

Project Cost Estimator

Materials Description	Quantity	Cost
Door		
Security Door		
Hinges		
Screws		
Lock & Striker Plate		
Equipment	Quantity	Cost
Tape Measure		
Chisel		
Drill		
Plane		
Mallet		
Square		
Screwdriver		
Saw		
Pencil		
Wedges		
Total		

All these materials you need for this job are available at Magnet Mart, your home improvement warehouse.

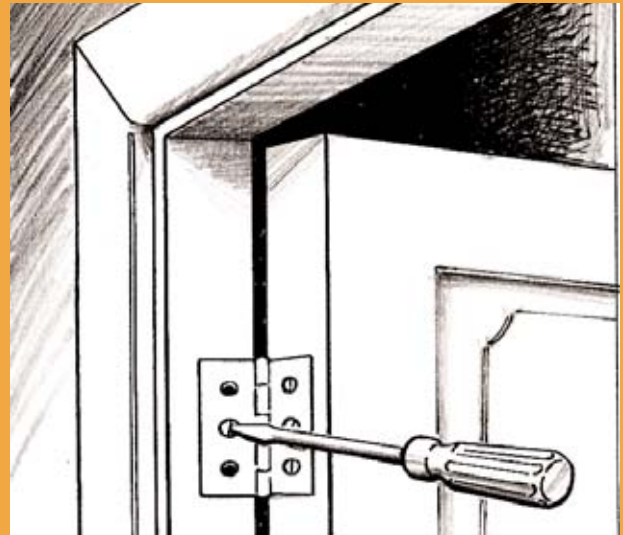
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Install a Door



- Easy to follow step-by-step guide
- Important and handy tips
- Materials check list
- Project Cost Estimator

Before you start, please read through this pamphlet carefully and estimate and assemble all the materials you will need for the project and gather your tools and equipment together. Refer to the checklist and estimating form on the back panel of the pamphlet to assist in this preparation.

YOU CAN – Install a Door

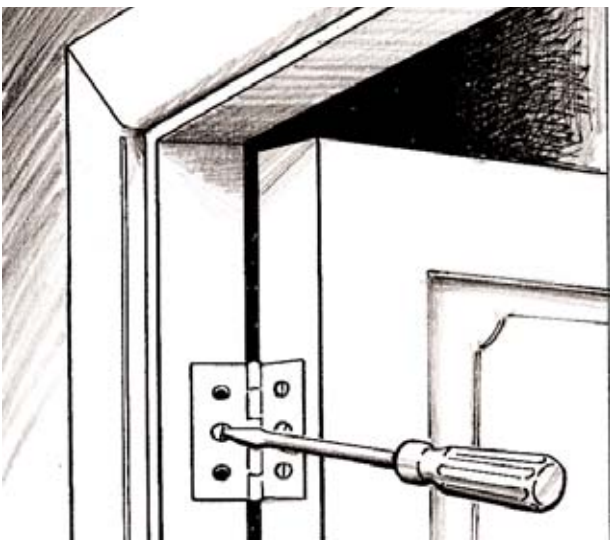
Choosing a Door

Most homes are fitted with timber doors that will generally not give you any trouble for the entire life of the house. When you need to replace a door due to wear and tear or when renovating, you can save money by hanging the new door yourself. The important things to remember when choosing a door include:

- Where the door will be fitted – is it an internal or external door?
- Does the door need to be secure against intruders?
- Do you need natural light to shine through the door – choose a glazed door for this location.
- Does the door need to provide ventilation – eg. pantry or cupboard door?

For an external door, choose a solid timber panelled door, any large glass panels in such a door need to be specified as laminated or toughened glass. Solid doors need to be hung on three 100mm brass butt hinges.

Internal doors are usually hollow with a veneer or primed hardboard finish, there are also feature internal doors that are panelled. These lightweight internal doors may be hung on two butt hinges. For cupboards and pantries where air circulation is important, try louvered timber doors.



Measuring & Fitting

1. For a new door, measure the finished opening. The final door size needs to have the following clearances (Fig 1):
 - Top & Side Clearance: 3mm
 - Bottom Clearance: 5mm minimum (allow for carpet or other floor covering when calculating this clearance)
2. Stand the door in position and mark where it needs to be trimmed. Trim the excess from the door with a hand or power plane (Fig 2). Use a handsaw if there is a large amount to be removed.

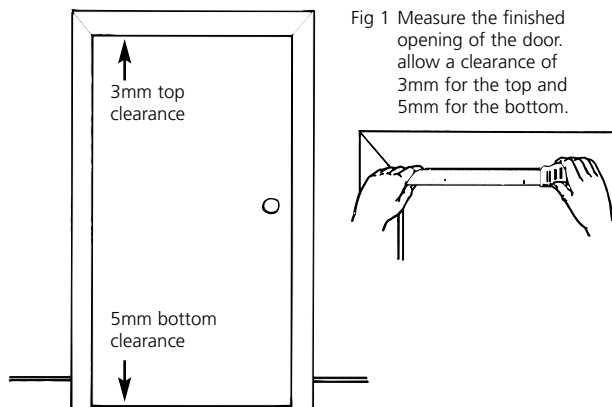


Fig 1 Measure the finished opening of the door. allow a clearance of 3mm for the top and 5mm for the bottom.

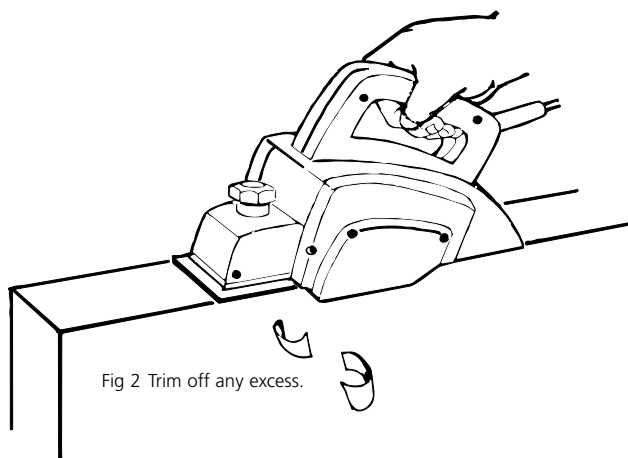
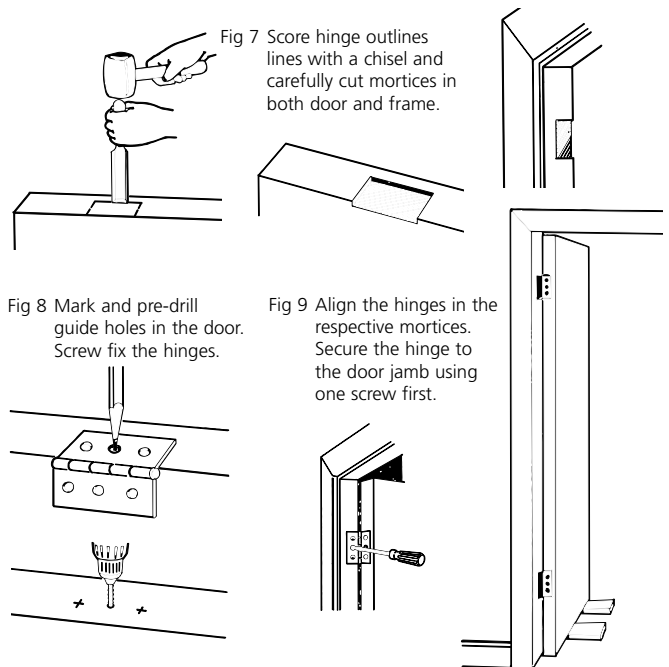
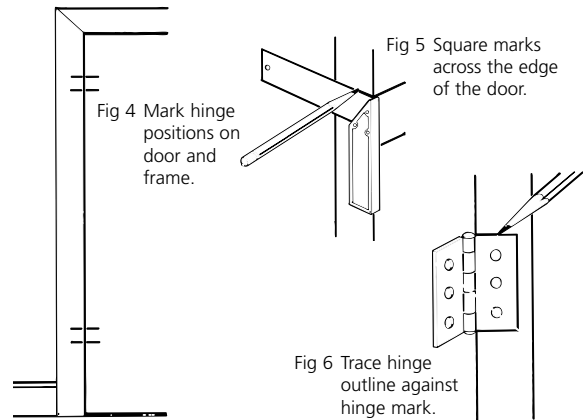
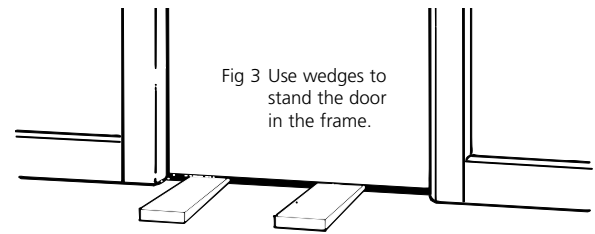


Fig 2 Trim off any excess.

Setting the Hinges

1. Stand the trimmed door in the frame using wedges and thin pieces of timber to fit the door in its final position with the correct clearance to the frame (Fig 3).
2. Mark the hinge positions on both door and frame – top hinge positions should be 150mm to 160mm from the top of the door (Fig 4). Bottom hinge positions should be 250mm to 280mm from the bottom (Fig 4).
3. Remove the door and square the marks across the edge of the door and on face of the door jamb (Fig 5).
4. Set a hinge on one of the squared marks and trace the hinge outline (Fig 6). Ensure that you keep the hinge carefully aligned with the squared mark. Trace the hinge outline on both top and bottom marks on door and door jamb.
5. Using a chisel, carefully score the hinge outlines (Fig 7) don't attempt to cut too deeply at first, just hold the chisel vertically and tap lightly with a mallet to make a neat score line.
6. Cut the hinge mortises making allowance for the depth of the hinge leaf (Fig 7) to ensure that the hinge fits flush. Cut mortises in both door and door jamb.
7. Mark the screw holes and pre-drill guide holes (Fig 8). If you use self drilling screws, this step may be avoided, remembering to take care when driving the screws home. Screw fix the hinges to the door first.
8. Stand the door in the open position using wedges to align the hinges to their respective mortises (Fig 9). Screw fix the hinges to the frame using one screw only and check the operation of the door.
9. If the door swings and aligns to the frame satisfactorily, finish screwing the hinges in place. If there are alignment problems, see the Quick Tips below.



Quick Tips

- Door Touches the Step – recess the top hinge into the door jamb.
- Door Touches Top of Frame – recess the bottom hinge into the door jamb.
- Rather than recessing the hinge mortice, you may also build up a hinge position if required by padding with thin cardboard behind the hinge.

Installing Security Doors

1. Stock size security doors are made to fit standard door frames with a 3mm gap all round. Imperial Door size – 2032mm x 824mm; Metric Door size – 2040mm x 820mm.
2. If the door frame is too large for a standard door, nail timber cover strips to the top and sides of the door frame to reduce the opening size (Fig 10).
3. Place the door in the frame, ensuring a gap of 3mm on the lock side (Fig 11). Mark the hinge positions on the door frame.
4. Set the door in an open position (Fig 12) lining up with the hinge marks. Now, mark the hinge screw holes and install one screw per hinge. Test the operation of the door, if satisfactory, install the remaining screws.

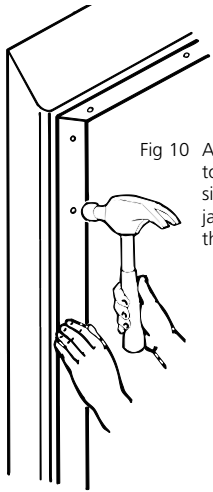


Fig 10 Add timber strips to the top and sides of the door jamb to reduce the opening size.

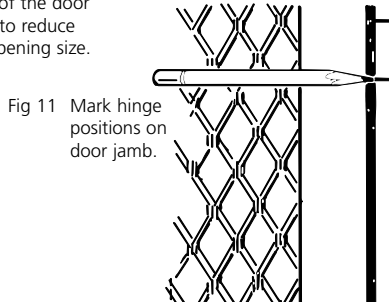


Fig 11 Mark hinge positions on door jamb.

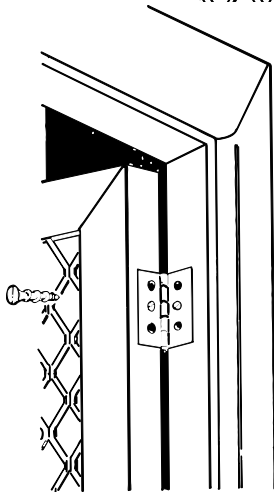


Fig 12 Screw fix the hinges to the door jamb using one screw first.

Fitting a Striker Plate

1. Close the door and mark the height of the lock tongue on the door jamb (Fig 13).
2. Place the striker plate with its cut-out aligned with the marks (Fig 14) against the door jamb. Mark the inside edge of the striker plate cut-out and the screw holes.
3. Using a chisel and mallet, cut a recess for the lock tongue approximately 12mm deep (Fig 15). Screw fix the striker plate into position over the recess.
4. Check the operation of the door and lock, it should swing freely and when shut, should not rattle.
5. To hide unsightly gaps around the door, fit beading strips to the top and sides of the door jamb. Cut beading to required length and fix with in place with panel pins.

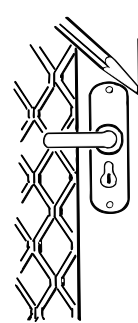


Fig 13 Mark the height of the lock tongue on the door jamb.

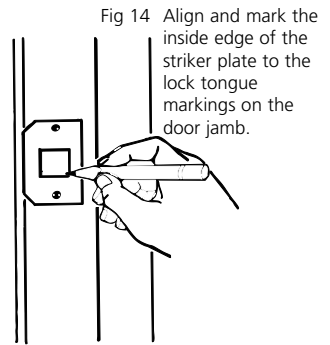


Fig 14 Align and mark the inside edge of the striker plate to the lock tongue markings on the door jamb.

Fig 15 Chisel out a recess for the lock tongue and screw fix striker plate.

