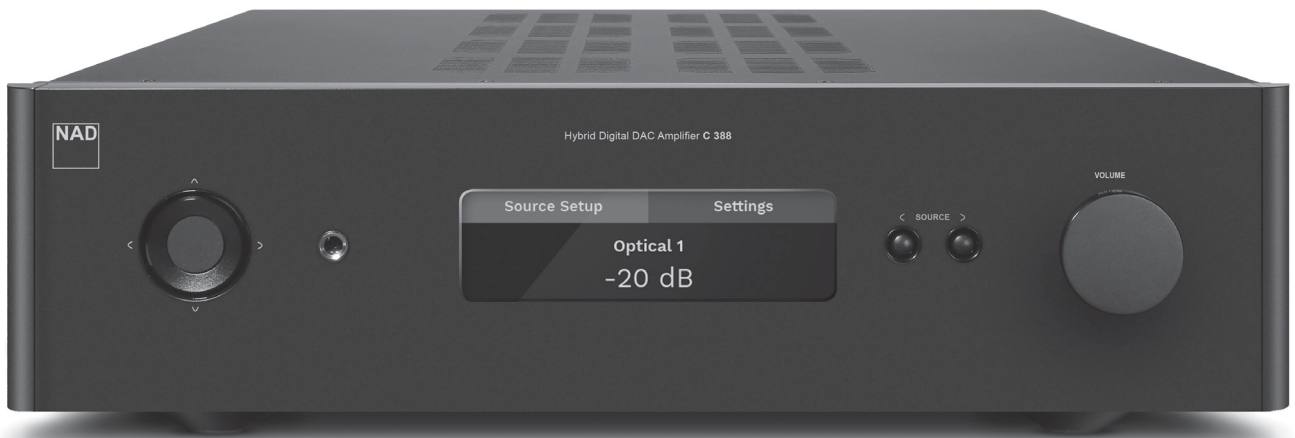




# C 388


Hybrid Digital DAC Amplifier

ENGLISH



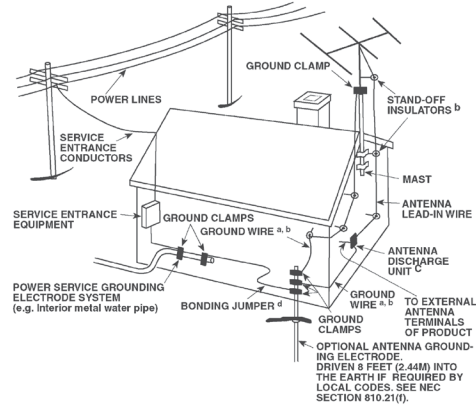
Owner's Manual

# 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.
- 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 C 388 are located on the back of the cabinet. For your future convenience, we suggest that you record these numbers here:

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Model number : .....

Serial number : .....

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# INTRODUCTION

## GETTING STARTED

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### INTRODUCTION

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### WHAT'S IN THE BOX

Packed with your C 388 you will find

- Two detachable mains power cord
- SR 9 remote control with 2 AA batteries
- Bluetooth antenna
- Quick Setup Guide

### SAVE THE PACKAGING

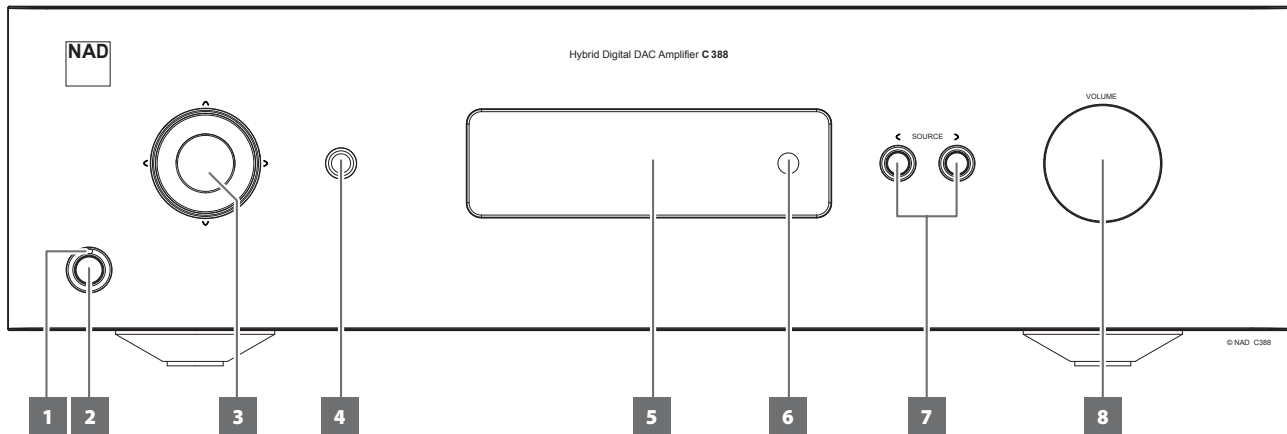
Please save the box and all of the packaging in which your C 388 arrived. Should you move or need to transport your C 388, this is the safest container in which to do so. We've seen too many otherwise perfect components damaged in transit for lack of a proper shipping carton so, please: Save that box!

### 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 388's front panel and your primary listening/viewing position—this will ensure reliable infrared remote control communications. The C 388 generates a modest amount of heat, but nothing that should trouble adjacent components.

### RESTORING C 388 TO ITS FACTORY DEFAULT SETTINGS

Press and hold both front panel's < SOURCE > buttons until the display shows "FACTORY RESET". Release both < SOURCE > buttons afterwards.



### 1 POWER INDICATOR

- This indicator will be amber when the C 388 is in standby mode.
- When the C 388 is powered up from standby mode, this indicator will change from amber to blue color.

### 2 STANDBY BUTTON

- Press Standby button to switch ON the C 388 from standby mode. The Power indicator will change from amber to blue color.
- Pressing Standby button again switches back C 388 to standby mode. The Power indicator will change from blue to amber color.
- The Standby button cannot activate the C 388 if the rear panel POWER switch is off.

### IMPORTANT NOTES

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

- The supplied power cord from the C 388 must be plugged in to a power source.*
- The rear panel POWER switch must be set to ON.*

### 3 NAVIGATION AND ENTER BUTTONS

- The navigation [ $\wedge/\vee/\langle/\rangle$ ] and [ENTER] buttons are used to go through menu options and selections.
- Use [ $\wedge/\vee/\langle/\rangle$ ] to go up, down, left or right given options or selections.
- The middle round button is designated as [ENTER] button. This is normally pressed to complete a selection, procedure, sequence or other applicable functions.

### 4 HEADPHONE

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

### 5 DISPLAY

- Show visual and menu information according to the selected settings.
- The following Main menu options are shown in the display - Source Setup, Settings and BluOS Setup (available if MDC BluOS module is installed).

Use the SR 9 remote control or front panel navigation [ $\wedge/\vee/\langle/\rangle$ ] and [ENTER] buttons to go through menu options and selections.

### 6 REMOTE SENSOR

- Point the SR 9 remote control at the remote sensor and press the buttons.
- Do not expose the remote sensor of the C 388 to a strong light source such as direct sunlight or illumination. If you do so, you may not be able to operate the C 388 with the remote control.

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

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

### 7 < SOURCE >

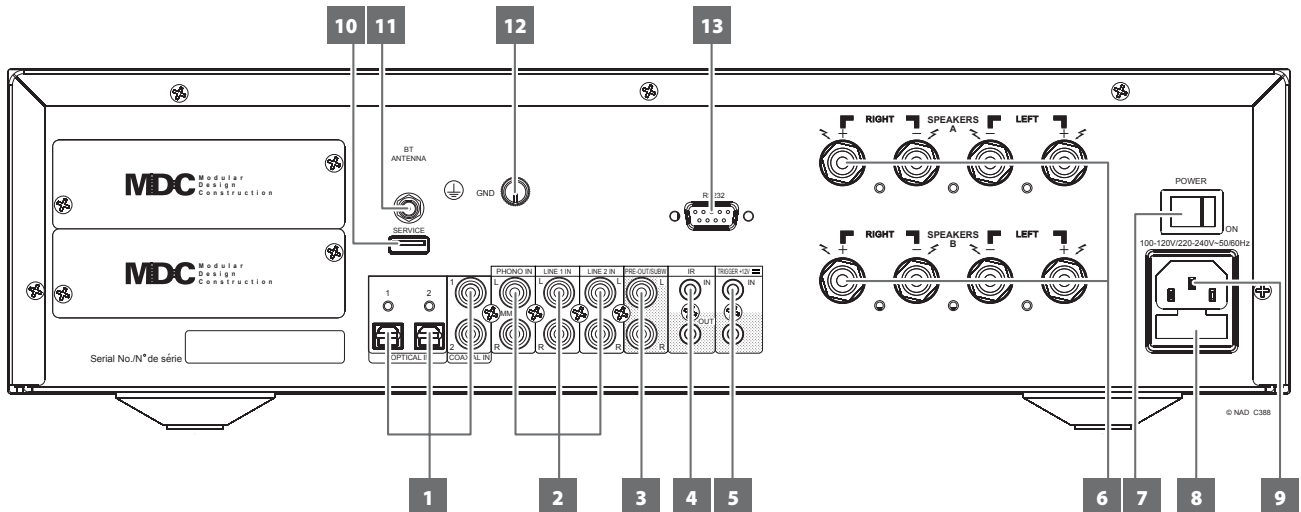
- Press < SOURCE or SOURCE > to select Sources.

### 8 VOLUME

- The VOLUME control adjusts the overall loudness of the signal sent to the loudspeakers. 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.
- If the volume level is higher than -20 dB when the unit goes into standby mode, either via the front panel Standby button, the SR 9 remote's Power Off button, or the unit's auto standby settings, then when the unit wakes up the volume level will be reset to the default -20 dB. If, however, the volume level is lower than -20 dB when the unit goes into standby mode, that level setting will be preserved when the unit wakes up.

# IDENTIFICATION OF CONTROLS

## REAR PANEL



### ATTENTION!

Please ensure that the C 388 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 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.

#### 2 PHONO IN, LINE 1-2 IN

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

**LINE 1, LINE 2:** Input for line level sources such as CD player, tuner or any compatible devices. Use a twin RCA-to-RCA lead to connect the source device's left and right "Audio Output" to this input.

#### 3 PRE-OUT/SUBW

- These output terminals have dual function. They are used either as PRE-OUT or SUBWOOFER terminals.
- The C 388 and associated external devices must be turned OFF always before connecting or disconnecting anything to the PRE-OUT/SUBW sockets.

##### PRE-OUT

- The PRE OUT/SUBW sockets make it possible to use the C 388 as a full range preamplifier to an external power amplifier.
- Use dual RCA cable to connect PRE-OUT/SUBW to the corresponding analog audio input of compatible devices such as amplifiers, receivers or other applicable devices.
- PRE-OUT/SUBW will be affected by the C 388's volume control settings. Turn the VOLUME control to adjust the output level of the PRE OUT/SUBW sockets.

##### SUBWOOFER

- Use a dual RCA cable to connect PRE OUT/SUBW to the low level input of a powered subwoofer.
- Low frequency information up to 150 Hz is sent to the connected subwoofer via PRE-OUT/SUBW. This is based from 2nd order Linkwitz-Riley Crossover Filter @150 Hz.

#### 4 IR IN/IR OUT

- These mini-jacks accept and output remote-controlled codes in electrical format, using industry-standard protocols, for use with "IR-repeater" and multi-room systems and related technologies.
- All NAD products with IR IN/IR OUT features are fully compatible with the C 388. For non-NAD models, please check with your other product's service specialists with respect to their compatibility to the C 388's IR features.

##### IR IN

- This input is connected to the output of an IR (infrared) repeater (Xantech or similar) or the IR output of another compatible device to allow control of the C 388 from a remote location.

##### IR OUT

- Connect IR OUT to the IR IN jack of a compatible device.
- Command and control the linked compatible device by directing its own remote control to C 388's infrared receiver.

#### 5 TRIGGER +12V +12V TRIGGER OUT

- The +12V TRIGGER OUT is used for controlling external equipment equipped with a +12V trigger input.
- Connect this +12V TRIGGER OUT to the other equipment's corresponding +12V DC input jack using a mono cable with 3.5mm male plug.
- This output will be 12V when the C 388 is ON and 0V when it is either OFF or in standby mode.

##### +12V TRIGGER IN

- With this input triggered by a 12V DC supply, the C 388 can be switched ON remotely from standby mode by compatible devices such as amplifiers, preamplifiers, receivers, etc. If the 12V DC supply is cut off, the C 388 will return to standby mode.
- Connect this +12V Trigger input to the remote device's corresponding +12V DC output jack using a mono cable with 3.5mm male plug. The controlling device must be equipped with a +12V trigger output to use this feature.

### NOTE

If there is a stereo jack connected to +12V TRIGGER IN, the C 388 cannot be powered ON/OFF using the front panel Standby button or SR 9's ON/OFF buttons. The stereo jack has to be unplugged to resume normal powering up of the unit via front panel Standby button or SR 9's ON/OFF buttons.

### 6 SPEAKERS

- The C 388 has two sets of SPEAKER connections which are identical in function (parallel connection).
- Connect C 388's Right speaker terminals marked "R +" and "R -" to the corresponding "+" and "-" terminals of your designated right speaker. Repeat the same for C 388's Left speaker terminals and corresponding left speaker.
- Double check the speaker connections before powering up the C 388.

### 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 388 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.

### 7 POWER

- Supplies the AC mains power to the C 388.
- When the POWER switch is set to ON position, the C 388 goes to standby mode as shown by the amber status condition of the front panel Power indicator.
- Press the front panel Standby button or SR 9's remote control's [ON] button to switch ON the C 388 from standby mode.
- If you do not intend to use the C 388 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 SR 9 remote control's [ON] button can activate the C 388.

### 8 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 388.

### 9 AC MAINS INPUT

- The C 388 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 388's AC Mains input socket.
- Always disconnect the mains power plug from the mains power source before disconnecting the cable from the C 388's AC Mains input socket.

### 10 SERVICE

- Use for servicing purposes only. Not for consumer use.

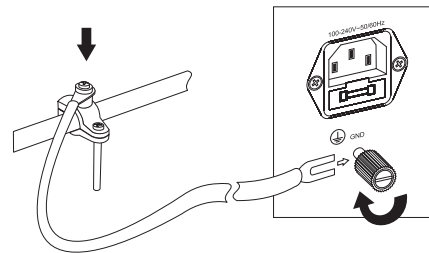
### 11 BLUETOOTH ANTENNA TERMINAL

- Install supplied Bluetooth antenna to this Bluetooth antenna terminal.

### 12 GROUND TERMINAL

- Ensure that the C 388 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 388. The C 388 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.

### EXAMPLE ILLUSTRATION OF GROUNDING THE C 388 VIA THE REAR PANEL GROUND TERMINAL



### 13 RS 232

NAD is a certified partner of AMX and Crestron and fully supports these external devices. Check out the NAD website for information about AMX and Crestron compatibility with NAD. See your NAD audio specialist for more information.

- Connect this interface using RS-232 serial cable (not supplied) to any Windows compatible PC to allow remote control of the C 388 via compatible external controllers.
- Refer to the NAD website for information about RS232 Protocol documents and PC interface program.

# IDENTIFICATION OF CONTROLS

## REAR PANEL

### MDC CLASSIC UPGRADE SLOTS

The delivery format of digital content is constantly changing in pure digital systems like the C 388. Each of these formats typically requires specialized hardware and software, often with licensed IP and content copy protection.

To address continuous technological evolution, NAD has placed all digital interface circuitry of the C 388 on easily upgradable modules, called Modular Design Construction (MDC). The C 388 has provision for two slots where MDC upgrade modules can be installed.

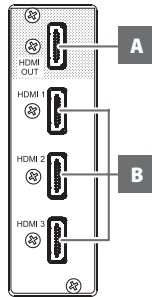
The following optional MDC modules can be integrated with the C 388 - the DD HDM-1, DD USB 2.0 and the MDC BluOS modules. Remove covers to install the optional Modular Design Construction (MDC) modules.

Consult with your NAD dealer on how to procure the DD HDM-1, DD USB 2.0 and MDC BluOS modules and their installations to the C 388.

### DD HDM-1 (DIRECT DIGITAL HDMI)

The DD HDM-1 offers three HDMI input terminals and one HDMI output with video pass through. With DD HDM-1 installed, the C 388 can be the heart of a "Video 2.0" system using the mandatory 2 channel linear PCM soundtrack from Blu-ray or DVD to make a compelling high definition theater presentation. DD HDM-1 is fully 3D video compatible without surround sound decoding or video processing.

- A HDMI OUT:** Connect the HDMI Monitor OUT to a HDTV or projector with HDMI input.
- B HDMI 1 -3:** Connect to the HDMI OUT connectors of source components such as DVD player, BD player or HDTV satellite/ cable box.

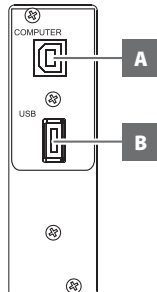


### WARNING!

*Before connecting and disconnecting any HDMI cables, both the C 388 and the source must be powered OFF and unplugged from the AC outlet. Failure to do so may cause permanent damage to equipment connected via HDMI sockets.*

### DD USB 2.0

- A COMPUTER:** Using Type A to Type B cable connector (not supplied), interface computer audio to this asynchronous Type B USB input to directly stream 24/96 PCM content from your PC or MAC.
- B USB BACK:** Connect a USB mass storage device to this input. Typical USB mass storage devices compatible with C 388 include portable flash memory devices and external hard drives (FAT32 formatted).



### MDC BluOS

BluOS is a music management software developed by NAD's sister brand, Bluesound. Integrating MDC BluOS will add BluOS network and internet music streaming with advanced music management to your C 388.

Refer to the "MDC DD BluOS Mounting Instructions" and "Configuring DD BluOS" (included with your MDC BluOS package) on how to install and integrate the MDC BluOS with the C 388.



# IDENTIFICATION OF CONTROLS

## SR 9 REMOTE CONTROL

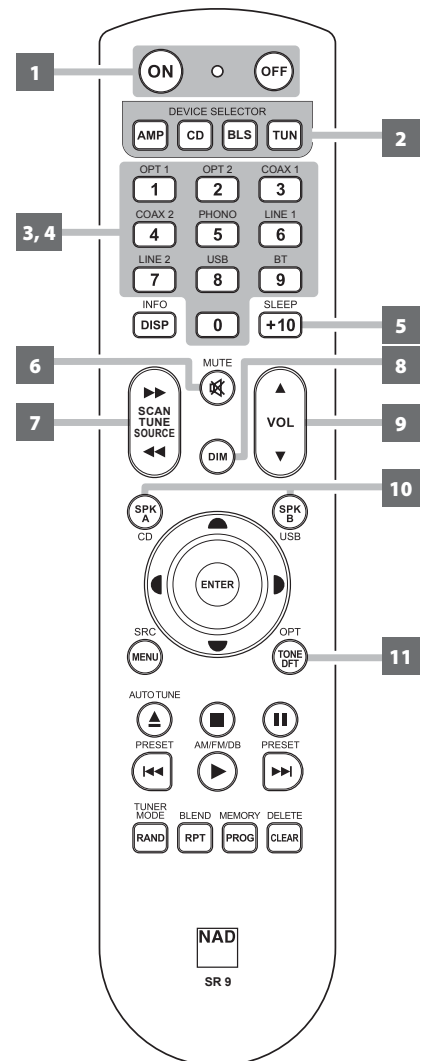
### USING THE SR 9 REMOTE CONTROL

The SR 9 remote control handset handles the key functions of the C 388 as well as other NAD Stereo Receivers, Integrated Amplifiers and Preamplifiers. It has additional controls to remotely operate NAD CD Players, AM/FM Tuners and dedicated AM/FM/DAB Tuners. It will operate up to a distance of 23ft (7m). Alkaline batteries are recommended for maximum operating life. Two AA batteries should be fitted in the battery compartment at the rear of the Remote Control handset. When replacing batteries, check that they have been put in the right way round, as indicated on the base of the battery compartment.

### NOTE

*The remote control handset supplied with the C 388 is of a universal NAD type, designed to operate several NAD models. Some buttons are applicable only to specific NAD models. Contact your dealer or NAD audio specialist for assistance.*

- 1 POWER ON & OFF:** The SR 9 remote has a separate ON and OFF button. Press the ON button to switch the unit from Standby to operating mode. Press the OFF button to switch the unit to Standby mode.
- 2 DEVICE SELECTOR:** A Device Selector button determines only what component the SR 9 will command; it does not perform any function on the C 388. Press desired Device Selector button for the applicable buttons to be directed to a "page" of commands relevant to the selected device. Upon selecting a Device, you can now press the corresponding SR 9 control buttons applicable for the selected Device.
- 3 INPUT SELECTORS:** Refer to the corresponding labels printed in the remote control faceplate and their respective assigned buttons to make use of these functions. Set the DEVICE SELECTOR to "AMP" in order to gain access to these buttons.
- 4 NUMERIC KEYS:** The numeric keys allow for direct input of tracks for CD players, and direct channel/preset access for tuners and receivers.
- 5 SLEEP:** Switch off specific NAD Receiver or Tuner models after a preset number of minutes. This button control does not apply to C 388.
- 6 MUTE:** Press the [MUTE] button to temporarily switch OFF the sound to the speakers and headphones. MUTE mode is indicated by the Standby LED indicator flashing for NAD Integrated Amplifiers or "Mute" shown in the VFD of NAD Receivers. For C 388, "Mute" is shown in the display. Press MUTE again to restore sound. Adjusting the volume level via the SR 9 or the front panel volume knob will automatically release the mute function.
- 7 SOURCE ▲/▼:** Toggle through the source input selections. If the optional MDC modules are installed, the source selections will include the sources incorporated in the applicable modules.
- 8 DIM (for use with NAD Stereo Receiver, Tuner and CD Player):** Reduce, turn off or restore display brightness. Depending on the NAD model, the brightness of the front panel display will vary when you toggle this button. For C 388, toggle to vary brightness level of the display - brighter, normal or dimmer.



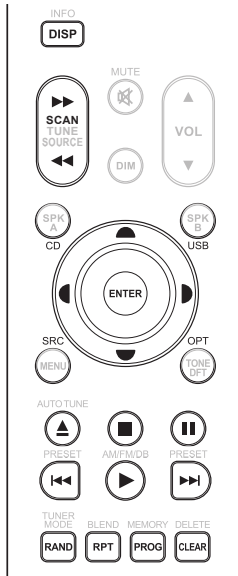
# IDENTIFICATION OF CONTROLS

## SR 9 REMOTE CONTROL

**9 VOL [▲/▼]:** Press [▲/▼] button to increase or decrease the loudness level. Release the button when the desired level is reached. For NAD Receivers, the VFD will also show "Volume Up" or "Volume Down" while pressing SR 9's VOL [▲/▼]. For C 388, when VOL [▲/▼] is pressed, the dB level shown in the display will correspondingly increase or decrease.

**10 SPK A, SPK B:** The [SPK A] and [SPK B] buttons engage or disengage the speakers connected respectively to the Speakers A and Speakers B terminals. Toggle [SPK A] to switch ON or OFF the speakers connected to the Speaker A terminals. Toggle [SPK B] to switch ON or OFF the speakers connected to the Speaker B terminals.

**11 TONE DFT:** Tone controls are enabled or disabled by pressing this button.



**CD PLAYER CONTROL (for use with NAD CD Player):** Set the DEVICE SELECTOR to "CD" in order to gain access to these buttons. Some of the control buttons below are applicable only to specific NAD CD Player models; check the owner's manual of your NAD CD Player for control button compatibility.

**SCAN [◀/▶]:** Fast reverse/forward search.

**[▲]:** Open or close disc tray.

**[■]:** Stop playback.

**[||]:** Pause playback temporarily.

**[▶▶]:** Go to next track/file.

**[◀◀]:** Go to beginning of current track/file or to previous track/file.

**[▶]:** Start playback.

**[◂/▸/◃]:** Select through folder list/Select through WMA/MP3 files.

**ENTER:** Select desired folder or WMA/MP3 file.

**DISP:** Show playback time and other display information.

**RAND:** Play tracks/files in random order.

**RPT:** Repeat track, file or whole disc.

**PROG:** Enter or exit program mode.

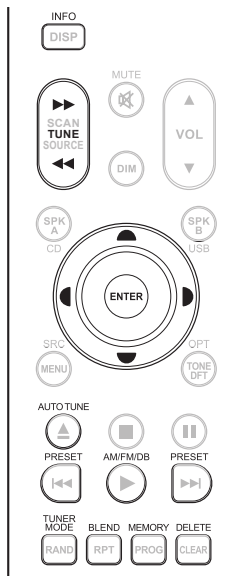
**CLEAR:** Delete programmed track/file.

**CD:** Select CD as the active source.

**USB:** Select USB as the active source.

**OPT:** Select optical input as the active source.

**SRC:** Toggle to select desired SRC mode.



**TUNER CONTROL (for use with NAD AM/FM/DAB Tuner):** Set the DEVICE SELECTOR to "TUN" in order to gain access to these buttons. Refer to the corresponding labels printed in the remote control faceplate and their respective assigned buttons to make use of these functions. Some of the control buttons below are applicable only to specific NAD Receiver or Tuner models; check the owner's manual of your NAD Receiver or Tuner for control button compatibility.

**AUTO TUNE:** In DAB mode, press this button to automatically scan all available local stations.

**TUNE [◀/▶] or [◂/▸]:** Step up or down between AM or FM frequencies.

**PRESET [◀◀/▶▶] or [◂/▸]:** Step up or down between stored radio presets.

**AM/FM/DAB:** Select AM, FM, DAB or XM band (if applicable).

**TUNER MODE:** In FM mode, toggle between "FM Mute On" and "FM Mute Off". In DAB mode, pressing this button will activate Dynamic Range Control (DRC), Station Order or other applicable DAB menu options.

**BLEND:** Engage or disengage BLEND feature.

**MEMORY:** Save current station into preset memory.

**DELETE:** Press and hold for about 2 seconds and the selected preset memory is erased.

**[◂/▸]:** In DAB mode, in combination with TUNER MODE or other compatible buttons, toggle to select through DAB feature options like Dynamic Range Control, Station Order and other appropriate DAB options.

**ENTER:** In AM/FM mode, toggle to select Preset or Tune mode. In DAB mode, press and hold to check signal strength.

**INFO:** Repeatedly pressing this button will show information as supplied by the current radio station. The applicable display contents include related DAB display information and RDS broadcast data.

### BluOS PLAYBACK CONTROLS (applies only when an optional MDC BluOS module is installed)

Set DEVICE SELECTOR to BLS and the following control buttons are applicable for BluOS playback control.

▶ : Resume playback from pause mode.

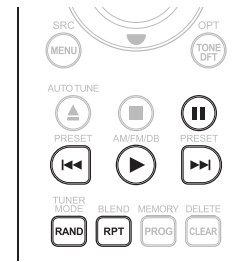
⏸ : Pause current playback.

⏮ : Skip back to the beginning of current song.

⏭ : Skip forward to the next song.

**REPEAT:** Repeat song, playlist, all or repeat off. Refer to BluOS controller app to see repeat mode indicators.

**RANDOM:** Play songs/playlist in random order



### USING THE SR 9 REMOTE CONTROL LIBRARY

The SR 9 can store a different library of default NAD codes for each of its DEVICE SELECTOR "pages." If the original default library does not control your NAD CD player, DVD player or other components, follow the procedure below to change the library code. Refer as well to the table below for a list of applicable NAD Library Codes with their corresponding NAD models.

#### LOAD ANOTHER LIBRARY CODE

**Example:** Load NAD DVD Player T 517 library codes to SR 9's "CD" device.

- 1 Press and hold [CD] in the DEVICE SELECTOR section of SR 9.
- 2 While holding down the device button (CD), press "2" and "2" using SR 9's numeric buttons. "22" is the corresponding library code for T 517.
- 3 Press [ENTER] while still holding down the device button (CD). The CD device selector will flash once to indicate that the library input is successful. Both the device selector button (CD) and [ENTER] can now be released.

#### RESET THE SR 9 TO ITS DEFAULT SETTINGS

The SR 9 can be restored to its factory settings, including default libraries, by the following procedures

- 1 Press and hold [ON] and [DELETE/CLEAR] buttons for about 10 seconds until the AMP device button lights up.
- 2 Within two seconds of the AMP device button lighting up, release both buttons. If the reset mode is successful, the [CD] device button will flash twice.

#### TABLE OF LIBRARY CODES APPLICABLE TO SR 9 REMOTE CONTROL

LIBRARY CODE	NAD PRODUCT DESCRIPTION
10	Default library for "AMP" page
11	Zone 2
20	Default library for "CD" page; C 515BEE, C 545BEE, C 565BEE
21	T 535, T 585, M55, DVD section of L 54, VISO TWO, VISO FIVE
22	T 513, T 514, T 515, T 517
23	T 587
31	IPD 2
40	Default library for "TUN" page; Tuner section of C 725BEE, T 175, T 737, T 747, T 755, T 765, T 775, T 785
41	C 422, C 425
42	C 445

#### NOTE

The SR 9 may not necessarily contain all the control buttons applicable for the above-mentioned NAD products. Use the prescribed remote control of the specific NAD product for a full compliment of the applicable remote control buttons.

# IDENTIFICATION OF CONTROLS

## NAD REMOTE APP

The NAD Remote App transforms your smartphone or tablet into a powerful controller for app enabled products, including select NAD Hi-Fi amplifiers and digital music streamers. With the NAD Remote App, the traditional NAD remote control is reinvented with an intuitive user interface and ability to wirelessly control NAD-connected products.

The NAD Remote App for Android and iOS devices uses your local network and Bluetooth to control and adjust functions like power, volume, source selection and device settings. The NAD Remote App supports C 388 via Bluetooth.

### Download the App!

Download the NAD Remote App from the respective App stores of Apple iOS devices (iPad, iPhone and iPod) and Android devices.

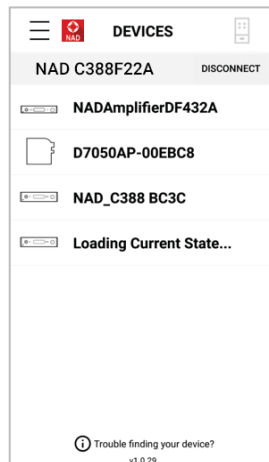
### USING THE NAD REMOTE APP

After downloading the NAD Remote App from the App store, ensure that the following setup conditions for the C 388 are implemented. Bluetooth antenna installation/connection is secured and tight. Ensure that your C 388 is powered up and ready. From the selectable front panel "Settings" menu, ensure that "BT Work Mode" option is set to "Sink".

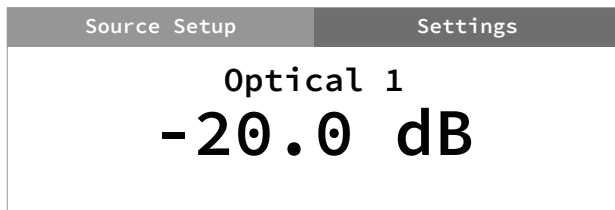
### Launch the NAD Remote App!

Select your device. For this example, select "NAD C388F22A".

Use the NAD Remote App in the same manner you operate the SR 9 remote control or navigate the various menu options of C 388.



**ACCESS MAIN MENU**



Press [^] once or repeatedly until "Source Setup" is highlighted. Press < or > to select other Main menu options - Settings and BluOS Setup (available if MDC BluOS module is installed).

**NAVIGATING THE MENU OPTIONS AND MAKING CHANGES**

Navigate through the menu options using the front panel buttons or corresponding SR 9 buttons.

- 1 Press [ENTER] to select a menu item. Use [^/∇] to move up or down the Menu items.
- 2 Repeatedly press [</>] to scroll through current menu choices, options or selections.
- 3 Press [ENTER] to save the selection, settings or changes done on the current menu. After pressing [ENTER] to finalize a selection, use [^/∇] to move to other menu options/items.

**NOTE**

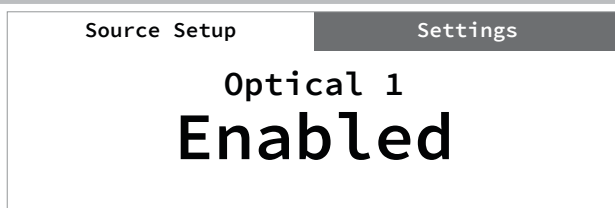
*Menu option will remain displayed and will only turn off or default to current Source after 1 minute of non-user interface.*

**SOURCE SETUP**



There are two Source Setup menu items – Enabled and Name. At Source Setup menu, select the particular Source you want to enable, disable or rename.

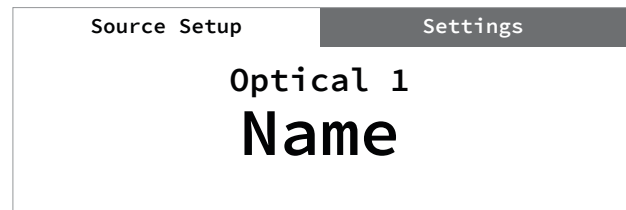
**ENABLED**



One can enable/disable a Source via this option. This is particularly useful if only few Sources are used and one directly selects the Source from the front panel, bypassing unused sources.

- On:** Enable selected Source.
- Off:** Disable selected Source.

**NAME**



A new Name maybe assigned to a Source label. For example, if your BD player is attached to "Optical 1", it is possible to rename "Optical 1" to "BD Player".

In order to rename the Source label, select "Name" parameter.

- 1 While at the selected Source, for example "Optical 1", press [^/∇] to pick through the alphanumeric selections.
- 2 Press [>] to move to the next character and at the same time save the changes done on the current character. The name can be as long as fourteen characters.
- 3 Repeat steps 1 and 2 for each character in sequence.
- 4 Complete the renaming process by pressing the [ENTER] button again to save the new source's input name. The new Name will be shown in the display.

**SETTINGS**

The "Settings" main menu allows you to configure or show the following features:

- Tone Controls
- Treble
- Filters
- Speaker Channel
- Dimmer
- Auto Standby
- IR Channel
- Volume Display Mode
- Firmware Upgrade
- BT Work Mode (available only if MDC BluOS module is not installed)
- Bass
- Balance
- Pre Out/Subwoofer
- Temporary Display
- Network Standby
- Auto Sense
- IR Learning Device
- Firmware Version
- MDC Card Upgrade

**TONE CONTROLS**



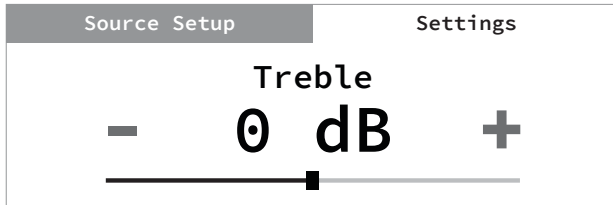
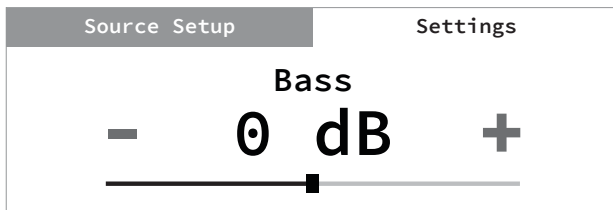
Tone controls allow the boosting or reduction of particular audio frequencies. The tone control levels, Bass and Treble, can be turned on or off.

- On:** Tone control levels are active. At Tone Controls On, Bass and Treble control levels are available for configuration.
- Off:** Tone controls levels are bypassed. At Tone Controls Off, Bass and Treble control levels become unavailable or turned off from the Settings menu.

## OPERATION

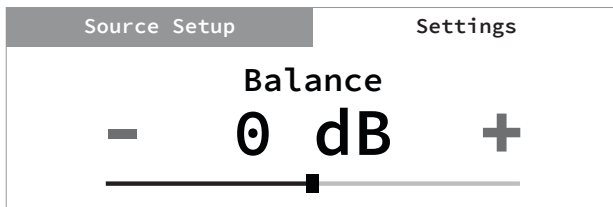
### USING THE C 388

#### BASS, TREBLE, BALANCE



Bass and Treble controls only affect the low bass and high treble leaving the critical midrange frequencies free of coloration.

- Use [C/>] to boost or cut Bass or Treble levels within  $\pm 7$  dB range.



Balance control adjusts the relative levels of the left and right speakers.

- Press [D] to shift the balance to the right or [C] to shift the balance to the left. Use [C/>] also to recover or even out the balance levels.
- "0 dB" level setting provides equal level to the left and right channels.

#### FILTERS



Filters provide easy bi-amplification or subwoofer integration by adding the required filters to redirect bass frequencies to the subwoofer.

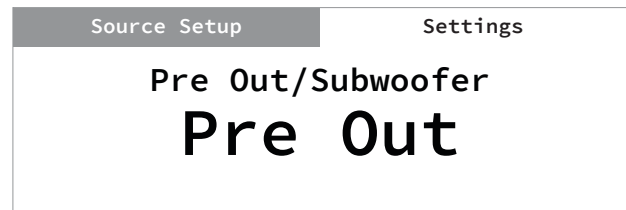
**High Pass:** Low pass signal up to 150 Hz is attenuated and over 150 Hz sent to the speakers. This is based from 2nd order Linkwitz-Riley Crossover Filter @150 Hz.

#### IMPORTANT NOTE

*If different crossover filter settings are required, it is recommended to use the filters built into the connected external Powered Subwoofer. Experiment by reversing the polarity of the Subwoofer or use a combination of filters, for example, the High Pass filter built into the C 388 and run full range to the Subwoofer and set the Crossover filter setting on the Subwoofer itself. Note that changing the level can also change the crossover frequency, so experimentation is the only way to get an optimal result.*

**Full Range:** Refers to the whole frequency spectrum capability of your C 388 and speaker system.

#### PRE OUT/SUBWOOFER



Pre Out/Subwoofer feature allows you to select the function of the PRE-OUT or SUBWOOFER terminals.

**Pre Out:** Configured as Pre Out terminals.

**Subwoofer:** Configured as Subwoofer terminals.

#### SPEAKER CHANNEL



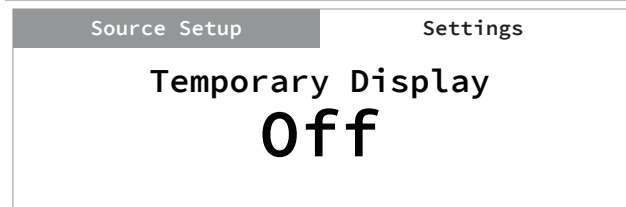
SPEAKER CHANNEL enables you to engage or disengage the speakers connected respectively to the SPEAKERS A and SPEAKERS B terminals on the rear panel.

Select "Speaker A" or "Speaker B" individually and then set to "On" or "Off".

**On:** Selected speaker is enabled.

**Off:** Selected speaker is disabled.

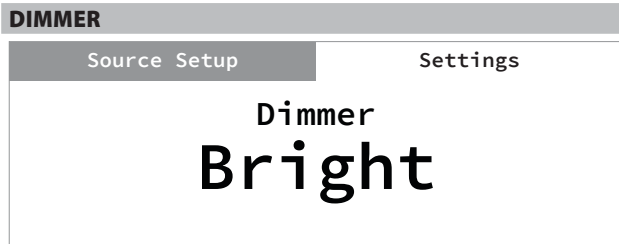
#### TEMPORARY DISPLAY



Temporary Display feature enables the display to be turned off temporarily after 10 seconds of non-user interface.

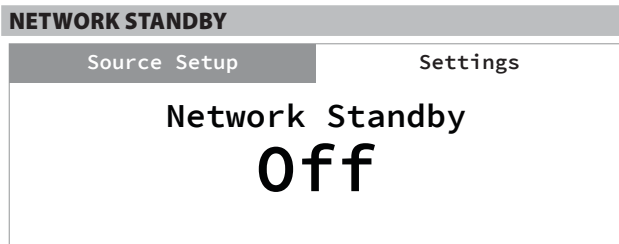
**On:** Display is turned off temporarily after 10 seconds of non-user interface. The Standby LED is also turned off at the same time. Display and Standby LED are activated once user interface is initiated.

**Off:** Display remains illuminated.



DIMMER function makes it possible to adjust the brightness level of the front panel display.

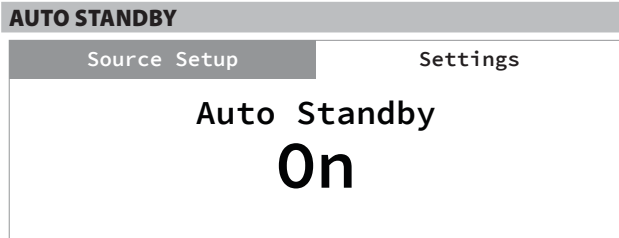
- Bright:** Above normal level of display brightness.
- Normal:** Normal level of display brightness.
- Dim:** Below normal level or dimmer than normal display brightness.



Network Standby mode maintains network connection at standby mode with reduced system performance level.

- On:** Network connection is maintained at standby mode.
- Off:** Network connection is disconnected at standby mode.

Refer also to table below about "OPERATING MODE TRIGGER POINTS".

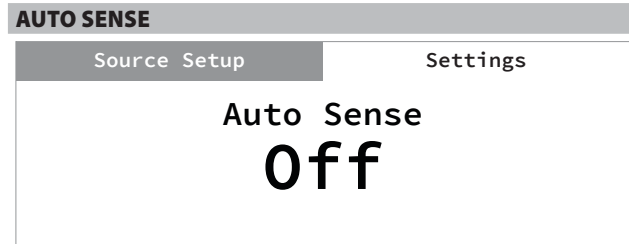


Auto Standby feature is an integral feature of C 388 that conforms to European ecodesign regulations. The C 388 can be setup to automatically go to standby mode if there is no user interface interaction and no active source input within 20 minutes.

- ON**
- C 388 switches to standby mode at lowest power consumption (less than 0.5W) if there is no user interface interaction and no active source input within 20 minutes.

- OFF**
- C 388 remains at operating mode even if there is no user interface interaction and no active source within 20 minutes.

Refer also to table below about "OPERATING MODE TRIGGER POINTS".



Auto sense feature enables the C 388 to wake up from standby mode when triggered by network connected App or active source input.

- ON**
- Unit wakes up from standby mode when triggered by network connected App or active source input.
  - Except for analog input, the unit will power up to the Source that activated the unit to operating mode.
  - When the unit is triggered by an active analog input, the unit will always power up to Line 1.

- OFF**
- Unit remains at standby mode even if it is triggered by network connected App or active source input.

Refer also to table below about "OPERATING MODE TRIGGER POINTS".

**OPERATING MODE TRIGGER POINTS**

SETTINGS	OPERATING MODE TRIGGER
Auto Standby: On Network Standby: On Auto Sense: On	Unit switches back to operating mode by <ul style="list-style-type: none"> <li>• resuming activity at network connected app.</li> <li>• an active source input.</li> <li>• pressing front panel Standby button or SR 9 remote control's [ON] button.</li> </ul>
Auto Standby: On Network Standby: Off Auto Sense: On	Unit switches back to operating mode by <ul style="list-style-type: none"> <li>• an active source input.</li> <li>• pressing front panel Standby button or SR 9 remote control's [ON] button.</li> </ul>
Auto Standby: On Network Standby: On/Off Auto Sense: Off	<ul style="list-style-type: none"> <li>• Unit remains at standby mode even if it is triggered by network connected App or active source input.</li> <li>• Unit can only be switched back to operating mode by pressing front panel Standby button or SR 9 remote control's [ON] button.</li> </ul>

## OPERATION

### USING THE C 388

#### IR CHANNEL



The C 388 has the capability to operate via Alternate IR channel. This is useful if you have two NAD products that can be operated by similar remote control commands. With alternate IR Channel, two different NAD products can be controlled independently in the same zone by setting each one to a different IR channel.

#### IR Channel Assignment

The C 388 and the SR 9 remote control must be set to the same channel.

#### To change the IR Channel on the C 388

While at IR Channel menu, use the [C/D] to select through Channel 0 to Channel 3. Press [ENTER] to select preferred IR Channel setting. C 388 IR Channel is defaulted to Channel 0.

#### To change the IR Channel on the SR 9 remote control

- Include a channel number before the library code. For SR 9, library code "10" is the default library table for "AMP" device. To select this "AMP" library table for Channel 0, retain the library code "10" (or "010").
- If you want to load the "AMP" library table on "Channel 1" prefix the library code with "1" to indicate association with "Channel 1". Load then the "AMP" library table using the code "110". Repeat the same for MP (130) and TUNER (140).

#### SAMPLE SETUP OF TWO NAD PRODUCTS ON THE SAME ZONE

NAD C 388 and NAD C 390DD are both defaulted to Channel 0. If [OFF] button is pressed on the SR 9 remote control (or AVR 4 remote control for the C 390DD), both products will go to standby mode. Press [ON] and both products will power up from standby mode.

To prevent both products from simultaneously going in and out of standby mode along with other common commands, set each one to a different IR channel. In this setup, we will keep C 390DD and AVR 4 remote control defaulted to "Channel 0". As for C 388, we will assign it to "Channel 1"; the same applies to SR 9.

Set C 388 and SR 9 to "Channel 1" via the following procedure.

#### C 388

While at "IR Channel" menu, use the [C/D] to go to "Channel 1" setting. Press [ENTER] to select "Channel 1".

#### SR 9

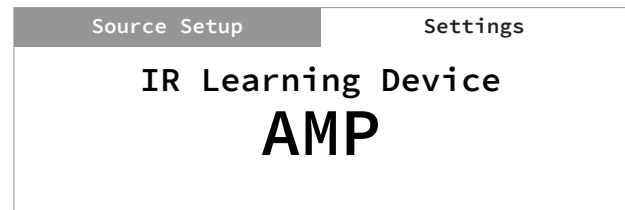
- Press and hold [AMP] in the DEVICE SELECTOR section of the SR 9.
- While holding down the device button [AMP], press "1", "1" and "0" using SR 9's numeric buttons.
- Press [ENTER] while still holding down the device button [AMP]. The AMP device selector will flash once to indicate that the library input is successful.

With both C 388 and SR 9 set to "Channel 1", the C 388 can now be remotely controlled independent of the C 390DD.

#### NOTE

*Performing a Factory Reset for C 388 or SR 9 will restore their respective IR channel setting to "Channel 0".*

#### IR LEARNING DEVICE



IR Learning Device enables any non-NAD remote control to learn AMP and BluOS basic remote control codes. With the learned codes, use the configured non-NAD remote control to command or operate the C 388.

#### HOW TO LEARN REMOTE CONTROL CODES

- 1 Go to IR Learning Device menu. Select either AMP or BLS.
- 2 Select AMP and the first Amp Learning Key appears – VOLUME UP.



- 3 Press ENTER to select VOLUME UP and initiate learning mode.



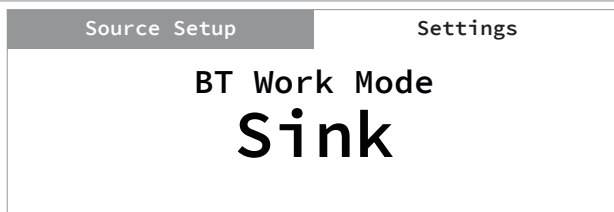
- 4 Direct or point the non-NAD remote control to the IR sensor in the front panel. Then, press desired button on the non-NAD remote control where VOLUME UP will be learned. Upon pressing the designated button, display will turn to "Learned".



- 5 "VOLUME UP" is now learned into the designated button. Repeat the same for the other codes to be learned. The same procedure applies for BLS learning.



**BT WORK MODE**



Bluetooth (BT) Work Mode defines the two roles of the C 388 as either a Bluetooth Sink or a Bluetooth Source.

**Sink:** Audio stream is received from a Source on the same Bluetooth network environment.

**Source:** Audio is streamed or sent to another device (Sink) on the same Bluetooth network environment.

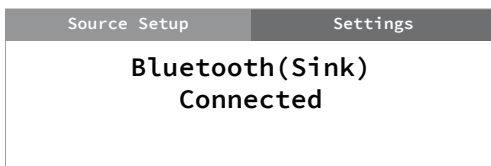
**C 388 AS A BLUETOOTH SINK**

Set "BT Work Mode" to "Sink". Initiate pairing of your Bluetooth device with C 388 by following below procedure.

- 1 Ensure that the Bluetooth antenna is connected to the BT antenna terminal at the rear panel.



- 2 Select "Bluetooth" as a Source. Display shows "Discoverable".
- 3 Using your iOS or Android device, go to Settings – Bluetooth and then scan for Bluetooth devices.
- 4 At "Discoverable" mode, the unique device ID of your C 388 is listed or selectable in the device list of your Bluetooth settings. Pair or connect your C 388 and Bluetooth device.
- 5 Upon successful pairing of your Bluetooth device and the C 388, display will change to "Connected" and then "Playing" when music is played from your Bluetooth device.



**NOTES ABOUT BLUETOOTH SINK SETTINGS**

- 1 If you turn OFF the Bluetooth connection (not "unpair" or disconnected) of your Bluetooth device, the display will change to "Connectable". When you turn ON again your Bluetooth device, the display remains "Connectable".

"Connectable" means only the same or current Bluetooth device can connect to your C 388. This prevents other Bluetooth devices from connecting to your C 388 unless current Bluetooth device is unpaired or disconnected.

- 2 From the device list of the current Bluetooth device, select again the unique device ID of your C 388 and connection will be resumed again (Connected) and playback can be resumed also.
- 3 For other devices to connect to your C 388 even if current Bluetooth device is not unpaired or disconnected, press and hold the [ENTER] button until the display changes from "Connectable" to "Discoverable". Any Bluetooth device can then select and connect/pair to the unique device ID of your C 388.

**IMPORTANT**

*There may be instances your Android or iOS Bluetooth device cannot be found anymore, cannot connect again or any other similar disconnection/connection incidences after "Unpair", "Disconnect" or "Forget Device". Resolve these kinds of occurrence by undertaking the following*

- *Press and hold [ENTER] button until the display changes from "Connectable" to "Discoverable". Your Bluetooth device and others should then be able to select and connect/pair to the unique device ID of your C 388.*

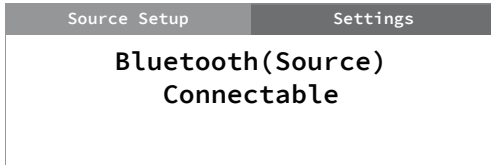
## OPERATION

### USING THE C 388

#### C 388 AS A BLUETOOTH SOURCE

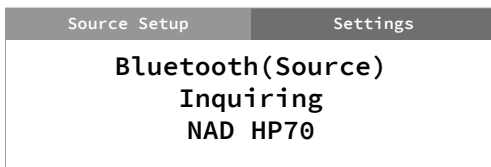
Set "BT Work Mode" to "Source". Ensure that the Bluetooth antenna is connected to the BT antenna terminal at the rear panel.

- 1 Select "Bluetooth" as a Source. Display could show any of the following

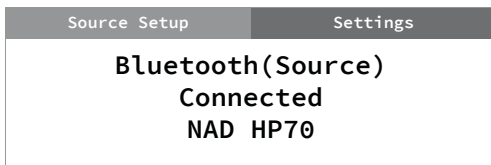


**Connectable/Discoverable:** C 388 is open to connect or pair with other Source devices within the same Bluetooth network environment. By default, no connectable or discoverable Bluetooth devices will be shown as the unit hasn't gone to "Inquiring" mode yet.

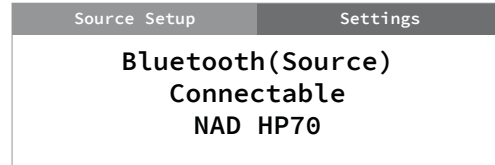
- 2 Press and hold ENTER button to set the unit to "Inquiring" mode. The unit searches for available Bluetooth devices within the same Bluetooth network environment.



- 3 Toggle < or > to select through available Bluetooth sources.
- 4 Connect to your preferred Bluetooth device by pressing ENTER again.



- 5 If you would like to disconnect from current Bluetooth device, press ENTER again. The unit will switch back to "Connectable..." mode with searchable/connectable Bluetooth devices now shown.



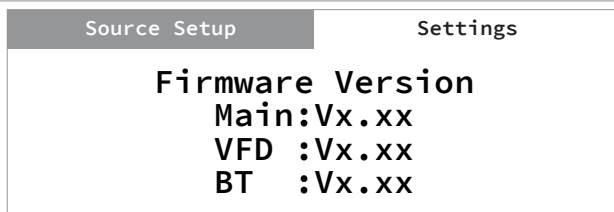
- 6 Repeat steps 3 and 4 above to select and connect to another Bluetooth device.
- 7 Having settled on a Bluetooth Source device, toggle < SOURCE > to select the source media you would like streamed to the connected Bluetooth device. For example, if you want to stream audio from LINE 1, select LINE 1 as the active source.

#### VOLUME DISPLAY MODE



Volume Display Mode gives the user two options on how to display Volume level. Use < or > to select between "Decibel" and "Percent" Volume level display mode.

**FIRMWARE VERSION**



Firmware version details of Main (MCU), VFD (display) and BT (Bluetooth) are displayed. "x.xx" above stands for the version number of the particular firmware item.

**FIRMWARE UPGRADE**



Select Firmware Upgrade to initiate VFD Upgrade or BT Upgrade. At each upgrade mode, select "Yes" to start upgrade process or "No" to retain current firmware.

**MDC CARD UPGRADE**



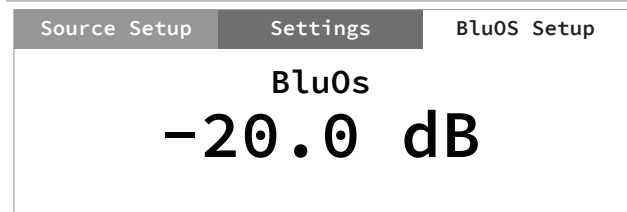
MDC CARD UPGRADE identifies and shows the MDC modules installed at the MDC slots in the rear panel.

A software upgrade of an installed MDC module like the DD USB 2.0 can be initiated via the MDC Card Upgrade menu. Upgrade the installed DD USB 2.0 by complying with the DD USB 2.0 software upgrade guideline that comes with the software upgrade file.

**NOTE**

*An installed MDC BluOS module cannot be upgraded in this menu. MDC BluOS module upgrade can be facilitated via the BluOS app or "BluOS Setup" menu.*

**BLUOS SETUP**



"BluOS Setup" becomes available as one of the Main menu items when an optional MDC BluOS module is installed in one of the MDC slots in the rear panel. The following are the BluOS Setup menu options.

**IMPORTANT NOTE**

*The BluOS Setup menu options can be configured only at BluOS source mode. With other sources, the BluOS Setup menu options can be viewed only but not configurable.*

**INFO**

Display MAC address, IP address, BluOS version and other related information about the installed MDC BluOS module.

**BluOS REBOOT**

- Yes:** Restart MDC BluOS module.
- No:** Maintain current settings.

**SERVICE MENU**

There are two options for Service Menu – BluOS Upgrade and BluOS Service.

**BluOS Upgrade**

- Ensure that the MDC BluOS is connected wired or wirelessly.
- Yes:** Initiate BluOS upgrade mode. Upgrade mode will proceed automatically.
- No:** Maintain current settings.

**BluOS Service**

- Use for servicing purposes only. This is a feature normally associated and coordinated with authorized service personnel.
- Yes:** Activate Service mode. This must be coordinated or performed by authorized service personnel.
- No:** Maintain current settings.

**BluOS RESET**

- Initiate the restoration of the MDC BluOS to its factory default settings.
- Yes:** Initiate factory reset.
- No:** Maintain current settings.

# REFERENCE

## 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.

### PREAMPLIFIER SECTION

#### LINE INPUT, PRE 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)
Channel separation	>80 dB (1 kHz) >70 dB (10 kHz)
Input impedance (R and C)	22 kohms + 100 pF
Maximum input signal	>4.5 Vrms (ref. 0.1 % THD)
Output impedance	Source Z + 240 ohms
Input sensitivity	93 mV (ref. 500 mV out, Volume maximum)
Frequency response	±0.3 dB (20 Hz - 20 kHz)
Maximum voltage output -IHF load	>4.5 V (ref. 0.1 % THD)
Tone controls	Treble: ±7.0 dB at 20 kHz Bass: ±7.0dB at 60 Hz Balance: -10dB

#### PHONO INPUT, PRE OUT

THD (20 Hz – 20 kHz)	<0.01 % at 2 V out
Signal-to-Noise Ratio	>84 dB (200 ohms source; A-weighted, ref. 500 mV out) >76 dB (MM cartridge source, IHF; A-weighted, ref. 500 mV out)
Input sensitivity	1.44 mV (ref. 500 mV out, Volume maximum)
Frequency response	±0.3 dB (20 Hz - 20 kHz)
Maximum input signal at 1kHz	>80 mVrms (ref. 0.1 % THD)

#### LINE INPUT, HEADPHONE OUT

THD (20 Hz – 20 kHz)	<0.005 % at 1V out
Signal-to-Noise Ratio	>110 dB (32 ohms loads; A-WTD, ref. 2V out, unity gain)
Frequency response	±0.3 dB (20 Hz - 20 kHz)
Channel separation	>60 dB at 1kHz
Output impedance	6 ohms

### GENERAL SPECIFICATIONS

#### LINE IN, SPEAKER OUT

Continuous output power into 8 ohms and 4 ohms	150W (ref. 20 Hz-20 kHz at rated THD, both channels driven)
THD (20 Hz – 20 kHz)	<0.02 % (250 mW to 150 W, 8 ohms and 4 ohms)
Signal-to-Noise Ratio	>95 dB (A-weighted, 500 mV input, ref. 1 W out in 8 ohms)
Clipping power	>160 W (at 1 kHz 0.1 % THD)
IHF dynamic power	8 ohms: 250 W 4 ohms: 350 W 2 ohms: 400 W
Peak output current	>20 A (in 1 ohm, 1 ms)
Damping factor	>150 (ref. 8 ohms, 20Hz to 6.5kHz)
Frequency response	±0.3 dB (20 Hz - 20 kHz)
Channel separation	>75 dB (1 kHz) >70 dB (10 kHz)
Input sensitivity (for 150 W in 8 ohms)	Line In: 490 mV Phono In: 7.5 mV Digital In: 24% FS
Supports bit rate/sample rate	up to 24 bit/192 kHz
Standby power	<0.5 W
Frequency band	2.402G- 2.480G
Maximum transmit power(dBm)	7 dBm ± 2 dBm

#### DIMENSION AND WEIGHT

Gross dimensions (W x H x D)	435 x 120 x 390 mm 17 1/8 x 4 3/4 x 15 3/8 inches
Net weight	11.2 kg (24.7 lbs)
Shipping weight	13.6 kg (30 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](http://www.NADelectronics.com) for the latest information about C 388.





[www.NADelectronics.com](http://www.NADelectronics.com)

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