

Doors

External Doors

Timber doors, particularly those of lighter construction, can be vulnerable to attack by intruders even though they may be fitted with the best quality locks and bolts. Door panels can be kicked-in or hand-tools used to cut a body-sized hole. (For a fire-exit door, a hand-hole is often enough to gain entry by enabling access to the panic- release bar or handle).

Even doors that appear solid are frequently found upon close inspection to be of only semi-solid construction and/or filled with lightweight material. It will therefore often be necessary to reinforce such doors with sheet steel, particularly if they are external doors in vulnerable locations or internal doors to secure areas or stores.

The following specification should be given to the locksmith or builder when commissioning such work:

The door must be of solid core construction and incorporate in addition the following:

- A 2mm steel plate is to be coach bolted across the entire outer surface and the plate is to extend and overlap the opening side of the door frame and lock(s) so as to cover the gap between the door and the door frame as this will offer additional protection. The coach bolts are to be at 150 mm centres all around the perimeter of the door. These are to be fitted at similar intervals through the cross bracing and centre rails of the door. All securing nuts and washers to be on the inside of the door welded to the bolts, or alternatively the ends of the bolts should be burred over.

If, in exceptional circumstances, it is necessary to steel-reinforce the door on its internal face, No.12 wood screws with non-return heads and at least 25mm in length may be used at intervals not exceeding 100mm in place of coach-bolts. In order to carry the additional weight it may be necessary to fit an extra hinge to the door.

Note: There is now an insurance standard for security doors (and shutters, windows etc) produced by the Loss Prevention Council (LPC) who were taken over by the Building Research Establishment (BRE).

The standards refer and are rated to a grade 6. Under normal circumstances grade 4 should be adequate.

- Two hinge bolts are to be fitted.
- Two five lever mortise locks, one positioned 1/3rd of the way down from the top and the other 1/3rd of the way up from the bottom.

When securing an exterior door you may also have to consider the security in conjunction with fire regulations, especially if the door is designated fire exits which may not be in normal daily use but have to be kept unlocked during trading hours. The following may resolve your dilemma in such situations:

1. Secured with a Secure-X-It four-way panic bolt



2. The alarm installer will need to arrange facilities whereby the alarm can be isolated to enable the legitimate passage of goods and personnel.
3. A notice is to be posted on the inside of the door stating that it is alarmed and must not be opened without approval of the management.

Electrically operated single and Double Door Entry Systems

Airlock Entry System for an Office

Ideally all walls off an efficient "lobby" or "airlock" entrance ought to be constructed of brickwork; however, this is not always practical for an office location. An acceptable and alternative could be to construct stud wall partitioning lined with internal protection of steel sheet of at least 2mm or expanded metal, to give some protection against violent attack for example involving shotguns.

The first entrance door to be of solid core construction; wood of at least 1.3/4 inch thickness and to be secured by mortise deadlock to BS3621 at night and electric latch by day. Further, 2 hinge bolts are to be fitted. An entry phone is to be fitted outside the door. This door is to lead into a secure waiting area for visitors with a bullet resistant bank type hatch for any transactions.

The door from this lobby area leading into the main offices must be solid wood (minimum 1.3/4 inch thickness), lined with 2mm steel sheet and secured by mortise deadlocks to BS3621 plus 2 hinge bolts to each door. The door must open back into the secure waiting room not into the main offices.

Each of the above doors to should be fitted with a wide angle spy hole. The electrical locking mechanism on each of the doors to be interfaced so that it is not possible to have both doors open at once, - each door having to be closed before the other can open.

Airlock Entry System for a Retail Shop

All of the glazing to the "lobby" or "airlock" entrance to be constructed using a minimum of 11.5mm laminated glass, the inner door to open inwards into the lobby so that it closes on to the door frame and benefits from the inherent strength of the door frame.

The electrical locking mechanism on each of the doors to be interfaced so that it is not possible to have both doors open at once, - each door having to be closed before the other can open.

Known suppliers in the UK:

The electrical locks to be fitted should be such that are manufactured by either of the following:

- [Abloy Security Limited](#)
- [Adams Rite](#)



- [Chubb](#)

It is vital to install all security products in accordance with the manufacturers recommendations.

Internal Doors

If the level of security requires protection to the internal doors then these should be of solid core construction. They should be wood of at least 1.3/4" thickness and secured by mortise deadlock to BS3621 at night and by electric latch or other form of controlled entry by day.

External Shutters

Shutter can vary in strength according to their construction. For higher risk situations, such as a retail shop, it is recommended that the entire shop front be protected with a galvanized steel roller shutter outside business hours. If however virtually all jewellery stock is removed from the display windows at night it will be in order to have shutters of a more light weight construction or internal grilles.

If possible and practicable the entire shop front should be protected as this offers protection to the front that would otherwise be open to abuse by vandals.

The shutters are to be secured with a heavy-duty hasp and padlock e.g., padlocks of Ingersol B6 quality. If a heavy duty alarm contact should be incorporated in order to enhance the perimeter protection offer by the intruder alarm.

There are a number of different and acceptable ways to secure external shutters. Currently the recommended way is:

- Bullet locks should be fitted to each side of the exterior shutter. These are more secure than a traditional padlock being bolt channelled into the shutter and pass right through the shutter secured to its other side.
For added security a closed shackle "Chubb Battleship" or "Ingersol B6" type of padlock could also be fitted.
These are to be secured with a heavy-duty hasp.
- A heavy-duty alarm contact should be incorporated in order to enhance the perimeter protection offered by the intruder alarm.

