Installation Data Sheet:
AIWX Wood

WOOD

Application
For use with the Amina AIWX series of loudspeakers. When invisible loudspeakers are needed but plastering is not a viable option, the Amina WOOD film adhesive allows for a discreet, invisible installation into mediums where conventionally, installation would not be possible.

Installation Guide
When supplied with the optional "Wood" adhesive, the AIWX loudspeaker range can be installed into wooden or fiber board structures and achieve the same excellent sound quality that a "plaster-in" installation can.

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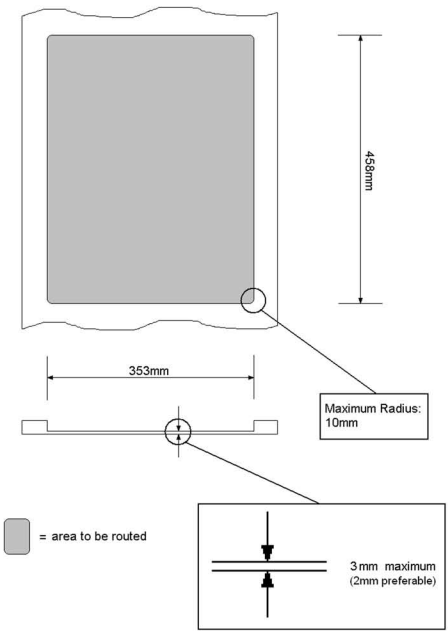
For this guide, installation into 18mm MDF will be used as an example - the installer will need to have a section routed out of the rear where the speaker is to be fixed. It is very important that an absolute maximum thickness of 3mm is remaining once routed. Any more will have a detrimental effect to the efficiency and sound quality of the loudspeaker. Ideally a 2mm thickness is preferable. See the below illustration:



When a fiberous material such as MDF is routed down, the area remaining will be "fluffy". Although the wood adhesive applied to the front of the loudspeaker is designed to adhere to fiberous surfaces, it is necessary to both sand and vacuum the area to give the best possible adhesion to the surface.

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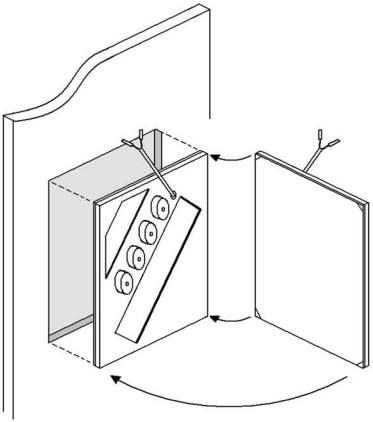
The carrier attached to the adhesive needs to be removed for the next step. This will expose the panel and adhesive layer to possible contamination so please ensure that the area you are working in is free from dirt and dust prior to removing it.



Once the protective layer has been removed from the front panel, position the loudspeaker into the routed area. It is vital that the entire surface area of the speaker's active panel bonds to the routed out area of the board. Following the next steps will ensure the best bond is made.

Apply pressure to the front surface of the board and to the rear of the speaker frame by hand simultaneously. Do the same for all accessible areas of the active surface. Finally, apply very moderate pressure to the "exciter" units - these are the silver objects on the back.

If done correctly, this will make a strong bond between the adhesive and the routed area of board.

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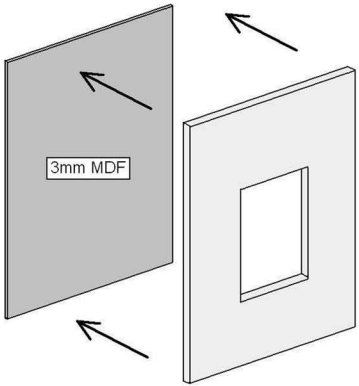
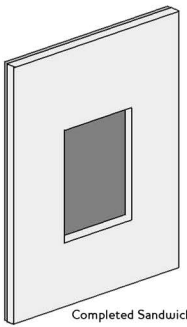
Other Methods of Installation.

Depending on the installation, it may be possible to avoid routing altogether and instead build the "routed" area. This can be achieved by sandwiching two materials together - one with a maximum 3mm thickness to another which has had an aperture cut through it to the dimensions shown on page 2.





Completed Sandwich Frame

Construction by this method will allow the wood adhesive to bond to the un-routed, smooth surface of MDF. The 3mm MDF requires no other preparation. Other materials that you might consider for use as a front panel range from Melamine (clean areas) to applying a veneer to MDF (board rooms or commercial shopping areas).

It is sometimes not practical to use a 2-3mm material - Melamine for example has a thickness of 1mm. There is no audiable disadvantage to having a thinner layer but, depending on the material that is being used, you are reducing the protection gained from the front skin.

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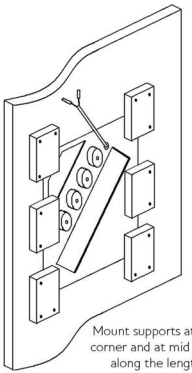
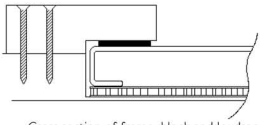
To ensure long term reliability, some form of mechanical fixing should be created to hold the loudspeaker in place. Amina do not supply such fixings due to the wide vairity of potential wood / board thicknesses that the loudspeakers may be installed into.



Mount supports at each corner and at mid points along the lengths

The easiest method of adding extra support is to apply blocks to the corners and midpoint along the larger lengths of the speakers.
The blocks need to be securely fastened to the wood surrounding the speaker.



Cross section of frame, block and loudspeaker

Using the supplied lengths of foam on the blocks allows for any inconsistencies in installation or material thicknesses.
When designing the blocks, allow a 2mm gap from the back of the speaker to the block. The foam will compress and apply the required pressure to the frame.

The loudspeaker should be fully tested for buzzes or rattles prior to permanent installation into the building. The front of the board can be finished as normal with varnish, lacquer, paint, etc. Be sure to use light layers of the finish to the board. Tiles or similarly heavy and dense materials should not be fixed to the front of the speaker as this will impair the sensitivity of the speaker and likely reduce sound quality.

European Union WEEE regulations:

The product is fully RoHS compliant, eliminating to a minimum the use of hazardous materials within its manufacture. At the end of its useful life it should be returned to the manufacturer for recycling according the European Union's WEEE directive

All products are subject to change without notification. E&OE

Amina Technologies Ltd
(Headquarters)
Cirrus House, Glebe Road,
Huntingdon, Cambridgeshire
PE29 7DX, UK
Tel: 00 44 1480 354 390
Fax: 00 44 1480 356 564
Email: sales@amina.co.uk
Web: www.amina.co.uk

Amina Technologies NA
(USA Office)
Cincinnati, OH
Toll Free: 866.GO.AMINA
(866.462.6462)
Tel: 513.677.1880
Fax: 888.329.2491
Email: sales@aminatechnologies.com
Web: www.aminatechnologies.com

Amina Technologies NA
(Canada Office)
Oshawa, ON
Toll Free: 866.GO.AMINA
(866.462.6462)
Tel: 905.655.6411
Fax: 888.329.2491
Email: sales@aminatechnologies.com
Web: www.aminatechnologies.com