



## Install an attic ladder

If you are pretty handy, you can install your own attic ladder, which will save you about \$400 on the cost of a professional installation. Doing it yourself will probably take the best part of a weekend.

### YOU WILL NEED

A heavy-duty attic ladder suitable for your ceiling height – the M300 attic ladder for a 3m-high ceiling costs about \$1000. If yours is a truss roof, make sure the attic ladder you buy is suitable for your roof.

### HERE'S HOW

**STEP 1** Decide on the best location. The existing manhole is usually not the ideal location as it's often in a tight spot, such as close up under a sloping roof or in the garage. The ladder is best located where you can step off the top with a reasonable head height. Also, avoid other obstructions such as electrical cabling or conduit, and large structural beams which run across ceiling joists or support struts. In most cases you will have to cut some ceiling joists. As they form part of the coupled triangle that stops the bottom of the roof spreading out, they have to be secured

with trimmers. If in doubt, have a professional take a look. Before starting, remove any insulation and vacuum the ceiling area, as this will stop you wearing decades of dust as you cut out the ceiling. Working in the roof space, mark the hole size (in this case 1285 x 685mm) needed for the attic ladder assembly on the top of the ceiling lining where you can see the ceiling and roof framing. Drive a nail through the ceiling at each corner of the rectangle from the top to mark the corners of the hole on the underside.

**STEP 2** On the underside of the ceiling, check that the hole will be square, that it is parallel to wall lines and that it clears cornices. Join marks with a pencil line and cut out with a plaster saw or handsaw. Don't cut the ceiling joists at this stage, but cut through any thin ceiling battens that may be present.

**STEP 3** Pull down the ceiling and any ceiling battens still nailed to the ceiling joists.

**STEP 4** Cut a timber batten the width of the attic ladder assembly to use as a template and mark the mid-point. Cut two 90 x 45mm trimmers to

fit between the ceiling joists located just beyond the hole at each end. Centre the template on 1 of the joists directly over the hole, and butt the 2 trimmers against it. Align the other end in the same way, then mark the outside of the joist. Then mark the outside of the joist.

**STEP 5** Square down the joists at points you have marked over the hole and cut with a handsaw or a reciprocating saw.

**STEP 6** Fit the trimmers in place, then screw them to the cut ends of the ceiling joists with 2 x 75mm or 100mm screws at each joint. Align and secure the trimmers to the uncut joists, by screwing from the joists into the trimmers, or where this is not possible, by skew screwing the trimmer to the joist. At this stage also add upper handrail if included.

**STEP 7** The typical attic ladder comes as a pre-assembled unit complete with surrounding box to fix in position. They are a bit awkward, so it's best to have extra help to get it into place. Either use a block and tackle off a roof rafter or a couple of mates with ropes to lift it in place. Ideally, have 1 person

below to guide and lift, and another 2 up top to pull it up and tie it off.

**STEP 8** Fix box to trimmers with 2 screws at the opening end, driven in from the inside of the box. Drive another 2 screws from the ceiling joist into the box at the hinge end to initially hold it in place.

**STEP 9** Remove the ropes or tackle. Open the staircase partially and drive in 3 screws through each side into the trimmers and from the inside into the end trimmer at the hinge end.

**STEP 10** Fold the ladder down to reach to the floor. Adjust so it just touches, then fold the bottom section of the ladder back and let it hang. To measure the exact length to the ground, hold a straight batten against the ladder stile as an extension of the ladder. Use a sliding bevel to measure the angle between floor and ladder. Transfer the length and angle to the bottom of the ladder stile and cut to length. Paint the hatch to match your ceiling.