

INTRODUCTION

Your front door should be fitted with deadlocking high security locks.

A lock is only as strong as the door itself. If your door and surrounding frame are flimsy, have them replaced before you waste time and money fitting locks and bolts.

A door fitted with a single lock is still at risk from a determined burglar. A heavy blow concentrated on the one spot could split the frame. The answer is to spread the load with rack bolts, hinge bolts and a pair of locks - a cylinder lock and a mortice lock - spread some distance apart:

- A cylinder lock requires a large hole to be drilled through the thickness of the door.
- A mortice lock fits into a deep slot cut in the edge of the door.
- Hinge bolts prevent a door being lifted off its hinges.
- Rack bolts spread the load placed on a door frame by a forced entry.

To get free security advice, contact the Crime Prevention Officer at your local police station and remember that some insurance companies may reduce your premiums if your property meets their security standards.

Buy only good-quality strong locks that conform to BS 3621. This shows the lock meets with current British Standards.

SKILL LEVEL ●●●●●

Careful measuring and cutting is required when fitting a lock.

SAFETY FIRST

Plan the work to ensure your locks are fitted before nightfall and don't leave the open door unattended at any time.

TO COMPLETE THIS PROJECT YOU WILL NEED...

- | | |
|-----------------------------|--------------------------|
| • Bradawl | • Mortice Lock |
| • Chisel | • Power Drill (cordless) |
| • Deadlocking Cylinder Lock | • Screwdriver |
| • Drill Bits | • Screws |
| • Escutcheon Plates | • Carpenter's Brace |
| • File | • Marking Gauge |
| • Hinge Bolts | • Padsaw |
| • Junior Hacksaw | • Rack Bolts |
| • Knife | • Self Adhesive tape |

HOW TO: FIT A DOOR LOCK

1. FITTING A DEADLOCKING CYLINDER LOCK

The instructions given here are for fitting a cylinder lock to a new door. If you are replacing an existing lock the procedure is similar, but the holes will have been cut already ❶

STEP 1: Start by choosing where to put the lock - this should be at a convenient height about two-thirds of the way up the door.

Locks should always be fitted to the closing stile (the upright on the side of the door furthest from the hinges). Do not fit a lock where the central rail joints the stile as you risk weakening the joint.

knife to trim the carpet edge to meet the skirting.

Pull back the carpet edge and fix double-sided carpet tape to the floor. Remove the protective paper from the top face of the tape and press the edge of the carpet down on to it. Alternatively, use spray adhesive or, on wooden floors, 37mm (1 1/2 in) carpet then turned under and tacked through the double thickness.

STEP 2: Using the template supplied, mark the cylinder and fixing holes for the lock ❷

STEP 3: Check the instructions that come with the lock to see what size hole you need to drill for the cylinder.

Use a brace fitted with an auger bit, or fit a spade bit in an electric drill. Drill from both sides to make a neat hole.

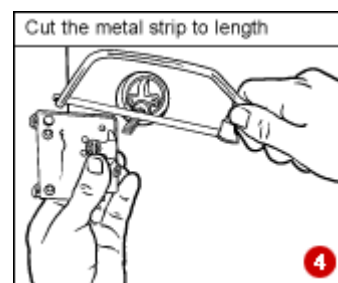
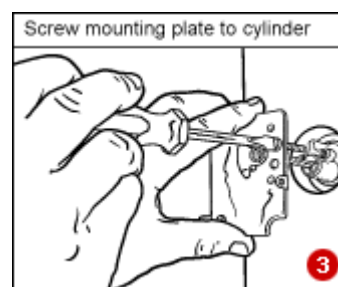
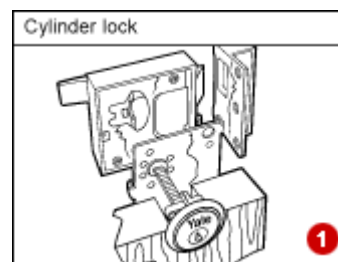
STEP 4: Pass the cylinder mechanism through the hole from the outside and secure it to the mounting plate on the inside face of the door, using the connecting screws provided. The screws may have to be cut to length with a junior hacksaw. Screw the plate to the door. ❸

STEP 5: Check the length of the metal strip which protrudes through the door. This operates the latch and is designed to be cut to suit the thickness of the door. If necessary, trim the strip with a junior hacksaw and file the end smooth. ❹

STEP 6: Fit the lock to the mounting plate, making sure the metal operating strip fits neatly into the mechanism and the key turns freely.

Now align and fix the lock staple to the frame with the screws provided. It may be necessary to chisel a small recess in the door frame first.

Once you have fitted your locks, it pays to paint or varnish the freshly cut wood to prevent moisture penetrating.



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2. FITTING A MORTICE LOCK

Although a good deadlocking cylinder lock will secure your front door, your local Crime Prevention Officer would advise you to fit an additional mortice lock. **5**

A mortice lock should be a snug fit in the slot, or mortice, cut in the edge of the door. Only the faceplate, which is set flush with the edge, is visible when the door is open. The lock can only be operated by a key from the inside or outside. This lock should be fitted well below the latch to add support to the door and help prevent a forced entry.

STEP 1: Measure the width of the door stile to make sure the lock will fit. It is important to position the mortice lock well below the cylinder lock, while avoiding the cross-rail joint.

Mortice locks are made in various sizes. A typical lock body measures up to 100mm (4in) deep, but 65mm (2½in) deep locks are available for narrow stiles.

A door stile needs to be at least 45mm (1¾in) thick to take a mortice lock.

STEP 2: The mortice must be cut accurately so that the lock fits snugly - an oversized mortice will weaken the door stile.

The procedure for cutting the mortice is the same whether you are fitting the lock to a new or existing door.

Set a marking gauge to half the thickness of the stile and scribe a centre line for the mortice on the edge of the door.

Holding the body of the lock against the edge of the door, mark a line at the top and bottom to indicate the length of the mortice. **6**

STEP 3: Select a drill bit that is the same diameter as the thickness of the lock body. Remove the waste between the marks on the door by making a series of overlapping holes down the centre line. Use either a hand brace and bit or a power drill and spade bit. **7**

Make a simple depth gauge by sticking a piece of self-adhesive tape around the drill bit at the required level.

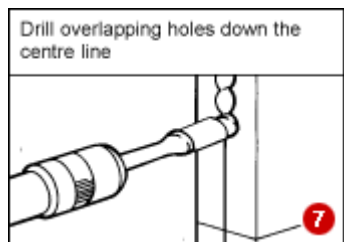
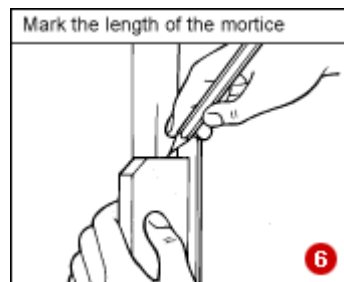
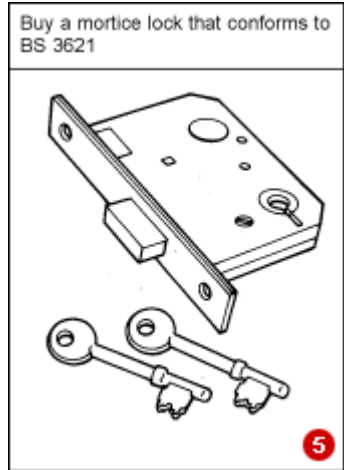
Clean out the remainder of the waste with wood chisels to leave a neat rectangular slot for the lock body. **8**

STEP 4: Slide the lock into the mortice and carefully mark round the faceplate with a knife.

Some locks have a separate faceplate cover that is fixed to the plate with short screws.

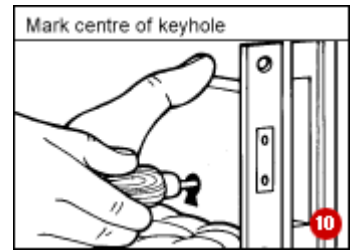
Step 5: Cut a recess to set the faceplate flush with the edge of the door. Make a series of shallow cuts across the marked out area and, with the chisel held bevel down, pare out the waste. **9**

Take care not to split the wood as you trim the sides of the recess. is well, screw the lock in place and attach the faceplate cover if required.



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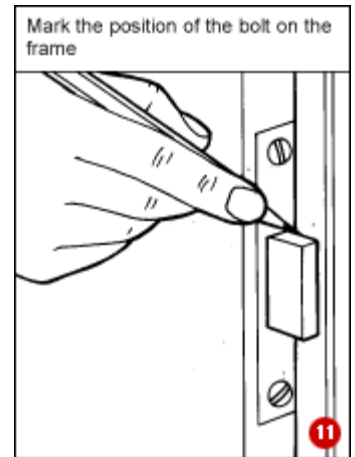
STEP 6: Hold the lock against the face of the door with the faceplate level with the recess. Mark the centre of the keyhole with a bradawl. **10** Drill a hole through the door (clamp a block of scrap wood to the other side of the door to prevent splitting) then use a padsaw to cut a keyhole on each side of the door.



STEP 7: Fit the mortice lock and try the key from both sides. If all

STEP 8: Screw the escutcheon plates over the keyholes.

STEP 9: Now fit the striker plate to the door frame. With the door open, shoot the bolt out and close the door against the door post. Mark the position of the bolt on the frame. **11** Cut a small mortice and recess for the striker plate in the frame.



3 - FITTING A LEVER HANDLE

As well as a lockable bolt, a mortice lock has a spring-loaded latch that is operated by a lever handle on both sides of the door. These are typically used for rear and/or side-entry doors.

They are fitted like a standard mortice lock, but you have to drill one extra hole through the door for the lever-handle bar. Some locks are made to fit left-hand or right-hand opening doors, so check before you buy.

Fit the lever handle - some are made with concealed screw or bolt fixings, others are face-mounted.

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4. FITTING HINGE BOLTS

Even when you have fitted strong locks to the closing edge of the door, it is still possible to lever the door off its hinges. Foil the most determined intruder with a pair of special hinge bolts set into the edge of the door 12

STEP 1: Mark and drill holes for the bolts in the centre of the door edge. Use the bolts to mark their positions on the door frame.

STEP 2: Mark out the recesses for the locking plates and drill and chisel out the waste to set them flush.

STEP 3: Screw the plates to the frame.

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