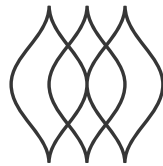


Bowers & Wilkins



FORMATION **DUO**

Welcome to Bowers & Wilkins and Formation Duo.

Thank you for choosing Bowers & Wilkins Formation. When John Bowers first established Bowers & Wilkins 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. That belief continues to inspire every product we design and in Formation has found its most advanced expression yet.

Formation Duo is a network connected, wireless stereo active network speaker system that provides extremely high performance reproduction of Formation audio streams. Formation Duo speakers are primarily intended to be configured and controlled using the Bowers & Wilkins Home app. The app is available for both iOS and Android devices. Some commonly used control functions are also available via touch buttons on the Formation Duo front panels. It is only possible to install and configure Formation Duo speakers using the Bowers & Wilkins Home app.

Formation Duo will enable you to:

- Listen to audio from streaming services like Spotify, Apple Music, and Roon.
- Listen to network stored audio files.
- Listen to audio over Bluetooth from appropriately enabled Bluetooth source devices.
- Listen to audio from devices such as turntables (via a phono preamp) and CD players that are connected to a Bowers & Wilkins Formation Audio.
- Listen to audio, such as Internet Radio, from Airplay or Bluetooth compatible services and apps.
- Listen to audio playing anywhere in your home on any Formation device connected to your home network.

The Bowers & Wilkins Home app is required to connect your Formation Duo speakers to your home network and also to establish connection with other Formation products in your home. The Bowers & Wilkins Home app also provides some control and configurations functions during use. Before you begin your Formation Duo installation please download and install the Bowers & Wilkins Home app on your iOS or Android device. The Bowers & Wilkins Home app requires iOS V11.4 or later, or Android V8.1 or later. Bluetooth, and WiFi services must be enabled on your iOS or Android device. You will also need to know your WiFi network password.

Note: Location Services must be enabled on Android devices during the Formation set up process. This is because Formation products use a low power form of Bluetooth (BT-LE) for service communication which on Android devices is only switched on when Location Services are enabled. Bowers & Wilkins do not use any location services data for marketing purposes.

1. Formation Duo Carton Contents

2x Formation Duo
Mains power cable set appropriate for your territory
Document pack

Environmental Information

This product complies with international directives, including but not limited to the Restriction of Hazardous Substances (RoHS) in electrical and electronic equipment, the Registration, Evaluation, Authorisation and restriction of Chemicals (REACH) and the disposal of Waste Electrical and Electronic Equipment (WEEE). Consult your local waste disposal authority for guidance on how properly to recycle or dispose of this product.

2. Installing Your Formation Duo

Your Formation Duo speakers each require a mains power supply to operate so must be located within reach of mains sockets. You may wish to install suitable mains sockets once you have decided on the locations of your Formation Duo speakers in your listening room. If your Formation Duo speakers are to use a wired connection to your network router one of them will need to be located within reach of an appropriate network cable.

Formation Duo speakers are primarily intended to be used on Formation FS speaker stands but can also be placed on shelves, wall brackets or furniture units. Formation FS Duo stands will however provide both the best performance and enable the greatest flexibility in positioning. The stands will also place your Formation Duo speakers at the correct height – approximately head height when listening.

Note: If your Formation Duo speakers are to be mounted on Formation FS Duo speaker stands, please assemble the stands and secure the speakers to them before you set up the speakers. Remember that the Formation Duo mains cables and network cable (if required) should run through the legs of the speaker stands. The Formation FS Duo stands are supplied with rubber and spike foot options. The spike foot option should be used when the stands are to be placed on a carpeted floor. The spikes pierce the carpet to rest on the surface underneath. Adjust the spike to ensure that the stands are vertical and don't rock. Use the rubber foot option the stands are to be placed on tiled or wooden floors.

If you still however prefer to install your Formation Duo speakers on shelves, brackets or furniture units please ensure that:

- both speakers are located at approximately the same height.
- the shelves, brackets and furniture are easily able to support the weight of the speakers and are rigid and non-resonant.

Stud-work and plasterboard walls are unlikely to provide adequate strength or rigidity to support Formation Duo speakers. If you are unsure of the suitability of a wall, or of your ability to install shelf or bracket hardware, you should seek professional help.

In the majority of listening rooms your Formation Duo speakers should be between 2.0m and 4.0m (6.5ft and 13ft) apart and a similar distance from the listening area. If the speakers are positioned too close together, the stereo reproduction may lack scale; if they are too far apart, the stereo focus may be weak. There is no need to angle your Formation Duo speakers inwards towards the listening area however doing so may tighten the stereo focus. Diagram 1 illustrates basic speaker positioning.

Like all speakers, Formation Duo radiates sound energy not only forward but also to the side and, particularly at bass frequencies, to the rear. As a result, if they are positioned too close to room boundaries their performance will be affected. Try to keep your Formation Duo speakers at least 0.5m (1.6ft) away from any room boundary.

Even with your Formation Duo speakers placed away from room boundaries, the material and acoustic character of the boundaries will still have an effect on the sound. Try to ensure that immediate surroundings of each speaker have similar acoustic qualities. Different acoustic qualities would be heavy curtains and bare walls, for example.

Connections

In addition to mains power sockets, Formation Duo speakers carry an Ethernet socket for connection to a network router if a wired network connection is to be used in preference to a wireless (WiFi) connection. Only one speaker of a Formation Duo pair requires a router connection.

Note: The USB socket located on the Formation Duo rear panel is intended for service and diagnostic use only. It cannot be used for any other purpose.

Note: The Formation Duo connection panel is not easily accessible once the speakers are attached to Formation FS Duo stands.

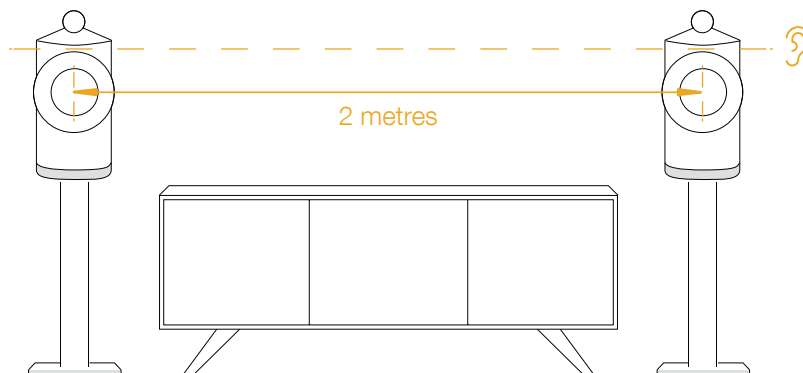



Diagram 1
Positioning

Switch On and Off

With all connections made, and the Bowers & Wilkins Home app installed on your mobile device, your Formation Duo speakers are ready to be set up. Formation Duo speakers have no mains power switch and, following a short start-up routine, will be operational as soon as they are connected to mains power. They will play an audio prompt when their startup routine is complete.


When Formation Duo speakers that has not been previously used are first switched on they will automatically enter setup mode to enable their connection to your home network and to any other available Formation devices. Setup mode is indicated by a slow orange pulse illumination of the speaker's Form buttons . The Formation Duo speakers will also appear in the Bowers & Wilkins Home app as available for set up, either on the initial app page, or after selecting 'Add Formation product' from the app Settings page.

Your Formation Duo speakers manage their operational state and power consumption entirely automatically and will switch to a power saving mode after twenty minutes of inactivity. There is no need ever to switch off your Formation Duo speakers, however should you wish to do so, simply disconnected them from mains power. Your Formation Duo speakers will retain their settings without mains power.

You can restart each Formation Duo speaker by a short press and release of the reset buttons located on their rear panels. Pressing the button will switch the Formation Duo off and on again. All settings will be retained when your Formation Duo speakers restart. You can also restart your Formation Duo speakers via the Bowers & Wilkins Home app Settings page. The reset button is illustrated in Diagram 2.


If you wish to to reset your Formation Duo speakers to their default settings, press and hold each reset button for five seconds. On restart, your Formation Duo speakers will enter setup mode. All settings will be deleted when your Formation Duo speakers reset. You can also reset your Formation Duo speakers via the Bowers & Wilkins Home app Settings menu. The reset button is illustrated in Diagram 2.

Network Set Up

- With your Formation Duo speakers in setup mode, with their Form button  illumination pulsing slowly orange, launch the Bowers & Wilkins Home app on your iOS or Android device. The app will guide you with prompts through the set up process.

Note: Formation Duo speakers employ a Bluetooth connection to the device running the Bowers & Wilkins Home app during the set up process. Bluetooth signals have a relatively short range and can be interrupted by room boundaries, so we recommend that your Formation Duo speakers and Bowers & Wilkins Home app device remain in close proximity during the set up process.

- The Bowers & Wilkins Home app will first search for Formation products in setup mode and display a screen inviting the selection of one. Tap to select your Formation Duo speakers. If you have already set up a Formation product and are adding an additional one, select 'Add Formation product' from the app Settings menu.

- The Bowers & Wilkins Home app will next invite you to name the "space" in which your Formation Duo speakers are to be used. A list of default space names is provided but you can also create your own. When you have selected, or created, a space name, the app will ask you to touch the Form button  on the front of one Formation Duo to confirm the selection.

- If a wireless network connection for your Formation Duo speakers is to be used, the next set up stage will connect your Formation Duo speakers to your home WiFi network. The app will ask you to confirm the correct WiFi network and ask you to input its password. Alternatively, if your Formation Duo speakers are connected to your network router using an Ethernet cable, this stage of the set up process will be bypassed.

Note: If you already have other Formation products connected to your WiFi network, Formation Duo set up will not require you input the WiFi password.

- With WiFi network configuration, and space selection complete, your Formation Duo speakers are ready for use. Your Formation Duo speakers will play an audio prompt to confirm successful set up.

Bluetooth Set Up

You can connect your Formation Duo speakers to a Bluetooth enabled audio source device, such as a smartphone, to play audio over Bluetooth. Your Formation Duo speakers must first be "paired" with the Bluetooth audio source device.

Once you have completed the Formation Duo network set up, open the Bowers & Wilkins Home app Settings page, and select the Formation Space that you wish to pair a Bluetooth device with. Next select '+ Pair a new device' from the Bluetooth menu and follow the app instructions to complete pairing. Your Formation Duo speakers will play an audio prompt when pairing is complete and their Space will become available to the paired Bluetooth device for audio playback.

Note: Up to eight Bluetooth devices can be simultaneously paired with each Formation space, however devices will not connect and play to paired spaces automatically.

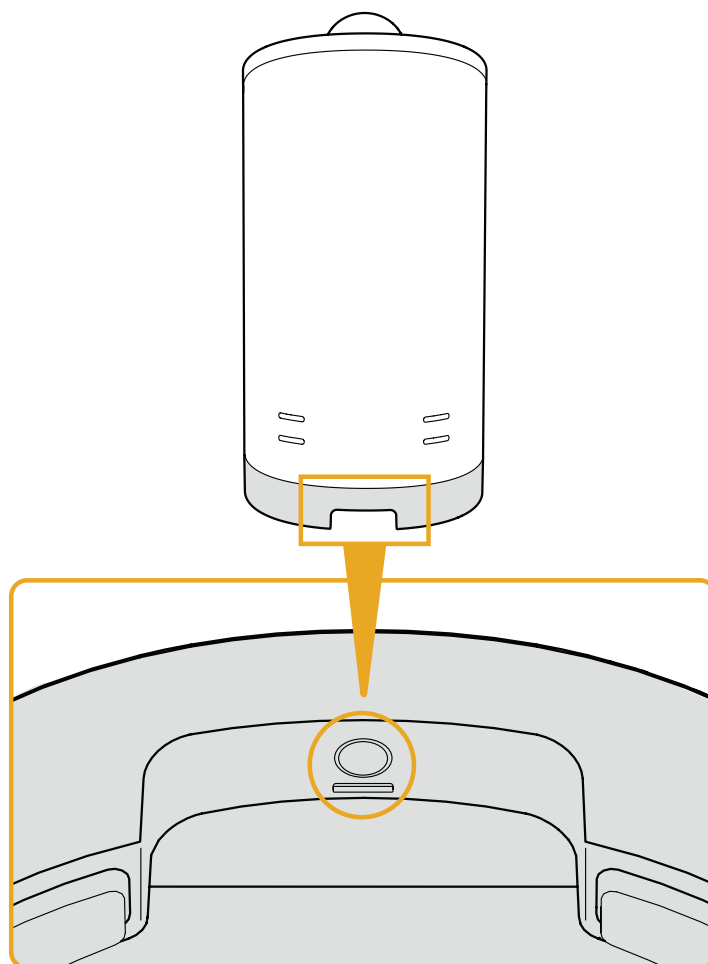


Diagram 2
Reset button

3. Using Your Formation Duo Speakers

The Basics

You can use your Formation Duo speakers to play audio from streaming services such as Spotify, Apple Music, and Tidal, from the Roon music library service, from network storage hardware and from internet radio via an appropriate iRadio app. If you have further Formation devices connected to your network, a Formation Audio for example, conventional audio sources connected to it will also be available through your Formation Duo speakers.

Spaces

Spaces are a core concept of the Formation product family. A Formation "Space" is a room or a specific area in your home in which you listen to music. Each space can include different combinations of Formation products. The possible configurations are displayed in Diagram 3.

Playing Audio

The Bowers & Wilkins Home app enables you to select and play any available audio source or stream. However, in much the same way that conventional audio source playback requires initiation through a play command, Formation streams must be first initiated through their own gateway app: the Spotify app for example, or a music library app such as Roon. Each gateway or library app will list your Formation Duo space as an available playback device using Airplay, Bluetooth or in the case of Spotify, Spotify Connect.

Once streams are playing on the Formation network they can be selected via the Bowers & Wilkins Home app or via a Formation Duo front panel Form touch button (🌀). Touching a Form button will cycle through the available streams and sources.

Formation Duo Front Panel Controls and Illumination

Your Formation Duo speakers have buttons on their front panels that provide play/pause control, volume adjustment and source/stream selection.

- Touching the Play/Pause ⏮|| will alternately stop and restart audio playback.

Note: Play/pause will only operate if the stream source has play and pause functions that can be accessed through Bluetooth or network connections.

- Touching volume up (+) or down (-) will adjust the local volume of any network stream or local source. Pressing and holding the (+) and (-) buttons will continuously increase or decrease volume.
- Touching the Form button (🌀) will cycle through and play the active streams and sources available to the Formation Duo speakers.

Form Button Illumination

The Formation Duo speakers Form button illumination changes to indicate a variety of operational states.

4. The Bowers & Wilkins Home App

With your Formation Duo speakers configured and connected to your network, the Bowers & Wilkins Home app will open to its Home screen where the Formation Duo space and any other available Formation spaces will be listed.

Tap on a Formation space to select from any available streams or inputs. If there are no streams available, open a streaming app, Spotify for example, and select an item to play, then select the Formation Space from the list of available playback devices. Now, when you return to the Bowers & Wilkins Home app, the Spotify stream will be listed on the Formation Duo space page.

The Bowers & Wilkins Home app Home page has a Settings icon in the top right corner. Tap the icon to open the app Settings menu. The Settings menu provides options to configure and reset your Formation devices and re-name your Formation spaces. App and Formation device firmware updates are also initiated from the Settings menu.

Finding Your Way Around the Bowers & Wilkins Home App

The Bowers & Wilkins Home app will search for available Formation spaces when opened then display its Home page with the spaces listed.

Beneath each space the app will display its current activity. Tapping on an active space will open a "now playing" screen that enables volume and play/pause control.

The 'now playing' screen also provides an 'Available Spaces' option that enables the stream playing in the selected space to be transferred to another space or played in multiple spaces. The 'Available Spaces' screen also provides the opportunity to control volume, both globally across all spaces, or in individual spaces.

The Bowers & Wilkins Home app Settings page is opened by tapping on the settings icon. The initial Settings menu lists each space and the number of Formation devices present in each one.

Tapping on a space listed in the Settings menu provides access its Space and Formation device settings. Tap the Space name to access the space settings and tap the device name to access the device settings. The device settings available will depend on the device in question.

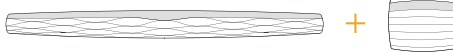
Note: If the Settings icon on the Bowers & Wilkins Home app displays a yellow dot this indicates that a Formation firmware update is available. The firmware update process is initiated from the Settings menu. You should always aim keep the Bowers & Wilkins Home app and your Formation devices up to date with the latest version and firmware. Not only will this help ensure the most reliable performance, it will ensure that you benefit from new Formation features.

TV Space configurations

Formation Bar



Formation Bar + Formation Bass



Music Space configurations

Formation Audio



Formation Wedge



Formation Wedge + Formation Audio



Formation Wedge + Formation Bass



Formation Wedge + Formation Audio + Formation Bass



Formation Duo



Formation Duo + Formation Audio



Formation Duo + Formation Bass



Formation Duo + Formation Audio + Formation Bass

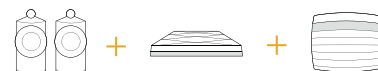


Diagram 3
Space configurations

Using Spotify

Listen out loud with Spotify Connect

1. Connect your Formation Duo speakers to your WiFi network.
2. Open up the Spotify app on your phone, tablet or laptop using the same network.
3. Play a song and select Devices Available.
4. Select your Space Name and start listening.

Using Airplay

Airplay enables audio apps on Apple mobile, laptop or desktop devices to stream material over a network to Airplay compatible speakers such as Formation Duo. Airplay enabled apps will display the Airplay icon.

To use Airplay, open the audio app you wish to use and select the music you wish to play. Tap on the Airplay icon to display a list of available devices followed by the Formation Space you wish to use.

Note: It is possible to stream audio via Airplay on multiple devices simultaneously, however the playback quality and synchronisation and may then depend on the capabilities of your home network. If you wish to play material simultaneously in more than one Formation space this will be more satisfactorily achieved through selecting multiple spaces in the Bowers & Wilkins Home app.

Using Roon

Roon is a feature rich music library and playback app that compiles all the music files available to your network and makes them easily available to play across all your Formation Spaces and any other Roon enabled audio devices. Roon is available for mobile, laptop or desktop devices.

When you open Roon it will display your complete audio library together with its metadata and artwork along with all the Formation Spaces and any other available network audio devices. Simply select the music you wish to play and Formation space in which you want to hear it.

Note: It is possible to stream audio from Roon on multiple devices simultaneously, however the playback quality and synchronisation and may then depend on the capabilities of your home network. If you wish to play material simultaneously in more than one Formation space this will be more satisfactorily achieved through selecting multiple spaces in the Bowers & Wilkins Home app.

Using Bluetooth

Bluetooth enables audio apps on mobile, laptop or desktop devices to stream material over a wireless connection to compatible hardware such as the Formation Duo speakers. Bluetooth enabled audio apps will display the Airplay icon.

To use Bluetooth, ensure that the required Formation Space is selected in your device Bluetooth settings menu, open the audio app you wish to use and select the music you wish to play. Tap on the playback devices icon to display a list of those available followed by Formation Space you wish to use.

6. Cleaning and Support**Cleaning**

Should your Formation Duo speakers need cleaning you can wipe their surfaces with a clean lint-free cloth. If you wish to use any cleaning fluid, apply it onto the cleaning cloth and not directly onto the Formation Duo speakers. Test a small area first, as some cleaning products may damage some of the surfaces. Avoid products that are abrasive, or contain acid, alkali or anti-bacterial agents.