

ARIES USB Playback Frequency Asked Questions

Lightning Server User's Guide (Firmware V1.11)

Does my ARIES support USB playback function?	2
My ARIES firmware is not up to date, how can I get updated?	2
How does USB playback function works?	2
What kind of USB disk does ARIES support?	2
What disk partition format can Lightning Server read?	2
Is there any disk or partition size limitation for ARIES?	2
Which USB port on ARIES should I use for USB playback?	3
Will ARIES power a USB hard disk?	3
Will ARIES support USB 3.0 drive?	3
Does Lightning Server support multiple USB drives on an external USB hub?	3
Does Lightning Server support USB drive with multiple partitions?	3
Why does ARIES could not identify the USB drive plugged?	3
Why does ARIES could not identify USB drive in HFS+ partition format?	3
What will happen after I plugged a USB drive into ARIES?	4
How can I play music files on USB drive?	4
How long will it take for Lightning Server to scan music files on USB drive?	4
The initial scan is quite long; do I need to wait such long time in the future?	5
Will Lightning Server detect music file changes on USB drive automatically?	5
How does Lightning Server handle music content when user swaps USB drives?	5
What file format can Lightning Server support?	5
Does Lightning Server support music in DSD and DXD format?	5
Why some of the music, which Lightning Server support but could not show up?	5
Why I cannot see album information in Lightning DS on my USB drive?	6
Why does the album cover not show up in Lightning DS?	6
Will Lightning Server deal with untagged music files?	6
Is that possible to hot plug / unplug USB drive?	6
Will the Lightning Server provide the music library to the other ARIES?	6
Will Lightning Server support CD/SACD image files?	7
Will Lightning Server support network-mapped drive?	7

Does my ARIES support USB playback function?

Yes, all ARIES including ARIES LE supports USB playback function. To use this function, you need to update your ARIES to latest firmware version, which is V1.11. It is also requested to have a Lightning DS, the control App, with version V1.6 and above.

My ARIES firmware is not up to date, how can I get updated?

Please connect ARIES to your home network with wired or wireless connection and make sure you have a stable Internet connection. ARIES will check for latest firmware then downloads automatically when it power up or every 2 hours while it is running. You will receive a notice in Lightning DS to precede the firmware update after the download is finished. It is highly recommended to connect your ARIES with Internet connection while you use it so ARIES can receive all necessary updates immediately after they are available.

How does USB playback function works?

The AURALiC firmware team has developed uPnP server software named *Lightning Server* and integrates it into ARIES. Lightning Server will monitor the USB disk plugged into an ARIES, scan the disk and create a music library service for Lightning DS.

What kind of USB disk does ARIES support?

ARIES is a highly customized computer system; it supports virtually all kinds of USB removable devices such as small USB card reader; USB flash drive; 2.5-inch portable USB hard disk to large 3.5-inch USB removable hard disk (external power supply required) and even a hard disk 'toaster'.

What disk partition format can Lightning Server read?

Lightning Server can read FAT32, NTFS, exFAT, ext2/3/4 and HFS+(no matter if they are non-journaled or journaled) partition formats.

Is there any disk or partition size limitation for ARIES?

You can consider the limitation does not exist. The maximum partition size that ARIES can support is 16TiB (4K block size), which is beyond any USB drive's size on the market now.

Which USB port on ARIES should I use for USB playback?

You can only use the USB port marked as 'USB' on the back of ARIES for this function.

Will ARIES power a USB hard disk?

This depends on the kind of USB hard disk you want to plug in. ARIES can power all USB hard disks if they do not require an external power supply to work on your computer. The driving ability of ARIES USB input on the back panel is 1A in 5V.

Will ARIES support USB 3.0 drive?

Yes, the USB input on ARIES is USB 2.0 standard; it is also compatible with 3.0 drives.

Does Lightning Server support multiple USB drives on an external USB hub?

Yes, but Lightning Server will only read the first USB drive plugged into external USB hub or the USB drive with smallest id number if they are connected at the same time.

Does Lightning Server support USB drive with multiple partitions?

Yes, but Lightning Server will only read music files on the largest partition if the USB drive contains more than one partitions including partitions reserved for system use.

Why does ARIES could not identify the USB drive plugged?

There are several reasons that Lightning Server will not identify the USB drive. The first and most common reason is because the USB drive has a partition, which is not supported by ARIES and Lightning Server.

Why does ARIES could not identify USB drive in HFS+ partition format?

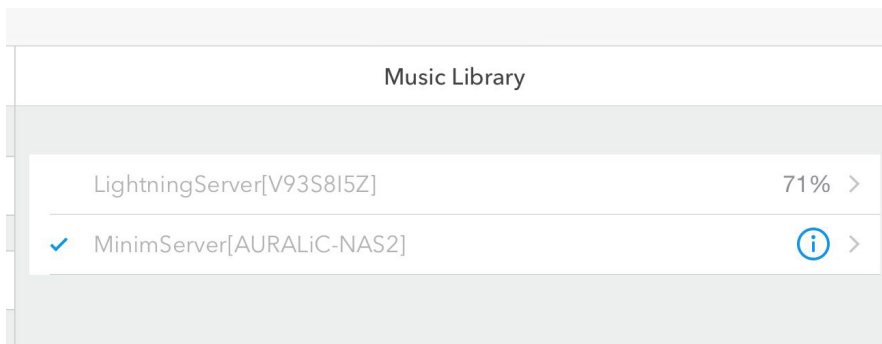
Lightning Server wont read USB drive if its partition is in HFS+ format but contains unfixed journal error, it is to prevent additional error that may introduce to the USB drive, which may damage existing file stored on the USB drive. Please plug your USB drive back to Mac computer, go to '*Applications>Utilities*', start '*Disk Utility*' and use '*Verify Disk*' & '*Repair Disk*' function to fix the journal error.

What will happen after I plugged a USB drive into ARIES?

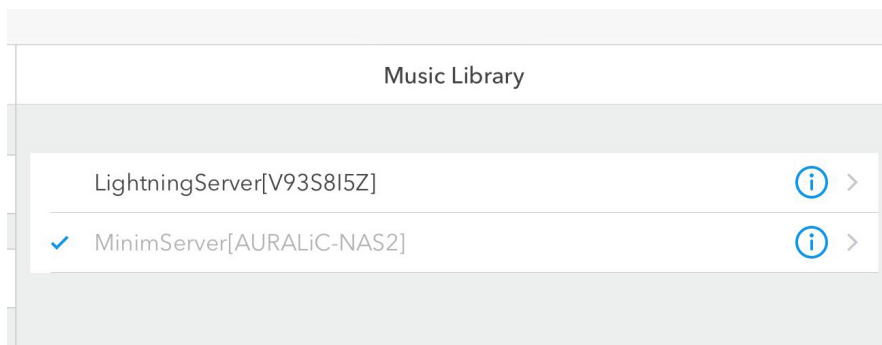
Lightning Server will do an initial scan of the USB drive and find all music files it supports if the USB drive has never been plugged into current ARIES, this may take a while to finish the scan and scan speed depends on how many files are on USB drive.

How can I play music files on USB drive?

Since Lightning Server works with no different of other uPnP server software, you will find 'LightningServer[your device name]' under 'Music Library' inside the Lightning DS App, after a valid USB drive is plugged into ARIES. The scan progress percentage will be displayed right after server name in the Music Library when Lightning Server is doing initial scan or re-scan. You can select Lightning Server for playback after the scan procedure is complete.



Lightning Server is scanning disk



Lightning Server has finished disk scan

How long will it take for Lightning Server to scan music files on USB drive?

The scan speed depends on the USB drive's reading speed. In best case, the scan speed is about 20 files per second during the initial scan. It will take about 4-5 minutes to do the initial scan of the USB drive that contains up to 5,000 tracks.

The initial scan is quite long; do I need to wait such long time in the future?

No, Lightning Server will create a database for each USB disk plugged into ARIES during the initial scan. It will compare differences between current files and previous files on USB drive. The re-scan speed depends on how many music files on your USB drive and how many music files have changed since the last time it was plugged into that ARIES. If no file has changed, it will take about 20 seconds to finish a re-scan for a USB drive containing up to 5,000 tracks. The re-scan speed for any music files, if they have been added, updated or deleted, is about 10 files per second.

Will Lightning Server detect music file changes on USB drive automatically?

Yes, Lightning Server will look into the database and check out if current USB drive has been scanned before when it is plugged. Lightning Server will compare music file differences on USB drive; update database and music library automatically after the re-scan is complete.

How does Lightning Server handle music content when user swaps USB drives?

Lightning Server will refresh music library content to the current disk's files when a different USB drive is plugged in. Lightning DS will then update to the current music library information automatically after Lightning Server has finished the file scan.

What file format can Lightning Server support?

The current version of Lightning Server supports all music files that ARIES can playback, which are: AAC, AIF, AIFF, ALAC, APE, DFF, DSF, FLAC, MP3, OGG, WAV, WV and WMA files.

Does Lightning Server support music in DSD and DXD format?

Yes, Lightning Server supports DSD music in DSF and DFF format as well as DXD music in WAV, AIF, AIFF and FLAC format. It is recommended to use DSF file to keep your DSD music because it allows metadata information.

Why some of the music, which Lightning Server support but could not show up?

If the music file contains error in either metadata or music data itself, Lightning Server will ignore the file to prevent unexpected problem when you try to play it.

Why I cannot see album information in Lightning DS on my USB drive?

Like all other uPnP server software, Lightning Server read music file's metadata to create music library. You will need to tag your music files properly in order to let Lightning DS display music file's information information.

Why does the album cover not show up in Lightning DS?

Lightning Server will firstly use the cover embedded inside the music file as the album cover. It will also scan current folders for picture files named by 'folder.jpg', 'folder.png', 'cover.jpg', 'cover.png' (case insensitive) and JPG or PNG files with a file name identical to the album title if the music file does not contain cover art. Please also be noticed that Lightning DS, the control App will create album index first then download covers arts at background so the covers wont show up immediately after you have selected the music library. If you still can not see cover arts after a long time after the index has been created, try double tap 'HOME' button on your iPad, close the Lightning DS completely and restart again.

Will Lightning Server deal with untagged music files?

Unlike most uPnP server software, which will sort all untagged music files into a virtual album folder named 'unknown' or 'no album', Lightning Server treats these files as regular tracks with specific album titles. For untagged files or tracks without album title information, the folder name where files are located will be used as the album title. Such design allows Lightning DS to organize music files with album titles as well as covers arts for the files even if those music files have not been properly tagged or do not support metadata.

Is that possible to hot plug / unplug USB drive?

It is OK to hot plug and unplug a USB drive because Lightning Server does not write USB drive. An improper unplug of USB drive, such as unplug a USB drive while ARIES is still playing, will however cause in Lightning Server to be unable to detect a USB drive plugged in the future and will request that you to do a full power cycle (disconnect power supply) to let Lightning Server get back to work.

Will the Lightning Server provide the music library to the other ARIES?

Yes, the Lightning Server, as an uPnP server, will provide music library to all other ARIES on your home network. In essence, the ARIES that has been fitted with an USB drive will act like a NAS drive so that all the other ARIES on the network can play the same files simultaneously. It is also important to know that sharing music with other ARIES requests significant network bandwidth for smooth playback, especially for

playing high-resolution music files while ARIES is running on the wireless connection. It is always recommended to use wired connection if you want to use share function.

Will Lightning Server support CD/SACD image files?

Image files are not supported at the moment.

Will Lightning Server support network-mapped drive?

The firmware team is working on this function, reading music files on a network-mapped drive with Samba protocol is a work in progress.