Aurender 2022

Music Server + App
Indivisible With Boundless Access
And The Highest Fidelity For All

MQA **TIDAL** qobuz Spotify

aurender

ESSENTIAL AURENDER AUDIO TECHNOLOGY – Innovations In Music Making

Caching System

Every Aurender music server employs file caching via an internal SSD caching drive from which all playback occurs (internet radio excluded). When content is selected from the Conductor app for playback, whether it is stored locally or is from a streaming service, that content downloads almost instantaneously to the caching SSD from which all playback emanates. This saves wear and tear on the storage drive, minimizes system resources required to play music, and guarantees consistency of sound quality. This is a unique hallmark of the Aurender audio playback engine, and a big reason why Aurender's platform sounds as good as it does.

Dedicated USB Audio Output

Ever since the advent of file-based audio playback from a computer, USB became the de facto standard interconnect protocol for digital audio. While asynchronous USB audio technology does represent some major advantages such as support for super high sample rate transmission, and the potential for virtually no jitter, it has historically been very prone to noise and compatibility issues. Aurender's solution to USB audio involves a dedicated USB Audio Class 2 port that is mechanically filtered and isolated from the noise generating components of the computer.

OCXO Controlled SPDIF and AES/EBU Audio Outputs

As good as USB can be with the right DAC, SPDIF and AES/EBU protocols still present the opportunity for lower noise AND lower jitter in many scenarios. Aurender models N20, W20SE, and N30SA feature a suite of SPDIF and AES/EBU audio outputs controlled by an ultra-precise Oven Controlled Crystal Oscillator for the ultimate marriage of low noise and low jitter which these output technologies afford. Legacy DACs and even many of today's latest and greatest DACs will offer truer, more musical audio presentations when used with Aurender's distinctive OCXO-controlled SPDIF or AES/EBU outputs compared with USB.

MQA Core & Full Decode

Analog output Aurender models are built around MQA Full-Decoder DACs, meaning they are capable of realizing the highest performance that MQA file content can provide. Digital output models can be upgraded with MQA Core-Decoder software via an optional one-time in-app purchase. MQA Core Decoding offers the main benefit of MQA technology by unfolding the MQA content to a sampling rate of up to 96kHz. However, in order to experience the full potential of MQA, an MQA Full-Decoder DAC (such as the ones built in to Aurender's Analog Output series), or an MQA Renderer DAC is required.

Streaming Service Integration

Tidal and Qobuz streaming services are an embedded part of the Aurender Conductor App (subscription required). Access to streaming content and local content is combined for a seamless user experience from streaming services as well as locally stored files to form one all-inclusive music library.

Adaptive Storage System

Aurender developed adaptive storage because everyone wants something different. All models with adaptive storage (N150, N200, N20, N30SA, A200, A15, A20) allow for the installation of one or two 2.5" HDD or SSD up to 8TB. 100% streaming? No drives are required. Have a small library? Fit an economical 1TB HDD or SSD. Massive file storage requirements? Go for dual 8TB SSDs for 16TB total storage (N150 excluded).

Linear Power Supplies with Super Capacitor-Based UPS

Each Aurender model (ACS100 excluded) uses a linear power supply for superior low-noise power generation. Moving up the Aurender range, the sophistication and capacity of PSUs increases to conform with the performance criteria and expectation of lower noise, greater dynamic range, slam and low-frequency extension. Also included on each model is a super capacitor-based uninterruptible power supply (UPS). The UPS will protect the unit's operating system and storage disk from corruption in the event of an abrupt power outage by safely shutting the unit down.

Low Power/High Efficiency Intel CPU

If the power supplies are the heart of an Aurender system, the CPU is the brain. The CPU is the most power hungry and noise-generating component of any computer. Aurender's 10+ years of computer hardware engineering have led us to this moment where every Aurender model (W20SE excluded) is based around ultra low-power, high-efficiency Intel CPUs which provide enough processing power to run smoothly now and in the future, while minimizing the amount of current and noise generated by the computer.

Double-Isolated Gigabit LAN Port

Ethernet connections are well-known to pick up and transmit RF noise from the surrounding environment and other components upstream. Aurender employs 2 layers of transformer based filtration and isolation to mitigate noise introduced by the LAN cable connection to negligible levels.

Full-Color Display, with Critical Listening Mode Option

For most of us, the way a system looks affects the way we experience it in a major way. Therefore, it is important for luxury audio equipment to impart a pride of ownership and aesthetic sensibility that ingratiates itself into your system and your home. That's why every model in Aurender's "next generation" product range is built with an eye-catching full-color display to view album cover art, artist, and track information. And, for those moments where the lights are off and all that matters is the music, enable "Critical Listening Mode" to defeat the front panel display and immerse yourself totally in the music and sound.

N30SA

Dual–Chassis Reference Caching Music Server / Streamer
1 x 8TB SSD Installed with Extra Slot for Additional Drive
USB, AES/EBU, Coaxial, BNC, Optical Outputs, and Word Clock Input

N30SA – The Master Cleanse

Do you value musical reproduction with the utmost in transparency, resolution, pace, rhythm, dynamics and a revealing musical expression? If so, look no further than Aurender's flagship creation: N30SA. This two-chassis digital audio source component redefines what's possible in terms of the profound musical engagement extracted from files and streams. By separating and isolating noisy power supply blocks, storage drives, CPU and display circuitry away from sensitive audio outputs, the N30SA creates an uncanny kind of quiet. The kind of quiet that results in the listener's ability to hear deep into the music and identify each individual instrument with ease – even from the most complex musical passages. As with N20 and W20SE, N30SA's SPDIF and AES/EBU outputs are controlled by an ultra-precise OCXO clock to minimize jitter and its negative artifacts, therefore alleviating the harshness that plagues lesser digital components. N30SA's unique hybrid power supply derives a pure DC source to flawlessly power the sensitive digital audio output board, while the AC powered linear supply is capable of delivering the kind of voltage swings necessary for unbridled dynamics, deep bass extension and slam. A pair of supplied cables for connecting the two chassis are included in 0.5m and 1.5m lengths allowing for further physical separation and noise suppression. An impressive 8.8" full-color IPS LCD display reproduces the album art, artist name and song title. An 8TB SSD is internally fitted, with a second disk tray for storage expansion, if needed.

W20SE − A Remarkable Reset

Few digital audio components remain in production for eight years or ever reach the iconic status of the original W20. The W20 Special Edition (W20SE) has taken the digital audio classic and refined and refreshed it to a new, even higher pedigree. Coveted by music lovers, audiophiles and connoisseurs of distinctive luxury objects for its pure, natural sound, nuance and musicality, W20SE is truly in a class of one.

A unique LiFePO4 battery operated power supply eliminates AC noise allowing the music to emerge from an inky black background. Designed to be paired with the world's finest digital-to-analog converters, the W20SE is equipped with a word or master clock input, and unique dual-wire AES/EBU outputs. These rarefied features deliver even higher performance and synergy from companion DACs and clocks in use. In the absence of an external clock, W20SE's OCXO-based clock controls the SPDIF and AES/EBU outputs, taming that annoying "digital glare" by reducing jitter to near unmeasurable levels resulting in music with analog-like reality. W20SE can accommodate the largest music collections as it can be built to order with 4TB, 8TB or 16TB of internal SSD storage.

N20

Ultra High Performance Caching Music Server / Streamer
2 x Slots for 2.5" HDD or SSD Drive (user installable)
USB, AES/EBU, Coaxial, BNC, Optical Outputs and Word Clock Input

W20SE

Battery-Powered Reference Caching Music Server and Streamer
4TB SSD Storage with 1 TB SSD Caching Drive
USB, Dual-AES/EBU, Coaxial, BNC and Optical Outputs / Word Clock Input

N20 − The New Aspiration

"The Aurender N20 hits the bullseye with simplicity, stability, speed, and sound quality. The product is as simple as possible, but no simpler", said AudiophileStyle.com and we couldn't agree more.

N20 sits in the enviable "sweet spot" of cost vs. performance in the middle of Aurender's range of digital source components. Equally at home in a cost-no-object system or as the cornerstone of a more modest system, N20 is designed to be connected to the world's best high-quality DACs. the N20 features ultra high-end SPDIF (Coaxial, BNC, Optical) and AES/EBU outputs in addition to an isolated USB Audio output. The SPDIF digital output suite is controlled by a precise OCXO clock for long-term jitter reduction, achieving the perfect marriage of low noise and low jitter. A word clock or master clock input is also provided for users who wish to sync with an external clock. High-resolution file support for all major codecs goes to the extreme limits, and on-the-fly DSD-to-PCM conversion by FPGA is available for SPDIF outputs. N20 is equipped with two user-installable storage bays, allowing the user to select the drive type and capacity to meet their own needs. The handsome machined aluminum front panel features a large 8.8" full-color IPS LCD display that reproduces the album art, artist name and song title.

A true overachiever, the N20 fully embodies the virtues of high-end audio performance and user-friendliness expected from Aurender.

N200

High Performance Caching Music Server / Streamer
2 x Slots for 2.5" HDD or SSD Drive (user installable)
USB and Coaxial Digital Outputs

N150

Minimalist High Performance Caching Music Server / Streamer
1 x Slot for 2.5inch HDD or SSD Drive (user installed)
USB Digital Audio Output

N200 – Start Feeling Music

The N200 is a milestone in terms of cost versus performance. Its combination of exceptional audio performance, unique feature set and selling price make the N200 a highly desirable model within the Aurender range. Occupying most of the machined aluminum faceplate is a 6.9" full-color IPS LCD display showing album artwork, artist name and song title playing. Cosmetically and mechanically, its design lends the N200 the look of a "mini N20." All the recent Aurender innovations including a low power Intel quad-core processor, our latest-generation modular USB Audio Class 2.0, 2X isolated gigabit ethernet port and super-capacitor based uninterrupted power supply (UPS). N200 is capable of handling PCM up to 384kHz and DSD content up to an amazing DSD512! We've also expanded the options for internal music library storage capacity by providing two user accessible HDD or SSD trays allowing for the installation of the drive type and capacity that best suits your needs. And, if you're streaming 100%, no drives need to be installed.

N200 delivers performance very close to the pinnacle Aurender experience, with only the smallest of compromises to make it as accessible as possible for the serious music lover.

N150 – Smart Decision for the Sound Obsessed

The Aurender N150 is the most accessible entry point to the Aurender range of music servers and streamers. While it was designed with affordability in mind, in true Aurender fashion, its audio performance decidedly belies its cost. The N150 is the ideal music server / streamer to choose when upgrading from a cd player, computer or budget brand streamer to discover the world of true high end, high resolution playback. Designed to be used exclusively with a USB DAC, the N150 incorporates our latest USB Audio Class 2.0 output and 2X isolated gigabit LAN port to lower both noise and jitter for the pristine reproduction of high-resolution files and streams. A high contrast 3" AMOLED screen mounted on a compact machined aluminum chassis indicates "Now Playing" track info. Performance and usability enhancing features include a linear power supply, low power/high-efficiency Intel CPU board, super capacitor-based UPS, and a user-installable storage tray for the SSD or HDD that suits your library storage needs.

N150 is the perfect choice for users who care not for the large, full-color screen and SPDIF or AES/EBU outputs of models higher up in Aurender's range. There is nothing "entry level" about N150, except for the price.

A30

Reference Caching Music Server / Streamer / DAC / MQA Full-Decoder / Headphone Amplifier
CD Ripper / Music Library Manager / 10TB HDD Storage
Variable-Output Balanced XLR and Single-Ended RCA Analog Outputs
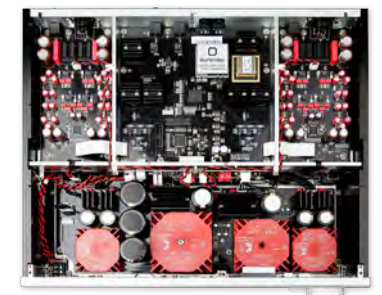USB Digital Output / Coaxial and Optical Digital Inputs

A20 – Music, From Memory

The A20 is derived from the A30 and delivers the same reference-level audio performance, but without the CD ripping and library management functionality. The A20 also replaces the A30's factory-fitted 10TB HDD with two user accessible bays to install one or two 2.5" HDDs or SSDs for the music storage capacity needed or desired.

Employing the same world-renowned dual-mono AKM 4497 chipset as that found in model A30, you can expect nothing but the best in sound quality. The A20 is ideal for the user seeking exceptional audio performance from files and streams without the fuss or complexity of separate components.

A20's scaled back design makes no compromise where audio performance is concerned. Music lovers who have no need for CD ripping functionality and want a high-end DAC without adding more boxes will find A20 to be a stellar foundation to their system.

A30– A Marriage of Performance and Convenience

A30 provides everything one needs to create, store, manage, edit, and play digital audio file content in one self-contained audio source component. Equipped with a professional-grade slot-loading CD-ROM ripping drive and 10TB of internal storage, A30 is the answer for archiving your entire CD collection. Advanced library organization including metadata editing, content organization, duplicate detection and removal, and copy/move/delete tasks are possible with Aurender's own A30 Manager companion app.

A30 employs a reference-grade, dual-mono AKM4497 DAC with full MQA Decoder technology to enable the optimal MQA playback experience. With support for digital files up to PCM 768kHz, DSD 512, and integrated access to streaming services, your music library has no limits. As with A200, A15, and A20, A30 can function as the central hub of a fully digital audio system thanks to its ability to function as a preamplifier. Using it in the variable output mode, one can connect directly to a power amplifier. Volume can be adjusted from the front panel rotary, the app on the phone or tablet or from the supplied IR remote control. For other sources, A30's DAC can be utilized via coaxial or optical inputs.

For the head-fi enthusiast, A30's balanced operation headphone output is designed to compete with the best stand-alone headphone amps and DACs. With three different output connector options, A30 delivers the best performance for your headphones.

A20

Reference Caching Music Server / Streamer / DAC / MQA Full-Decoder / Headphone Amplifier
2 x Slot for 2.5" HDD or SSD Drive (user installable)
Variable-Output Balanced XLR and Single-Ended RCA Analog Outputs
USB Digital Output / Coaxial and Optical Digital Inputs

A200 – Functional Finesse

The A200 replaces model A100 as Aurender's most elemental offering of a music server / streamer with a built-in DAC and analog outputs. Its combination of superlative audio performance, user experience, and selling price make the A200 an ideal choice as the sole source component in a high-performance digital audio system. By virtue of its all-new low power Intel quad-core processor, low noise linear power supply, MQA Full-Decoder DAC, and adaptive storage system, A200 brings a higher fidelity to your hi-res digital files and streams. The handsome machined aluminum chassis sports a 6.9" color LCD display that gives the impression of a component costing far more.

A200 incorporates all the latest generation Aurender innovations, including a stereo version of the remarkable AKM4490 MQA Full-Decoder DAC (the same chipset found in model A15), coaxial and Toslink digital inputs, 2X isolated gigabit ethernet port and a Super-Capacitor based uninterruptible power supply (UPS). We've also expanded the options for internal music library storage by providing two user accessible dual HDD/SSD trays allowing for the installation of the drive type and capacity that best suits your storage needs (if any).

A200 is yet another step up in audio performance that one would expect from a new Aurender model.

A15

Ultra High Performance Caching Music Server / Streamer / DAC / MQA Full-Decoder / Headphone Amplifier
2 x Slot for 2.5" HDD or SSD Drive (user installable)
Variable-Output Balanced XLR and Single-Ended RCA Analog Outputs
USB Digital Output / Coaxial and Optical Digital Inputs

A15 – Elegant Simplicity

The legendary A10 changed the paradigm for Aurender by introducing our first music server/streamer with a built-in DAC. A15 is the upgraded replacement of A10, featuring many new features and audible improvements. And, while it's a true high-performance music server / streamer, it is priced to be highly competitive with comparable separate DAC/Server setups.

A15 is performance-packed with balanced analog outputs and a high-performance dual-mono AKM4490 digital-to-analog convertor with MQA full-decoder technology. As with all of Aurender's "A" series, A15 is designed to take full advantage of the vast selection of MQA encoded music from the Tidal streaming service or from stored MQA music files. It also has two rear panel bays which can accommodate user-installable 2.5" HDDs or SSDs of up to 8TB each to store the largest of music libraries. A large full-color front panel display shows album cover art along with artist name and song title.

The A15 is a great choice for those replacing an aging CD player, laptop or just for wanting the inherent simplicity of a one-box source component. Whether you stream, play hi-res files or both and seek an affordable option to do so, look no further than the A15.

A200

High Performance Caching Music Server / Streamer / DAC / MQA Full-Decoder / Headphone Amplifier
2 X Slot for 2.5" HDD or SSD Drive (user installable)
Variable-Output Single-Ended RCA Analog Outputs / USB Digital Output / Coaxial and Optical Digital Inputs

ACS10 – Master Content, Control and Sound

Designed and developed to eliminate the reliance upon computers and other IT products in your digital audio system, the Aurender Content Server (ACS10) unifies the activities of CD ripping, NAS-style storage (with RAID1 mirroring), and advanced library management and metadata editing. All this and much more is incorporated within this network-attached audio component. The included companion app, ACS Manager incorporates easy-to-use menus to perform these tasks right from your iPad or Android tablet. And, in addition to these advanced features, ACS10 also excels as a stand-alone caching music server / streamer with the same filtered & isolated USB audio outputs found on every other Aurender model (with the exception of ACS100).

CD Ripping, Storage, RAID1 Mirroring

Aurender's CD ripping engine creates the best sounding files from your CDs in your choice of FLAC, WAV or AIFF codecs. Metadata is automatically retrieved and the album cover art and other metadata can be viewed on the front panel display. A TEAC CD-ROM drive extracts the CD data bit perfectly and incorporates AccurateRip software that will verify extracted audio files against an internet database making sure they are error free. Ripping is a one-touch operation with a unique user determined target folder depository. Your perfectly ripped files will be stored on ACS10's internal storage, which may be ordered in following capacities: 16TB (8TBx2), 24TB (12TBx2) or 28TB (14TBx2). These can be configured in RAID1 redundant mirroring or total storage mode giving you the full usable capacity of both drives.

Tag Editing and Library Management

Aurender's ACS Manager companion app contains a Smart Tag Editor for modifying your files' metadata tags to your own specifications. The Copy / Move / Delete utility allows for easy transfer of music libraries from various other network attached devices and can also perform a scan for duplicate file removal. Automatic duplicate detection and removal is available to get rid of annoying duplicates without deleting unique content.

Aurender Ecosystem

One can use ACS10 as a central server for other Aurender players. Connectivity is accomplished over the network allowing the ACS10 to be conveniently located in your main audio system or in a separate location. When used this way, ACS10 functions as your music library central storage unit, with other Aurender devices streaming from the content stored exclusively on your ACS.

ACS100

CD Ripper / Metadata Editor / Dual-HDD Storage / Library Manager
2 x Slot for 2.5" HDD or SSD Drive (user installable)

ACS10

Caching Music Server / Streamer with USB Output
CD Ripper / Metadata Editor / Dual-HDD Storage / Library Manager

ACS100 – Small Wonder!

The ACS100 was developed to be a more cost-effective version of the ACS10. Offering the same CD ripping and library management features and functionality as the ACS10, it omits built-in storage in favor of a user-installable storage option. Also, it uses a less expensive external switch-mode power supply instead of ACS10's high-performance linear power supply. Finally, it is the only Aurender model that is NOT equipped with a dedicated filtered & isolated USB audio output.

Therefore, it is the ideal add-on companion to add CD ripping, library management, and central storage for use with another Aurender player such as the A200, A15, N20, W20SE and N30SA. As with ACS10 and A30, the ACS Manager companion app facilitates unprecedented flexibility in CD ripping, editing of metadata, library management and curation. While adding valuable functionality to another Aurender, ACS100 can simultaneously be used as a source component for a second system.

Although the ACS100 can operate as a stand-alone music server / streamer, best sound quality is achieved when used with a companion Aurender player.

MC20
Rubidium-based Master Clock/Word Clock

Aurender Conductor App
for iPad, iPhone, Android Phone and Tablets

MC20 – Time is of the Essence

As good as the clocks are in the N20, W20SE and N30SA, there is always room for improvement. In a typical digital audio system, several clocks may be present. For example, there are clocks in the server for files and streaming, the ethernet connection, router, switches and the Audio Class 2.0 USB digital output. If these multiple clocks fail to synchronize, fidelity will be compromised.

It is a well-known fact in digital audio that the lower the jitter, the better the sound. Performance-based external master clocks are devices designed to synchronize single or multiple digital devices and create a stable clock frequency that is shared, creating a master / slave arrangement, or Digital Audio Reference Signal (DARS). By doing so, jitter and timing errors are reduced to infinitesimal levels and stability greatly improved. To accomplish this the MC20 employs a highly accurate Rubidium clock which improves clocking to a level that harmonic distortion, phase noise, drift and long-term stability are now negligible. Once one experiences the improvements in depth, dimensionality, clarity, imaging, ambience recovery and the most importantly, the ability to untangle complex musical passages into individual, distinct instruments.

The MC20 is a flexible tool that can handle numerous tasks thanks to its numerous sampling frequency, input / output and connectivity options. Proper termination of the MC20 can be either via a BNC terminated 50 or 75 ohm cable.

Control by Aurender Conductor

Aurender Conductor is an award-winning music management application that is at the heart of every Aurender music server/ streamer. It provides quick access to your favorite files or steaming service and is intuitive, easy to use, and simple to master. Conductor is supported on iPad, iPhone, Android phones and tablets. An Aurender music server is inclusive and designed in such a way so that both hardware and software work together in harmony. This integration ensures better sound quality, reliability, stability and predictability of operation. It also allows Aurender to provide an unprecedented level of customer support via our app-based remote support functionality.
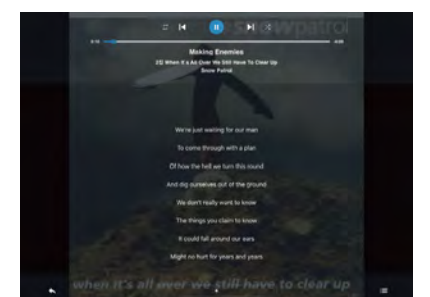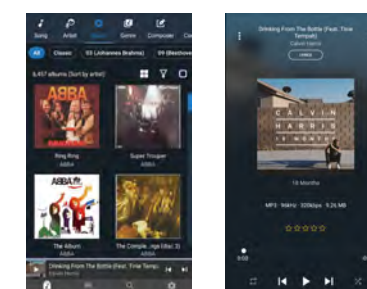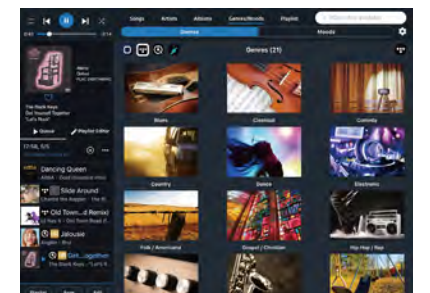
Which Aurender is right for me?

There is an Aurender model for every type of serious home audio system. This selection guide will help distill all the available options down to the correct choice for your system and your expectations. The most common determining factors are covered here, but there may be elements beyond the scope of this chart which impart a reason to choose one model or another. Consult your Aurender dealer for more information.

Which best describes your system (or the system you are building)?

Ultimate/Extreme/State–of–the–Art – I'm looking for the best possible audio performance.

Do you want to use a separate DAC or do you prefer an Aurender with integrated DAC?

- **Separate**
- **Integrated**

As good as A30/A20's analog outputs sound (and they do sound phenomenal), even better performance can be achieved with a dedicated, stand–alone DAC.

- **Go with separates**
- **Keep it integrated**

What qualities do you prefer?

- **Refined & Nuanced** → **W20SE***
- **Detailed & Dynamic** → **N30SA***

Do you need CD ripping or balanced headphone outputs?

- **Yes** → **A30**
- **No** → **A20**

High level, serious about system but I am not quite at that "flagship" level. sound – I have a great

Do you want to use a prefer an Aurender separate DAC or do you with integrated DAC?

- **Separate**
- **Integrated**

Many DACs perform better on SPDIF inputs vs. USB. Starting with model N20, you get ultra low jitter SPDIF outputs in addition to slightly improved USB.

- **SPDIF**
- **USB**

→ **N20**

Do you want Aurender's best integrated DAC?

- **Yes**
- **Really good is good enough.** → **A15***

Is CD ripping functionality important??

- **Yes** → **ACS10**
- **No** → **N200**

Very good – I care a lot about sound quality, but I spend more money on music than equipment.

Do you want to use a separate DAC or do you prefer an Aurender with integrated DAC?

- **Separate**
- **Integrated**

Is CD ripping functionality important??

- **Yes** → **ACS10**
- **No**

Do you want a full color screen with album art and coax output (in addition to USB)?

- **Yes** → **N200**
- **No** → **N150**

Do you want balanced XLR outputs?

- **Yes** → **A15***
- **No** → **A200***

---

*Want to add CD ripping, advanced library management functionality, and a source for a second system?

add–on | **ACS100**

aurender