



AMP 1

Hybrid Digital DAC Amplifier


 Chromecast built-in

 Bluetooth



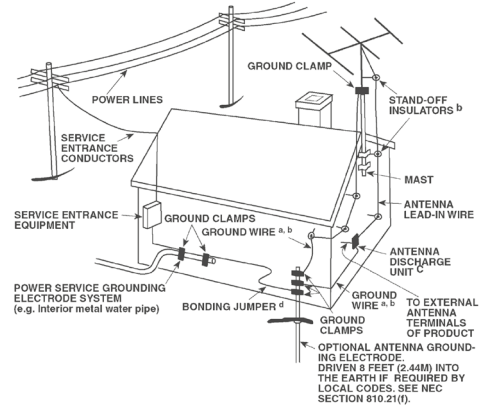
Owner's Manual

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:
 - a.** When the power-supply cord or plug is damaged.
 - b.** If liquid has been spilled, or objects have fallen into the product.
 - c.** If the product has been exposed to rain or water.
 - d.** 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.
 - e.** If the product has been dropped or damaged in any way.
 - f.** 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.
- This device complies with Part 15 of the FCC Rules / Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:
 - 1 This device may not cause harmful interference, and
 - 2 This device must accept any interference received, including interference that may cause undesired operation.
- Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.
- To prevent electric shock, match wide blade of plug to wide slot, fully insert.
- Marking and rating plate can be found at the rear panel of the apparatus.
- 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.
- 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.

MPE REMINDER

To satisfy FCC/IC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance is not recommended.

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 AMP1 are located on the back of the cabinet. For your future convenience, we suggest that you record these numbers here:

Model number :

Serial number :

GETTING STARTED

TABLKE OF CONTENT

IMPORTANT SAFETY INSTRUCTIONS2
GETTING STARTED	4
Quick Start	5
What's in the box	6
IDENTIFICATION OF CONTROLS	
Front of the Amp1	7
Conections of the Amp	8
Remote control of the Amp1	9
Other Features10
BLUETOOTH10
TV CONNECT	10
AUTO SENSE	10
AUTO STANDBY	10
AUTO SENSE	10
SPECIFICATIONS	11

Quick install Guide

Start up

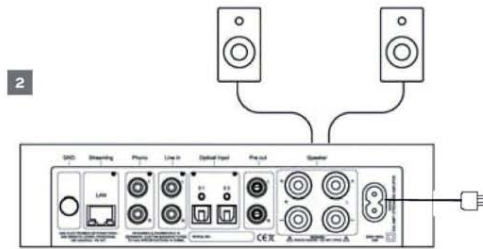
To do initial setup of NAD Amp1 and connect to a network, follow the points 1-7 below.

Notice: the NAD Amp1 has built in Wi-Fi but NAD Amp1 also has LAN connection.

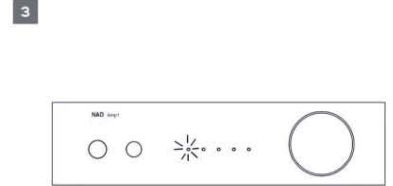
We recommend using the LAN connection, if possible, for optimal signal and signal stability.



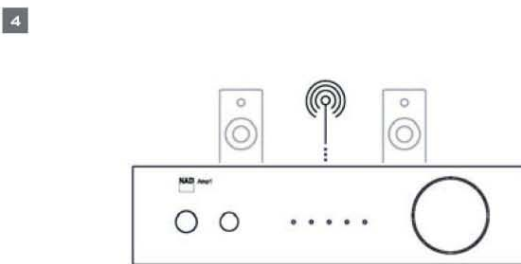
1 Install the Google Home app on your mobile device (if not already installed).



2 Connect a pair of speakers to the amplifier's corresponding right/left speaker terminals. Plug in the AMP1 and it will power up



3 Wait 30-60 seconds until the 1st blue LED light is flashing



4 The AMP1 is now in hotspot mode and ready for Wi-Fi setup



5 Open the Google Home app , tap "Devices" in the top right corner of the screen



6 Select the NAD-Chromecast-build-in Amplifier listed and tap SETUP > Continue and Follow the guide to finish setup.



7 De Chromecast cast button

The AMP1 is now ready for use. go to a music streaming app or a song stored on your mobile device and look for the cast icon to start streaming music to the AMP1

When connecting the AMP1 via a LAN cable to your Home network, you just need to open the Google Home app after connecting the LAN and power up the amp. start with point 6 from above.

Getting started

UNPACK and INSTALL

WHAT'S IN THE BOX.....

- NAD AMP1
- Quick start guide
- Power cable
- Remote Control with AAA batteries
- Google Chromecast instructions



We recommend that you keep the original box and packing material for future transportation. We also recommend that you keep this User Manual for future use.

Quick installation guide

This simple guide will help you get started with your AMP1.

Place the AMP1 on a firm, level surface. Do not place the unit on a soft surface like a carpet.

Make all the connections to your AMP1 with the unit unplugged from the mains power source. It is also advisable to power down or unplug all associated components while making or breaking any signal or AC power connections.

1 Connect applicable speakers to the LEFT and RIGHT SPEAKERS terminal of the AMP1.

2 Using applicable connectors (not supplied), connect source devices to corresponding input sockets of the AMP1.

LAN → HSTREAMING LAN

S/PDIF sources → OPTICAL D1, OPTICAL D2

Analog sources → LINE IN, PHONO (MM)

Other sources → Bluetooth/Google Chromecast

3 Connect corresponding end of the mains power cord to the AC mains input of the AMP1 and the plug connected to a mains power source.

4 With all applicable sources hooked up to the AMP1 and powered up, press (Standby) to switch ON the AMP1 from standby mode.

5 Start listening by rotating the SOURCE knob to select preferred source input. Rotate Volume control knob to adjust audio level.

IDENTIFICATION OF CONTROLS

FRONT CONTROLS



1. Power On power Off
- Press to power ON, press to power OFF.
 2. Remote eye sensor
 3. Five LED Input indicators - from left to right: Cast/BT, Phono, Line In, Optical Input (D1), Optical Input (D2)
 4. Volume control and selector.
- Turn left or right for volume +/-, press volume button for input select.
-

CONNECTIONS OF THE AMP



1. GND
- Connection for turntable grounding.
2. Streaming
- For LAN cabled Internet access. The NAD Amp1 has built in Wi-Fi but NAD Amp1 also has LAN connection. We recommend using the LAN connection, if possible, for optimal signal and signal stability.
3. Phono
- Only Connect a turntable to this input, remember to connect "GND" (①) as well.
4. Line in
- Connect any analogue audio source with Left Right cable.
5. Optical inputs
- D1 Digital input, optimized for TV input, connect a TV to this input
- D2 Digital input, optimized for Hi-Fi, connect a audio product to this input.
6. Pre out
- To connect a SUB woofer or extra power amplifier.
7. Speaker right
- Unscrew the plug to mount the un-isolated speaker cable or use a banana plug.
(remember to get + and – connected similar on NAD Amp1 and your loudspeakers)
8. Speaker left
- Unscrew the plug to mount the un-isolated speaker cable or use a banana plug.
(remember to get + and – connected similar on NAD Amp1 and your loudspeakers)
9. Power
- Insert the power cable that comes with the NAD Amp1, and connect to an electric outlet.

NOTICE:

The digital inputs are capable of handling up to 24bit / 192 kHz audio signal in PCM-format. check your source signal type to make sure it is in the right format. if you're not sure it's in the right format please check your source device manual or contact your dealer

REMOTE CONTROL OF THE AMP1

AMP 1 REMOTE CONTROL UNIT



1. Power ON/OFF
- Press to turn power On or Off.
2. Input selector
- Press to choose your desired input source.
D1 for TV audio and D2 for Hi-Fi is digital/optical input 1 and 2. "Wave" button in the middle is Cast or Bluetooth selector. AUX is for analogue line in and Phono is for Turntable.
3. Skip track, play/pause
- Press to skip track forward or backwards or play/pause.
4. Volume up/down
- Press to adjust volume up or down.
5. Mute or un-mute the sound
- Press to Mute or un-mute the sound.

OTHER FEATURES

BLUETOOTH

Initiate pairing of your Bluetooth device with the AMP1 by following below procedure.

- 1 Using your iOS, Android or compatible device, go to Settings → Bluetooth and then scan for Bluetooth devices.
- 2 Select the unique device ID of your AMP1 among the available devices listed in your Bluetooth settings. Pair or connect together your AMP1 and the Bluetooth device.
- 3 Upon successful pairing of your Bluetooth device and the AMP1 LED wil stop blinking

DECOUPLING BLUETOOTH SOURCE DEVICE:

Press and hold the Bluetooth source button on the remote for 5 seconds. The source LED will start blinking as a sign that the AMP1 is ready for coupling another Bluetooth device. this procedure will erase all couplings (it is possible to couple with more then one device for easy access.)

SPECIAL FUNCTIONS

TV CONNECT

TV Connect is a new software enabled feature that allows the AMP1 to provide the sound for your TV. TV Connect enables the AMP1 to "listen" to the mute and volume control commands from most common Samsung and Sony TV remote controls. Additionally, the AMP1 will automatically power up to OPTICAL D1 source upon detection of digital TV output signal at OPTICAL D1.* If you have a remote control that does not send IR commands (eg, a Smart remote), some newer TVs also support IR learn so you can force the television to broadcast IR commands to your product, thus using your TV remote control to control your NAD Amp1. Find it in the list under setup on your TV to use this feature. Check the manual for your TV if in doubt.

The digital inputs are capable of handling audio signal in PCM-format. check your source signal type to make sure it is in the right format. in some cases you need to switch on the optical output of your TV. if you're not sure it's in the right format please check your source device manual or contact your dealer of the manufacturer/Distributor of the TV.

AUTO SENSE (APU Auto Power Up)

When in standby mode, NAD Amp1 will by default start up automatically once you start playing music from your source. (notice, there is No Auto sense on Phono/Turntable input) Bluetooth will Auto connect to already paired devices.

AUTO SENSE Uitschakelen:

You can turn the Auto sense OFF if you wish. Press and hold the Power button on the remote for 5 sec.

The Power indicator will flash fast for 2 sec. and the NAD Amp1's APU is disabled. When NAD Amp1 is powered on again it works normal again with APU function.

If you do not want auto sense on the inputs at any time, you should always power the amplifier off manually with the remote (and hold the power button for 5 seconds when doing so)

AUTO STANDBY (APD AUTO POWER DOWN)

The NAD Amp1 will automatically go into standby after 15 minutes if no music is playing. Timeout for Bluetooth connection loss with Bluetooth device is also 15 minutes

this function is implemented by EU law for reducing power consumption. based on the EU act of January 2013 to reduce and limit powerconsumption on inactive products.

SPECIFICATIONS

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.

GENERAL SPECIFICATIONS	
LIJNINGANG/LUIDSPREKER UIT	
Continu outputpower @ 4 Ohm and 8 Ohm	2 x 40 W (ref. 20 Hz-20 kHz THD 0,03%, both channel driven)
IHF dynamic power	@ 8 Ohm: 50 W @ 4 Ohm: 100 W
THD (20 Hz – 20 kHz)	<0,03 % (+/- 3dB 20 -20.000 Hz)
Frequencyrespons	3 - 60.000Hz
Signal/Noise ratio	>106 dB (A-Weight, Optical input, ref. 40 watt @ 8 Ohm) Line
Input impedance (40 watt bij 8 O hm)	in: 450mV Digital in: -5dB FS
Max. input signal level	>2.1V (ref. 0.1% THD)
Ingput sensitivity PHONO*	5mV (ref.40watt 1Khz 8 Ohm @ max. volume)
Supported bitrate/sample-frequency	24-bit/192kHz via Optical Input
INPUTS/CONNECTIONS	
2x Optical Digital S/PDIF (Toslink)	Bluetooth receiver
1x Analog stereo input (RCA)	WiFi WLAN 2.4 Ghz
1x Phono MM (Moving Magnet)	
1x LAN Network connector	
POWERCONSUMPTION	
Standby-powerconsumption >0.5Watt, Network Standby <3 watt	
DIMENSIONS AND WEIGHT	
Gross dimensions W x H x D	220 x 63 x 252 mm
Net weight	4,85 kg (10,7 lb)

*: $\pm 0,3$ dB (20 Hz - 20 kHz)

Note: The RIAA response is consistent with a pre-emphasis that is rolled off at 50kHz by a second order filter, such as used in Neumann cutting lathes.

NAD SHALL NOT BE HELD LIABLE FOR ANY TECHNICAL OR USER INTERFACE DISCREPANCIES IN THIS MANUAL. THE AMP1 OWNER'S MANUAL MAY BE SUBJECT TO CHANGE WITHOUT NOTICE. CHECK OUT WWW.NADELECTRONICS.COM FOR THE LATEST VERSION OF THE AMP1 OWNER'S MANUAL.



www.NADelectronics.com

**©2018 NAD ELECTRONICS INTERNATIONAL
A DIVISION OF LENBROOK INDUSTRIES LIMITED**

All rights reserved. NAD and the NAD logo are trademarks of NAD Electronics International, a division of Lenbrook Industries Limited.
No part of this publication may be reproduced, stored or transmitted in any form without the written permission of NAD Electronics International.

While every effort has been made to ensure the contents are accurate at the time of publication, features and specifications may be subject to change without prior notice.

AMP1 is designed and engineered in Denmark

AMP1_UK_MKL_V02-DEC 2018

AND18ML2018