Lockcases - Introduction

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Comprehensive solutions for commercial and residential applications

The basics of mechanical locking

For most doors, particularly internal doors, a mechanical lockcase represents the most effective and direct means of providing privacy and security for commercial applications, and for all residential applications.

Mechanical locks fall into three principal categories:

- Mortice cylinder locks & latches
- Mortice lever locks & latches
- Rim/surface mounted locks & latches

Cylinder lockcases

The use of cylinder lockcases in commercial applications is widespread, offering the following:

- Modular dimensions across a range of functions allows factory preparation of doors & frames
- Simple replacement of the cylinder if keys are lost or stolen
- Cylinders available with various functions to fine tune the operation of the lock
- Cylinders enable sophisticated multi-level masterkeying for access control

Residential lockcases

Lever locks & latches and rim mounted locks & latches are predominantly used in residential applications on external and internal doors. In the case of BS 5 lever locks, they represent a relatively high level of security but without the flexibility of operation offered by a cylinder lock. For internal doors they offer a level of security to deter opportunist thieves and a reasonable degree of privacy suitable for domestic use.

Performance levels

Our multi-level approach to mechanical locking ensures there is a solution for all projects, applications and budgets.

Level 5 - Escape locks to EN 179 for emergency exit applications

Level 4 - Heavy duty commercial cylinder mortice locks

Level 3 - Medium to heavy duty commercial cylinder mortice locks

Level 2 - Heavy duty residential lever locks

Level 1 - Light to medium duty locks and latches

Escape functions

Where locks are incorporated in doors which are on an escape route in an office suite for example, lock cases should be certified to EN 179 for emergency exit use in addition to EN 12209 (as they have to be tested to both standards).

Escape function locks are designed so that they can be operated by a single action on the lever, in the direction of the escape route, which will withdraw the latchbolt and the deadbolt simultaneously to give immediate escape.

Escape locks are certified for use with specific lever furniture which has been assessed as suitable for use in an emergency application. The furniture is supplied with special split spindles which allow the internal and external handles to operate independently.

Lockcases - Legislation

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CE Mark explained

Mechanical locks and latches intended for use on fire/smoke control doors are covered by the harmonised standard EN 12209 which sets out the requirements for testing and classifying locks suitable for CE marking in accordance with the Construction Products Regulation.

We recommend the use of a CE marked lockcase is the best way of ensuring the product you are using is fit for purpose and meets all legal requirements, particularly when used on fire doors.

Locks on escape routes

Locks fitted to doors which are on a defined emergency escape route must also be tested in accordance with **EN 179** and CE marked. The 9 digit code produced by assessment and testing defines the type of operation and the performance of each lock.

For more information on **EN 179** please refer to page 152.

The Equalities Act - disability legislation

Legislation aimed at providing universal accessibility of buildings requires service providers to make *"reasonable adjustments to the physical features of their premises to overcome barriers to access".*

To meet obligations under the Equalities Act, Approved Document M (ADM) of The Building Regulations and BS 8300 the following guidance relating to lock and latch cases is provided:

- The minimum distance from the door edge to the centre of the keyway (backset) – BS 8300 states a minimum of 54mm
- The distance between the handle follower and the centre of the keyway (lock centres) – BS 8300 states a minimum of 72mm
- 'Lever handles should be used wherever possible in conjunction with an upright mortice lock/latch' (BS 8300)

Lockcases which comply with the recommendations for accessibility can be identified with this symbol.

Kitemark

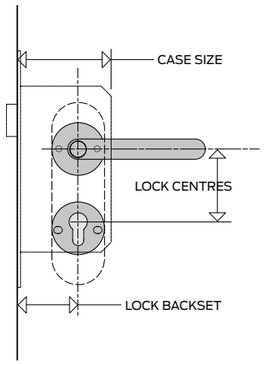
BS 3621:1980
Licence KM6662

BS3621 remains the most popular standard for domestic lockcases and has been adopted by most insurance companies as the benchmark for security. Locks tested and approved to the standard may carry the famous kitemark to attest that the lockcase has successfully undergone tests against the most common forms of attack such as drilling.

Our Recommendation

For commercial buildings we recommend the use of European style lockcases which have 72mm centres and a minimum of 60mm backset in line with the guidance of BS 8300. The Briton 5600, 5500 and 5400 Series euro profile cylinder mortice lockcases have been designed specifically to meet the requirements of the European standard EN 12209 and are CE marked where appropriate. Look out for locks with the CE symbol.

For residential applications, we recommend the use of BS 5 lever lockcases for all external doors.



Replacing an Existing Lockcase

If you are replacing an existing mortice lockcase you can find out the size you require by:

1. Simply measuring from the centre of the keyhole to the forend of the lock. - this gives you the backset measurement..
2. Measure the distance from the cylinder aperture to the lever follower - this gives you the lock centres measurement.

EN 12209 & EN 179

Physical characteristics of type, operation and performance of lockcases is tested/assessed in accordance with EN 12209 (and EN 179 for locks on escape routes). This produces an 11 digit (EN 12209) and 9 digit (EN 179) classification code which allows comparison between different locks that conform to the standard. See examples below.

For guidance on EN 179 please refer to our Emergency Exit Solutions on page 152.

EN 12209		Scope	Grades
3 1-3	**Category of use**	Defines frequency of use	Grade 3 - High frequency of use by public or others with little incentive to take care and with a high chance of misuse - eg. public doors
X A-X	**Durability**	Performance testing of the product through various cycle tests. Durability and load on latchbolt are identified	Grade X - 200,000 test cycles with 120N side load on latch bolt
8 1-9	**Door mass & closing force**	The mass of the door that the product can suitably be used on	Grade 8 - Up to 200kg door mass, 15N max. closing force.
1 1	**Fire resistance**	Suitability for use on fire/ smoke door assemblies having successfully completed a fire test to EN 1634.	Grade 1 - Suitable for use on fire/smoke resisting assemblies subject to satisfactory fire testing or assessment
0 0	**Safety**	Safety category for the product type	Grade 0 - No safety requirement
G 0-G	**Corrosion resistance**	Level of corrosion resistance to EN 1670 Neutral Salt Spray test and operation of the product at extreme temperatures	Grade F - High resistance -20˚C to +80˚C Grade G - Very high resistance 240 hours salt spray at -20˚C to +80˚C
4 1-7	**Security**	Security and drill resistance levels are identified	Grade 4 - High security with no drill resistance
B A-T	**Field of door application**	Defines the application the product is suitable for	Category A - Mortice type with unrestricted application Category B - Hinged doors in a mortice application without forend support
A 0-H	**Type of key operation**	Defines the type of key operation and locking type	Grade 0 - Not applicable Grade A - Cylinder lock or latch, manual locking
2 0-4	**Type of spindle operation**	Method of operation and compatible door furniture	Type 2 - Lock or latch for unsprung lever handle operation
0 0	**Key identification requirement**	Number of detaining elements and effective differs	Category 0 - No requirement for key identification

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Lockcases - Overview & Selector








Feature	Briton 5600 Series	Briton 5500 Series	Briton 5400 Series	Briton 5200 Series	CISA HD Series	Legge BS Series	Legge Locks & Latches	Legge Rim Locks	Feature
LOCK TYPE	Mortice cylinder lockcases	Mortice cylinder lockcases	Mortice cylinder lockcases	Mortice cylinder lockcases	Mortice cylinder lockcases	Mortice lever lockcases	Mortice locks and latches	Rim locks and latches	LOCK TYPE
Performance Level	Level 5 & 4	Level 5 & 4	Level 4	Level 3	Level 5 & 4	Level 2	Level 1	Level 1	Performance Level
Lockcase mounting	Mortice	Mortice	Mortice	Mortice	Mortice	Mortice	Mortice	Rim/Surface	Lockcase mounting
Dimensional co-ordination to DIN18251	■	■	■		■				Dimensional co-ordination to DIN18251
CE marked	■	■	■		■				CE marked
Fully tested to EN12209	■	■	■		■				Fully compliant with EN12209
Fully tested to EN179	■	■			■				Fully compliant with EN179
Kitemarked to BS3621						■			Kitemarked to BS3621
Single throw deadbolt action	■	■		■	■	■			Single throw bolt action
Double throw deadbolt action			■						Double throw bolt action
Fire tested to EN1634 for timber doors	90 mins	2 hours	2 hours	90 mins		90 mins			Fire tested to EN1634 for timber doors
Fire tested to EN1634 for metal doors	4 hours	4 hours	4 hours	4 hours		4 hours			Fire tested to EN1634 for steel doors
Fire tested UL LISTED R 14945(N)					60 mins				Fire tested UL LISTED R 14945(N)
Certifire approved		■	■						Certifire approved
Guarantee	10 years	10 years	5 years	5 years	5 years	10 years	5 years	1 year	Guarantee

Locking Functions									Locking Functions
Locking function by:	Euro Cylinder	Euro Cylinder	Euro Cylinder	Euro or Oval Cylinder	Euro Cylinder	Lever Key	Lever Key	Lever Key or Rim Cylinder	Locking function by:
Deadlock		■	■	■	■	■	■		Deadlock
Sashlock		■	■	■	■	■	■	■	Sashlock
Bathroom lock		■	■	■	■		■	■	Bathroom lock
Bathroom deadbolt		■					■		Bathroom deadbolt
Latch		■	■	■	■		■	■	Latch
Nightlatch with hold-back		■		■			■	■	Nightlatch with hold-back
Nightlatch without hold-back		■		■	■		■		Nightlatch without hold-back
Nightlatch with anti-thrust	■			■					Nightlatch with anti-thrust
Escape sashlock - non split follower		■			■				Escape sashlock - non split follower
Escape sashlock - split follower function	■				■				Escape sashlock - split follower function

■ Standard feature