C 165BEE Stereo Preamplifier

> POSITIONING

The C 165BEE is the perfect complement to NAD's C 275BEE Power Amplifier making a reference level of performance available for far less money than previously possible. **Attention to the most minute detail is evident everywhere, from the heavy gauge steel chassis to the sophisticated power supplies and custom Class A gain modules taken straight from the NAD Masters Series components.**

> FEATURES

- 6 Line Level Inputs
- Phono Input with selectable Moving Coil and Moving Magnet sensitivity settings
- 3 position Resistance and Capacitance settings for Phono Input
- 2 Line Level Outputs, one variable from 0dB to -12dB
- Subwoofer Output
- Independent Headphone Amplifier
- Pure Class A Gain Modules
- Sealed Reed Relays for Input Switching
- Heavy Gauge Steel Chassis
- Bass and Treble Controls with Defeat Switch (bypass)
- Gold Plated Sockets
- 12V Trigger Output
- IR In and Out
- Detachable Power Cord
- SR 8 NAD 4 Device System remote Control
- <1 watt Standby Consumption

> DETAILS

Performance

The C 165BEE is an all new design representing a lifetime of design experience from NAD's renowned Director of Advanced Developments, Bjorn Erik Edvardsen. New semiconductors and improved production techniques such as surface mount devices (SMDs) have created opportunities for performance far beyond expectation when compared to previous products in this price range. Compared to its predecessor the C 162, an improved tone control circuit and revised PCB layout has reduced distortion and noise to unprecedented levels when combined with the high signal capacity of the NAD Class A Gain Modules.

Class A gain modules combine the short signal path advantage of IC based OPAmps with the higher signal and current capacity of discrete transistors. Here SMD is used to miniaturize the circuit while the extruded aluminum heat sink keeps all parts at the optimal operating temperature for ultra low distortion. This unique NAD development endows the C 165BEE with lightening fast transient response and bass extension and definition that is uncommon at this price level. High frequencies are extended, silky smooth and grain-free.

In the phono stage we have added 3 position switches to individually select the resistance and capacitance of the

continued>



> DETAILS

phono stage to allow precise matching of most popular Moving Magnet and Moving Coil phono cartridges. Other refinements have lowered noise and improved the overload margin. Precision close tolerance parts are used to achieve nearly perfect RIAA response.

We've also improved the headphone amplifying circuit to better drive studio quality high impedance headphones. Taken together, these improvements mark a sharp upturn in performance that simply must be heard, to be fully appreciated!

Features

Unlike many high-end preamps that skimp on inputs and features, the C 165BEE has all the flexibility you will ever need. Starting with 6 line level inputs and the previously mentioned MC/MM phono input, the C 165BEE also includes a superbly designed tone control circuit. While tone control circuits in general tend to hurt performance by adding noise and distortion, the C 165BEE is a textbook example of how to correctly implement high fidelity tone controls. Affecting only the frequency extremes they leave the critical midrange untouched. Their moderate action is perfect for touching up the tonal balance of all the less than perfect recordings in your collection. A Tone Defeat switch quickly selects flat response and bypasses all the tone control circuitry.

A full function remote control also includes controls for other NAD components allowing a 'one remote' solution for your NAD system.

Custom Installation Ready

With a 12V trigger output and IR inputs and outputs on the rear panel, the C165BEE is ready to integrate with CI control systems. Discrete On/Off codes and direct access to inputs make programming easy.

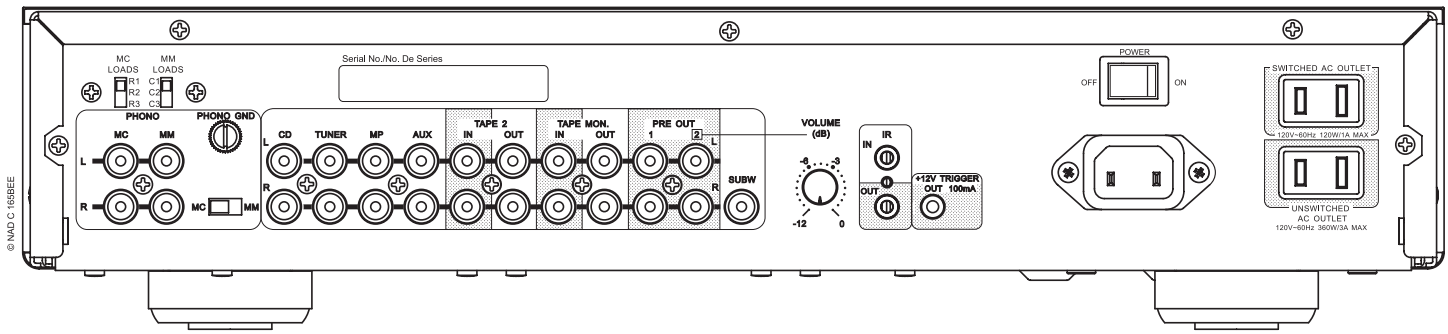
Green Features

NAD has responded quickly and responsibly to the new awareness of environmental damage caused by human activity. The C 165BEE is manufactured without the heavy metals that have been identified as harmful to the environment and manufacturing processes meet the latest stringent international standards. Standby power consumption is best in its class at <1 watt.

Value

We don't think you'll find another preamp with the same pedigree, performance, and flexibility at anywhere near the low price of the C 165BEE. Classic understated styling, superb build quality and true engineering sophistication at an affordable price; that's the NAD difference.

> REAR LINE DRAWING



> SPECIFICATIONS

Over All Specifications

Line Level Input

Input impedance (R and C)	100 kΩ+ 320 pF
Input sensitivity	159 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)
	>112 dB (ref. 2V out, Volume maximum)
Frequency response	± 0.1 dB (ref. 20 Hz - 20 kHz, Tone defeat ON)
	± 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 Ω
Tape out	Source Z + 1 kHz
Sub out	100 Ω
Headphones	10 Ω
Maximum voltage output	
Pre out	>10 V into 600 Ω
Tape out	>10 V into 10 kΩ load
Sub out	>7 V into 1 kΩ load
Headphones	>7 V into 600 Ω
	>2 V into 32 Ω
THD (CCIF IMD, DIM 100)	>0.005 % dB (ref. 20 Hz – 20 kHz, 2 Vout)

Tone Controls

Treble	± 5 dB at 10 kHz (ref. 2V in 500 mV out)
Bass	± 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 Ω (R)
		1 nF (C)
	MM	47 kΩ (R)
		220,300,400 pF (C)
Input sensitivity	MC	0.15 mV (ref. 1 kHz 500 mV out)
	MM	2.6 mV (ref. 1 kHz 500 mV out)
Input overload	MC	0.8 mV/7 mV/65 mV (20 Hz/1 kHz/20 kHz)
	MM	14 mV/140 mV/1.2 (20 Hz/1 kHz/20 kHz)
Gain	MC in - Tape out	62.4 dB1 (ref. 1 kHz, 10 kΩ load)
	MM in - Tape out	36.7 dB (ref. 1 kHz, 10 kΩ 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 dB2 (ref. 0.5 mV)
	MM	>78 dB3 (ref. 0.5 mV)
RIAA response accuracy		± 0.5 dB (ref. 20 Hz – 50 Hz)
		± 0.3 dB (ref. 50 Hz – 20 kHz)
Infrasonic filter		10 Hz (at -3 dB)
		5 Hz (at -14 dB)

Physical Specifications

Dimensions (W x H x D)	Net	435 x 80 x 286 mm 17 1/8” x 3” x 11 1/4”
	Gross	435 x 99 x 315 mm 17 1/8” x 3 15/16” x 12 1/2”
	Net weight	13.23 lb (6 kg)
	Shipping weight	17.1 lb (7.8 kg)

* Gross dimensions include volume knob / speaker ternimals / connectors / feet.
Note: Installers should allow a minimum clearance of 2- 4 inches for wire managment.