

# Nexus Q User Guide

For additional help and support,  
go to [support.google.com/nexus](http://support.google.com/nexus)

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### FCC notice

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.

NOTE: 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.

Changes or modifications not expressly approved by Google may void the user's authority to operate the device.

RF Exposure: To comply with FCC RF exposure requirements for mobile transmitting devices, this transmitter should only be used or installed at locations where there is at least 20 cm separation distance between antenna and all persons.

This device is intended for indoor use only.

### Important safety instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
8. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
9. Unplug this apparatus during lightning storms or when unused for long periods of time.
10. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged; liquid has been spilled or objects have fallen into the apparatus; or the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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## About Nexus Q

Nexus Q lets you instantly stream music, HD movies, and videos from Google Play to your home, using your Android phone or tablet to control what plays in which rooms.

After setting up your Nexus Q, you can use the Google Play Music, YouTube, Google Play Movies, and other apps as you normally would to play music or videos. Except now you can choose to stream your entertainment Google Play through one or more Nexus Qs and the equipment attached to them.

And when friends come to visit, they can stream any of their own music or movies from Google Play through your Nexus Qs, using their own Android phones or tablets.

You can upload up to 20,000 of your own songs to your Google Play music library, including CDs or MP3 files. But there's no limit to the amount of music you can purchase or download free from Google Play Music.

## Get Ready

Before purchasing a Nexus Q

To play music through a Nexus Q, you need:

- 1.** A compatible Android device. See [Compatible Android phones and tablets](#).
- 2.** Compatible equipment and the cables required to connect it. See [Hardware & cabling guide](#).
- 3.** An active Wi-Fi network with a reliable connection to the Internet and a strong signal at the location where you plan to set up your Nexus Q. See [Network requirements](#).

To purchase Nexus Qs, speakers, cables, and other equipment, go to [google.com/q](http://google.com/q).

## Before your Nexus Q arrives



After you've ordered your Q and any additional equipment you need, do not delay: go straight to [google.com/q-setup](http://google.com/q-setup). That page guides you through these steps:

- 1.** If you don't already have a Google Music account, set one up at [play.google.com/music](http://play.google.com/music).
- 2.** If you haven't yet uploaded your music from your computer to your Google Play music library, download [Music Manager](#) to your computer, open the application, and follow the instructions.
- 3.** Decide where you want to keep your Nexus Q and what equipment you want to use with it, and double-check that you have the right kinds of cables. For details, see [Hardware & cabling guide](#).
- 4.** Download and install the [Nexus Q app](#) on one of your [compatible Android phones and tablets](#).

During installation, the Nexus Q app automatically updates your Play Music and YouTube apps, if necessary.

- 5.** Make sure you know the name and password of the Wi-Fi network you want to use with your Android device and your Nexus Q. Both must use the same network to work together.

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<p>Compatible Android phones &amp; tablets</p> <p>To operate your Nexus Q, you can use any Android phone or tablet that supports Android 2.2 (Froyo) or higher and OpenGL ES 2.0. Here are a few examples:</p> <ul style="list-style-type: none"><li>● Nexus S phone running Gingerbread (Android 2.3) or higher.</li><li>● Xoom or Galaxy tablet running Honeycomb (Android 3.2) or higher.</li><li>● Galaxy Nexus phone running Ice Cream Sandwich (Android 4.0) or higher.</li></ul> <p>You also need to <a href="#">download and install the latest</a> Nexus Q app.</p> <p><b>Menu icons:</b> This guide sometimes refers to the menu available on an Android screen that you're using. Because Nexus Q supports so many Android devices, the location and appearance of the menu icon varies. Here are a couple of examples:</p> <ul style="list-style-type: none"><li>● On a Galaxy Nexus phone, it may be located at the top or the bottom of the screen, and looks like this: </li><li>● On a Nexus S phone, it's one of the permanent navigation buttons built into bottom of the phone, and looks like this: .</li></ul> <p>Whenever you need to choose something from this menu, this guide refers to the item like this: <b>Menu &gt; Q settings.</b></p>	
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<p><b>Network requirements</b></p> <p>Your Android phone or tablet controls Nexus Qs in your home via a local Wi-Fi network. Therefore, you need Wi-Fi with a strong signal in the rooms where you intend to use Nexus Qs.</p> <p>You also need a reliable connection to the Internet. Nexus Q can use either Wi-Fi or Ethernet to stream music and videos stream directly from Google Play. It uses Wi-Fi by default. To use Ethernet for this purpose, connect an Ethernet cable the Ethernet port.</p> <p><b>Ethernet</b></p> <p>Ethernet can't entirely replace Wi-Fi. When your Nexus Q is connected to an Ethernet network, it uses that network to stream music from your Google Music library, but must continue using Wi-Fi to communicate with your Android device.</p> <p>For Ethernet to work with Nexus Q, it must be on the same subnet as the Wi-Fi network. For most practical purposes with home networks, this means it should be pugged into the same router that is providing the Wi-Fi.</p> <p><b>Bluetooth</b></p> <p>During setup only, Nexus Q uses Bluetooth to help you set up its Wi-Fi access. If your device has Bluetooth turned off, you'll have a chance to turn it on during setup.</p> <p>If your device still can't find a Nexus Q to pair with:</p>	<p><b>Wi-Fi</b></p> <p>Nexus Q uses standard Wi-Fi to communicate with your Android device and and, via your router and ISP, with the Internet. The Wi-Fi network must support 802.11 a/b/g/n at 2.4GHz or 5GHz.</p> <p>If your phone or tablet has Wi-Fi turned off, you'll have a chance to turn it on during setup.</p> <p>If your device still can't find a W-Fi network:</p> <ul style="list-style-type: none"><li>● Make sure Wi-Fi is turned on for your phone. For example, on a phone running Android 4.0 or higher, open <b>Settings</b> and make sure the <b>Wi-Fi</b> switch is turned <b>On</b>.</li><li>● Make sure your Wi-Fi is functioning correctly and has a strong signal at the Nexus Q's location.</li><li>● If your router is locked to specific MAC or fixed IP addresses, you may need to reconfigure it.</li><li>● Try restarting your router.</li><li>● If the signal remains weak at the Q's location, try to set it up in another location with a better signal.</li></ul>
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- Make sure you're in the same room with your Nexus Q. Bluetooth works best over short distances.
- Confirm that Bluetooth is turned on. For example, on a phone running Android 4.0 or higher, open **Settings** and make sure the **Bluetooth** switch is turned **On**.

## Hardware & cabling guide

You can connect a pair of speakers, an AV system, a TV, a digital-analog converter (DAC) with a USB output, or all four to a single Nexus Q.

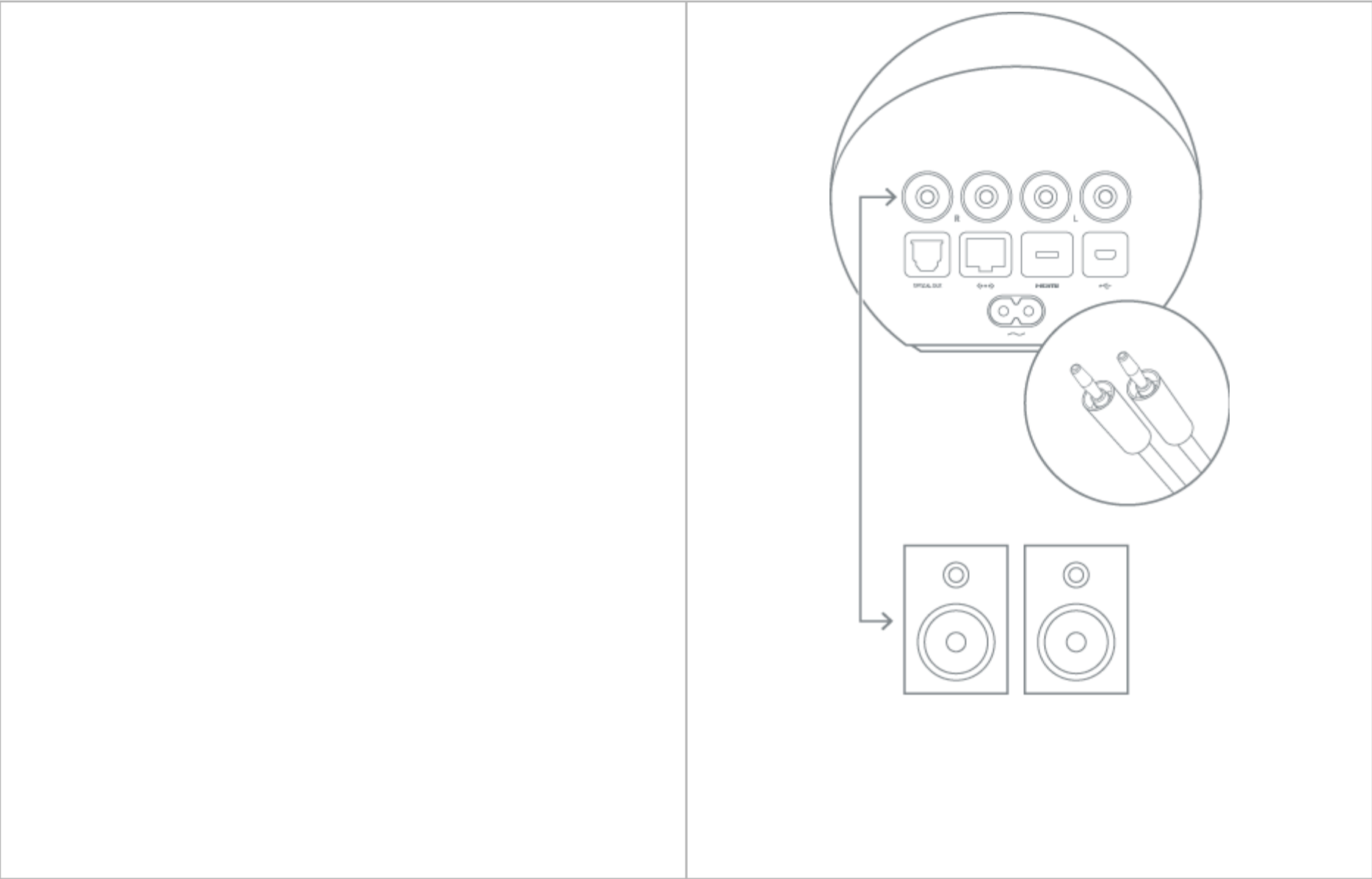
The following pages describe some of the most common configurations. Others are possible, depending on the equipment you have available.

### Speakers (banana plug cables)

What you need:

- Pair of speakers.
- Speaker cables with banana plugs on at least one end for connecting the cables to your Nexus Q (and on both ends if your speakers use banana jack connectors).

Banana plugs are color coded and labeled R and L for Right and Left. Each jack has a black or red dot to help you connect cables correctly.



AV system or audio receiver (optical audio)

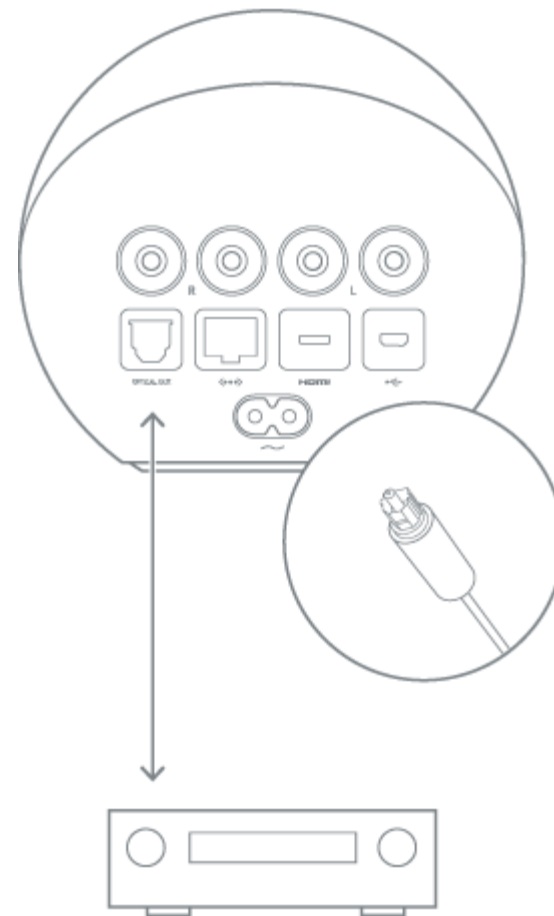


What you need:

- AV system or audio receiver with an available optical audio input.
- An optical audio cable.

You need just one cable, which has the same plug on both ends.

The A/V receiver to which you connect this cable maps the signal it receives from the Q to one of its input options. To hear music through speakers attached to your A/V system, you need to select the same option using the receiver's controls.

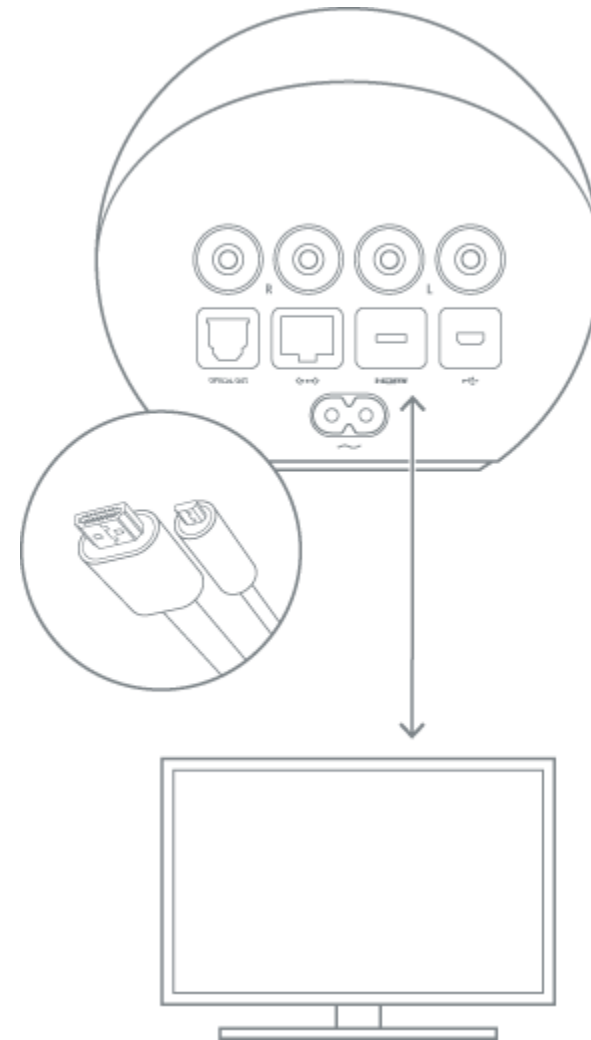
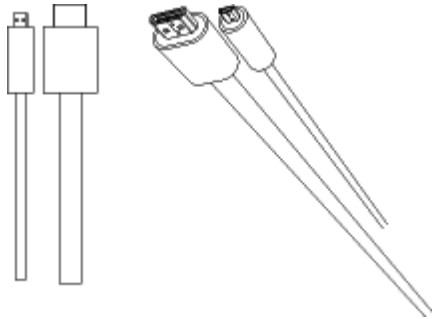


TV or audio receiver (HDMI cable)

What you need:

- TV or audio receiver with an available HDMI input.
- A micro HDMI (Type D) to standard HDMI (Type A) cable.

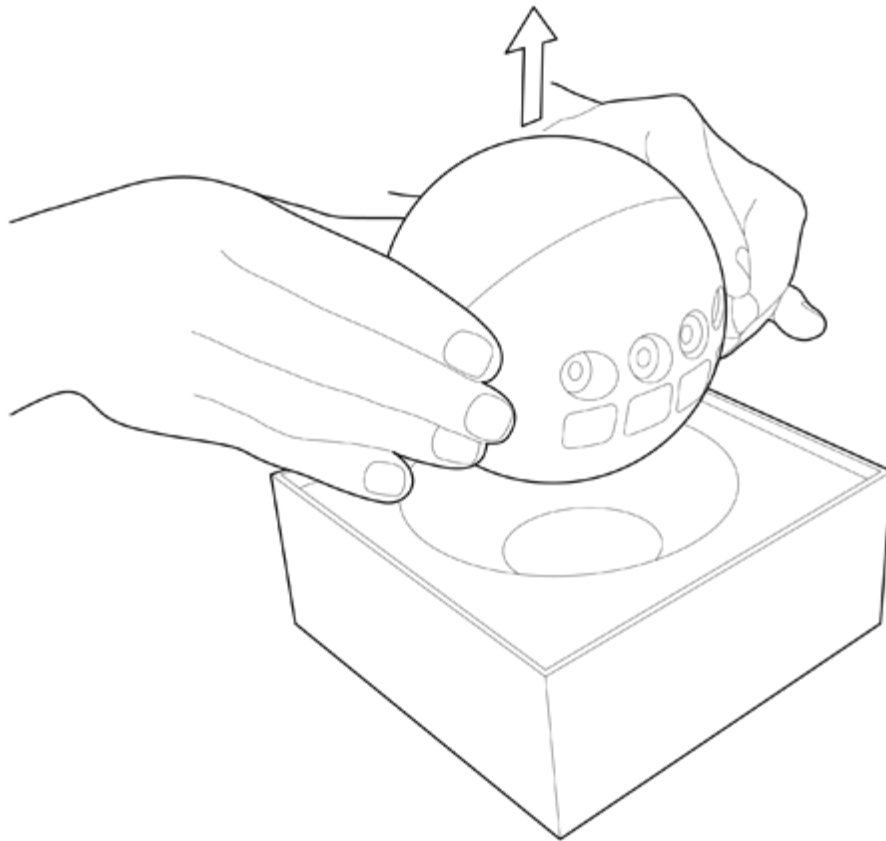
The TV or receiver to which you connect this cable maps the signal it receives from the Q to one of its input options. To hear music and watch videos, you need to select the input same option using the controls available for your equipment.



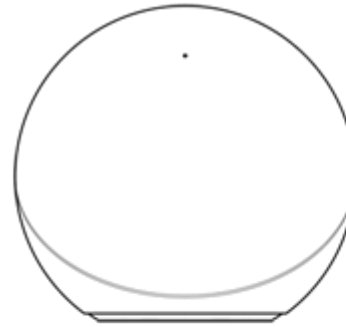
# Set up a Nexus Q

Unpack carefully

Using two hands, lift your Nexus Q from its packaging and place it near the equipment you plan to use it with.



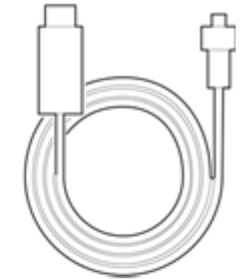
Confirm what's in the box



Phantasm



Power cable



HDMI



User Guide



Important Safety Instructions

## Run the Nexus Q app

**Important:** Before setting up your Nexus Q, make sure you've completed the steps described in [Before Nexus Q arrives](#).

After you've unpacked your new equipment and confirmed that you have everything you need, follow these steps:

1. Connect your Q to your equipment using the appropriate cables. For examples of typical setups, see [Hardware & cabling guide](#).

2. Connect the power cord to your Q.

Q lights up immediately – there's no power button. Wait about a minute while it completes the startup process. When it's ready, the circular LED begins to pulse, slowly cycling through a range of colors.

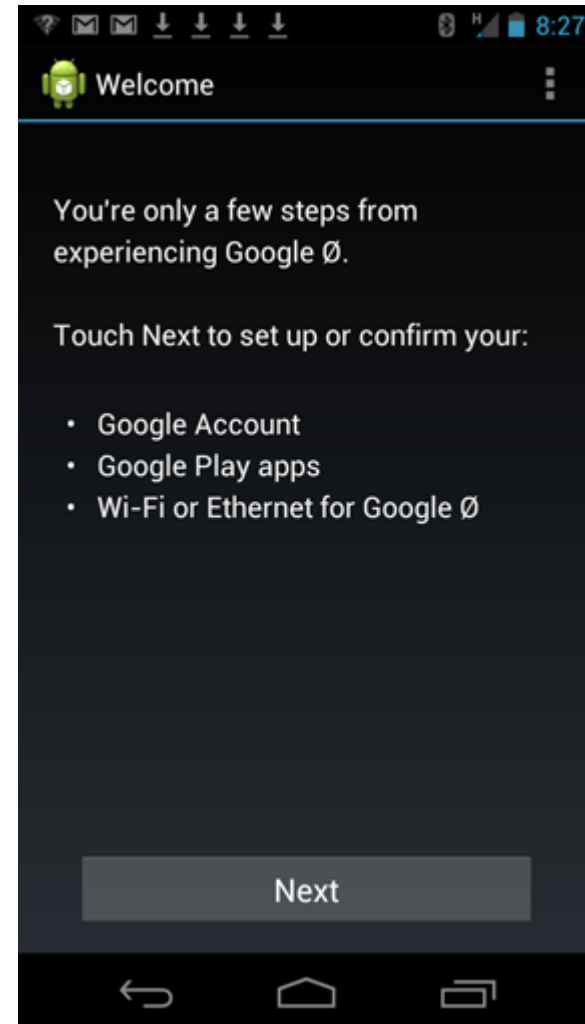
3. Open the Nexus Q app.

If you haven't yet downloaded the app to your Android phone or tablet, go to [google.com/q/setup](http://google.com/q/setup).

4. Follow the on-screen instructions.

If you get stuck, touch **Menu > Help**.


During setup, you'll be asked to name a *Place*. This makes it easy, for example, to distinguish Nexus Qs in different buildings that you may want to control from the same Android phone or tablet.







## Play music

After you've set up one or more Nexus Qs, you can stream music through them using the Google Play Music app.

You can also continue playing music on your phone in the usual way, as well as browse the music available in your Google Play Music library; set up playlists; or shop for more music. For details, go to [Google Play Music Help](#).

If one or more of your Nexus Qs are set up and within Wi-Fi range, the streaming icon  appears on each Play Music screen. To start playing music:

- Touch the streaming icon  icon.  
  
The icon turns blue, and a list of rooms available for streaming appears.
- Touch the room where you want to play.
- Use Google Play Music to locate any song in your collection, and then touch its plus sign  to add it to the queue.

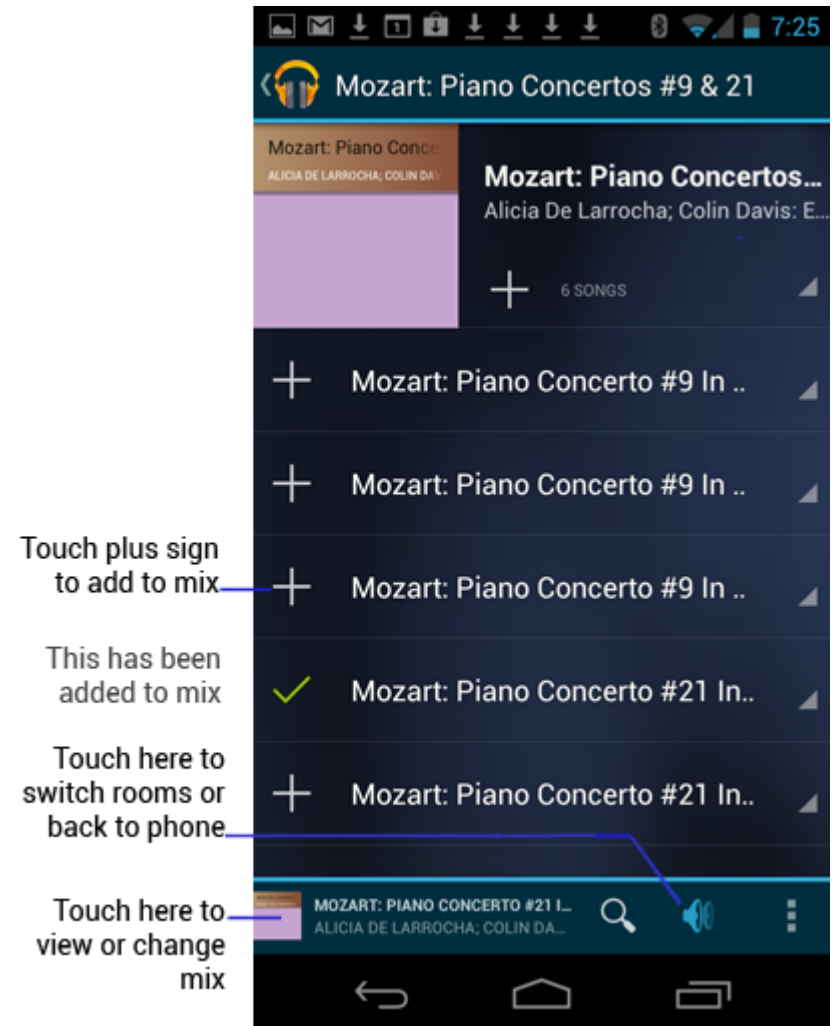
The plus sign  changes to a checkmark . If this is the first song in the queue, it starts playing. Otherwise, it gets added to the queue.

For more details, see:

[Adjust volume](#)


[Select where to play music](#)

[Sync rooms](#)



## Adjust volume

While you're using the Google Play Music app, you can adjust the volume simultaneously for all rooms that are currently synced with your Android device:

- Use the volume button on your phone or tablet.
- Use the volume slider in the dialog that opens when you touch the Streaming icon .

You can also adjust physical volume controls on each Nexus Q:

- Turn the upper half of the Nexus Q clockwise to increase volume, counterclockwise to decrease.

The LED turns red as you increase and blue as you decrease.

To mute or unmute your Nexus Q, touch the LED on its top:

- Blue means muted.
- White means unmuted.


## Turn fixed volume off or on

In addition to controlling the volume output by your Nexus Qs, you can adjust the volume for individual pieces of equipment connected to them. You can do this at any time.

However, sometimes it may be easier to keep the volume output by a Nexus Q fixed, so that the only way to control it is by adjusting the volume directly on the attached equipment. To turn fixed volume off or on:

1. Open the Nexus Q app on your Android phone or tablet.
2. Touch the name of the room with the Nexus Q you want to adjust.
3. Touch **Advanced**.
4. Touch the Off/On switch for **Fixed volume out**.

## Select where to play music

The Streaming icon  on the Now Playing screen shows or hides a list of rooms where Nexus Qs are set up and available.

- To select a room, touch its name.

Or, to return to playing music from your Android device, touch **Phone** or **Tablet**.

In this example, the Nexus Qs in the living room and study are both streaming music controlled from this Galaxy Nexus phone. From here, you can:

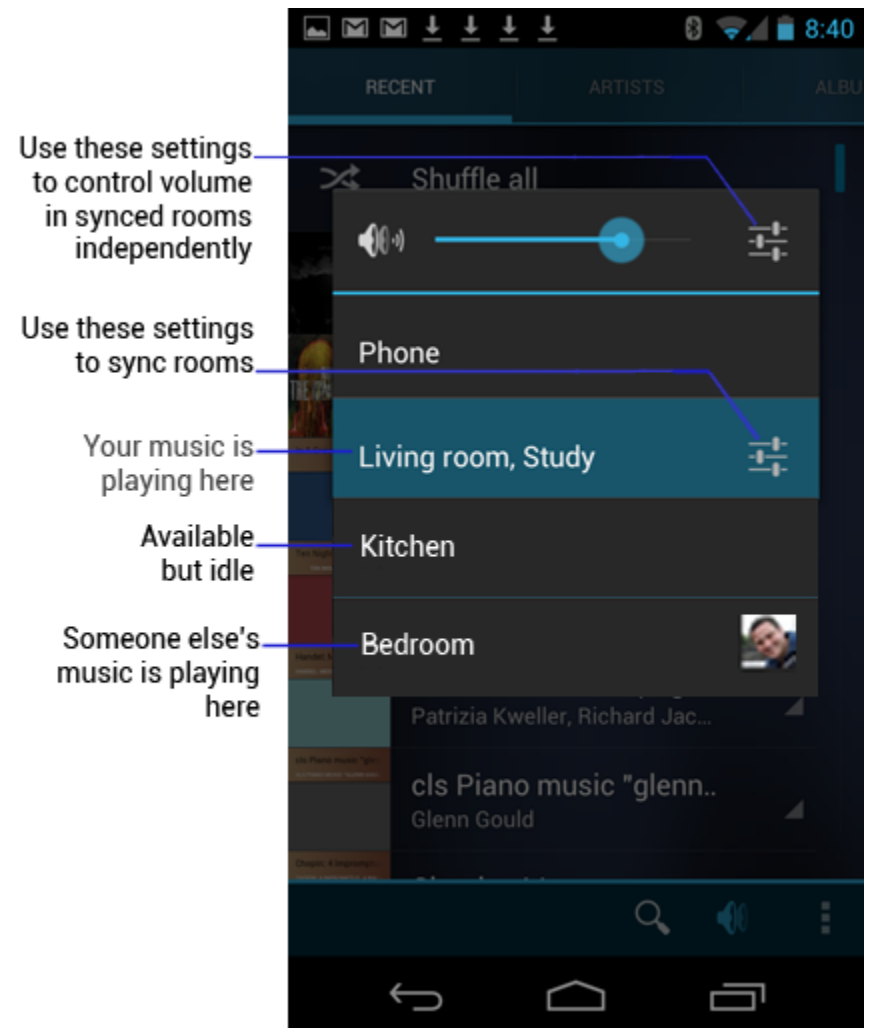
- Switch back to playing through the phone only.
- Switch to playing in the Kitchen only.
- Switch to playing in the bedroom, where your selections will be added to those of the person who's already playing music there.

If you're already playing music, what happens when you switch depends on whether any music is already playing at the new location:

- **If you switch to a room that's already streaming music**, such as Bedroom in this example, the music playing on your phone stops, and any new music you select gets added to the existing stream. You are now sharing the queue for that room with the other people pictured.

In this example, selecting Bedroom would have this effect.

- **if you switch to a room that's idle**, the music you were already playing on your phone starts playing in that room.



In this example, selecting Kitchen would have this effect.

## Sync rooms


If you're streaming music to more than one room, you can combine some or all of the rooms into a single stream.

For example, suppose:

- You're streaming to the living room and the bedroom, and you want to turn off sound in the bedroom.
- You're streaming to the kitchen, and you want to add your living room to the same stream.

To sync or unsync rooms:

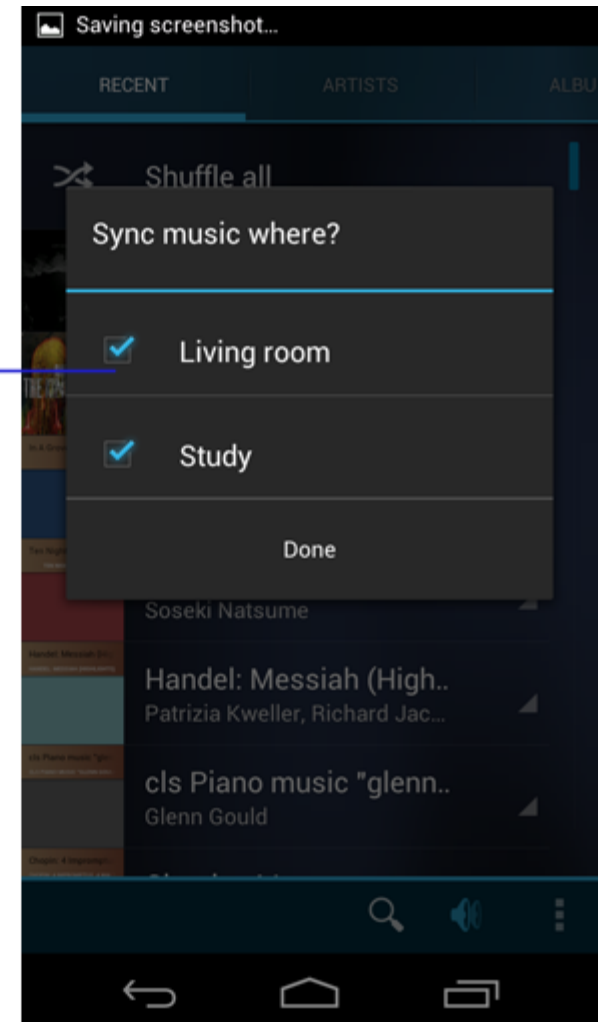
1. Touch the Streaming icon  on the Now Playing screen.

2. To sync or unsync rooms, touch the Settings icon  beside any room's name.

To control the volume independently for each synced room, touch the Settings icon beside the volume control in the room picker.

3. Check or uncheck the rooms you want.

Select the rooms  
where you want  
to play your  
music





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## Change or add to the queue

The Google Play Music app displays the name of the current selection at the lower left of the screen. When you're streaming through one or more Nexus Qs, touch that corner to see the entire queue of songs currently lined up to stream:

- If you're the only person contributing music to the stream, no pictures appear beside each item.
- If you're sharing the stream with others, a picture of the person who contributed each song appears beside it.

While you're viewing the queue, you can perform any of the actions shown on the right. In addition, you can:

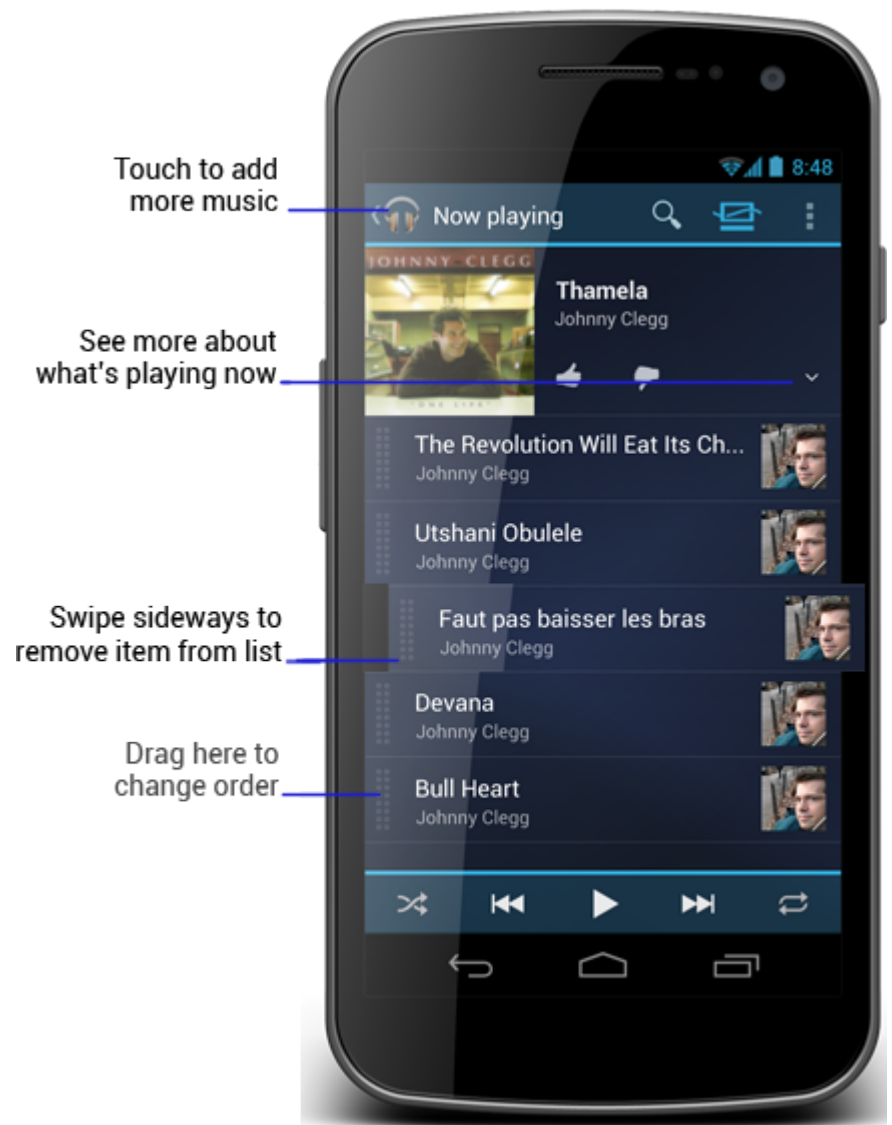
- **Remove a selection.** Press and hold then choose **Remove from queue.**
- **Remove all selections.** Touch **Menu > Clear queue.**

You can add any of your music to the queue. To find the music you want, use the Google Play Music app just as you always do.



Touch the Google Play Music icon at the upper left to return to the top level of the app, where you can browse artists, albums, genres, and so on.

When you select an album, for example, you'll see a list of songs with either checks or plus signs beside them. To add a selection to the live Q playlist, touch its plus sign **+**. It changes to a checkmark **✓** to indicate that it's been added to the queue.



## Play YouTube videos

After you've set up one or more Nexus Qs, you can stream YouTube videos through them using the YouTube app.


You can still play YouTube videos on your phone or tablet in the usual way. For details on using standard YouTube app features, visit [YouTube Help](#).

### TV setup checklist

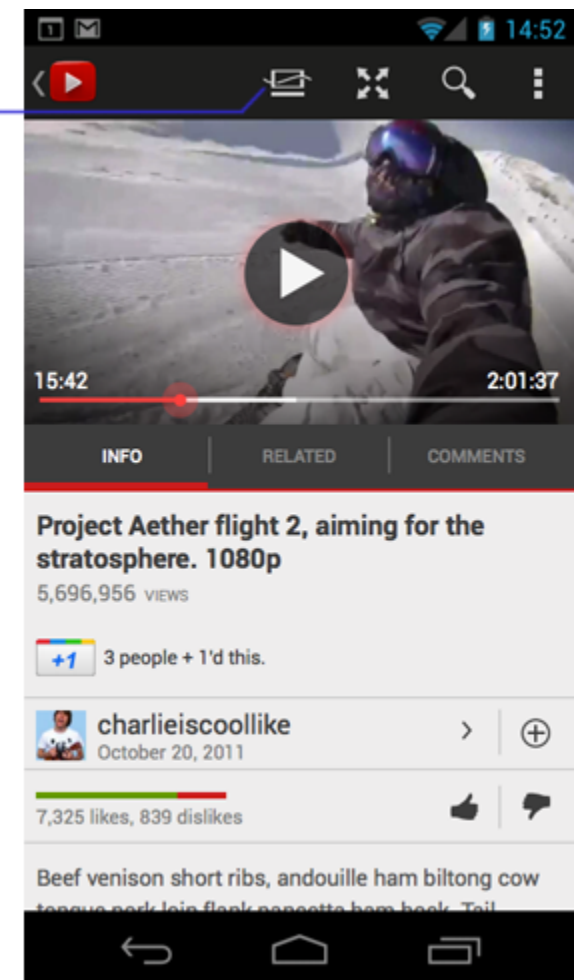
To stream YouTube videos through a Nexus Q, first make sure it's set it up with a TV as follows:

1. Nexus Q is plugged in to a power source and connected via an HDMI cable to a TV or an AV system that includes a TV.
2. TV (and if present the AV system) is turned on.
- 3.
4. TV is configured to accept input from the HDMI port to which the Nexus Q is connected.
5. Nexus Q and your Android phone or tablet are using the same Wi-Fi network and have a strong signal where you intend to use them.

Then, open your YouTube app and find a video. When the play controls in your YouTube app are active, your screen should resemble the one shown here.

- To select the Nexus Qs to stream through, touch the Streaming icon  .


Touch here to control where your music plays



## Choose where to stream videos

To control where YouTube plays, first make sure your YouTube app is open with the play controls visible. What you do next depends on how many Nexus Qs with TVs attached are available on your network.


### One Nexus Q with one TV:

- Touch the Streaming icon  .

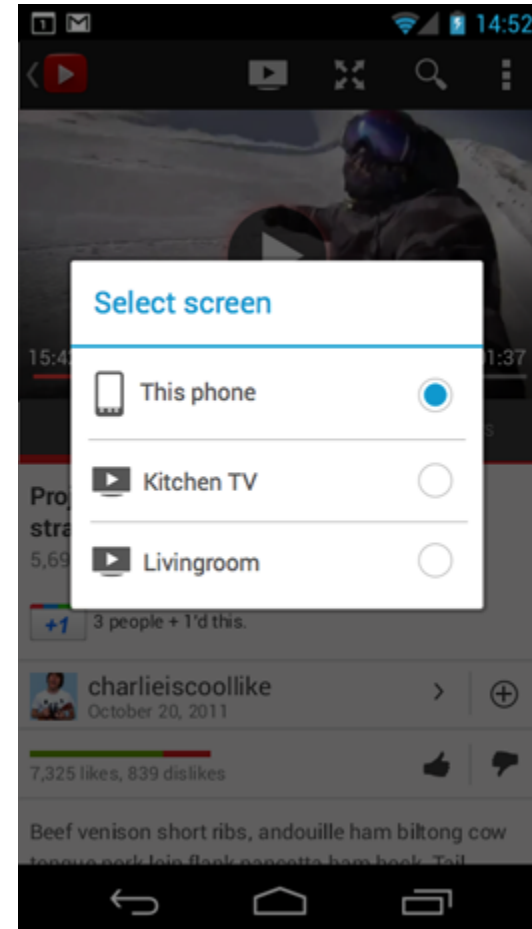
This toggles between viewing YouTube on the TV and viewing it on your phone or tablet.

When the icon turns blue, videos will be streamed through the Tungsten. Otherwise, they'll play on your phone as usual.

### Multiple Nexus Qs with multiple TVs:

- Touch the Streaming icon  .


A list of rooms appears. You must select one. It's not currently possible to stream YouTube videos to more than one Nexus Q at a time.



## Invite guests

### Before the party

If you want friends to be able to play their own music through your Nexus Qs, first set up your Nexus Qs to give them access:

1. Open the Nexus Q app.
2. Touch the Settings icon  beside the name of the place you want to share.
3. Make sure the **Open to guests** switch is **On**.

When this switch is set to the **Off** position, nobody else can access your Nexus Qs.

4. Touch Invite guests.
5. Fill in the email with your friends' email addresses and any other message you want them to see.

The email tells them to visit to [google.com/q/guest](https://google.com/q/guest) and follow the instructions. That page will take them through these steps:

1. Confirm that they have one of the [Android phones and tablets for Q](#).
2. Confirm that they have Google Music accounts at [music.google.com](https://music.google.com).
3. Confirm that they've downloaded [Music Manager](#) and followed the instructions for uploading music to their Google Play Music libraries.


### When your guests arrive

1. Give them the name and password for the Wi-Fi network you're using with your Nexus Qs.
1. Ask them to sign in to the network, open the Nexus Q app, and follow the instructions for guests.

Guests go through the setup process only the first time. From then on, they can use their own Android phones or tablets to choose rooms, contribute to queues, and control your Nexus Qs the same way you do.

### Turn off guest access

To prevent guests or anyone else from accessing Nexus Qs:

1. Open the Nexus Q app.
2. Touch the Settings icon  beside the name of the place you want to protect from access.
3. Turn the **Open to guests** switch to **Off**.

4. Download and install the Nexus Q [app](#).

## Adjust Nexus Q settings

To adjust a Nexus Q's settings:

1. Open the Nexus Q app.

OR

From the Play Music app, choose **Menu > Settings > Nexus Q Settings**.

2. Touch the name of the room where the Nexus Q is located.

The Details screen for that Nexus Q appears. From here, you can read version information and modify the brightness or theme used to animate the LED lights or TV screen (if one's connected) during music playback.

Touch **Advanced** to modify any of these settings:

- **HDMI** and **Optical out**. Lets you turn fixed volume on or off and set the sync delay for each of these ports.
- **Hardware diagnostics**. Displays information of interest to support personnel attempting to help you troubleshoot problems with your phone.
- **Forget Nexus Q**. Forgetting a Nexus Q removes it from the list of Qs that appears on your phone or tablet. This

- **Factory data reset**. Wipes all setup data and restarts the Nexus Q. This means you'll need to set it up all over again from scratch.

Factory data reset without phone or tablet

You can also factory reset your Nexus Q without using your phone or tablet:

1. Unplug the Nexus Q, then plug it in again.
2. Immediately place your finger over the single LED on top.

The ring LED starts flashing red. Keep your finger in place until the ring LED starts pulsing purple (about 15 seconds).

If you lift your finger too soon, the LED turns solid red. If this happens, unplug and plug in the Q again to start over.

After a successful reset, the circular LED displays rotating white bars for a short time, and then starts slowly pulsing blue, indicating it's ready to set up again.

To set up your Q after a factory reset:

1. From your Android phone or tablet's Home screen, go to **Settings > Apps > All > Nexus Q**.

is useful only if you know you'll never use a particular Q again. If you later decide you want it to show up once more in the list, you'll need to perform a factory data reset and set it up from scratch.

2. Touch **Clear data**.
3. Touch the Home button, then launch Nexus Q .
4. Follow the on-screen instructions.

If your Q is connected to a TV via the HDMI port, the TV screen also displays feedback about the Q's current state.

## LED colors & TV Feedback

Your Nexus Q's LED colors change according to its status.

### LED colors during startup & setup

Top LED	Ring LED	HDMI video output	Meaning
Bright white, rapidly fading to dark	Bright white, rapidly fading to dim		Power on.
Dark	Bright white with hot spot chasing around rim		Starting up.
Pulsing white	Pulsing white	Welcome screen with setup URL	Idle, no initial color assigned; ready for setup to begin.
Solid assigned color for initial discovery	Solid assigned color for initial discovery	Welcome screen with setup URL	Setup from an Android device has begun, and a Nexus S image appears on the setup screen on the phone or tablet labeled with the color displayed by the device.
Rapid pulsing red	Rapid pulsing red		Startup failed.
Slow pulsing red	Slow pulsing red	Error message	Network problem.
Solid assigned color for initial discovery	Assigned color animation		Setup in progress

Pulsing white	Pulsing white	Setup outro: lights converging back onto device	Setup complete, ready for use.
Setup color animates, then fades	Setup color animates, then fades		Setup is complete
Purple	Pulsing purple		Software update in progress.

## LED colors during play

**Visualizer animation** is displayed by the LEDs and output through HDMI in response to the music currently playing. To change this behavior, open the Nexus Q app, touch the name of the device, and adjust the brightness, choose a different theme, or turn off animation.

After setup, the top LED indicates the mute state with either dimmed (muted) or regular (unmuted) animation. The ring LED also dims its current display when muted.

Ring LED	HDMI video output	Meaning
White animation	Blue lights circling around Nexus Q	Fetching tracks.
Slow pulsing white		Idle (first 5 minutes after play stops).
Dim white		Idle (play has stopped for more than 5 minutes).
Visualizer animation	Visualizer animation	Music playing.
Dimmed visualizer animation	Volume indicator appears over animation	Volume is being adjusted by rotating the Nexus Q's upper half: blue is quiet and red is loud.
Slow pulsing red	Error message	Network problem



## Technical Specifications

Feature	Description	Notes
<b>Android requirements</b>		
Phone or tablet	Android device running Android OS 2.2 ("Froyo") or later	
Software	Latest versions of Google Play Music, YouTube, and Nexus Q apps.	Google Play Music support is not available in all countries.
<b>Audio</b>		
Amplifier	Class D	
	12.5W continuous average power into 8 ohms per channel	
Outputs	Four analog stereo speaker-level output receptacles for banana plug cables: two each for left and right channel	Digital audio
	Single optical audio output receptacle for TosLink or S/PIDF cables	Digital audio
	Single HDMI output receptacle for Micro HDMI male to HDMI male cable (for digital video and audio)	Digital video and audio

	Micro USB receptacle for USB cable	
Stream	Streams MP3 output to bitrate of 320 kbps	
	One stream per Google Play Music account	
<b>Networking</b>		
Ethernet	10/100Mbit RJ-45 standard LAN receptacle (actual throughput depends on network configuration)	For streaming audio and video input from Google Play, and software updates
Wi-Fi	11a/b/g/n, 2.4 and 5 GHz	For operation from an Android Phone or tablet, streaming audio and video input from Google Play, and software updates
Bluetooth		Required for initial device discover only if Ethernet is not being used
<b>General</b>		
Dimensions	116mm (~4.5") diameter	
Weight		
Power supply	AC 120/240, 35W	<<are there legal/regulatory requirements to add here?>>
Lights and controls	Single multicolor LED indicator surrounded by a capacitive control surface covering top half of device	For muting and volume control
	Ring of multicolor LEDs around circumference of device	For communicating device status.
	Single LED indicator on Ethernet receptacle	For indicating live connection
Processor	OMAP4 SoC	

Operating temperature	41° to 104° F (5° to 40° C)	Device requires a free flow of air around it for ventilation. It does not contain a fan.
Material/Finish	Die-cast zinc base	Not recommended for use as Bocce ball or shot put

Warranty	
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