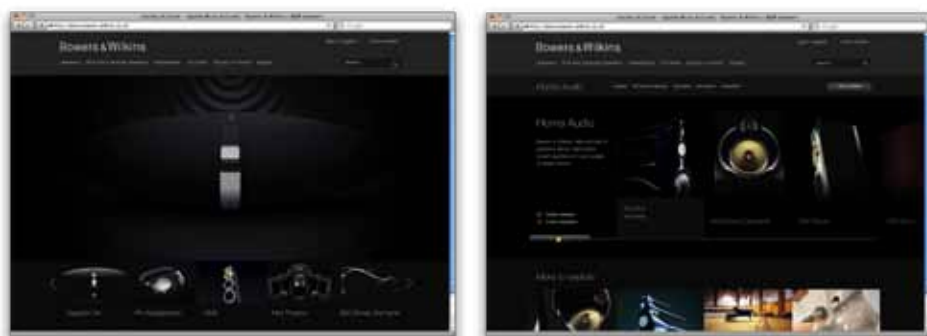


Bowers & Wilkins

ISW-3

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Thank you for choosing Bowers & Wilkins. When John Bowers first established our company he did so in the belief that imaginative design, innovative engineering and advanced technology were keys that could unlock the enjoyment of audio in the home. His belief is one that we continue to share and it inspires every product we design.



1 Contents

Check that you have the following components shown in Figure 1:

- a. Subwoofer
- b. Louvre fascia (white)
- c. Louvre (black)
- d. Cowl extension
- e. Cut-out template
- f. Gasket strips
- g. Angle support brackets
- h. No.8 x 12mm (0.5in) screws
- i. M3 x 35mm (1.38in) button head screws
- j. Support bar
- k. Rubber feet & locknuts
- l. No.4 x 10mm (0.38in) csk screws
- m. No.6 x 25mm (1in) csk screws

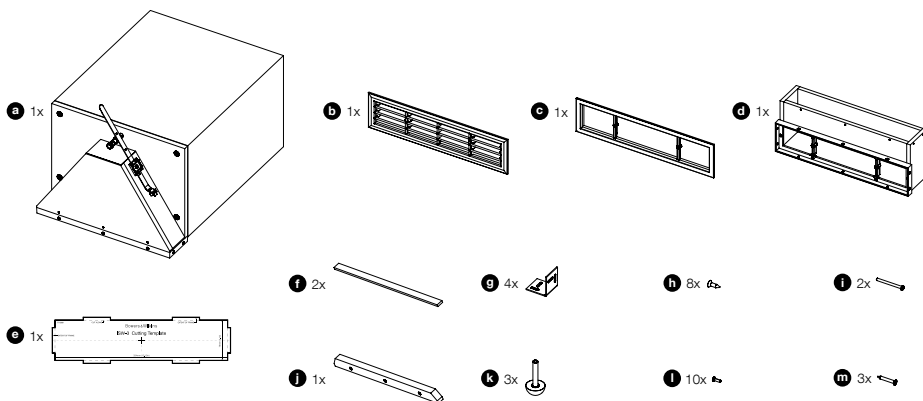


Figure 1

In addition, you should also have a Quick Start Guide and warranty leaflet. This manual provides more detail than the Quick Start Guide.

Consult your dealer if any parts are missing or appear damaged.

2 Applications

There are four possible applications, each covered by a separate section:

In-ceiling - new construction only (Figure 2)
Go to Section 3.

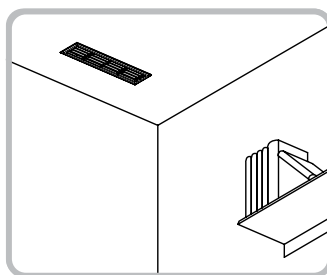


Figure 2

In-wall - new construction only (Figure 3)
Go to Section 4.

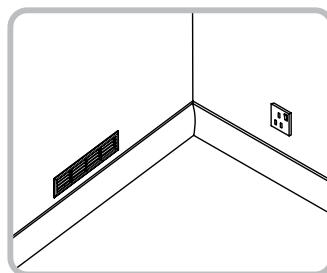


Figure 3

Under the floor (Figure 4)
Go to Section 5.

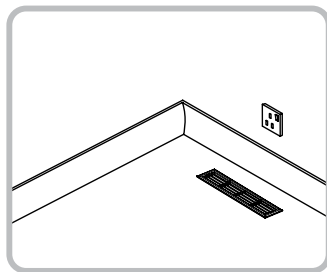


Figure 4

In a kitchen unit (Figure 5)
Go to Section 6.

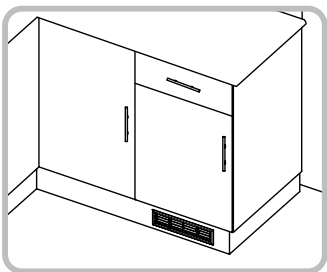


Figure 5

3 Installation in-ceiling

The speaker will fit between joists with standard 40cm (16in) or greater spacing, such that the visible louvre straddles the gap between them. A clearance of 25cm (10in) or greater behind the underside face of the joists is required.

Mark the centre line of the desired louvre position on the underside face of the joists at each side. Make two further marks on both joists at approximately 75mm (3in) and 380mm (15in) from the louvre centre line for the cabinet support brackets (Figure 6).

Screw the four L-brackets (g) as shown to the inside vertical faces of the joists (screws not supplied), ensuring the brackets are square and flush with the underside face of the joists.

Run appropriate gauge speaker cable to the installation point. Secure it to the joists so it cannot rattle, with the final tie point close to the marked louvre centre line near the top of the joist. Leave approximately 30cm – 50cm (12in - 20in) free at the end (Figure 7).

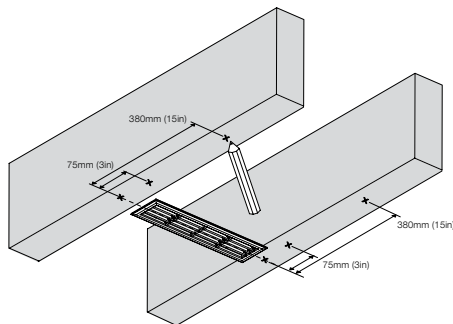


Figure 6

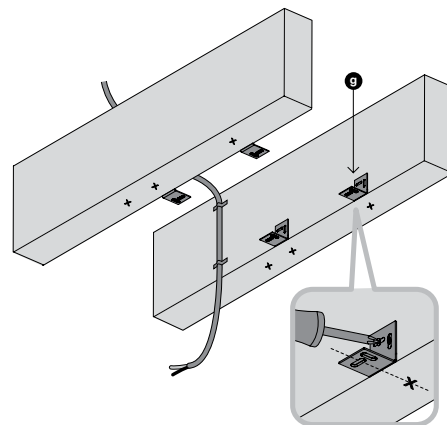


Figure 7

Attach the support bar (j) to the cowl using the three No.6 x 25mm screws (m) and pre-drilled holes (Figure 8).

Remove the backing paper and apply the two self-adhesive gasket strips (f), one to the support bar and one to the cabinet at the other side of the louvre frame. These will bear on the drywall panel to avoid rattles (Figure 9).

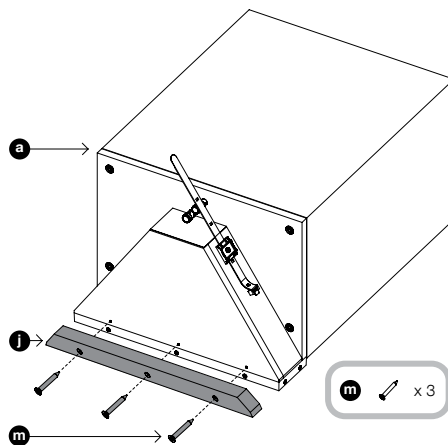


Figure 8

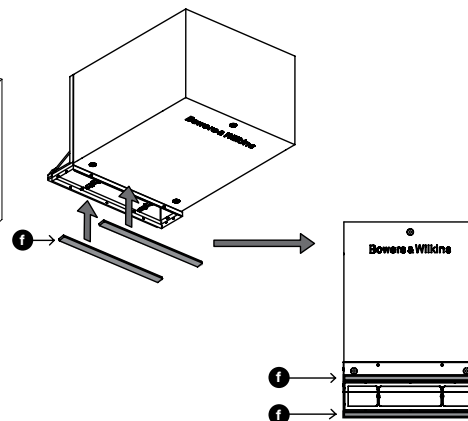


Figure 9

Lift the speaker to rest as shown on the four L-brackets. If the joist spacing is too great to allow screwing through the brackets into the cabinet, a custom support method will need to be applied by the installer.

Line the centre of the louvre aperture with the marks on the joists and square it up relative to the walls.

Fix the cabinet position, using the No.8 x 12mm self-tapping screws (h) through the L-brackets into the cabinet (Figure 10).

The louvre frame will protrude below the bottom face of the joists.

Strip the ends of the cable and connect to the spring terminals on the cabinet, observing correct polarity.

To prevent rattles, secure the excess cable using the cable tie attached to the subwoofer (Figure 11).

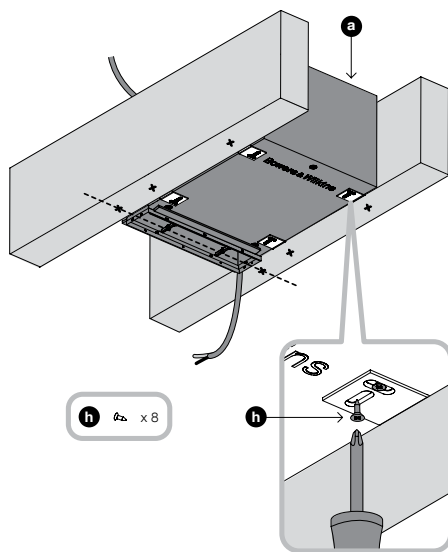


Figure 10

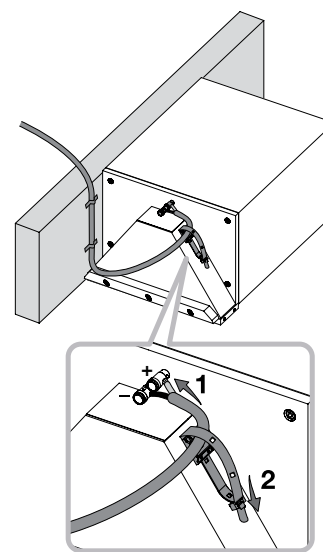


Figure 11

Use the cut-out template (e) to mark the aperture on the drywall panel. The six protrusions correspond to the outer dimensions of the louvre fascia and are provided to indicate necessary clearance. Do not mark round these protrusions, but rather along the dotted lines that cross them (Figure 12).

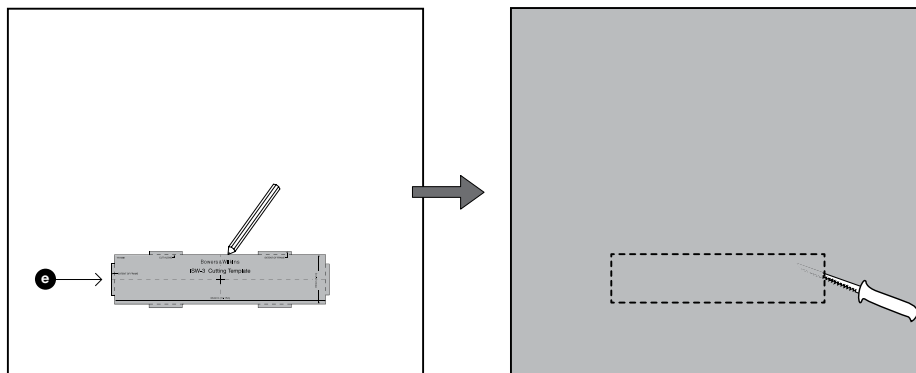


Figure 12

At this point, you may apply flexible mastic to the face of the subwoofer cabinet to prevent rattles against the ceiling panel.

Fit the drywall panels to the ceiling joists (Figure 13) and apply the final skim coat.

Paint the ceiling at this stage and, if desired, paint the louvre fascia moulding (b) to match. The part will take all normal wall paints.

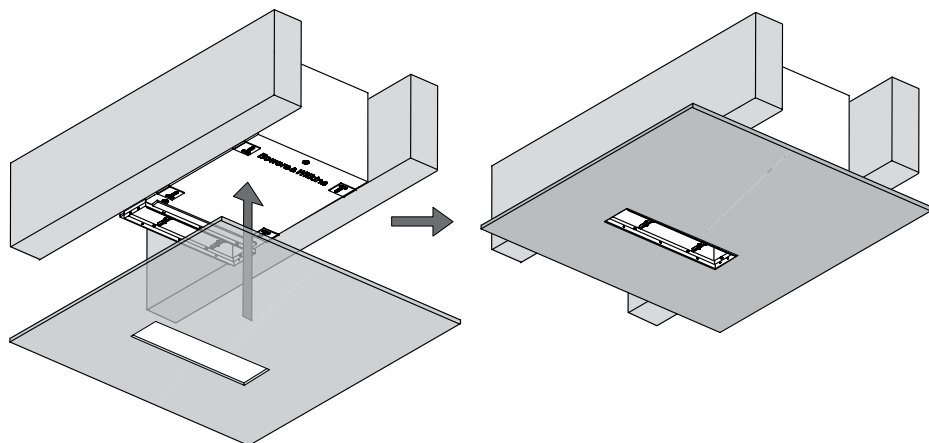


Figure 13

Attach the louvre (c) to the front of the opening and secure it to the louvre frame using the two M3 machine screws (i) through the two bars. Do not over-tighten. There should be slight bending tension in the two louvre bars, but the surround should not be distorted or the fascia will not fit correctly.

Clip the fascia (b) to the louvre (c) (Figure 14).

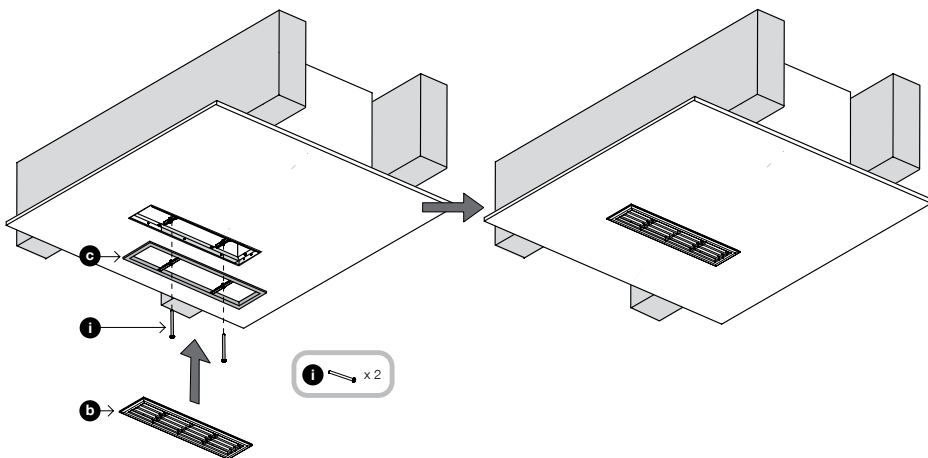


Figure 14

4 Installation in-wall

The subwoofer is too deep to fit into a standard nominal 100mm (4in) thick wall, but may be fitted into custom furniture or closet that accommodates its depth and that has studs with standard 40cm (16in) or greater spacing.

In most situations, the visible louvre will be required to be low on the wall, just above the skirting board. In that case, the cabinet will be oriented with the cowl at the bottom.

On the front face of the studs each side of the subwoofer, draw a horizontal line marking where the centre line of the louvre fascia should be (Figure 15).

Run appropriate gauge speaker cable to the installation point. Secure it to the studs so it cannot rattle, with the final tie point close to the marked louvre centre line. Leave approximately 30cm – 50cm (12in - 20in) free at the end (Figure 16).

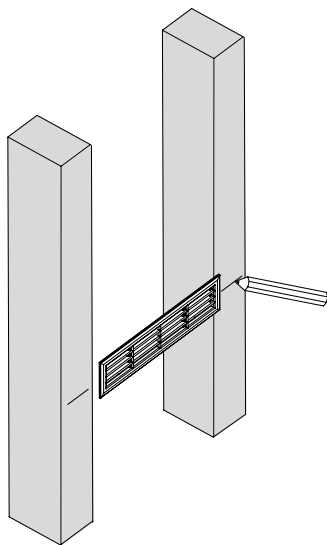


Figure 15

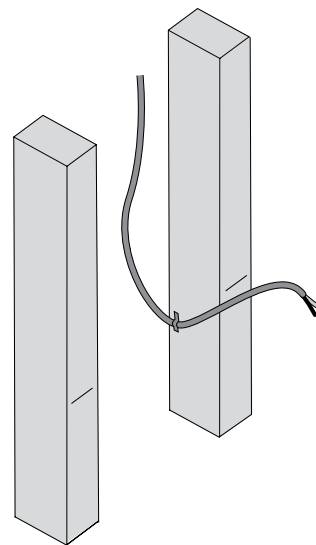


Figure 16

Screw the four L-brackets (g) to the sides of the subwoofer cabinet as shown using two No.8 x 12mm (0.5in) screws (h) per bracket. (Figure 17)

The vertical position of the brackets is not critical, but make sure they are flush with the front of the cabinet.

It is not essential, but it is easier to fit the subwoofer if you support it temporarily underneath to bring the louvre to the correct height.

Slide the subwoofer into the desired mounting position (Figure 18).

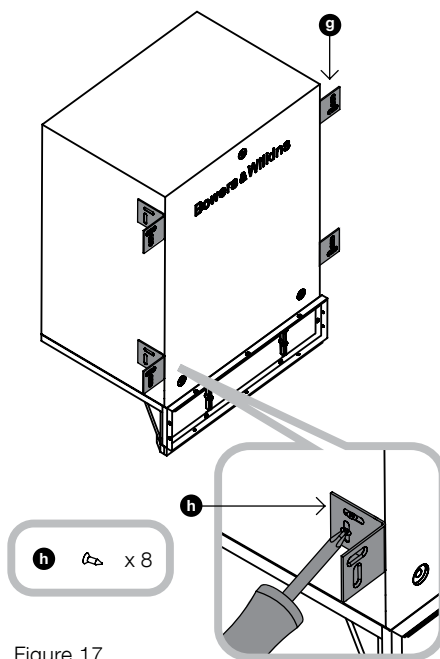


Figure 17

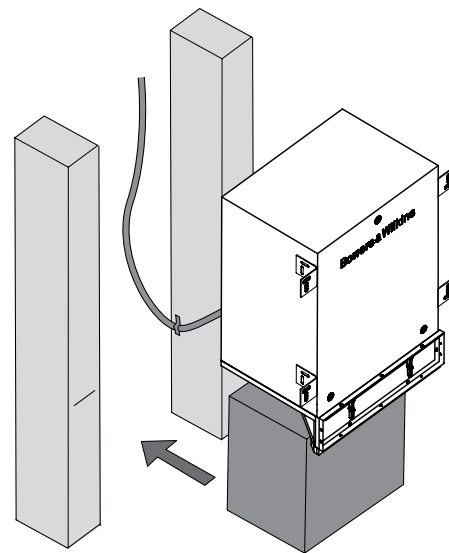


Figure 18

Mark the outline of the brackets on the front of the studs. (Figure 19)

Then remove the subwoofer and rebate the studs between the mark lines as shown to a depth of 2mm (0.08 in) so that the brackets do not bulge the drywall panel when fitted (Figure 20).

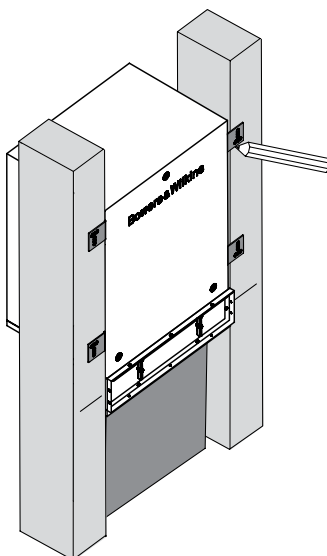


Figure 19

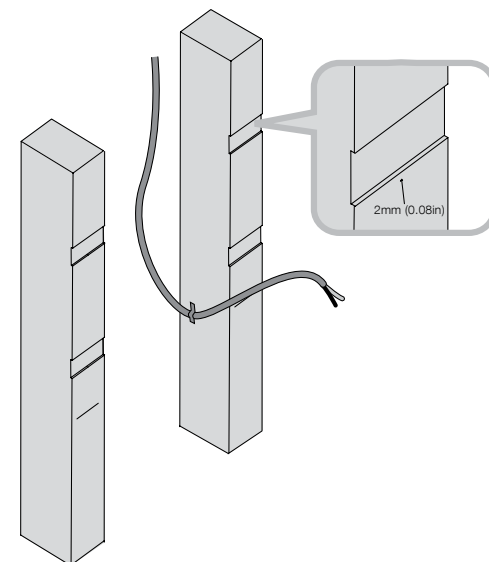


Figure 20

Screw the support bar (j) to the top of the cowl as shown using the three No.6 x 25mm (1in) screws (m) into the pre-drilled pilot holes (Figure 21).

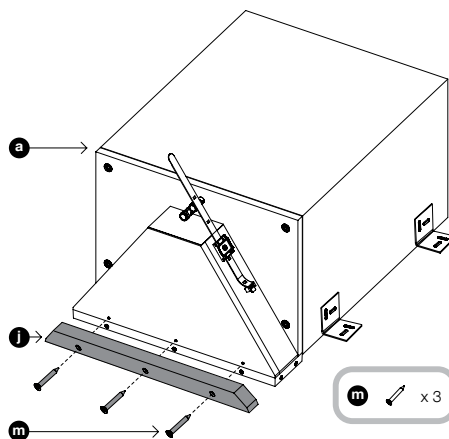


Figure 21

Remove the backing paper and apply the two self-adhesive gasket strips (f), one to the support bar and one to the cabinet at the other side of the louvre frame. These will bear on the drywall panel to avoid rattles (Figure 22).

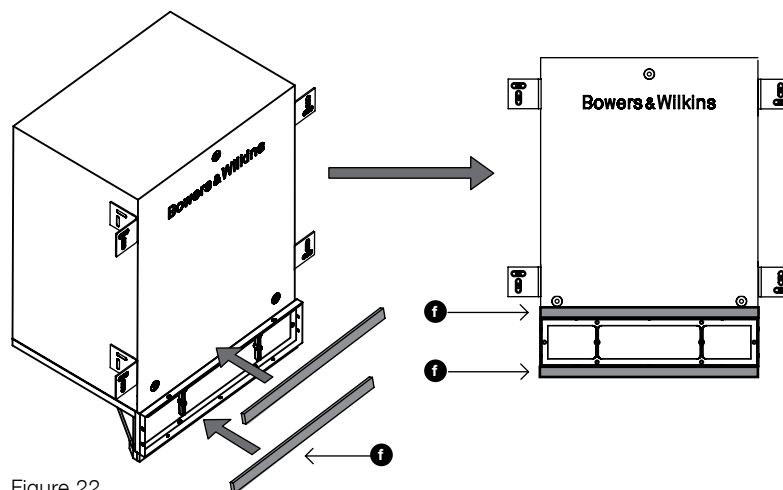


Figure 22

Bring the subwoofer close to its intended position. Strip the ends of the cable and connect it to the spring terminals, observing the correct polarity. Then secure the cable to the cowl using the cable tie to prevent rattles (Figure 23).

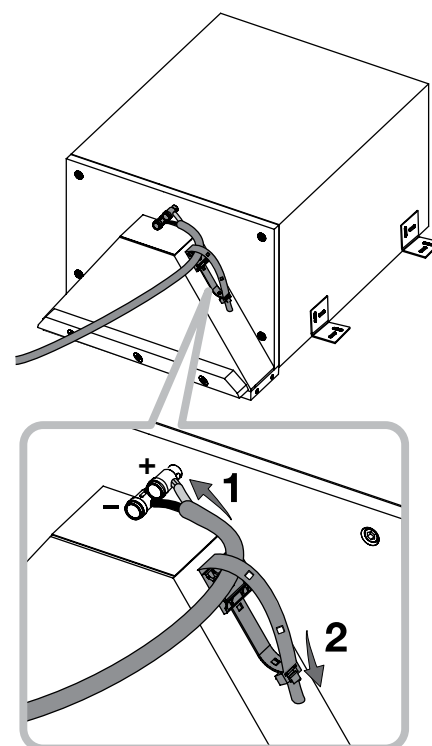


Figure 23

Using the support block if required, offer the subwoofer into position, with the support brackets sitting in the rebates in the studs. Screw the brackets to the studs (screws not supplied) (Figure 24).

When secure, you may remove the temporary support block.

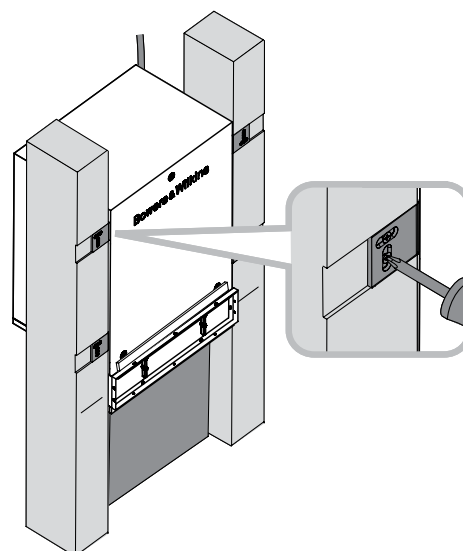


Figure 24

Use the cut-out template (e) to mark the aperture on the drywall panel. The six protrusions correspond to the outer dimensions of the louvre fascia and are provided to indicate necessary clearance. Do not mark round these protrusions, but rather along the dotted lines that cross them (Figure 25).

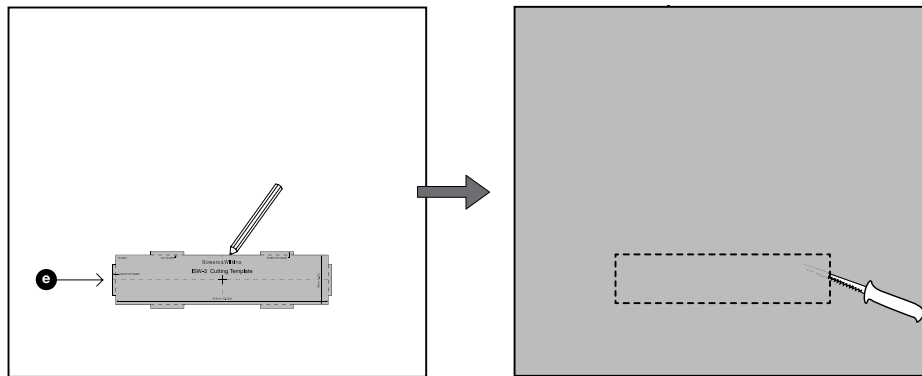


Figure 25

At this point, you may apply flexible mastic to the face of the subwoofer cabinet to prevent rattles against the drywall panel.

Fit the drywall panels to the studs (Figure 26) and apply the final skim coat.

Paint the wall at this stage and, if desired, paint the louvre fascia moulding (b) to match. The part will take all normal wall paints.

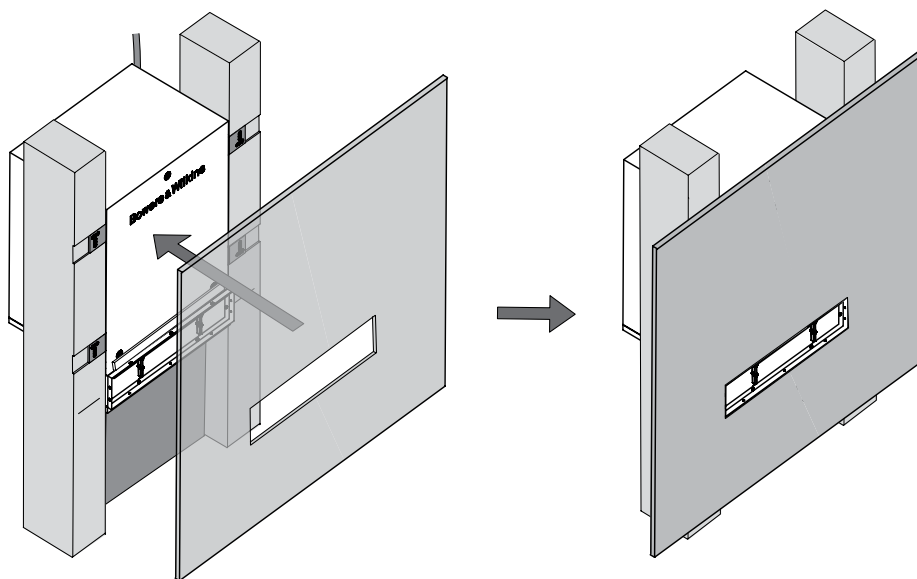


Figure 26

Attach the louvre (c) to the front of the opening and secure it to the louvre frame using the two M3 machine screws (i) through the two bars. Do not over-tighten. There should be slight bending tension in the two louvre bars, but the surround should not be distorted or the fascia will not fit correctly.

Clip the fascia (b) to the louvre (c) (Figure 27).

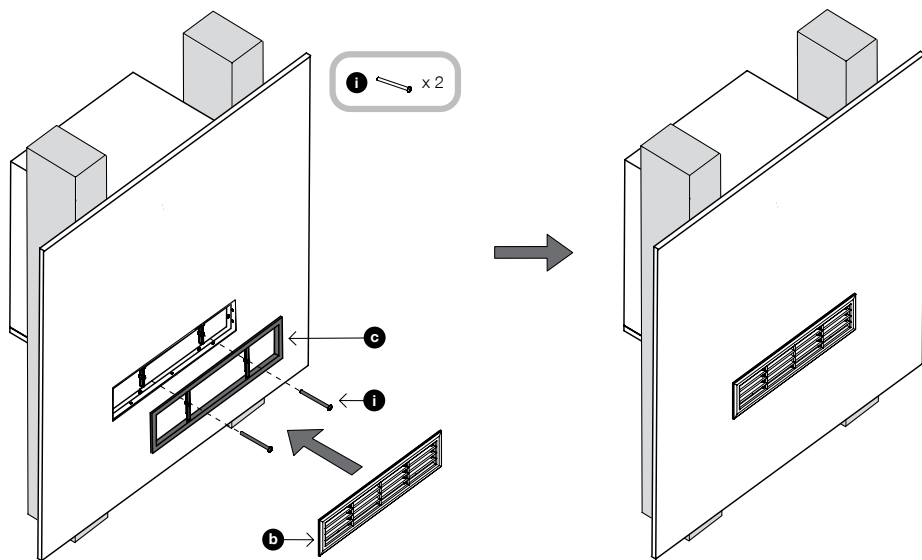


Figure 27

5 Installation under the floor

The speaker will fit between joists with standard 40cm (16in) or greater spacing, such that the visible louvre straddles the gap between them. A clearance of 25cm (10in) or greater behind the top of the joists is required.

The product is not recommended if the floor is to be covered by a thick carpet. Very short pile carpet, such as carpet tiles, may be accommodated with care.

Mark the centre line of the desired louvre position on the top face of the joists at each side (Figure 28).

Run appropriate gauge speaker cable to the installation point. Secure it to the joists so it cannot rattle, with the final tie point close to the marked louvre centre line near the bottom of the joist. Leave approximately 30cm – 50cm (12in - 20in) free at the end (Figure 29).

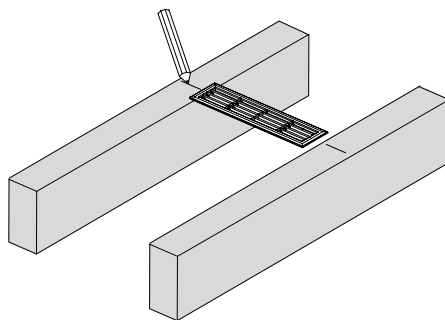


Figure 28

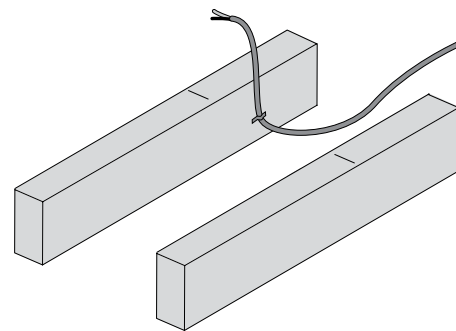


Figure 29

Attach the four support brackets to the sides of the cabinet as shown, using two No.8 x 12mm screws (h) per bracket. The lateral position of the brackets is not critical, but ensure they are set flush with the top surface of the cabinet when the cowl opening faces upwards.

Lay the speaker between the joists, supported by the brackets overlapping the joists (Figure 31).

If the joist spacing is too great to allow screwing through the brackets into the joists, a custom support method will need to be applied by the installer.

Align the louvre frame with the marks on the beams, making sure it is square to the wall and mark the outline of the brackets on the joists.

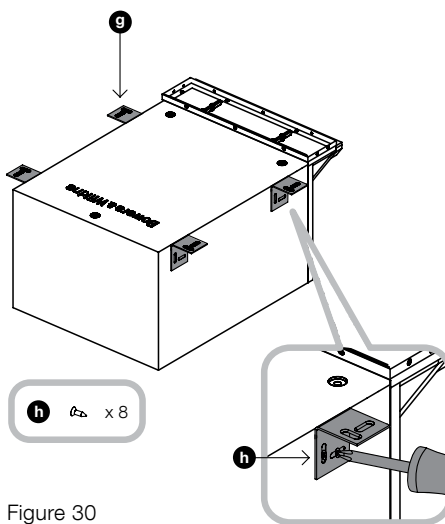


Figure 30

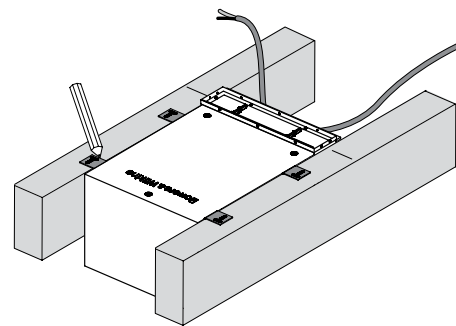


Figure 31

Remove the subwoofer and rebate the joists to a depth of 2mm (0.08 in) to accommodate the thickness of the brackets (Figure 32).

Screw the support bar (j) to the top of the cowl as shown using the three No.6 x 25mm (1 in) screws (m) into the pre-drilled pilot holes (Figure 33).

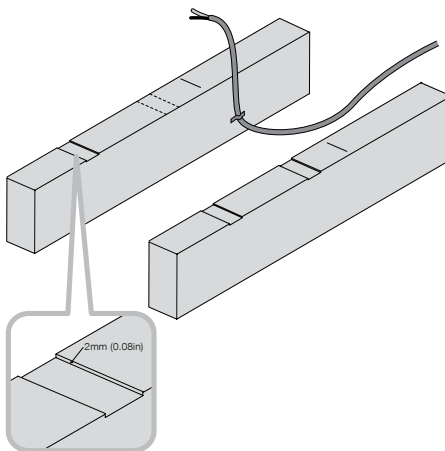


Figure 32

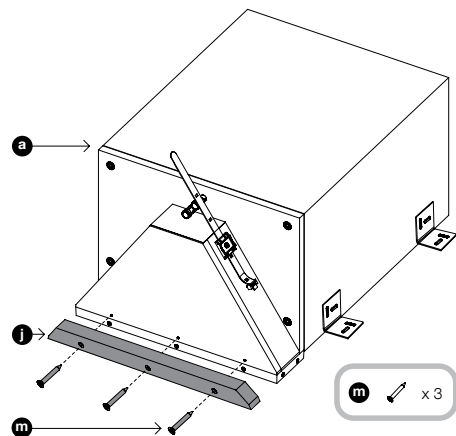


Figure 33

Remove the backing paper and apply the two self-adhesive gasket strips (f), one to the support bar and one to the cabinet at the other side of the louvre frame. These will bear on the floor boarding to avoid rattles (Figure 34).

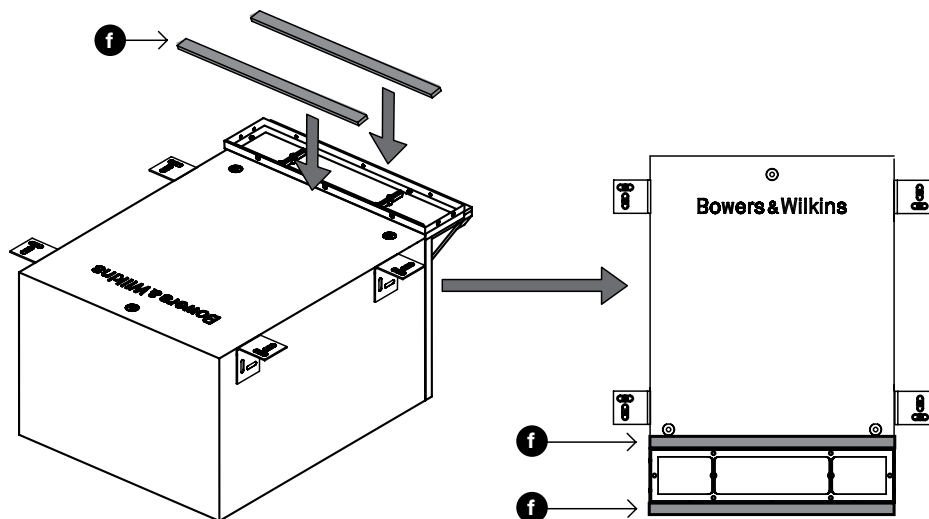


Figure 34

Bring the subwoofer close to its intended position. Strip the ends of the cable and connect it to the spring terminals, observing the correct polarity. Then secure the cable to the cowl using the cable tie to prevent rattles (Figure 35).

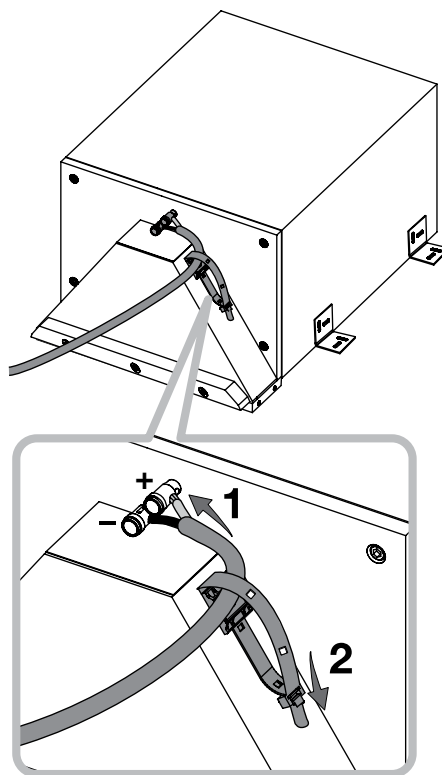


Figure 35

Place the subwoofer in position, with the brackets resting in the rebates, and secure it to the joists by screwing through the support brackets (screws not supplied) (Figure 36).

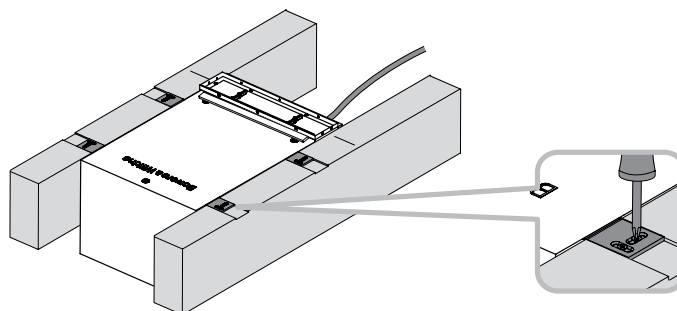


Figure 36

If using sheet flooring, use the cut-out template (e) to mark the aperture on the floor panel. The six protrusions correspond to the outer dimensions of the louvre fascia and are provided to indicate necessary clearance. Do not mark round these protrusions, but rather along the dotted lines that cross them (Figure 37).

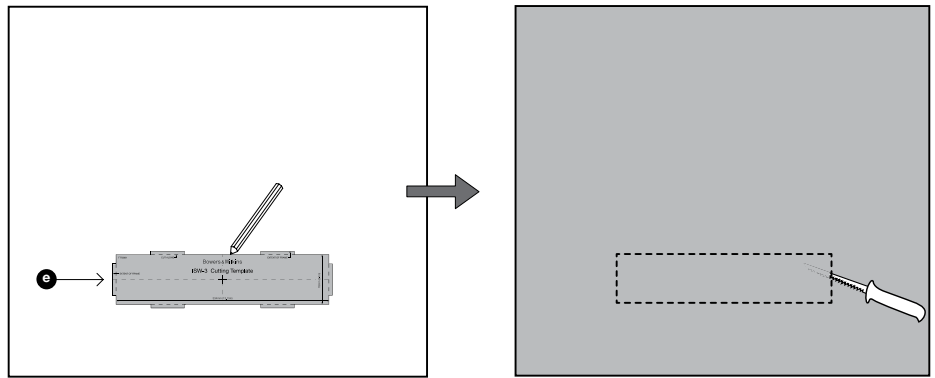


Figure 37

At this point, you may apply flexible mastic to the face of the subwoofer cabinet to prevent rattles against the underside of the floor surface.

For sheet flooring boards, fit the board with the louvre cut-out in place.

For strip planking floors, fit the planks around the protruding louvre frame

Where appropriate (see the comment at the start of this section), lay the carpet and cut a hole through to match the hole on the floorboards.

If desired, paint the louvre fascia moulding.

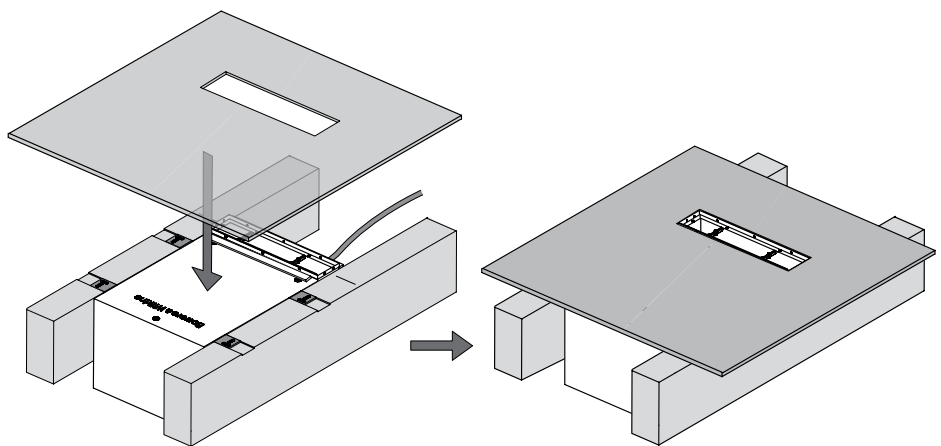


Figure 38

Attach the louvre (c) to the front of the opening and secure it to the louvre frame using the two M3 machine screws (i) through the two bars. Do not over-tighten. There should be slight bending tension in the two louvre bars, but the surround should not be distorted or the fascia will not fit correctly.

Clip the fascia (b) to the louvre (c) (Figure 39).

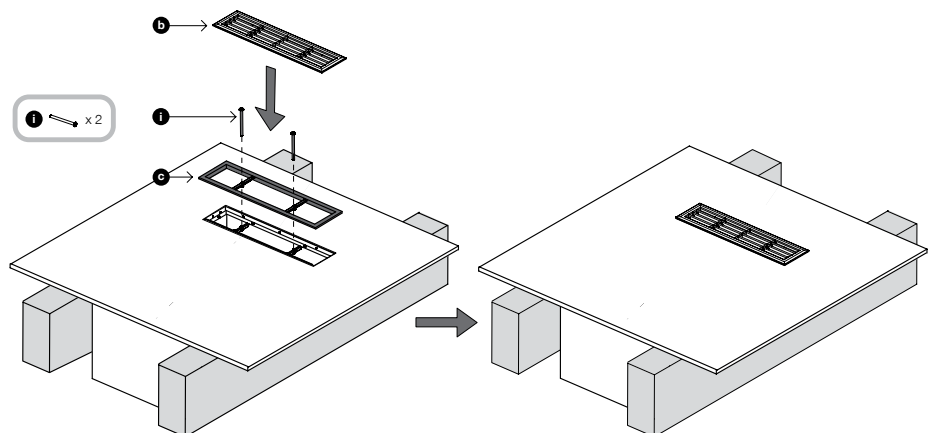


Figure 39

6 Installation in a kitchen unit

The subwoofer will rest on the bottom shelf of the unit and vent through the toe-kick panel below the door.

Remove the backing paper and fix one of the gasket strips (f) to the cowl extension, along the edge of its louvre frame.

Attach the cowl extension (d) to the louvre frame on the main cabinet, using the 10 No.4 x 10mm screws (l) into the pre-drilled pilot holes (Figure 40).

There is a pre-fitted gasket on the louvre frame moulding attached to the cowl. This must be compressed when fitting the extension and the pilot holes will not line up unless the gasket is properly compressed.

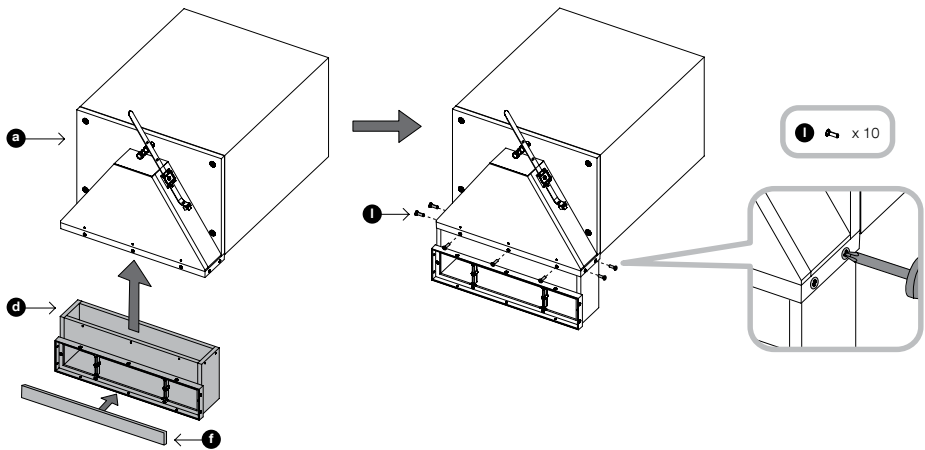


Figure 40

Ensure the locknuts are fully screwed down on the threaded stems of the rubber feet (k) and screw all three feet fully into the threaded inserts in the subwoofer cabinet (Figure 41).

! Make a mark on the toe-kick panel 30mm (1.2in) down from the surface of the bottom shelf. The top of the cut-out in the panel must not come below this line (Figure 42).

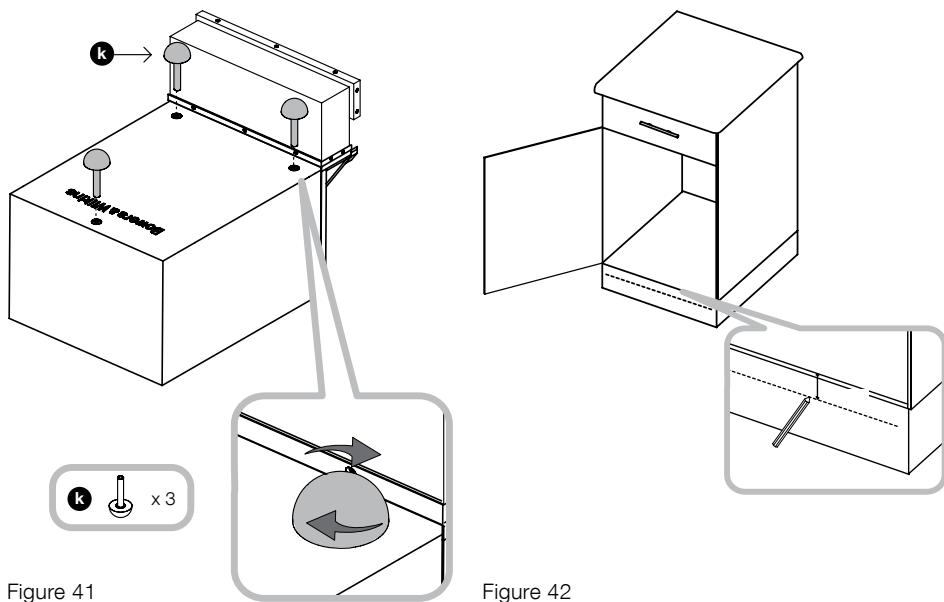


Figure 41

Figure 42

! Using the supplied template, mark the cut-out on the toe-kick panel as desired, making sure the top of the template is at or above the mark and that it is squarely aligned.

Cut the hole in the toe-kick panel and another in the bottom shelf of the unit to clear the cowl extension. The front of the hole in the shelf should be flush with the back of the toe-kick panel (Figure 43).

Run appropriate gauge speaker cable to the installation point.

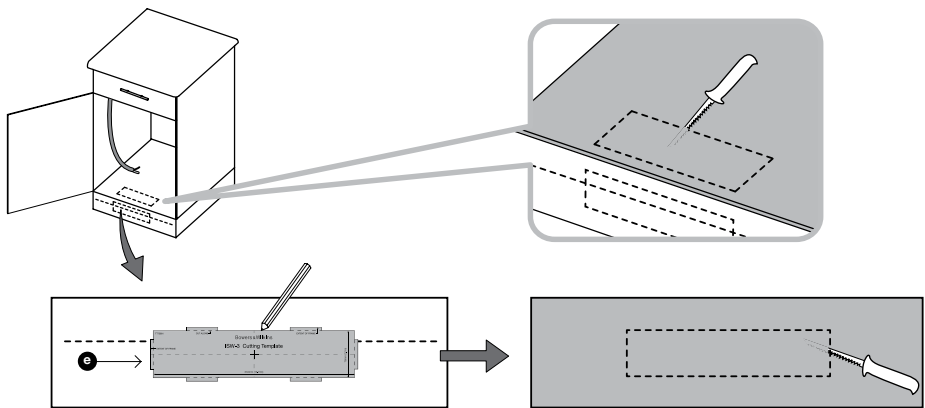


Figure 43

Place the subwoofer on the bottom shelf. Unscrew the feet as required to align the cowl extension vent with the cut-out in the toekick panel. Keeping the feet still, screw the locknuts up to the subwoofer cabinet to maintain position (Figure 44).

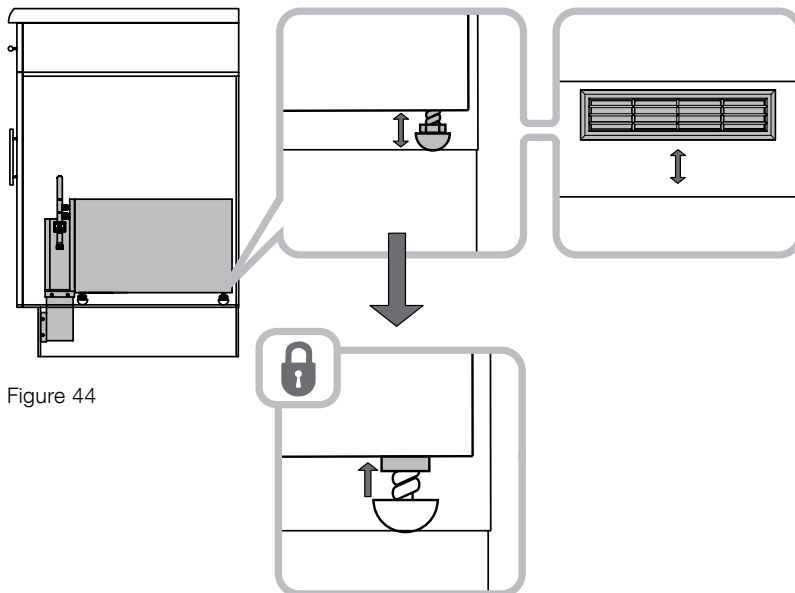


Figure 44

Strip the ends of the cable and connect it to the spring terminals, observing the correct polarity. Then secure the cable to the cowl using the cable tie to prevent rattles (Figure 45).

If desired, paint the louvre fascia moulding.

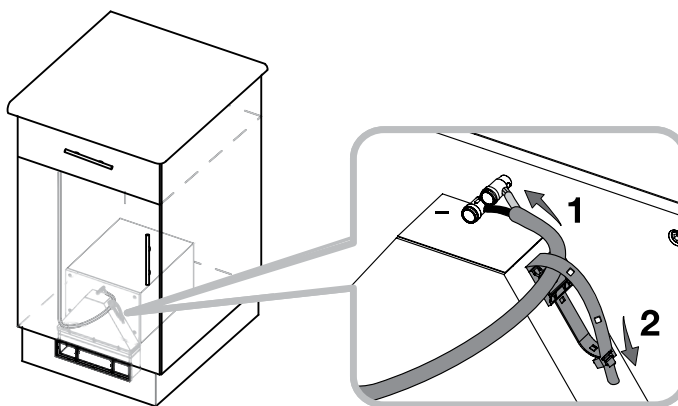


Figure 45

Attach the louvre to the front of the opening and secure it to the louvre frame using the two M3 machine screws (item 11) through the two bars. Do not over-tighten. There should be slight bending tension in the two louvre bars, but the surround should not be distorted or the fascia will not fit correctly.

Clip the fascia to the louvre (Figure 46).

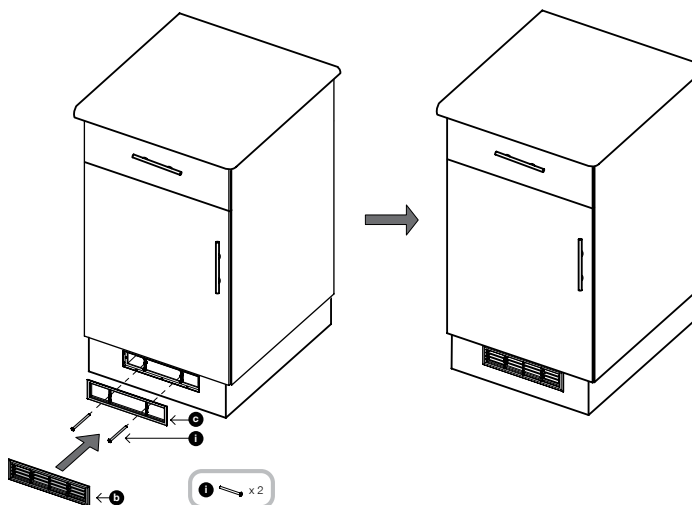


Figure 46

7 Running in

The performance of the speaker will change subtly during the initial listening period. If the speaker has been stored in a cold environment, the damping compounds and suspension materials of the drive units will take some time to recover their correct mechanical properties. The drive unit suspensions will also loosen up during the first hours of use. The time taken for the speaker to achieve its intended performance will vary depending on previous storage conditions and how it is used. As a guide, allow up to a week for the temperature effects to stabilise and 15 hours of average use for the mechanical parts to attain their intended design characteristics.

However, longer run-in periods (as long as a month) have been reported and there is evidence to suggest that this has little to do with the speaker changing and more to do with the listener getting used to the new sound.

8 Aftercare

The subwoofer should require no maintenance, other than to periodically remove and clean the louvre fascia.

If the subwoofer is mounted under the floor, periodically remove the louvre fascia and vacuum the cowl cavity to remove any debris that may have fallen through (Figure 35).