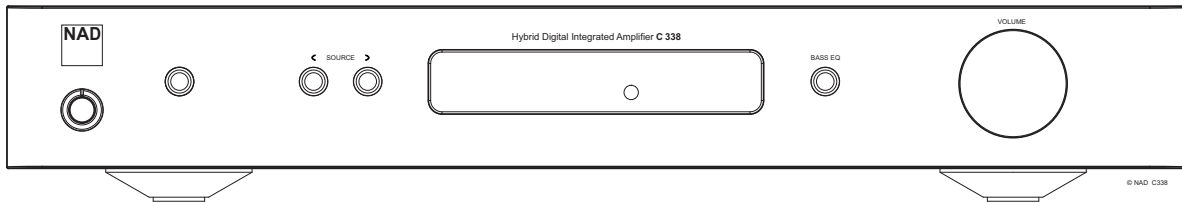




C 338

Hybrid Digital Integrated Amplifier

ENGLISH



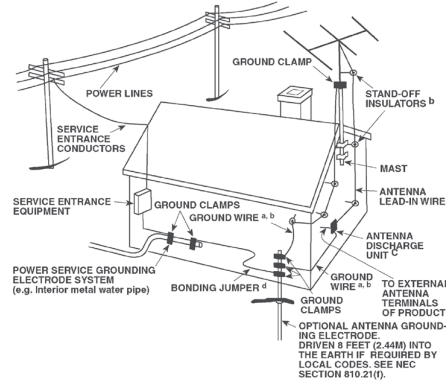
Owner's Manual

IMPORTANT SAFETY INSTRUCTIONS

- 1. Read instructions** - All the safety and operating instructions should be read before the product is operated.
- 2. Retain instructions** - The safety and operating instructions should be retained for future reference.
- 3. Heed Warnings** - All warnings on the product and in the operating instructions should be adhered to.
- 4. Follow Instructions** - All operating and use instructions should be followed.
- 5. Cleaning** - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- 6. Attachments** - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
- 7. Water and Moisture** - Do not use this product near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
- 8. Accessories** - Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
- 9.  Cart** - A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
- 10. Ventilation** - Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- 11. Power Sources** - This product should be operated only from the type of power source indicated on the marking label and connected to a MAINS socket outlet with a protective earthing connection. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.
- 12. Power-Cord Protection** - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
- 13. Mains Plug** - Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
- 14. Outdoor Antenna Grounding** - If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to 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.

NOTE TO CATV SYSTEM INSTALLER

This reminder is provided to call the CATV system installer's attention to Section 820-40 of the NEC 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.



- 15. Lightning** - For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
- 16. Power Lines** - An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
- 17. Overloading** - Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
- 18. Flame Sources** - No naked flame sources, such as lighted candles, should be placed on the product.
- 19. Object and Liquid Entry** - Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
- 20. Headphones** - Excessive sound pressure from earphones and headphones can cause hearing loss.
- 21. Damage Requiring Service** - Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - When the power-supply cord or plug is damaged.
 - If liquid has been spilled, or objects have fallen into the product.
 - If the product has been exposed to rain or water.
 - If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
 - If the product has been dropped or damaged in any way.
 - When the product exhibits a distinct change in performance-this indicates a need for service.
- 22. Replacement Parts** - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

23. Battery Disposal - When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.

24. Safety Check - Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

25. Wall or Ceiling Mounting - The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

WARNING



The lightning flash with arrowhead symbol, 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.



THE EQUIPMENT MUST BE CONNECTED TO AN EARTHED MAINS SOCKET-OUTLET.

CAUTION REGARDING PLACEMENT

To maintain proper ventilation, be sure to leave a space around the unit (from the largest outer dimensions including projections) than is equal to, or greater than shown below.

- Left and Right Panels: 10 cm
- Rear Panel: 10 cm
- Top Panel: 10 cm

FCC STATEMENT

This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

CAUTION

Changes or modifications to this equipment not expressly approved by NAD Electronics for compliance could void the user's authority to operate this equipment.

CAUTION

To prevent electric shock, match wide blade of plug to wide slot, fully insert.

CAUTION

Marking and rating plate can be found at the rear panel of the apparatus.

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on apparatus.

Mains plug is used as disconnect device and it should remain readily operable during intended use. In order to disconnect the apparatus from the mains completely, the mains plug should be disconnected from the mains socket outlet completely.

Battery shall not be exposed to excessive heat such as sunshine, fire or the like.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

An appliance with a protective earth terminal should be connected to a mains outlet with a protective earth connection.

IF IN DOUBT CONSULT A COMPETENT ELECTRICIAN.



This product is manufactured to comply with the radio interference requirements of EEC DIRECTIVE 2004/108/EC.



NOTES ON ENVIRONMENTAL PROTECTION

At the end of its useful life, this product must not be disposed of with regular household waste but must be returned to a collection point for the recycling of electrical and electronic equipment. The symbol on the product, user's manual and packaging point this out.

The materials can be reused in accordance with their markings. Through re-use, recycling of raw materials, or other forms of recycling of old products, you are making an important contribution to the protection of our environment.

Your local administrative office can advise you of the responsible waste disposal point.

RECORD YOUR MODEL NUMBER (NOW, WHILE YOU CAN SEE IT)

The model and serial number of your new C 338 are located on the back of the cabinet. For your future convenience, we suggest that you record these numbers here:

Model number :
Serial number :

INTRODUCTION

GETTING STARTED

IMPORTANT SAFETY INSTRUCTIONS2

INTRODUCTION

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WHAT'S IN THE BOX

Packed with your C 338 you will find

- Two detachable mains power cord
- AMP 3 remote control with 3V CR2025 battery
- Two Wi-Fi antenna and one Bluetooth antenna
- Quick Setup Guide

SAVE THE PACKAGING

Please save the box and all of the packaging in which your C 338 arrived. Should you move or need to transport your C 338, this is the safest container in which to do so. We've seen too many otherwise perfect components damaged in transit for lack of a proper shipping carton so, please: Save that box!

CHOOSING A LOCATION

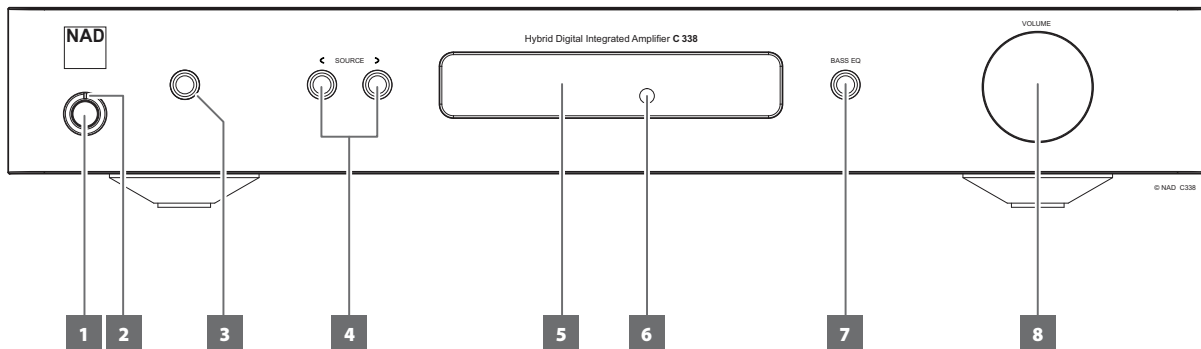
Choose a location that is well ventilated (with at least several inches to both sides and behind), and that will provide a clear line of sight, within 25 feet / 8 meters, between the C 338's front panel and your primary listening/viewing position—this will ensure reliable infrared remote control communications. The C 338 generates a modest amount of heat, but nothing that should trouble adjacent components.

RESTORING C 338 TO ITS FACTORY DEFAULT SETTINGS

Press and hold front panel's SOURCE > button until the display shows "C3". Release SOURCE > button to complete the restoration of the C 338 to its factory default settings.

IMPORTANT NOTE

When you restore your C 338 to its factory default settings, all settings or configurations you have setup will also be reset or deleted.



1 STANDBY BUTTON

- Press Standby button to switch ON the C 338 from standby mode. The Power indicator will change in color depending upon the status of the C 338.
- Pressing Standby button again switches back C 338 to standby mode. The Power indicator will change to amber color.
- The Standby button cannot activate the C 338 if the rear panel POWER switch is off.
- Standby button is also used to clear all Bluetooth (BT) devices. Press and hold Standby button and all BT devices are cleared.

6 REMOTE SENSOR

- Point the AMP 3 remote control at the remote sensor and press the buttons.
- Do not expose the remote sensor of the C 338 to a strong light source such as direct sunlight or illumination. If you do so, you may not be able to operate the C 338 with the remote control.

Distance: About 23ft (7m) from the front of the remote sensor.

Angle: About 30° in each direction of the front of the remote sensor.

7 BASS EQ

- Bass EQ boosts overall bass response by at least 6 dB. "BASS EQ" is illuminated in the display with BASS EQ enabled.
- Toggle to enable or disable BASS EQ.

8 VOLUME

- The VOLUME control adjusts the overall loudness of the signal sent to the speakers and headphone. The Volume control is characterized by perfect signal tracking and channel balance. It provides a highly linear and low noise operation.
- Turn clockwise to increase the volume level and counter clockwise to lower it.
- The default volume level is -20dB.

IMPORTANT NOTES

For the Standby button to activate, the following must occur:

- The supplied power cord from the C 338 must be plugged in to a power source.*
- The rear panel POWER switch must be set to ON.*

2 POWER INDICATOR

- This indicator will be amber when the C 338 is in standby mode.
- When the C 338 is powered up from standby mode, this indicator will change in color depending upon the status of the C 338.

POWER INDICATOR COLOR CODE	DESCRIPTION
Amber	Standby mode
Double flashing blue	Booting
Flashing blue	Wi-Fi setup mode (Hotspot mode)
Solid blue	Wi-Fi connection
Solid blue	Firmware upload
No light (with flashing "--" display)	Waiting to proceed with firmware update
Amber (with flashing "---" display)	Firmware update progress (update completed when display is solid "---")

3 HEADPHONE

- A 1/4" stereo jack socket is supplied for headphone listening and will work with conventional headphones of any impedance.
- Use a suitable adapter to connect headphones with other types of sockets, such as 3.5mm "personal stereo" jack plugs.

4 < SOURCE >

- Press < SOURCE or SOURCE > to select Sources.

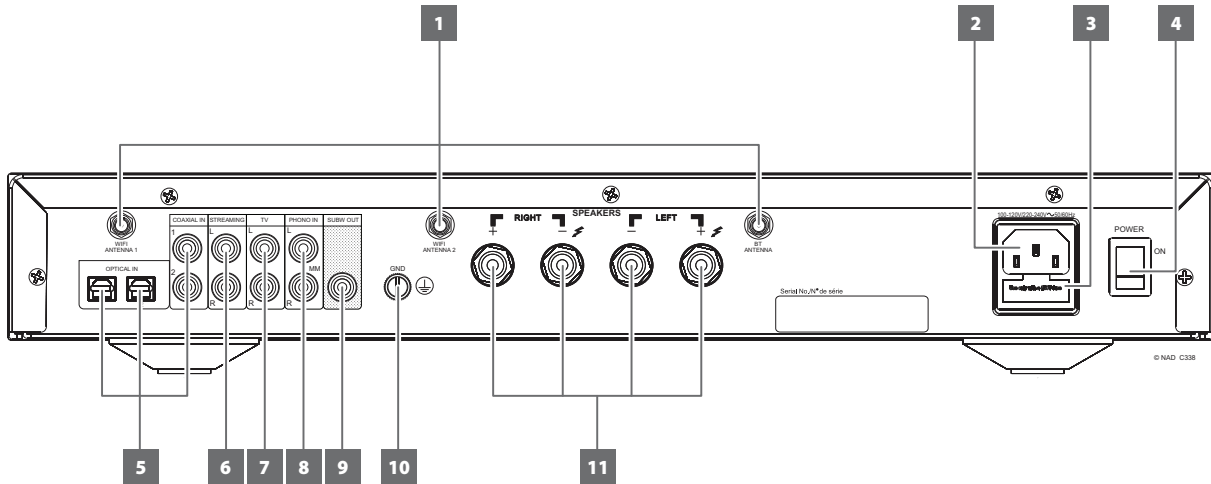
5 DISPLAY

- Show visual indicators of the Source names, Bass EQ and volume level.

IDENTIFICATION OF CONTROLS

REAR PANEL

ENGLISH



ATTENTION!

Please ensure that the C 338 is powered off or unplugged from the main power source before making any connections. It is also advisable to power down or unplug all associated components while making or breaking any signal or AC power connections.

1 ANTENNA

- Connect each supplied antenna to their corresponding antenna terminals on the rear panel.
- WIFI ANTENNA 1 is for 5GHz network, WIFI ANTENNA 2 is for 2.4GHz network and BT ANTENNA is for Bluetooth antenna.

2 AC MAINS INPUT

- The C 338 comes supplied with two separate mains power cords. Select the mains power cord appropriate for your region.
- Before connecting the plug to the mains power source, ensure that it is firmly connected to the C 338's AC Mains input socket.
- Always disconnect the mains power plug from the mains power source before disconnecting the cable from the C 338's AC Mains input socket.

3 FUSE HOLDER

- Only qualified NAD service technicians can have access to this fuse holder. Opening this fuse holder may cause damage thus voiding the warranty of your C 338.

4 POWER

- The POWER switch supplies the master AC mains power for the C 338.
- When the POWER switch is set to ON position, the C 338 goes to standby mode as shown by the amber status condition of the front panel Power indicator.
- Press the front panel Standby button or AMP 3 remote control's [ON] button to switch ON the C 338 from standby mode.
- If you do not intend to use the C 338 for long periods of time (such as when on vacation), switch off the POWER switch.
- With POWER switched off, neither the front panel Standby button nor AMP 3 remote control's [ON] button can activate the C 338.

5 COAX 1-2, OPT 1-2

- Connect to the corresponding optical or coaxial digital output of sources such as CD or BD/DVD players, digital cable box, digital tuners and other applicable components.

6 STREAMING

- Input for line level streaming devices. Use a twin RCA-to-RCA lead to connect the source device's left and right "Audio Output" to this input.

7 TV

- Input for analog audio output of a TV. Use a twin RCA-to-RCA lead to connect the source device's left and right "Audio Output" to this input.

8 PHONO

- Input for a Moving Magnet (MM) phono cartridge only. Connect the twin RCA lead from your turntable to this input if you are using a Moving Magnet cartridge.

9 SUBW OUT

- Use RCA cable to connect SUBW OUT to the low level input of a powered subwoofer.
- Low frequency information up to 200Hz is sent to the connected subwoofer.

10 GROUND TERMINAL

- Ensure that the C 338 is plugged-in to a grounded AC wall outlet.
- If necessary, use this ground terminal to connect to ground a phono or turntable source for PHONO input.
- If a separate earth ground is necessary, use this terminal to ground your C 338. The C 338 can be connected to ground by connecting a ground lead wire or similar to this terminal. After insertion, tighten the terminal to secure the lead.

11 SPEAKERS

- Connect C 338's Right speaker terminals marked "R +" and "R-" to the corresponding "+" and "-" terminals of your designated right speaker. Repeat the same for C 338's Left speaker terminals and corresponding left speaker.
- Double check the speaker connections before powering up the C 338.

IMPORTANT NOTES

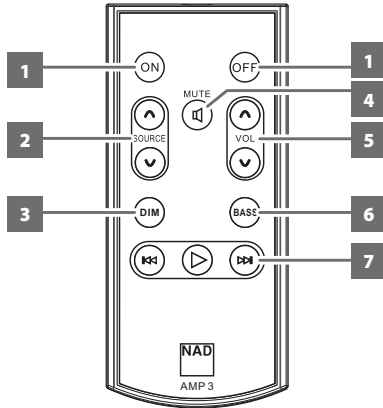
- *The blue terminals must never be connected to ground (earth).*
- *Never connect the blue terminals together or to any common ground device.*
- *Do not connect the output of this amplifier to any headphone adapter, speaker switch or any device that uses common ground for left and right channels.*

NOTE

- *Use 16 gauge (American Wire Gauge or AWG) or lower stranded wire. Connections to the C 338 can be made with banana-type plugs.*
- *Bare wire or pins can also be used by loosening the terminal's plastic nut, making a clean, neat connection and re-tightening. To minimize the danger of a short circuit, ensure that only 1/2-inch of exposed wire or pin is used to connect and no loose strands of speaker wire.*

IDENTIFICATION OF CONTROLS

AMP 3 REMOTE CONTROL



- 1 ON:** Power up unit from Standby mode to operating mode.
OFF: Switch unit to Standby mode.
- 2 SOURCE ^/∨:** Select through source input selections.
- 3 DIM:** Reduce, turn off or increase display brightness level.
- 4 MUTE:** Temporarily switch off or restore audio. MUTE mode is indicated by “- - -” as shown in the display window. Rotate VOLUME knob or press VOLUME ^/∨ to restore audio.
- 5 VOLUME ^/∨:** Increase or decrease loudness level.
- 6 BASS:** Turn ON/OFF BASS EQ function.
- 7 CAST PLAYBACK CONTROL (applies to active Cast session)**
 - ▶: Start/pause Cast session.
 - ▶▶: Skip forward to next song in a Cast session.
 - ◀◀: Skip back to previous song in a Cast session.


SETUP WI-FI CONNECTION

Your favorite music, radio or podcasts from your mobile device can be streamed to your C 338 using Chromecast built-in functionality, music service applications and other applicable network devices/players. For music streaming to be effected, Wi-Fi connection has to be established.

NOTES

- *Android device is used as the reference device for the app screenshots or demonstrations shown in this manual. The use of iOS device will show basically the same app display with some slight variations.*
- *The app screenshots shown are effective at the time this manual is generated. The steps or screen display may vary over time.*

WI-FI SETUP PROCEDURE

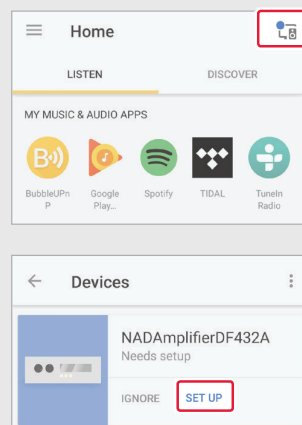
- 1  Download the Google Home App from the respective App stores of your media control device - Apple iOS devices (iPad, iPhone and iPod) or Android devices.
- 2 Set POWER switch to ON at the rear panel.
- 3 Press front panel Standby button to switch the unit from standby to operating mode. Wait for the Power Indicator color to settle at fast blinking blue – this is the default setting of the C 338 and indicates that it is in Wi-Fi setup mode (Hotspot mode).

If the Power Indicator color turns solid blue, it is not necessary to setup Wi-Fi connection anymore as solid blue signifies established Wi-Fi connection.

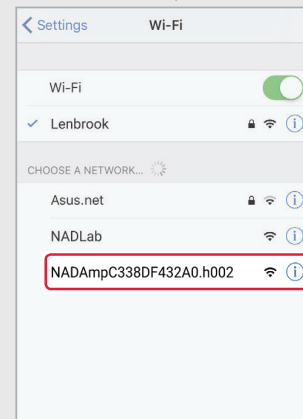
- 4 Open the Google Home App .

The following screenshots will show highlighted item or section to indicate steps to be taken to move forward with the setup process. Select the highlighted item as indicated. If there is no highlighted item or section, it means the screen will automatically change to the next screen.

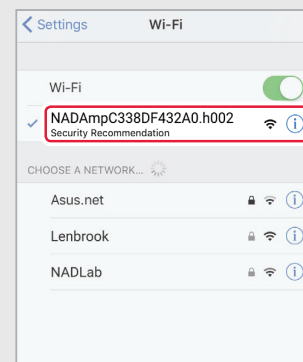
5 For Android devices only



For iOS devices only



Go to "Settings" and then "Wi-Fi" menu. Select the unique ID number of your C 338 which is "NADAmplC338DF432A0.h002" in this example.




OPERATION

USING THE C 338

ENGLISH


6 Chromecast built-in amplifier se... ⋮



Chromecast built-in amplifier found
Your Chromecast built-in amplifier's temporary name is "NADAmplifierDF432A"

[CONTINUE >](#)


9 Chromecast built-in amplifier se... ⋮



We are about to play a sound to test your Chromecast built-in amplifier
Ensure your speakers are turned on, and the volume is at a reasonable level so you can hear the sound.

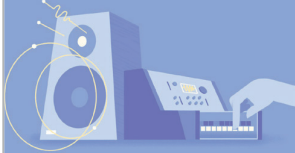
[PLAY TEST SOUND >](#)

7 Chromecast built-in amplifier se... ⋮



Connecting to Chromecast built-in amplifier
Your mobile device will switch to a temporary Wi-Fi hotspot on your Chromecast built-in amplifier.

10 Chromecast built-in amplifier se... ⋮




Did you hear the sound through your speakers?
Ensure your speakers are turned on, and the volume is at a reasonable level so you can hear the sound.

[TRY AGAIN](#) [I HEARD IT >](#)

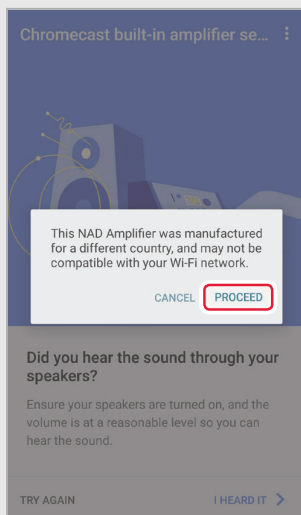
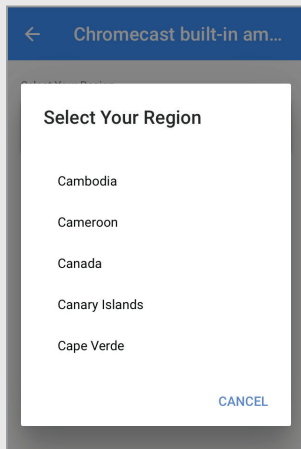
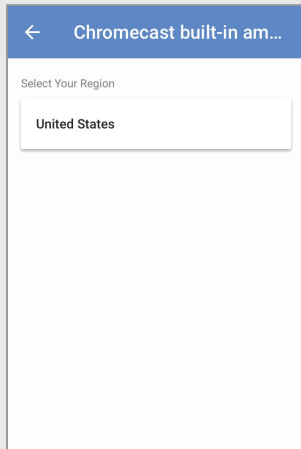
If no sound is heard through the speakers, select "TRY AGAIN". Otherwise, select "I HEARD IT" to proceed to the next step.

8 Chromecast built-in amplifier se... ⋮

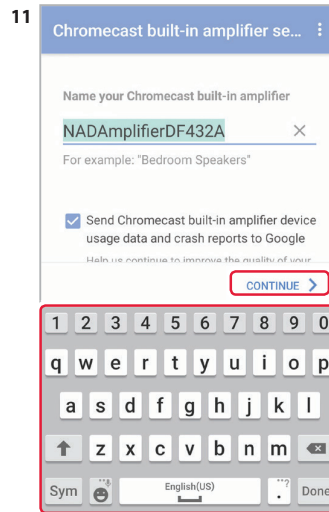


Successfully connected to your Chromecast built-in amplifier

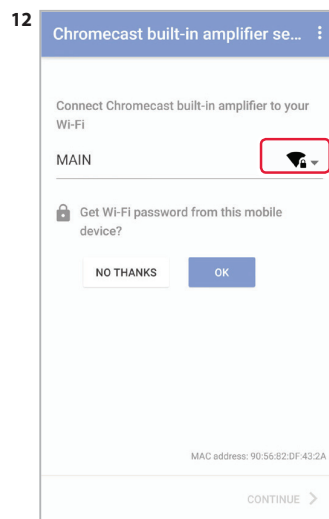
For iOS devices, you may be required to select the region or your location as below.



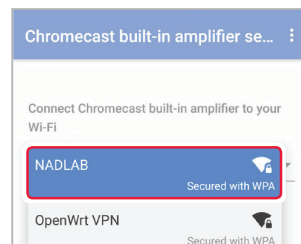
In some instances, a pop-up message like this appears. You may select "PROCEED" (or "OK" for iOS device) to continue with the next step.



Retain the default Chromecast built-in amplifier name or rename it as per your preference. Rename your Chromecast built-in amplifier by using the on-screen keyboard. Select "CONTINUE" to proceed to next step.



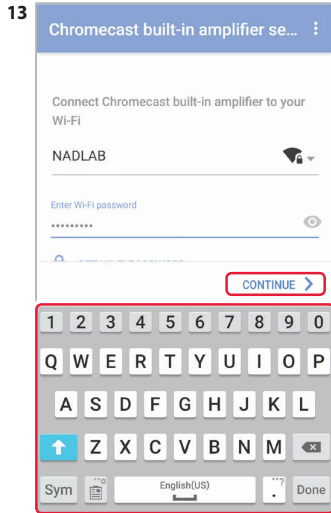
If the displayed Wi-Fi connection is not your preferred network, select from the drop down menu your preferred network.



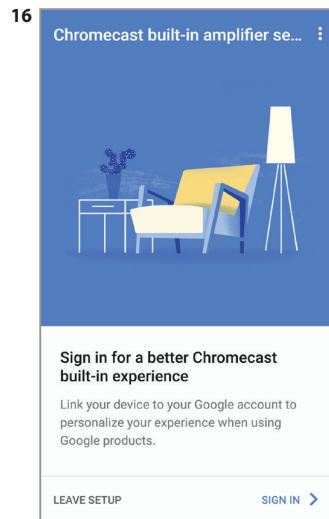
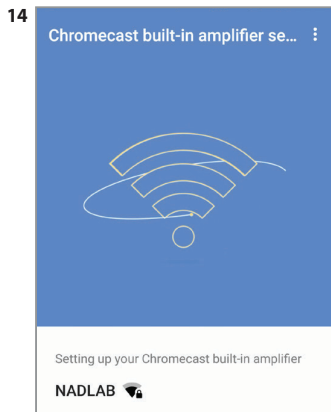
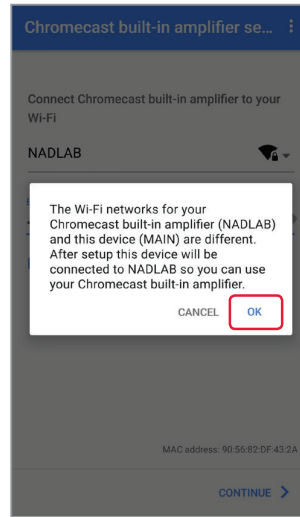
OPERATION

USING THE C 338

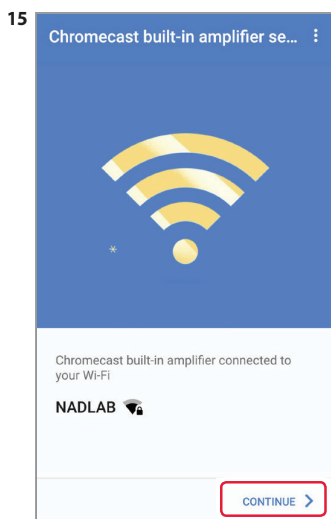
ENGLISH



Enter your Wi-Fi password in the field provided using the on-screen keyboard. Select "CONTINUE" to proceed to next step. Note that it is also possible to select "GET WI-FI PASSWORD" - Wi-Fi password from the current mobile device is copied.



This completes the Wi-Fi setup connection. Select "LEAVE SETUP" to exit Wi-Fi setup or "SIGN-IN" to sign-up your Google Account or other accounts.



This will be displayed upon successful network connection. Select "CONTINUE" to proceed to next step.

IMPORTANT NOTE

- If the Wi-Fi network of your ChromeCast built-in amplifier (C 338) and your media control device (iOS or Android device) are different, below screen will be shown. Select "OK" to complete Wi-Fi connection of your ChromeCast built-in amplifier (C 338).

MUSIC STREAMING

With Wi-Fi connection successfully established, music from your control media device can be streamed to your C 338 via Chromecast built-in, music service applications and other applicable network devices/players.


The front panel display indicator "Wi-Fi/BT" will illuminate when music is streamed through your Wi-Fi connection.

IMPORTANT

The control media devices and the C 338 must be in the same Wi-Fi network to allow music streaming.

CHROMECAST BUILT-IN

Chromecast built-in is a technology that lets you cast your favorite music, radio or podcasts from your control media device to your C 338.

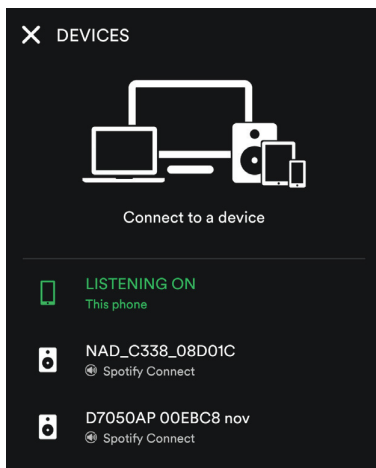
Tap or click the Cast button  from your favorite music apps or browser to start casting to your C 338. Adjust the volume or change the song, right from your control media device.

MUSIC SERVICES

Select your C 338 (for example NAD_C338_XXXXX) as the device you want to start playing your music service. Example below is for Spotify.

Play Spotify on C 338

- 1 Play some music.
- 2 Tap the Now Playing bar at the bottom of the screen.
- 3 Tap DEVICES AVAILABLE.
- 4 Tap the device (NAD_C338_08D01C in this example) you want to start playing Spotify on.



For other music services, check their setup procedure on how they can be connected to a streaming device like the C 338.

IMPORTANT NOTE

Network (Wi-Fi) and Bluetooth playback share the same front panel display indicator - Wi-Fi/BT.

BLUETOOTH AS A SOURCE

Initiate pairing of your Bluetooth device with C 338 by following below procedure.

- 1 Ensure that the Bluetooth antenna is connected to the BT antenna terminal at the rear panel. Ensure also that your Bluetooth is active or turned ON.
- 2 Using your iOS, Android or your Bluetooth device, go to Settings – Bluetooth and then scan for Bluetooth devices.
- 3 Select the unique device ID of your C 338 among the available devices listed in your Bluetooth settings. Pair or connect together your C 338 and Bluetooth device.
- 4 Upon successful pairing of your Bluetooth device and C 338, you may start music playback from your Bluetooth device.

The front panel display indicator "Wi-Fi/BT" will illuminate when music is streamed via Bluetooth connection.

IMPORTANT NOTES

- *Music playback via Network (Wi-Fi) and Bluetooth connection share the same front panel display indicator - Wi-Fi/BT.*
- *Music playback via Network (Wi-Fi) and Bluetooth connection can only take place one at a time. For example, if music is currently played back via Network (Wi-Fi) connection and then music playback is triggered by Bluetooth connection, music playback via Network (Wi-Fi) connection is dropped off or overlapped and music playback via Bluetooth connection takes over.*

AUTO STANDBY

Auto Standby feature is an integral feature of C 338 that conforms to European ecodesign regulations. The C 338 can be setup to automatically go to standby mode if there is no user interface interaction or no audio at current source within 20 minutes. Follow below procedure to enable or disable auto standby mode.

Enable/Disable Auto Standby mode

At operating mode, press and hold together SOURCE > and BASS EQ buttons until "ON" is shown in the front panel display. "ON" is the default auto standby mode setting.

Repeat the same to disable Auto Standby mode but this time the display should show "OFF".

AUTO SENSE

Auto sense feature enables the C 338 to wake up from standby mode when triggered by an active (digital/analog) audio source input.

Enable/Disable Auto Sense mode

When in operating mode, press and hold together BASS EQ buttons until "A" (On) is shown in the front panel display.

Repeat the same to disable Auto Sense mode but this time the display should show "-" (Off).

A (On): Unit wakes up from standby mode when triggered by active audio source input.

- (Off): Unit remains at standby mode even if it is triggered by active audio source input.

With Auto Sense mode set to "On", the unit cannot go to standby mode as long as there is an active audio source input. Undertake the following to enable the unit to go to standby mode with Auto Sense set to "A" (On).

- Shut down or pause your audio source input(s)
- Set Auto Sense setting to "-" (Off)

OPERATION

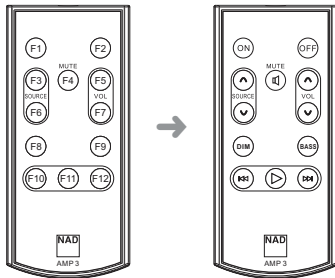
USING THE C 338

INFRARED LEARNING

Infrared (IR) Learning enables any non-NAD remote control learn IR remote control codes. With the learned codes, the configured non-NAD remote control can be used to command or operate the C 338. The IR remote control codes are based from the supplied AMP 3 remote control.

HOW TO LEARN IR REMOTE CONTROL CODES

- 1 Press and hold at the same time front panel BASS EQ and < SOURCE buttons until "F1" appears on the front panel display. The display of "F1" indicates that the unit is at IR learning mode.
- 2 A total of twelve IR remote control codes can be learned. These codes are defined as "F1, F2...F12" and are identified by their allocation in the AMP3 remote control layout below.



- 3 Use front panel < SOURCE or SOURCE > to toggle through F1, F2...F12.
- 4 For example, to learn "F5" (Volume Up), toggle < SOURCE or SOURCE > until "F5" is shown in the front panel display.
- 5 Press BASS EQ and "F5" will begin to flash.
- 6 While pointing the non-NAD remote control to the front panel display, press the corresponding button on the non-NAD remote control where "F5" will be learned. "F5" will stop flashing, briefly stay solid and then the next command (F6) is displayed. The solid "F5" indicates that "F5" code is already learned by the non-NAD remote control.
- 7 Repeat the same process above to learn other IR remote control codes.
- 8 To save the learned IR remote control codes and at the same time exit IR learning mode, press and hold the front panel BASS EQ and < SOURCE buttons until the front panel display reverts to volume level display.

AUTOMATIC SOFTWARE DOWNLOAD

Upon powering up and configuring the Wi-Fi connection of your C 338, it will begin an installation process to ensure it has the newest device software. Do not interrupt the power supply or enter new commands during this installation process.

The display will initially show in percentage the progress of software download.



The C 338 will then get automatically updated with the downloaded software. The update progress is indicated in the display as progressive "-" (dash) marks. **When the display appears like the image below, the process is completed and the unit will automatically restart.**



NOTE

This installation process is initiated periodically to keep C 338 updated with the latest software.

All specs are measured according to IHF 202 CEA 490-AR-2008 standard. THD is measured using AP AUX 0025 passive filter and AES 17 active filter.

PREAMPLIFIER SECTION

LINE IN, SUBWOOFER OUT

THD (20 Hz – 20 kHz)	<0.005 % at 2 V out
Signal-to-Noise Ratio	>106 dB(IHF; A-weighted, ref. 500 mV out, unity gain)
Input impedance (R and C)	56 kohms + 100 pF
Maximum input signal	>4.5 Vrms (ref. 0.1 % THD)
Output impedance	Source Z + 200 ohm
Input sensitivity	50 mV (100Hz ref. 500 mV out, Volume maximum)
Maximum voltage output -IHF load	>4.5 V (ref. 0.1 % THD)

LINE INPUT, HEADPHONE OUT

THD (20 Hz – 20 kHz)	<0.005 % at 1V out
Signal-to-Noise Ratio	>105 dB (32 ohms loads; A-WTD, ref. 2V out, unity gain)
Frequency response	±0.3 dB (20 Hz - 20 kHz)
Channel separation	>56 dB at 1kHz
Output impedance	0.5 ohm

GENERAL SPECIFICATIONS

LINE IN, SPEAKER OUT

Continuous output power into 8 ohms and 4 ohms	50W (ref. 20 Hz-20 kHz at rated THD, both channels driven)
THD (20 Hz – 20 kHz)	<0.03 % (250 mW to 50W, 8 ohms and 4 ohms)
Signal-to-Noise Ratio	>98 dB (A-weighted, 500 mV input, ref. 1 W out in 8 ohms)
Clipping power	>60 W (at 1 kHz 0.1 % THD)
IHF dynamic power	8 ohms: 80 W 4 ohms: 150 W 2 ohms: 210 W
Peak output current	>18 A (in 1 ohm, 1 ms)
Damping factor	>300 (ref. 8 ohms, 20Hz to 6.5kHz)
Frequency response	±0.3 dB (20 Hz - 20 kHz)
Channel separation	>75 dB (1 kHz) >65 dB (10 kHz)
Input sensitivity (for 50 W in 8 ohms)	Line In: 380 mV Digital In: 18% FS
Supports bit rate/sample rate	up to 24 bit/192 kHz
Standby power	<0.5 W

PHONO IN, SPEAKER OUT

THD (20 Hz – 20 kHz)	<0.03 % at 50 W out
Signal-to-Noise Ratio	>82 dB (200 ohms source, A-weighted, ref. 500 mV out)
	>76 dB (MM cartridge source, IHF A-weighted, ref. 500 mV out)
Input sensitivity	4.1 mV (ref 50 W 1 kHz 4 ohms out, volume maximum)
Frequency response	±0.3 dB (20 Hz - 20 kHz)
Input impedance (R and C)	47 kohms + 100 pF
Maximum input signal at 1kHz	>80 mVrms (ref. 0.1 % THD)

DIMENSION AND WEIGHT

Gross dimensions (W x H x D)	435 x 70 x 285 mm 17 1/8 x 2 13/16 x 11 1/4 inches
Shipping weight	5.85 kg (12.90 lbs)

* - Gross dimension includes feet, volume knob and extended rear panel terminals.

Specifications are subject to change without notice. For updated documentation and features, please check out www.NADelectronics.com for the latest information about C 338.



www.NADelectronics.com

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C338_ENG_OM_V15 - MAR 2017



C 338 Hybrid Digital DAC Amplifier

HybridDigital™  FDP   Bluetooth®



NAD's Most Versatile Amplifier Ever with Chromecast built-in and HybridDigital™ Technology

Introducing the NAD C 338.

Expansive Power with Unprecedented Flexibility.

The C 338 adds big sound to your favourite music sources and brings incredible flexibility to any stereo system. The first-ever hi-fi amplifier to have Chromecast built-in, the C 338 allows you to stream and cast music directly from a mobile device or any music streaming app, letting you enjoy your music wirelessly. With Bluetooth® also natively integrated, the C 338 can wirelessly connect to any smartphone, tablet, or Bluetooth-enabled device within range so you seamlessly stream your favourite music apps or libraries in high-fidelity. Add a turntable using the phono input and experience the warmth of vinyl collections with the room-filling sound of NAD's HybridDigital™ amp technology. Power, volume, source selection, and device settings are all controlled using the intuitive interface of the NAD Remote App for iOS and Android.

Getting the Basics Right

Built with NAD's renowned music-first approach to audio architecture and amp design, the C 338 is equipped with the most advanced components commonly found in NAD's class-leading line of amplifiers. Always starting with the details you can hear and advancing from there, NAD develops low-noise circuitry with the precision and stability to deliver incredible, near-zero distortion sound for the most difficult speakers.

HybridDigital™ Amp Technology

The search for a high-performance Class D solution led NAD to HybridDigital™, an innovative amplifier technology that uses a variable modulation frequency to bring out the life-like qualities of music, while reducing distortion under every operating condition. This highly optimized design gives phenomenal performance to the C 338 amplifier, both measured and subjective.

FEATURES & DETAILS

- 50W x 2 Continuous Power into 8 or 4 ohms
- 90W / 150W / 200W IHF Dynamic Power into 8 / 4 / 2 Ohms
- First hi-fi amplifier to feature Chromecast built-in
- Integrated Bluetooth® for added music streaming flexibility
- Built-in Phono Preamp for Turntables
- Stereo Line, Optical Digital and Coax Digital inputs
- NAD Remote App support for tablet and smartphone
- Dedicated Headphone Amplifier
- Subwoofer Output



Efficient Class D Power

NAD has worked tirelessly to create the best performing Class D amplifiers that are energy efficient and produce beautiful sound—not heat—regardless of basic design principles. Using advanced measurements and data, NAD developed the C 338's highly efficient power supply with a customised Hypex® UCD output stage to pump out 160 watts continuously and over 300 watts instantaneously to meet the demands of the most dynamic music. This new design is very linear over a wide bandwidth and provides consistent, noise-free performance for the amplifying stages with near perfect regulation of voltage.

Always Ready for Streaming

The C 338 has Chromecast built-in so you can cast music, tunes, podcasts, and playlists from your favourite apps on your phone, tablet or laptop to your stereo system. Plus, with Bluetooth® integrated and its added flexibility, your music streaming possibilities are truly limitless with the C 338.

Built-in Phono Stage for Vinyl Listening

Connect a turntable to the C 338 with its built-in phono preamp that applies the perfect amplification to your vinyl collection. Using a MM phono stage and an innovative low-noise circuit path, the C 338 can reproduce the warmth of LPs with accurate RIAA equalization and control the infrasonic noise that is in all recordings, without ever affecting the bass response.

Flexible Connectivity

With a wide array of connections, including a separate headphone amplifier that can drive high-impedance studio monitor headphones, the C 338 is ready for any type of listening. Line inputs can accommodate all kinds of analogue source components, offering ideal input impedance with linear ultra-low noise buffer amplifiers to preserve the musicality of recordings. Also connect a subwoofer with low impedance line outputs and extend the versatility of this budget-friendly, do-it-all amplifier.

NAD Remote

The NAD Remote transforms your smartphone or tablet into a powerful controller for the C 338. Reinventing the traditional NAD remote control with an intuitive user interface, and the ability to wirelessly control your amp, the NAD Remote can easily control and adjust functions like power, volume, source selection and device settings with a simple tap. The app is available as a free download from the Apple App Store or Google Play Store.

Specifications C 338

PREAMPLIFIER

Line In, Subwoofer Out

THD (20Hz - 20kHz)	<0.005% at 2V out
Signal/Noise Ratio	>106dB (IHF; A-weighted, 500mV out, unity gain)
Input Impedance (R and C)	56 kilohm + 100pF
Maximum input signal	>4.5Vrms (ref. 0.1% THD)
Output impedance	Source Z + 200 ohm
Input sensitivity	50mV (100Hz ref. 500mV out, Volume maximum)
Maximum voltage output -IHF load	>4.5V (ref. 0.1% THD)

Line In, Headphone Out

THD (20Hz - 20kHz)	<0.005% at 1V out
Signal/Noise Ratio	>105dB (IHF; A-weighted, 32 ohm loads, ref. 2V out, unity gain)
Frequency response	±0.3dB (20Hz - 20kHz)
Channel separation	>56dB at 1kHz
Output impedance	0.5 ohm

GENERAL SPECIFICATIONS

Line In, Speaker Out

Continuous Output Power into 4 ohms and 8 ohms (Stereo)	>50W (at rated THD, 20-20kHz, both channels driven)
IHF Dynamic Power	2 ohm 210W
	4 ohm 150W
	8 ohm 80W
THD (20Hz - 20kHz)	<0.03% (250mW to 50W, 8 ohm and 4 ohm)
Signal/Noise Ratio	>98dB (A-weighted, 500mV input, ref. 1W out in 8 ohm)
Clipping power	>60W (at 1kHz 0.1% THD)
Peak output current	>18A (in 1 ohm, 1ms)
Damping factor	>300 (ref. 8 ohm, 20Hz to 6.5kHz)
Frequency response	±0.3dB (20Hz-20kHz)
Channel separation	1kHz >75dB
	10kHz >65dB
Input sensitivity (for 50W in 8 ohm)	Line In: 380mV Digital In: 18% FS
Support bit reate/sample rate	Up to 24bit/192kHz
Standby Power	<0.5W

Phono In, Speaker Out

THD (20Hz - 20kHz)	<0.03% at 50W out
Signal/Noise Ratio	>82dB (200 ohm source, A-weighted, ref. 500mV out)
	>76dB (MM cartridge source, IHF A-weighted, ref. 500mV out)
Input sensitivity	4.1mV (ref 50W 1kHz 4 ohm out, volume maximum)
Frequency response	±0.3dB (20Hz - 20kHz)
Input impedance (R and C)	47 kilohm + 100pF
Maximum input signal at 1kHz	>80mVrms (ref. 0.1% THD)

DIMENSIONS AND WEIGHT

Dimensions (W x H x D)	435 x 70 x 285mm (17 1/8 x 2 13/16 x 11 1/4)"
Net Weight	4.85kg (10.7lb)
Shipping Weight	5.85kg (12.9lb)

* Gross dimensions include feet, extended buttons and rear panel terminals. ** Non-metric measurements are approximate. NAD Electronics will not assume any liability for errors being made by retailers, custom installers, cabinet makers, or other end users based on information contained in this document. Note: Installers should allow a minimum clearance of 55mm for wire/cable management.



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