new construction or major refurbishment. For these applications British Standards **BS 7950:1997** with Amendment 3, **Specification for enhanced security performance of casement and tilt/turn windows for domestic applications** and **PAS 24:2007+A1:2009 Enhanced security performance requirements for door assemblies, Single leaf, external door assemblies to dwellings** apply. These specifications are based on complete doorsets and window assemblies i.e. the door or window, including frame, hinges, locks, and fixings as a whole unit. The specifier is recommended to obtain doors and windows certified to these specifications.

Further guidance is given in **BS 8220-1: Guide for security of buildings against crime** – Part 1:2000 - Dwellings

Currently European specifications **EN 1627-1630** also exists for the security of doors, windows and shutters. Products certified to the appropriate grades of these specifications are equally suitable.

These Guidelines assume that occupants are all able bodied. For users with disabilities, seek professional guidance before any installation.

Every attempt is made in these guidelines to be as practical as possible with recommendation or the specification of products, but there will always be occasions where alternatives will need to be sought because of the nature of a particular design, size or other feature of a door or window to be secured. In these circumstances the advice of a specialist in this field should be taken. A member of the Trade Division of The Master Locksmiths Association (denoted as "MLA approved company" and accompanied by the MLA registration number) should be contacted for such advice which should then be checked with the Insurers where applicable.

To comply with the requirements of most Insurers for thief resistant lock assemblies that necessitate the use of a key for egress, it is generally accepted that locks used on traditional external timber doors are certified to **BS 3621:2007+A1:2009 Thief resistant lock assemblies – Key egress**. This indicates that the lock is part of an on-going test and audit programme to show it meets the requirements.

The MLA recommends that locks conforming to the latest version of any standard are to be used, however the MLA also recognises that insurers will on occasion accept locks, already installed that conform to earlier versions.

Where there is a requirement for means of escape (from fire) from the inside without the use of a key while maintaining security from the outside, lock assemblies to

BS 8621:2007+A1:2009 Thief resistant lock assemblies – Keyless egress should be installed.

Certifying to BS 8621 commenced in April 2005 and lock assemblies certified as complying with this Standard are listed within the links in Appendix C.

The introduction of new materials (e.g. Aluminium, PVC-U and Composite Materials) and designs used in the construction of doors and windows can make single point locking inadequate. The locks designed for these types of door are usually multi-point and therefore cannot be tested to BS 3621, BS 8621 or BS 10621. PAS 3621, PAS 8621 and PAS 10621 will be published in 2010 and will provide minimum requirements for multi-point locks to be tested to. Locks produced prior to this date should have a minimum of three locking points and use a cylinder that meets the minimum requirement stated in 3 (b).

Nothing in this document or related documents shall imply that the installation of any security device will prevent unauthorised entry to a premise or that by following these guidelines insurers are obliged to issue insurance cover.

2. GENERAL CONSIDERATIONS

When considering the matter of minimum security requirements and the interpretation of these guidelines, users of these guidelines should be mindful of a number of factors:

(a) The adequacy of the door or window, frame thickness and the material quality together with the fixings of the frames to the surrounding structure might impact on the level of security provided.

(b) A degree of flexibility when imposing security requirements might, on occasions be necessary. Often, due to the nature of the door or window construction, or the material from which it is constructed, it might require the use of locks or locking devices in situations other than that for which they were intended. In such circumstances the advice of a Trade member of the Master Locksmiths Association should be sought, and written confirmation of their proposals obtained from any interested insurer.

(c) If improvements are required to the security of aluminium, PVC-U or composite material doors or windows it is stressed that this work should be undertaken by professionals. Again advice must be sought from an Approved Company Member of the Master Locksmiths Association who has experience in this type of work. Care should be taken not to breach manufacturers' warranties that might still apply.

(d) It must also be appreciated that some locks not certified to BS 3621 have in the past and could in the future be accepted by Insurers. Where this is the case, written confirmation by the Insurers of their acceptance of the product for its intended use should be obtained by the end-user. This recommendation also applies with the introduction of lock assemblies under BS 8621 and BS 10621.

(e) Insurers and specifiers should be mindful of possible conflict between occupier safety and security when the property is occupied. Careful consideration must be given to the

means of escape in the event of fire before specifying that locks should be engaged and the keys removed (using BS 3621:2007+A1:2009 specification) before retiring for the night. Keys should be kept within easy reach of the occupant, but out of reach of an intruder. If in doubt, consult any interested insurer and the local Fire Prevention Officer for guidance.

(f) External doors that are deemed to be used as an exit in case of an emergency should be locked in the manner specified for the final exit door, with the addition of a nightlatch that can be opened from the inside without the use of a key for use when the property is occupied. Where locks to BS 8621:2007+A1:2009 are fitted, egress will be facilitated from the inside by the presence of the thumb turn.

(g) In blocks of flats and other buildings of multiple occupancy, the means of escape in the event of fire is an important consideration, particularly where the entrance door to the individual flat is the only means of escape. The use of Escape Locks that can be opened from the inside by a single action without the use of a key (but still retain their security from outside as described in BS 8621) is acceptable to Insurers subject to written confirmation. This type of lock will normally meet the requirements of the Building Regulations.

(h) New products may become available that conform to test procedures for security products, and carry the appropriate certification mark. When these are accepted by the organisations supporting these guidelines, and where suitable for the protection of a particular risk, their use should be encouraged.

(i) When making recommendations for the fitting of security items, consideration must be given to the type of risk involved relevant to the location of the premises. It will be necessary to increase the number of locks and fittings to doors and windows in high-risk areas. Advice should be sought from the local Crime Prevention Design Adviser, Architectural Liaison Officer, any interested insurer involved or an Approved Company Member of the Master Locksmiths Association.

(j) A list of Approved Company Members of the Master Locksmiths Association, recognisable by the logo "MLA Approved Company" is available from the Master Locksmiths Association. This list is also reproduced and updated on our website www.locksmiths.co.uk

3. MINIMUM SECURITY REQUIREMENTS

(a) Locks currently available certified to British Standard BS 3621, BS 8621 or BS 10621 should bear the standard number and the mark of the certification agency. These are listed in the web links in Appendix C. Such locks may be available in rim or mortice fixing. Locks for PVC-U and composite doors (when multi-point) should meet the minimum requirement set out in PAS 3621, PAS 8621 and PAS 10621 published in 2010. Locks produced prior to this date should have at least three locking points and be combined with a cylinder that meets the requirements of 3(b). Locks that have been part of a PAS 24 door test are also acceptable.. Written agreement for the acceptance of such locks should be obtained from the insurer by the policyholder

(b) Lock cylinders installed before the implementation of these guidelines (November 1999) should have a minimum of five pins and an anti-drill insert. Thereafter, as a minimum requirement the cylinder shall meet the requirements of BS EN 1303:1998 Clause 6.7 Security Grade 4 (Table 10) or BS EN 1303:2005. Clause 6.8 Key related security Grade 5 (Table 9) and Clause 6.9 Attack resistance Grade 2 (Table 10)

(c) Where any cylinder operated lock is used, the outside cylinder shall not protrude more than 3 mm from the face of the door or the lock furniture (handle plate or cylinder rose)

where fitted. Lock furniture should be of the 'bolt through' type with the fixings being secured from the internal side only. Lock furniture should comply with **BS EN 1906 Lever handles and knob furniture** – Requirements and test methods – Annex A: Requirements for security lock furniture for use on burglary resistant doors – Grade 1 unless certified as a component of a door assembly satisfactorily tested to PAS 24. Lock furniture may consist of separate components of lever/knob handles on roses and cylinder roses or composite backplates. Where cylinder roses are fitted, these must provide the cylinder protection as required under BS 3621, BS 8621 or BS 10621.

(d) A limited range of other door locks, and most types of lockable bolt or window locks, are likely to be acceptable to insurers for the purpose of securing doors and windows. A proposed (to be issued in 2010) guidance document on Minimum Security Standards for Domestic Properties will provide full details. This will be available for download from www.riscauthority.co.uk

4. HINGED DOOR SECURITY

The type of lock and the position to which it is fitted on the door is dictated by the design of the door. It is therefore not possible to make specific recommendations regarding the fixing positions of additional security devices, as this will be determined by the position of the original fittings on the door. The height at which the lock is fitted might also be determined by the level at which the user is standing when locking or unlocking the door, e.g. one or two steps below the door entry level.

For specific guidance reference should be made to **BS 8220 Guide for security of buildings against crime** – Part 1:200 Dwellings. However, the following is offered as a general guide:

4.1 Additional Mortice Deadlocks

Where the lock to be fitted is of the mortice type, the minimum thickness of the door to which it is being fitted must be 44 mm. The lock should be fitted approximately midway between the existing lock and the top or bottom of the door depending on which has the greatest unsecured distance, avoiding any cross rail or glazing bar joints.

4.2 Additional Mortice or Rim Security Bolts (Single Doors)

To be fitted horizontally (where possible) approximately midway between the top lock and the top of the door and the bottom lock and the bottom of the door.

Where a single lock conforming to the requirements of the insurance company is fitted, the additional bolts should be fitted approximately midway between it and the top and the bottom of the door.

Where bolts are fitted vertically they should be between 50 mm and 100 mm from the edge of the door, avoiding any joints.

For greater security on emergency or final exit doors, mortice bolts, preferably knob operated for fire safety reasons, are recommended in preference to surface mounted bolts. Where doors do not form part of an escape route, loose key mortice bolts are suitable

4.3 Additional Mortice or Rim Security Bolts (Double Doors)

To be fitted vertically to the top and bottom of the doors between 50 mm and 100 mm from the front of the rebated edge of the door, avoiding any joints. It could be necessary to fit security bolts to the top and bottom of the first closing leaf only, if the doors are of substantial construction.

For greater security on emergency or final exit doors, mortice bolts, preferably knob operated for fire safety reasons, are recommended in preference to surface mounted bolts on the first opening leaf, the first closing leaf being secured by loose key bolts. Where doors do not form part of an escape route loose key mortice bolts are suitable for both leaves.

4.4 Hinge Bolts and Security Hinges

Hinge bolts shall be fitted to all outward opening doors at a position of approximately a quarter of the door height from the top and bottom of the door, but not within 150 mm of the top or bottom hinges.

Hinges for use on burglar-resistant doors should comply with BS EN 1935:2002 Annex C. These may comprise either such a design that the hinge pin can only be removed when the door is open, or alternatively, suitable composite security hinges incorporating hinge bolts within the hinge flap that enable the hinge to withstand shear loads should be considered.

4.5 Letter plates

Letter plates should be located with the aperture at least 400 mm away from any locks to stop access to the locking system through the aperture. The letter plate aperture should be in accordance with the requirements of **BS EN 13724: Postal services- Apertures of private letter boxes and letter plates** – Requirements and test methods Type 4 size 2 - 230 – 280 mm wide x 30 – 40 mm high. If these criteria cannot be achieved, additional measures might be needed to prevent access to door locks through the letter plate, such as the addition of internal security flaps or letter cages/internal postal boxes. Letter plates should be fitted horizontally at a height between 700 mm and 1700 mm measured from delivery floor level

Where the sole means of internally locking a door is hand (not key) operated, then it is recommended that the letter plate be omitted from the door. In this instance, alternative means for mail delivery shall be provided such as an external postal box complying with types 1, 2 or 3 of BS EN 13724:2002, in which case the aperture size will vary according to the dimensions of the postal box.

4.6 Stable Doors

Both halves of stable doors must be treated as separate doors.

5. WINDOW LOCKS

Where windows are not required to be opened, they may be screwed permanently shut. Security screws shall be used where this is to be done from the outside, and the heads countersunk and plugged.

The security of all ground floor and all accessible windows which are not considered as means of escape (e.g. from a flat roof) shall be considered. Openable windows that are over

600 mm high or wide should be fitted with a multi-point locking system or two window locks with removable keys. Sashes less than 600 mm need only be fitted with a single lock.

Where a lock is to be fitted to a window care must be taken to ensure that the material to which the lock is fitted does not become weakened by fitting it too close to existing fittings.

Where a window is required for emergency egress then it shall not be fitted with any type of key lockable system. In this instance the window should be fitted with laminated glass.

5.1 Louvre windows

Urgent consideration should be given to replacing louvre windows as it is difficult to achieve adequate security. If this is not possible, then all panes of glass (in louvre windows) should be securely fixed, with suitable adhesive, into their brackets or suitable grilles, bars, or shutters fitted. Louvre windows should not be installed in vulnerable locations. The use of plastic frame materials is not acceptable for a security application

5.2 Casement Windows

Where the casement window opening exceeds 600 mm, two locks are required. For side-hung casements windows over 600 mm high the additional locks should be fitted approximately quarter of the height from the top and bottom of the casement window. For top-or bottom-hung fanlights in excess of 600 mm wide, the locks should be fitted approximately one quarter of the width of the opening fanlight from either side of the sash.

5.3 Tilt/Turn Windows

Additional locks should be fitted to the bottom rail at the leading edge for security and also to prevent the accidental opening of the window in the side hung mode.

5.4 Vertical Sliding Sash Windows

Where the window opening exceeds 600 mm, the locks should be fitted on the meeting rail of the bottom sash, at approximately one quarter of the width, or on the vertical frame either side of the upper sash, directly above the meeting rail of the bottom sash.

Where there is a requirement for ventilation when the premises are occupied, vertical sliding sash windows can be provided with restricting devices suitably placed to provide a ventilation position, to allow them to be opened a maximum of 100 mm and remain secure. This is not recommended when the premises are unoccupied. The window should then be secured in the fully closed position.

6. SLIDING DOORS AND WINDOWS

All sliding doors and windows should be fitted with anti-lift devices to prevent them being removed from their tracks. Care should be taken to ensure such devices are fitted appropriately so that they do not go inside the section of the frame when the door/window

is closed. Some sliding door locks have an in-built facility to prevent the door being lifted, e.g. swing hook bolts which rotate upwards to engage.

Additional locks fitted to sliding doors and windows should be fitted in such a manner as to ensure any force applied to open the door acts against the lock fixing screws.

Wherever possible, additional locks should be fitted to the top and bottom of the interlock of sliding doors and windows. However, there are some designs, which make this impractical. Sliding doors/windows should not be secured in the ventilation position when the premises are unoccupied.

7. UP-AND-OVER DOORS

Work on improving the security of up-and-over doors should be undertaken by professionals who have experience in this type of work.

There are security locking products available for this type of door and the advice of a professional (MLA Trade Member) should be obtained prior to commencing improvements.

8. FRAME FIXING

It could be necessary in some instances to improve the strength of the fixings holding door or window frames to the fabric of the building. Due to the presence of pre-cast concrete, steel lintels or other construction details, it might not be possible to achieve the desired additional fixings to the head or sill of the frame. The type of fixings used will be determined by the material to be fixed and the material to which it is to be fixed, however frame-fixing screws and bolts are available for this purpose.

The following dimensions for the positions of additional fixings are offered as a guide.

8.1 Corner Fixings

Additional fixings made between 150 mm and 250 mm vertically and horizontally from the internal corners of the frame to be fixed.

8.2 Vertical and Horizontal Fixings

Additional fixings made at approximately 600 mm centres between the corner fixings of the frame to be fixed.

For greater detail of improved fixings, reference should be made to **BS 8213: Part 4:1990 Windows, doors and roof lights – Code of practice for the installation of replacement windows and doorsets in dwellings**

9. GLASS AND GLAZING

As far as security is concerned the main consideration is the ease with which glass can be broken to provide access to window or door hardware. The glazing specification chosen should meet the design and performance requirements of **BS 6262:1982 Part 4 Glazing in buildings – Safety related to human impact**. For

those installations where a higher degree of “security” is needed the glazing should be in accordance with **BS 5357 Code of practice for installation of security glazing**

There are three main types of glass. These are:

9.1 Annealed glass

Annealed glass consists of, float, sheet, cast (patterns) and wired glass. It breaks easily and when broken forms large sharp fragments. While wired glass can be fractured, it will act as a barrier but only until the wire mesh in the glass is sheared.

The application of an appropriate plastics film can increase the resistance of annealed glass to penetration

9.2 Toughened glass

Toughened glass, (tempered glass), is an annealed glass, except wired glass, that has been subjected to a heating and rapid cooling process that imparts a greater strength to the material. It is resistant to impact by blunt objects but can be fractured by penetration of the surface compressive layer. When fractured, the glass will not act as a barrier. In buildings it is usually found in ‘risk areas’ which include doors and adjacent windows, low windows, bathrooms, landings etc. Typically toughened glass is around eight times stronger than annealed glass but when it breaks it forms a multitude of small fragments. It is also vulnerable to breakage with a sharp point such as a centre punch.

Due to the method in which it breaks, toughened glass offers very little security. Its value is as a safety glass.

9.3 Laminated glass

Laminated glass consists of two or more layers of annealed glass bonded together by means of transparent plastic (poly vinyl butate - PVB) interlayers. When the glass is attacked the glass layers fracture but remain in place, held by the PVB interlayer. Thus laminated glass offers both increased security and safety over annealed glass. Typical laminated glass found in domestic buildings consists of two layers of glass and one interlayer to a total thickness of 6.4 mm (soon to increase to 6.8 mm). However, the number of glass layers and interlayers can be increased to provide enhanced security such that, eventually, bullet-proof glass can be produced.

The most common failure mechanism of laminated glass is for it to ‘balloon’ and fall out of the frame under repeated impacts. However, the time taken for this gives an enhanced level of security over other types of glass

9.4 Double glazing

Double glazing can be in the form of:-

1. insulating glass units i.e. two or more panes of glass hermetically sealed at their perimeter. These provide the intruder with two or more panes to break.

2. double windows i.e. two separate single glazed windows in the same opening. These assemblies provide a similar deterrent but only if the inner window is secured.

9.5 Plastics glazing material

Plastics glazing sheet material consists of either a single sheet or combination of sheets laminated together. The performance of these materials is dependent on the polymer type, thickness, and support condition. The advice of the manufacturer should be sought in respect of their security and fire resistance performance, as appropriate.

9.6 Glazing

All glass or plastics glazing sheet material should be secured to the window or door structure in such a manner that it cannot be easily removed from the outside.

10. GLOSSARY

Anti-lift device. Device which prevents a door or window from being lifted in its aperture, where this lifting would decrease the effectiveness of a lock or enable the door/window to be removed.

Barrel bolt. Surface mounted fastener with a sliding part that is usually manually controlled and that secures a movable component to its frame or opening. The shoot is provided with a knob, loose key or similar for operation by hand.

Bolt (1). Movable part of a lock or latch that usually engages a component fixed to a frame and is withdrawn into the case,

Bolt (2). Fastener with a sliding part that is usually manually controlled and that secures a movable component to its frame or opening, the sliding part being provided with a knob, loose key or similar for operation. It may be surface mounted, or morticed.

Certified. A product subjected to a testing and ongoing audit programme by a MLA approved organisation.

Deadlock. Lock that contains only a deadbolt.

Escape lock. Deadlock that can be opened (even when locked) from the inside by a single action without use of a key.

Escutcheon. Surround with a shaped hole, with or without a pivoted cover plate, primarily to protect the door leaf from abrasion damage caused by key insertion. This could be for decorative purposes or to increase the security of the locking device.

Flush bolt. Recessed (flush) fastener with a sliding part that is usually manually controlled and that secures a movable component to its frame or opening, the moving part being provided with a lever, slide bar or knob.

Hasp and staple Two-piece fastening for doors which can be secured by a padlock. The hasp could be attached to a fixed or swivel bar.

Hinge bolt. Fixed projection on the hinge side of the door or window. The projection engages into a keep when the door or window is closed. Also known as dog bolt

Latch. Self engaging device, usually operable from both sides, which holds a door or window in the closed position and is released by hand without the use of a key.

Lock. Fastener that combines within one case a latch operated by a handle and a deadbolt which secures the door or window in the closed position

Mortice lock/bolt. Lock/bolt where its body is fitted in a mortice cut into the closing edge of the door or window.

Multi-point lock. Lock that has a latch bolt and a number of other bolts positioned remote from the lock case but connected by rods, which are thrown by means of a single action.

Night latch. Latch with a single bevel latch bolt that is operated internally by a knob and externally by a key which automatically engages when the door is shut.

Night vent or ventilation position. Position in which the door or window can be secured whilst slightly ajar. This usually offers only limited security.

Padbar A device spanning the full width of the door opening with supporting brackets or staples fixed to the frame and secured by a padlock

Padbolt/padlock bolt. Door bolt which can be secured in the locked position by means of a padlock.

Rim lock/bolt. Lock/bolt for fixing on the face of a door or window.

Security bolt. Mortice or barrel bolt which can only be withdrawn by the use of a key.

Security screw. Screw designed so that it either cannot be removed when fixed or which requires a restricted access tool to remove it.

Strike plate. Flat metal plate, appropriate to the latch or lock, fixed to a frame to engage a bolt(s).

Throw - bolts with linear movement - Distance that the dead bolt travels from the fore end of the lock in an outward direction under the action of a key, measured perpendicular to the fore end.

Throw - hook bolts with arcuate movement. - Distance from the tip of the bolt travels from the unlocked to the locked position measured parallel to the fore end of the lock.

11. STANDARDS

The following standards are referred to in the text. The latest version of the standard shall be used.

BS 3621. Thief resistant lock assemblies – Key egress.

BS 5357. Code of practice for installation of security glazing.

BS 5544. Specification for anti-bandit glazing (glazing resistant to manual attack).

BS 6206. Specification for impact performance requirements for flat safety glass and safety plastics for use in buildings.

BS 6262. Part 4 Glazing in buildings – Safety related to human impact.

BS 7950. Specification for enhanced security performance of casement and tilt/turn windows for domestic applications.

BS 8213-4. Windows, doors and roof lights Part 4. Code of practice for the installation of replacement windows and doorsets in dwellings.

BS 8220-1. Guide for security of buildings against crime – Part 1. Dwellings.

BS 8621. Thief resistant lock assemblies – Keyless egress.

BS 10621. Thief resistant lock assemblies – Dual mode.

PAS 24. Enhanced security performance requirements for door assemblies – Part 1. Single leaf, external door assemblies to dwellings.

PAS 3621. Multi point locking assemblies – keyed egress.

PAS 8621. Multi point locking assemblies – keyless egress.

PAS 10621. Multi point locking assemblies – dual mode.

BS EN 12209. Building hardware – locks and latches.

BS EN 1303. Building hardware - Cylinders for locks.

BS EN 1906. Building hardware – Lever handles and knob furniture.

BS EN 1935. Building hardware- Single-axis hinges.

BS EN 12320. Building hardware - Padlocks and padlock fittings.

BS EN 13724. Postal services – Apertures of private letter plates.

pr EN 1627-1630. Windows, doors, shutters - Burglar resistance.

SS 306. Sold Secure Specification for Mechanical, Domestic Door Security Systems.

APPENDIX A

Specification of acceptable hardware

A)	All doors	Hinge bolts or security hinges with protection from hinge pin removal on all outward opening doors.
B)	All doors	A lock certified to BS 3621, BS 8621 and BS 10621 together with its approved striking or box plate and accessories as tested.
C)	All doors	An acceptable alternative lock with the lock manufacturers approved striking or box plate and accessories as approved by the Insurers.
D)	Single door Pedestrian garage doors	A multi-point lock system with a minimum of three horizontal locking points with a central bolt (minimum throw 13 mm) and two dead or hook bolts (minimum throw 20 mm). All locked simultaneously by one operation of the key. Alternatively a multi-point lock certified to Sold Secure specification SS 306.
E)	Sliding	Anti-lift devices
F)	Sliding	Main locking system plus key operated patio door lock or security bolts (minimum throw 9 mm) at the interlock at bottom of the door and if practical at the top of the door. Alternatively a patio bar.
G)	Sliding	A hook lock certified to BS 3621 or BS 8621 together with its approved striking plate and accessories as tested
H)	Sliding	A multi-point lock system with a minimum of three horizontal locking points incorporating hook bolts (minimum throw 20 mm) and/or vertical shoot bolts (minimum throw 14 mm) locking into the head and sill of the door frame. All locked simultaneously by one operation of the key. Alternatively a multi-point lock certified to Sold Secure specification SS 306
J)	Double doors 2 nd closing leaf (casement doors)	The main locking system plus 2 key-operated rim or mortice security bolts (minimum throw 14 mm)
L)	Double doors 1 st closing leaf (casement doors) Windows	Two key operated rim or mortice security bolts (minimum throw 14 mm)
M)	Double doors- 1 st closing leaf	Two flush bolts (minimum throw 14 mm) mounted on door edge and concealed when doors are closed
N)	Double doors- 2 nd closing leaf	A multi-point lock system with a minimum of three locking points with a central bolt (minimum throw 13 mm) and two dead or hook bolts locking into the head and sill of the door frame (minimum throw 14 mm). All locked simultaneously by one operation of the key. Or a multi-point lock certified to Sold Secure specification SS 306
P)	Windows	A window lock with removable key
Q)	Windows	A substantial locking handle with removable key
S)	Windows	A multi-point locking system with removable key
T)	Doors	A door-set certified to PAS 24 or ENV 1627 class 2
U)	Windows	A window certified to BS 7950 or ENV 1627 class 2
V)	Doors to outbuildings	A heavy duty padbar bolted to the door and frame and fitted with a padlock and fittings certified to EN 12320 Grade 3

APPENDIX B

Hardware required to be fitted (as listed in Appendix A)

Hinged final exit door	A plus B, C or D, or T
Other single hinged external doors	A plus B, C or D, plus L (2 off), or T
Pedestrian doors on garages and domestic outbuildings	A plus B, C, D or V, or T
Double doors (1st closing door)	A plus L (2 off) or M (2 off)
Double doors (2nd closing door)	A plus B, J or N
Sliding doors	E plus F C, G, or H
Louvre Windows	See text
Accessible windows and ground floor openings (But not emergency egress windows)	L, P, Q, S or U
A sash less than 600 mm in width or height requires a minimum of one locking point. For all other sashes a minimum of two locking points is required	

APPENDIX C

Links to accredited products and services

Accredited products and services can be found at:

www.securedbydesign.com

www.kitemark.com

Other security related products including padlocks and out-building security products at:

www.soldsecure.com

Accredited products can be specified by your local MLA member. You can find a local member by visiting:

www.locksmiths.co.uk

**MASTER LOCKSMITHS ASSOCIATION
5 D Great Central Way
Woodford Halse
Daventry**

Northants

NN11 3PZ

Tel: 01327 262255
Fax: 01327 262539

Website: www.locksmiths.co.uk
e-mail: enquiries@locksmiths.co.uk