

# A25

# A28

# A31

## Attic Stairs

### Installation Instructions

#### Important

**Strong springs aid the operation of these stairs! Care must be exercised during installation and operation so these springs are not released in an uncontrolled manner as this could lead to damage to the stair or personal injury to the operator/installer**

#### Tools Required

The Timbertight screws supplied with this stair require a 5/16" socket for easy installation. This can be used with a 9 volt (or stronger) battery drill or a standard power drill. Apart from this only standard carpentry tools are required.

#### Choosing the Location

When choosing the location for the installation of the attic stair a compromise between where you would like it to be located in relation to the floor plan and what is possible in relation to the roof structure may be required. The considerations for this compromise are set out below.

1. Choose a location that will give good headroom at the top of the stairs.
2. Choose a location with good access at the bottom of the stairs.
3. Choose a location that will allow for movement around the stair when in the down position.
4. Allowance must be made for the operation of the stairs, as they require a greater space to open than indicated by the opening in the ceiling (figure 1). *All dimensions in mm.*

Model	Required Opening	Landing Space	Projection
A25	1220 x 650	1140	1515
A28	1370 x 650	1200	1720
A31	1440 x 650	1370	1790

5. The area for the opening must be clear of wiring, plumbing and structural members such as beams and trusses with a minimum clear height above the ceiling of 420mm (figure 2).

#### Preparing the Opening

1. Mark out on the ceiling the opening required for the model stair purchased in the selected position. Then cut out the ceiling lining ensuring that the opening is square.
2. Using timber of a compatible size to the existing ceiling framing, ie 100 x 50 or 150 x 50 H1 treated, machine gauged radiata pine, frame up the opening. It may be necessary to cut through some existing ceiling joists to achieve the required size. Ensure these are properly supported during and after cutting. Three possible arrangements are shown in figures 3, 4 and 5.

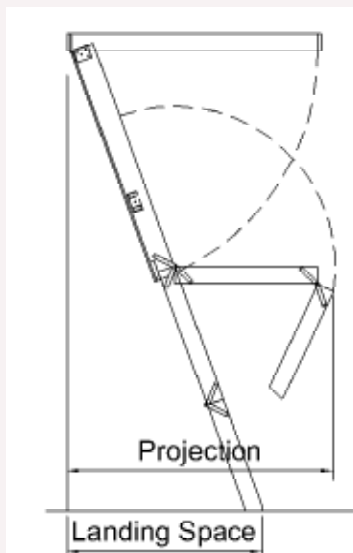


fig. 1



fig. 2

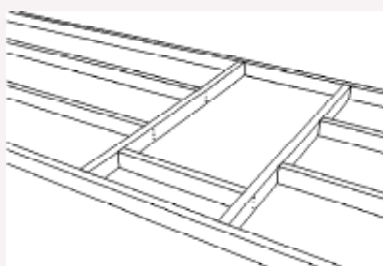


fig. 3

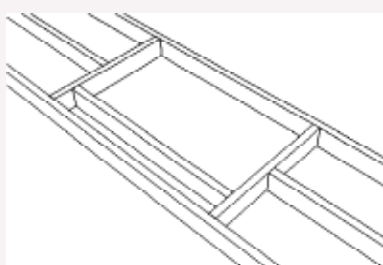


fig. 4

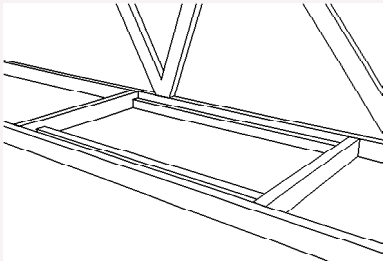


fig. 5

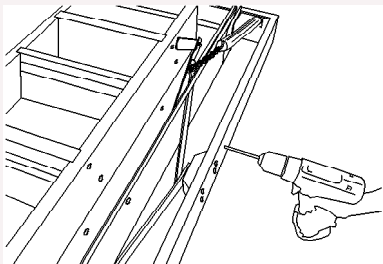


fig. 6

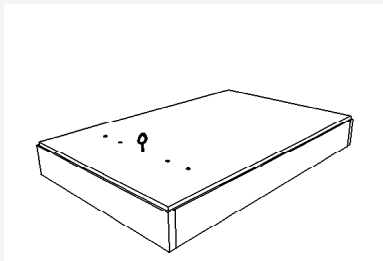


fig. 7

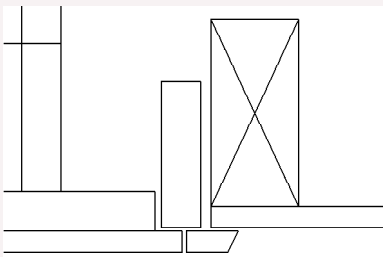


fig. 8

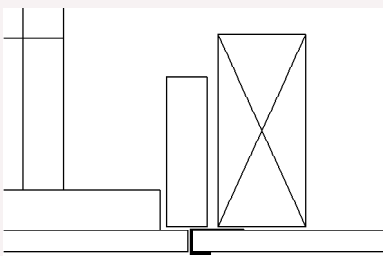


fig.9

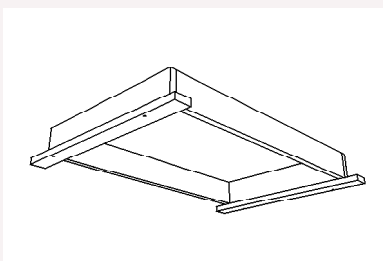


fig.10

3. DO NOT CUT TRUSSES without engineering approval.

### Preparing the Stairs

1. Remove the stair from its packaging and place it lid down on a bench or saw stool. It's less likely to damage the lid there than laying it on the ground as well as being better for your back!
2. Drill 4 x 6mm (1/4") holes in the outside frame in the following positions:-
  - One in each side of frame near the blocks that hold the stays on to the side frame
  - One in each frame side 160mm in from the opening end.

These holes must be positioned so the screws going through them will fix into solid timber. They will be 45 – 60mm from the bottom of the frame (figure 6).
3. Turn the lid over so the lid is facing up.
4. You may choose to prepare the lid for painting by filling and sanding the screw holes now as it is easier now than later, when the unit is in the ceiling.
5. Fit the screw eye which is taped to the operating rod to the lid 100mm in from the opening end, midway across the width (figure 7).

### Installing the stairs

**Note;** The stairs are designed to be installed with the outside frame flush with the underside of the ceiling lining. An architrave will cover the gap between the stair frame and the ceiling lining while also hiding the edge of the lid from view (figure 8).

**Optional;** If the stair is to be installed as the house is being built and before the ceiling lining is fitted you may choose to fit the stair frame flush with the bottom of the ceiling battens (figure 9). A "J" channel is then fitted to the stair frame and the ceiling lining fitted into the "J" frame to achieve a square stop finish.

1. Screw two temporary cleats that are the full width of the opening to the ceiling (figure 10). Fix one cleat at the hinge end protruding 15mm into the opening. The other, at the opening end, must protrude 15mm into the opening also. The distance between these cleats must be L + 10mm as seen in figure 11.

**The cleats must be securely fixed as they carry the full weight of the stairs**

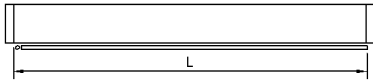


fig. 11

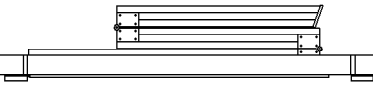


fig. 12

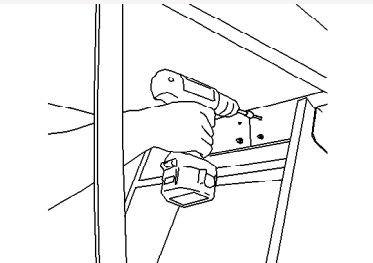


fig. 13

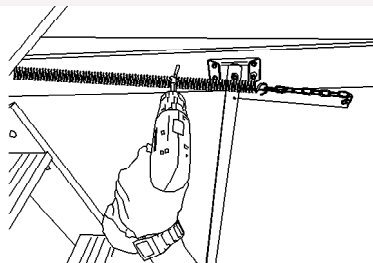


fig. 14

Note; If the stairs are to be installed before the ceiling lining is in place, the cleats must be packed down the thickness of the intended ceiling lining unless a “J” channel is being used.

2. Lift the stairs through the opening into the attic space. Then lower them down squarely into the opening so the frame of the stair rests on the temporary cleats (figure 12). This is normally best done from below and can be done by one person, but it is very much easier and safer with two people.
3. Check and confirm there is plenty of frame sitting on the cleats before proceeding further. Adjust if necessary.

**The stairs must not be allowed to fall, as this could cause SERIOUS PHYSICAL DAMAGE.**

4. Carefully open the stair, checking that the frame remains securely on the cleats. Adjust if necessary. **DO NOT PUT ANY WEIGHT ON THE STAIR AT THIS STAGE.**
5. From a step ladder or saw stool or similar (not the attic stair), fix the hinge end of the stair to the ceiling framing through the two outer predrilled holes in the hinge plates (figure 13). Use the 65mm Timbertight screws supplied or something similar. Do not fit tight yet.
6. Carefully close the stairs and check for square. Wedges may be needed at one side of the hinge strip to square the unit in the opening. This may require reopening the stairs and loosening or tightening one of the screws a little.
7. With the stairs open screw through the holes you previously drilled in the side frame into the ceiling frame (figure 14). Do not fit tight yet.
8. Remove temporary cleats.
9. Carefully close the stairs and check that an even amount of the stair frame is showing around the lid. Adjust the side fixings and fit packing as necessary between the stair frame and the ceiling frame. Make sure the sides stay plumb and straight.
10. Now tighten all screws and check again. Fit more screws through the predrilled holes in the hinge plate.
11. Adjust the stair to the correct height.

The aluminium stair is adjusted to an approximate height as listed below.

A25	2400mm
A28	2700mm
A31	3000mm

12. After the stair is installed into the ceiling unfold the middle and bottom section. Check where the sections are hinged that the joints close neatly together. If they are not closing neatly the ladder is too long. If the sections are closing neatly at the hinges and the rubber feet are not reaching the floor the ladder is too short.

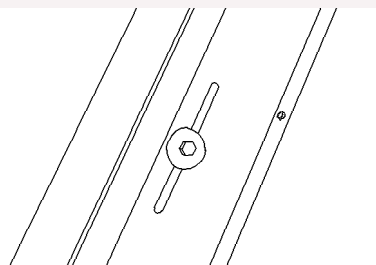
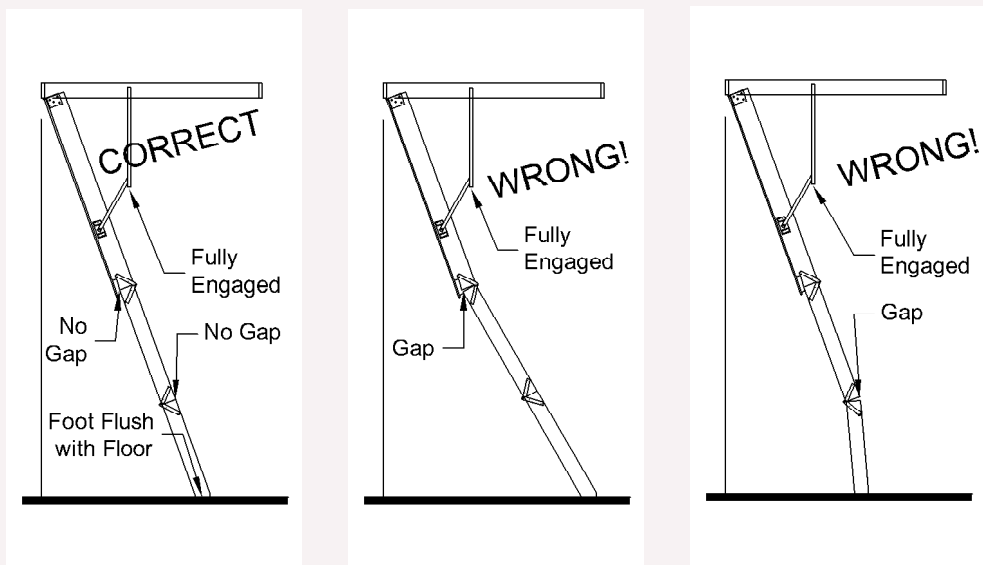


fig. 15

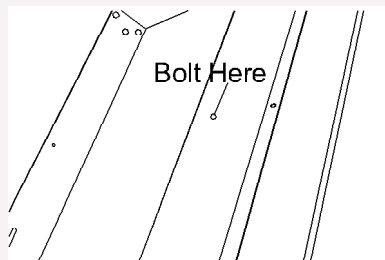


fig. 16

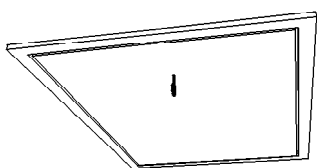


fig. 17

13. The ladder can be adjusted up 45mm or down 45mm. Loosen the screws located through the slots where the top section stringers are fitted to the support frame. **Move the whole ladder up or down the runners as necessary to ensure that the rubber feet are firmly on the floor and the ladder sections are closing neatly where hinged.** When properly adjusted to height tighten the screws in the slots. (Note; On the A31 model the adjustment bolts may be hidden behind a spring.) Figure 15.

**Do not put any weight on, or stand on the stairs at this stage!**

14. There are 4 x 6mm holes in the base runners that are clearly marked with an arrow. Using a 6mm twist drill, drill through the marked holes and right through the stair stringers. Use the 6mm machine screws and nylok nuts supplied to fix through these holes (figure 16).
15. Fix a suitable architrave around the lid leaving a 2-3mm gap or fit "J" channel for flush finish (figure 17).
16. Finish and paint as required.

These instructions are not intended to be a complete lesson in the installing of attic stairs but a procedural guide to competent trades people or home do it yourself people.

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