Why are there two LINE-IN buttons on the remote control?
The upper LINE-IN button refers to the LINE-IN analog audio input on the back of an AeroSphère speaker. The lower LINE-IN button (next to CD) selects the analog audio input on the back of the AeroSphère Base. Audio from this input is streamed to all connected AeroSphère speakers.

How do I change the battery in the remote control?
1. Locate the small hole on the black side facing the user.
2. Gently push the included pin into this hole and push in gently. Alternatively you can use a safety pin.
3. Push the pin gently to the left side.
4. The battery compartment will slide out. Replace the battery (3V lithium cell, 3V CR2032). Verify that the battery is inserted with the right polarity (+ side is facing down).
**How do I change the bass and treble?**
Use the music note icon in the AeroSphère App.

**I hear humming noise from the Line-In input (speakers and Base)**
Use shielded 3.5 mm cables.

**Why is the AeroSphère Small or AeroSphère Large turning itself off?** The AeroSphère speaker will automatically turn off after 15 minutes if there is no active audio input. This is an energy saving functionality, which is required by law in many countries.

**The remote control does not work**
- Make sure the plastic slip at the end of the remote control has been removed, after the first time use (setup guide)
- You can see if the remote control works, by pushing the volume keys: the display light goes quickly off.
- Change the battery.

**Proper placement of the AeroSphère Large**
The AeroSphère Large is a high performance audio system, and produces heat during operation. This means the metal plate at the bottom side can get hot. Do not place the speaker on a heat sensitive surface (such as untreated wood, etc.). The surface must be flat, for proper air circulation underneath the unit. The speaker must not be placed on a bed, sofa or similar surfaces that may block the natural ventilation.

**BLUETOOTH**

**I cannot connect to the AeroSphère speaker.**
1. Select Bluetooth with the remote control - the display must be blue (constant or flashing).
2. If the display is NOT flashing, another device has already been connected. This device must first be turned off - only one device can be connected at a time.
3. Reset Bluetooth with the instructions below.

**How to reset Bluetooth**
Up to eight Bluetooth devices can be stored. To clear the memory, perform the following steps:
1. Turn on the AeroSphère speaker and select Bluetooth with the remote control.
2. Within 5 seconds of entering Bluetooth mode, hold down the >> button on the remote control for at least 5 seconds.
3. Pair your mobile phone again.

**During pairing, my smartphone requests a PIN – what is the PIN?**
If the phone asks for a PIN, enter “0000” (four zeros).

**SYSTEM**

**How many AeroSphère speakers can I connect to the AeroSphère Base?**
You can connect up to four AeroSphère speakers.

**Why is there a delay when changing the AeroSphère sources (from/to FM, DAB, CD)?**
The audio is streamed over the Wi-Fi network and then the audio is buffered for a few second on the speakers. The reason for audio buffering is to minimize Wi-Fi network traffic and audio interruptions.

**Why is there a delay when I change stations in DAB or when I change tracks on a CD?**
See above. After pressing a CD or DAB command on the remote control or app (change stations, change tracks), the station or tracks are changed immediately on the AeroSphère Base, but the audio buffering on the AeroSphère speakers adds a delay.

There are audio interruptions when I listen to FM radio The wireless network bandwidth is not only limited, but also shared with Bluetooth, other devices on the same Wi-Fi network and Wi-Fi networks close by. See section “How to make sure you get the best audio streaming quality in your Wi-Fi network” for ways to minimize audio interruptions.

Can I turn the AeroSphère Base on and off from the AeroSphère App?
No. The AeroSphère Base is running all the time, similar to a Wi-Fi router.

APP

Can you use the app on an Apple iPad?
Yes.

After starting the app, I cannot see any speakers - I only see a white screen with the GENEVA logo
It means the app has not discovered any speakers.
1. Make sure the AeroSphère speakers are powered on.
2. Restart the app.
3. Make sure the iPhone/Android phone have Wi-Fi enabled, and are connected to your Wi-Fi network.
4. Close the app, then restart it again:
   iPhone: double click the Menu key, then swipe the app away.
   Android: hold the Menu key, then swipe the app away.
5. Android: exit the app properly: hold Menu key, swipe app to the side.
6. Make sure the speakers are properly connected to the Wi-Fi network: make sure AirPlay is playing.
7. If AirPlay on the speaker works, but the app cannot see any speakers, it is a problem with your Wi-Fi router or Wi-Fi access point. > Go to "Q6: Wi-Fi router problems".

After starting the app, I can see speakers, but there are no CD, FM, DAB entries
This means there is no AeroSphère Base in your network, or the Base has not been discovered.
1. Restart the app.
2. Check if the Base is powered on (check the power switch on the back, position “ON” is correct).
3. Restart the Base - slide the power switch to “OFF” for 5 seconds, than back to “ON”.
4. Check if the Base is blinking green quickly. If it is, the Base is not connected to the Wi-Fi network.

I cannot see an AeroSphère Base icon on the bottom
There is no special icon for the Base. If the Base is in the Wi-Fi network, then the main menu entries “CD”, “FM” and “DAB” are shown.

I set a password in settings, and I forgot the password
1. Delete the app on the iPhone desktop.
2. Download the app again, and the password will be removed.

FM & DAB

How can I improve the FM reception?
- Place the antenna in a good location. The antenna is the last 40 cm of the long antenna cable. The long cable allows you to place the antenna in many different locations, without moving the AeroSphère Base.
- Make sure the antenna cable is not close to noise sources, such as computers, TV, display, or wireless emitters. Keep a distance of at least 30 cm.
- Make sure the antenna cable is not crossing the DC power input.
- Make sure the antenna cable is not crossing the line-in cable. The Line-in cable can pick up noise - use a shielded line-in cable.
- Select “mono” in the FM reception in the AeroSphère App.

Can I switch between mono and stereo reception?
Yes. In the AeroSphère app, go to settings. You can change the reception between:
1. Mono: all stations will be received in mono. The advantage of mono is there is less background noise for stations with a weak signal.
2. Stereo: the FM receiver will automatically choose the best reception setting. Typically stereo is chosen, but if a station has too much background noise, it will automatically receive this station in mono.

AIRPLAY

I don’t see the speaker in the AirPlay menu of iTunes
- Restart iTunes.
- Make sure the speaker is connected to the Wi-Fi network: press AirPlay with the remote control, the color should be constant green (= connected to the Wi-Fi network).
- Try another device that supports AirPlay, such as iTunes on Windows, Mac, all iOS devices (iPhone, iPod touch, iPad).
- Turn Wi-Fi off and on again, this will trigger a new search for AirPlay devices.
- If you connect your device via Wi-Fi, make sure you are in the same Wi-Fi network. Depending on the Wi-Fi router, this could be a problem. Older Wi-Fi routers can have problems with discovery.
- Multicast setting on your Wi-Fi router. See below for "Q6: Wi-Fi router problems".

AirPlay: AirPlay used to work. I changed the router settings, and AirPlay stopped working. I can select the AeroSphere speakers with the iPhone, the music plays on the player app, but I don't hear the music.

- Restart the speaker
- Check if the speaker works in Bluetooth or Line-In mode
- Make a manual software download - see support side

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**WI-FI SETUP**

iPhone AirPlay Wi-Fi setup (WAC setup) - I get an error message at the end: "unknown error"

Even if there is a error message, typically the configuration went well. Just check if the speaker shows a steady green light after rebooting. Also check in the iPhone control panel if you can see the AeroSphere AirPlay speaker. If you can see the speaker, the configuration was actually successful.

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**START HERE: Wi-Fi troubleshooting overview for the AeroSphere Small & Large speakers**

- Step 1: Is the AeroSphere speaker connected to your Wi-Fi network? Go to Q1 below
- Step 2: Is the AeroSphere Base connected to your Wi-Fi network? Go to Q2 below
- Step 3: Are you connected, but cannot play music via AirPlay? Go to Q3 below
- Step 4: Can you play music via AirPlay, but cannot get music from the AeroSphere Base? Go to Q4 below
- Step 5: Does the AeroSphere App not see the speakers?

**Q1: Is the AeroSphere Small or Large speaker connected to the Wi-Fi network?**

- Press the AirPlay key on the remote control. If it is constant green, you are successfully connected. DONE.
- If it keeps blinking green, you are not connected. Try one of the three Wi-Fi setup methods; see the Wi-Fi Setup section of the Feature guide.
- If the Wi-Fi setup did not work, see the specific troubleshooting sections below.

**Q2: Is the AeroSphere Base connected to the Wi-Fi network?**

The display on the back indicates if the device connected to your Wi-Fi network:
- green (fast blinking) = not connected
- green (slow blinking) = connected
- green (constant) = connected & connected to a AeroSphere speaker

- Do a reset to factory default settings (see below).
- Try one of the two Wi-Fi setup methods; see the Wi-Fi Setup section of the Feature guide.
- If the Wi-Fi setup did not work, see the specific troubleshooting sections below.

**Q3: My AeroSphere speaker is connected to the Wi-Fi network, but AirPlay does not work**

- Check if the iPhone is connected to the same Wi-Fi network.
- Check if the iPhone Wi-Fi is turned on.
- If using an iPhone, try using iTunes on a Mac or PC.
- Restart AeroSphere speaker.
- Start AeroSphere app - visible?
- Discovery in Windows working?
- Is Bonjour working in your network? Go to Wi-Fi setup advanced troubleshooting.

**Q4: AirPlay works, but there is no music from Base**

- Is the Base connected to Wi-Fi? --> Q7
- Is Base connected to the same Wi-Fi network?
- Is Base network webpage visible (Windows, Mac)
- Is status light steady or blinking?
- Speaker turned on? Restart speaker
- Is speaker visible on the AeroSphere app, is FM, DAB, CD menus visible on App?
- UPNP problem: go to Q6

**Q5: Speakers are connected, can be played with AirPlay. But AeroSphere app does not find the speakers (or not always)**

- Kill the app. iPhone: double click the menu key, swipe out the aerosphere app (*kill* the app). Android: hold the menu key, swipe it out.
- Can the speakers and Base be found in the network? iPhone: download the free app "UPNP browser" by Oppian, Android: "UPNP Scanner" by …. Press "rescan"/icon on upper right.
  a) if the Geneva speakers can be seen, the Wi-Fi router is okay
  b) if the speakers cannot be seen - the Wifi router blocks UPNP discovery. Get a new router or change the router settings.

**Q6: Wi-Fi Router problem.**

Background: Speakers and App are using UPNP (network protocol) to find each other Multicast/UPNP/Bonjour settings in the Wi-Fi router.

Known problems with routers:
- Block UPNP discovery.
- Do not port forwarding UDP protocol consistently or have a buggy firmware, where UPNP is not working at all, or not work correctly.
- Routers can overheat.
- Buggy software.

**Solutions**
- Buy a new router. Recommended are Apple Airport Express and AirPort Extreme.
check your router, if it does not allow UPNP. Google Chromecast has the same issues: (Google Chromecast > help > Router Known Issues & Workarounds) https://support.google.com/chromecast/answer/3294846?hl=en

- Go to your Wi-Fi router, check if you have the setting "Multicast rate". Change it to higher value.
- If there is an option "allow multicast traffic", enable it. (should be enabled by default).

Background: the App uses UPNP to discover each other, UPNP uses multicast. Some routers have settings by default preventing UPNP.

**Known bad routers:**
- TP-Link TL-WR841N
- TP-Link TL-WR1043ND
- TP-Link LarsChristian
- D-Link DI-524
- ZyXel Prestige 660hw
- D-Link DI-604

- (Google Cast Router Compatibility - Chromecast HDMI stick) https://support.google.com/chromecast/table/3477832?hl=en

**Wi-Fi Router problems: Bonjour or UPNP is not working / Multicast problems**

Bonjour is needed for AirPlay.
UPNP is needed for AeoSphere Multiroom, AeoSphere app and webpage discovery.

**Problem:** Most likely multicast is blocked in some way.
There are several settings in an Wi-Fi router that could cause multicsats to fail, and since Bonjour is built on multicsats, it would make Bonjour fail as well.
Here's how to set your settings to give multicast the best chance of working:

1. **Disable "Client Isolation".** This setting intentionally keeps wireless devices from being able to talk to each other.
2. Set the "DTIM Interval" to 1. The DTIM Interval is how often multicsats are delivered to power-save clients. All Apple wireless clients use power-save mode all the time.
3. **Set the "Fixed Multicast Rate" to the lowest rate (1?).** In 802.11, multicsats are not ACKed or retransmitted, so you have to make sure to pick the lowest rate that all your devices can receive reliably.
4. **Leave your Supported Rates, Basic Rates, and MCS Indexes at their factory defaults.**
5. **Use "Factory Defaults" or "WFA Defaults" for QoS settings.**
6. **Disable "Multicast/Broadcast Rate Limiting".**
7. **Temporarily turn off all wireless security as a test.** If that makes a difference, then you have to start fiddling with security-related parameters to find the most secure settings that don't break multicast. Read on.
8. **Try disabling "Broadcast Key Refresh" by setting it to zero.**
9. **Use WPA2-only, AES-CCMP only.** Allowing multiple cipher suites causes multicsats to use a different cipher than unicasts, which sometimes causes interoperability problems.


**Check the following list with Problem Wi-Fi routers:**
(Google Cast Router Compatibility - Chromecast HDMI stick) https://support.google.com/chromecast/table/3477832?hl=en

**Q7: How can check if the Base is connected to the Wi-Fi network?**
- Check the status light on the back. It should be green steady, or green slowly blinking.
- Check in the Windows Network, if you can see the Base (under "Media Devices", with the name "AeroSphere Base").
- If the Base has been connected previously, restart it.
- If the Base has never been connected to your Wi-Fi network, do a network setup again.

**Apple AirPort Extreme Wi-Fi router specific topics**
- Make sure you DISABLE the option "802.11n only" option. The AeoSphere devices support the 802.11 B and G standards (same as all other AirPlay speakers from other vendors).
- Apple Airport Extreme Base Station A1408: Use Airport Utility to set 'Router Mode' to 'Using DHCP and NAT' and turn 'Connection Sharing' to 'Off' (Bridge Mode)
- Apple Airport Express (First Generation): Use Airport utility to downgrade to firmware version 7.6.1.
- Apple Airport Express (First Generation): Does not support simultaneous dual band. When used as an extender, Airport Express only operates in a 5GHz band.

**The Wi-Fi setup with WPS did not work**
- Repeat the procedure.
- Upgrade the software on your Wi-Fi router.
- Note that some Wi-Fi routers have WPS, but it may not work correctly.
- Try another Wi-Fi setup method.

**The Wi-Fi setup with WAC did not work**
- Repeat the procedure.
- Make sure your iPhone, iPad or iPod touch are using iOS version 7 or higher
- Make sure your iPhone, iPad or iPod touch is connected to a Wi-Fi network
- Try another Wi-Fi setup method.

**The Wi-Fi setup with the AeroSphère network setup webpage did not work**
- Try re-entering the password.
- Power the device off for 20 seconds with the power switch on the back.
Are WAC and "Network setup webpage" methods active at the same time? Yes, both methods are available at the same time. If you have an iOS device with iOS 7 or higher, you are not able to select the temporary Wi-Fi network from the Wi-Fi menu in the iOS preferences. With an iOS device with iOS 6 or lower, you will not see the WAC method in the Wi-Fi setup menu.

How to reset to factory default settings
- AeroSphère speakers: Hold the power button on the back of the speakers for 10 seconds, until the display starts blinking red. Once it starts blinking red, stop pressing the button.
- AeroSphère Base: Hold the Wi-Fi button for a few seconds while turning the power switch from OFF to ON position.

What happens when I reset to factory defaults?
1. The Wi-Fi network settings are reset.
2. The Wi-Fi setup method WAC is started (AeroSphère speakers only).

### WI-FI SETUP - ADVANCED TOPICS

My AeroSphère device has been successfully connected to the Wi-Fi network in the past, but now suddenly it will not connect anymore.
- Restart the AeroSphère device.
- Reset your Wi-Fi router - unplug it for 10 seconds.

What can I do if there are audio dropouts?

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<td>Instable Wi-Fi router</td>
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</table>

### SOFTWARE UPDATE

I quit the app during the software update process.
1. Unplug the AC power cord of the AeroSphère device for 10 seconds.
2. Plug in AC power cord back into the AeroSphère device and wait approximately 20 seconds. The status light of the device changes from yellow to green blinking.
3. Restart the software update process again with the app.

After unplugging the AC power cord, the status light blinks in a rainbow pattern, and the device is unresponsive while using the remote control. Seeing the status light blinking in a rainbow pattern indicates that the device is in “software update mode”, and prompts the user to add the new software upgrade.

- **Solution 1:** If you did a manual software update, press the refresh button on your browser, until you see the "Network Setup" webpage. Try it again.
  Manual software upgrade: see below. (If this solution failed, go to the next step.)

**Solution 2:**
1. Find the IP address of this device, use the iOS/Android app "Fing" or "Ping Lite" - see below
2. Enter the IP address in an Internet browser, you will see the software update page of the device
3. Start a manual software upgrade (see below). **Start directly with Step 8**, you already have the

Once the IP address has been located, enter it manually into an Internet browser on your computer. Thereafter, the "Network Setup" webpage of the AeroSphère device will be displayed. Follow the steps below.

### How to find the IP address with a "port scan" app (Fing or Ping Lite)
1. Unplug any other AeroSphère device in your network.
2. iOS/Android app "Fing" (free)
   1. Start a scan - press the icon on the upper right side.
   2. Look for a device from the vendor "G-Lab" (this is done by a reverse lookup of the MAC address).
   3. Use this IP address.
3. Alternatively, this iOS/Android app "Mocha Ping Lite" (free) works as well
   1. Select "Ping subnet"
   2. All valid IP addresses are marked in green.
   3. Chose a valid green address - if you see "State: received reply" and "Vendor: G-Lab". The correct IP address is displayed. Use this IP address.
4. Enter the IP address in an internet browser (Chrome, Firefox, Safari, etc.), the "Network Setup" webpage of the AeroSphère device will appear. Possibly there is more than one IP address from G-Lab (other AeroSphère devices).

5. Continue with step XX of the manual software update (below).

**What discovery protocols are used to find the AeroSphère devices?**
AeroSphère Small and Large: UPnP and Bonjour.
AeroSphère Base: UPnP.
These protocols are not active during the software update mode.

**Alternative Ways to locate the Network Setup webpage**
If you were not successful locating the local "Network Setup" webpage of the AeroSphère device, there are alternative ways to find the IP address of the AeroSphère device.

- **AeroSphère app**: The IP address for your AeroSphère App can be found in, Settings > Speakers > Speaker1 >, under "IP Address" (i.e. 192.168.1.191).

- **Use an UPnP app**: for example "UPnP browser" from Oppian on iOS, or "UPnP Scanner" on Android to find the IP address of the device.

- **Windows/Mac command line**: Open a command window (cmd.exe) or a terminal (Mac OS X). Enter: arp -a
  You will see a list with IP addresses. The MAC address range for the AeroSphère devices is: F8:f2:5a:xx:xx:xx (G-Lab GmbH).

- **Use a "port scanner" app to find the IP address**
  See above.

**MANUAL SOFTWARE UPDATE**

This procedure is ONLY recommended if you do not have a smart phone (iOS or Android), or if the software update with the AeroSphère app failed (then you would start directly in step 8)

1. Open the configuration webpage of your AeroSphère device:
   Windows:
   1. Go to "Network" with the "File Explorer" (Windows 7: "Network neighborhood", use "Windows Explorer").
   2. Double click the icon with the label "AeroSphère Small/Large/Base".
   3. Your Internet browser will open the network configuration webpage.
   1. In the Safari browser, enable "Include Bonjour" in "Bookmarks menu" on the "Bookmarks" tab in Preferences.
   2. In Safari, go to "Bookmarks", then select "Bonjour". You should see now "AeroSphère Small/Large" listed. Select it, the webpage will open.

   Apple OS X (Only AeroSphère Small and Large):
   AeroSphère app. The IP address for the AeroSphère device can be found in Settings > Speakers > Speaker1 >, under "IP Address" (i.e. 192.168.1.191).
   Enter this IP address in your Internet browser (Chrome, Firefox, etc.)

2. Scroll down on the "Network Setup" webpage of the AeroSphère device,

3. Under "Software Update," use the dropdown to select "Network".
   This will prompt the system, click "Start Update" to begin your installation.

4. In approximately 20 seconds the webpage will be available again.
   The status light of the AeroSphère device will change in a rainbow pattern.

5. In the URL you will see something like: "192.168.1.100/index.asp"
6. Move the mouse into this field, delete "/index.asp" with the back key.

7. Press the page refresh key, or press enter on your keyboard.  
   **A new page is now loaded.**

8. Download the newest software files to your computer:
   - AeroSphère Small: version s9846.133.1040
   - AeroSphère Large: version s9846.276.1040
   - AeroSphère Base: version s9826.183.1033

9. Click “Choose File”/”Datei auswählen” (shown below in the red circle), and select the file you just downloaded.

10. Next click “Start Update”, to proceed with your installation.

11. Upon completion of the installation, a confirmation message “The uploaded file is valid,” will appear. Select “OK” to proceed to the next step.

12. The “Software upload status” will go from 0 to 100% twice during the installation.
13. A confirmation will come across the screen upon completion of the download. The AeroSphère device will then reboot and the status light will change to yellow.

14. Close this page.

**Which Wi-Fi router should I use?**
See section “Recommendations for the best audio streaming quality” in the Feature Guide.

**What is the purpose of the "Network Setup" webpage of the AeroSphère devices?**
All AeroSphère devices have a built-in webpage to configure the network settings, similar to Wi-Fi routers. This webpage is also used for software upgrades.

**I would like to change the Wi-Fi settings with the AeroSphère Networking setup webpage, how can I access it?**
- **Windows:**
  1. Go to "Network" with the "File Explorer" (Windows 7: "Network neighborhood", use "Windows Explorer").
  2. Double click the icon with the label "AeroSphère Small/Large/Base".
  3. Your browser will open the network configuration webpage.
- **Apple OS X (Only AeroSphère Small and Large):**
  1. In the Safari browser, enable "Include Bonjour" in "Bookmarks menu" on the "Bookmarks" tab in Preferences.
  2. In Safari, go to "Bookmarks", then select "Bonjour". You should see now "AeroSphère Small/Large" listed. Select it, the webpage will open.
- **Apple OS X (AeroSphère Base):**
  1. Go to the Settings menu in the AeroSphère app, select Speakers>Base.
  2. Copy the "IP address", enter it into any browser.

**I cannot see the AeroSphère icons in the Windows network neighborhood**
Right click, select "refresh".
Ensure the AeroSphère devices are connected to the Wi-Fi network (see above).
Windows XP: make sure UPNP is enabled.
Disable VPN connection on your computer (VPN is used to connect to your work server)
Windows Firewall: disable it. We have seen that after disabling and enabling the firewall suddenly the problem goes away - it is a Windows issue. Not clear why...
Your computer's firewall might block it. (UDP-Port 1900 und den TCP-Port 2869. SSDP). Go to firewall software (for example Windows Firewall, CHECK the settings "Allow exceptions", then the box "UPNP").
Windows:
1. Open the Start menu, select "Run..."
2. Type "cmd.exe", press "OK". A terminal window will open.
3. Type "arp -a". A list of IP addresses are shown, these are all your devices in your local network.
4. Try each listed IP address. Don't use the address starting with 224.*, 239.* or 255.*.
5. Type the IP address in your browser, until you see the AeroSphère webpage.