Getting Started with AA Music Server Extreme RS (AARS)

Updated Sep 2025

Unbox the AARS and put in on the shelf. We recommend placing AARS at the top-most position of hi-fi rack or shelf. If placed in the middle rack, please ensure there are good ventilation and enough clearance to prevent overheating. Please do not place AARS inside a closed cabinet.

Figure 1 AARS on the shelf

The AARS does not come with power cord and cables. The following cables are required:

- AC power cord
- LAN cable
- USB Audio Cable (when used as Roon Server and Endpoint)

The only audio output from the AARS is USB Audio. For direct connection, a DAC with USB Audio interface is required. If the DAC uses other connections such as AES/EBU, please use a DDC.

Connect the AC power cord, LAN cable, and USB Audio Cable into the back of AARS.

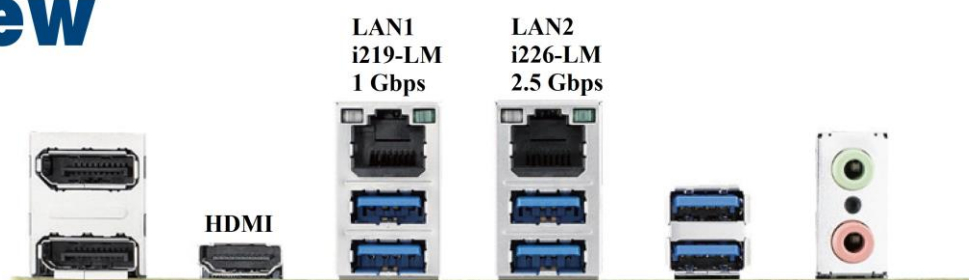Figure 2 Wired LAN connection to the Motherboard

I/O View

Figure 3 Motherboard's Back I/O View

Notes:

- There are 2 LAN ports:
  - We recommend using LAN1 when using Roon as it sounds better.
  - When copying large library files into AARS, it is okay using LAN2 due to its higher speed.
  - If both LAN ports are connected, Roon will only use LAN1.
  - Please only use audiophile LAN cables with controlled impedance of 100 Ω. During home demos, we have seen some audiophile LAN cables refused to work properly with AARS.
- AC power cord goes into the Furutech FI-09 NCF.
- The AC power rocker switch above Furutech IEC inlet is an Eaton circuit breaker. Before inserting AC power cord, please ensure it is in OFF position. Figure 2 and Figure 4 show the ON position.
- The motherboard's USB3 ports can be used to connect external 2.5″ USB3 drive to copy music files into AARS internal storage. Please connect one USB external drive at a time. Do not play music directly from the external 2.5″ USB drive since noise will be injected to the motherboard's 5V rail.
- The USB port labelled "USB DAC" is an isolated USB2 port specially designed to be connected to an external USB DAC or DDC. The "USB DAC" port can also be used to connect to a DDC to support DACs without USB input.
  - Please use AA SiG XT USB audio cable to get the best sound from AARS.

Figure 4 USB Audio cable and AC power cord

Important Notes on the use of Circuit Breaker

After experimenting with audiophile fuses, we tried Eaton fast-acting circuit breaker and we like the sound compared to expensive audiophile fuse. It is very important to understand the differences between circuit breakers and fuses.

Figure 5 Eaton circuit breaker with rocker switch

- Most circuit breakers are slow-acting. We tried Eaton fast-acting circuit breakers and discovered that the ampere rating and reaction time are not the same with both fast-acting and slow-blow fuses.

- For AARS, there is AC voltage selection switch for 115 and 230 VAC operations. When changing the voltage, the circuit breaker needs to be changed.
  - For 230 VAC, we use 3.15A circuit breaker (almost equivalent to 2.5A slow blow fuse)
  - For 115 VAC , we use 6.3A circuit breaker (almost equivalent to 5A slow blow fuse)

- AARS uses Eaton circuit breaker with AC rocker switch as shown in Figure 5.

When fuse blows, we replace it. When circuit breaker trips, it is very important to do the following:

- Do not reset the circuit breaker immediately. Remove the power cable first, then wait for a few minutes (let it cool down) before resetting the circuit breaker (switch it off).
- Reconnect the power cable and check that the power cable is fully inserted.
- Switch on AARS and check the green LEDs of the motherboard are turned on.

If the issues are not resolved, please contact us directly.

Starting AARS for the first time

First time power on sequence

- Connect LAN cable.
- If AARS is used as an Endpoint, connect USB Audio cable.
- Turn on AARS rocker switch. Green LEDs on the motherboard will light (on the front right side when viewed from the front). This indicates AARS is on standby. We recommend keeping AARS on standby when not in used (rocker switch remains in ON position) unless AARS is not going to be used for an extended period of time.
- Turn on USB DAC [and DDC if used] of your audio system.
- Turn on pre-amplifier and power amplifier or your integrated amplifier.
- Turn on AARS by pressing the soft power button once. The front white LED turns on. The USB DAC or DDC will detect 5V signal.
- First time boot may not generate Windows StartUp sound if the USB DAC driver is not installed or this is the first time AARS is connected to the USB DAC.
- If LAN is properly connected, AARS StartUp scripts set the active Ethernet connection to Private.
- If LAN2 was never used, before the first time use, please connect Ethernet cable to LAN2 before AARS is powered up as AARS StartUp scripts need to set LAN2 connection to Private.

To shutdown AARS, press the front soft power button twice. Windows shutdown begins and typically takes about 30 seconds before the front white LED goes off indicating AARS is on standby. However, do not shutdown AARS yet as we have some setups to do.

Figure 6 AARS soft power button and power indicator white LED

Remote Desktop Connection (RDC) Setup

AARS is indeed a PC designed for audio use. AARS runs Windows 10 IoT Enterprise LTSC 21H2 edition which will reach end of service on January 13, 2032. It can still be used after that but will not receive any further updates from Microsoft.

AARS is designed to run headless. However, for first time use where USB DAC drivers need to be installed followed by copying music files into the local SSD(s), connection to AARS via another PC is necessary. The following guides assume another Windows PC or laptop is used to connect to AARS remotely. Both must be on the same Network.

Table 1 RDC parameters

Computer name	AARS-xx
User name	AudioPC
Credentials/Password	aaaudio

From Windows Start, type "Remote Desktop". Windows will show "Remote Desktop Connection" app. Click the app. Screenshots shown were taken from a Windows 10 laptop. The computer name is AARS-XX. If the serial number is 04, please use AARS-04 as the computer name.
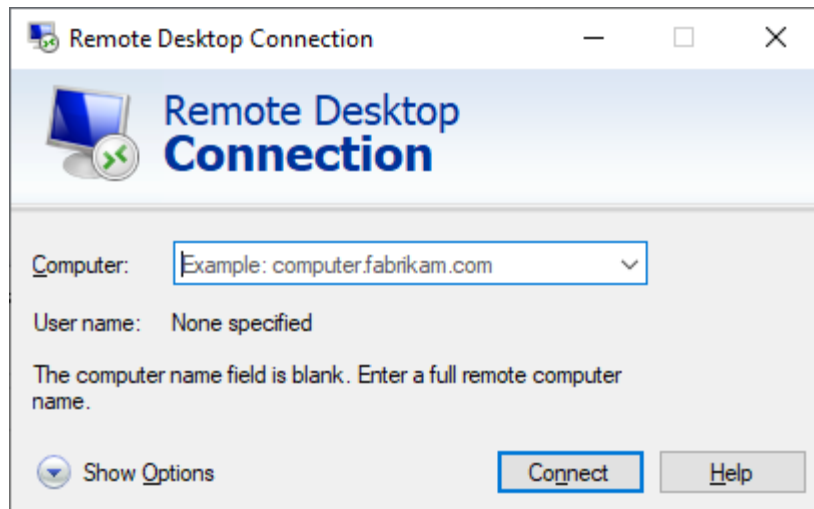
Figure 7 Remote Desktop Connection

In the examples given, we are trying to connect to AARS-01. Enter AARS-01 in the Computer name. Expand the dialog box by clicking "Show Options"
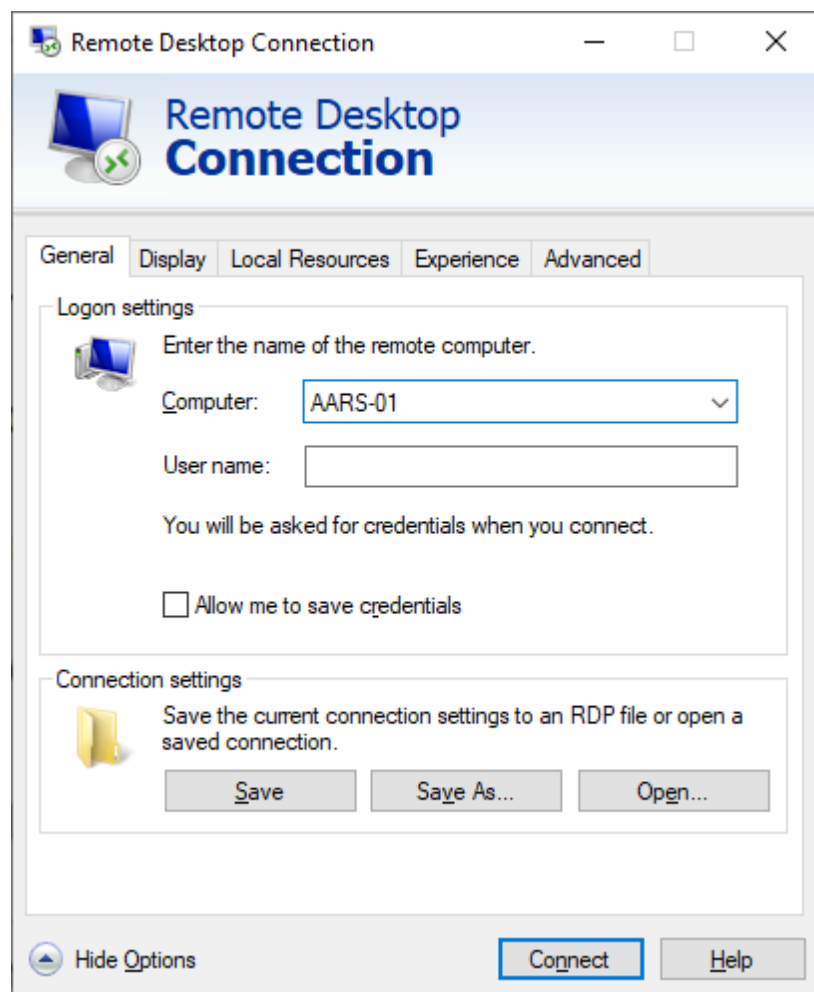

Figure 8 Enter Computer Name

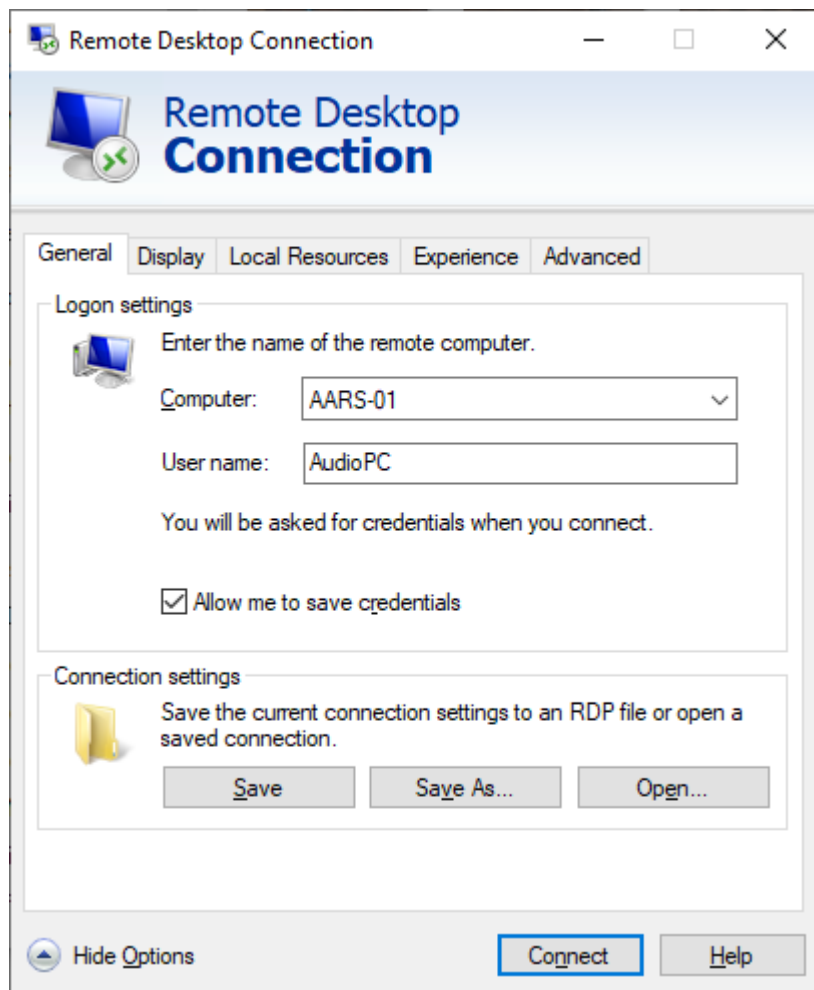Enter AudioPC as the user name and check the box "Allow me to save credentials".

Figure 9 Enter user name and check save credentials

The password is aaaudio (case sensitive). Enter the password and check "Remember me" then OK. Check "Don't ask me again for connections to this computer" and then Yes to proceed with connection.
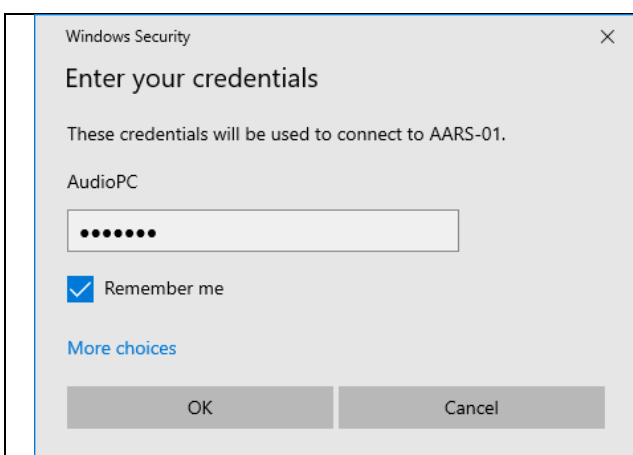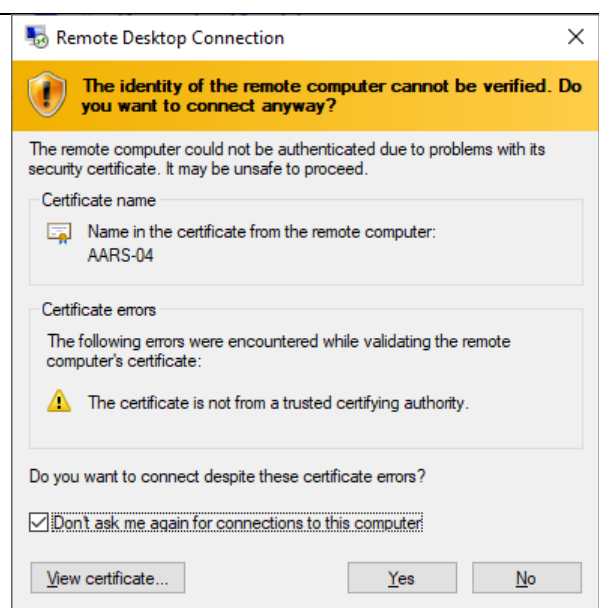

Figure 10 Password

Figure 11 Proceed with connection

If connection is successful, RDC will show the Windows screen of AARS. Please note the following:

- Drive C: is the Operating System SSD. Do not store music files here.
- Drives D: and optional E: are for local music storage. Copy your music folders and files here.
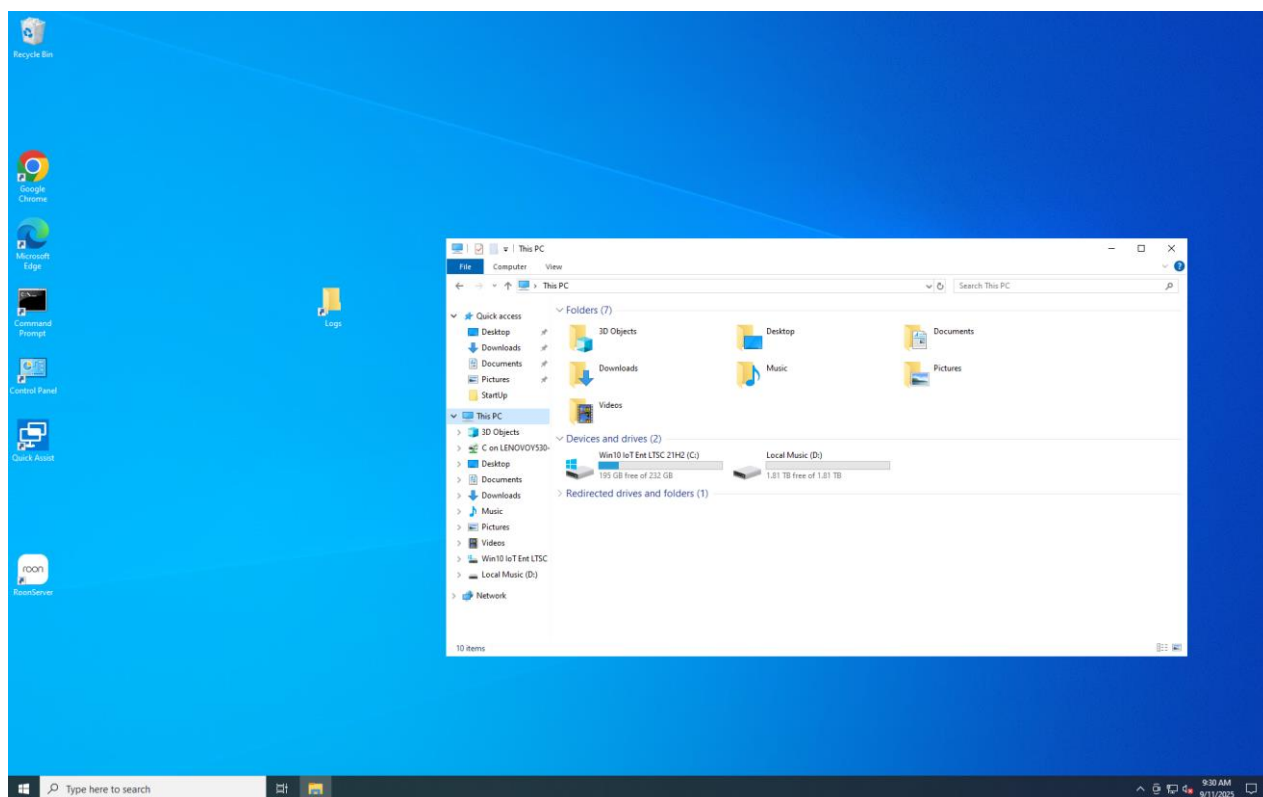

Figure 12 Remote Desktop Connection Screen of AARS

Install USB DAC Driver

To install USB DAC driver used in your system, go to the manufacturer's website and then download and install the relevant driver.

If USB DAC driver is not installed, Roon can detect connected DAC via WASAPI. If USB DAC driver is installed, Roon shows the DAC connected via WASAPI and ASIO. We prefer ASIO sound. To get the best sound from ASIO, please check your DAC manual. If the DAC is a 24-bit DAC (like R2R DACs), change ASIO bitrate setting from the default 32-bit to 24-bit and hear the difference.

Copy Music Folders and Files

By default, we have created "Music" folder for D: (and E: if purchased). Please connect your external USB drive containing music files to the back I/O of motherboard. Once the USB drive is detected, copy your music folders and files into D:\Music.

Sign out when done

When you are done with the above tasks, go to Windows Start, click AudioPC, then Sign out.
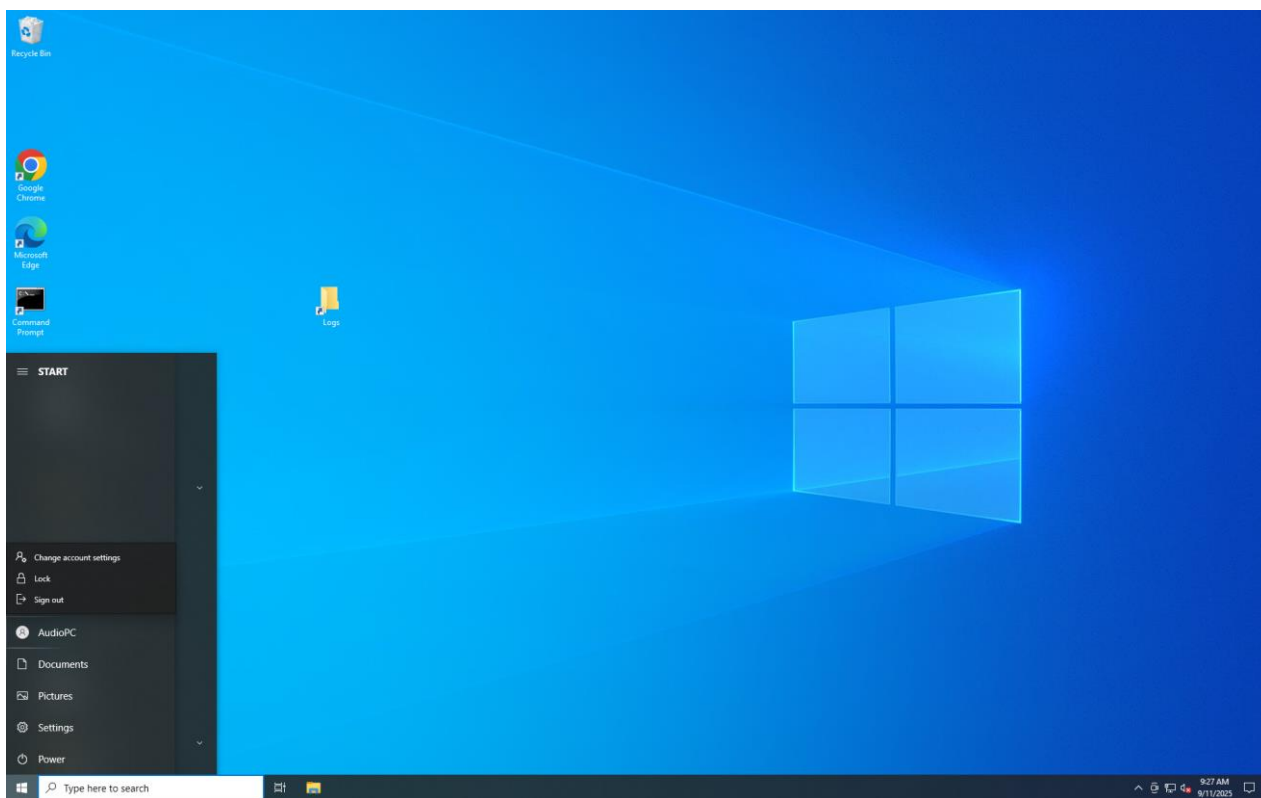
Taking care AARS

AARS has 7 rails of linear power supply. A lot of heat is generated by the linear voltage regulators which are transferred to the left side heatsink. The right side heatsink takes the heat from CPU via heat pipes.

To ensure long term reliability, please use AARS in an air-conditioned audio setup. If you do not use air conditioner, please use quiet cooling fans (AC Infinity MULTIFAN S7, Quiet Dual 120mm USB Fan) to the left side as shown in Figure 14 and Figure 15 so that the breeze will take away heat from AARS case. Set the fan to the lowest speed (L).

Figure 14 Put quiet fans near the left side of AARS

Figure 15 Side view of the quiet fans