



# C 165BEE

Stereo Preamplifier

ENGLISH




Owner's Manual

# IMPORTANT SAFETY INSTRUCTIONS

## SAVE THESE INSTRUCTIONS FOR LATER USE.

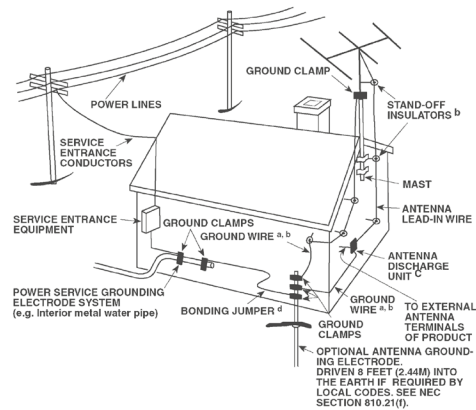
### FOLLOW ALL WARNINGS AND INSTRUCTIONS MARKED ON THE AUDIO EQUIPMENT.

- 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.
-  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 and to ensure reliable operation of the product and to protect it from overheating, and 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. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.  
The primary method of isolating the amplifier from the mains supply is to disconnect the mains plug. Ensure that the mains plug remains accessible at all times. Unplug the AC power cord from the AC outlet if the unit will not be used for several months or more.
- 12 Grounding or Polarization** - This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- 13 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.

- 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 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.

**WARNING: THE APPARATUS SHOULD NOT BE EXPOSED TO DRIPPING OR SPLASHING, AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THE APPARATUS. AS WITH ANY ELECTRONIC PRODUCTS, USE CARE NOT TO SPILL LIQUIDS INTO ANY PART OF THE SYSTEM. LIQUIDS CAN CAUSE A FAILURE AND/OR A FIRE HAZARD.**

**19 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.

**20 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.

**21 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.

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

**23 Heat** - The product should be situated away from heat sources such as radiators, heat registers, stoves or other products (including amplifiers) that produce heat.

**WARNING**

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

**CAUTION**

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.



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 MAYBE 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 draws its nominal non-operational power from the AC outlet with its POWER switch in the STANDBY position. The socket-outlet shall be installed near the apparatus and shall be easily accessible.

**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 REGARDING PLACEMENT**

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

- Left and Right Panels: 10 cm
- Rear Panel: 10 cm
- Top Panel: 50 cm

# IMPORTANT SAFETY INSTRUCTIONS

## NOTES ON ENVIRONMENTAL PROTECTION



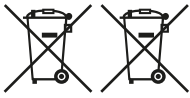
At the end of its useful life, this product must not be disposed of with regular household waste but must be returned to a collection point for the recycling of electrical and electronic equipment. The symbol on the product, user's manual and packaging, point this out.

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.

## INFORMATION ABOUT COLLECTION AND DISPOSAL OF WASTE BATTERIES (DIRECTIVE 2006/66/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF EUROPEAN UNION) (FOR EUROPEAN CUSTOMERS ONLY)



**Pb**



**Hg**

**Cd**

Batteries bearing any of these symbols indicate that they should be treated as "separate collection" and not as municipal waste. It is encouraged that necessary measures are implemented to maximize the separate collection of waste batteries and to minimize the disposal of batteries as mixed municipal waste.

End-users are exhorted not to dispose waste batteries as unsorted municipal waste. In order to

achieve a high level of recycling waste batteries, discard waste batteries separately and properly through an accessible collection point in your vicinity. For more information about collection and recycling of waste batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

By ensuring compliance and conformance to proper disposal of waste batteries, potential hazardous effects on human health is prevented and the negative impact of batteries and waste batteries on the environment is minimized, thus contributing to the protection, preservation and quality improvement of the environment.

**NOTE: THE C 165BEE IS NOT AN AUTO VOLTAGE UNIT. CONNECT ONLY TO THE PRESCRIBED AC OUTLET, I.E., 120V 60HZ OR 230V 50HZ.**

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

The model and serial number of your new C 165BEE are located on the back of the cabinet. For your future convenience, we suggest that you record these numbers here:

Model no.: .....

Serial no.: .....

### UNPACKING AND SETUP

#### WHAT'S IN THE BOX

Packed with your C 165BEE you will find:

- The SR 8 remote control with 2 (two) AA batteries
- This owner's manual
- A detachable AC power cord

#### SAVE THE PACKAGING

Please save the box and all of the packaging in which your C 165BEE arrived. Should you move or otherwise need to transport your C 165BEE, this is by far 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 23 feet/7 meters, between the C 165BEE's front panel and your primary listening/viewing position. This will ensure reliable infrared remote control communications. The C 165BEE generates a modest amount of heat, but nothing that should trouble adjacent components. It is perfectly possible to stack the C 165BEE atop other components, but the reverse usually should be avoided.

#### NOTES ON INSTALLATION

Your NAD C 165BEE should be placed on a firm, level surface. Avoid placing the unit in direct sunlight or near sources of heat and damp. Allow adequate ventilation. Do not place the unit on a soft surface like a carpet. Do not place it in an enclosed position such a bookcase or cabinet that may impede the air-flow through the ventilation slots. Make sure the unit is switched off before making any connections.

The RCA sockets on your NAD C 165BEE are colour coded for convenience. Red and white are Right and Left audio respectively. Use high quality leads and sockets for optimum performance and reliability. Ensure that leads and sockets are not damaged in any way and all sockets are firmly pushed home.

If the unit is not going to be used for some time, disconnect the plug from the AC socket.

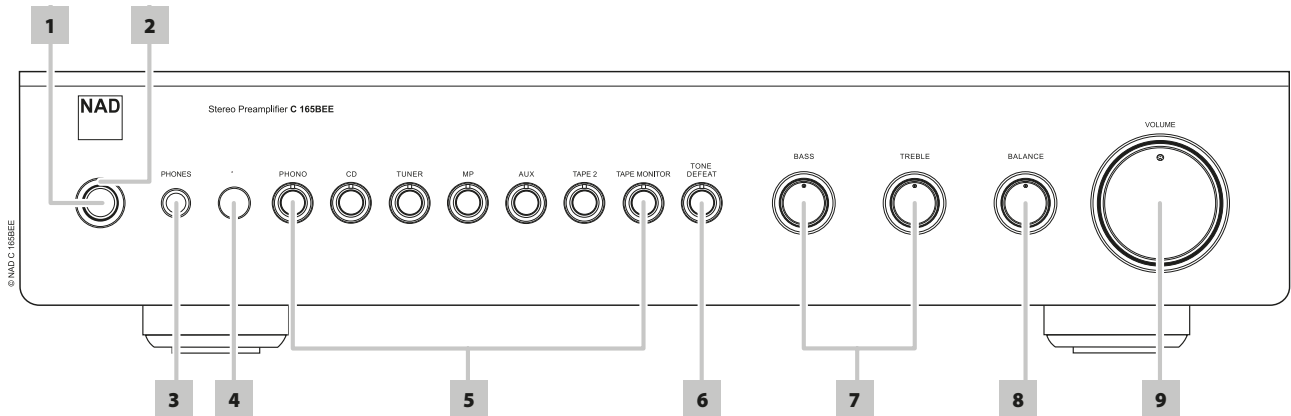
Should water get into your NAD C 165BEE, shut off the power to the unit and remove the plug from the AC socket. Have the unit inspected by a qualified service technician before attempting to use it again.

#### **DO NOT REMOVE THE COVER; THERE ARE NO USER-SERVICEABLE PARTS INSIDE.**

Use a dry soft cloth to clean the unit. If necessary, lightly dampen the cloth with soapy water. Do not use solutions containing benzol or other volatile agents.

# IDENTIFICATION OF CONTROLS

## FRONT PANEL



**1 STANDBY BUTTON:** With the rear panel POWER switch set to ON position, press this button to switch ON the C 165BEE from standby mode. The Standby LED indicator will turn from amber to blue. Pressing the STANDBY button again turns the unit back to standby mode. The C 165BEE can also be switched ON from standby mode by pressing any of the front panel buttons.

### AUTO STANDBY (FOR 230V VERSION MODEL ONLY)

Auto Standby feature is an integral feature of C 165BEE that conforms to European ecodesign regulations. The C 165BEE can be setup to automatically go to standby mode if there is no user interface interaction and no active source input within 30 minutes. Auto standby mode can be enabled or disabled by the following steps.

#### Enable Auto Standby mode

At operating mode, press and hold together STANDBY and MP buttons until Standby LED flashes once.

#### Disable Auto Standby mode

At operating mode, press and hold together STANDBY and MP buttons until Standby LED flashes twice.

**2 STANDBY LED:** This indicator will light up amber when the C 165BEE is in standby state. When the C 165BEE is at ON state, this indicator will illuminate blue. When infrared command from the SR 8 is received, this indicator will also flash momentarily.

**3 PHONES:** A 1/4" stereo jack socket is supplied for headphone listening and will work with conventional headphones of any impedance. Inserting a headphone jack into this socket automatically switches off the output at PRE OUT 1 and PRE OUT 2 in the rear panel. 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.

### NOTE

*Make certain that the volume control is turned to minimum (fully counterclockwise) before connecting or disconnecting headphones. Listening at high levels can damage your hearing.*

**4 REMOTE SENSOR:** Point the SR 8 remote control at the remote sensor and press the buttons. Do not expose the remote sensor of the C 165BEE to a strong light source such as direct sunlight or illumination. If you do so, you may not be able to operate the C 165BEE 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.

**5 INPUT SELECTORS:** These buttons select the active input to the NAD C 165BEE. The buttons on the remote control handset duplicate these

buttons. When selected, the corresponding input LED indicator embedded around the bezel of the particular input button will illuminate blue.

**PHONO:** Selects as the active input the turntable connected to either the PHONO MM or MC sockets.

**CD:** Selects the CD (or other line-level source) connected to the CD sockets as the active input.

**TUNER:** Selects the tuner (or other line-level source) connected to the tuner sockets as the active input.

**MP (MEDIA PLAYER):** Selects a line-level source connected to the MP sockets as the active input.

**AUX:** Selects a line-level source connected to the AUX sockets as the active input.

**TAPE 2:** Selects Tape 2 as the active input.

**TAPE Monitor:** Selects the output from a tape recorder when playing back tapes or monitor recordings that are being made through the Tape Monitor sockets.

TAPE MONITOR does not override the current input selection. For example, if CD is the active input when TAPE Monitor is selected, then the CD signal will continue to be selected and sent to both the TAPE 2 and TAPE Monitor OUTPUT sockets, but it is the sound from recorder connected to Tape Monitor that will be heard on the loudspeakers. Apart from the TAPE MONITOR LED illuminated to indicate it is engaged, the corresponding LED indicator for the active input will also stay illuminated.

**6 TONE DEFEAT:** Tone Controls are enabled or disabled by pressing this button. When enabled (TONE DEFEAT LED indicator is illuminated), the Tone Control circuits are bypassed. The Tone Control circuits are active when the TONE DEFEAT LED indicator stays extinguished.

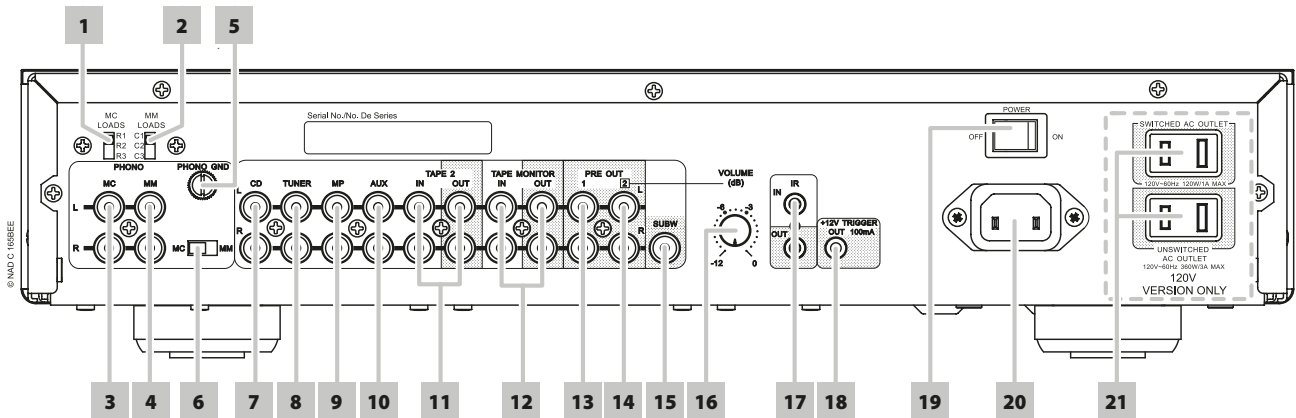
**7 TONE CONTROLS:** The NAD C 165BEE is fitted with BASS and TREBLE tone controls to adjust the tonal balance of your system. The 12 o'clock position is "flat" with no boost or cut, and an indent indicates this position. Rotate the control clockwise to increase the amount of Bass or Treble. Rotate the control counterclockwise to decrease the amount of Bass or Treble. The Tone controls do not affect recordings made using the Tape output but will affect the signal going to the Pre-amp output (PRE OUT).

**8 BALANCE:** The BALANCE control adjusts the relative levels of the left and right channels. The 12 o'clock position provides equal level to the left and right channels. A detent indicates this position. Rotating the control clockwise moves the balance towards the right. Rotating the control counterclockwise moves the balance to the left. The BALANCE control does not affect recordings made using the Tape output but will affect the signal going to the Pre-amp output (PRE OUT).

**9 VOLUME:** The VOLUME control adjusts the overall loudness of the signals being fed to PRE OUT 1, PRE OUT 2 or headphones. Turn clockwise to increase the volume setting; counter clockwise to lower it. The VOLUME control does not affect recordings made using the Tape output but will affect the signal going to the Pre-amp output (PRE OUT).

# IDENTIFICATION OF CONTROLS

## REAR PANEL



### ATTENTION!

Please make sure that the C 165BEE is powered off or unplugged 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 MC LOADS (R1, R2, R3):** If you are using a Moving Coil (MC) cartridge, set this switch to a resistive load that closely approximates the value specified in the MC cartridge (this is usually specified in the MC cartridge). In general, use the lowest resistance for low output cartridges and high resistance for medium output cartridges. For very high output models up to 1 mV/cm/sec and internal resistance as high as 200 ohms, use the low or medium input resistance as you may otherwise run into overload.

The resistive values are R1= 600 ohms, R2= 100 ohms and R3=40 ohms.

**2 MM LOADS (C1, C2, C3):** If you are using a Moving Magnet (MM) cartridge, this switch selects the input capacitance of the phono preamplifier. It enables you to optimise the load capacitance for those cartridges whose frequency response is affected by this parameter.

The selectable capacitance values are C1=220 pF, C2=330 pF and C3=400 pF.

In order to select the best value of preamplifier input capacitance, you must first determine the total capacitance recommended for the MM cartridge. This is usually included in the maker's specifications.

Next, subtract the capacitance of your turntable's tonearm wiring signal cables. (Check the specifications supplied with the tonearm; generally, the cables has capacitance of 100-200 pF) After this subtraction, what remains is the desired value of preamplifier input capacitance. Set the MM LOAD switch to the nearest value. It is not necessary to match the computed value exactly; with most phono pickups, a variation of 50pF one way or the other will produce only a very slight change in frequency response.

**For example:** Suppose a MM cartridge in a turntable has a recommended load capacitance of 275 pF and a cable capacitance of about 100 pF. By computation, the required preamplifier input capacitance is 175 pF. Set the MM LOAD switch to C1.

You may also set the MM LOAD switch by ear while listening to recordings that are strong in high frequency overtones. Typically, when the capacitance is too low, the upper midrange (the soprano voice range) will be softened and the response at the highest frequency will be peaky, leading to edgy violin tone and increased surface noise. Too high a value of capacitance will bring the upper midrange forward while rolling off the extreme highs.

**3 MC INPUT:** Input for a Moving Coil phono cartridge. Connect the twin RCA lead from your turntable to this input if you are using a Moving Coil cartridge.

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

**5 PHONO GROUND CONNECTOR:** Turntables normally includes a single wire earth lead. Use the C 165BEE phono ground connector to connect this lead. Unscrew the terminal to expose the hole, which will accept the lead. After insertion, tighten the terminal to secure the lead.

**6 MC-MM SWITCH:** Slide this switch to either MM (Moving Magnet) or MC (Moving Coil) depending upon the phono cartridge being used.

**7 CD INPUT:** Input for a CD or other line-level signal source. Use a twin RCA-to-RCA lead to connect the CD player's left and right "Audio Outputs" to this input.

**8 TUNER INPUT:** Input for a tuner or other line-level signal source. Use a twin RCA-to-RCA lead to connect the tuner left and right "Audio Outputs" to this input.

**9 MP INPUT:** Input for a Media Player or other line-level signal source. Use a twin RCA-to-RCA lead to connect the Media Player's left and right "Audio Outputs" to this input.

**10 AUX INPUT:** Input for additional line level input signals such as another CD player. Use a twin RCA-to-RCA lead to connect the auxiliary unit's left and right "Audio Outputs" to this input.

**11 TAPE 2 IN/OUT:** Connections for analog recording and playback to an audio tape recorder of any type. Using twin RCA-to-RCA leads, connect to the left and right "Audio Output" of the tape machine to the TAPE 2 IN sockets for playback. Connect the left and right "Audio Input" of the tape machine to the TAPE 2 OUT sockets for recording.

# IDENTIFICATION OF CONTROLS

## REAR PANEL

**12 TAPE MONITOR IN/OUT:** Connections for analog recording and playback to a secondary audio tape recorder of any type. Using twin RCA-to-RCA leads, connect to the left and right "Audio Output" of the tape machine to the TAPE MONITOR IN sockets for playback and tape monitoring. Connect the left and right "Audio Input" of the tape machine to the TAPE MONITOR OUT sockets for recording.

### TO MAKE A RECORDING

When any source is selected, its signal is also fed directly to any tape machine connected to the TAPE 2 OUT or TAPE MONITOR OUT for recording.

### TAPE TO TAPE COPYING

You can copy between two tape machines connected to your NAD C 165BEE. Put the source tape in the recorder connected to Tape 2 and the blank tape into the recorder connected to Tape Monitor. By selecting TAPE 2 input you can now record from Tape 2 to Tape Monitor and monitor the signal coming from the original tape.

### NOTE

*There will be no Tape 2 output when Tape 2 (or Tape Monitor OUT when Tape Monitor) is the selected source input. This prevents feedback through the recording component thereby preventing possible damage to your speakers.*

**13 PRE OUT 1:** Connections to an external power amplifier or processor, such as a surround-sound decoder. Use a twin RCA-to-RCA lead to connect the left and right "Audio Input" of a power amplifier or processor to the PRE OUT 1 sockets.

Always turn the C 165BEE and associated external power amplifiers OFF before connecting or disconnecting anything to the PRE OUT 1 sockets. The PRE OUT 1 output signal will be affected by the C 165BEE's volume and tone control settings.

**14 PRE OUT 2:** The PRE OUT 2 sockets can be used to drive an additional power amplifier. Use a twin RCA-to-RCA lead to connect to the left and right "Audio Input" of the Power amplifier or processor to the PRE OUT 2 sockets. The rear panel VOLUME can be used to reduce PRE OUT 2 output level by up to -12 dB. With the rear panel VOLUME set to the maximum position (0 dB position), the PRE OUT 2 output level will be identical to that of the PRE OUT 1 sockets.

Use a twin RCA-to-RCA lead to connect the left and right "Audio Input" of a power amplifier or processor to the PRE OUT 2 sockets. Always turn the C 165BEE and associated external power amplifiers OFF before connecting or disconnecting anything to the PRE OUT 2 sockets. The PRE OUT 2 output signal will be affected by the C 165BEE's volume and tone control settings.

**15 SUBW:** Connect to a powered ("active") subwoofer or to power amplifier channels driving a passive system.

**16 VOLUME:** The rear-panel VOLUME control allows for adjustment of the output level of the PRE OUT 2 sockets. Turn clockwise to increase the PRE OUT 2 volume setting; counter clockwise to lower it. When set to the maximum position, the output level will be identical to that of the PRE OUT 1 sockets. Refer also the item below about "Bi-Amping".

### BI-AMPING

Some loudspeakers have separate connection terminals for the LF (Low Frequency) and HF (High Frequency) sections of the speaker. This facility allows to "Bi-Amp" these speakers, where a separate power amplifier is used for the LF and HF section, which may improve overall sound quality.

The C 165BEE provides two sets of preamplifier outputs (PRE OUT 1 and PRE OUT 2) to facilitate the connections for Bi-Amping. Moreover, the level from PRE OUT 2 can be reduced in relation to PRE OUT 1 to accommodate power amplifiers with different gain (amplification factor).

To set up the C 165BEE with power amplifiers first decide which power amplifier has the highest gain. This is easily done by comparing the loudness level of the power amplifiers in an identical system (keep the volume control at the same level; use the same source and speakers). The amplifier that plays louder has the highest gain (note that this does not need to be the more powerful amplifier of the two). Connect the amplifier with highest gain to the PRE OUT 2 sockets; the other power amplifier to the PRE OUT 1 sockets. From the maximum level position, use the rear panel VOLUME control to reduce the output level of PRE OUT 2 so that the volume level of both power amplifiers is exactly matched.

**17 IR IN/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.

**IR IN:** This input is connected to the output of an IR (infrared) repeater (Xantech or similar) or the IR output of another component to allow control of the C 165BEE from a remote location.

**IR OUT:** When connected to the IR IN of an ancillary equipment, direct the ancillary equipment's own remote control to the C 165BEE's infrared receiver to command or control the linked unit.

All NAD products with IR IN/IR OUT features are fully compatible with the C 165BEE. For non-NAD models, please check with your other product's service specialists as to their compatibility with the C 165BEE's IR features.

**18 +12V TRIGGER OUT:** The +12V TRIGGER OUT is used for controlling external equipment that is equipped with a +12V trigger input. This output will be 12V when the C 165BEE is ON and 0V when the unit is either OFF or in standby. This output can drive a load up to 50mA at 12V.



**19 POWER SWITCH:** The POWER switch supplies the master AC mains power for the C 165BEE. When this switch is at ON position, the C 165BEE is in standby mode as shown by the amber status condition of the standby LED. Toggle the front panel's STANDBY button to switch ON the C 165BEE or back to standby mode. If you intend not to use the C 165BEE for long periods of time (such as when on vacation), switch the POWER switch to the OFF position. When the POWER switch is at OFF position, the front panel STANDBY button or SR 8 remote control cannot activate the C 165BEE.

**20 AC MAINS INPUT:** The C 165BEE comes supplied with a separate AC Mains cable. Before connecting the cable to a live wall socket, ensure that it is firmly connected to the C 165BEE's AC Mains input socket first. Connect only to the prescribed AC Outlet, i.e., 120V 60 Hz or 230V 50 Hz. Always disconnect the AC Mains cable plug from the live wall socket first, before disconnecting the cable from the C 165BEE's Mains input socket.

**21 SWITCHED AC OUTLET (120V version only):** This convenience outlet can supply switched power to another component or accessory. With the Power switch at the rear panel set to ON position, this outlet is powered ON or OFF by the front panel STANDBY button or by the SR 8's [ON/OFF] buttons. The total draw of all devices connected to this outlet must not exceed 120 watts.

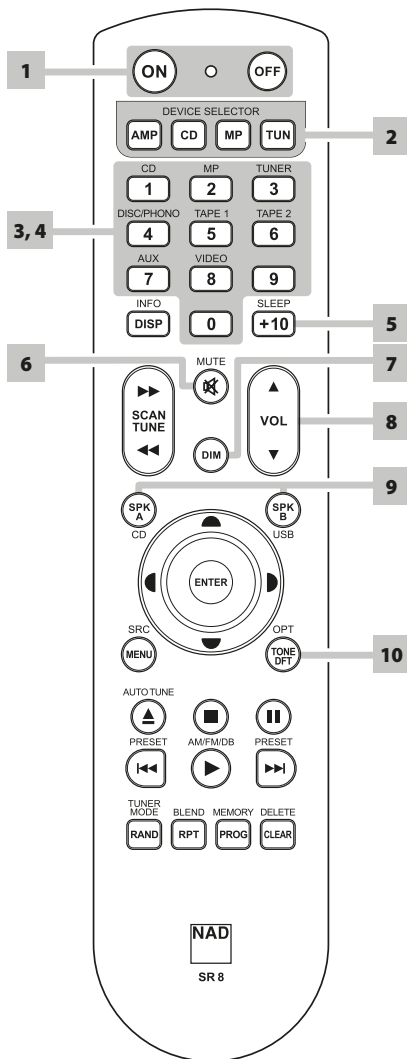
**UNSWITCHED AC OUTLETS (120V version only):** Mains power is always available at this outlet as long as the AC cord is connected to AC Main input and plugged in to a live AC wall outlet. This outlet can be used for components which may require continuous supply of AC mains; some tuners require uninterrupted mains supply to retain preset memory, for instance. The total draw of all devices connected to this outlet must not exceed 360 watts.

### NOTE

*Never connect the mains lead of a power amplifier to either the SWITCHED or UNSWITCHED outlets.*

# IDENTIFICATION OF CONTROLS

## SR 8 REMOTE CONTROL



### USING THE SR 8 REMOTE CONTROL

The SR 8 remote control handset handles the key functions of the C 165BEE 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.

When a command from the remote control is received, the Standby LED indicator will blink. Note that the indicator may also blink when receiving commands not necessarily for the C 165BEE but for other components in the system. Please refer to previous sections of the manual for a full description of individual functions.

#### NOTE

*The remote control handset supplied with the C 165BEE 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 8 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 8 will command; it does not perform any function on the C 165BEE. 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 8 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. The input selector buttons perform the same functions as the buttons labeled the same on the front panel. Note that the VIDEO input selector is inoperative when used with the C 165BEE.
- 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.
- 6 MUTE:** Press the [MUTE] button to temporarily switch OFF the sound to the speakers (applicable to NAD Integrated Amplifiers and Receivers; not applicable to the C 165BEE) and headphones. MUTE mode is indicated by the Standby LED indicator flashing for NAD Integrated Amplifiers and Preamplifiers or "Mute" shown in the VFD of NAD Receivers. Mute does not affect recordings made using the TAPE output but will affect the signal going to the PRE OUT output. Press MUTE again to restore sound.
- 7 DIM (for use with NAD Stereo Receiver, Tuner and CD Player):** Reduce, turn off or restore VFD brightness. Depending on the NAD model, the brightness of the front panel display will vary when you toggle this button.

# IDENTIFICATION OF CONTROLS

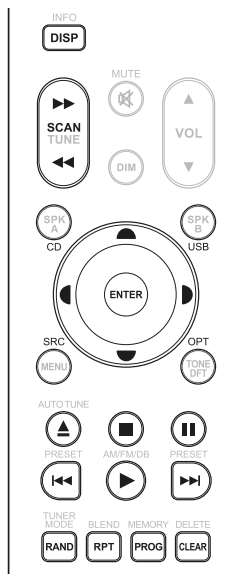
## SR 8 REMOTE CONTROL

**8 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 8's. The VOLUME buttons do not affect recordings made using the TAPE output but will affect the signal going to the PRE OUT output.

**9 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. Press both buttons to engage both speakers. These buttons are compatible only with specific NAD Receiver or Integrated Amplifier models and do not apply to the C 165BEE.

**10 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.

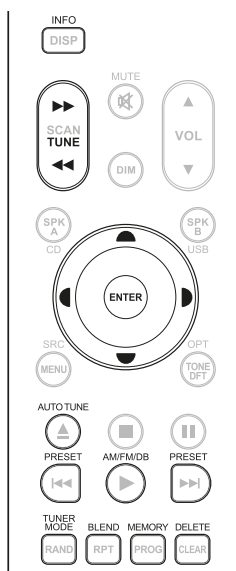
**CD:** Select CD as the active source.

**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/DB:** 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.

# REFERENCE

## TROUBLESHOOTING

CONDITION	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
<b>No sound.</b>	• Power AC lead unplugged or power not switched ON.	• Check if AC lead is plugged in and power switched ON.
	• Tape Monitor selected.	• De-select Tape Monitor mode.
	• Mute on.	• Switch off Mute.
<b>No sound one channel.</b>	• Balance control not centered.	• Center Balance control.
	• RCA lead to power amplifier not properly connected or damaged.	• Check leads and connections.
	• Input lead disconnected or damaged.	• Check leads and connections.
<b>No sound from Subwoofer.</b>	• Subwoofer is off, not powered or improperly connected.	• Power-up subwoofer, check subwoofer's AC outlet or check connections.
<b>Remote control handset not working.</b>	• Battery flat or incorrectly inserted.	• Check or replace battery.
	• IR transmitter or receiver windows obstructed.	• Remove obstruction.
	• IR receiver in direct sun or very bright ambient light.	• Place unit away from direct sun, reduce amount of ambient light.
<b>PHONO section problems only.</b>	• No signal.	• Check if MC-MM switch is set to the correct input.
	• Hum on phono input.	• Check if phono earth lead is connected to the PHONO GROUND connector.
	• Weak or distorted signal.	• Check if the turntable is connected to the correct C 165BEE MM or MC phono input.

**OVERALL SPECIFICATIONS**

**LINE LEVEL INPUT**

Input impedance (R and C)	100 k $\Omega$ + 320 pF
Input sensitivity	158 mV (ref. 500 mV out)
Maximum input signal	>9 V
Signal/Noise ratio, A-weighted	>108 dB (ref. 500 mV in 500 mV out, volume set to unity gain) >106 dB (ref. 2V out, Volume maximum)
Channel Separation	>80 dB (ref. 1 kHz/10 kHz)
Frequency response	$\pm$ 0.1 dB (ref. 20 Hz - 20 kHz, Tone defeat ON) $\pm$ 0.5 dB (ref. 20 Hz - 20 kHz, Tone defeat OFF)
Frequency response (subwoofer out)	100 Hz (ref. -3 dB)

**OUTPUT**

Output impedance - Pre out	75 $\Omega$
Tape out	Source Z + 440 $\Omega$
Sub out	100 $\Omega$
Headphones	10 $\Omega$
Maximum output level - Pre out	>10 V into 600 $\Omega$
Tape out	>10 V into 10 k $\Omega$ load
Sub out	>7 V into 1 k $\Omega$ load
Headphones	>5 V into 600 $\Omega$ >2 V into 32 $\Omega$
THD (CCIF IMD, DIM 100)	>0.001 % (ref. 20 Hz – 20 kHz, 2V out)

**TONE CONTROLS**

Treble	$\pm$ 5 dB at 10 kHz (ref. 2V in 500 mV out)
Bass	$\pm$ 5 dB at 100 Hz (ref. 2V in 500 mV out)

**POWER CONSUMPTION**

Normal operation	21 W
Standby mode	<0.8 W

**PHONO INPUT**

Input impedance - MC	40,100,600 $\Omega$ (R) 1 nF (C)
MM	47 k $\Omega$ (R) 220,300,400 pF (C)
Input sensitivity - MC	0.15 mV (ref. 1 kHz 500 mV out)
MM	2.63 mV (ref. 1 kHz 500 mV out)
Input overload - MC	1 mV/10 mV/100 mV (20 Hz/1 kHz/20 kHz)
MM	16 mV/147mV/1.4V (20 Hz/1 kHz/20 kHz)
Gain - MC in - Tape out	59.8 dB <sup>1</sup> (ref. 1 kHz, 10 k $\Omega$ load)
MM in - Tape out	36.5 dB (ref. 1 kHz, 10 k $\Omega$ load)
THD (CCIF IMD, DIM 100)	<0.009 % (ref. 20 Hz – 20 kHz, 5 Vrms Tape out)
Signal/Noise ratio, IHF A-weighted - MC	>78 dB <sup>2</sup> (ref. 0.5 mV)
MM	>86 dB <sup>3</sup> (ref. 0.5 mV)
RIAA response accuracy	$\pm$ 0.5 dB (ref. 20 Hz – 50 Hz) $\pm$ 0.3 dB (ref. 50 Hz – 20 kHz)
Infrasonic filter	10 Hz (at -3 dB) 5 Hz (at -14 dB)
Channel Separation - MC	>60 dB (ref. 1 kHz/10 kHz)
MM	>60 dB (ref. 1 kHz/10 kHz)

**DIMENSION AND WEIGHT**

Dimensions (W x H x D)	435 x 80 x 286 mm (Net) 435 x 99 x 315 mm (Gross <sup>4</sup> )
Net weight	6 kg
Shipping weight	7.8 kg

**LEGEND:**

- <sup>1</sup> Measured with 30  $\Omega$  generator impedance, MC input resistance set to 600  $\Omega$ .
- <sup>2</sup> Measured with 10  $\Omega$  input termination.
- <sup>3</sup> Measured with MM cartridge connected (600mH+ 600  $\Omega$ )
- <sup>4</sup> Gross dimensions include feet, volume control and extended rear panel terminals.

Specifications are subject to change without prior notice. For updated documentation and features, please log onto [www.NADelectronics.com](http://www.NADelectronics.com) for the latest information about C 165BEE.



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