C 325BEE Stereo Integrated Amplifier

- 50W x 2 Continuous Power into 8 ohms
- 110W, 160W, 220W, IHF Dynamic power into 8, 4 and 2 ohms, respectively
- PowerDrive™
- Full System Remote control including Stand-by/Off
- Headphones socket
- MP socket for attaching portable devices like MP 3 Players
- Relay Input Switching
- Toroidal Power transformer
- 7 Line inputs, including two tape in/outs
- All discrete circuitry
- Short signal path from input to output
- All sockets Gold plated
- Tone controls defeat switch
- Main-amp input & pre-amp output
- Soft ClippingTM
- IR In & Out
- 12 volt trigger output

THE PEDIGREE OF PERFORMANCE

The C325BEE is the latest in a long and distinguished lineage of amplifiers from NAD. This pedigree assures you of an amplifier that is technically outstanding and yet affordably priced.

HISTORICALLY SPEAKING

The C325BEE traces it's lineage all the way back to the NAD 3020 which was introduced some 30 years ago. The 3020 was a revelation at the time, setting a technical standard that astonishingly few amps, regardless of price, could even match, much less better.

Like all great inventions, the premise of the 3020 seems obvious in retrospect. Make an amplifier that is optimised for musical signals (not just laboratory test tones) and able to cope with the complex requirements of real loudspeakers (not just laboratory loading resistors). This led to NAD's redefinition of how an amplifier should be designed and exactly how much it needed to cost to exceed the expectations of music lovers. Terms like "Dynamic Headroom" and "Peak Current Capability" that have attained a permanent place in the audiophile lexicon were coined to describe these incredible NAD amplifiers.

THE SOUND OF MAGIC

What is the "magic" that makes one amplifier sound so much better than another? It all comes down to the experience of the design team and designing the amplifier for its intended use; no more, no less.

An amplifier with Dynamic Headroom sounds "open", "effortless" and "smooth". The machine magically disappears and the music emerges recreating the atmosphere of the original musical performance.

An amplifier with high Peak Current Capability has the "rhythmic punch" that gets your toe tapping and your heart pounding. It recreates the soul of the music. If an amplifier cannot produce enough current to cope with a real loudspeaker the sound becomes "thin" and "flat" lacking the third dimension of live music.

THE SCIENCE OF MAGIC

NAD has developed several patented amplifier innovations under the direction of Bjorn Erik Edvardsen (aka BEE).

- PowerDrive technology adds huge reserves of Dynamic Headroom without adding cost by ingeniously matching the amplifier to the speaker load. This is fully automatic in operation and adjusts the power supply parameters of the amplifier to best cope with the actual musical signal and specific speaker loading characteristics.
- Soft Clipping eliminates the harsh sound that occurs when an amplifier is overdriven. This feature also protects sensitive loudspeaker tweeters that can be easily damaged by the high frequency distortion caused by clipping (clipping describes the distorted shape of a musical sine wave when an amplifier is driven beyond its power rating).
- BEE Clamp is a new answer to an old problem endemic to all transistor amplifier designs. When the output transistors produce heat faster than it can be dissipated, the amplifier becomes momentarily unstable. This happens when the music has rich high frequency

content and the speaker has low or difficult impedance. The BEE Clamp employs sophisticated real time monitoring of the output transistors' load and drive and "clamps" the base drive to prevent saturation when necessary, thus improving amplifier stability and waveform fidelity. The C325BEE can instantly recover from overload, reducing both the amount and the duration of distortion, regardless of load impedance.

NAD has a deeper understanding of the nature of musical sounds and has devised innovative circuits that overcome the limitations of semiconductors, capacitors, and the other electronic components that make up an amplifier. This innovation has resulted in a product that truly excels in the reproduction of music.

HOW WE MADE THE BEST BETTER

The C320BEE and its predecessors has been the benchmark for budget amplifiers for 30 years now, having won every award in the Hi-Fi industry several times over. Making the C325BEE better than the C320BEE was a tall order! By "trickling down" several innovations from NAD's new state-of-the-art Masters Series products has resulted in the C325BEE having even less distortion, less noise, and a more detailed rendition of the musical recording.

- New DC Servo eliminates sound colouring capacitors in the signal path. This improves musical detail and eliminates harmful loudspeaker 'offset'.
- Patented distortion cancelling circuit uses both feedback and feedforward to reduce distortion and improve amplifier stability.
- Highly optimised circuit layout further lowers internal impedance, improves grounding, and eliminates subtle magnetic distortions. Lower noise and distortion, and improved channel separation are a direct result of this optimisation.
- Surface mount (SMD) technology shortens signal paths and lowers distortion in NAD's proprietary Class A gain modules.
- BEE Clamp improves HF stability when driving difficult speakers.
- Volume Control has minimum volume cancellation circuit to increase attenuation by 10dB.
- Tone controls are hand trimmed for perfect response characteristics.
- A new idling current circuit is more accurate with less unit-to-unit variation.
- More rigid chassis has improved mechanical integrity.
- MP Input for easy connection of iPod™, MP3 and other Media Players employing 3.5mm headphone sockets.

VALUE, REDEFINED

NAD has yet further improved the class leading amplifier using new technology developed for its range topping Masters Series components. The C325BEE is the new benchmark against which all other affordable amplifiers will be compared. As with the previous iterations of this classic NAD amplifier, you will have to spend several times the C325BEE's asking price before you can even approach the technical precision and musical involvement offered by this unassuming looking little amplifier. All this sophistication and refinement is available now in the NAD C325BEE; the new value leader in affordable Hi-Fi!

SPECIFICATIONS

Pre-Amp Section	
Line level inputs	
Input impedance (R+C)	20kΩ / 470pF
Input sensitivity, rated power	240mV
Frequency response (20Hz - 20kHz)*	±0.1dB
Line level outputs	
Output impedance	80Ω
Tape	Source Z + 1kΩ
Power Amp Section	
Continuous output power into 8Ω	50W (17dBW)
Rated Distortion (THD 20Hz - 20kHz)	0.02%
Clipping power	68W (18dBW)
IHF dynamic headroom at 8Ω	3.4dB
IHF dynamic power at 8Ω	110W (20.4dBW)
IHF dynamic power at 4Ω	160W (22.0dBW)
IHF dynamic power at 2Ω	210W (23.2dBW)
Damping factor (ref. 8Ω, 50Hz)	>160
Input impedance	20kΩ/ 470pF
Input Sensitivity (for rated power into 8Ω)	730mV
Voltage gain	29dB
Frequency response; 20Hz-20kHz	+/-0.2dB
Signal/noise ratio; ref 1W	100dB
Signal/noise ratio; ref rated power	117dB
Phones	220Ω
Physical Specifications	
Dimensions (W x H x D)	17 1/8 x 3 15/16 x 11 7/16" (435 x 100 x 290mm)
Net Weight	17.6 lbs (8.0kg)
Shipping Weight	19.8 lbs (9.0kg)

• Tone Defeat on