

BeoSound Shape

with Beoconnect Core

Type 3058

Amplifier and empty tile

Type 6307

Speaker tile

Type 6308

Acoustic damper tile

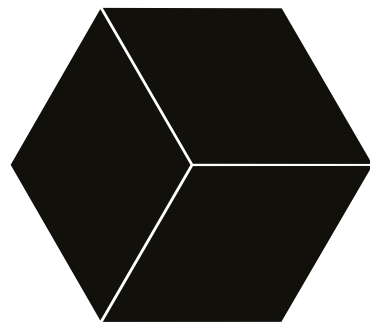
Type 6071

Cover

Type 6072

Installation Guide

English - version 1.0



BANG & OLUFSEN

Introduction

BeoSound Shape is a unique scalable wireless speaker system that can be customised and turn high-quality music into an interior art form. It is designed as a modular combination of hexagonal shapes that are combined in a wall decoration, which can be placed on the wall in the size and pattern you prefer. It consists of a combination of speakers, amplifiers, damper and empty tiles that you can combine in different patterns, fabrics and colours. The amplifier tile contains the electronics. This tile can drive up to 4 speaker tiles. Each speaker tile includes two driver units; one ¾-inch tweeter and a 5 1/4-inch bass/midrange unit.

The speaker system is meant to be set up together with a Beoconnect Core.

Embedding Beoconnect Core you are able to wirelessly stream high-quality music from your mobile device via the latest streaming technologies such as AirPlay, Google Cast or Bluetooth. You also have the BeoLink Multiroom functionality making BeoSound Shape part of the family of products that can play different music in different rooms or let one tune flow throughout your home.

A special cable solution means that although it is an active speaker design with one amplifier per driver, you only need one cable per speaker tile, and you can combine several amplifier and speaker tiles in one coherent system and thereby increase the sound performance. You simply daisy chain from one amplifier tile to the next. You will have tiles that have no speakers or electronics inside but which bind the design into a coherent look and may be hiding Beoconnect Core, dampening materials, the cabling or the mains outlet.

There are practically no limitations as to the number of tiles you can have in a design, but we have tested a setup with 40 speaker tiles. Each amplifier tile includes eight amplifiers of each 80 watts so the performance of the system depends on the number of amplifier and speaker tiles you have. Each amplifier tile can drive up to four speaker tiles.

A star rail, which has to hold the design, is easily clicked together with connector rails to create the pattern you want on the plain and vertical wall. This means you can create the placement of the tiles e.g. on the floor before you mount the system on the wall. The star rail is screwed into the wall, and then you start mounting the tiles with the electronics, the drivers and the cabling. The cabinet hold the cabling in place so the installation looks neat. The Bang & Olufsen logo badge is created as an attachment in aluminium. The badge can easily be clicked onto one of the star rail connectors.

The speaker system is designed by the customer in the Configuration Tool on www.bang-olufsen.com. The design is stored on a BeoCloud account, and a PDF with details is created. When the BeoSound Shape is mounted on the customer's wall, the Bang & Olufsen app is used to setup the system with the configuration specialised for exactly this design.

How to use this installation guide

Use this installation guide together with the installation video on <https://bang-olufsen.zendesk.com/hc/en-us/articles/360042003831>




This installation guide and the video give an introduction to the product and step-by-step instructions on how to:

- Mount the BeoSound Shape on the wall.
For correct placement on the wall and for placement of the wall socket, see Placement Tool on <https://shapeinstaller.bang-olufsen.com/>
- First-time setup and setup of additional speakers, services and settings.
- Troubleshooting
- Other 'nice to know' subjects are dealt with. Also the connector specifications are shown.





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Navigation in this guide

When the guide is opened, it automatically opens in Full Screen Mode (can be left as desired - see below). This is primarily done to optimise the usability of screen reading. There are several ways to navigate when using the guide, see the survey of keys, shortcuts and hot keys below:

-  (arrow keys on the keyboard) navigates to the next page
-  (arrow keys on the keyboard) navigates to the previous page
-  (**Esc** button) exits Full Screen Mode (press **Ctrl + L** to return to Full Screen Mode).

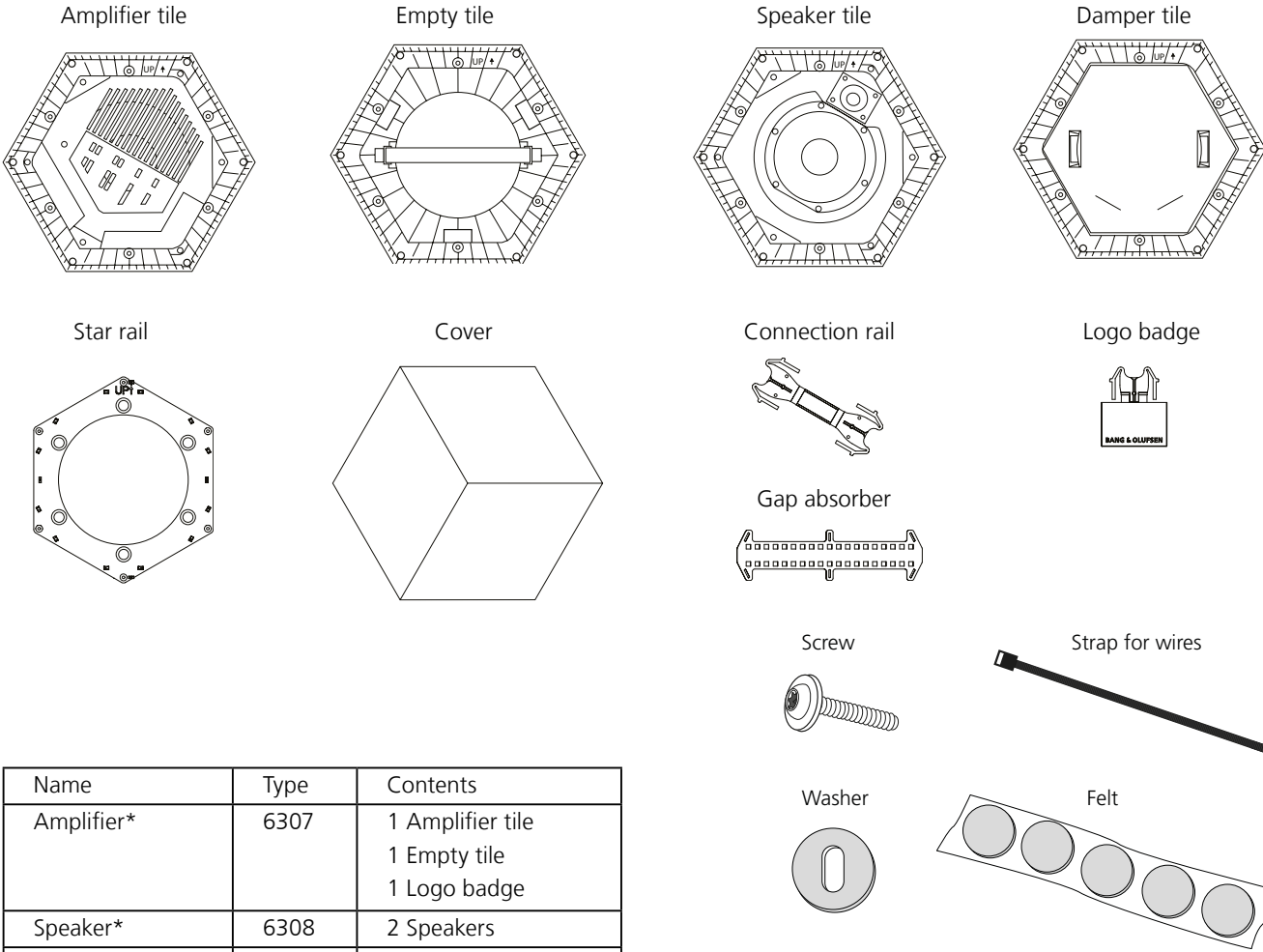
Another feature to optimise the navigation is the navigation icons at the bottom of the screen (see below for explanation).

-  Navigates you to the previous view
-  Navigates you directly to the start page
-  Navigates directly to the table of contents (these are active links - click the link to be directed directly to the associated section)
-  Prints the document - the print dialogue box opens (**Ctrl + P** also brings up this feature)

Navigation TIP

The right side of this page and the Table of Contents, page 32, act as an active table of contents. Simply click the subject you want, and you are transferred to the section in question.

BeoSound Shape



What is in the package?

Name	Type	Contents
Amplifier*	6307	1 Amplifier tile 1 Empty tile 1 Logo badge
Speaker*	6308	2 Speakers
Damper*	2997	2 Dampers
Cover	6072	2 Covers

* Also includes: 2 star rails, 4 connection rails, 4 gap absorbers, 5 felt stickers, 2 straps for wires, 12 PT3x18 torx 10 zink screws, 12 washers

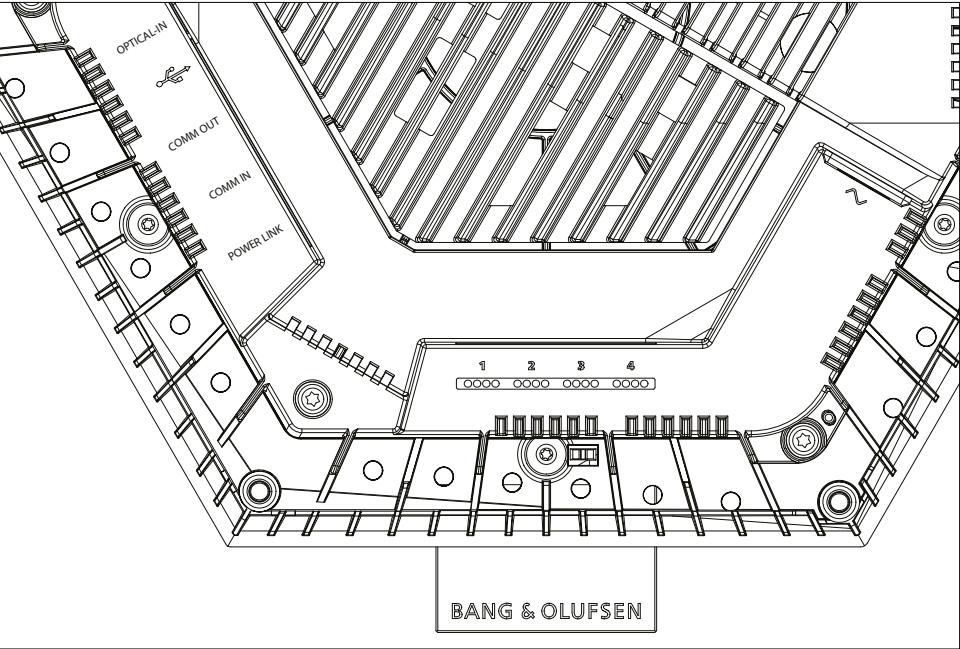
Connection panel

Amplifier tile:

OPTICAL-IN	Digital audio input Used if connected to Beosound Core
🔌 USB	USB for control and SW update Used if connected to Beosound Core
COMM IN	Amplifier input (sound & control input). Used if connected to Beoconnect Core and for daisy chaining of amplifiers
COMM OUT	Amplifier output (sound & control output), for daisy chaining of amplifiers
POWER LINK	Power Link input
1-4	4 x speaker 4-wire output
⚡	AC power (note if multiple amplifiers, each requires its own AC power connection)

Speaker tile:

1 x speaker 4-wire input



Mounting

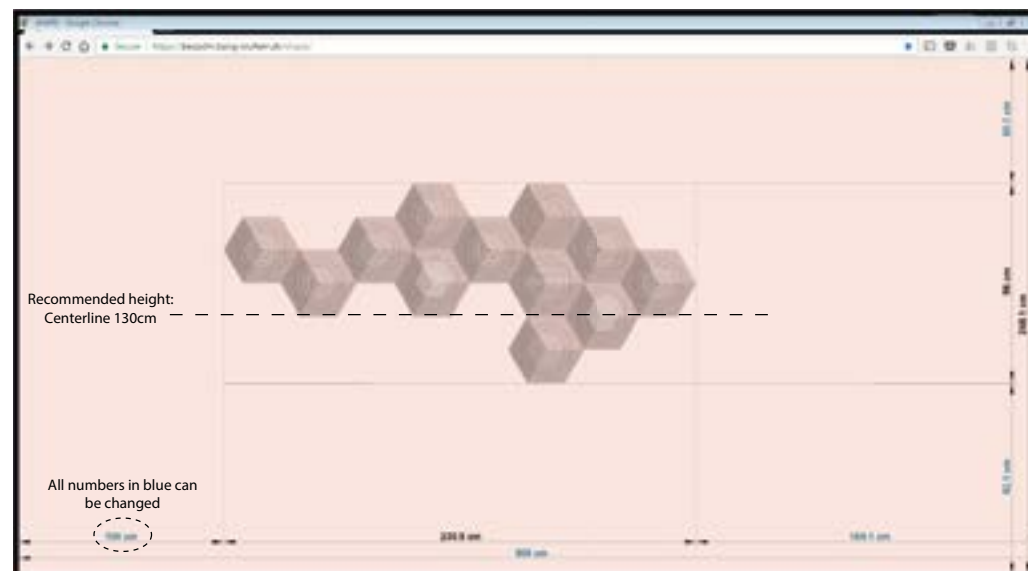
Before mounting the BeoSound Shape please see the installations video on <https://bang-olufsen.zendesk.com/hc/en-us/articles/360042003831> and the Placement Tool on <https://shapeinstaller.bang-olufsen.com/>

Placement Tool

To make the installation of the BeoSound Shape easier, we have made a Placement Tool. This tool will help the installer decide where to place the wall socket. Furthermore, it will be possible to decide where to place the first screw in the first star rail. If there are any obstacles on the customer's wall, it is also possible to calculate how to avoid these.

First the installer has to draw the design in the Placement Tool. The tool is based on a coordinate system, where you can enter your measurements. It is possible to change all the measurements in blue colour, just click on the value. When the design is made, and the correct measurements are entered in the tool, it is possible to click on every star rail to get an option menu. From the menu you can get the top screw position ('Star rail mounting dimensions') and the centre position ('Star rail socket position') of the star rail. It is also possible to remove a star rail or simulate what should be mounted onto the star rail.

The tool is web-based and can be found here: <https://shapeinstaller.bang-olufsen.com/>



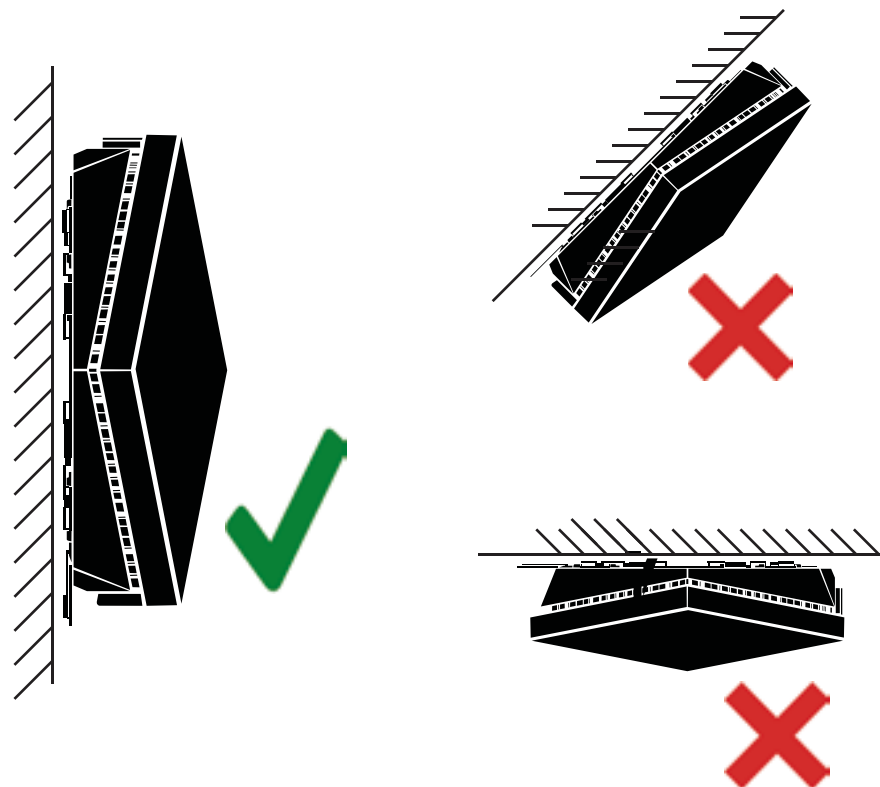
Note:

This tool is only an “add-on” to the Design Tool. The Placement Tool cannot generate the design ID and ordering list. The Design Tool can be found here: <https://www.bang-olufsen.com/en/collection/wireless-speaker-systems/beosound-shape/configurator>

Placement conditions

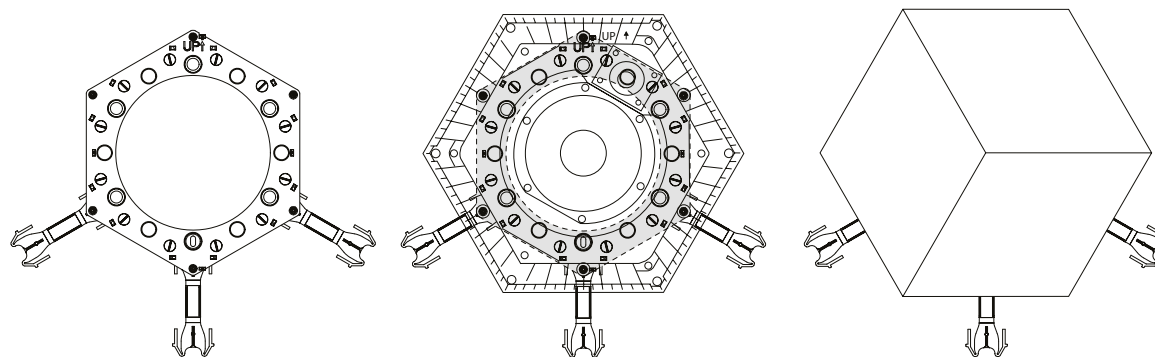
The product is intended for indoor use in dry domestic environments only. Use within a temperature range of 10-40°C (50-105°F).

Important! The BeoSound shape is only designed to be mounted vertically.

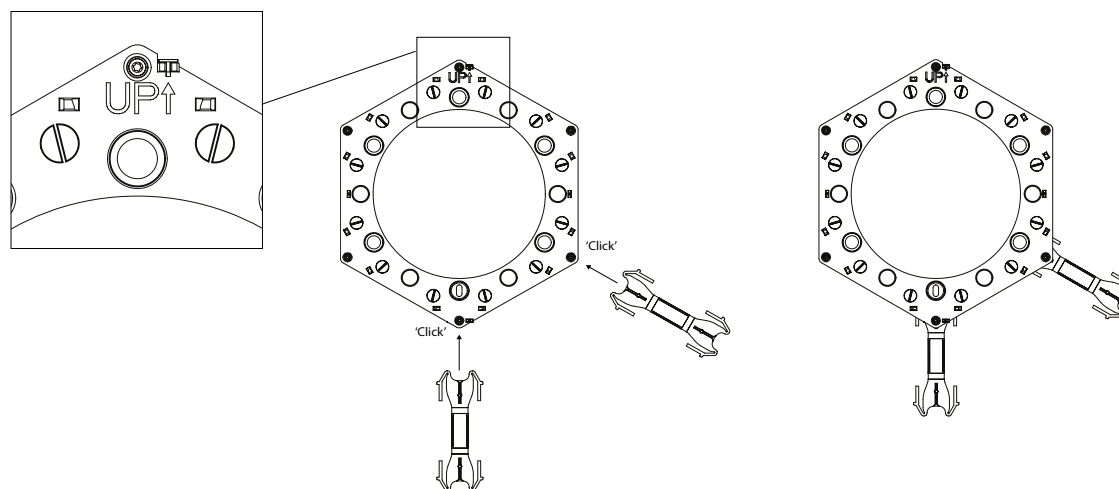


Mounting star rails

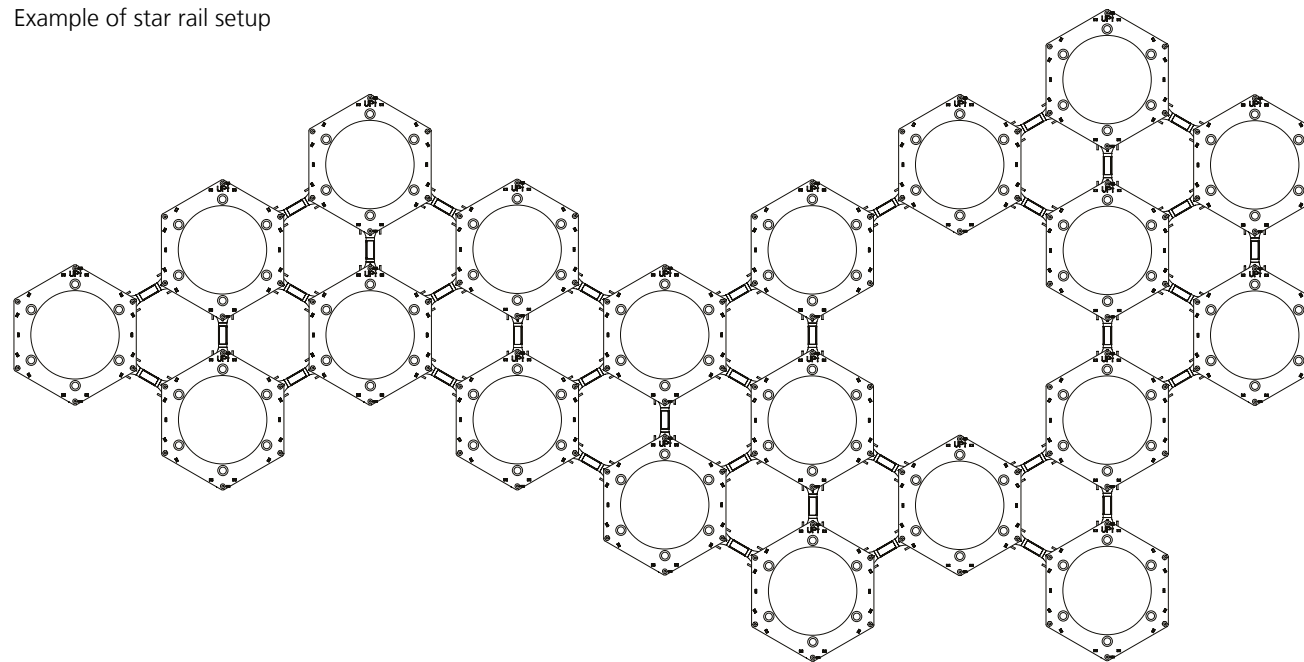
Be aware that the pattern of the final setup is not the same as the pattern only with star rails mounted on the wall. This is due to the different shapes of the star rails and the tiles with front covers (amplifier, speaker, damper and empty tiles)



Lay all the star rails down on the floor in the chosen pattern according to the PDF document presented in the Configuration tool. Connect all the star rails with the connection rails.

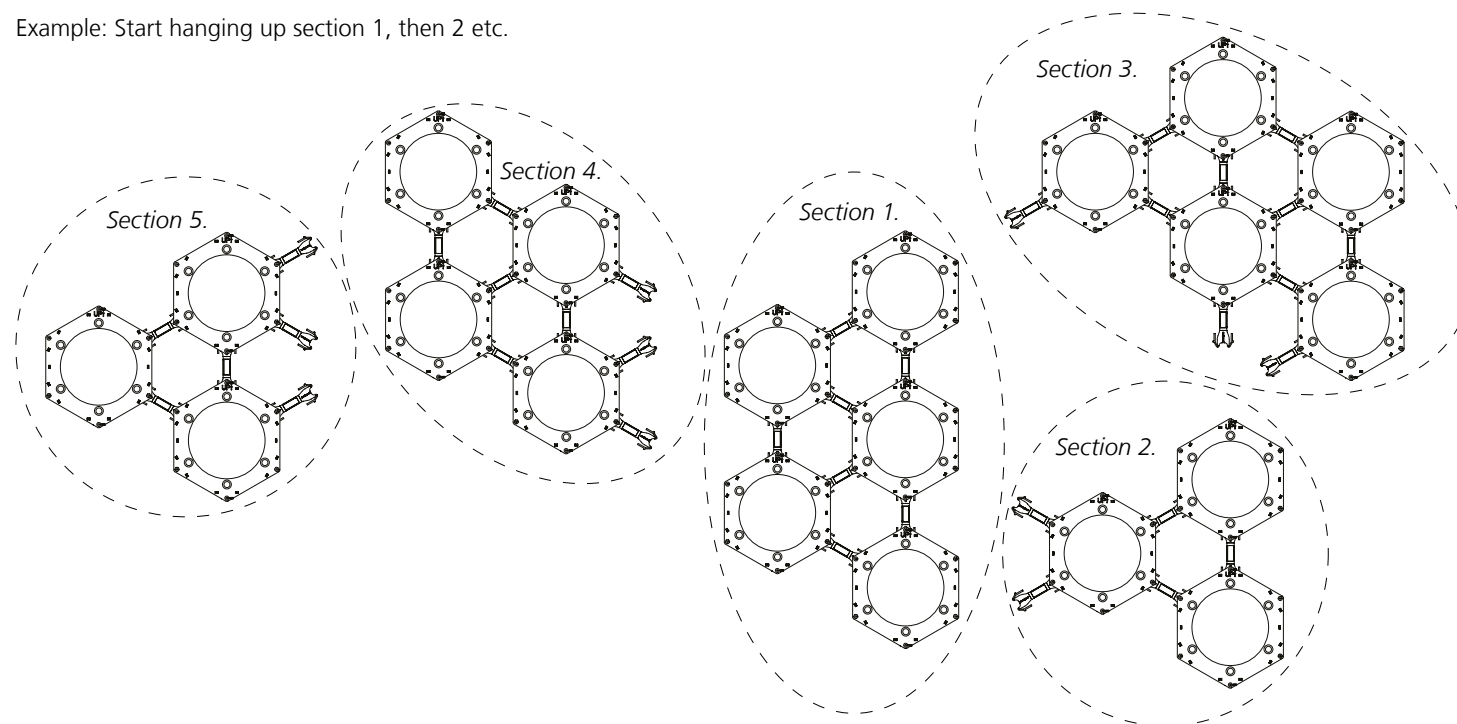


Example of star rail setup



Disconnect the setup into smaller sections, e.g. 3-5 tiles depending on the setup. Start hanging up the most compact part of the setup.

Example: Start hanging up section 1, then 2 etc.

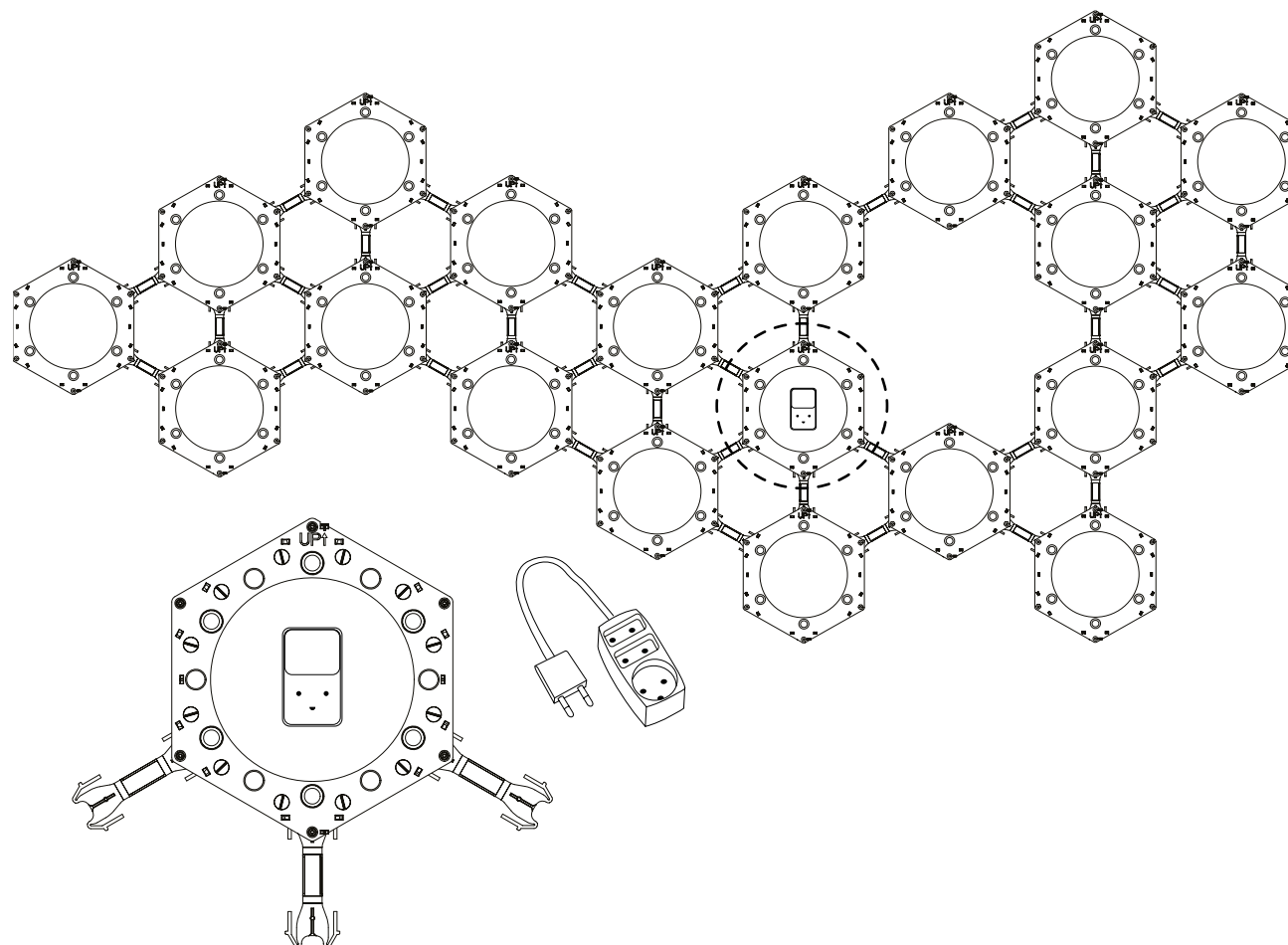


Placement of the wall socket

Before mounting the star rails, note the placement of the wall socket. Be sure to place the star rail for the empty tile over the wall socket.
(A damper tile without the damping material can also be used for hiding the wall socket.)

Use the Placement Tool to calculate the placement of the star rail for the wall socket. <https://shapeinstaller.bang-olufsen.com/>

An extension cord with extra sockets can be hidden in the empty tile.



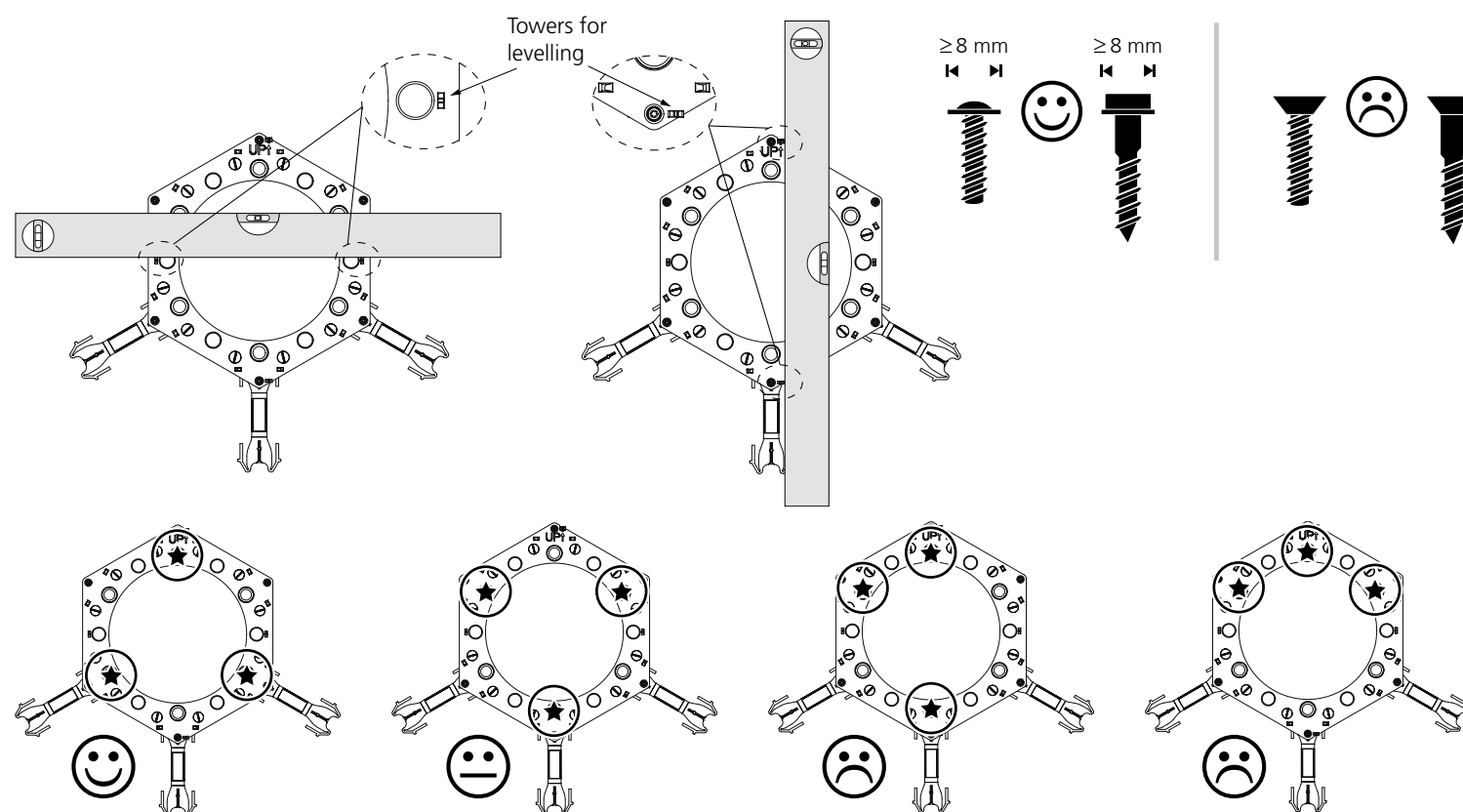
When mounting section 1, mount one screw and a washer in the top of one of the star rails. Use the Placement Tool to calculate the placement of the first screw. <https://shapeinstaller.bang-olufsen.com/>. Use a spirit level to level out the star rails, use the towers for levelling. Mount one screw and washer in the top of each star rail. Mount section 2, 3, 4 etc. (see [page 11](#)) Mounting one screw in the top of each star rail. Use a spirit level before mounting the screws. When all star rails are mounted with one screw, mount at least two more screws and washers in the star rail. Use at least three screws for each star rail in the setup. Use the spirit level on every star rail before mounting the screws. The enclosed felt stickers can be used on the star rails to outline points on the wall where the surface is uneven..

Note, screws for mounting on the wall are not included.

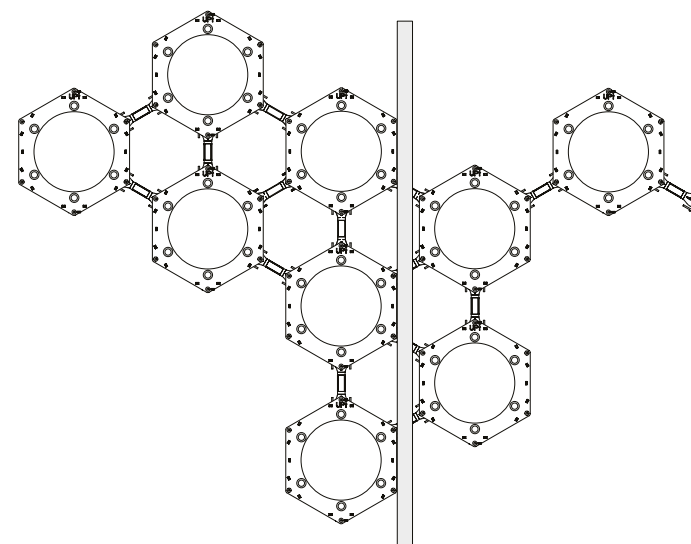
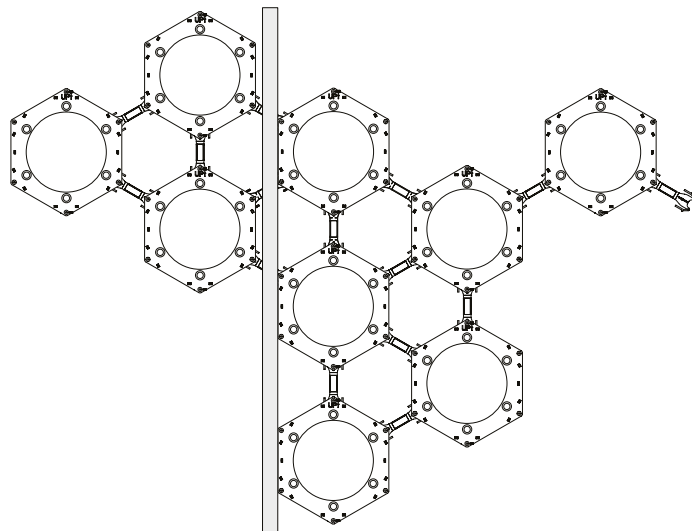
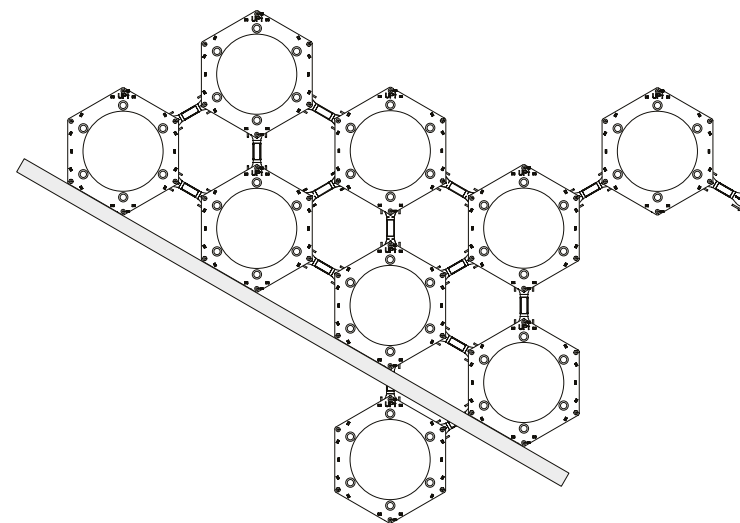
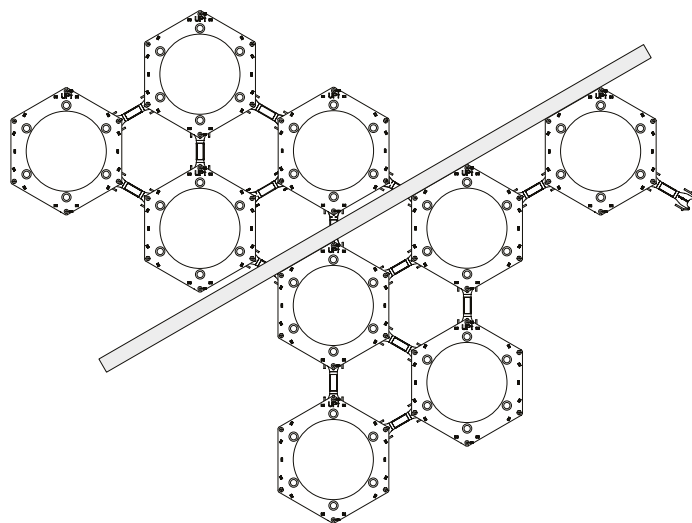
Recommended placement of screws

Alternative placement of screws

Incorrect placement of screws:



When more star rails are mounted, use a aluminium straight edge tool or a spirit level to level out the star rails crosswise and vertically.

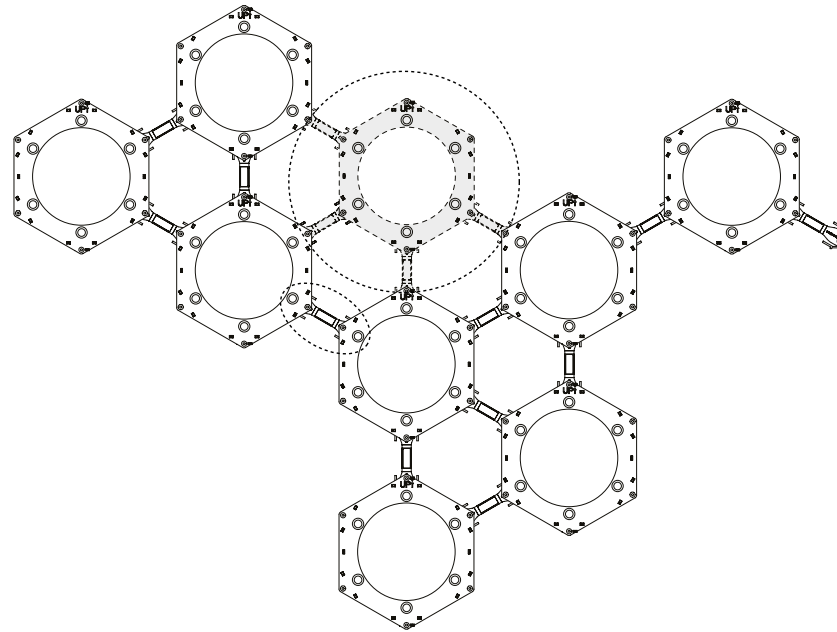


Extra supporting star rail

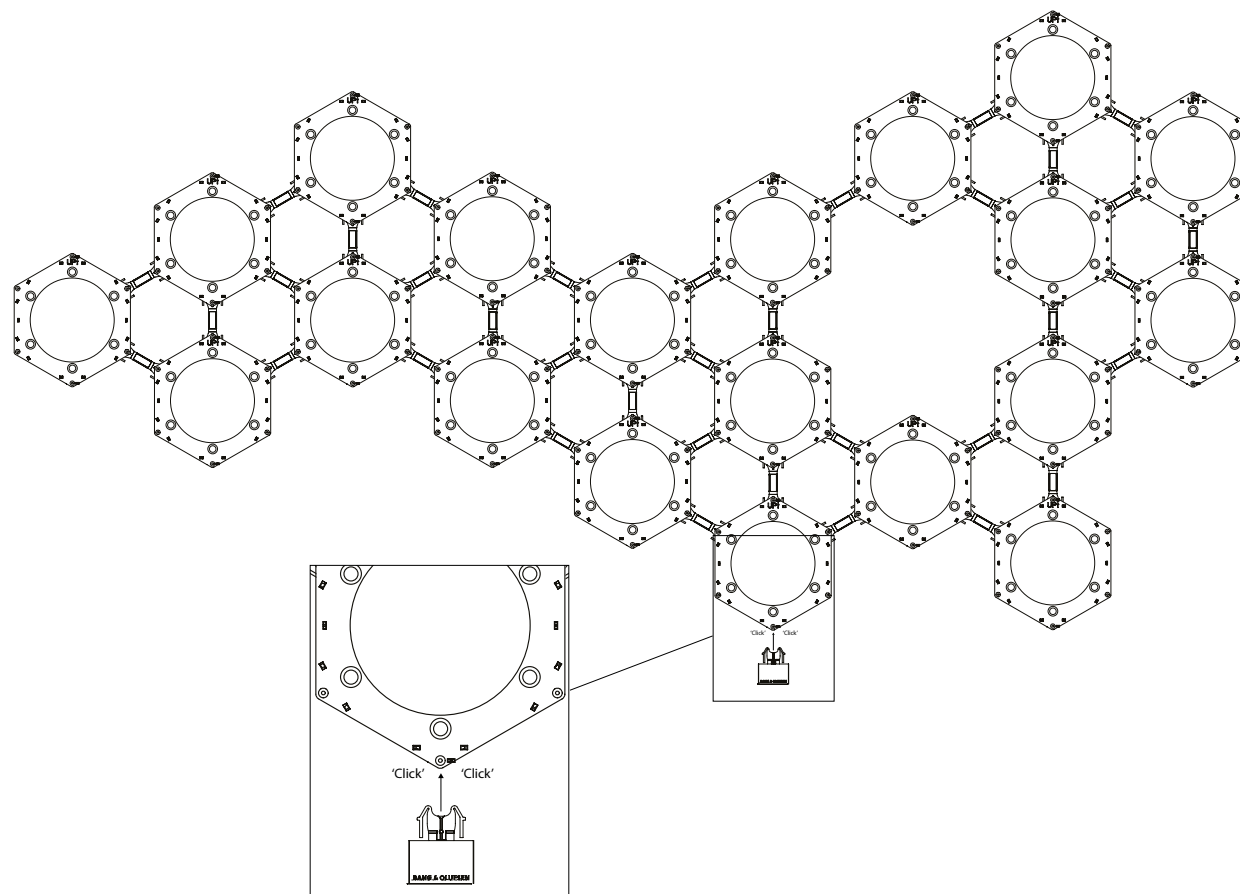
If the construction is unstable due to only one connection rail between two star rails, consider mounting some extra star rails and Connection Rails during the mounting.

Important

Mark the extra supporting star rail e.g. with tape over the mounting holes. Remember not to mount any screws in the extra supporting star rails and remember to remove the supporting star rails and the extra Connection Rails before mounting the tiles.



Mounting Bang & Olufsen logo badge



Mounting the tiles

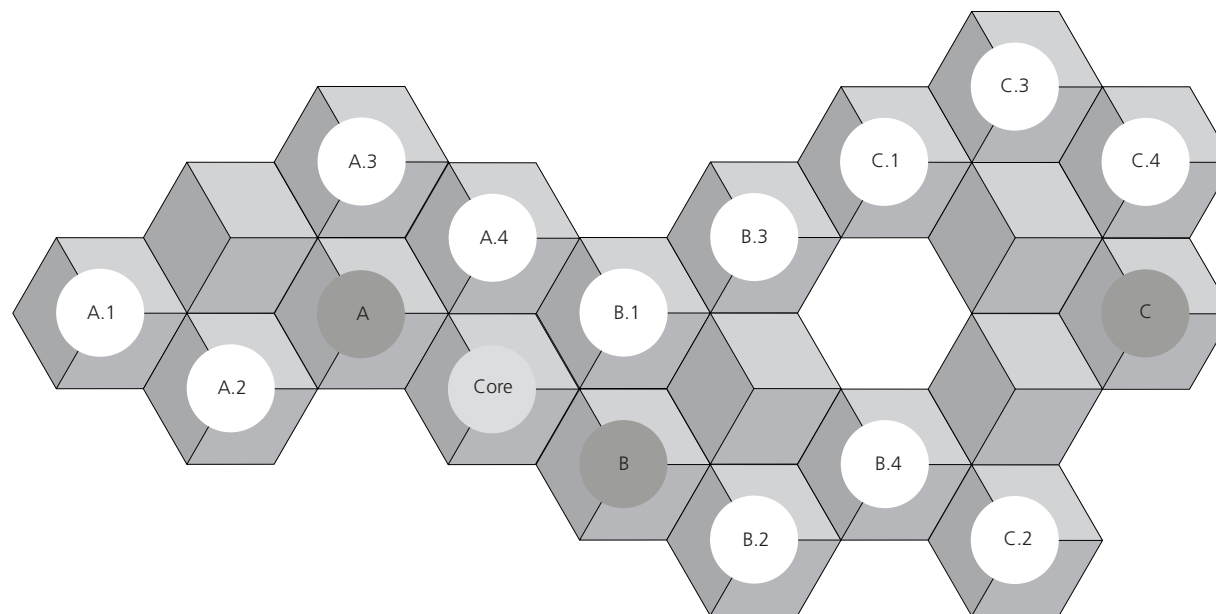
Refer to the Installation Video 'How to mount your tiles' on <https://bang-olufsen.zendesk.com/hc/en-us/articles/360042003831>

Important!

The tiles must be placed in the exact positions as described in the PDF created in the Configuration Tool.

Otherwise, the sound algorithm will not work properly, and you will not get the right 'Band on the Wall' effect.

The placement-algorithm will always place amplifiers and the Beoconnect Core without a tile underneath, in order ensure sufficient airflow.



Core = Empty tile with Beoconnect Core

A, B, C = Amplifier tiles

A.1, A.2, A.3, A.4, B.1, B.2, B.3, B.4, C.1, C.2, C.3, C.4 = Speaker tiles.

Mounting the Beoconnect Core

Refer to the Installation Video 'How to mount your Beoconnect Core' on <https://bang-olufsen.zendesk.com/hc/en-us/articles/360042003831>

Connecting cables

Refer to the Installation Video 'How to connect the cabling' on <https://bang-olufsen.zendesk.com/hc/en-us/articles/360042003831>

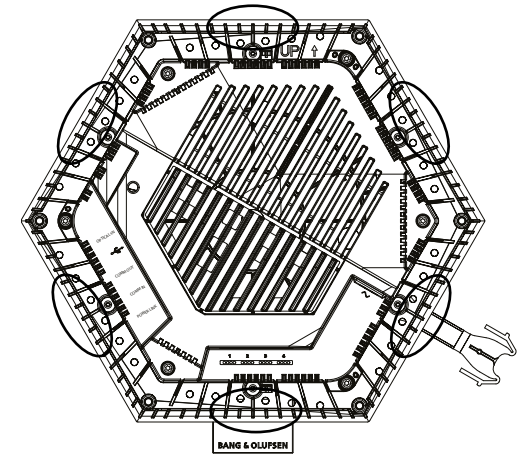
Maximum length of Ethernet cable:
Between each amplifiers, maximum 15 metres.
Total length, maximum 40 metres.

Maximum length of speaker cable:
Between amplifier and speaker, maximum 5 metres.

Maximum length of the Network Link Cable (ensure that they are minimum Cat7 and are shielded):
Maximum 15 meters

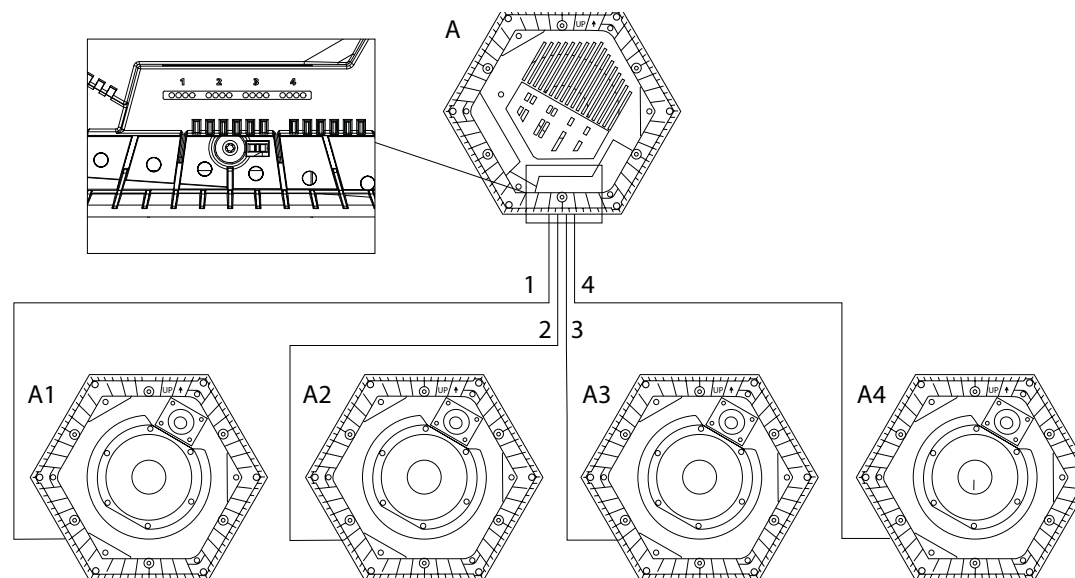
Cabling between the tiles

Guide the cables between the tiles, through the cable guides. The cable guides are placed on each side of the tile, over the connector rails. Cover the cables and the gap between the tiles with the gap absorber.
Note! Only one or two layers of cables in the cable guides between the tiles. If more the fabric cover can be misplaced.



Mounting the signal cables

Connect speaker cables from amplifier A connection 1 to speaker A1, connection 2 to A2, connection 3 to A3 and connection 4 to A4. And from amplifier B to B1, B2, B3 and B4 etc.



How to shorten the signal cables for the speakers

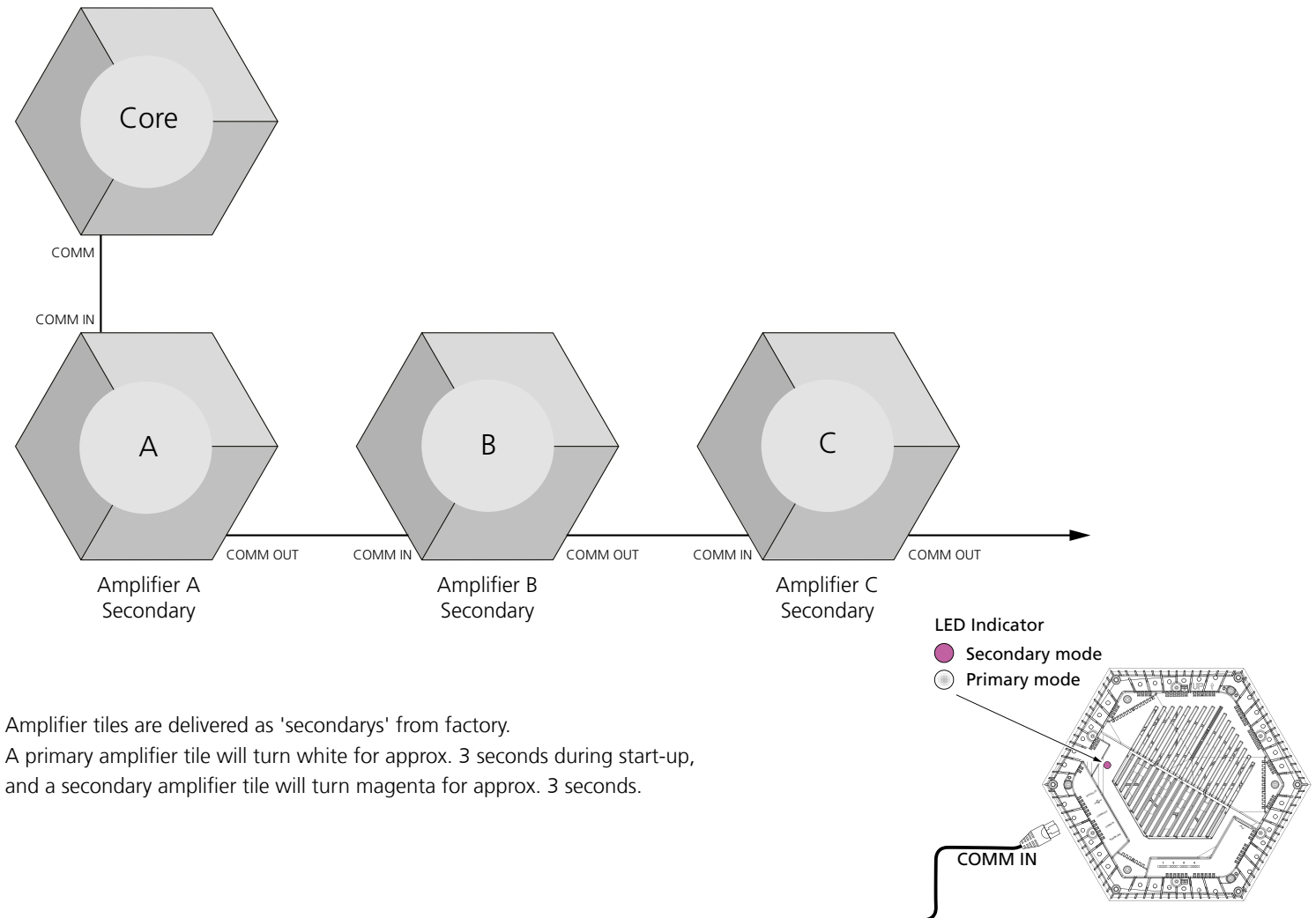
It can be tricky to mount the plugs on the speaker wire. To make it easier, we suggest mounting the plug on a speaker tile before mounting the four cables into the plug. Then the plug is positioned and easier to work with.

Use a small screwdriver with one hand to open up the first socket in the plug. Place the first cable into the open socket and let go of the screwdriver to lock the cable in the socket. Follow the same procedure on the next three sockets. Remember to follow the colour combination shown on the product

Refer to the video on: <https://youtu.be/EFNFVEwQ6cU>

Multiple amplifier setup

For setups with more than one amplifier, the amplifiers must be bridged together with a RJ45 Network Link cable (minimum CAT7 shielded cable).
E.g.: Amplifier A - COMM OUT has to be connected to amplifier B - COMM IN. Amplifier B - COMM OUT has to be connected to Amplifier C - COMM IN etc.



Amplifier tiles are delivered as 'secondaries' from factory.

A primary amplifier tile will turn white for approx. 3 seconds during start-up, and a secondary amplifier tile will turn magenta for approx. 3 seconds.

First-time setup

For first-time setup, refer to the Installation Video ' How to configure your BeoSound Shape using Bang & Olufsen app' on <https://bang-olufsen.zendesk.com/hc/en-us/articles/360042003831>.

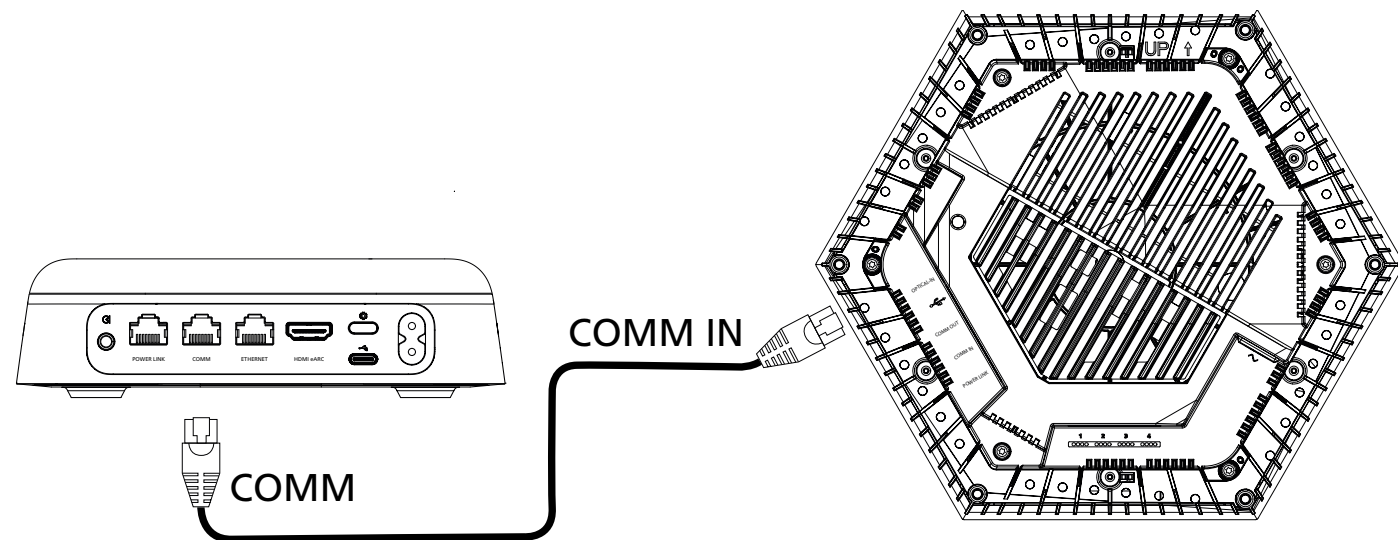
First-time connection

First time you install a Beoconnect Core into your Beosound Shape setup, the Core will show up as a Beosound Shape in your Bang & Olufsen app.

Note: Make sure to connect the amplifier to power before connecting the Beoconnect Core to Power.

- Connect the Network Link cable from the COMM port on your Beoconnect Core to the COMM IN port on your amplifier number 1 (as seen in the online configurator).
- The app will then guide you through the setup process.

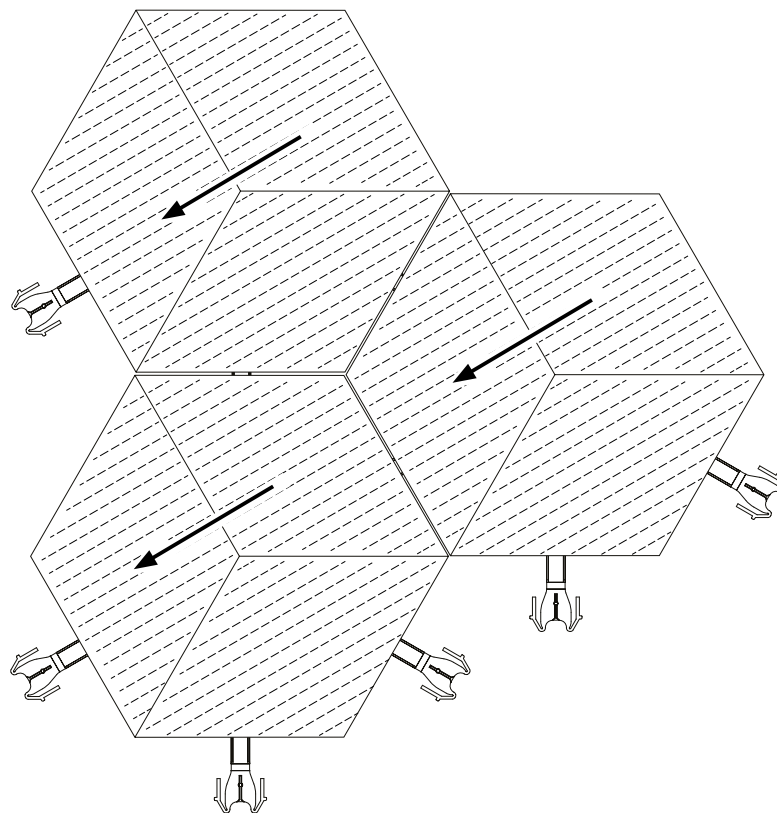
In the case that the app only recognizes the Beoconnect Core, please proceed with the setup. Once the Core is setup and a Beosound Shape Amplifier is connected, the app will give you the option to setup the Shape.



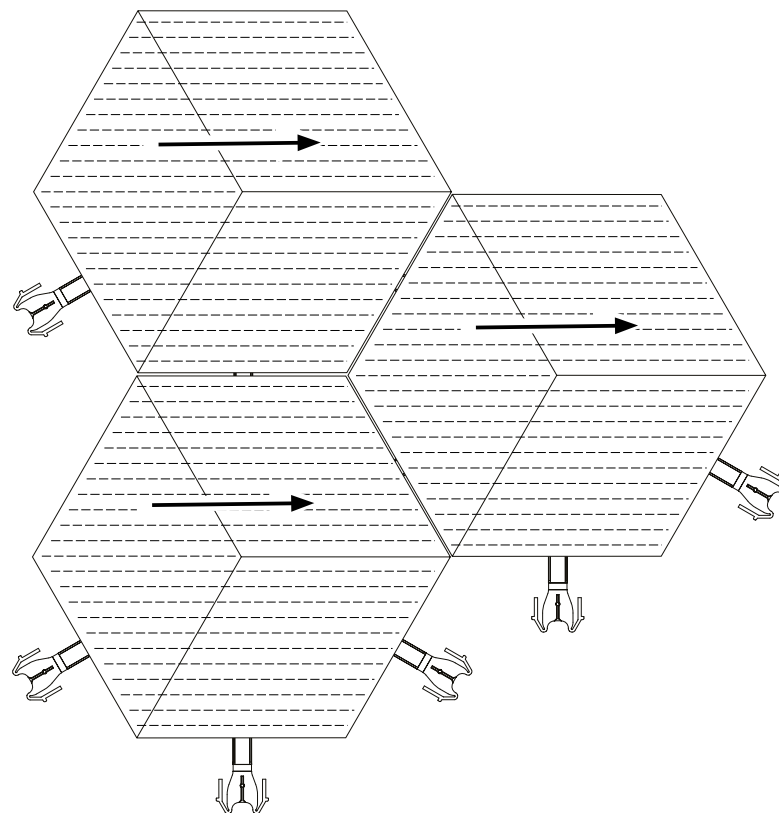
Mount fabric cover

Place the fabric cover on the cabinet and press gently to attach the fabric covers.

Note the fabric pattern, must be identical on all tiles. It is recommended to place front covers with Kvadrat fabric with the texture as shown on the drawing below. Recommended placement for front covers with Define fabric, see next page.



Place front covers with Define fabric with the texture as shown on the drawing below.

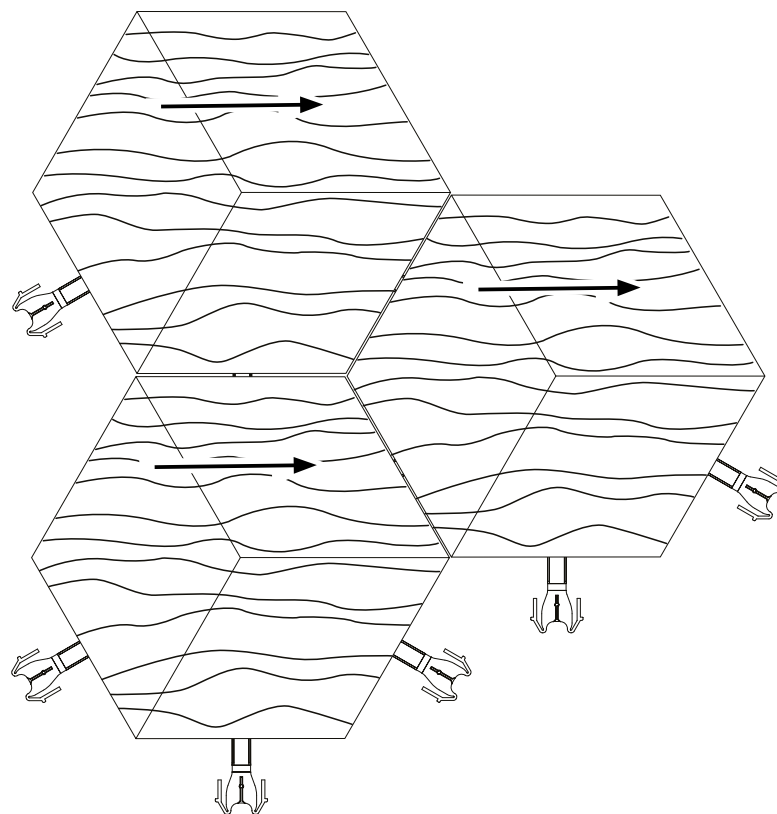


Mount wood cover

Place the wood cover on the cabinet and press gently to attach the wood covers.

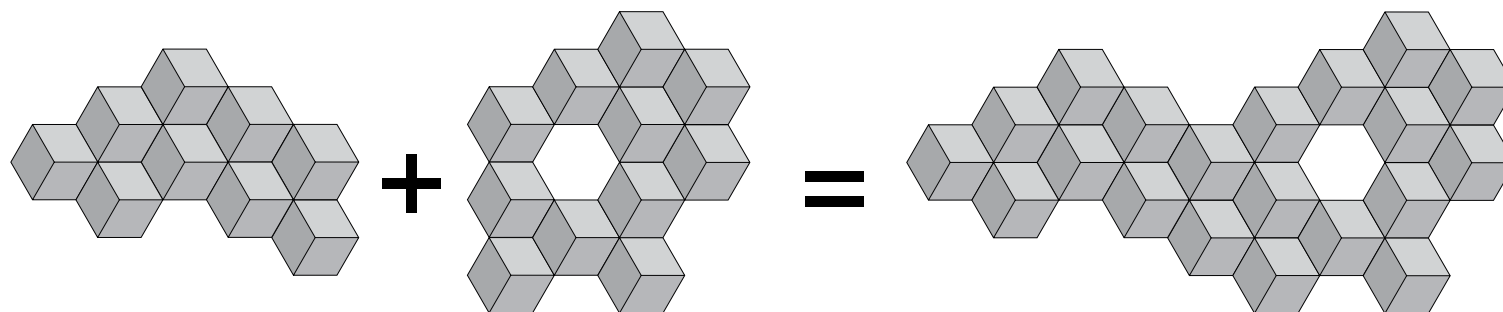
Important! Wood covers must only be used together with damper tiles

Note the gains pattern, must be identical on all tiles. It is recommended to place front covers with wood with the gains as shown on the drawing below.



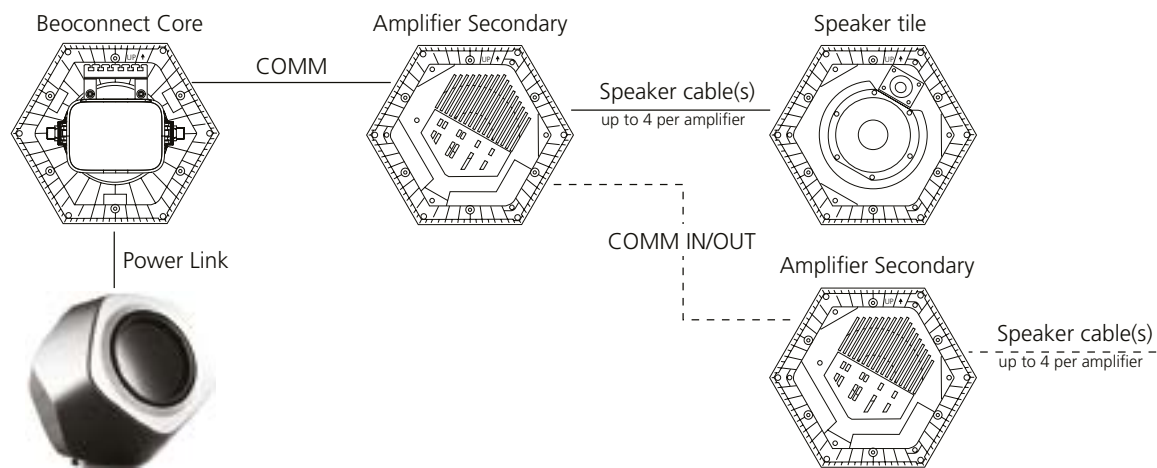
How to upgrade an existing BeoSound Shape with more tiles

It is possible to upgrade an existing BeoSound Shape setup with more tiles. When doing this, it is needed to create a new design ID via the online Configuration tool. Please follow the setup instructions in the PDF file from the online Configuration tool. It can be necessary to reorder some of the old tiles in the existing setup. It is needed to factory reset the Beoconnect Core and remove the BeoSound Shape in the Bang & Olufsen app, before starting to add or reordering the tiles. When the new setup is mounted, you will have to reconfigure the new BeoSound Shape with the new design ID via the Bang & Olufsen app.



BeoSound Shape with BeoLab 19

BeoSound Shape can be connected to a subwoofer. It has to be a BeoLab 19 due to the adjustment possibility on the BeoLab 19.

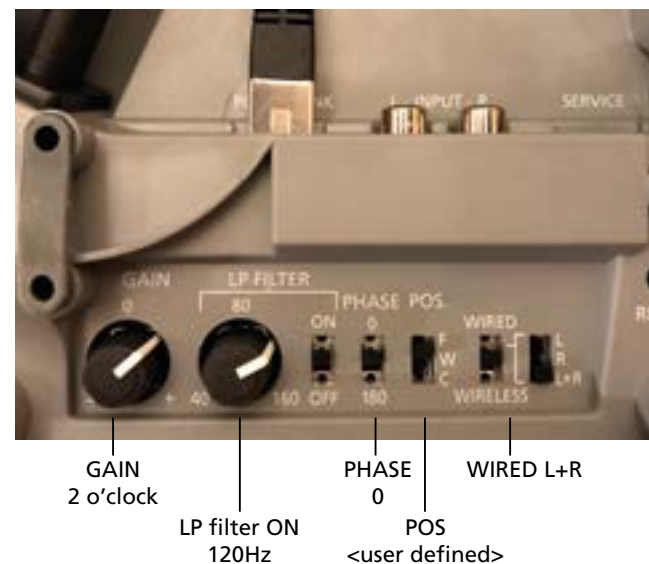


Gain adjustment on BeoLab 19 must be adjusted depending on the number of speakers connected in the setup. Adjust until the bass level is as desired.

Starting points:

- 4 speaker tiles: 4 o'clock
- 8 speaker tiles: 2 o'clock
- 12 speaker tiles: 12 o'clock (Gain = 0)

For adjustment of 'Bass Tone Control' see next page



Connecting your Beolab 19 to the Beosound Shape.

- 1 Open the Bang & Olufsen app.
- 2 Select your BeoSound Shape.
- 3 Select Settings
4. Select Connected Speakers
5. Select Beolab 19 as both options
6. Finish the Setup

Under the settings for the Speaker group where Beolab 19 and Beosound Shape are used together, BL19 speaker roles should be set to left and right (not 'subwoofer'), and bass management should be turned off.

Bass Settings in the Bang & Olufsen App.

- 1 Open the Bang & Olufsen app.
- 2 Select your BeoSound Shape.
- 3 Scroll down in the control screen and open the Sound menu.
- 4 Bass level adjustment is in the Equaliser section.
 - 4 speakers: Set bass to -10
 - 8 speakers: Set bass to -8
 - 12 speakers: Set bass to -6

Software update

How to see the software version

Software can be checked and updated via the Bang & Olufsen app.

The Beoconnect Core software and Beosound Shape version can be seen by following these steps:

1. Open the Bang & Olufsen app
 2. Go to Settings (press the cogwheel symbol)
 3. Select the **My products** menu
 4. Select your **BeoSound Shape**
 5. Select the **About product** menu
-

Troubleshooting

- Check all connection between the tiles.
- Check for newest software release on both the Beoconnect Core and the amplifiers. If old software, update the products. The software can be updated via Bang & Olufsen app. See [page 28](#)
- Check if the correct Design ID is in the product, can be read out via the Bang & Olufsen app.

How to reinstall the setup

- Reset Beoconnect Core
Press and hold the Setup button for 8 seconds and the Beoconnect Core will reset.
- Delete the BeoSound Shape in the Bang & Olufsen app. It is now possible to run the first-time setup again via the Bang & Olufsen app.

Power cycle - Amplifier

If the system has not been playing music for more than 20 minutes, the amplifier enters standby.

If mains is removed and applied again within 60 seconds while the amplifier is in standby, the amplifier might appear 'dead' (no light). Solution is to disconnect from mains for more than 60 seconds

LED indications

Description	LED Indicator on the amplifier	
	Primary	Secondary
Starting up	Pulsing white	Pulsing magenta
Product On	Solid white for 3 seconds then off	Solid magenta for 3 seconds then off
Product warning 1*	Pulsing yellow	Pulsing yellow
Product warning 2*	Flashing yellow	Flashing yellow
Product error*	Flashing red	Flashing red
Product entering standby	Pulsing red for 3 seconds then off	Pulsing red for 3 seconds then off
Product in standby	Off	Off
During software update	Pulsing red	Pulsing red

* An overheating problem has occur.

Product behaviour:

Product warning 1 The amplifier will reduce gain. (Turning down the volume).

Product warning 2 The sound from the amplifier will be muted.

Product error The amplifier will turn off.

Amplifier connection specifications

OPTICAL

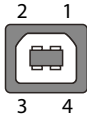
Optical socket - for Audio input
S/P-DIF



USB

USB B Audio 2.0 for Audio input and ServiceTool

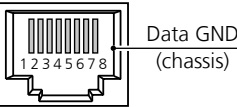
- Pin 1 +5VDC
- Pin 2 Data -
- Pin 3 Data +
- Pin 4 GND



COMM IN

RJ45 - used for amplifier input

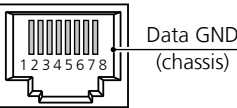
- Pin 1 A2B_AP
- Pin 2 A2B_AN
- Pin 3 Signal GND
- Pin 4 Signal GND
- Pin 5 Signal GND
- Pin 6 Signal GND
- Pin 7 Data RX
- Pin 8 Data TX



COMM OUT

RJ45 - used for amplifier output

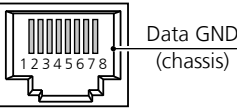
- Pin 1 A2B_BP
- Pin 2 A2B_BN
- Pin 3 Signal GND
- Pin 4 Signal GND
- Pin 5 Signal GND
- Pin 6 Signal GND
- Pin 7 Data TX
- Pin 8 Data RX



POWER LINK

RJ45 - used for Power Link 1 and 2

- Pin 1 Not used
- Pin 2 Not used
- Pin 3 Signal GND
- Pin 4 Speaker On/Off On => 2.5V, Off =< 0.5V
- Pin 5 Not used
- Pin 6 Audio R out 0V – 6.5V RMS
- Pin 7 Signal GND
- Pin 8 Audio L out 0V – 6.5V RMS



~ 100 - 240 V, 50/60Hz

C8 socket - Mains inlet



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