CARY AUDIO

OWNER'S MANUAL

DMS-500, DMS-550, DMS-600

Network Audio Players

NOTE: Before installing your new component, please read this manual carefully as it will inform you of the product specifications, proper installation and correct operating procedures for your unit. Also included in this manual are guidelines on how to service and care for your new Cary Audio Design product.

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IMPORTANT SAFETY INSTRUCTIONS

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

ATTENTION:
RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR

NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALITIFED PERSONNEL.

TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICEABLE PARTS INSIDE.

Protective Earthing

Additional Safety Information specific to this product may be contained in the Owner's Manual supplied with this product

Hot Surface

Please read these important safety instructions before operating this equipment.

1. Before powering up the equipment, read all safety and operating instructions and follow them as instructed. Retain the safety and operating instructions for future reference.
2. Do not place the unit on an unstable cart, stand, tripod, bracket, or table. The unit may fall, causing injury to a person or damage to the unit. Mount the unit according to the manufacturer's instructions with the suggested mounting accessory.
3. Mount the unit to a wall or ceiling only in the manner recommended by the manufacturer.
4. Do not use the unit near water (for example, near a swimming pool, bath tub, wash bowl, kitchen sink, or laundry tub) or in a damp environment (like a basement or outside in the rain).
5. Clean only with a dry cloth.
6. Do not push objects of any kind into the unit through openings as they could touch dangerous voltage points and short-out parts, possibly resulting in a fire or electric shock. Avoid spilling liquid of any kind on the unit. If water or any metal object (such as a paper clip, coin, or staple) accidentally falls inside the unit, disconnect it from the AC power source immediately and contact Cary Audio Design for further instructions.
7. Position the unit away from heat sources such as radiators, heat registers, stoves, or other units (including amplifiers) that produce heat.
8. This unit is not intended to be used on soft supported items (like blankets, pillows, etc.).
9. This unit is not suitable for use in locations where children are likely to be present.
10. Slots and openings in the cabinet create ventilation to protect the component from overheating. These openings on the top and bottom panels must remain unobstructed. Allow at least 6 inches (16cm) of clearance above the unit and an opening behind the unit for airflow. Do not place the unit on a bed, sofa, rug, built- in bookcase, or rack without adequate ventilation.
11. Use only those attachments recommended by the unit manufacturer, as others may cause hazards.
12. This unit requires a reliable connection to the socket/outlet with protective earthing by means of the specified power cord set.

13. As a safety feature, the unit may be equipped with a polarized alternating current line plug in which one blade is wider than the other. This plug will fit into the power outlet only one way. If you cannot insert the plug fully into the outlet, try reversing the plug. If the plug still will not fit, contact a licensed electrician to update your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
14. Operate the unit only from the power source indicated on the marking label. If you are unsure of the type of power supplied to your home, consult your unit dealer or local power company.
15. Arrange power supply cords so that they do not suffer from foot traffic or pinching by items placed on or against them. Pay close attention to cords where plug enter the AC outlet and where they exit from the unit.
16. For added protection during a lightning storm or when the component is idle for long periods of time, unplug the unit from the wall outlet and disconnect the antenna or cable system. This will help protect the unit from lightning and power line surge damage.
17. Do not locate an outside antenna system in the vicinity of overhead power lines or other electric light or power circuits. When installing an outside antenna system, take extreme care to avoid touching the power lines or circuits; contact with them could be fatal.
18. Do not overload wall outlets, extension cords, or integral convenience receptacles as this increases the risk of fire or electric shock.
19. External wiring connected to terminals of this unit shall be installed by a skilled person.
20. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or those having the same characteristics as the original parts. Unauthorized substitutions may result in fire, electric shock or other hazards.
21. Upon completion of any service or repairs to the unit, ask the service technician to perform safety checks to ensure the unit is in proper operating condition.

IMPORTANT SAFETY INSTRUCTIONS

22. Before connecting a new product to your audio or home theater system, turn off all other equipment (preferably unplugging them from the AC power source). Many audio components feature automatic turn-on circuits that may activate during an installation, potentially causing damage to electronic components and/or speakers. This type of damage is not covered by product warranties, and Cary Audio specifically disclaims responsibility for any such damage.
23. The removable power cord provided with your unit was specifically designed for use with this product, but other AC cords may be used. Consult your dealer for advice on AC power cords and high quality wire in your system.
24. The fuse is located inside the chassis and is not user serviceable. If the unit does not power up, contact an authorized service representative
25. Cables running inside walls should have the appropriate markings to indicate compliance and listing by the UL, CSA or other standards required by the UL, CSA, NEC or your local building code. Questions about cables inside of walls should be referred to a qualified custom installer, a licensed electrician, or low-voltage contractor.
26. Recording of copyrighted material for other than personal use is illegal without permission of the copyright holder.

CAUTION: High current. Connect to earth before connecting to supply of unit. Unplug the unit before performing any service.

Unit can be hot. Be careful of burned fingers when handling parts. Wait one half hour after switching off to handle parts.

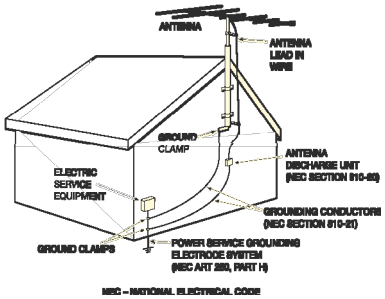
NOTE TO CATV SYSTEM INSTALLER: This reminder is provided to call the CATV system installer's attention to article 820-40 of the NEC, ANSI/NFPA 70, which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

FCC INFORMATION FOR USER:

- **CAUTION:** Any changes or modifications not expressly approved by Cary Audio Design could void the user's authority to operate the equipment.
- **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 and can radiate radio frequency energy, and if not installed and used in accordance with the instructions it 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.
    - Connect the equipment into an outlet on a circuit different from where the receiver is connected.

OUTDOOR ANTENNA INSTALLATION/SAFE ANTENNA AND CABLE CONNECTION:

- If an outside antenna or cable system is connected to the equipment, be sure the antenna or cable system is grounded in order to provide protection against built-up static charges and voltage surges. Article 810 of the National Electrical Code, ANSI/NFPA 70 (in Canada, Part 1 of the Canadian Electrical Code) provides information regarding proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes and requirements for the grounding electrode.
- Outside antenna system should be located well away from power lines, electric light or power circuits and where it will never come into contact with these power sources if it should happen to fall. When installing an outside antenna, extreme care should be taken to avoid touching power lines, circuits or other power sources as this could be fatal. Because of the hazards involved, antenna installation should be left to a professional.



IMPORTANT SAFETY INSTRUCTIONS

Disposal Instructions

NORTH AMERICAN WASTE OF ELECTRICAL AND ELECTRONIC EQUIPMENT DIRECTIVE

When discarding the unit, comply with local rules or regulations. Batteries should never be thrown away or incinerated but disposed of in accordance with the local regulations concerning battery disposal.

EUROPEAN UNION (EU) WASTE OF ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE) DIRECTIVE

The European Union's WEEE directive requires that products sold into EU countries must have the crossed out trashbin label on the product (or the package in some cases). As defined by the WEEE directive, this cross-out trashbin label means that customers and end-users in EU countries should not dispose of electronic and electrical equipment or accessories in household waste. Customers or end-users in EU countries should contact their local equipment supplier representative or service centre for information about the waste collection system in the country.

WELCOME

THANK YOU

Cary Audio would like to thank you for purchasing our products.

Since its founding in 1989, Cary Audio has stayed at the forefront of home entertainment equipment by stubbornly adhering to the principles of quality and musicality upon which it was founded. It's not enough just to be able to build great sounding gear, but it needs to be well-made, reliable, and maintain its performance and value for many years. Cary Audio has certain criteria that have guided us since we began and are still our primary focus.

We firmly believe in high performance products that offer incredible value for the money, backed by superior engineering and design, and supported by exceptional customer service. Whether a headphone amplifier or a world-class network audio player, Cary Audio uses the highest quality components available within the audio circuit, resulting in extraordinary sound quality. This is a well-known hallmark of all Cary Audio products.

For more than a quarter of a century, Cary Audio has provided the best in high performance music systems. We remain committed to our goals of building the very best products, at real-world prices, and supporting them with world-class service. Let our passion for the very finest sound help you better enjoy your music! Thank you for your continued support!

The Cary Audio Team

WELCOME

USEFUL TERMS

Network Connection – A connection to a home network router (needed for *Network Music*) which in turn is typically connected to the Internet. Although an Internet connection is not necessary for a home network or *Network Music*, it is needed for *Internet Music*. A network connection can be either wired, or wireless.

Client – A component that finds music stored on network devices and retrieves it for playback over its own music playing software.

Renderer – A component that lets other devices such as computers or Apps push music to the component for playback via the media player of the computer or App.

Wired Connection (Ethernet) – A connection to the router with an Ethernet (Cat5e, etc.) cable.

Wireless Connection (Wi-Fi) – A connection to the router via a components built-in Wi-Fi. Router must also be Wi-Fi capable.

Network Music – A broad term that refers to music originating from a computer or NAS drive that is connected to a home network for playback over a *Digital Music Streamer/Network Audio Player*.

Digital Music Streamer/Network Audio Player – An audio component like the DMS-500/550/600 that connects to a home network that can access *Network Music* for playback.

NAS Drive – (Network Attached Storage) An external hard drive that connects directly to a network router (wired or wirelessly), unlike a USB hard drive that connects to a computer or audio component.

Internet Music – Music from an Internet music service, such as Pandora, Internet Radio, etc. Requires a router connected to the Internet.

Server – for the purposes of this manual, a server is a software application installed on a computer or NAS drive that monitors a music library and "serves" files to a **Digital Music Streamer/Network Audio Player**. Server software can be lite background "server only" applications (i.e.; Twonky), or part of a larger suite of software within a Media Player application (i.e.; JRiver).

Computer-less –Playback that doesn't require a computer or network setup. For example; directly connecting a USB HDD, flash/thumb drive, or SD Card to the DMS-500/550/600 for playback.

Local Music – This includes *Computer-less* USB HDD, flash/thumb drives, SD Cards, or other components (CD players, Cable Boxes, etc.) connected directly to the DMS-500/550/600 for playback.

App or Control App – A free iOS or Android App that can take the place of the hand held IR remote to control all functions of the DMS-500/550/600 from a comfortable position away from the unit itself.

WELCOME

ABOUT THE DMS-500/550/600

The DMS-500/550/600 represents the next generation of our renown "DMS" platform. Each utilizing the latest AKM DAC Chips (DMS-500: AK4490EQ, DMS-550: AK4493EQ, DMS-600: AK4497EQ), latest generation MQA decoding and filtering technology, built-in headphone amplifier (DMS-550 only), aptX™ HD better-than-CD Bluetooth, and advanced MU-MIMO Wi-Fi technology (DMS-550/600 only). The DMS-500/550/600 Network Audio Player DAC allows for the playback of network, Internet and local digital music files. This means the DMS-500/550/600 can play digital music files stored on computers or NAS drives that are connected to the same network as the DMS-500/550/600, or from internet music services as well as from USB and SD card storage devices. The DMS-500/550/600 can connect either wired or wireless to your network. Additionally, the computers and or NAS drives storing your digital music files can also be connected to your network wired or wirelessly, depending on your network setup and peripherals. This manual assumes you are familiar with computers and networks necessary to stream network audio. Cary Audio is not responsible for supporting personal network, computer or software components nor settings. For "computer-less" playback of digital music files, the DMS-500/550/600 also includes USB and SD Card inputs. These allow a direct connection from USB hard drives, flash/thumb drive, or SD card for a fast and convenient method of playback. Additional inputs include Qualcomm aptX HD® Bluetooth, Coaxial, Optical, and AES/EBU to round out a complete digital music hub for all your digital music sources.

INSTALLATION

UNPACKING

This section describes the proper unpacking and installation procedures.

Unpacking

All Cary Audio shipping cartons have been specially designed to protect their contents and special care has been taken to prevent damage under normal shipping conditions. Mishandling should be evident upon inspection of the shipping container. If shipping damage is found after visual inspection, take care not to destroy the evidence. If necessary, document the damage with photographs and contact the transport carrier immediately.

Carefully remove your new component from its packing carton and examine it closely for signs of shipping damage. We strongly recommend saving all original packing cartons to protect your component from damage should you wish to store it or ship it at a later date.

Power Requirements

The DMS-500/550/600 Digital to Analog Converter is designed to operate from AC main current. The design AC voltage is either 110V-120V or 220V-240V AC at 50-60 Hz.

In the Box

When unpacking your DMS-500/550/600, make sure the following accessories are included.
You should find the following items within the box:

- Power Cable
- Remote Handset
- Antennas (3)
- Owner's Manual
- Warranty Card

WARRANTY CARD

IN THE USA: If you are the original purchaser of a new unit purchased from an authorized Cary Audio dealer, please fill out the enclosed warranty registration card and return it to Cary Audio within 15 days of your purchase. Cary Audio also suggests that you keep your original packing cartons in case you ever need to ship the unit. Warranty restrictions apply. Consult the warranty section at the end of this manual for details. Please be certain to keep a copy of the original sales receipt from your direct purchase from Cary Audio or your authorized Cary Audio dealer to validate the warranty if ever needed. The warranty is for the original purchaser only and does not transfer to any subsequent owner.

OUTSIDE THE USA: Your local authorized Cary Audio distributor will make his own warranty policy for your country. Please check with them for the terms of warranty for your new amplifier.

INSTALLATION

PLACEMENT

In general, the location of your new DMS-500/550/600 is not critical. Certain precautions must be taken to ensure optimum performance. Avoid extremely hot locations such as near radiators or other heating units. Keep the top of the DMS-500/550/600 clear of books, paper or other equipment to protect against overheating.

FEATURES

The following section describes the DMS-500/550/600 advanced features. Please read the Operation Section of this manual to learn more on these unique features. The features are subject to change without notice or obligation.

MQA CERTIFIED FULL DECODING TO 768 KHZ

The DMS-500/550/600 are fully MQA Certified with the DMS-550/600 using 2nd generation MQA decoder filters, and the DMS-500 utilizing 1st generation decoder filters. MQA is a technology that captures the full magic of an original studio performance. Using pioneering scientific research into how people hear, MQA delivers master quality audio in a file that's small enough to stream or download – the days of sacrificing quality for convenience are over. Every nuance and subtlety of the artist's performance – every tiny drop of emotion is authentically reproduced. When you listen, you'll be transported right into the very moment of creation. The DMS-500/550/600 are the first of MQA's partner to offer 16x rendering of MQA files, meaning all MQA files will play at 768 or 705.6 kHz sampling rates.

aptX™ & aptX™ HD with Cary Audio's fi™ BLUETOOTH IMPLEMENTATION

Bluetooth modules are a fantastic and convenient way in which to share and listen to music from online and mobile sources. It's not unusual for companies to use such modules as a complete end-to-end or add on solution whereby using the cheap low-grade onboard DAC chips included in the modules and simply passing the analog signal of the module to the analog output section. Our solution is to *fully integrate (fi™)* the digital information from the Qualcomm aptX™ HD Bluetooth receiver, up to native 24 bit / 48kHz better than CD audio, into the entire digital circuit of the DMS-550/600. The DMS-500 standard aptX™ is capable CD quality 16 Bit / 44.1 kHz. This approach ensures that Bluetooth sources have the potential to sound like any other expensive input source whereby utilizing our sophisticated digital topology of parallel DACs and our other integrated digital features such as; TruBit™ Upsampling, and OSO™ Reclocking. Now your Bluetooth sources can truly be high ***fi***.

BUILT-IN HEADPHONE AMPLIFER (DMS-550 ONLY)

The DMS-550 is also a high-performance Class-A headphone amplifier DAC/streamer for all you digital sources. Great pains have been taken to ensure a rich headphone experience with widest range of compatible headphone impendences. The headphone sections incorporated its own independent volume control so as to not interfere with your setting on your main volume output settings.

ADVANCED MU-MIMO WI-FI (DMS-550/600)

The DMS-550/600 are now compatible with the latest MU-MIMO Wi-Fi routers, which means x2 faster data transfer in the 5 gHz band while multiple devise are accessing data simultaneously. Additionally, MU-MIMO advantages only operated at the 5Ghz band. So, if you have a MU-MIMO capable router and the DMS-550/600 are within a reasonable distance, set the router to 5Ghz. If the DMS-550/600 are much further away or on different floors than the router, the 2.4 gHz band may be better, especially with the DMS-500 since it uses the SU-MIMO protocol. General rule of thumb is 5 gHz band is faster for short ranges between router and device while 2.4 gHz is slower but has a greater range.

FEATURES

TruBit™ DSD & PCM Upsampling & PCM to DSD CONVERSION

Upsampling can be messy, leaving behind lots of digital artifacts resulting in noise and inaccurate signal generation. On the surface, upsampling may seem like a good idea. But if not implemented properly it can be disastrous. Typically, upsampling is done as a predefined *one-size-fits-all* approach, such as 96 kHz or 384 kHz. Utilizing a dedicated 128 bit DSP engine, Cary Audio's TruBit™ Upsampling allows for up to 10 different selectable sample rates and an increased bit depth of 32 bits. The result is a signal free from digital artifacts that sounds accurate, pure, and a joy to listen to. What's more, PCM sources can be converted to DSD (DSD64, 128, or 256). Alternatively, a lower native DSD source can be Upsampled to a higher DSD rate. PCM to DSD conversion and DSD upsampling takes our TruBit™ technology to whole new level of pure silky smooth analog like sound like never before from digital sources.

OSO™ RECLOCKING

Once a digital signal is transferred into Cary Audio's digital ecosystem via the digital inputs, it is processed with extreme care to ensure the best possible sound achievable. As a digital source transfers from one point A to point B it creates an insidious digital problem called 'jitter'. To deal with this, Cary Audio developed something we call OSO™ Re-clocking. This solution re-clocks all signals again once onboard as to ensure all jitter is virtually eliminated to a minute degree. We call this OSO™, short for "Onboard Signal Origination" because this re-clocking and buffering creates a signal so stable and jitter free it's as if the origin of the signal was generated onboard and not from an external source.

FEATURES

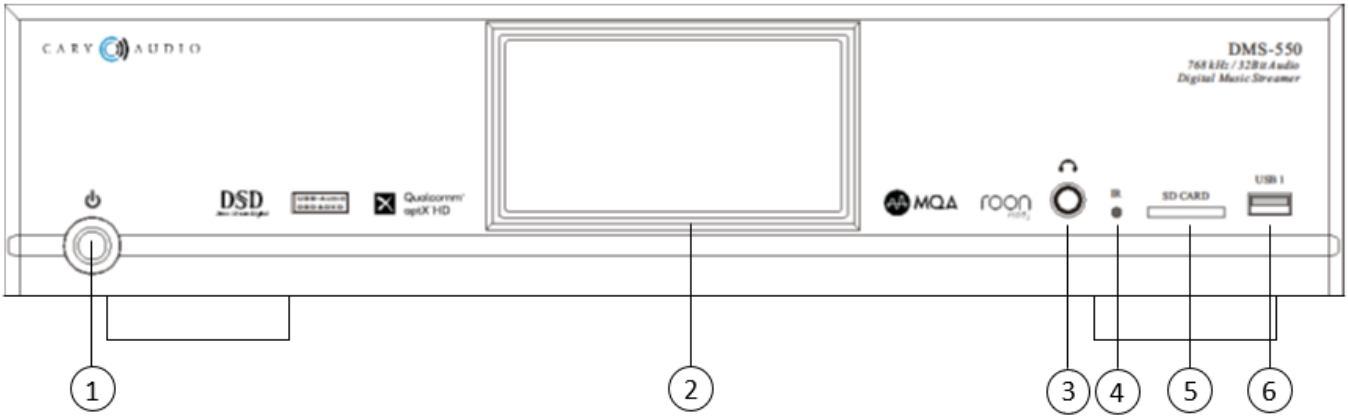
The operation of the DMS-500/550/600 assumes all users have a minimum of a moderate level of understanding of computers, file sharing principles, computer networks, and other associated peripherals such as: routers, Ethernet, Wi-Fi, USB hard disc and flash drives, SD Cards, NAS drives, computer operating systems, third party software such as media/music servers and media players, digital music downloading and storage, music library and file management such as tagging, imbedding of artwork, etc.

Cary Audio makes no warranties regarding such items and is not responsible for supporting such items as it relates to the installation and operation of the DMS-500/550/600 beyond what is discussed within this manual. All operation methods herein refer to the DMS-500/550/600's hand held IR remote control unless otherwise specified. For information operating the DMS-500/550/600 via an iOS or Android app, please visit the DMS-500/550/600 product page(s) on the Cary Audio Web Site and look for the "APP QUICK GUIDE" on the right side of the page or under the Downloads Tab.

This manual applies to the entire "DMS" range of products. Therefore, depicted images, logos, graphical user interface, color schemes, features and certain operational procedures may vary slightly depending on your model. This manual will make note where applicable.

CONTROLS AND DISPLAYS

FRONT PANEL



1. **POWER**
   Press once to turn the power ON. The blue indicator ring will blink until the unit is ready to operate. Press again to turn the power OFF.

2. **LCD FRONT PANEL DISPLAY**
   The 5" color LCD panel displays all playback information, navigation, and user settings in a simple easy to use user interface. Tutorial prompts (Tips) are also displayed on the front panel display to help guide you until you are familiar with the interface.

3. **HEADPHONE INPUT JACK (DMS-550 only)**
   For connected ¼" headphone jack for listening with headphones though the built-in headphone amplifier and independent volume control

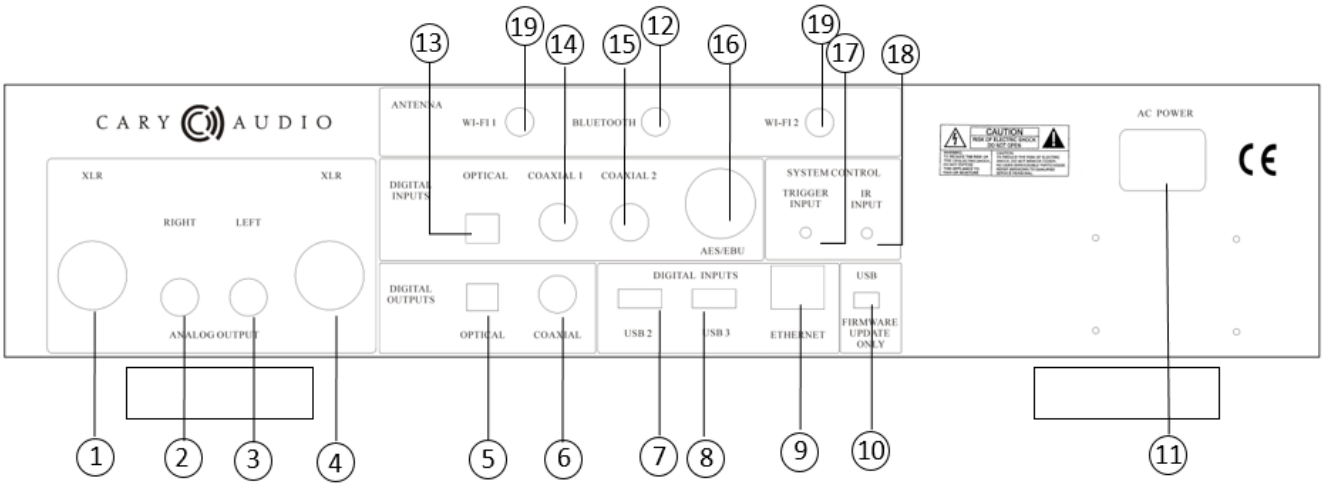
4. **IR REMOTE SENSOR**
   Line of sight IR eye sensor for hand held IR remote control

5. **SD CARD SLOT**
   For playback of music files from SD Cards up to 32 GB for SD and up to 2 TB for SDXC. Also used for firmware upgrading.

6. **USB TYPE-A INPUT**
   For playback of music files from USB hard disc drives (HDD) and USB flash/thumb drives up to 3 TB. *NOT FOR CONNECTING TO A COMPUTER.*

CONTROLS AND DISPLAYS

REAR PANEL



1. **RIGHT CHANNEL ANALOG OUTPUT JACK (XLR BALANCED)**
   Use this jack for connecting to the preamplifier/amplifier's balanced XLR input jack.

2. **RIGHT CHANNEL ANALOG OUTPUT JACK (RCA UNBALANCED)**
   Use this jack for connecting to the preamplifier/amplifier's RCA unbalanced input jack.

3. **LEFT CHANNEL ANALOG OUTPUT JACK (RCA UNBALANCED)**
   Use this jack for connection to the preamplifier/amplifier's RCA unbalanced input jack.

4. **LEFT CHANNEL ANALOG OUTPUT JACK (XLR BALANCED)**
   Use this jack for connecting to the preamplifier/amplifier's balanced XLR input jack.

5. **DIGITAL OUTPUT JACK (TOSLINK)**
   16 – 24 Bit, 44.1 kHz – 192 kHz digital data output. MQA nor DSD files can be outputted.

6. **DIGITAL OUTPUT JACK (COAXIAL)**
   16 – 24 Bit, 44.1 kHz - 192 kHz digital data output. MQA nor DSD files can be outputted.

7. **USB 2 INPUT (TYPE-A)**
   For playback of music files from USB hard disc drives (HDD) and USB flash/thumb drives up to 3 TB. *NOT FOR CONNECTING TO A COMPUTER.*

8. **USB 3 INPUT (TYPE-A)**
   For playback of music files from USB hard disc drives (HDD) and USB flash/thumb drives up to 3 TB. *NOT FOR CONNECTING TO A COMPUTER.*

9. **ETHERNET RJ45 JACK**
   Connect to a network router for network music streaming of networked computer(s) or NAS drive(s) via a wired Ethernet connection. Also used for network control via apps or control system.

10. **MINI USB FIRMWARE**
    For internal service use only.

CONTROLS AND DISPLAYS

11. POWER INPUT (AC IN)
Connect to AC mains using the included power supply cord.

12. BLUETOOTH ANTENNA
24 Bit / 48 kHz Qualcomm aptX™ HD wireless digital audio receive port.

13. DIGITAL INPUT JACK (OPTICAL)
16 – 24 Bit, 44.1 kHz - 192 kHz digital data Input. MQA nor DSD files can be inputted.

14. DIGITAL INPUT JACK (COAXIAL 1)
16 – 24 Bit, 44.1 kHz - 192 kHz digital data Input. MQA nor DSD files can be inputted.

15. DIGITAL INPUT JACK (COAXIAL 2)
16 – 24 Bit, 44.1 kHz - 192 kHz digital data Input. MQA nor DSD files can be inputted.

16. DIGITAL INPUT JACK (AES/EBU)
16 – 24 Bit, 44.1 kHz - 192 kHz digital data Input. MQA nor DSD files can be inputted.

17. DC TRIGGER INPUT TERMINALS
Connection of devices that have DC + 12V output for remote turn-on/off of the DMS-500/550/600.

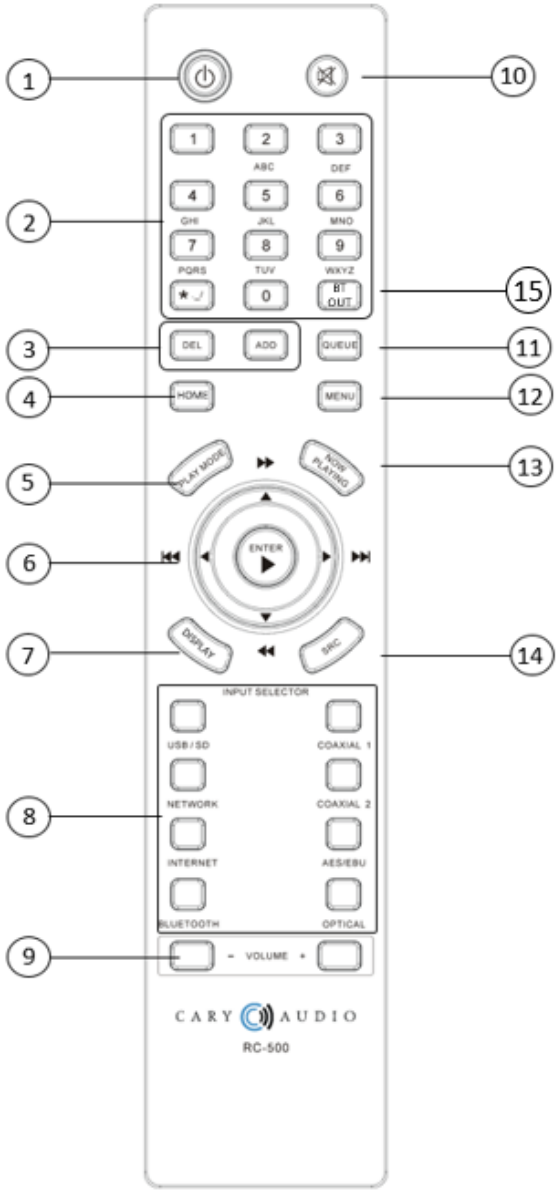
18. IR INPUT
Connection of external IR sensors.

19. Wi-Fi ANTENNAS
For connecting to a Wi-Fi router for network music streaming of networked computer(s) or NAS drive(s) via a wireless Wi-Fi connection. Also used for network control via apps or control system.

CONTROLS AND DISPLAYS

IR REMOTE CONTROL

This section explains how to use the remote control to set up and operate the DMS-500/550/600.



1. **POWER**: Use to turn the power on and off.

2. **ALPHANUMERIC KEYs**: Use for searching music library as well as entering network settings, such as Wi-Fi security key, etc.

3. **ADD/DELETE**: Press add or delete on music selections to create or edit a song queue or playlist.

4. **HOME**: Press to return to the home screen of the source.

5. **PLAY MODE**: Press to switch between Play, Shuffle, Repeat, and Repeat All.

6. **NAVAGATION/PLAY HUB**: Use the corresponding keys to navigation up, down, right, left, and Enter for menus/lists and to Play, Skip, Search, and Pause during music playback.

7. **DISPLAY**: Use to select the player displays various brightness levels or turn the display off.

8. **INPUT SOURCE SELECTOR**: Use to select the desired input source.

9. **VOLUME -/+**: Decrease or increase volume.

10. **MUTE**: Use to mute sound. Press again to resume sound.

11. **QUEUE**: Press to display the song queue for playback of queue or to save a queue as a playlist.

12. **MENU**: Press to go to the Setting Menu of the DMS-500/550/600. For DMS-550/600 only, Press and hold for 5 seconds to change the IR code set.

13. **NOW PLAYING**: Press to jumps to the now playing screen of the current source.

14. **SRC**: (Sample Rate Converter). Press to select one of the many PCM & DSD TruBit™ upsample-rates. This can also convert any playing PCM signal to a DSD (Direct Stream Digital) signal. This function does not work with MQA files as they are fixed at 16x, or 705.6 kHz

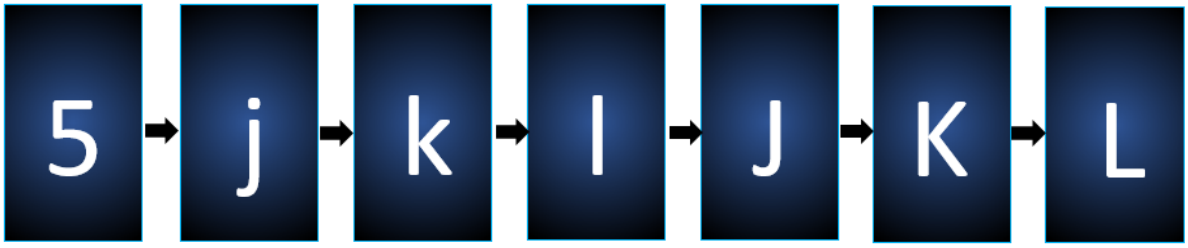
15. **BT OUT**: (DMS-600 Only). Press to send the audio from the DMS-600 to Bluetooth headphones or Bluetooth speakers.

CONTROLS AND DISPLAYS

USING REMOTE ALPHANUMERIC KEYS

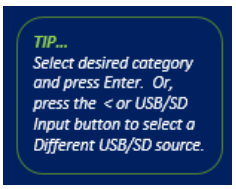
There are multiple operations of the DMS-500/550/600 that require text and/or numbers. These include; network settings such as Wi-Fi security keys, network user name and password, naming or re-naming playlists, and searching (jumping to) a number or letter when browsing library lists. Simply press the number key to scroll the number and associated alpha keys (just like on a phone). It will show a pop-up box with both upper and lower case except when searching library lists. For example; each time you press the #5 key is will display as follows; simply stop on the number or letter to select it.

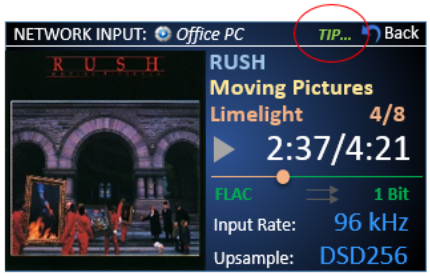
Note: For spaces, press the "0" key for a blank box. For special characters, press the *._/ key.

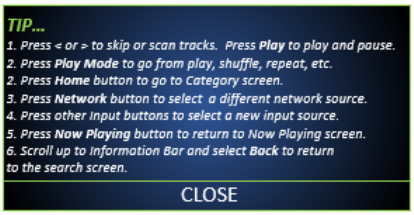


USER TIPS

Navigating various screens are intuitive and straight forward via the IR remote control. Many screens have a pop-up box outlined in green that functions as a tutorial for that screen as examples below show. Some screens may have a Tip prompt in the upper right corner of the display screen. Simply scroll up to the Tip by pressing the Up Arrow key on the remote twice and press enter to show the tutorial. Once you are familiar with all the screens and can command control of the DMS-500/550/600, you can hide all user tips from the Settings Menu.

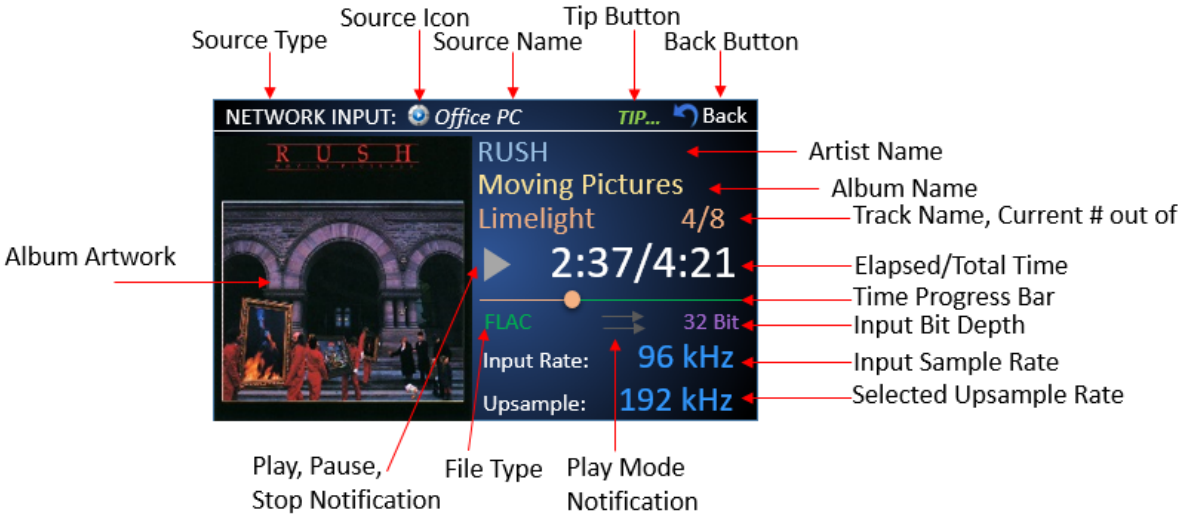




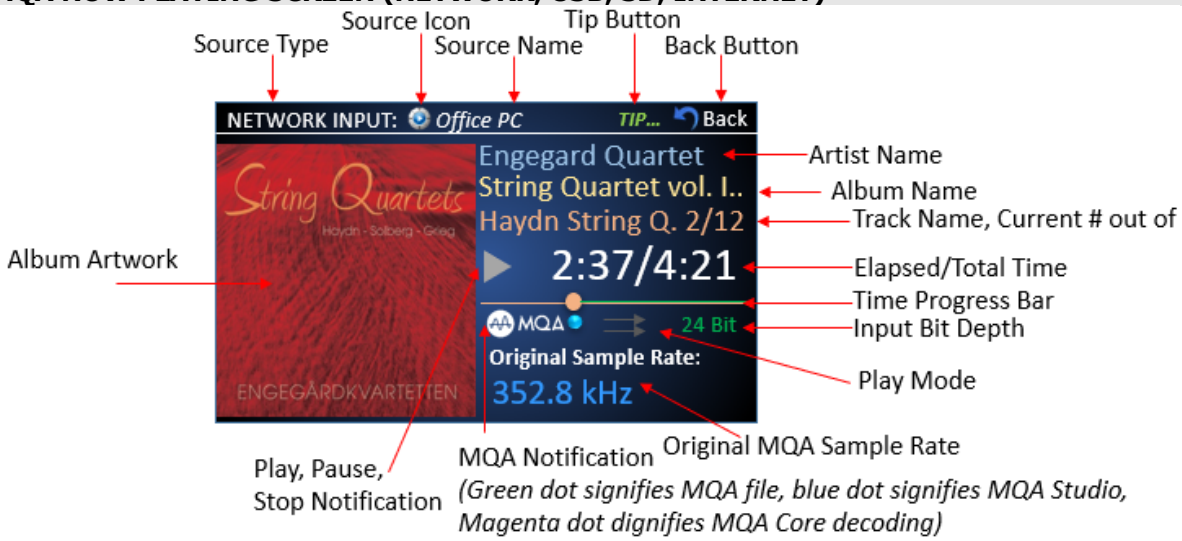


CONTROLS AND DISPLAYS

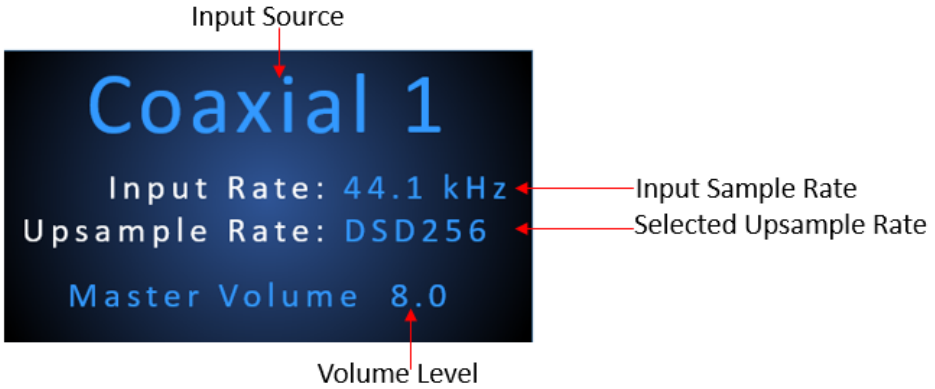
NOW PLAYING SCREEN (NETWORK, USB, SD, INTERNET)



MQA NOW PLAYING SCREEN (NETWORK, USB, SD, INTERNET)



NOW PLAYING SCREEN (SPDIF)



CONTROLS AND DISPLAYS

ALTERNATE NOW PLAYING DISPLAY SCREENS

High Contrast black and white

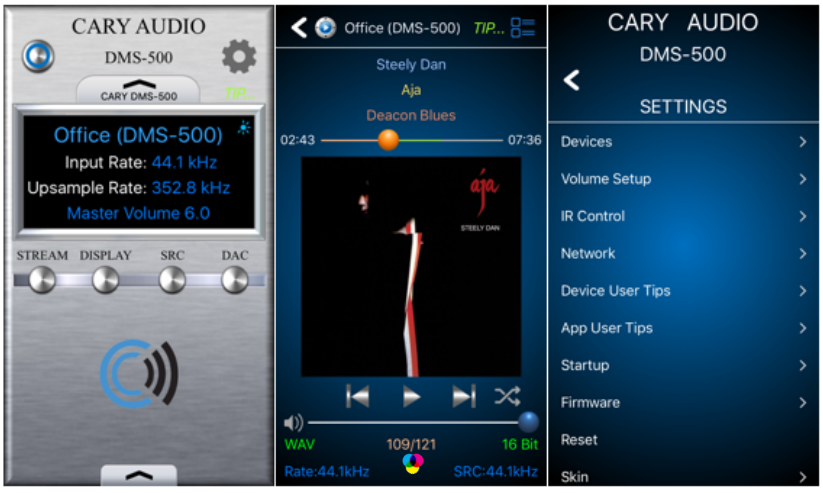
Large font & icon format

To change the DMS-500/550/600 front panel display from the default display to high contract or large font/icon based displays, simple press this "color wheel' icon at the iOS or Android app.

APP CONTROL FOR iOS AND ANDRIOD

You can download a free Control App for either iOS on iTunes Store, or Android on Google Play Store. Each app is highly intuitive and easy to operate. Please refer to the apps for instructions.

The below is a cursory overview of the app. From left to right the main screen, now playing, and menu setting screen. The app has tips built into them and are much more powerful and feature laden they one may first assume. For example, just touching the text in any area will open a box to select features, or jump to a more option for playback, editing, playlist, queues, etc.



VARIABLE VOLUME CONTROL

The volume control is located on the hand held remote. The DMS-500/550/600 will display a pop-up as shown below when adjusting volume for all Network, USB/SD, and Internet sources.

Note: For SPDIF sources, the volume is on-screen at all times.

USING AS A SOURCE (CONNECTING TO A PREAMPLIFER, ETC.)

When using the DMS-500/550/600 as a source unit and connecting to a preamplifier, integrated amplifier, or receiver, it is recommended to set the volume to "Independent Volume". The Independent Volume setting allows for adjusting the volume to each input of the DMS-500/550/600 to volume match the output of multiple connected sources. This is useful if some sources have a much greater or lesser output and you find yourself having to constantly turn your preamplifier's volume up or down to reach a comfortable level upon changing DMS-500/550/600 inputs. For the greatest sonic benefit, it is recommended to set the volume to max volume 8.0 (3.0 volts). However, please check your associated equipment's documentation to be sure it can accommodate a 3.0 volt input. Otherwise, set the volume/voltage level that match the highest acceptable input voltage of your associated equipment.

Note: The default Reset Independent Volume setting is -13.5

USING AS A DIGITAL PREAMPLIFIER (CONNECTING DIRECT TO AN AMPLIFER)

When using the DMS-500/550/600 as a digital preamplifier (connecting it directly to an amplifiers inputs), it is recommended to set the volume to "Master Volume". This will output the same volume for all connected sources. If using the DMS-500/550/600 as a digital preamplifier, be sure to **turn ON** the DMS-500/550/600 **BEFORE turning on your amplifier**. Then, **set the DMS-500/550/600 volume to - 98.5** (or mute). Only after being sure the volume is turned down, turn on your amplifier and gradually turn up the DMS-500/550/600 volume to an appropriate listening level. Otherwise, extreme damage may occur to your amplifier, speakers or hearing.

Note: The default Reset Master Volume setting is -30.0

USING AS A HEADPHONE AMPLIFER (DMS-550 ONLY)

The DMS-550 has independent volume control for headphone use. When inserting headphones into the ¼" jack, the sound output from the rear RCA and XLR jacks will be rerouted to the headphones and the volume will be automatically reduced as to not damage the headphones. Use the volume control on the IR remote or the volume slider within the control apps to adjust volume to the headphone. When headphones are disconnected from the headphone jack, the output volume will be restored to rear RCA and XLR jacks at the previous listen level prior to connecting the headphones.

SETTINGS MENU OVERVIEW

SETTINGS MENU OVERVIEW

Within the **Setting Menu** you can adjust, control, and customize the DMS-500/550/600 operation and setting as follows:

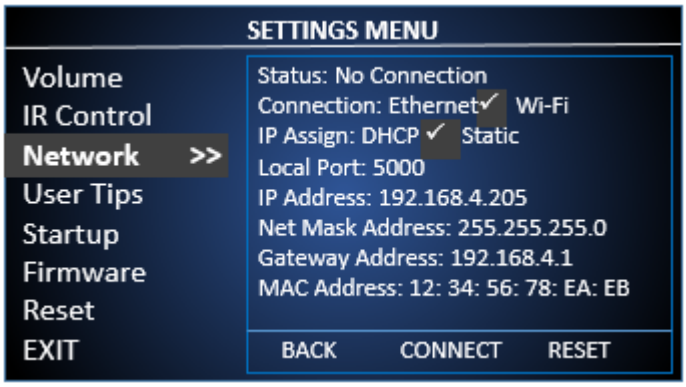
Main Setting Menu. Using the Up/Down arrow keys on the IR remote to scroll to the desired selection and *press* **Enter,** or *press* the **Right arrow key** *to expand*.

Volume Menu. *Select* **Master** when using the DMS-500/550/600 as a digital preamplifier. *Select* **Independent** when connecting the DMS-500/550/600 to a preamplifier, integrated amplifier, or receiver.

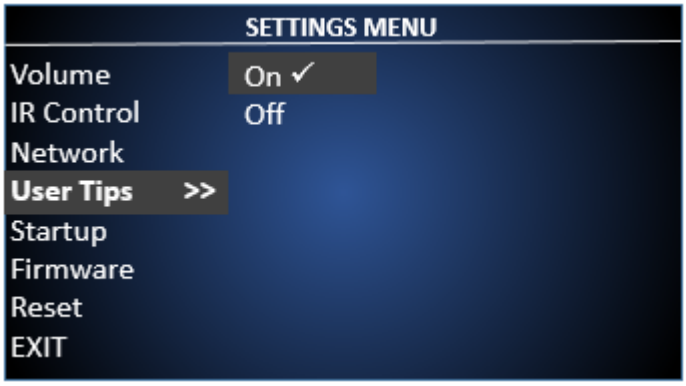
IR Control Menu. This selects which IR sensors are activated.

WARNING: Do not select Rear if you do not have a rear mounted IR sensor. Otherwise, you could be locked out of all IR command control. If this happens and you have previously connected an iOS or Android app to the DMS, you can use the app to change this setting. If not, you must reset the DMS.

Network Menu: Setup of Ethernet/Wi-Fi or DHCP/Static network connections**.** See *Establishing A Network Connection* further in this manual.



User Tip Menu. This turns the on-screen user tips on or off as desired.



NETWORK AUDIO OVERVIEW

Startup Menu. This sets the default input at system startup. Only one input from all available inputs can be selected.

I. Network
- ✓ Source Screen (List of available servers/PC Share's on network).
- ✓ Last Server (Selects the last server or PC Share used, if available).

II. USB
- ✓ Source Screen (List of connected USB sources).
- ✓ Select USB 1, 2, or 3 input at startup.

III. SD Card
- ✓ Select SD Card input at startup.

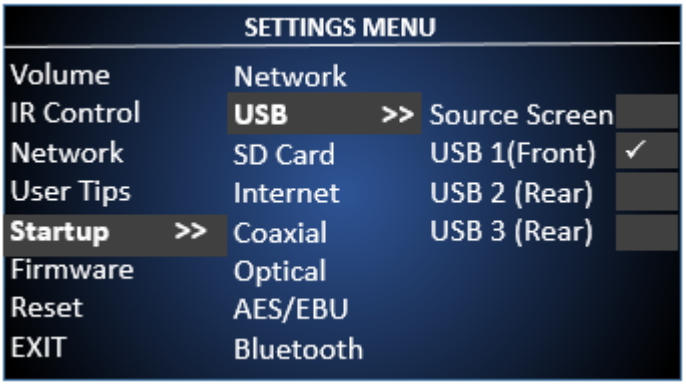
IV. Internet
- ✓ Select your preferred Internet Music Service at startup.

V. Coaxial
- ✓ Select Coaxial 1 or 2 input at startup.

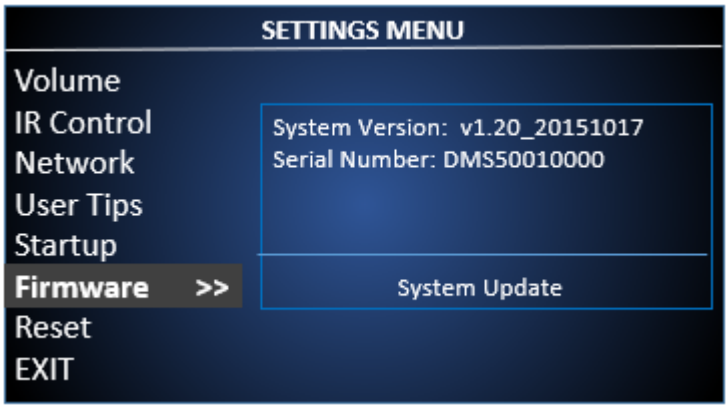
VI. Optical
- ✓ Selects Optical input at startup.

VII. AES/EBU
- ✓ Select AES/EBU input at startup.

VIII. Bluetooth
- ✓ Select Bluetooth input at startup.



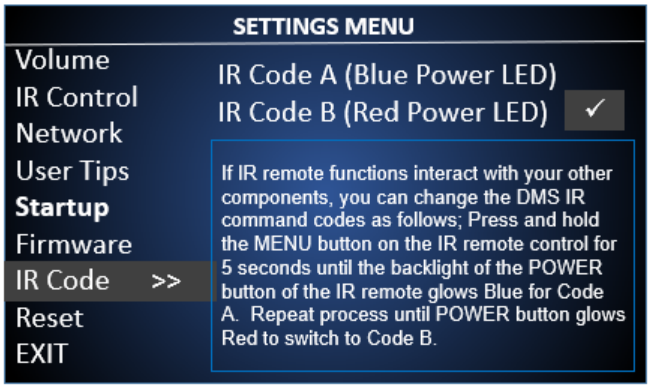
Firmware Menu. This displays the current firmware version and serial number as well as checks for new firmware via the System Update.



CHANGE THE IR CODE

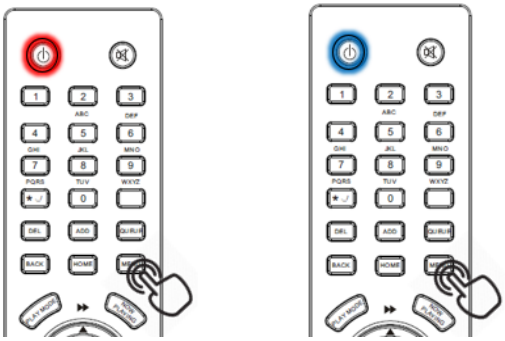
IR Code (DMS-550/600 only). If your IR remote control shares common Phillips RC-50 codes with your other products, such as volume control, power, etc., you can change the command codes in the IR remote and DMS-550/600 as follows. **The default settings are IR Code A (Blue Power LED)**. To change, follow these steps.

1. *Select* **IR Code** and *press* the **right arrow key.**
2. *Highlight* **IR Code A (Red Power LED)** and *press* **Enter** on the IR remote.



You'll notice the IR remote no longer works after change the setting in the DMS. You now need to match the IR remote codes to the same IR Code set of the DMS.

3. *Press and hold* the **Menu** button of the IR remote *for 5 seconds until the Power button flashes RED*. Now the DMS and IR remote control IR Codes will match with the DMS and should not interfere with your other electronics. To switch back, simple repeat processes in steps 1-3 to IR Code A (Blue Power LED).

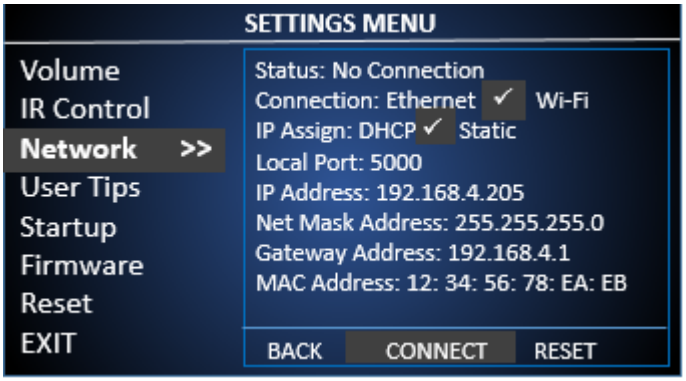


Reset. Resets the DMS-500/550/600 to factory default.

WIRED (ETHERNET)

This step assumes you have an active home network and router installed in your home.

1. Place the DMS-500/550/600 within a cable run of your router or Ethernet port of which is wired back to the router.
2. *Connect* an **Ethernet cable** to the back of the DMS-500/550/600 and plug the other end into your router, or Ethernet Port.
3. If connection isn't automatically established, *Press* **Menu** on the IR remote and navigate to **Network Settings.** *Select* **Wired** and **DHCP** (for automatic configuration) and *press* **Connect.** If you prefer assigning a manual IP address, *select* **Static** and enter your Port number and IP address. However, DHCP is the most common method. If you encounter issues connecting, try to reset network by *selecting* "**RESET**".



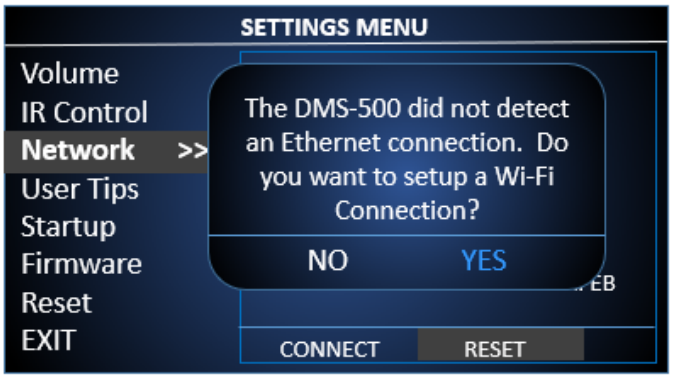
NETWORK AUDIO OVERVIEW

PROMPTED WIRELESS (WI-FI) SETUP

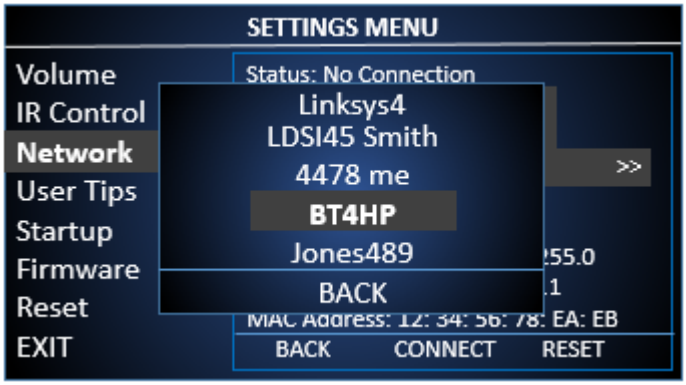
This step assumes you have an active wireless home network and router installed in your home.

NOTE: The quality and stability of the audio signal depends on the bandwidth and range of your Wi-Fi router. This is especially true for exceptionally high-resolution files, such as DSD files or PCM files greater than 192kHz. When possible, a wired (Ethernet) connection is preferred.

1. Place the DMS-500/550/600 anywhere within the routers Wi-Fi range. Make sure BOTH Wi-Fi antenna are connected.
2. *Turn on* the DMS-500/550/600. Once on, **press** the **Network** Input Source on the IR remote. The following prompt will display. To connect to Wi-Fi, *Press* **YES**.



3. *Select* your **Wi-Fi network** and *press* **Enter**.

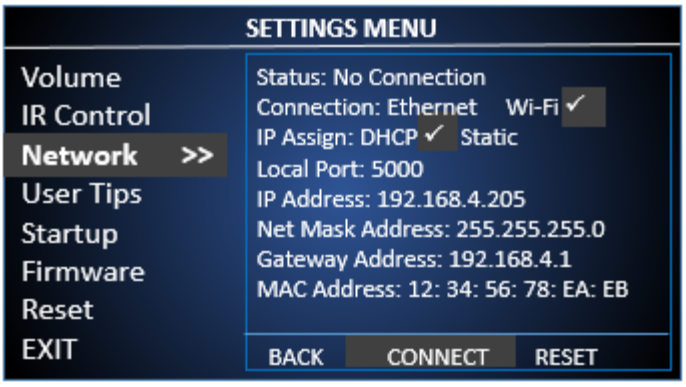


4. Using the alphanumeric keys on the hand-held IR remote, **Enter** your **Security Key,** and *select* **Connect**. If you selected Static, enter your Port number and IP address as well.

MANUAL WIRELESS (WI-FI) SETUP

1. *Press* **Menu** on the IR remote and navigate to **Network Settings.** *Select* **Wi-Fi** and **DHCP** (for automatic configuration) and *press* **Connect.** Then, follow steps 3 & 4 above**.**

(If you prefer assigning a manual IP address, *select* **Static** and follow the prompts. However, DHCP is the most common method. If you encounter issues connecting, try to reset network by *selecting* "**RESET**".)



NETWORK AUDIO OVERVIEW

The DMS-500/550/600 are extremely versatile network audio component and can access/stream music in multiples ways. With respect to network audio the DMS-500/550/600 are a **Client**, meaning it finds and request playback of audio files from computer servers using its own custom apps for iOS and Android devices, or from its hand held IR remote control. It can also act as a **Renderer**, meaning you can push music to it from computer servers via third party DLNA/UPnP apps. The DMS-500/550/600 can also can play music from portable devices in a variety of ways, these include **Qualcomm aptX™ HD Bluetooth, Airplay**, and **Phoneshare**. This section will discuss each of these options.

NETWORK AUDIO SETUP

Make sure The DMS-500/550/600 are connected to your network either by a wired Ethernet connections, or via Wi-Fi as outlined in the **Establishing a Network Connection** section of this manual. This section assumes you are familiar with third party media server software, computers, file sharing settings, etc. As such, networked computers can either have server software of your preference running on them to "serve" files to the DMS-500/550/600 (Media Server), or the DMS-500/550/600 can use standard Service Message Block (SMB) file sharing protocol from Windows and Apple without running installed server software (PC Share), and the DMS-500/550/600 can also act as a Renderer. So, before going further make sure your media server software is installed and running on the server computer, and or all **file sharing** and **permission** settings for **everyone** are setup for your computer(s) and music folder, subfolders, etc.

Note: Window Media Player includes a server (Window Media Server). Using the Windows Media severely limits support for various file types and resolutions. It is not recommended, but will show up as an available server. We suggest using dedicated media server software, such as JRiver, Foobar2000, Media Monkey, etc., for the advanced user, and PC Share for the less advanced user. PC Share uses Service Message Block (SMB) protocol to communicate with a PC or MAC. This requires very little setup and no third party software. Even though PC Share is suggested for the less advanced user it is sometimes preferred due to easy setup and support for any file type or resolution. Using the DMS-500/550/600 as Renderer is also quite simple. However, the computer or app media player software one uses can affect playback.

Windows Media Server will display icons similar to these.

PC Share/Phone Share displays the following icon.

Media Servers will display specific icons, similar to these

Renderer Mode and Airplay will display this icon

Roon Ready Mode will display this icon

NETWORK AUDIO OVERVIEW

HELPFUL SITES

WINDOWS

Getting Started with Media Streaming
http://windows.microsoft.com/en-us/windows7/getting-started-with-media-streaming
File Sharing Essentials
http://windows.microsoft.com/en-us/windows/file-sharing-essentials#1TC=windows-7
Enable File and Printer Sharing
http://windows.microsoft.com/en-us/windows-vista/enable-file-and-printer-sharing

APPLE
How to Connect with File Sharing on your MAC
https://support.apple.com/en-us/HT204445

PROS AND CONS OF MEDIA SERVER VS. PC SHARE (SMB) VS. RENDERER

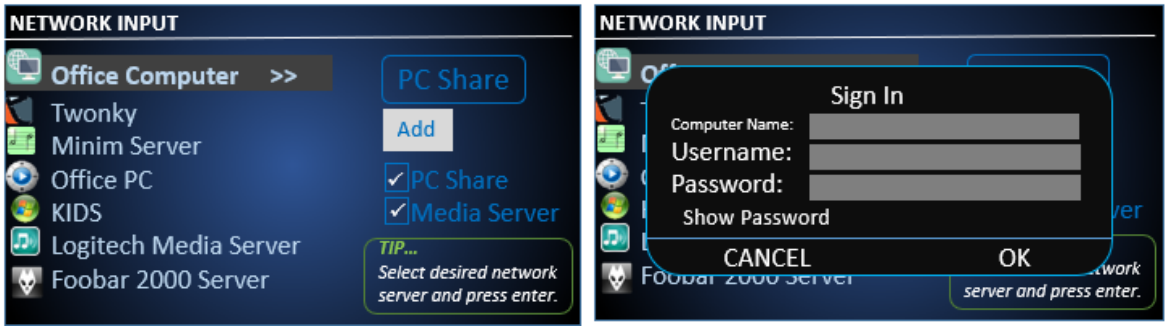
PROS AND CONS OF MEDIA SERVER VS. PC SHARE (SMB) VS RENDERER				
	Media Server	**PC Share**	**Renderer**	**Roon Ready**
Initial Indexing of Library Required	*No*	*Yes*	*No*	*No*
Software Setup Required	*Yes*	*No*	*Yes*	*Yes*
File Type Support	*Server Dependent (Setup)*	*Any (No Setup)*	*Server & App Dependent (Setup)*	*Roon Core Dependent*
Categories Color Coded	*No*	*Yes*	*NA*	*NA*
Folder Hierarchy View	*Server Dependent*	*DMS-500/550/600 Default*	*NA*	*NA*
Playlist Support	*Server & DMS Playlists*	*DMS Playlists*	*Server & App Playlist*	*Roon Playlist*

NETWORK AND INTERNET PLAYBACK OPERATION

NETWORK CLIENT STREAMING AUDIO PLAYBACK

Network streaming allows the playback of digital music files stored on computers or NAS Drives connected to your network. The advantage of network streaming is you don't have to have the computer(s) or NAS Drive(s) located anywhere near the DMS-500/550/600 or your audio system. However, the computer(s) or NAS Drives must remain powered on for The DMS-500/550/600 or any network audio player to access them. The other advantage to network Client Streaming outside of using the IR hand held remote is that virtually all features of the DMS-500/550/600 can be accessed in one easy to use custom app.

1. *Press* the **Network** button on the IR remote. This will show a list of all available "PC Share" and or "Media Servers" on the network. The DMS-500/550/600 also lets you filter by PC Share or Media Servers by checking the associated box to the right of the list.
2. **Navigate** to your preferred **Network source** *with the Up, down keys* and select it by *pressing* **Enter**.
3. If you don't see the computer (PC Share) you are look for, you can manually add a PC Share by *highlighting* the **Add** button and *pressing* **Enter**. Type in the computer name (case sensitive) and any needed username and password. The new PC Share should now appear.

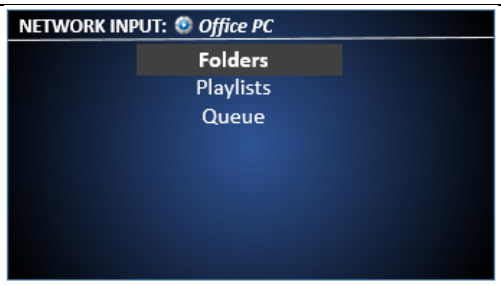
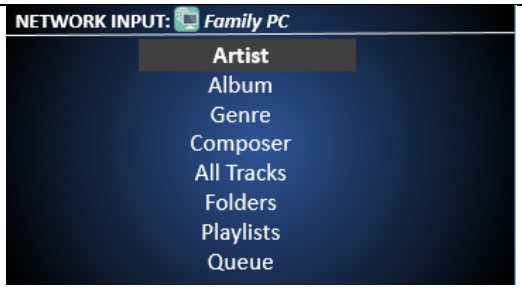
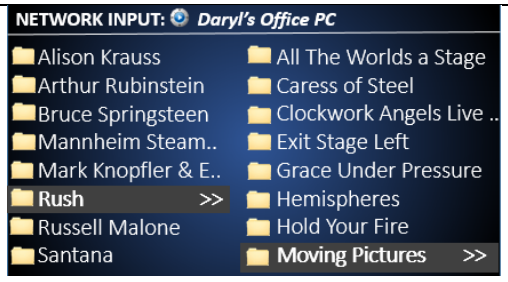
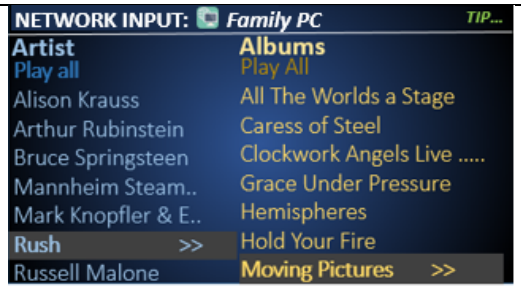
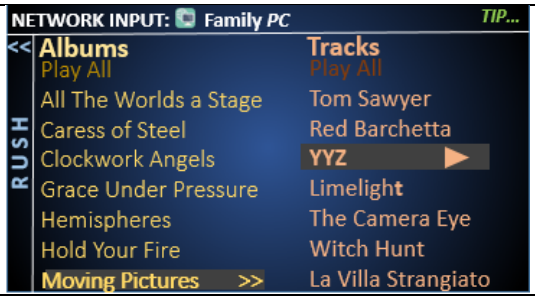


NOTE: When selecting a PC Share for the first time it must index the PC Share library. This can take a while depending on the size of the library. While indexing, you will see the following pop-up.

NETWORK AND INTERNET PLAYBACK OPERATION

4. Navigate to your selections by using the Up and down keys. To expand the selection, *press* **Enter** or *press* **>** *on the hand held remote to expand*.

   Notice the Hierarchy difference between a Media Server and PC Share Home Screens. The folder view(s) for media Servers are dependent on how your media server software is setup and configured on your computer. PC Share is set by the DMS as below.

Media Server	PC Share
	
	
	
	

5. Navigate to your desired music selection and *press* **Play.** You can also *press* the **Play All** when available to play all selections beneath it. Once playback is initiated, the Now Playing Screen will display as follows.

NOTE: You can also *select* **Add** or **Delete** from the IR remote to *create* a **Queue** or **playlist**. *See Queue and Playlist section of the manual.*

NETWORK RENDERER STREAMING AUDIO PLAYBACK

Using the DMS-500/550/600 as a Renderer is altogether different from the Client operation. This function requires server software to be installed on your server computer(s) as described above, and the use of a third party DLNA/UPnP app. The advantage for some is that they may prefer to use a different app instead of our custom DMS-500/550/600 apps. For example, one may prefer JRiver's JRemote or Gizmo, Bubble UPnP, Plug Player, 8Player, etc. The disadvantage is the third-party app can only play network audio but cannot access all features of the DMS-500/550/600 so a combination of a third-party app and IR remote must be used in conjunction. Renderer operations is very simple as outlined below.

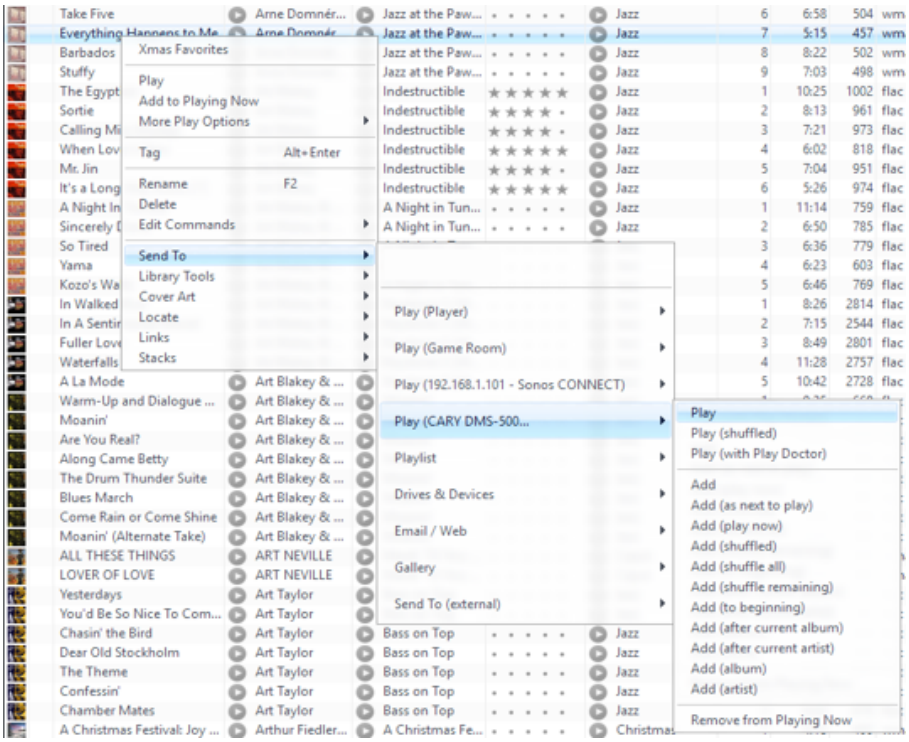
1. *Turn on* the **DMS-500/550/600**. It does NOT matter what inputs source the DMS-500/550/600 are set to.
2. *Open* your preferred third party DLNA/UPnP.
3. *Select* "**CARY DMS-500/550/600**" from the available renderers within the third-party app and initiate playback in accordance to the third-party app.
4. The Now Playing screen will display your selection. All music selections and playback can only be controlled by the third-party app.

Another way to push music to the DMS-500/550/600 in renderer mode is with or from a computer. To do so follow these steps;

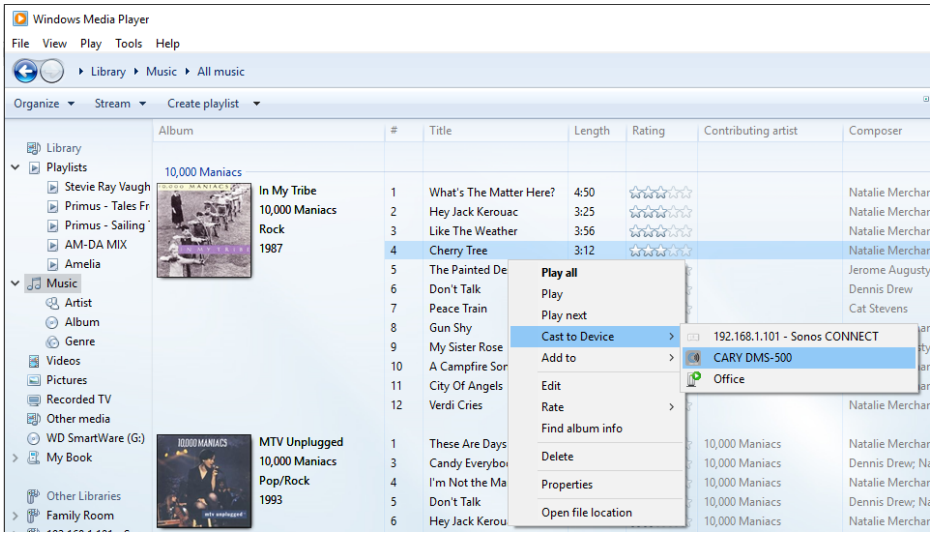
1. *Turn on* the **DMS-500/550/600**. It does NOT matter what inputs source the DMS-500/550/600 are set to.
2. *Turn on* your computer (Preferably Windows 7 or MAC OS X or latter) and open your preferred media player software.
3. *Right click on* a music selection and *Send to/Cast to* **Cary DMS-500/550/600** right from the computer. See example below. Function may vary depending on media player software being used.

NETWORK AND INTERNET PLAYBACK OPERATION

JRiver MC21 Example



Window Media Player 12 Example



4. The Now Playing screen of The DMS-500/550/600 will display your selection.

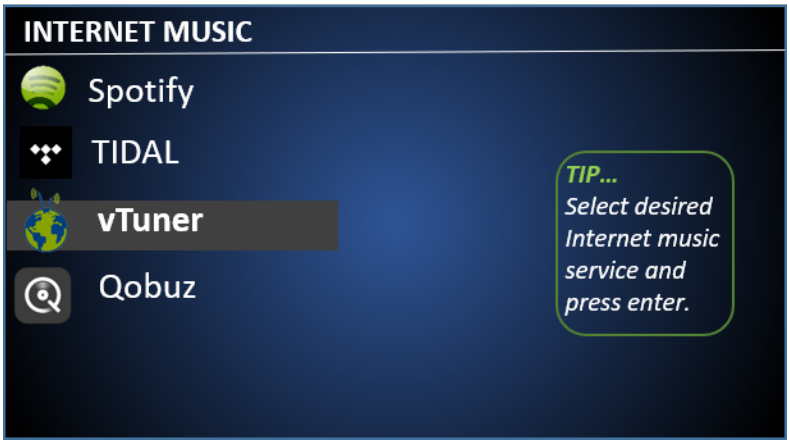
NETWORK AND INTERNET PLAYBACK OPERATION

INTERNET MUSIC SERVICES

Listening to Internet Music Services like Tidal, Spotify, etc. does require a network and router connected to the internet. Unlike network streaming audio, your computer(s) or NAS Drives do NOT need to be turned on since its accessing music streaming from the Internet and not from your computer(s). However, make sure a network connection to the DMS-500/550/600 are established and internet access is available via your network.

1. *Press* the **Internet** button on the IR remote or from the Control App.
2. **Navigate** to your preferred Internet music services and follow the prompts on screen or from the Control App.

When Accessing an Internet music service for the first time, you must enter your credentials for that given service. It is highly recommended to use the DMS app to login to your music services as it will be much faster and easier. If you do try to sign in from the DMS front panel and IR remote, some services will require the use of the on-screen keyboard and NOT by using alphanumeric keys on the IR remote. However, you must still use the arrow and enter keys of the remote to select the appropriate letters from the on-screen keyboard. To begin, use the Up and Down arrow keys to highlight the username/credential box and press Enter on the remote. This action will display the on-screen keyboard. Enter your information for the first box, when complete, select Hide from the on-screen keyboard. Navigate to the next box and press Enter on the remote access on on-screen keyboard once again. When complete, select Hide and navigate to the "Login" button of the music service and press Enter. *Qubuz on DMS-550/600 only



USB AND SD CARD OPERATION (COMPUTER-LESS)

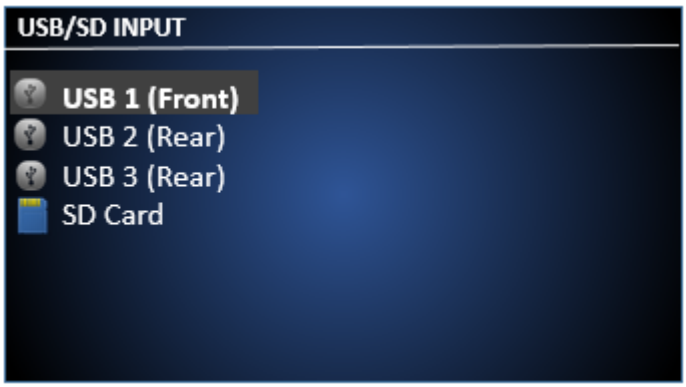
USB AND SD CARD AUDIO

For those that want to be able to playback their digitally store music library but don't want to bother with a computer, USB and SD Card playback is a no fuss solution.

The USB and SD Card inputs include; **USB 1 (Front), USB 2, 3 (Rear) and SD Card (Front).** Like PC Share, The DMS-500/550/600 must index the drive's library the first time it is selected. Please note, this can take a while depending on the size of your drive.

NOTE: *SD Cards must be formatted to FAT, FAT32 or NTFS. It is also a good idea to set the protection to lock for playback. DMS-500/550/600 supports SDHC 32GB & SDXC up to 2TB. If using an SD Card to update the firmware, be sure the card is formatted to FAT or FAT32. exFAT can sometimes be used. If you encounter a playback issue from SD or an updating error message using SD, check the formatting and try another format.*

1. *Insert* a ***USB hard disc drive, USB flash/thumb drive*** **or** ***SD Card*** into the desired port. Once inserted a pop-up message say "The USB 2 Port is mounted", meaning the DMS-500/550/600 has successfully connected to it.



2. **Navigate** to your preferred **USB or SD Card source** *with the Up, Down keys* and select it by *pressing* **Enter***.*
3. Navigate to your selections by using the Up and Down keys. To expand the selection, *press* **Enter** or *press* **>** *on the hand held remote*.
4. Navigate to your desired music selection and *press* **Play.** You can also *press* the **Play All** when available to play all selections beneath it.

NOTE: You can also *select* **Add** or **Delete** from the IR remote to *create* a **Queue** or **playlist**. *See Queue and Playlist section of the manual.*

QUEUES AND PLAYLISTS

QUEUES

A Queue is temporary list of music. This includes all music that is played during a given session, or manually added to the queue while listening to a Network, USB, or SD Card source. All music temporarily stored in a queue is specific to that source. All music played during a session is stored in the Queue with the most current selection being added to the bottom of the list. All music stored in the queue will be cleared at turn off. To save the Queue, please see Playlists below.

To **ADD** music to a Queue

- *Highlight* an **Artist, Album or Track** and *press* the **Add button** on the remote. A pop-up message will display saying the selection has been added to the queue.

(When in Server Mode, only folders that have only songs within them can be added to the queue. For example; you cannot add an Artist to the queue in server mode IF there are album folders within. This is also dependent on the server folder hierarchy as they can vary from server to server).

Note: Pressing and holding the Add Button for more than 2 seconds on an item will pop-up additional options for Queue and Playlist selections as follows:

To **VIEW** a Queue

- *Press* **Queue button** on remote and the queue list will display. Alternatively, when in the Home Screen of a Network, USB or SD Card source, you can *highlight* **Queue** and *press* **enter**. Pressing the Home button on the remote when in a source displays the Home screen.

To **EDIT** a Queue

- While viewing the Queue, *highlight* **any track** and *press* the **Delete key** on the remote to remove that selection from the Queue.

To **PLAY** the Queue

- While viewing the Queue, *press* the **Play** command in the **blue box** to the right of the list.

To **CLEAR** a Queue

- While viewing the Queue, *press* the **Clear** command in the **blue box** to the right of the list

SAVING Queues

- Please see Playlists section below.

QUEUES AND PLAYLISTS

PLAYLISTS

A Playlist is a queue from a Network, USB or SD Card source that has been saved. Queues can be saved as a playlist or save to an existing playlist. Playlists created by DMS-500/550/600 while in media server sources are saved to the DMS-500/550/600 Playlists and not within the media server itself. Therefore, you can only access the DMS created playlist from the DMS-500/550/600 and not from the media server software on your computer.

To **SAVE AS A PLAYLIST**

- While viewing your queue, *Press* the **Save as Playlist** command in the **blue box** to the right of the list and name and save it. Now it is a playlist which is permanently stored for that source.

To **SAVE TO PLAYLIST**

- While viewing your queue, *Press* the **Save to Playlist** command in the **blue box** to the right of the list and *highlight* the Playlist you wish to add the queue to. *Press* **Enter** on the remote. Now that queue is part of that playlist.

Note: Pressing and holding the Add Button for more than 2 seconds on an item will pop-up additional options for Queue and Playlist selections as follows:

To **VIEW** Playlists

- Select a Network, USB or SD Card source, or *press* the **Home button** on the remote if already in the desired source. *Highlight* **Playlist** and *press* **enter**.

To **PLAY** a Playlist

- While viewing Playlists, *highlight* the desired Playlist and *press* **Enter**.

To **EDIT** a Playlist

- While viewing Playlists, *highlight* the **desired Playlist** and *press* the **> button** on the remote. *Select* **EDIT** from the blue box to the right and *press* **Enter**. *Highlight* the selection you wish to remove from the Playlist and *press* the **Delete button** on the remote. When finished, *press* the **< button** on the remote to go back to the Playlist view.

To **DELETE** a Playlist

- While viewing Playlists, *highlight* the desired Playlist and *press* the **> button** on the remote. *Select* **DELETE** from the blue box to the right and *press* **Enter**. Confirm your choice.

To **RENAME** a Playlist

- While viewing Playlists, *highlight* the desired Playlist and *press* the **> button** on the remote. *Select* **RENAME** from the blue box to the right and *press* **Enter**. Enter name and *select* **Save.**

SPDIF SOURCE OPERATION

SPDIF INPUTS

The SPDIF inputs include; **COAXIAL 1, COAXIAL 2, OPTICAL, and AES/EBU.**

1. *Select* the desired input by *pressing* **COAXIAL 1 or 2, AES/EBU or OPTICAL** button on the IR remote or control App.

2. If no source is connected to the selected input, it will say so.

3. Initiate playback of the corresponding SPDIF source.

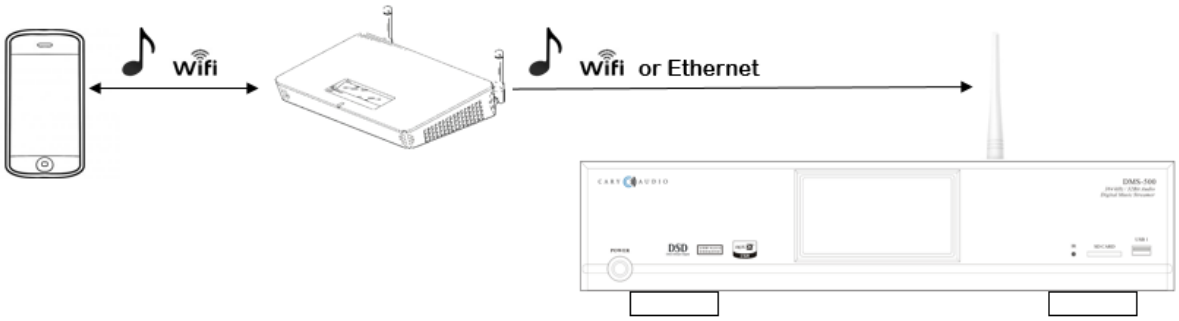
NOTE: SDPIF inputs only accept PCM signals up to 24 bit / 192kHz, and will not accept MQA or DSD files.

PLAYING MUSIC FROM PORTABLE DEVICES

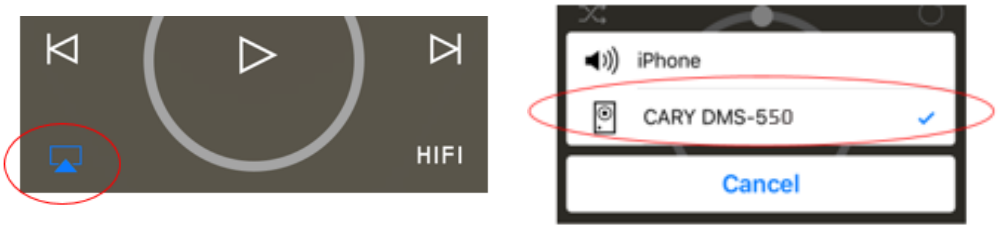
The DMS-500/550/600 can play music from phones and tablets in several ways. These methods include Airplay, Phoneshare, and Bluetooth. Airplay and PhoneShare operate via the same method although AirPlay is mostly for iOS devices and PhoneShare for Android devices.

AIRPLAY AND PHONESHARE PLAYBACK AND CONNECTION

Airplay is primarily for iOS devices while PhoneShare is for Android devices. They both require a wireless connection of your portable device to your network and sends music from your device to your router over Wi-Fi and the router sends it to the DMS-500/550/600 either Wi-Fi or wired Ethernet, depending on how your DMS-500/550/600 are connected to your network router. The advantages of AirPlay and PhoneShare is that since it relies on Wi-Fi the range of which you can send music to the DMS-500/550/600 from your portable device is much greater then Bluetooth.



(1) Open your desired music app and look for this icon
(2) Tap on the icon and wait for available device(s) to appear.
(3) Select "Cary DMS-500/550/600" and start playback of your music selection.
(4) The DMS-500/550/600 will display all track information including artwork on the front panel.



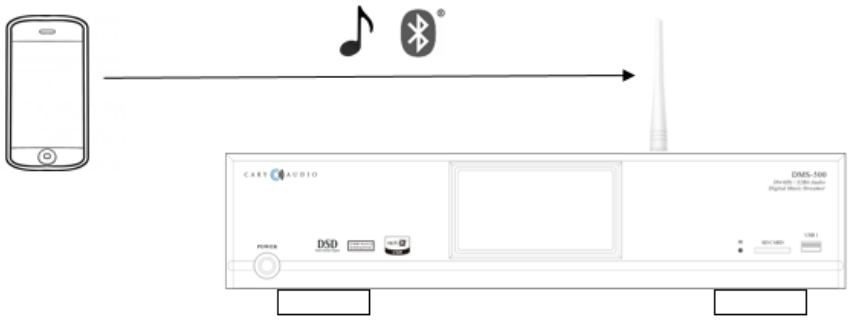
NOTE: To get the most of Airplay or PhoneShare during playback you can utilize our TruBit™ PCM and DSD Upsampling for a superior listening experience of these sources.

PLAYING MUSIC FROM PORTABLE DEVICES

BLUETOOTH CONNECTION

Bluetooth can work for both iOS and Android devices. The advantage of Bluetooth is it's a point to point signal, meaning no Wi-Fi or router connection is required to work. However, the range of Bluetooth is much shorter

Qualcomm aptX™ HD Bluetooth audio is capable 24 Bit / 48 kHz better-than-CD quality audio with the DMS-550-600 and CD quality 16 Bit / 44.1 kHz with the DMS-500 when using Bluetooth device capable of aptX™ and aptX™ HD. For more information, please visit Qualcomm's web site at https://www.aptx.com/aptx-hd.



Pairing a device with the DMS-500/550/600

When connecting a Bluetooth device to the unit for the first time, you must "pair" it to the DMS-500/550/600. Once pairing is completed, subsequent connection can be made with a couple of easy steps.

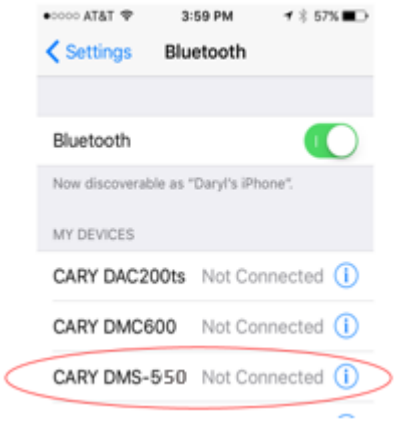
Initial Pairing Steps

1. **Select** the **BLUETOOTH** input on the DMS-500/550/600 and the display will show as follows;

2. **Go to** the "***Settings***" of your portable device and find *Bluetooth settings* and make sure Bluetooth function is **ON** and in **search mode**.

PLAYING MUSIC FROM PORTABLE DEVICES

3. "**CARY DMS-500/550/600**" should appear on your portable device as a Bluetooth receiver. Once it does, **select it**.



4. After pairing is complete, the display of DMS-500/550/600 will show as follows;

4. The display of the DMS-500/550/600 will show as follows once you initiate playback rom your portable device.

NOTE: If pairing information is deleted from your device, you will need to perform pairing of that device again in order to connect.

NOTE: Artwork for Bluetooth playback does NOT come from your Bluetooth Source. It is found online in accordance with the files tagging and online database. It is possible your Bluetooth source and the DMS-500/550/600's display screen can show varying degrees of matching artwork.

PLAYING MUSIC FROM PORTABLE DEVICES

BLUETOOTH PLAYBACK

Once pairing has successfully been completed, you can easily enjoy music from your portable devices as follows.

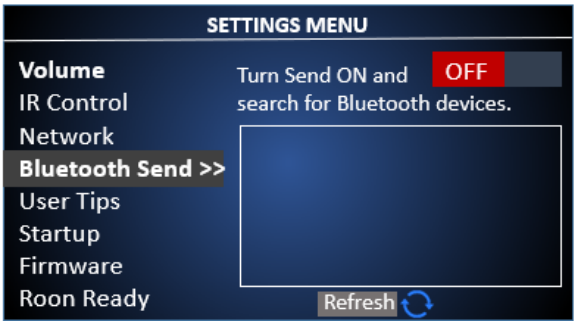
(5) **Select** the **BLUETOOTH** input on the DMS-500/550/600 front panel or on the hand held remote.
(6) Double check your device Bluetooth setting and make sure "**CARY DMS-500/550/600**" is selected.
(7) Begin playback of music on your device, which can include stored music files or music apps.
(8) If you see a "play to" icon; in your music app, tap it and select "CARY DMS-500/550/600" to ensure the signal is playing to the DMS-500/550/600.

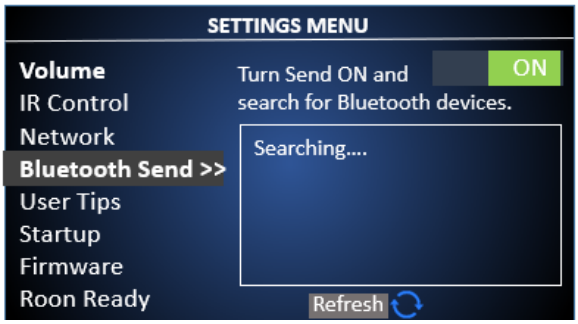
NOTE: To get the most of our ***fi***™ *Bluetooth Implementation* during playback you can utilize our TruBit™ PCM and DSD Upsampling for a superior listening experience of Bluetooth sources.

BLUETOOTH OUTPUT (DMS-600 ONLY)

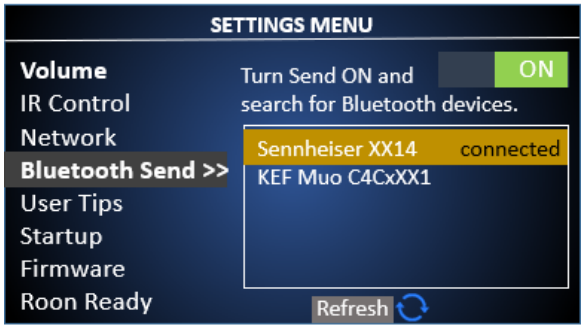
Use this feature to send the audio signal via Bluetooth to a set of Bluetooth headphones or Bluetooth speakers.

1. Set your Bluetooth headphones or speaker to paring mode.
2. *Go to* **Menu>>Bluetooth Send**. **Switch** to **ON**. DMS-600 will search for Bluetooth devices and list them.





3. Scroll down to highlight desired Bluetooth device and press Enter to connect.



FILE CONVERSION AND UPSAMPLING

PCM TO DSD CONVERSION

Through use of our TruBit™ Upsampling technology as described below, it is now possible to convert PCM files to DSD. For those that prefer DSD this is an extremely powerful feature. Imagine taking any source or sample rate from network, internet, Bluetooth, AirPlay, or SPDIF and converting to DSD64, 128 or 256. Whether you're in the PCM or DSD camp, The DMS-500/550/600 accommodates both! Not only can you convert any PCM sample rate up to 768 kHz in the PCM domain, but TruBit™ Upsampling also allows you to convert that 16, 24 bit PCM to a 1 bit direct stream digital signal with sample rates of 2.8224 MHz (64 or standard rate), 5.6448 MHz (128 or Double rate), 11.2 MHz (256 or Quad rate). You can even up convert a native DSD64 file to a higher level of DSD128 or DSD256. By using superior no compromise AKM DAC's, any native DSD or PCM to DSD converted signal is processed as true DSD. In other words, The DMS-500/550/600 does NOT down convert a DSD signal to PCM within the DAC chips. This is actually somewhat rare as many so called DSD players actually down convert the DSD signal to PCM inside the inferior DAC chip(s) without you knowing it.

PCM AND DSD UPSAMPLING

TruBit™ Upsampling is a powerful upsampling technology used to upsample lower sample rates to higher sample rate and increases the bit depth to 32 bits for PCM and 1 Bit for DSD in the digital domain via a dedicated 128 bit DSP engine prior to analog conversion. This can be very useful in achieving a more enjoyable listening experience. Once a native input signal is changed to a selected higher sample rate, the bit depth will also automatically increase to 32 bits for PCM or change to 1 bit for DSD conversion. However, like all-powerful tools, this too should be used prudently. We do not take a blanket "higher is better" approach to upsampling. It is important to experiment with different rates depending on your source or source material. Many times a native rate might be preferred whereas some recordings or files formats might benefit from a higher sampling rate, and so on.

The available selectable sample rates depend on the input signals original sample rate. For example, above 192 kHz the available PCM rate(s) will only be in multiples of either 44.1 kHz or 48 kHz as follows:

Input signal rates of 44.1 or multiples of:

BYPASS (44.1) ---> 48 ---> 88.2 ---> 96--> 176.4 ---> 192 ---> **352.8**---> **705.6** **--->** DSD64 ---> DSD128 ---> DSD256.

Input signal rates of 48 or multiples of:

BYPASS (44.1) ---> 48 ---> 88.2 ---> 96--> 176.4 ---> 192 ---> **384**--->**768** **--->** DSD64 ---> DSD128 ---> DSD256.

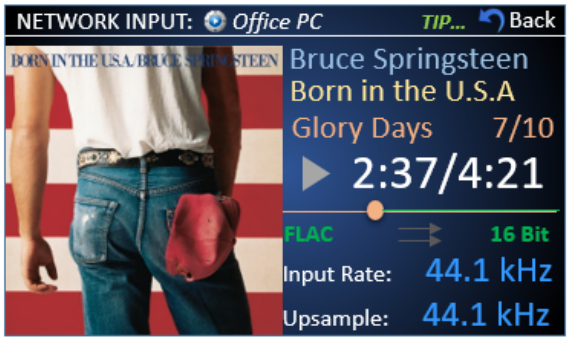
FILE CONVERSION AND UPSAMPLING

Pressing the "***SRC***" button on the hand held remote will cycle through the available sample rates.

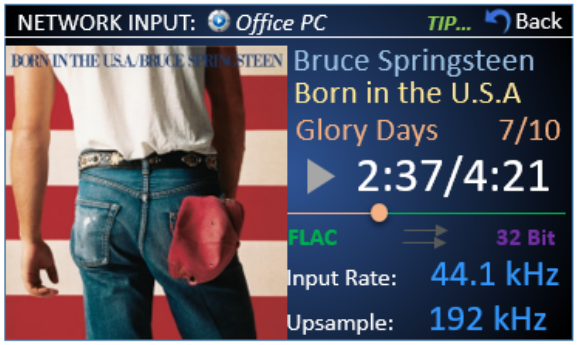
- **"BYPASS"** next to **Upsample Rate** means The DMS-500/550/600 will pass the input signal rate out in its native rate without any upsampling.
- **When an upsample rate is selected** higher than the native input rate**,** the DMS-500/550/600 will upsample all incoming rates lower than the selected upsample rate up to the selected upsample rate (as well as change the bit depth to 32 bits for PCM or 1 bit for DSD). Any signals played that are equal to or higher than the selected upsample rate will playback unchanged as evident by the displays "Upsample Rate" showing "BYPASS" or the same upsample rate as the input rate. Subsequent playback of lower input rates behave as described above. Each of the DMS-500/550/600 inputs will remember the upsample rate as set for that input.

NOTE: Anytime an upsample rate is selected, the bit depth will change to **purple** signifying the bit depth conversion from its native rate to either 32-Bit for PCM upsampling, or 1-Bit for PCM to DSD conversion.

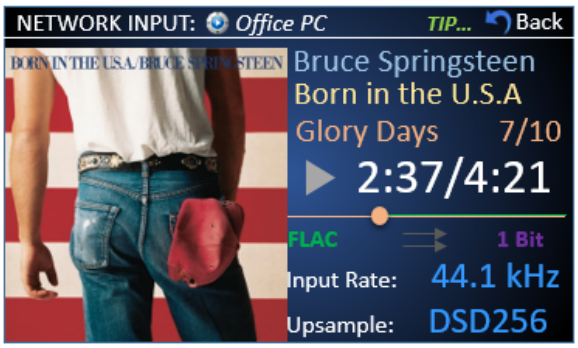
Native Playback



PCM Upsampling



PCM to DSD Conversion



DSD OPERATION

DSD PLAYBACK

The DMS-500/550/600 are capable of playing native (not just DoP) DSD files up to 512 via both wired Ethernet and wireless Wi-Fi inputs as well as from the USB/SD inputs. If using Wi-Fi as your network connection, it is recommended to use a 5 GHz router and have a very robust signal at the DMS-500/550/600 location. You can also choose to access a computer that is connected wirelessly to your network as well.

However, this adds another potential interruption in the signal path when playing large files, such as DSD, etc. For the fastest and most reliable playback, a wired Ethernet connected is recommend to both the DMS-500/550/600 as well as to your computer(s).

NOTE: When playing DSD files The DMS-500/550/600 will not output from the SPDIF outputs being we do not convert DSD to PMC and that SPDIF outputs are limited to 24 bit – 192kHz PMC output.

MQA OPERATION

MQA PLAYBACK NOTIFICATION

The DMS-500/550/600 are the first product to earn MQA certification using MQA's 16x rendering. This means the MQA files will play at a fixed sample rate of 705.6 kHz or 768 kHz. Upon Playback of an MQA encoded file, 'MQA' (Green Dot), 'MQA Studio' (Blue dot), 'MQA Core' (Magenta dot) indicates that the unit is decoding and playing an MQA file.

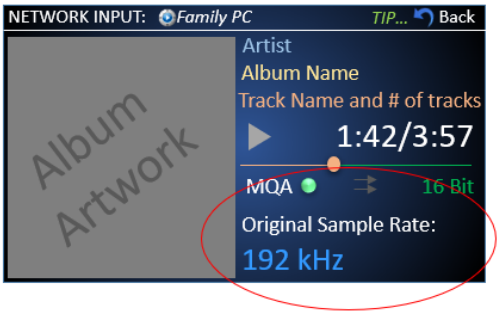
MQA Studio indicates the file has either been approved in the studio by the artist/producer or has been verified by the copyright owner as provenance to what was heard in the studio.

MQA Green indicates a file that has been MQA encoded without provenance.

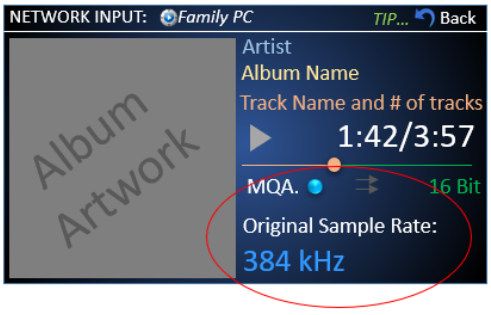
MQA Magenta indicates the MQA file's first unfold was decoded by software (only up to 88.2 kHz or 96 kHz), such as Roon or Audirvana, and the rest decoded by the full hardware decoder within the DMS-500/550/600. Core decoding can be turned off in the third-party software program to allow all decoding to be done by the DMS-500/550/600.

Ethernet, Wi-Fi, USB-A, and SD Card inputs are all capable of MQA playback. SPDIF inputs of the DMS-500/550/600 are not capable of MQA playback. Additionally, when playing MQA files the optical and coaxial outputs will NOT pass through any signal.

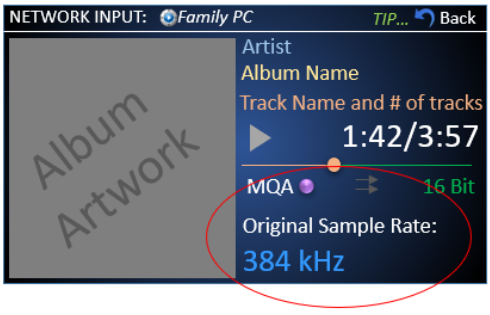
MQA Notification
"MQA" Green Dot



MQA Studio Notification
"MQA." with Blue DOT



MQA Core
"MQA" with Magenta DOT



ROON READY OPERATION

ROON OVERVIEW

The DMS-500/550/600 are a Roon Ready Certified endpoint. This means if you subscribe to Roon and have the Roon Core software installed on your PC or MAC, you can use the Roon tablet or Phone app to playback music from your network storage to the DMS-500/550/600. When you use the Roon ecosystem for playback, your control of the DMS-500/550/600 are limited to the Roon apps ability. For example, you can turn The DMS-500/550/600 on or off from the Roon app and control volume options as well as any other Roon integrated feature, such as TIDAL. However, all other DMS-500/550/600 features are only accessible from the DMS-500/550/600 IR or app remotes.

ROON SETUP

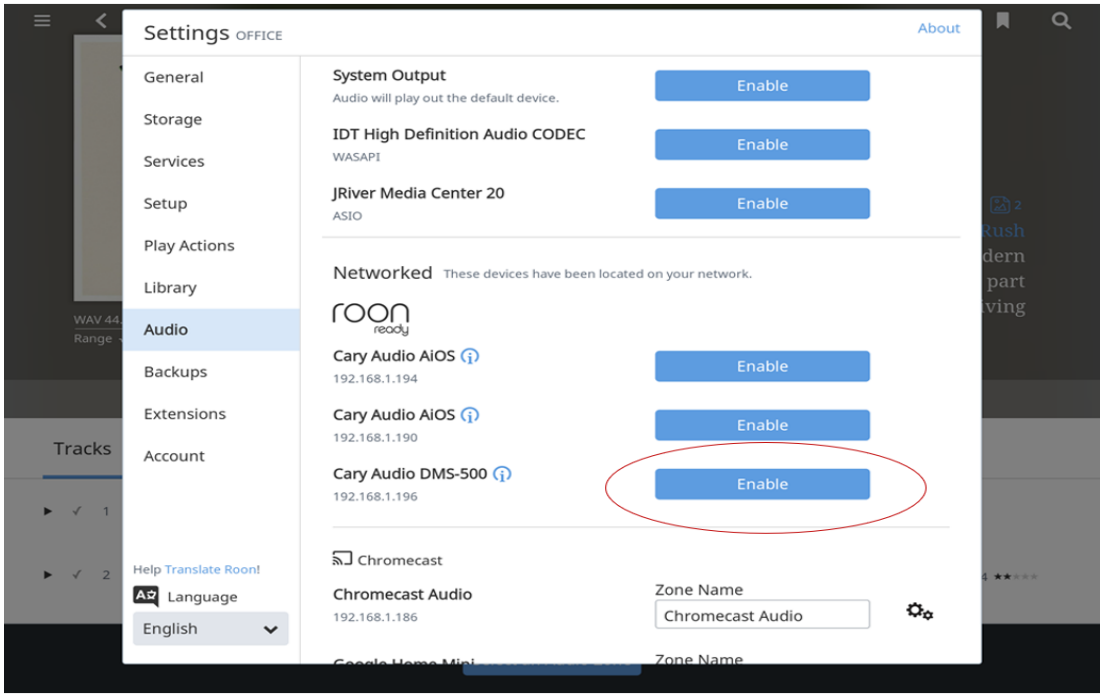
To enable "Roon Ready" from the DMS-500/550/600, *press* **Menu** and *scroll down* to **Roon Ready**. *Select* **Enable** as shown below, then exit.

This can also be done from the DMS-500/550/600 control app via navigating to Settings>>Roon Ready>>Enable.

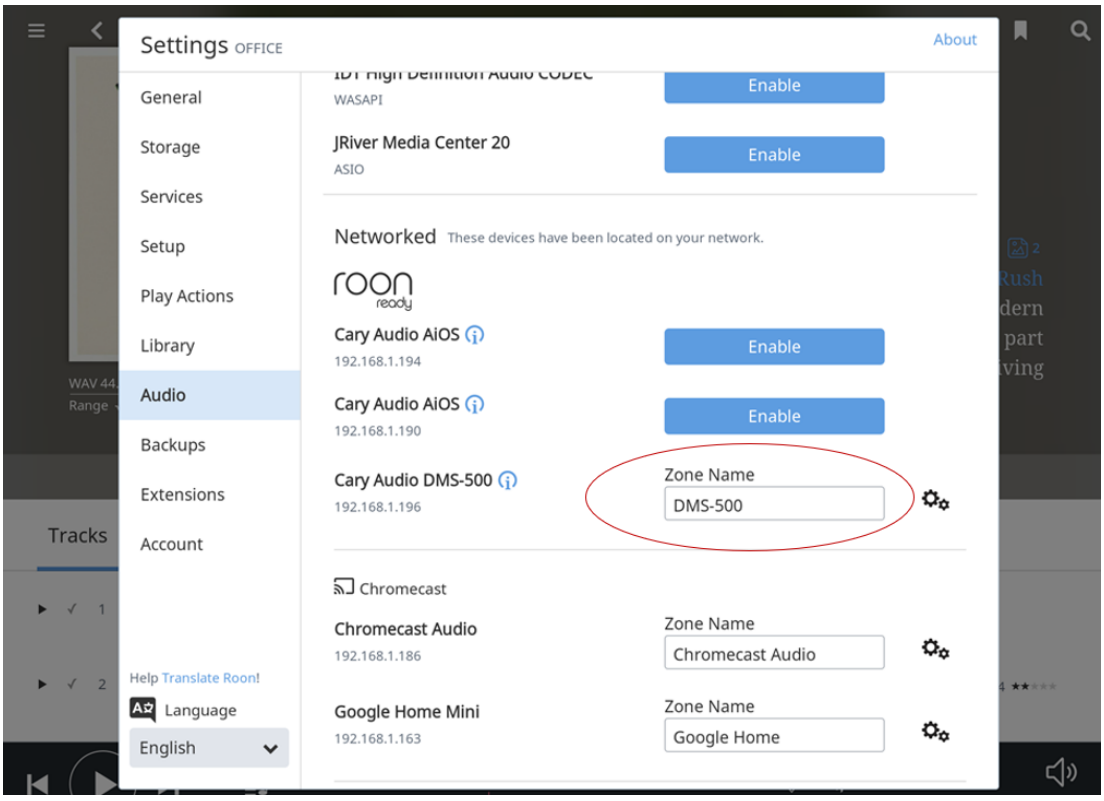
Before proceeding you must downloaded and install the Roon Core software on your computer (https://roonlabs.com/downloads.html) and setup your library monitoring and other personal preferences within the Roon Core software. Below details how to enable The DMS-500/550/600 as a Roon Ready endpoint within Roon Core.

ROON READY OPERATION

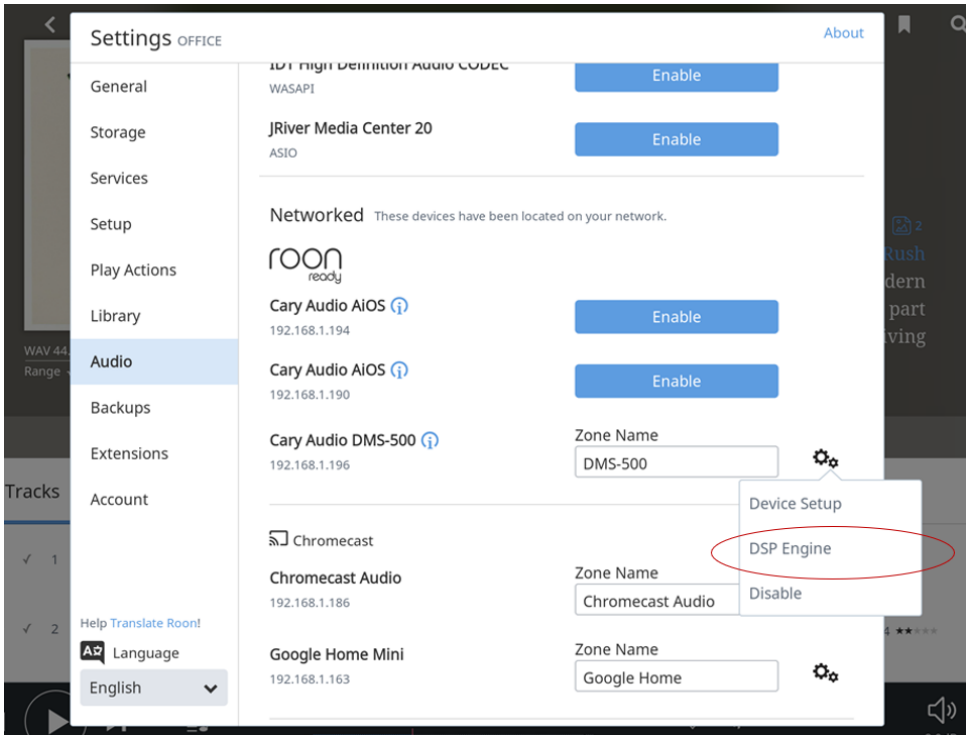
1. In Roon Core software, select **Settings**, then **Audio**.
2. Scroll down to the "Networked" section. You should see the DMS-500/550/600 listed.
3. Once the DMS-500/550/600 are listed, it will show a blue "Enable" box. If not, turn on the DMS-500/550/600 first.



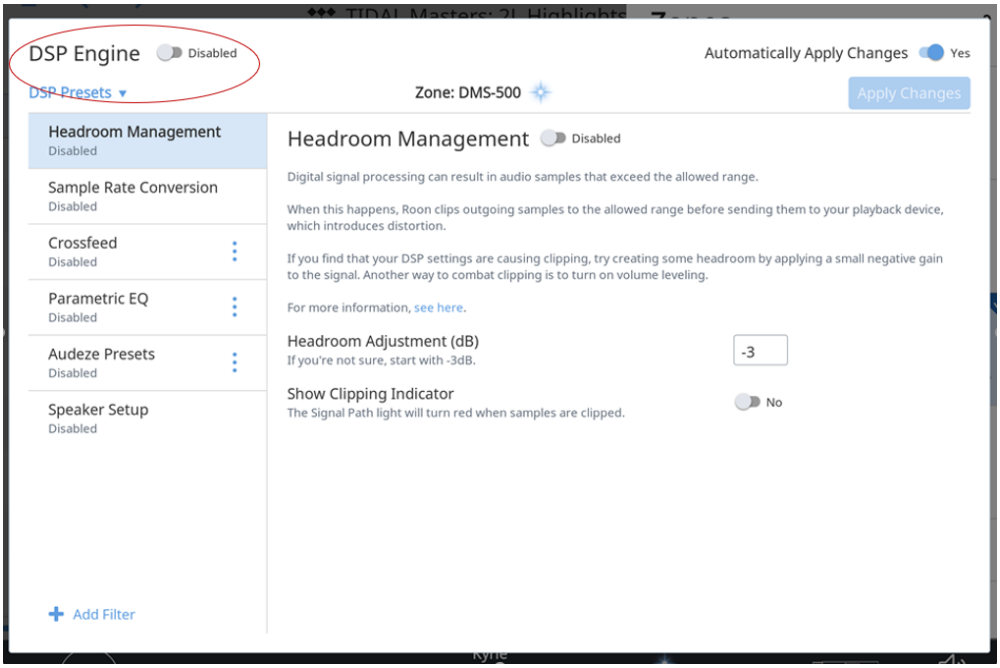
4. Once you click on "Enable" it will ask for the name the Zone



5. You'll notice the **Setting icon** next to an enabled Roon Rady device. Initially, you can leave the Roon Core settings for the DMS-500/550/600 in their default setting. *Pressing* **DSP Engine** will take you to DSP Setting.

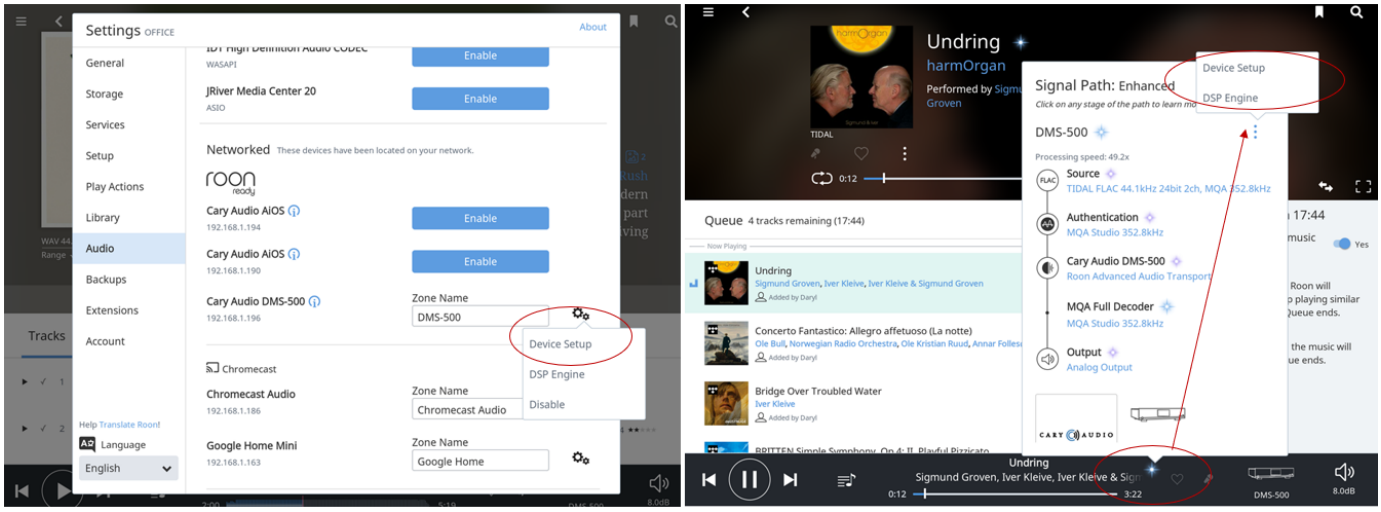


6. This shows how to disable the DSP setting in Roon. A word on DSP setting in Roon. The DMS-500/550/600 are already capable of playing extremely high resolution PCM, MQA, and DSD without the need for additional DSP setting. If you enable DSP in Roon, please use these setting carefully.



ROON READY OPERATION

7. In addition to **DSP settings**, Roon also has a **Device Setup** section, specific to the playback device. There are two ways to access this. One, in the Audio Setup page (left graphic). Two, in the now playing screen by pressing the "Signal Path" light, then the 3-Dot menu next the Roon Ready endpoint product name (right graphic).

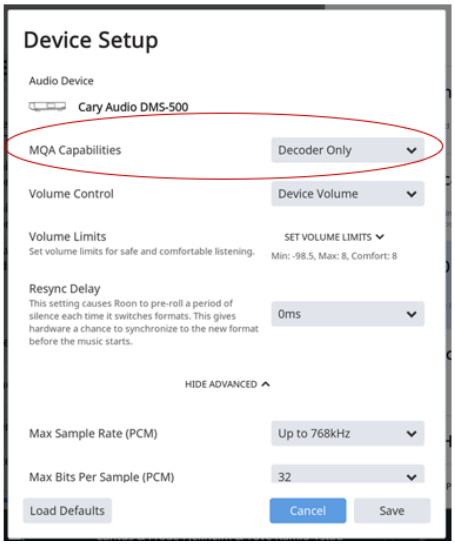


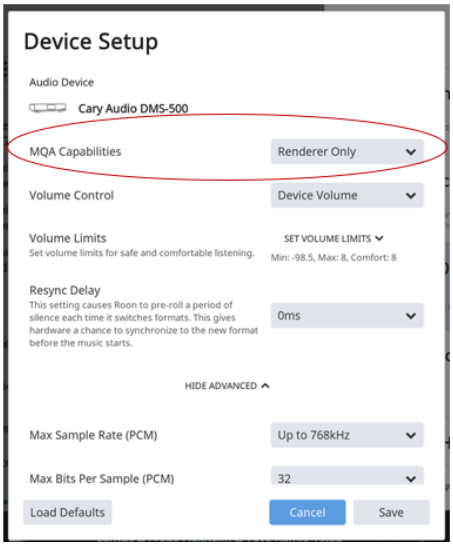
8. in Device Setup, there are multi areas to look at. However, Roon usually presets these based on the capabilities of the playback device. It primarily focusses on how MQA files are handled as well as sample rate and bit depth capabilities of the playback device.

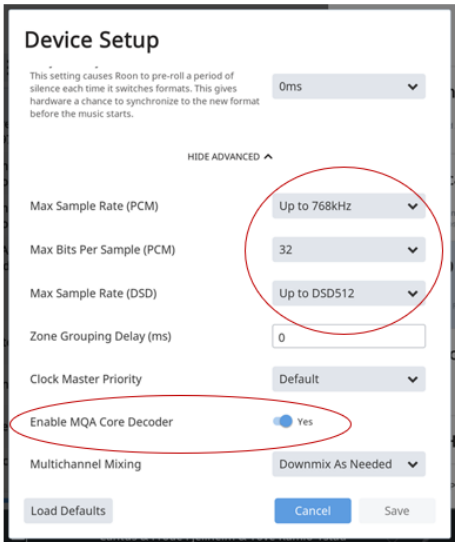
Roon Defaults the DMS-500/550/600 as both an MQA **Decoder and Renderer**, but you could select **Decoder Only** to not allow Roon Core to decode MQA at all. However, Decoder and Renderer is perfectly fine.

You Could also set the DMS-500/550/600 as a **Renderer only** which mean Roon Core will always do the first MQA unfolding instead of the DMS-500/550/600. The DMS-500/550/600 will then do the rest of the MQA unfolding/rendering

Also, be sure to set as follows for the max sample, bit, and DSD rate the DMS-500/550/600 are capable as shown below. You can also override any Roon MQA decoding by turning **Enable MQA Core Decoding** off.

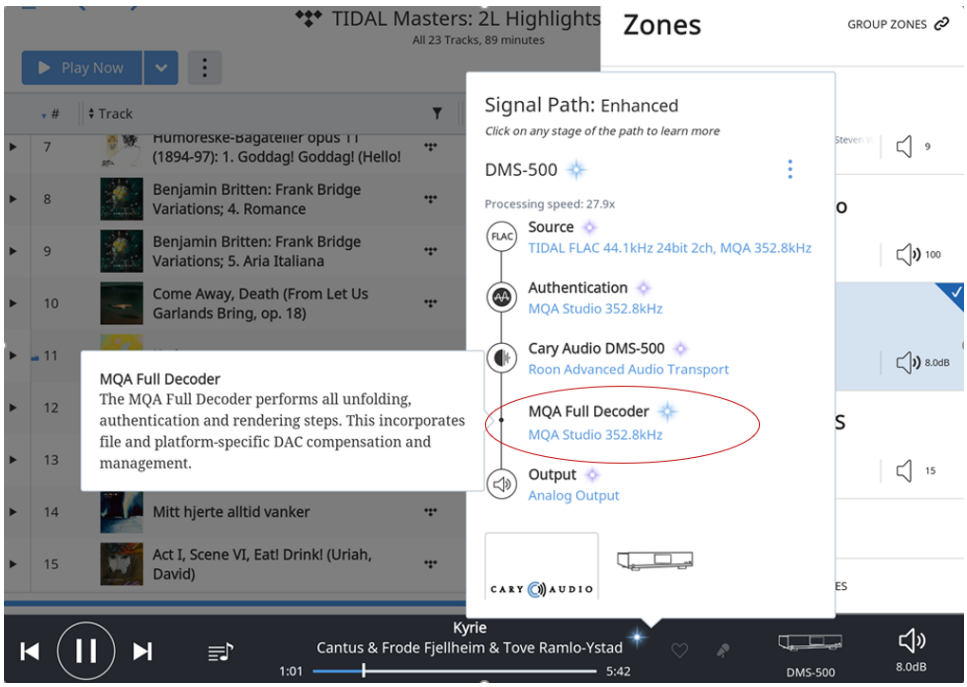






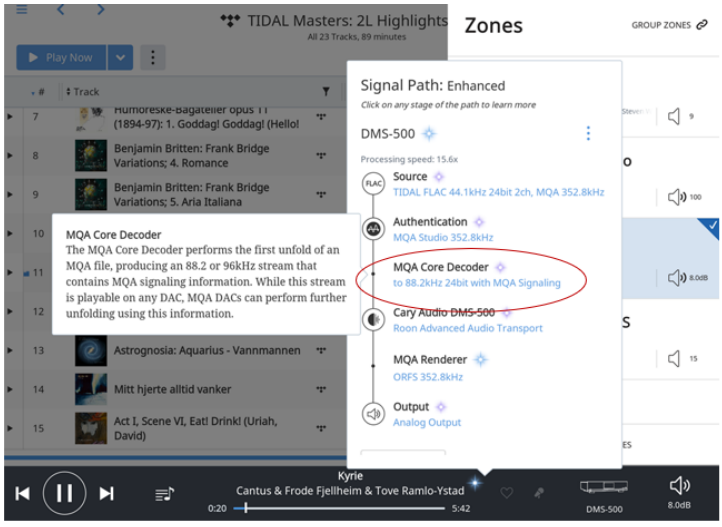
ROON READY OPERATION

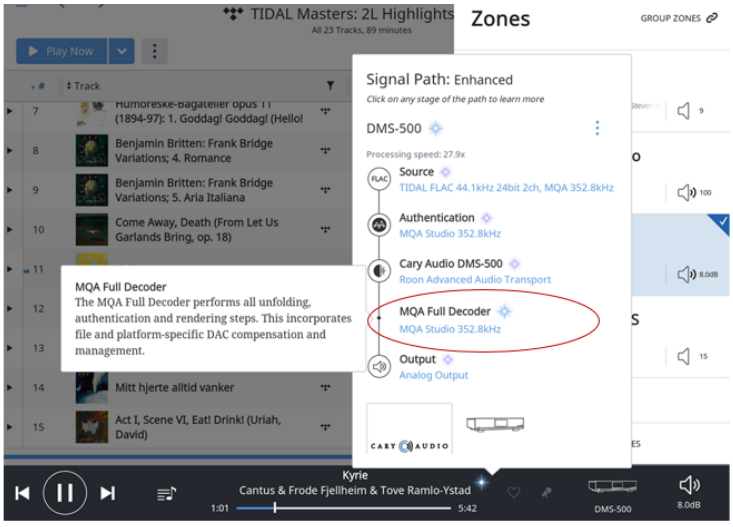
When the DMS-500/550/600 are set as a decoder only, you can see from the signal path that ONLY the DMS-500/550/600 are fully decoding the MQA file to its fullest resolution without any rendering. This is a Preferred method.



When the DMS-500/550/600 are set as a renderer, you can see from the signal path there are now two-steps to the MQA decoding process. First the Roon Core software will decode the first unfold, then the DMS will render the second and third unfolding. For most circumstances, this is not necessary, and it would be better to let the DMS-500/550/600 decode the full MQA signal.

Enabling Roon MQA Core decoding is only needed if you are using Roon DSP to process the signal before it reaches the DMS-500/550/600, then Roon will want to handle the first MQA unfolding so that whatever DSP you are using can be applied.

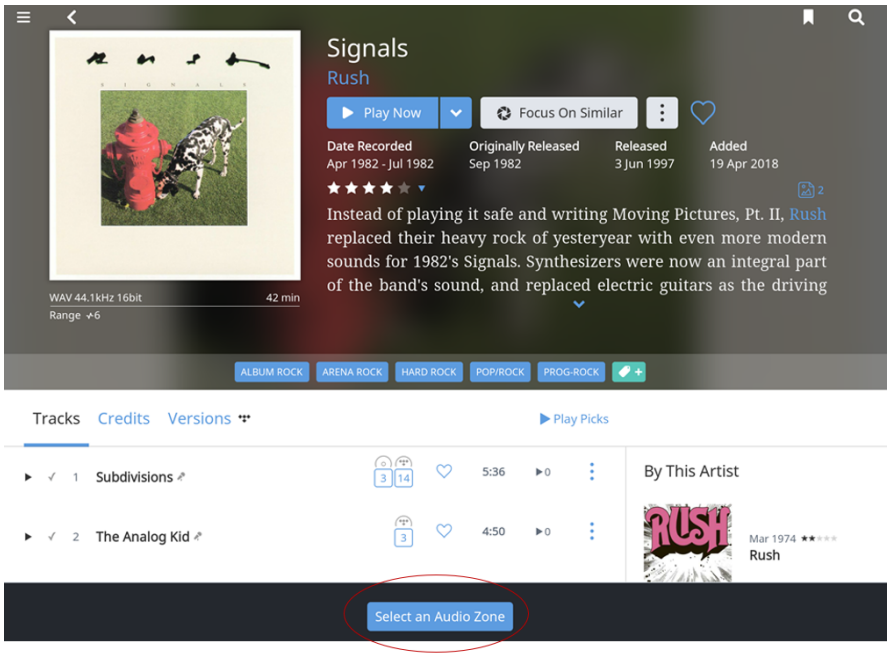




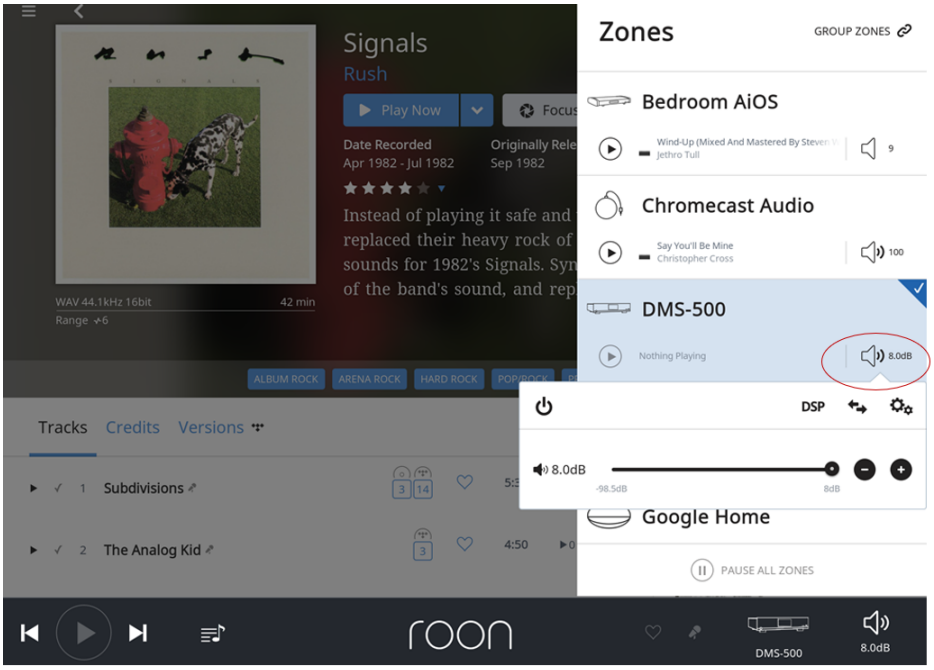
ROON READY OPERATION

After completing the above steps of enabling the DMS-500/550/600 Roon Ready capability and downloading, installing, setting up the Roon Core computer software, you can follow the below steps to playback music files via the Roon Ecosystem.

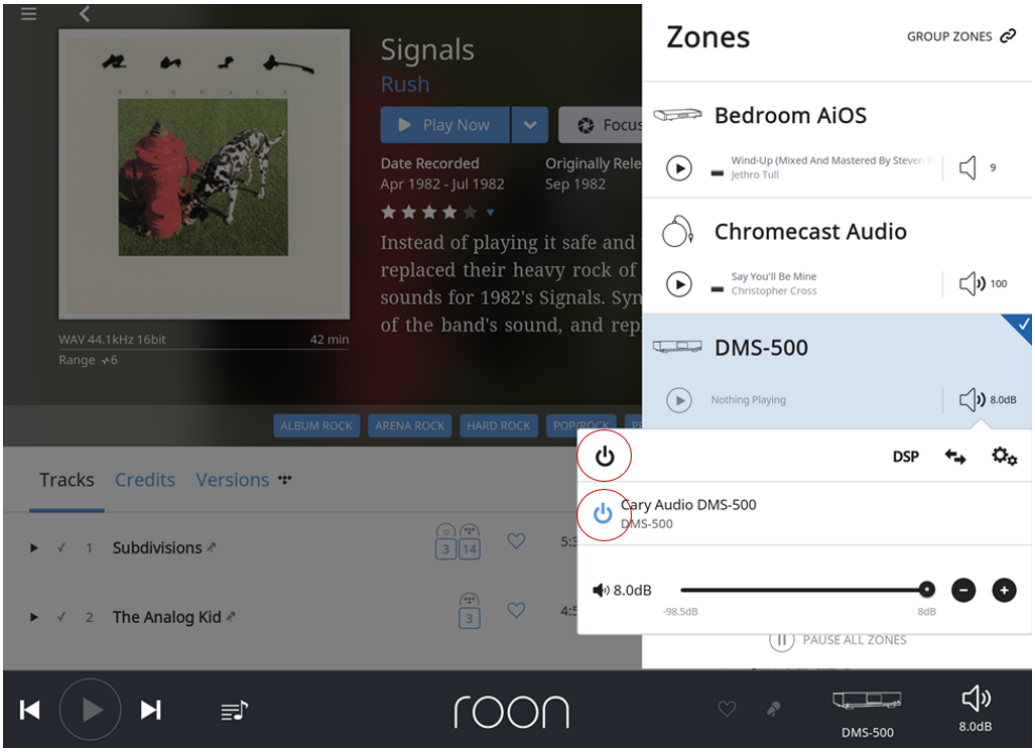
1. *Open* the Roon tablet or phone app.
2. *Press* the **Select an Audio Zone.**



3. *Select* the DMS-500/550/600 as the desired zone and *Press* the Sound Icon which will reveal a drop-down box.



4. In this box is a Power Button Icon. *Press* it to reveal the DMS-500/550/600 button. Press it and DMS-500/550/600 should power.

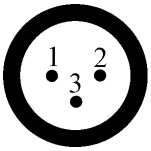


5. Once DMS-500/550/600 if fully powered up and ready to go, you can simply browse the Roon App interface to select any music you wish. Once you select Play it will send the music to the DMS-500/550/600 via a bit-perfect stream of data. The first time you do this, you may have to adjust the Roon volume slider accordingly.

For more in-depth details of operation Roon Core and Roon App(s), please refer to the Roon Web Site. https://kb.roonlabs.com/Roon_User_Guide

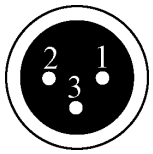
BALANCED OPERATION

The pin assignments of ALL of the XLR-type male analog outputs, the XLR-type male digital output and XLR-type female digital inputs are:



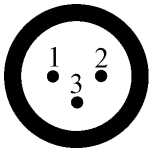
Pin 1: Signal ground
Pin 2: Signal + (non-inverting)
Pin 3: Signal - (inverting)
Connector ground lug: chassis ground

Refer to your amplifier's operating manual to verify that the XLR pin assignments of its input connectors correspond to the DMS-500/550/600. If they are different, wire the XLR cable so that the appropriate XLR output pin connects to the equivalent XLR input pin.



Pin 1: Signal ground
Pin 2: Signal + (non-inverting)
Pin 3: Signal - (inverting)
Connector ground lug: chassis ground

Refer to your digital input source signal player or other digital source's operating manual to verify that the XLR pin assignments of its input connectors correspond to the DMS-500/550/600. If they are different, wire the XLR cable so that the appropriate input pin connects to the equivalent input pin.



Pin 1: Signal ground
Pin 2: Signal + (non-inverting)
Pin 3: Signal - (inverting)
Connector ground lug: chassis ground

Refer to your digital source's operating manual to verify that the XLR pin assignments of its input connectors correspond to the DMS-500/550/600. If they are different, wire the XLR cable so that the appropriate output pin connects to the equivalent output pin.

SPECIFICATIONS

This section describes the basic specifications of the DMS-500 at the time of printing. Specifications are subject to change without notice or obligation. When the following cautionary terms are used in this manual, these definitions apply:

WARNING

- **Electrical hazard! Misuse or failure to follow instructions properly may result in personal injury or death!**

CAUTION

- **No risk or personal injury; however, misuse or failure to follow instructions may result in damage to equipment.**

NOTE

- **No risk of personal injury or equipment damage; however, misuse or failure to follow instructions may prevent proper performance of the equipment.**

DMS-500 BASIC SPECIFICATIONS

Master Clock Jitter	Below measurable levels
Digital Sampling Rates (Fs)	44.1 kHz to 384 kHz
Digital Filter	32-Bit 8x Oversampling Digital Filter
Digital/Analog Converters	2 - 2 channel AK4490 EQ for working on true balanced output
BLUETOOTH	Bluetooth v 4.0 with Qualcomm aptX™ Low Latency for 16 bit / 44.1 audio
Analog Filter	3rd Order Bessel
Analog Outputs	Balanced XLR, Single – Ended RCA
Digital Outputs	Coaxial, Toslink operating at Sample Frequency (Fs) from 44.1 kHz to 192 kHz, 16 bit to 24 bit
Digital Inputs	USB x 3, SD Card x 1 BLUETOOTH x1 AES/EBU x1, Coaxial x2, Toslink x1
Digital Input Sample Rate	USB operating at Sample Frequency (Fs) from 44.1 kHz to 384 kHz, 16 bit to 32 bit, DSD 64, 128, 256 and 512. BLUETOOTH Sample Frequency (Fs) 44.1 kHz, 16 bit. AES/EBU, Coaxial, Toslink operating at Sample Frequency (Fs) from 44.1 kHz to 192 kHz, 16bit to 24 bit
Control	Trigger input 12VDC x1 IR control x1
Communication	Ethernet RJ45 full remote configuration interface Wi-Fi 802.11 b/g/n

SPECIFICATIONS

Power Input	Configured at factory for either 110-120 or 220-240 VAC, 50-60 Hz
Power Consumption	45 Watts
Dimensions	3.75" H x 17.25" W x 16.25" D
Weight	23.5 lbs.

AUDIO (LPCM)

Frequency Range	2 Hz - 22 kHz (44.1 kHz)
Amplitude Linearity	0.1 dB (20 Hz – 20 kHz)
Phase Linearity	3 degrees (20 Hz - 20 kHz)
Dynamic Range	121 dB (1 kHz)
Signal-to-Noise Ratio	113 dB (1 kHz)
Channel Separation	106 dB (1 kHz)
Total Harmonic Distortion	0.0004% (1 kHz)
Audio Output Level	2.0V RMS (220 Ω output impedance) for Volume in 0.0dB 3.0V RMS (220 Ω output impedance) for Volume in +8.0dB
Balanced XLR Output	+/- 2.0V RMS (440 Ω output impedance) for Volume in 0.0dB +/- 3.0V RMS (440 Ω output impedance) for Volume in +8.0dB

NETWORK, USB, SD CARD PLAYBACK

PLAYBACK FORMAT SUPPLY	.dsf, .dff (DSD64, 128, 256, 512), .aif, .aiff, .alac, .flac, .m4a, .mp4, .wav, .ape, .mp3, .aac, .wma, .ogg, .asf
Frequency Range	2 Hz - 100 kHz
Signal System	16, 20, 24, & 32 bit PCM and 1 bit DSD
Sampling Frequency	44.1 kHz to 384 kHz PCM and 2.822MHz – 22.5792 MHz DSD
Dynamic Range	123 dB

SPECIFICATIONS

DSD System Clock	Frequency 22.5792 MHz
Signal-to-Noise Ratio	112 dB
Audio Output Level	2.0V RMS (220 Ω output impedance) for Volume in 0.0dB 3.0V RMS (220 Ω output impedance) for Volume in+8.0dB
Balanced XLR Output	+/- 2.0V RMS (440 Ω output impedance) for Volume in 0.0dB +/- 3.0V RMS (440 Ω output impedance) for Volume in +8.0dB

SPDIF PLAYBACK; COAXIAL, TOSLINK, AES/EBU (IPCM)

Frequency Range	2 Hz - 100 kHz
Signal System	16, 20, and 24 bit
Sampling Frequency	44.1 kHz to 192 kHz PCM
Dynamic Range	123 dB
System Clock	Frequency 22.5792 MHz
Signal-to-Noise Ratio	112 dB
Audio Output Level	2.0V RMS (220 Ω output impedance) for Volume in 0.0dB 3.0V RMS (220 Ω output impedance) for Volume in+8.0dB
Balanced XLR Output	+/- 2.0V RMS (440 Ω output impedance) for Volume in 0.0dB +/- 3.0V RMS (440 Ω output impedance) for Volume in +8.0dB

SPECIFICATIONS

This section describes the basic specifications of the DMS-550 at the time of printing. Specifications are subject to change without notice or obligation. When the following cautionary terms are used in this manual, these definitions apply:

WARNING

- **Electrical hazard! Misuse or failure to follow instructions properly may result in personal injury or death!**

CAUTION

- **No risk or personal injury; however, misuse or failure to follow instructions may result in damage to equipment.**

NOTE

- **No risk of personal injury or equipment damage; however, misuse or failure to follow instructions may prevent proper performance of the equipment.**

DMS-550 BASIC SPECIFICATIONS

Master Clock Jitter	Below measurable levels
Digital Sampling Rates (Fs)	44.1 kHz to 768 kHz
Digital Filter	32-Bit 8x Oversampling Digital Filter
Digital/Analog Converters	2 - 2 channel AK4493EQ for working on true balanced output
BLUETOOTH	CSR Bluetooth v 4.0 with aptX® HD for 24 Bit / 48 kHz high definition audio
Analog Filter	3rd Order Bessel
Analog Outputs	Balanced XLR, Single – Ended RCA
Digital Outputs	Coaxial, Toslink operating at Sample Frequency (Fs) from 44.1 kHz to 192 kHz, 16 bit to 24 bit
Digital Inputs	USB x 3, SD Card x 1 BLUETOOTH x1 AES/EBU x1, Coaxial x2, Toslink x1
Digital Input Sample Rate	USB operating at Sample Frequency (Fs) from 44.1 kHz to 384 kHz, 16 bit to 32 bit, DSD 64, 128, 256 and 512. BLUETOOTH Sample Frequency (Fs) 48 kHz, 24 bit. AES/EBU, Coaxial, Toslink operating at Sample Frequency (Fs) from 44.1 kHz to 192 kHz, 16 bit to 24 bit
Control	Trigger input 12VDC x1 IR control x1
Communication	Ethernet RJ45 full remote configuration interface Wi-Fi 802.11 b/g/n/ac with MU-MIMO support

SPECIFICATIONS

Power Input	Configured at factory for either 110-120 or 220-240 VAC, 50-60 Hz
Power Consumption	45 Watts
Dimensions	3.75” H x 17.25” W x 16.25” D
Weight	23.5 lbs.

AUDIO (LPCM)

Frequency Range	2 Hz - 22 kHz (44.1 kHz)
Amplitude Linearity	0.1 dB (20 Hz – 20 kHz)
Phase Linearity	3 degrees (20 Hz - 20 kHz)
Dynamic Range	125 dB (1 kHz)
Signal-to-Noise Ratio	113 dB (1 kHz)
Channel Separation	107 dB (1 kHz)
Total Harmonic Distortion	0.0004% (1 kHz)
Audio Output Level	2.0V RMS (220 Ω output impedance) for Volume in 0.0dB 3.0V RMS (220 Ω output impedance) for Volume in +8.0dB
Balanced XLR Output	+/- 2.0V RMS (440 Ω output impedance) for Volume in 0.0dB +/- 3.0V RMS (440 Ω output impedance) for Volume in +8.0dB

NETWORK, USB, SD CARD PLAYBACK

PLAYBACK FORMAT SUPPLY	.dsf, .dff (DSD64, 128, 256, 512), .aif, .aiff, .alac, .flac, .m4a, .mp4, .wav, .ape, .mp3, .aac, .wma, .ogg, .asf
Frequency Range	2 Hz - 125 kHz
Signal System	16, 20, 24, & 32 bit PCM and 1 bit DSD
Sampling Frequency	44.1 kHz to 384 kHz PCM and 2.822MHz – 22.5792 MHz DSD
Dynamic Range	125 dB
DSD System Clock	Frequency 22.5792 MHz

SPECIFICATIONS

Signal-to-Noise Ratio	112 dB
Audio Output Level	2.0V RMS (220 Ω output impedance) for Volume in 0.0dB 3.0V RMS (220 Ω output impedance) for Volume in+8.0dB
Balanced XLR Output	+/- 2.0V RMS (440 Ω output impedance) for Volume in 0.0dB +/- 3.0V RMS (440 Ω output impedance) for Volume in +8.0dB

SPDIF PLAYBACK; COAXIAL, TOSLINK, AES/EBU (lPCM)

Frequency Range	2 Hz - 100 kHz
Signal System	16, 20, and 24 bit
Sampling Frequency	44.1 kHz to 192 kHz PCM
Dynamic Range	123 dB
System Clock	Frequency 22.5792 MHz
Signal-to-Noise Ratio	112 dB
Audio Output Level	2.0V RMS (220 Ω output impedance) for Volume in 0.0dB 3.0V RMS (220 Ω output impedance) for Volume in+8.0dB
Balanced XLR Output	+/- 2.0V RMS (440 Ω output impedance) for Volume in 0.0dB +/- 3.0V RMS (440 Ω output impedance) for Volume in +8.0dB

HEADPHONE AMPLIFIER

Frequency Range	2 Hz - 80 kHz (-3dB)
Impedance	8 – 600 ohms
Output Power	850 mW + 850 mW (32 ohms 1 kHz 0.002%)
THD+N	1.0kHz<0.002% 20.0kHz<0.0025% 31.0kHz<0.0022%

SPECIFICATIONS

Max-Voltage Out (V RMS)	Headphone Impedance Z(Ω)	Output power per channel (mW)
5.2	600	45.1
5.2	300	90.1
5.2	100	270.4
5.2	60	450.7
5.2	50	540.8
5.2	32	850.0
5.2	16	1690.0
5.2	8	3380.0

SPECIFICATIONS

This section describes the basic specifications of the DMS-600 at the time of printing. Specifications are subject to change without notice or obligation. When the following cautionary terms are used in this manual, these definitions apply:

WARNING

- **Electrical hazard! Misuse or failure to follow instructions properly may result in personal injury or death!**

CAUTION

- **No risk or personal injury; however, misuse or failure to follow instructions may result in damage to equipment.**

NOTE

- **No risk of personal injury or equipment damage; however, misuse or failure to follow instructions may prevent proper performance of the equipment.**

DMS-600 BASIC SPECIFICATIONS

Master Clock Jitter	Below measurable levels
Digital Sampling Rates (Fs)	44.1 kHz to 768 kHz
Digital Filter	32-Bit 8x Oversampling Digital Filter
Digital/Analog Converters	2 - 2 channel AK4497EQ for working on true balanced output
BLUETOOTH	CSR Bluetooth v 4.0 with aptX® HD for 24 Bit / 48 kHz high definition audio decoder
Analog Filter	3rd Order Bessel
Analog Outputs	Balanced XLR, Single – Ended RCA
Digital Outputs	Coaxial, Toslink operating at Sample Frequency (Fs) from 44.1 kHz to 192 kHz, 16 bit to 24 bit
Digital Inputs	USB x 3, SD Card x 1 BLUETOOTH x1 AES/EBU x1, Coaxial x2, Toslink x1
Digital Input Sample Rate	USB operating at Sample Frequency (Fs) from 44.1 kHz to 384 kHz, 16 bit to 32 bit, DSD 64, 128, 256 and 512. BLUETOOTH Sample Frequency (Fs) 48 kHz, 24 bit. AES/EBU, Coaxial, Toslink operating at Sample Frequency (Fs) from 44.1 kHz to 192 kHz, 16bit to 24 bit
Control	Trigger input 12VDC x1 IR control x1
Communication	Ethernet RJ45 full remote configuration interface Wi-Fi 802.11 b/g/n/ac support MU-MIMO

SPECIFICATIONS

Power Input	Configured at factory for either 110-120 or 220-240 VAC, 50-60 Hz
Power Consumption	45 Watts
Dimensions	3.75″ H x 17.25″ W x 16.25″ D
Weight	23.5 lbs.

AUDIO (LPCM)

Frequency Range	2 Hz - 22 kHz (44.1 kHz)
Amplitude Linearity	0.1 dB (20 Hz – 20 kHz)
Phase Linearity	3 degrees (20 Hz - 20 kHz)
Dynamic Range	130 dB (1 kHz)
Signal-to-Noise Ratio	115 dB (1 kHz)
Channel Separation	107 dB (1 kHz)
Total Harmonic Distortion	0.0004% (1 kHz)
Audio Output Level	2.0V RMS (220 Ω output impedance) for Volume in 0.0dB 3.0V RMS (220 Ω output impedance) for Volume in +8.0dB
Balanced XLR Output	+/- 2.0V RMS (440 Ω output impedance) for Volume in 0.0dB +/- 3.0V RMS (440 Ω output impedance) for Volume in +8.0dB

NETWORK, USB, SD CARD PLAYBACK

PLAYBACK FORMAT SUPPLY	.dsf, .dff (DSD64, 128, 256, 512), .aif, .aiff, .alac, .flac, .m4a, .mp4, .wav, .ape, .mp3, .aac, .wma, .ogg, .asf
Frequency Range	2 Hz - 125 kHz
Signal System	16, 20, 24, & 32 bit PCM and 1 bit DSD
Sampling Frequency	44.1 kHz to 384 kHz PCM and 2.822MHz – 22.5792 MHz DSD
Dynamic Range	130 dB
DSD System Clock	Frequency 22.5792 MHz

SPECIFICATIONS

Signal-to-Noise Ratio	115 dB
Audio Output Level	2.0V RMS (220 Ω output impedance) for Volume in 0.0dB 3.0V RMS (220 Ω output impedance) for Volume in+8.0dB
Balanced XLR Output	+/- 2.0V RMS (440 Ω output impedance) for Volume in 0.0dB +/- 3.0V RMS (440 Ω output impedance) for Volume in +8.0dB

SPDIF PLAYBACK; COAXIAL, TOSLINK, AES/EBU (lPCM)

Frequency Range	2 Hz - 100 kHz
Signal System	16, 20, and 24 bit
Sampling Frequency	44.1 kHz to 192 kHz PCM
Dynamic Range	130 dB
System Clock	Frequency 22.5792 MHz
Signal-to-Noise Ratio	115 dB
Audio Output Level	2.0V RMS (220 Ω output impedance) for Volume in 0.0dB 3.0V RMS (220 Ω output impedance) for Volume in+8.0dB
Balanced XLR Output	+/- 2.0V RMS (440 Ω output impedance) for Volume in 0.0dB +/- 3.0V RMS (440 Ω output impedance) for Volume in +8.0dB

Master Quality Authenticated (MQA)
The DMS-500/550/600 includes MQA technology, which enables you to play back MQA audio files and streams, delivering the sound of the original master recording. This ensures that MQA-encoded audio files and streams sound exactly like the source. 'MQA' (Green Dot) indicates that the unit is decoding and playing an MQA stream. 'MQA' (Magenta Dot) indicates that the unit is receiving an MQA signal by Core decoding outside the unit. 'MQA Studio' (Blue dot) denotes provenance to ensure that the file and sound is approved by the artist, producer, and or original engineer.

SERVICE AND CARE

CARE AND CLEANING

The cabinet housing and front panel of the DMS-500/550/600 and DMS-500/550/600 may be cleaned with a soft cloth and Windex or a window cleaner. The frequency of cleaning will be governed by how many hours the DMS-500/550/600 are operated and by operating environment cleanliness.

CAUTION:

- Do not let any liquids spill into the vents on top of the unit.

AC POWER FUSE REPLACEMENT

The fuse is located inside the chassis and is not user serviceable. If the unit does not power up, contact an authorized service representative. Never replace the fuse with any other value than a two (2) amp slow blow fuse 250V. The AC Power Cord must be unplugged from the AC Power jack on the back of the unit prior to replacing the fuse. Set the unit Power On/Off switch to the Off position and plug the AC Power cord back into the AC Power jack. Then set the Power On/Off switch to the On position and verify proper operation. Contact Cary Audio for advice if the fuse repeatedly blows.

FACTORY SERVICE

Careful consideration has been given to the design of your DMS-500/550/600 to keep maintenance problems to a minimum. Any problems or requests for service should be referred to our Customer Service Department at 919-355-0010. DO NOT return the DMS-500/550/600 to the factory without a Return Merchandise Authorization (RMA) number from our online Customer Service Center (www.caryaudio.com).

Cary Audio will assume no responsibility if the shipping company refuses to pay for damage due to your improper packing or lack of insurance should the unit be lost or damaged in shipment. Please retain and always use the original shipping carton for shipping the player. Also, Cary Audio reserves the right to return products sent in for service in a new box set at the customer's expense if the original packing material was damaged in the initial shipment, or if it is deemed unsatisfactory to use in return shipping.

NON-WARRANTY REPAIRS

Cary Audio will provide repair service for its products charging on a time and expense basis. At this time, the standard non-warranty service bench fee is $125 for the first hour and $95 per hour thereafter. Parts used for repairs as well as return shipping are additional. This may change and is not a quote for service. Please call us at 919-355-0010 for more information about out-of-warranty service and repair fees.

CAUTION:

- Never remove or insert the back panel AC plug when the unit is on or the AC cord is plugged into the wall

LIMITED WARRANTY

This warranty has been included with a Cary Audio product that is intended to be sold and used only within the United States and Canada. Accordingly, this Warranty only applies to Products which are purchased in the United States or Canada, and only applies while such products are used in the United States or Canada. Products purchased outside the United States or Canada, and failures occurring outside the United States or Canada, are not covered by this Warranty.

Cary Audio Warrants to the Original United States and Canada Purchaser for use in the United States or Canada the Following Cary Audio Products for the Periods Indicated:

1. Power Amplifiers, Integrated Amplifiers, Surround Sound Processors, and Preamplifiers have a four (4) year for PLATINUM, two (2) year for GOLD, and one (1) year for SILVER, parts and labor warranty from the date of the original purchase from Cary Audio.
2. CD or SACD players, DVD players, Music Servers, or Digital Music Centers have an eighteen (18) month for PLATINUM, twelve (12) month for GOLD, six (6) months for SILVER parts and labor warranty from the date of the original purchase from Cary Audio.
3. Vacuum tubes, if any are used in the component, are offered a 90-day exchange policy against defects with the exception of the 300B vacuum tube that has a one (1) year exchange policy from the date of the original purchase from Cary Audio.

Limitations on Non-Cary Audio Provided Services

Certain Cary Audio Products are designed to employ non-Cary Audio provided services (such as, by way of example only, Spotify, Tidal, etc.), some of which require separate customer subscriptions and some of which do not, as part of the Products' functionality. Because Cary Audio cannot control the providers of such services or the services themselves, the owner of the Product therefore assumes all risks related to the use of services provided by anyone other than Cary Audio itself. Cary Audio cannot and does not warrant against, and shall have no liability of any kind for any of the following that are attributable to non-Cary Audio providers or services: (1) interruption, discontinuance, or other unsatisfactory performance of service, (2) reduced Product functionality that is so attributable, or (3) any other loss or damage of any kind that is so attributable.

What is Covered and What is Not Covered

Except as specified below, this warranty covers parts and labor to correct all defects in materials and workmanship. The following are not covered by the warranty:

1. Damage, deterioration, malfunction or failure to meet performance specifications resulting from:
    a. Accident, acts of nature, misuse, abuse, neglect or unauthorized product modifications
    b. Improper installation, removal or maintenance, or failure to follow instructions supplied with the product.
    c. Repair or attempted repair by anyone not authorized by Cary Audio to repair the product.

   d. Any shipment of the product (claims must be presented to the carrier).
   e. Any cause other than a product defect.
2. Cleaning, initial set-up, check-ups with no defects found, or charges incurred for installation, removal or reinstallation of the product.
3. Any product, on which the serial number has been defaced, modified or removed.
4. Batteries.
5. Accessories, including but not limited to, batteries, cables, mounting hardware and brackets, cleaning accessories, antenna and detachable power cords.
6. Warranty is void if purchase was made from anyone other than directly from Cary Audio or an authorized Cary Audio dealer.

Who May Enforce the Warranty?

This warranty extends to products purchased directly from Cary Audio or an authorized Cary Audio dealer. Purchasers should inquire of the dealer regarding the nature and extent of the dealer's warranty, if any.

To obtain such warranty service, the original purchaser must complete and send in the Warranty Registration Card within 15 days of purchase.

What Will We Pay For?

We will pay for all labor and material expenses for items covered by the warranty. Payment of shipping charges is discussed in the next section of this warranty.

How Can You Get Service?

In the event that the owner needs to return the unit to Cary Audio for service or repair of a possible defect, he must follow the following steps:

1. Create a new account or login to our Customer Service Center (www.caryaudio.com) to obtain a Return Merchandise Authorization (RMA) number. Once the account is set up or you have logged in, click on "Open New RMA" to begin entering the information to create an RMA that is needed to return or exchange a product. You will be given an RMA number, which must appear on the label of the box you ship back.
2. Submit a copy of the original sales receipt. Blank receipts will not validate the limited warranty for service by Cary Audio. The original sales receipt must contain the following information:
   a. The authorized Cary Audio dealer's name
   b. The date of purchase
   c. The unit's sales price
   d. The buyer's name and address
   e. Describe in detail the problem.
   f. Note the unit's model number and serial number.

3. Deliver by either of these methods:
    a. With all freight and insurance charges prepaid and in its original packing container or equivalent, ship the component to Cary Audio, 6301 Chapel Hill Road, Raleigh, NC 27607.
    b. Hand-deliver the product to Cary Audio (address noted above) or the nearest authorized service facility.

Limitation of Implied Warranties

All implied warranties, including warranties of merchantability and fitness for particular purpose, are limited in duration to the length of this warranty.

Exclusion of Damages

Cary Audio's liability for any defective product is limited to repair or replacement of the product at Cary Audio's option. Cary Audio shall not be liable for damage to other products caused by any defects in Cary Audio products, damages based upon inconvenience or loss of use of the product or any other damages, whether incidental, consequential, or otherwise.

How State Law Relates to the Warranty

Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

International Purchasers (Export Markets)

Cary Audio warrants its merchandise to purchasers within the United States and Canada exclusively for use within the United States or Canada. It provides no other warranties, expressed or implied. If you are living outside of the United States and Canada, please consult your local dealer or distributor to determine the details of your local warranty.

LIMITED WARRANTY

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