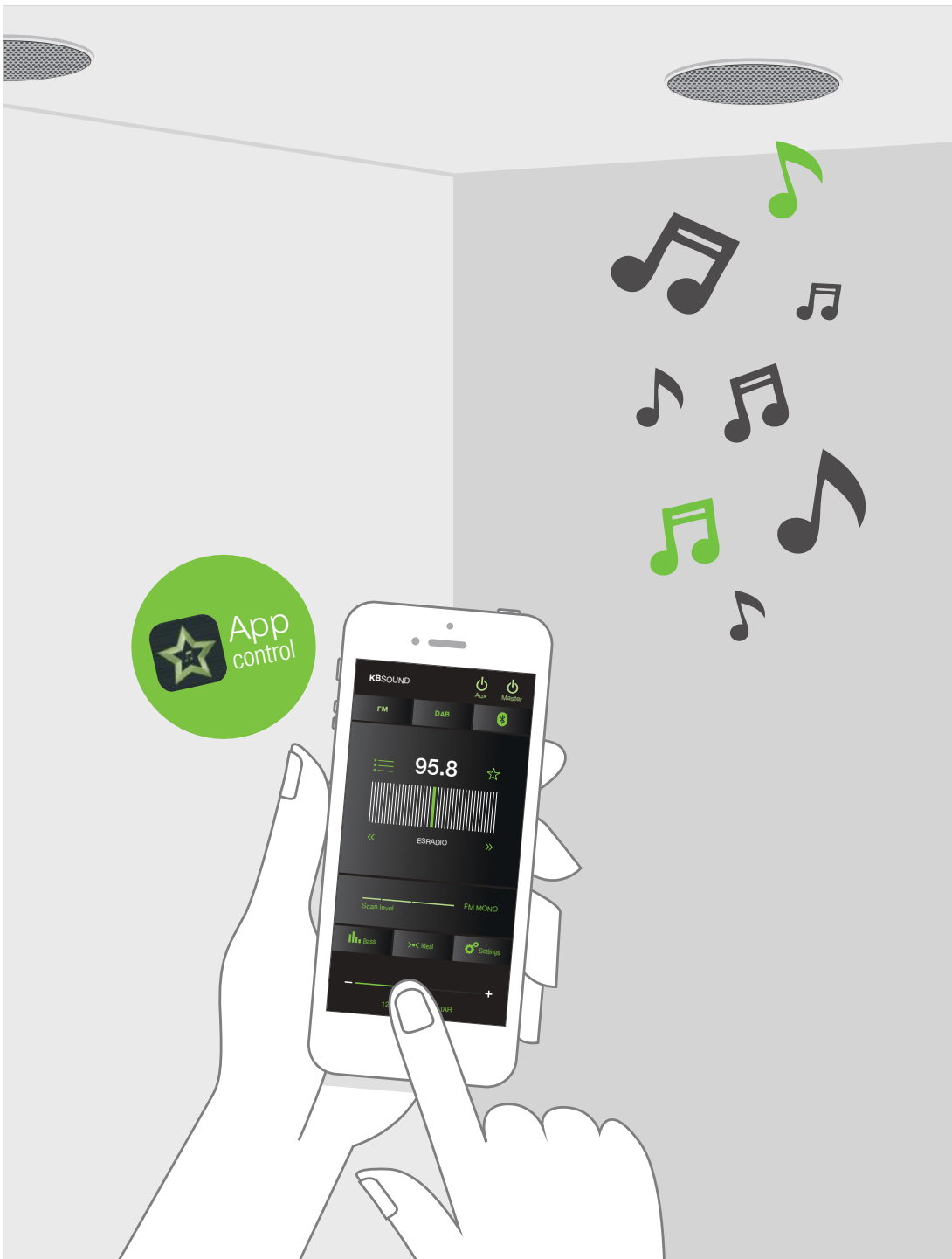
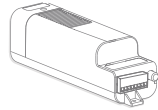


KBSOUND® STAR



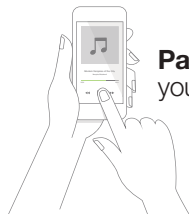
KBSOUND[®] STAR



Install easily



Download
free App



Pair & Play
your music

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Contains FCC ID: A8TBM62S2.

FCC Caution:

Changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

FCC Statement:

"This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help."

RSS-Gen & RSS-210 statement:

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

RSS-102 Statement:

This equipment complies with Industry Canada radiation exposure limits set forth for an uncontrolled environment. Cet équipement est conforme à l'exposition aux rayonnements Industry Canada limites établies pour un environnement non contrôlé.

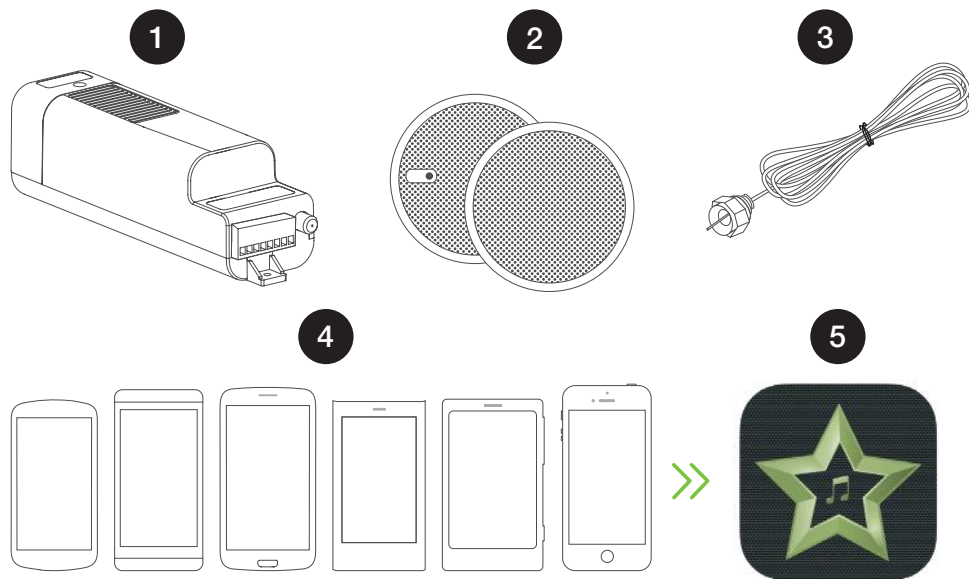
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1. Introduction

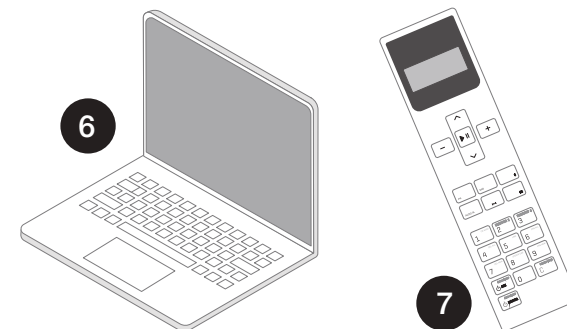
Our KBSOUND STAR combines the best of our iSelect and Select BT in one product allowing you to choose between using a Remote Control or managing the system using the STAR App. STAR technology synchronizes the commands sent by the Remote Control and/or the App.

We have upgraded and enhanced the new App to allow the user to stream music from other non-iOs or Android Bluetooth devices (A2DP profiles) such as Computers, Televisions, etc... (See chapter 9).

2. Basic Components & Features



- 1 Bluetooth Audio Receiver+FM Radio+DAB (MASTER)
- 2 Speakers
- 3 FM/DAB Antenna
- 4 iOS/Android devices
- 5 KBSOUND STAR App
- 6 External Bluetooth devices (Computer, Amazon Alexa devices, etc.)
- 7 Remote Control Accessory (If purchased)



The MASTER (1) is an electronic module that allows you to enjoy three music channels: Bluetooth audio streaming, FM Radio and DAB Radio.

The device (4) is any smartphone or tablet based on iOS or ANDROID with Bluetooth Low Energy (BLE) and the following Bluetooth profiles: A2DP, AVRCP (for sending audio).

The KBSOUND STAR App (5) is the App for managing the MASTER (1). It can be downloaded from Apple App Store (for iOS devices) or Google Play Store (for ANDROID devices). The KBSOUND STAR App is compatible with iOS 10.0 and higher and ANDROID 4.4 and higher.

The external device (6) is any Bluetooth device (A2DP, AVRCP profiles) from which you wish to stream Audio.

See also chapter 16 for management when using the Remote Control Accessory if purchased separately.

Warning: The KBSOUND STAR App runs on different releases from different operating systems, using different devices from different brands. As a result, its functioning may present some differences between devices.

3. Download KBSOUND STAR App



3.1 iOS DEVICES



Tap the Apple App Store on the iOS device to download the KBSOUND STAR App.

3.2 ANDROID DEVICES

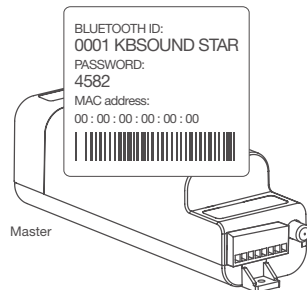


Tap the Google Play Store on the ANDROID device to download the KBSOUND STAR App.

4. Bluetooth Pairing and Connection (A2DP profile) between Device and Master

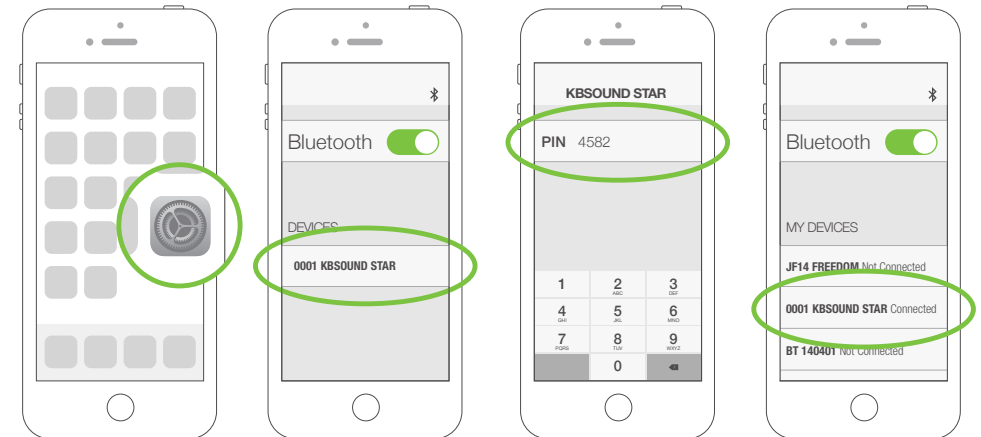
The first time the Device is paired with the Master, the KBSOUND STAR Bluetooth identifier and password will be the factory default. This data can be found on the label provided with the “Quick reference guide” and on the Master. Each Master has a UNIQUE Bluetooth identifier and password.

Please make sure you keep a copy of the label in a safe place.

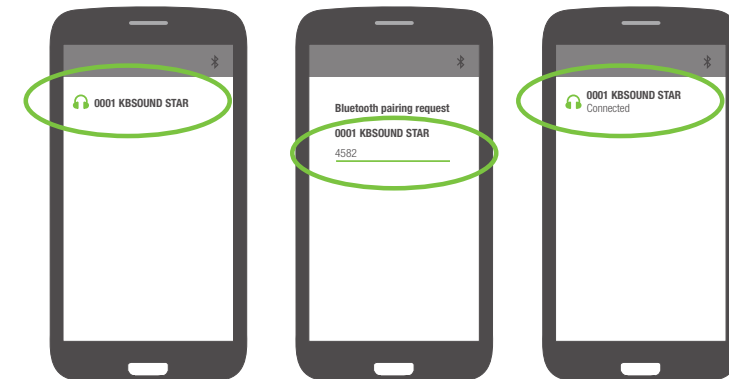


1. Open iOS/Android Bluetooth Settings Menu.
2. Select the KBSOUND STAR Bluetooth ID (e.g. 0001 KBSOUND STAR).
3. Introduce the password (e.g. 4582). Needed only when pairing, not in future connections.
4. Check that the MASTER (e.g. 0001 KBSOUND STAR) is correctly connected.

iOS:



ANDROID:

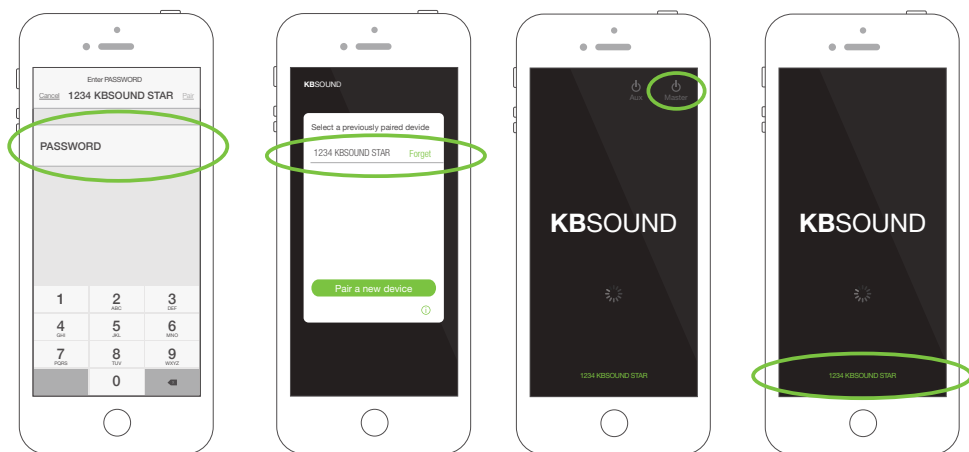


Note: the above process is just an example (GOOGLE NEXUS 5 / ANDROID 5.0.1) since different devices have different configurations for different brands, models and versions.

5. Operating KBSOUND STAR App (Bluetooth Low Energy Connection–BLE)

To control the system it is necessary to pair the App with the MASTER as follows:

1. The first time the App is launched the list of devices is empty. Tap the "Pair a new device" button to search the available MASTERS within range.
2. All the MASTERS within range will appear in the screen. Select the MASTER with which you wish to connect the App.
3. The first time the App is connected with the MASTER the KBSOUND STAR Bluetooth ID and password will be the factory default. (See chapter 4).
4. Introduce the password.
5. Now the device has been added to the list of paired devices. Tap on the KBSOUND STAR identification to connect.
6. Tap the MASTER (ON) button to switch ON/OFF the system.
7. If you wish to add further KBSOUND STAR units press the name of the MASTER at the bottom of the screen and follow the same process from the beginning. Only one device can be connected at any time one.



Warning: some ANDROID's, after clearing the pairing, do not clear all of their internal data and to pair again will require resetting the MASTER to factory default (see chapter 14.3), which means that all the devices paired will be deleted and they will have to be paired again.

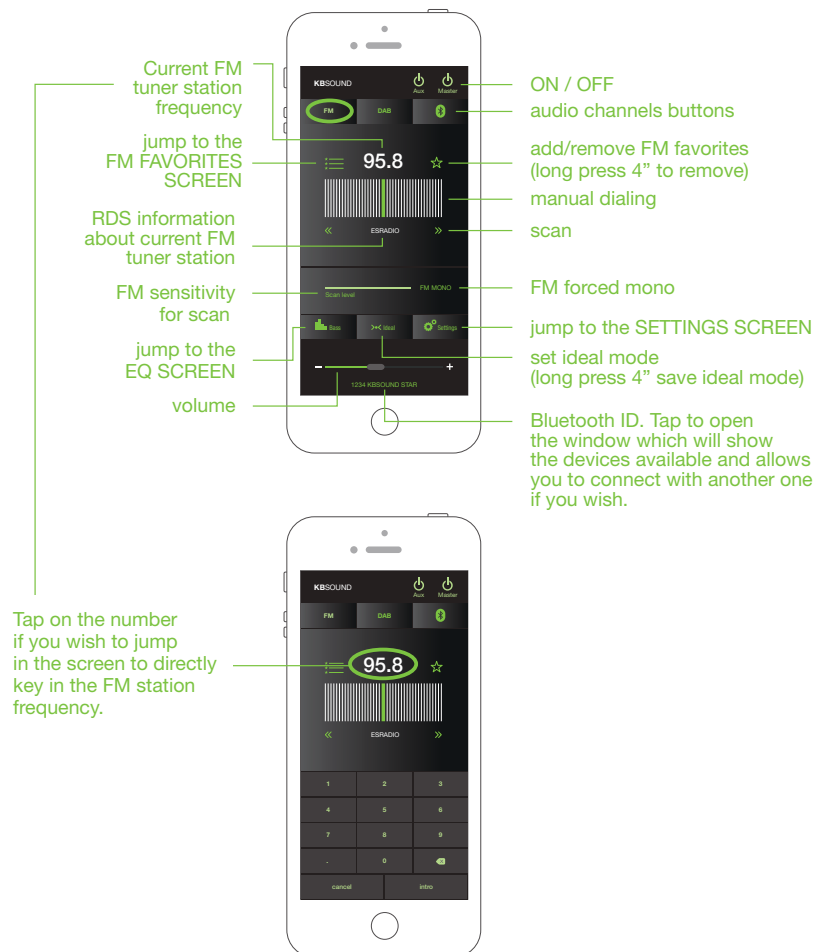
Tested with:

SAMSUNG GALAXY J3 (ANDROID 9)

ASUS X008D (ANDROID 7)

6. Listen FM

Turn on the MASTER and select the FM audio channel.



7. Listen DAB

Turn on the MASTER and select the DAB audio channel.

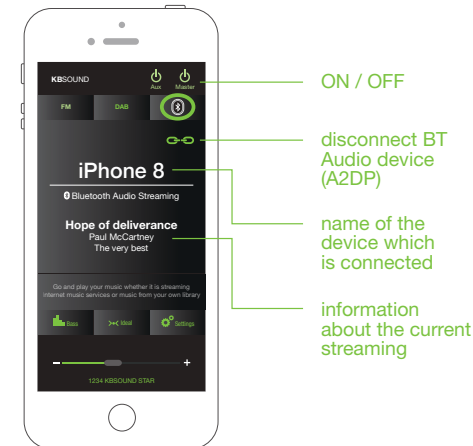


The App in each Bluetooth device (iOS/Android) allows you to store its own list of FM favorites and its own list of DAB favorites. These lists are managed only by the App in each device, never using the Remote Control Accessory.





Moreover, the MASTER unit can store a (unique) list of 10 FM memories and a (unique) list of 10 DAB memories. They are managed only by the Remote Control Accessory. (See chapter 16).

8. Listen Bluetooth Audio Streaming

Select the Bluetooth audio channel if you wish to stream music from your smartphone. The details of your device will appear on the screen as you have previously paired the device (see chapter 4).



BT Key status:

-  – No BT audio device connected (A2DP)
-  – BT audio device connected (A2DP)
-  (flashing) – Waiting for pairing and connecting with BT audio device (A2DP)
-  – BT audio device streaming (A2DP)

Any App sending Bluetooth audio streaming can be used as source of audio: Music Player, Spotify, Tune In Radio...

Take note that some Apps pause the audio when they are in the background and only play audio when they are in the foreground (for example YouTube in iOS).

9. Pair and Listen other Bluetooth Devices for Bluetooth Audio Streaming

The new most important feature of this System is that it allows the App user the possibility to stream music from other Bluetooth devices (A2DP profile) such a Computers, Televisions or any other iOS or Android devices (Amazon Alexa, Tablets, etc...)

To pair such devices perform the following steps:

1. Disconnect the iOS/Android device by tapping the disconnect icon” in the Bluetooth Audio Streaming screen.



The Bluetooth icon flashes waiting for pairing and connecting with the Bluetooth device from you wish to stream the music.

2. Close the App To disconnect the App from the MASTER close the App. Be sure that the App is permanently closed and it is not operating in background. The way to close the App can be different for each device, although the process can be similar. See the device user manual to see how to do it.

3. Pair the other device Follow the Bluetooth steps set out in the other device with which you wish to pair to stream music.

4. If at any point in time you have tapped on the disconnect icon (now in flashing mode) in the Bluetooth Audio Streaming screen but you wish to cancel this step before pairing with another device, you can reconnect your device as follows:

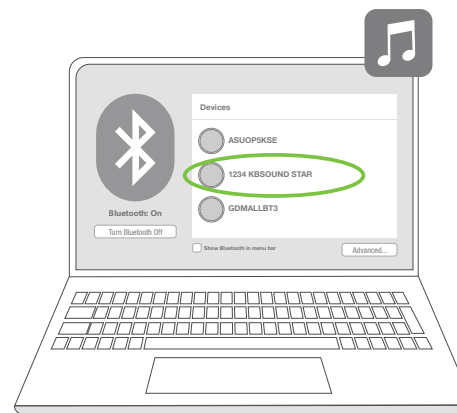
Return to Bluetooth Settings and select KBSound Star. Your device will reconnect immediately.

Open the App. When the App opens Bluetooth Audio Steaming will be paused. Pressing the Bluetooth button will not reinitiate your Bluetooth audio steaming. To restart go to iOS player, Music Player, Spotify etc. and press play. Listen to your music.

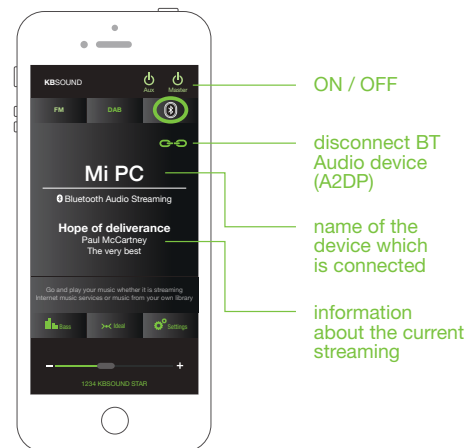
Examples:

9.1. COMPUTER

If you wish to stream music **from a computer**, go to the computer Control Panel–Bluetooth options and connect with the MASTER (XXXX KBSOUND STAR)



Open the App and choose the BT audio streaming option.



9.2. AMAZON ALEXA DEVICES

If you wish to stream music **from any** Amazon Alexa device setup the Bluetooth connection with the KBSOUND STAR and say “Alexa, connect with the speaker”.

Open the App and choose the BT audio streaming option.

Note: To connect the Amazon Alexa device with the MASTER by Bluetooth, the password of the MASTER must be set to 0000



To connect the Amazon Alexa devices it is necessary to follow the steps and Bluetooth set up in the Amazon Alexa App.

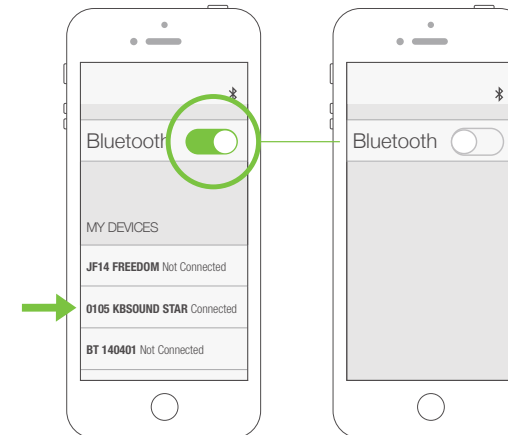
10. Bluetooth Disconnection

The KBSOUND STAR MASTER module manages two Bluetooth connections: Bluetooth Low Energy (BLE) for connecting the App and controlling the System and the Bluetooth Audio (A2DP profiles) for Bluetooth Audio Streaming. These connections can be disconnected as follows:

10.1. TOTAL BLUETOOTH DISCONNECTION (APP & AUDIO STREAMING) iOS & ANDROID

Open the iOS/Android Bluetooth settings menu and disconnect Bluetooth. (Total Bluetooth disconnection is advisable, although some iOS/Android models/versions permit individual disconnections).

iOS



ANDROID



Note: the following process is just an example (GOOGLE NEXUS 5 / ANDROID 5.0.1) since different devices have different configurations for different brands, models and versions.

10.2. KBSOUND STAR APP DISCONNECTION (BLUETOOTH LOW ENERGY CONNECTION -BLE)

To disconnect the App from the MASTER close the App. Be sure that the App is permanently closed and it is not operating in background.

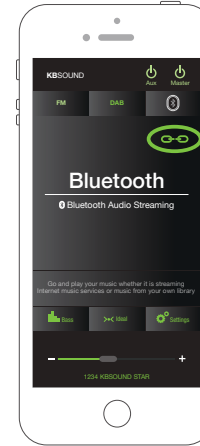
The way to close the App can be different for each device, although the process can be similar.

See the device user manual to see how to do it.

Take note that disconnecting the App means that the Bluetooth Audio streaming connection is not affected. If Bluetooth Audio streaming is connected it remains connected.

10.3. BLUETOOTH AUDIO STREAMING DISCONNECTION

In the App, tap the "disconnect icon" in the "Bluetooth Audio Streaming" screen.



If there is no Bluetooth Audio streaming device connected, the BT screen shows:



- No BT audio device connected (A2DP)
- BT audio device connected (A2DP)
- (flashing) Waiting for pairing and connecting with BT audio device (A2DP)
- BT audio device streaming (A2DP)

flashing to indicate that the BT AUDIO DEVICE must be connected by Bluetooth with the MASTER

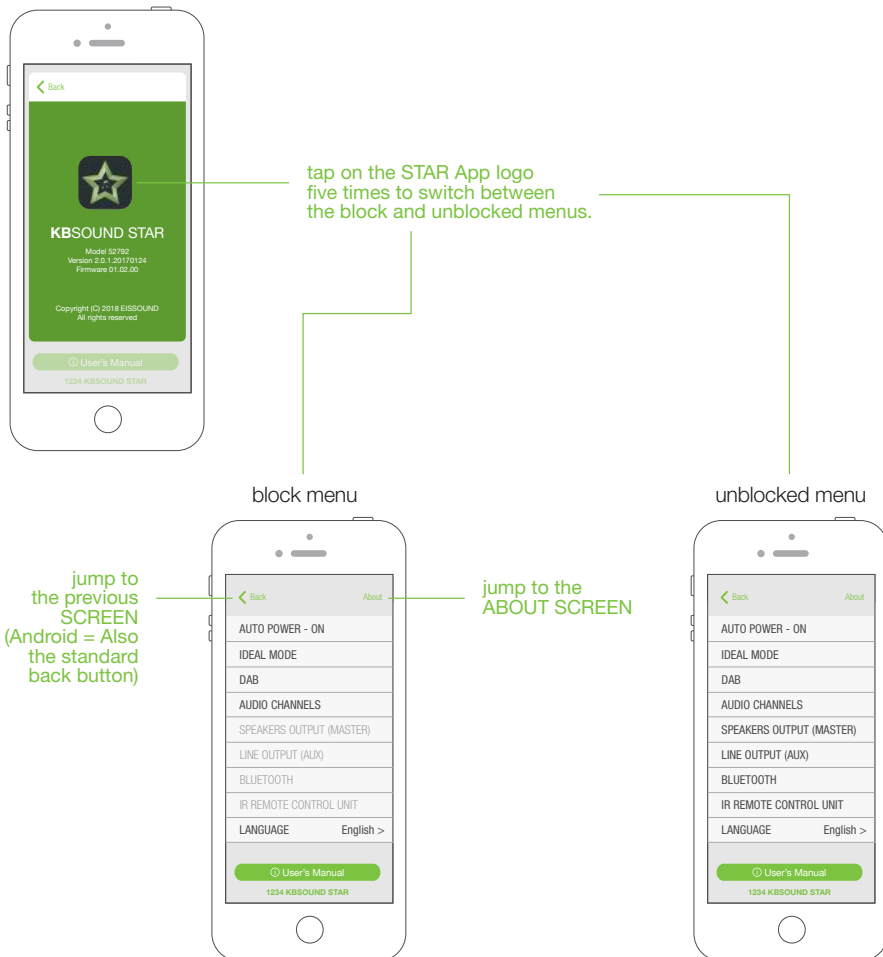
If you wish to connect a BT audio streaming device follow the instructions in chapter 4 or 9.

As the App (BLE) connection remains active you can listen to FM or DAB radio. To re-connect Bluetooth Audio Streaming, close the App (chapter 9) and follow the instructions in chapter 4 or 9.

11. Settings

Certain features of the Settings screen such as: Speaker output (master), Line output (Aux), Bluetooth and Remote Control Accessory can be blocked using the “About” screen. This block will avoid undesired changes in the settings.

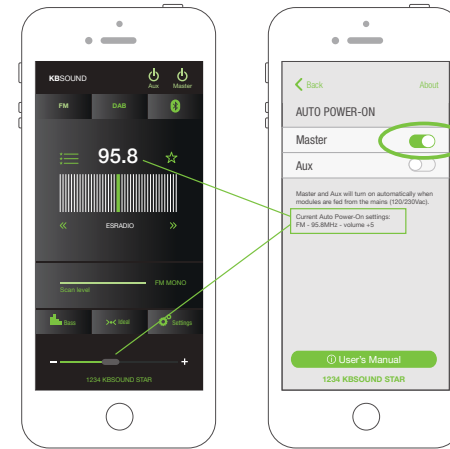
Go to the “About” screen and tap on the STAR App logo five times to switch between the block and unblocked menus.



11.1 AUTO POWER ON

The AUTO POWER-ON mode is the status (ON/OFF) and audio settings (audio channel and volume) of the MASTER and/or AUX units when they are powered from the mains 230/120V. Factory default is OFF.

To personalize the start-up mode use the AUTO POWER-ON function:



1. choose the desired audio channel (FM, DAB, Bluetooth) and volume for start-up.

2. activate the settings option in the AUTO POWER-ON screen. When you switch ON the MASTER and/or AUX button the audio settings will be updated to the new ones.

If the AUTO POWER-ON is disabled, when the MASTER is powered from the mains, it will start in OFF mode (no audio).

If the AUTO POWER-ON is enabled, when the MASTER is powered from the mains, it will start in ON mode with the audio settings previously defined.

The AUTO POWER-ON settings is a characteristic of the MASTER. It is unique, although it can be enabled or disabled by every App in every device and by the Remote Control Accessory.

The active audio settings will always be the last defined either by the App or the Remote Control Accessory.

Note: The Auto AUTO POWER-ON setup as MASTER=OFF, AUX=ON will work only while the MASTER is powered from the mains.

11.2 IDEAL MODE

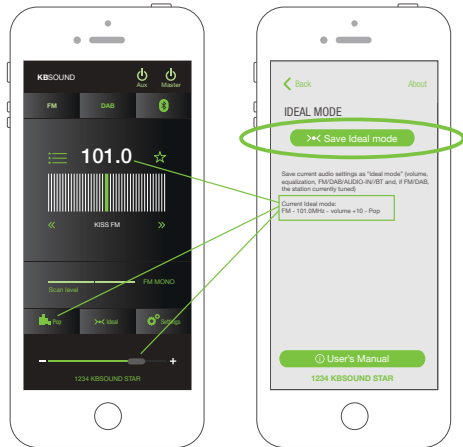
1. Using the App to save the Ideal Mode on the user's device

Each user can use the App to set their own ideal mode in their device for choosing the audio channel (FM, DAB, Bluetooth), volume and equalization.

To save the Ideal mode in each device:

Choose the desired audio channel (FM, DAB, Bluetooth), volume and equalization.

Press the Save Ideal mode button in the Ideal mode screen. After pressing the button the audio settings will be updated to the new ones.

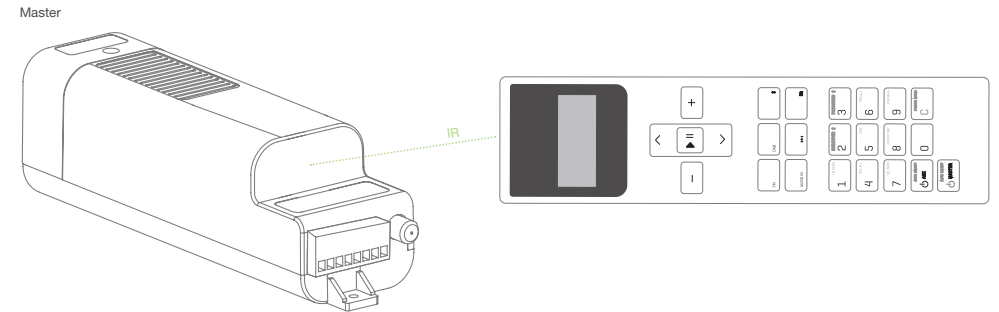


These settings are particular to each user's device only.

2. Using the Remote Control Accessory to save the Ideal Mode in the MASTER, if purchased separately.

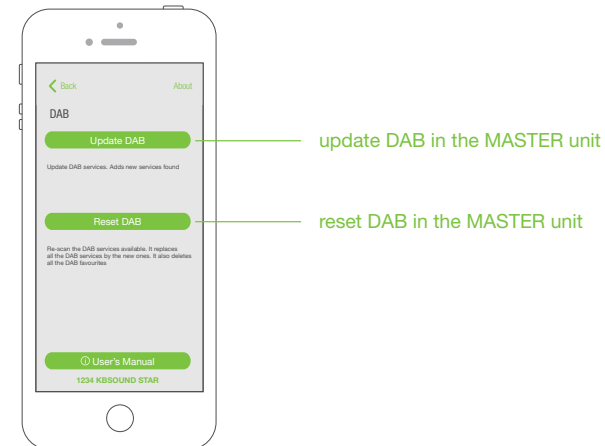
The Ideal Mode for Audio channel (FM,DAB, Bluetooth), volume and equalization can be stored in the MASTER with the Remote Control Accessory.

Only the Remote Control can be use to store this information in the MASTER never the App.

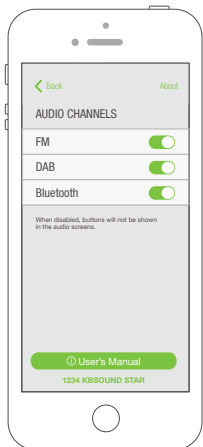


11.3 DAB

Selecting the DAB settings button you will be able to update and reset the DAB services.



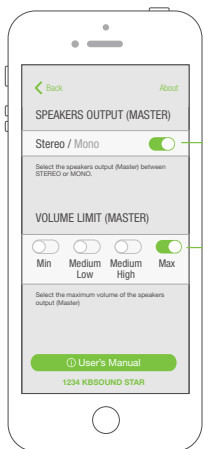
11.4 AUDIO CHANNELS



When any of the audio channels are not in use they can be disabled and the button will not appear in the audio screen.

Take note that this selection overrides all audio channels available in other KBSOUND STAR units managed by other devices.

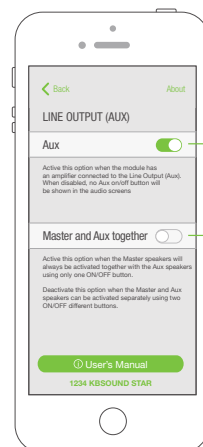
11.5 SPEAKER OUTPUT (MASTER)



select the MASTER speaker output to MONO or STEREO

limit the maximum volume for the speaker output

11.6 LINE OUTPUT (AUX)



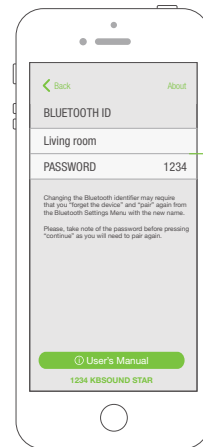
aux button enabled or disabled in the audio screen



enable this option when the user wants to turn on and off the Master and Aux jointly using only one button on the audio screen.

Note: The volume of both MASTER and AUX is controlled through the App volume bar. MASTER and AUX can have different sound levels if the volume limitation switches in the AUX have been previously regulated. (see chapter 15). Please note that the Bluetooth device only communicates with the MASTER, so the range must be measured between the location of the user and the MASTER. It can never be related to the location of the speakers nor the Auxiliary amplifiers.

11.7 BLUETOOTH

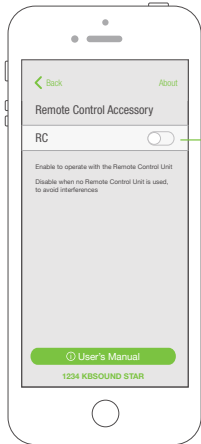


MASTER ID and password for the Bluetooth connection

Changing the Bluetooth ID requires that you “forget the device” and “pair” again from the Bluetooth Settings Menu with the new name.

Please take note of the password before pressing “continue” as you will need it to pair again. (See chapter 12)

11.8 REMOTE CONTROL ACCESSORY



The Remote Control Accessory can operate simultaneously with the App. To enable this option you need to activate the Remote Control Accessory.

enable/disable the Remote Control Accessory

See chapter 16 for more information when operating with the Remote Control Accessory.

11.9 LANGUAGES



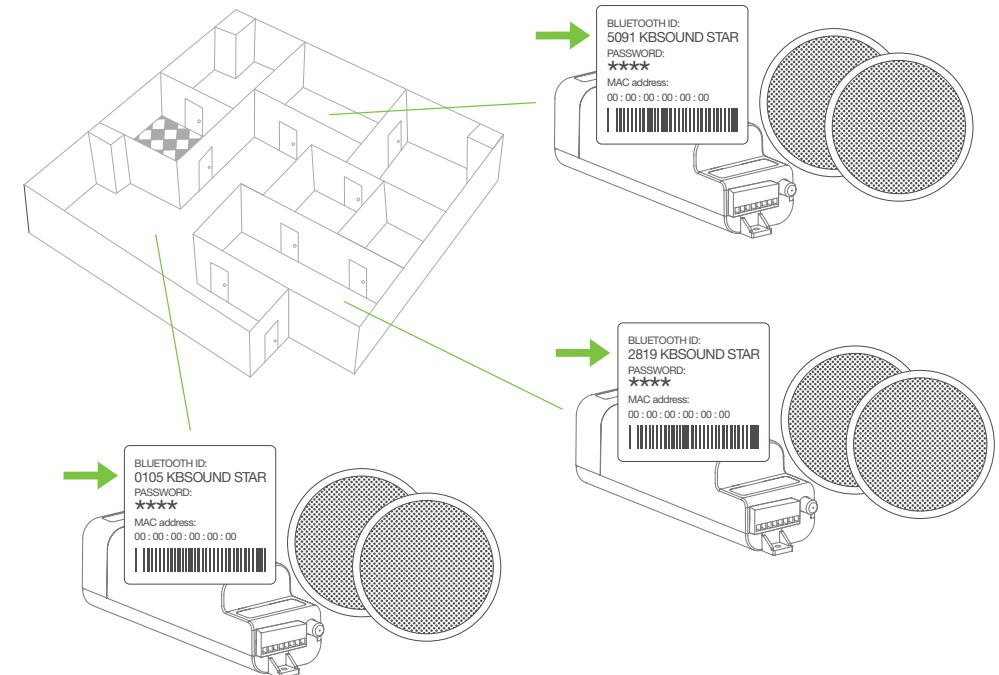
Select the App language desired.

12. Multiroom: Bluetooth ID

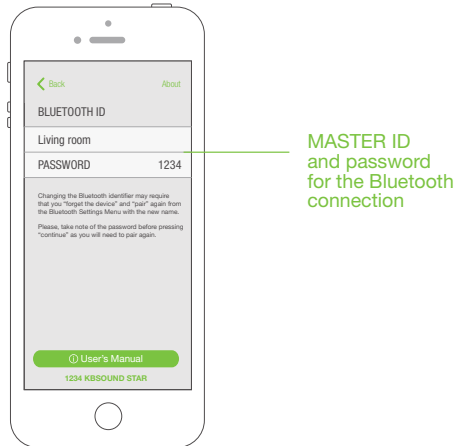
Many MASTERS can be installed in the same home/building. Each one will have a unique KBSOUND STAR Bluetooth ID and password.

The default factory Bluetooth ID for each MASTER is XXXX KBSOUND STAR where XXXX is a number between 0000 and 9999. The default password for each MASTER is a 4-digit number between 0000 and 9999 (different from the KBSOUND STAR Bluetooth ID). This data can be found on the label of the MASTER and the label provided with the “Quick reference guide”.

When more than one MASTER is installed in the same home/building, it is convenient to rename the KBSOUND STAR Bluetooth ID making daily operation more friendly.



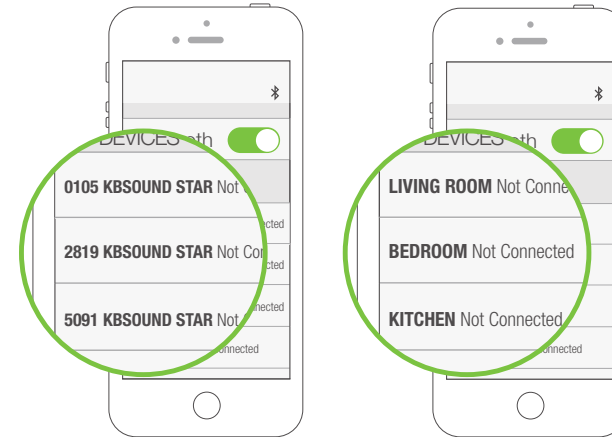
To personalize the KBSOUND STAR Bluetooth ID and password open the Settings and go to the Bluetooth ID screen and edit the ID and/or the password.



MASTER ID
and password
for the Bluetooth
connection

The ID must be a name containing only letters and numbers. Other symbols are not allowed. It is important to use a name which has a meaning in order to facilitate the identification of each MASTER. (advice: use names like KITCHEN, LIVING ROOM, BEDROOM, etc.)

Warning: if the Bluetooth ID and/or password have been forgotten, reset to factory default (see chapter 14.3).



Note for ANDROID: in some ANDROID models/versions it is possible to personalize the Bluetooth ID in the ANDROID Bluetooth settings menu. However the KBSOUND STAR App cannot update the KBSOUND STAR Bluetooth ID when it has been personalized in that way. For this reason, if the KBSOUND STAR Bluetooth ID is changed from the ANDROID Bluetooth Settings Menu, take care to use the same name used in the App to avoid confusion.

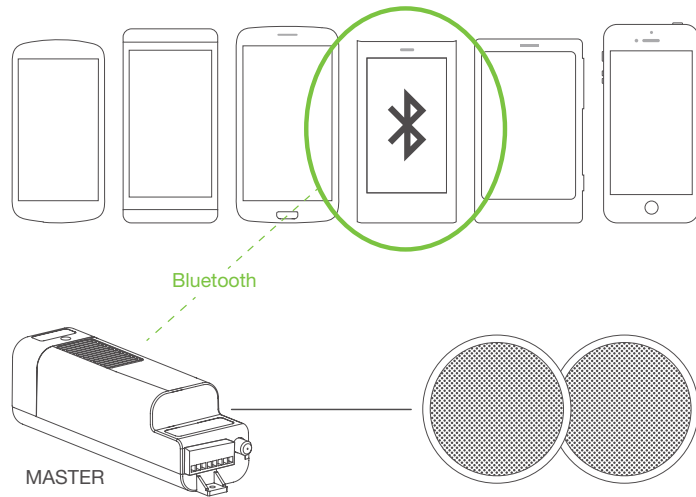
Note: When the KBSOUND STAR Bluetooth ID has been changed, updating the iOS/ ANDROID Bluetooth Settings Menu of some models/versions may require you to disconnect and connect, while other models/versions need to be un-paired and paired again.

Warning for ANDROID: take care that some ANDROID models/versions require a factory reset when un-paired and paired again. Remember that for un-pairing and pairing again, it is necessary to know the password.

13. Multi-Devices

Many devices can be paired. However, only one can be connected. While one device is connected a second device cannot connect with the same MASTER until the first user disconnects his device. (See chapter 5 for STAR App Operation -BLE- and chapters 4 and 9 for Bluetooth Audio Streaming).

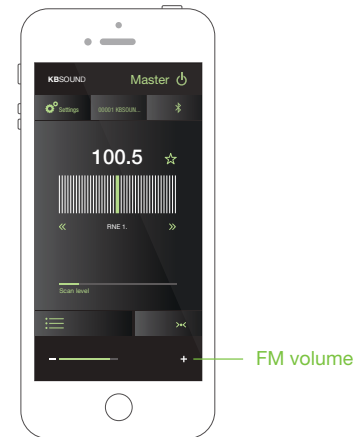
Many devices paired
Only one connected



14. Operating Mode

14.1 VOLUME

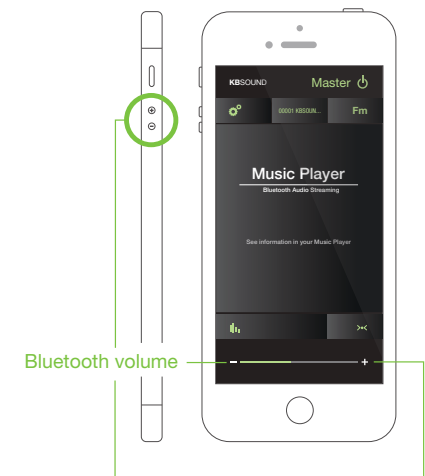
When FM/DAB is selected as the music source only the App volume bar will manage the FM/DAB volume.



When Bluetooth streaming audio is selected as the audio channel you may select either the device volume buttons, the KBSOUND STAR App volume bar or the volume bar of the selected streaming audio source (Music Player, Tune In Radio, Spotify, ...).

If the Bluetooth audio streaming source is a different device (another smartphone, Computer, Amazon Alexa devices, etc ...) the volume is controlled from the device connected.

Note: Take care that the sound level depends on the device, the track, etc. Different devices (iOS, ANDROID, Alexa, computers, etc.) perform in different ways. Is advisable to set the volume at 60-80% in the Bluetooth device and then manage the volume by the App volume bar.



14.2 NOTIFICATIONS AND PHONE CALLS WHILE OPERATING

This only applies when the audio source selected is Bluetooth Audio Streaming and does not apply to FM.

When the device makes or receives a phone call while the Bluetooth A2DP (audio streaming) is connected with the MASTER, the ring tone will be heard in the smartphone and the phone call will be managed only from the smartphone and never through the speakers. The phone calls are streamed by the Bluetooth HFP (hands free protocol) which is not supported by the KBSOUND STAR.

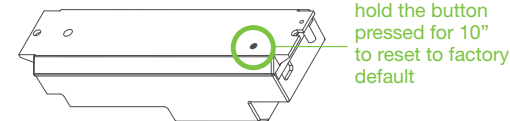
When the phone call is through WhatsApp, Skype or any other similar App, these phone calls are made through the “Voice over Internet Protocol – VoIP”. Such VoIP phone calls can be managed in the smartphone or heard through the STAR speakers. These Apps operate with different criteria and the STAR product has no control over them.

When the device receives a notification (email, sms, WhatsApp, ...) while a Bluetooth device A2DP (audio streaming) is connected with the MASTER, the smartphone sends this sound to the Bluetooth audio streaming. If Bluetooth audio streaming is selected in the MASTER as audio source, the notifications will be heard through the speakers. However, if the MASTER is OFF or FM is selected as audio source, the notification will not be heard through the speakers.

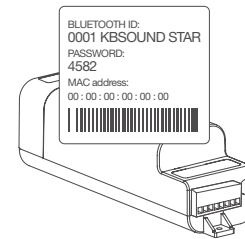
Warning: take note that notifications depend on iOS/ANDROID Notification Settings Menu and also may depend on each particular App Settings (for example WhatsApp Settings).

14.3 RESET TO FACTORY DEFAULT

1. Close the KBSOUND STAR App. (important: not in background).
2. Turn OFF the Bluetooth within the iOS/ANDROID Bluetooth Settings Menu.
3. Reset the MASTER.



Warning: resetting the MASTER with factory default will clear all the settings and all the pairings with the different devices. The KBSOUND STAR Bluetooth ID and password can be found on the label on the MASTER.



4. Turn ON the Bluetooth within the iOS/ANDROID Bluetooth Settings Menu.
5. Pair and connect (see chapter 4).

You can also reset the unit using the Remote Control. Press the 1, 2 and 0 keys and keep pressing until you see in the display “RESET”.

15. Auxiliary Amplifier Option

The MASTER module has a line output (AUX) where amplifiers can be connected.

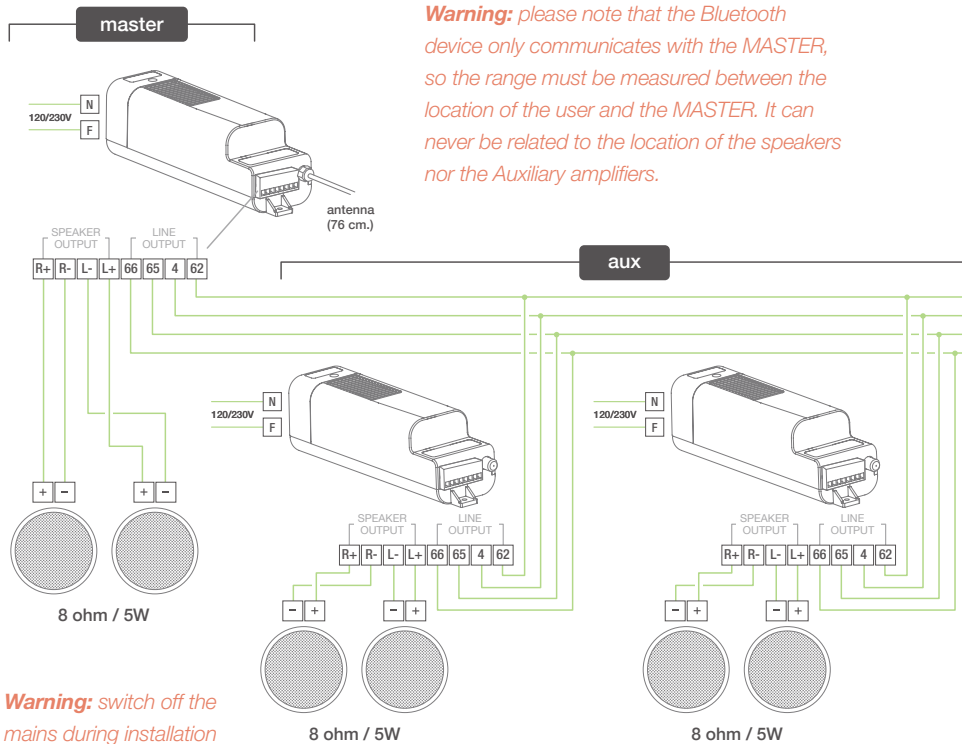
It is necessary to use the Auxiliary Amplifier (ref. 13204) to expand the system to a maximum of 4 amplifiers. AUXILIARY and MASTER can be turned ON jointly or separately using the settings menu (see chapter 11.6).

The volume of both MASTER and AUXILIARY is controlled simultaneously through the App volume bar.

If necessary you can regulate the sound output level of the amplifiers by setting the volume limitation switches at the time of installation.



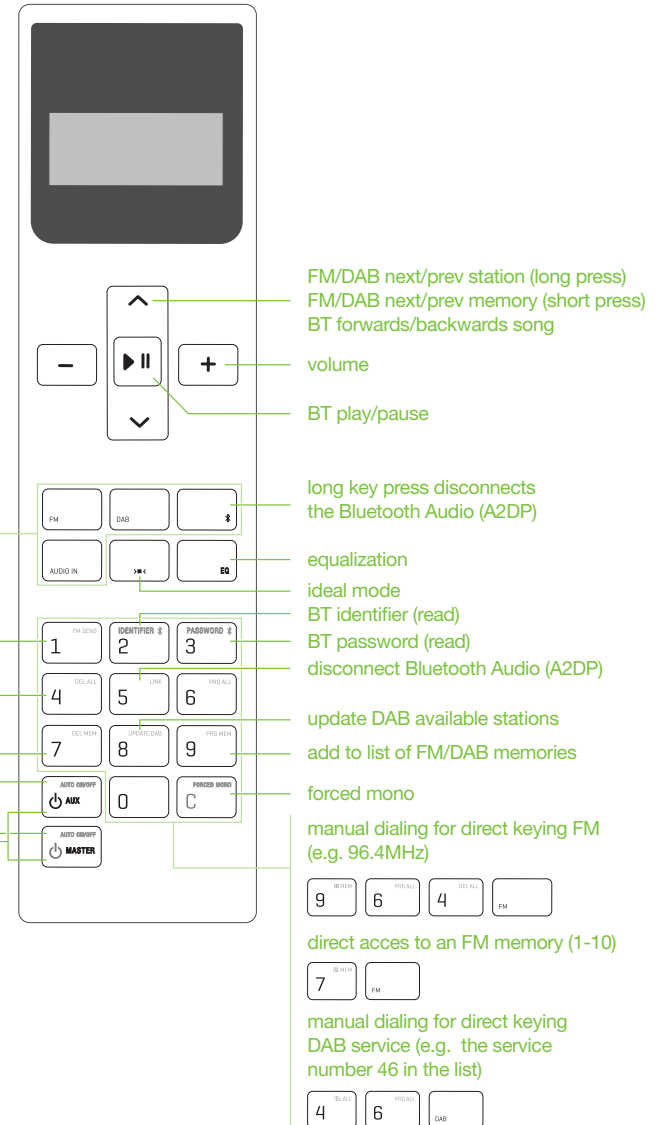
Warning: please note that the Bluetooth device only communicates with the MASTER, so the range must be measured between the location of the user and the MASTER. It can never be related to the location of the speakers nor the Auxiliary amplifiers.




























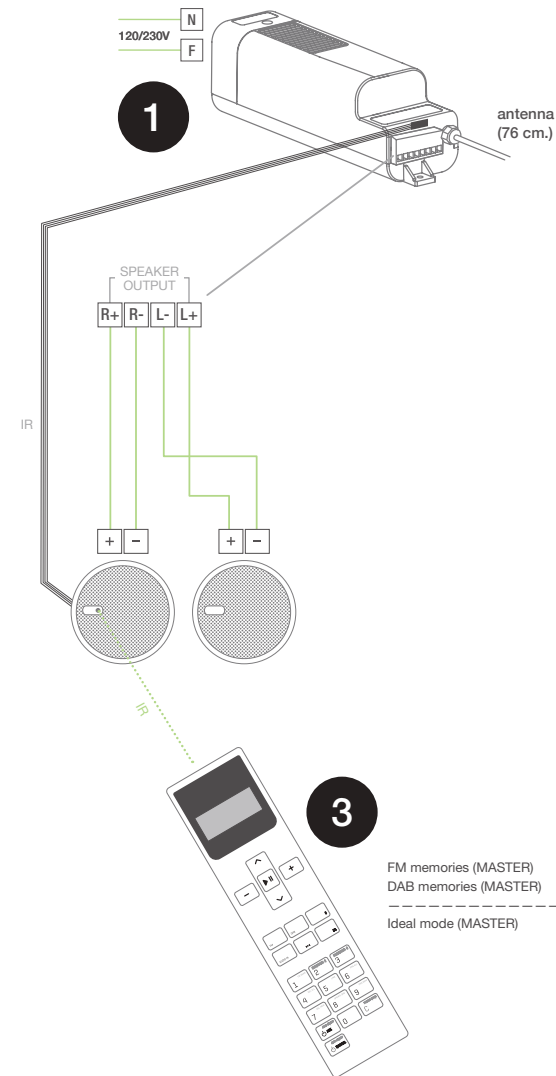
Warning: switch off the mains during installation

16. Remote Control Accessory

Our KBSOUND STAR Audio System can also be controlled using our Remote Control Accessory if purchased separately. **(Not included in this kit)**



ask for FM sensitivity scan level	1 	setup current mode as Ideal mode	
setup FM station sensitivity scan level: 1 or 2 or 3	1 1 	setup Auto Power ON for MASTER	
	2 1 	setup Auto Power ON for Aux Line Output	
	3 1 	setup MASTER speaker output level: low	1 
store FM/DAB memory	9 	setup MASTER speaker output level: medium-low	2 
delete FM/DAB memory	7 	setup MASTER speaker output level: medium-high	3 
delete all FM/DAB memories	4 	setup MASTER speaker output level: max	4 
update DAB available stations	8 	setup MASTER speaker output Mono	1 
reset DAB available stations	0 8 	setup MASTER speaker out	2 
FM Forced Mono	C 	version	3 0 
disconnect Bluetooth ID	5 	Reset to factory default	1 2 0 
ask for Bluetooth ID	2 	Software reset	1 3 0 
ask for Bluetooth password	3 		



- 1 MASTER
- 2 AUX
- 3 REMOTE CONTROL ACCESSORY

Warning: switch off the mains during installation.

17. Technical Specifications

17.1 MASTER

52793 (FM) / 52792 (DAB)	MIN	NORMAL	MAX		COMMENTS
Measurements		200x53x56		mm	
Voltage	108		264	Vac	50/60Hz, terminal F,N
Frequency	47		63	Hz	50/60Hz, terminal F,N
Consumption demand		10	60	W	terminals F,N (ref.52391/92)
Amplified output signal			2,5	W	terminals L,R over 16ohm
			5	W	terminals L,R over 8ohm
			10	W	terminals L,R over 4ohm
Passband	20		20.000	Hz	
Aux.amplifier switch on signal		12	14	Vdc	terminals 62, 4
			220	mA	
Aux. amplifier output signal	0		3,5	Vrms	terminals 65, 66
Distortion		0,3		%	
Crosstalk	-68	-85		dB	
FM Frequency range	87,5		108.0	MHz	
DAB frequency range	174		240	MHz	
FM antenna impedance		75		ohms	RF connector
DAB antenna impedance		50		ohms	RF connector
Antenna sensitivity		1,7	3,5	uV	
FM tuner distortion		0,1	0,5	%	
Bluetooth spec.		Class2 BT4.2 dual mode BLE A2DP 1.3 AVRCP 1.6			
Wireless transceiver	2402		2480	MHz	ISM Band
Tx power		2	5,53	dBm	
RF antenna		internal			
Bluetooth range			10	m	

17.2 AMPLIFIER

13204	MIN	NORMAL	MAX		COMMENTS
Measurements		200x53x56		mm	
Voltage	85		264	Vac	50/60Hz, terminal F,N
Frequency	47		63	Hz	50/60Hz, terminal F,N
Consumption demand		10	60	W	terminals F,N
Output signal			2,5	W	terminals L,R (16ohm)
			5	W	terminals L,R (8ohm)
			10	W	terminals L,R (4ohm)
Passband	20		20.000	Hz	
Auto-power-on level	10		20	Vdc	terminals 62, 4
Input Signal	0		3,5	Vrms	terminals 65, 66
Distortion		0,3		%	
Crosstalk	68	85		dB	

CENTRAL

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