



C 356BEE

Stereo Integrated Amplifier

ENGLISH



Owner's Manual

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS FOR LATER USE.

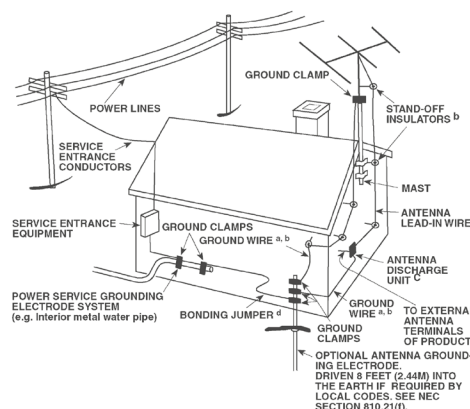
FOLLOW ALL WARNINGS AND INSTRUCTIONS MARKED ON THE AUDIO EQUIPMENT.

- 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. Clean only with a dry cloth.
- 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**  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.

24 Headphones - Excessive sound pressure from earphones and headphones can cause hearing loss.

25 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. Batteries (battery pack or batteries installed) must not be exposed to excessive heat such as sunshine, fire or the like.

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.



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: 10 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

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.



Hg

Cd

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 356BEE 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 356BEE 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 356BEE you will find:

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

SAVE THE PACKAGING

Please save the box and all of the packaging in which your C 356BEE arrived. Should you move or otherwise need to transport your C 356BEE, 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 356BEE's front panel and your primary listening/viewing position. This will ensure reliable infrared remote control communications. The C 356BEE generates a modest amount of heat, but nothing that should trouble adjacent components. It is perfectly possible to stack the C 356BEE atop other components, but the reverse usually should be avoided.

It is especially important that sufficient ventilation be provided. If you are contemplating locating the C 356BEE within a cabinet or other furniture, consult your NAD audio/video specialist for advice on providing adequate airflow.

NOTES ON INSTALLATION

Your C 356BEE 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 airflow through the ventilation slots. Make sure the unit is switched off before making any connections.

The RCA sockets on your C 356BEE 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.

For best performance, use quality speaker leads of 16 gauge (1.5mm²) thickness or more. Switch off the POWER switch if you intend not to use the C 356BEE for long periods of time (such as when on vacation).

Should water get into your C 356BEE, shut off the power to the unit and disconnect the plug from the mains power source. 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. Do not use solutions containing benzol or other volatile agents.

BARE WIRES AND PIN CONNECTORS



WARNING: The terminals marked with this symbol are hazardous live. External wiring connected to these terminals requires installation by an instructed person or the use of ready-made leads or cords.

Bare wires and pin connectors should be inserted into the hole in the shaft of the terminal. Unscrew the speaker terminal's plastic bushing until the hole in the screw shaft is revealed. Insert the pin or bare cable end into the hole and secure the cable by tightening down the terminal's bushing. Ensure bare wire from the speaker cables does not touch the back panel or another socket. Ensure that there is only ½ inch (1cm) of bare cable or pin and no loose strands of speaker wires.

QUICK START

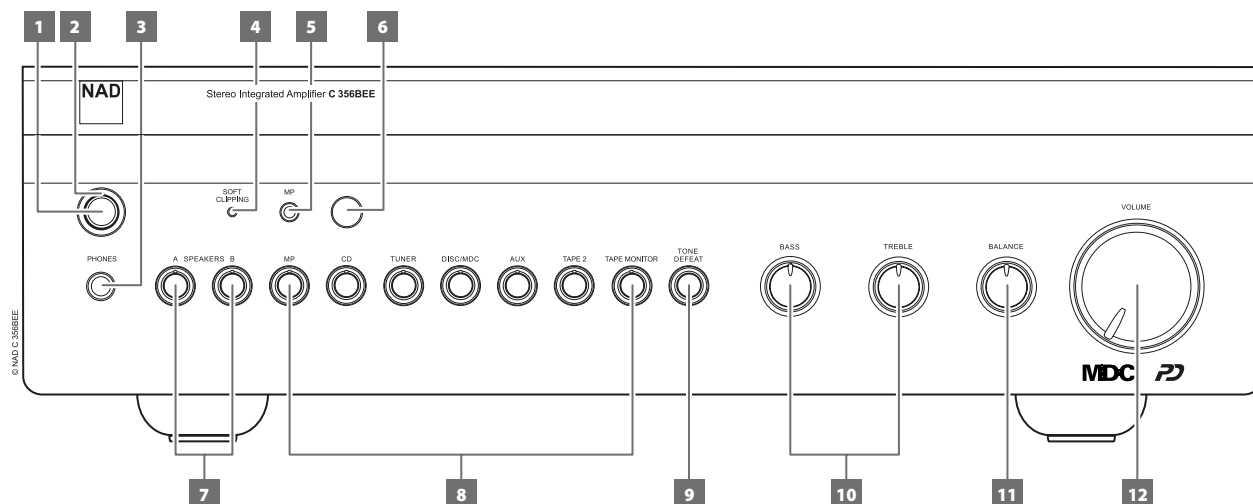
In case you simply cannot wait to experience the performance of your new C 356BEE, we provide the following "QUICK START" instructions to get you underway.

Please make all the connections to your C 356BEE with the unit unplugged from the mains power source. It is also advisable to power down or unplug all associated components while making or breaking any signal or AC power connections.

- 1 Connect your speakers to the LEFT and RIGHT speaker terminals and input sources to the applicable rear panel input sockets.
- 2 Connect the mains power cord to the C 356BEE's AC Mains input and then plug into a mains power source.
- 3 Set the rear panel POWER switch to the "ON" setting. The Standby LED indicator embedded around the bezel of the STANDBY button will illuminate amber and the C 356BEE goes to standby mode.
- 4 Press the front panel STANDBY button to turn ON the C 356BEE. The Standby LED indicator will turn from amber to blue.
- 5 Select preferred active Source input by pressing the corresponding front panel input selector button.

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 356BEE 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 356BEE 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 356BEE that conforms to European ecodesign regulations. The C 356BEE 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 356BEE is at standby mode. When the C 356BEE is powered up from standby mode, this indicator will illuminate blue. When infrared command from the SR 8 is received, this indicator will also flash momentarily.

In cases of serious abuse of the C 356BEE, such as excessively low loudspeaker impedance and short circuit, the C 356BEE will engage its Protection circuitry, indicated by the Standby LED turning from blue to red and the sound being muted.

In such a case, turn OFF the C 356BEE via the rear panel POWER switch. Wait for it to cool down and/or check the speaker connections. Once the cause for the protection circuitry to engage has been removed, set the rear panel POWER switch to the "ON" setting. Then press the front panel STANDBY button to resume normal operation.

- 3 PHONES:** A 1/4" stereo jack socket is supplied for headphone listening and will work with conventional headphones of any impedance. The headphone socket will work in parallel with the selected speakers. To listen to headphones only, de-select SPEAKERS A and/or B. 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 SOFT CLIPPING INDICATOR:** This indicator is illuminated blue if the rear panel SOFT CLIPPING switch is set to ON position. Refer also to the item below about SOFT CLIPPING at the IDENTIFICATION OF CONTROLS – REAR PANEL.
- 5 MP SOCKET:** Using a 3.5mm stereo plug, connect into this socket the audio output of a Media Player.

NOTES

- If an external Media Player is connected to the front MP socket (using a 3.5mm stereo plug) while listening to a MP line-level source, the external Media Player will be directly selected with the MP line-level source immediately disconnected.*
 - It is recommended to mute the volume or switch to a different input before plugging/unplugging the external Media Player cable.*
- 6 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 356BEE to a strong light source such as direct sunlight or illumination. If you do so, you may not be able to operate the C 356BEE with the remote control.

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

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

7 SPEAKERS A, B: The SPEAKERS A and B buttons engage or disengage the speakers connected respectively to the SPEAKERS A and SPEAKERS B terminals on the rear panel. Press "A" to switch ON or OFF the speakers connected to the SPEAKERS A terminals. Press "B" to switch ON or OFF the speakers connected to the SPEAKERS B terminals. Press both "A" and "B" to engage at the same time both SPEAKERS A and SPEAKERS B. The corresponding blue LED indicator embedded around the SPEAKERS A and SPEAKERS B buttons will illuminate accordingly when each or both are engaged.

8 INPUT SELECTORS: These buttons select the active input to the C 356BEE and the signal sent to the loudspeakers, headphones and the PRE OUT sockets. The corresponding 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.

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

If an external Media Player is connected to the front MP socket (using a 3.5mm stereo plug) while listening to a MP line-level source, the external Media Player will be directly selected with the MP line-level source immediately disconnected. It is recommended to mute the volume or switch to a different input before plugging/unplugging the external Media Player cable.

CD: Selects the CD player (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.

DISC/MDC: Selects a line-level source connected to the DISC sockets. If an optional Modular Design Construction (MDC) module is installed, the DISC input socket is disabled and the MDC source is selected 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 in 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.

9 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.

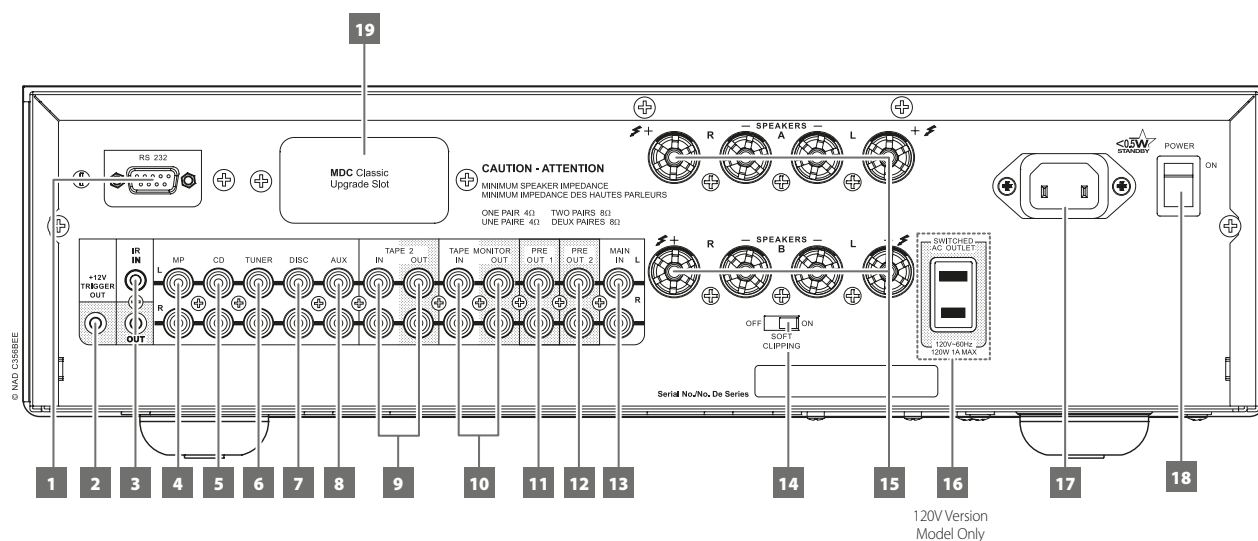
10 TONE CONTROLS: The C 356BEE is fitted with BASS and TREBLE tone controls to adjust the tonal balance of your system. The 12 o'clock position is "flat" with no boost or cut, and an indent indicates this position. Rotate the control clockwise to increase the amount of Bass or Treble. Rotate the control counterclockwise to decrease the amount of Bass or Treble. The Tone controls do not affect recordings made using the TAPE output terminals but will affect the signal going to the Pre-amp output terminals (PRE OUT 1 and PRE OUT 2).

11 BALANCE: The BALANCE control adjusts the relative levels of the left and right speakers. 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 terminals but will affect the signal going to the Pre-amp output terminals (PRE OUT 1 and PRE OUT 2).

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

IDENTIFICATION OF CONTROLS

REAR PANEL



ATTENTION!

Please make sure that the C 356BEE is powered off or unplugged from the mains 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 RS-232: Connect this interface using RS-232 serial cable (not supplied) to any Windows® compatible PC to allow remote control of the C 356BEE via compatible external controllers. 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.

2 +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 356BEE is ON and 0V when the unit is either OFF or in standby. This output can drive a load up to 50mA at 12V.

3 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 356BEE 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 356BEE'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 356BEE. For non-NAD models, please check with your other product's service specialists with respect to its compatibility with the C 356BEE's IR features.

4 MP INPUT: Input for a Media Player or other line-level signal source. Use a twin RCA-to-RCA lead to connect these sockets to the left and right analog output of a Media Player.

NOTE

If an external Media Player is connected to the front MP socket (using a 3.5mm stereo plug) while listening to a MP line-level source, the external Media Player will be directly selected with the MP line-level source immediately disconnected.

5 CD INPUT: Input for a CD player or other line-level signal source. Use a twin RCA-to-RCA lead to connect these sockets to the left and right analog output of a CD player.

6 TUNER INPUT: Input for a tuner or other line-level signal source. Use a twin RCA-to-RCA lead to connect these sockets to the left and right analog output of a tuner.

7 DISC INPUT: Input for additional line level input signals such as CD, Mini Disc player or the output signal from a step-up amplifier for a turntable. Use a twin RCA-to-RCA lead to connect these sockets to the left and right analog output of the auxiliary device.

NOTE

If an optional Modular Design Construction (MDC) module is installed, the DISC input socket is disabled and the MDC source is selected as the active input.

8 AUX INPUT: Input for additional line level input signals such as another CD player. Use a twin RCA-to-RCA lead to connect these sockets to the left and right analog output of the auxiliary device.

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

10 TAPE MONITOR IN/OUT: Connections for analog recording and playback to a secondary tape recorder of any type. Using twin RCA-to-RCA leads, connect the left and right "Audio Output" of the tape recorder to the TAPE MONITOR IN sockets for playback and tape monitoring. Connect the left and right "Audio Input" of the tape recorder 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 recorder connected to the TAPE 2 OUT or TAPE MONITOR OUT for recording.

TAPE TO TAPE COPYING

You can copy between two tape recorders connected to your C 356BEE. 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 is the selected source input. This prevents feedback through the recording component thereby preventing possible damage to your speakers. The same applies to TAPE MONITOR IN/OUT.

11 PRE OUT 1: The PRE OUT 1 sockets can be used to drive an additional power amplifier. Use a twin RCA-to-RCA lead to connect the left and right "Audio Input" of the Power amplifier or processor to the PRE OUT 1 sockets.

Always turn the C 356BEE 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 356BEE's volume and tone control settings.

12 PRE OUT 2: Connections to an external power amplifier or processor, such as a surround-sound decoder. In normal use, this should be connected to the MAIN IN sockets with the links supplied. To connect your C 356BEE to an external processor or amplifier, remove first these links. 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 356BEE 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 356BEE's volume and tone control settings.

13 MAIN IN: Connections to an external preamplifier or processor, such as a surround sound decoder. In normal use, this should be connected to PRE OUT 2 sockets with the links supplied. To connect your C 356BEE to an external processor or preamplifier, remove first these links. Use a twin RCA-to-RCA lead to connect the left and right "Audio Output" of the preamplifier or processor to the MAIN IN sockets.

Always turn the C 356BEE and associated external preamplifiers OFF before connecting or disconnecting anything to the MAIN IN sockets.

14 SOFT CLIPPING™: Enables NAD's proprietary Soft Clipping circuitry on all channels. At [ON] position, Soft Clipping gently limits the output of the C 356BEE to minimize audible distortion should the amplifier be over driven. Soft Clipping may simply be left ON at all times to reduce the likelihood of audible distortion from excessive volume settings. However, for critical listening and to preserve optimum dynamics, you may wish to defeat it by setting this switch to "OFF" position.

The SOFT CLIPPING indicator on the front panel will illuminate when the C 356BEE is in Soft Clipping mode. Refer also to the item below about "POWERDRIVE".

POWERDRIVE

The C 356BEE uses NAD's proprietary PowerDrive™ amplifier technology that provides high dynamic power and low impedance drive capability. By adding a second high-voltage rail to our well regulated high-current power supply, we get an "overdrive" that can nearly double the continuous power on a short term dynamic power basis. This uniquely efficient power supply topology provides the real world benefits of high dynamic power that remains uncompromised by low impedance speakers.

15 SPEAKERS A, B: The C 356BEE is equipped with two sets of speaker connectors. Use the SPEAKERS A terminals for the "main" speakers and use the SPEAKERS B terminals for a second pair, for example, extension speakers located in another room.

Connect the right speaker to the terminals marked "R +" and "R-" ensuring that the "R+" is connected to the "+" terminal on your loudspeaker and the "R-" is connected to the loudspeaker's "-" terminal. Connect the terminals marked "L+" and "L-" to the left speaker in the same way.

Always use heavy duty (16 gauge; 1.5mm² or thicker) stranded wire to connect loudspeakers to your C 356BEE. The high-current binding post terminals can be used as a screw terminal for cables terminating in spade or pin sockets or for cables with bare wire ends.

16 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 switch or by the SR 8's [ON/OFF] buttons. The total draw of all devices connected to this outlet must not exceed 120 watts.

17 AC MAINS INPUT: The C 356BEE comes supplied with a separate detachable mains power cord. Before connecting the plug to the mains power source, ensure that it is firmly connected to the C 356BEE's AC Mains input socket first. Connect only to the prescribed AC outlet, i.e., 120V 60 Hz (for 120V version models of C 356BEE only) or 230V 50 Hz (for 230V version models of C 356BEE only). Always disconnect the mains power plug from the mains power source first, before disconnecting the cable from the C 356BEE's AC Mains input socket.

18 POWER SWITCH: The POWER switch supplies the master mains power for the C 356BEE. When this switch is at ON position, the C 356BEE 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 356BEE or back to standby mode. Switch off the POWER switch if you intend not to use the C 356BEE for long periods of time (such as when on vacation). It is not possible to switch ON the C 356BEE using the front panel STANDBY button or SR 8 remote control's [ON] button if the rear panel POWER switch is switched off.

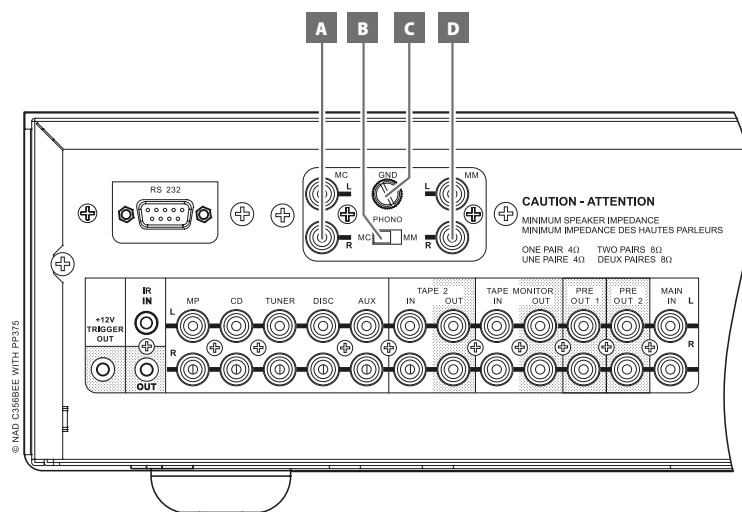
IDENTIFICATION OF CONTROLS

REAR PANEL

19 MDC CLASSIC UPGRADE SLOT: Remove cover to install the optional Modular Design Construction (MDC) module. An example of a C 356BEE-compatible MDC Classic module is the PP 375 Phono Preamplifier module. The PP 375 is integrated into the chassis of the C 356BEE, automatically assigned to the DISC input and its level well matched to the other sets of line level input.

Consult with your NAD dealer on how to procure the PP 375 and its consequent installation to the C 356BEE. Check out also the NAD website for any announcement about future release(s) of other C 356BEE-compatible MDC Classic modules.

With the optional PP 375 installed, refer below for descriptions of key PP 375 parts.

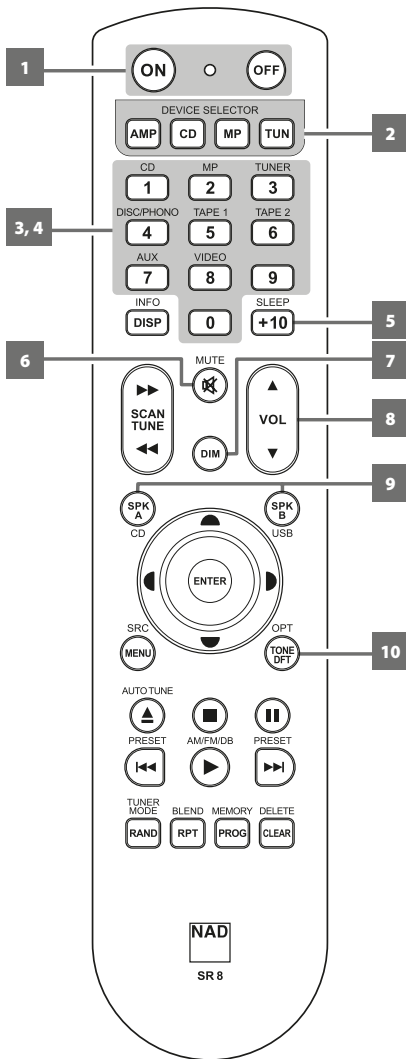


A MC INPUT: Input for a Moving Coil phono cartridge. Connect the twin RCA lead from your turntable to this input if you are using a Moving Coil cartridge.

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

C PHONO GROUND CONNECTOR: Turntables normally includes a single wire earth lead. Use the C 356BEE 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.

D 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.



USING THE SR 8 REMOTE CONTROL

The SR 8 remote control handset handles the key functions of the C 356BEE 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/DB 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 356BEE but for other components in the system. Please refer to previous sections of the manual for a full description of individual functions.

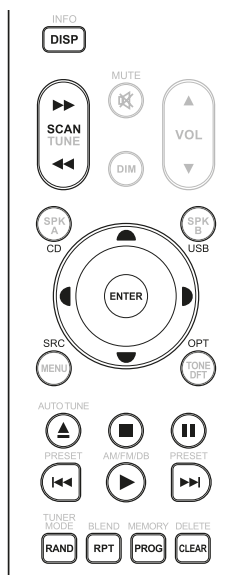
NOTE

The remote control handset supplied with the C 356BEE is of universal 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. With the rear panel POWER switch set to ON position, press the ON button to switch the C 356BEE from Standby mode 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 356BEE. 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.
- 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 the NAD Receiver or Tuner after a preset number of minutes.
- 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. Mute does not affect recordings made using the TAPE output terminals but will affect the signal going to the PRE OUT terminals. Press [MUTE] again to restore sound.
- 7 DIM (for use with compatible 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.
- 8 VOL ▲/▼:** Press [VOL ▲/▼] 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 [VOL ▲/▼] buttons. The VOLUME buttons do not affect recordings made using the TAPE output terminals but will affect the signal going to the PRE OUT terminals.
- 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 SPEAKERS A terminals. Toggle [SPK B] to switch ON or OFF the speakers connected to the SPEAKERS B terminals. Press both buttons to engage both speakers.
- 10 TONE DFT:** Tone Controls are enabled or disabled by pressing this button.

IDENTIFICATION OF CONTROLS

SR 8 REMOTE CONTROL



CD PLAYER CONTROL (for use with compatible 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. You can also load the applicable NAD code library to this device so that it can be made compatible with your other NAD equipment. Refer to the section below about "USING THE SR 8 REMOTE CONTROL LIBRARY" on how to load a NAD code library.

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

[▲]: Open or close disc tray.

[■]: Stop playback.

[||]: Pause playback temporarily.

[▶▶I]: Go to next track/file.

[I◀◀]: 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.

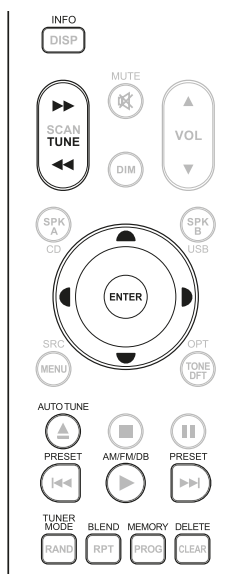
CLEAR: Delete track or file number from the program list.

CD: Select CD as the active source.

USB: Select USB as the active source.

OPT: Select optical input as the active source.

SRC: Select desired SRC mode.



TUNER CONTROL (for use with compatible NAD Receiver, AM/FM/DB 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. You can also load the applicable NAD code library to this device so that it can be made compatible with your other NAD equipment. Refer to the section below about "USING THE SR 8 REMOTE CONTROL LIBRARY" on how to load a NAD code library.

AUTO TUNE: Automatically scan all available local DAB broadcasts.

TUNE [◀◀/▶▶] or [◀/▶]: Tune forward or backwards.

PRESET [I◀◀/▶▶I] or [▲/▼]: Step up or down Preset numbers.

AM/FM/DB: Select XM, DAB, FM or AM band as applicable.

TUNER MODE: Activate "FM Mute On" or "FM Mute Off" at FM mode. In combination with [◀/▶], select through applicable XM or DAB menu options.

BLEND: Engage or disengage BLEND feature.

MEMORY: Save current station into a preset number.

DELETE: Delete selected preset number or all preset numbers.

[◀/▶]: In combination with TUNER MODE or other compatible buttons, select through applicable XM or DAB menu options.

ENTER: Select Preset or Tune mode at AM/FM band. Display signal strength at DAB mode.

INFO: Show display information as supplied by the currently tuned RDS station, XM channel or DAB broadcast.

USING THE SR 8 REMOTE CONTROL LIBRARY

The SR 8 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 component, follow the procedure below to change the library code. Refer as well to the table below for a list applicable NAD Library Codes with their corresponding NAD models.

LOAD ANOTHER LIBRARY CODE

Example: Load NAD DVD Player T 517 library code to SR 8's "CD" device.

- 1 Press and hold [CD] in the DEVICE SELECTOR section of SR 8.
- 2 While holding down the device button (CD), press "2" and "2" using SR 8'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 8 TO ITS DEFAULT SETTINGS

The SR 8 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 8 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, T 557, T 577, M56
30	IPD 1
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 8 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.

REFERENCE

TROUBLESHOOTING

CONDITION	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
No sound.	• Mains power cord unplugged or power not switched ON.	• Check if mains power cord is plugged in and power switched ON.
	• TAPE MONITOR selected.	• De-select TAPE MONITOR mode.
	• Mute on.	• Switch off Mute.
	• Rear PRE OUT/MAIN IN amp links not fitted.	• Fit links.
No sound one channel.	• Balance control not centered.	• Center Balance control.
	• Speaker not properly connected or damaged.	• Check connections and speakers.
	• Input lead disconnected or damaged.	• Check leads and connections.
No audio despite the presence of an active input at DISC rear panel input terminals.	• DISC input is disabled due to an installed MDC module at the MDC Classic Upgrade slot.	• Uninstall the MDC module from the MDC Classic Upgrade slot.
No audio despite the presence of an active input at MP rear panel input terminals.	• An external Media Player is connected to the front MP socket.	• Unplug the Media Player connected to the front MP socket.
Weak bass/diffused stereo image.	• Speakers wired out of phase.	• Check connections to all speakers in the system.
C 356BEE does not respond to remote control commands.	• Battery flat or incorrectly inserted.	• Check or replace battery. Follow correct battery insertion setup.
	• Infrared receiver (IR) window of the C 356BEE or IR transmitter of the remote control is obstructed.	• Check IR windows and ensure clear line-of-sight from remote control to C 356BEE.
	• IR receiver in direct sun or very bright ambient light.	• Place unit away from direct sun, reduce amount of ambient light.
Standby LED turns red during operation.	• C 356BEE has overheated.	• Shut down C 356BEE by turning off the rear panel POWER switch. Ensure that there is adequate space below, above and to the sides of the C 356BEE to allow proper air flow. After C 356BEE has cooled down, turn back ON. Restart again the C 356BEE by switching ON the rear panel POWER switch and then pressing the front panel STANDBY button or remote control's [ON] button.
	• Overall impedance of loudspeakers too low.	• Ensure the overall loudspeaker impedance is not below 4 ohms.

PREAMPLIFIER SECTION

LINE LEVEL INPUT, PRE OUT

THD ¹ 20 Hz – 20 kHz, CCIF IMD, SMPTE IMD, DIM 100	<0.005 % at 2 V out
Signal-to-Noise Ratio	>106 dB (IHF; A-weighted, ref. 500 mV out, unity gain)
	>114 dB (A-weighted, ref. 2 V out, Volume maximum)
	>92 dB (ref. 100 mV out, unity gain)
Channel separation -1 kHz	>80 dB
10 kHz	>68 dB
Input impedance (R and C)	22 kohms+ 100 pF
Maximum input signal	>6 Vrms (ref. 0.1 % THD)
Output impedance - Pre out	80 ohms
Tape out	Source Z + 1 kohm
Input sensitivity	166 mV (ref. 500 mV out)
Frequency response	±0.3 dB (20 Hz - 20 kHz, Tone defeat ON)
	±0.3 dB (20 Hz - 20 kHz, Tone defeat OFF)
Maximum voltage output -IHF load	>10 V (ref. 0.03 % THD)
600 ohms load	>8 V (ref. 0.03 % THD)

TONE CONTROLS

Treble	±5 dB at 10 kHz
Bass	±8 dB at 100 Hz

POWER AMPLIFIER SECTION

MAIN IN, SPEAKER OUT

Continuous output power into 8 ohms and 4 ohms (Stereo)	>80 W (at rated THD, 20 Hz-20 kHz, both channels driven)
Rated THD ¹ 20 Hz – 20 kHz, CCIF IMD, SMPTE IMD, DIM 100	<0.007 %
Clipping power	>90 W (at 1 kHz 0.1 % THD)
IHF dynamic headroom - 8 ohms	+2.6 dB
4 ohms	+4.4 dB
IHF dynamic power - 8 ohms	145 W
4 ohms	220 W
2 ohms	290 W
Peak output current	>50 A (in 1 ohm, 1 ms)
Signal-to-noise ratio	>101 dB (A-weighted, ref. 1 W)
	>120 dB (A-weighted, ref. 80 W)
Damping factor	>100 (at 8 ohms, 50 Hz and 1 kHz)
Frequency response	±0.3 dB (ref. 20 Hz - 20 kHz)
	3 Hz – 70 kHz (ref. -3 dB)
Input impedance	20 kohms + 1 nF
Input sensitivity	950 mV (for 80 W in 8 ohms)
Voltage gain	29 dB
Headphone output impedance	68 ohms
Channel separation - 1 kHz	>80 dB
10 kHz	>70 dB

TRIGGER OUT

Output resistance	75 ohms
Output current	150 mA
Output voltage	+12 V ± 10 %

REFERENCE

SPECIFICATIONS

PHONO SECTION (WITH OPTIONAL PP 375 INSTALLED)

MM/MC IN, PRE OUT

Input impedance - MC	100 ohms (R)
	180 pF (C)
MM	47 kohms (R)
	180 pF (C)
Input sensitivity ² for 80 W in 8 ohms - MC	0.38 mV 1 kHz
	MM 5.0 mV 1 kHz
Input sensitivity ² for 1 W in 8 ohms - MC	39 μ V 1 kHz
	MM 0.56 mV 1 kHz
Input overload - MC	0.6 mV/5.9 mV/58 mV (20 Hz/1 kHz/20 kHz)
	MM 9.3 mV/85 mV/850 mV (20 Hz/1 kHz/20 kHz)
Gain - MC in - TAPE OUT ³	57.0 dB (at 1 kHz, 10 kohms load)
	MM in - TAPE OUT 34.2 dB (at 1 kHz, 10 kohms load)
THD1 (CCIF IMD, DIM 100)	<0.009 % (20 Hz – 20 kHz, 4 Vrms TAPE OUT)
Signal-to-Noise Ratio, IHF A-weighted - MC ⁴	>78 dB (ref. 0.5 mV input, 10 ohms source)
	MM ⁵ >75 dB (ref. 5 mV input, IHF cartridge source)
RIAA response accuracy	\pm 0.5 dB (20 Hz – 50 Hz)
	\pm 0.3 dB (50 Hz – 20 kHz)
Infrasonic filter	-3 dB at 10 Hz
	-14 dB at 4 Hz
Channel Separation - MC	>60 dB (1 kHz and 10 kHz)
	MM >60 dB (1 kHz and 10 kHz)

OVERALL SPECIFICATIONS

LINE LEVEL INPUT, SPEAKER OUT

Continuous output power into 8 ohms and 4 ohms (Stereo)	>80 W (at rated THD, 20 Hz-20 kHz, both channels driven)
THD ¹ 20 Hz – 20 kHz, CCIF IMD, SMPTE IMD, DIM 100	<0.009 % (250 mW to 80 W, 8 ohms and 4 ohms)
Signal-to-Noise Ratio	>92 dB (IHF; A-weighted, 500 mV input, ref. 1 W out in 8 ohms)
	>110 dB (IHF; A-weighted, ref. 80 W in 8 ohms, maximum volume)
Frequency response	\pm 0.3 dB (20 Hz - 20 kHz, Tone Defeat ON)
	10 Hz – 65 kHz (-3 dB)
Channel separation - 1 kHz	>80 dB
	10 kHz >68 dB

POWER CONSUMPTION

Rated power	350 W (at 230 V AC 50 Hz; 120V AC 60 Hz)
Standby power	<0.5 W
Idle power	<40 W

DIMENSION AND WEIGHT

Unit Dimensions (W x H x D) Gross ⁶	435 x 131 x 337 mm
	17 ¹ / ₈ x 5 ³ / ₁₆ x 13 ⁵ / ₁₆ inches
Net weight	8.7 kg (19.2 lbs)
Shipping weight	10.6 kg (23.4 lbs)

LEGEND:

¹ THD is the sum of all the harmonic components within the 80 kHz measurement bandwidth and does not include noise.

² Measured from Speaker Out.

³ Measured with 10 ohms generator impedance.

⁴ Measured with 10 ohms input termination.

⁵ Measured with MM cartridge connected (600 mH + 600 ohms).

⁶ Gross dimensions include feet, volume knob and tightened speaker terminals.

Specifications are subject to change without notice. For updated documentation and features, please log onto www.NADelectronics.com for the latest information about C 356BEE.



www.NADelectronics.com

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