

performance value simplicity

an uncommon company



NAD is an uncommon company with a proven commitment to audio excellence. The appearance of NAD components is as straightforward as the no-nonsense "Music First" design philosophy that has guided this visionary company for the past quarter century.

We can tell you all the technical reasons NAD components sound so good if you really want to know, but the bottom line is that NAD simply sounds better. On the inside, where it counts, NAD has engineered its products using the most sophisticated and powerful technology available today. On the outside, NAD has designed a control panel that's intuitive and easy to use. It has never been NAD's policy to impress with baffling tech-specs that look good only to those who pretend to understand them but mean nothing to you in everyday usage. NAD engineers realised many years ago that flashy and impressive figures can tell a misleading story; far too often there is a large discrepancy between imposing specifications in a glossy brochure and what actually happens when you listen to music or watch a movie at home.

Don't get the wrong idea - NAD products measure up alongside any of the competitors. But one thing is paramount to NAD. It's the sound that counts!

By studying actual listening in realistic environments, all NAD products achieve a level of performance far beyond that which the specifications suggest. But that's not all. Performance is one thing, ease of use is another. NAD has always maintained that a product should be simple to operate. You will find many products from other brands laden with knobs, buttons and lights, most of which are seldom, if ever, used but which do cost money to include. Leaving out those unnecessary features and concentrating only on those that are truly useful allows the money to be spent where it really counts - on the inside rather than on the outside.

This uncommonly rational approach to audio design and dedication to simplicity and value has brought critical acclaim from audio reviewers and an impressive following from knowledgeable music lovers and Home Theatre enthusiasts worldwide.

Take your time, absorb what you read, then go and listen for yourself and find out just why NAD is so different.



performance

NAD's tradition of creating products with "giant killer" performance has been well established over the last quarter century. And this reputation has been earned by applying creative engineering solutions and meticulous fine-tuning to every circuit in every NAD product. Designed by music lovers, for music lovers, NAD components consistently deliver exceptional performance that brings you closer to the music. It is our strong belief, that when a product doesn't deliver an emotionally involving and musically accurate performance, then it has missed the primary point of its very existencel

value

We define value as getting more for less. In the case of NAD, that's more performance, and less money spent. Careful design and execution, and staying focused on what's really important allows NAD to consistently offer products that overachieve in this regard. The ability to get performance that is very close to the "cost-no-object" crowd, at an everyday affordable price, is a key element in the NAD philosophy.

simplicity

What makes NAD so unique in the world? It isn't just an insistence on great sound quality, it is also our sensible approach to product design and manufacturing. By keeping our designs simple, and by avoiding the trendy gimmicks favoured by many of our competitors, we can offer products that perform better, cost less, and last longer. This refreshing approach can be summed up in one word: simplicity.

nome entertainment solutions





While many brands try to woo customers with flashy front panels, and a long list of dubious "features", NAD has continued to develop products that retain performance benefits long regarded as essential by NAD owners and enthusiasts. Sometimes what we leave out is just as important as what we include in our product designs!

We have always believed that our products should perform in the real world first and foremost. Because the impressive specs listed in a glossy brochure are measured in the laboratory, under ideal conditions, they often do not translate into tangible benefits when listening to music or watching movies in your own home. You can be sure when you purchase an NAD product, that we have spent many hours listening and fine tuning our products under real world conditions.

But different people have different needs, and for this reason we have established four different series of products. While each and every product adheres to our core values of performance, value, and simplicity, the functionality and packaging are different.

home theatre

Home Theatre has taken TV viewing into an entirely new dimension; quite literally in fact, since with 5.1 surround sound you become totally immersed in the action. The highly involving nature of the Home Theatre Experience adds new excitement and pleasure to home entertainment. Surround sound has been quickly adopted by the film industry, and there are now thousands of films available for home viewing on DVD and video tape that include Dolby Surround sound tracks. But even music listening can take on a new sense of realism when played through a surround sound system.

But all surround sound systems are not created equal, and that's where NAD fits in. Our "Music First" approach to Home Theatre recognises the fact that more isn't always better, and the same principles that have created so many award winning stereo products are just as valid - maybe even more so - in the world of multi-channel surround sound. Music reproduction is more demanding than movie sound effects, as any distortion is far more obvious with music. Thus a product that can reproduce music on par with the best stereo hi-fi components will easily make movie soundtracks come to life, while adding the extra dimension of surround sound. NAD's Theatre Series components sound great on movies and music, are easy to operate, and offer tremendous value.





NAD solutions



The two-channel stereo format has endured for over 40 years because of its nearly ideal combination of life-like sound quality and simple, affordable system architecture. NAD has been producing quality stereo components for nearly thirty of those years, and has earned an enviable reputation for offering musical sound and great value for money. Even in this age of multi-channel surround sound, we still believe that there are many applications where a two-channel system simply can't be improved on. If you agree, then the Classic Series from NAD probably has exactly what you are looking for.

classic

The Classic Series offers a complete range of amplifiers, receivers, preamp/power amp combos, tuners, tape recorders, and CD players. Each is developed with an ear for musical sound, an eye toward simplicity, and a promise that we won't waste your money on engineering overkill or superfluous features. Yet, over the years, we have added many convenience features that make a real difference in everyday enjoyment.

NAD Solutions are just that. Products that apply the NAD philosophy of performance, value and simplicity, while solving the struggles of design and lifestyle. NAD has created a new category of products that meet a wide range of consumer needs but deliver the NAD "Music First" solution that you have come to expect. The first two NAD Solutions are the L55 and L75 that complement each other to form the NAD Music and Home Theatre System.

Designed for those of us with minimal space to devote to a movie theatre-sized system but who still want the total experience. There is no sacrifice in the Audio and Video presentation and its stylish exterior fits beautifully with today's interior design themes. Its high performance audio output is more than matched by its stunning video quality.

Watch for further NAD Solutions Series products that will enhance your everyday life.

Note: NAD Solutions is not available in all markets.

silver

NAD is recognised as a leader when it comes to sensible yet unreservedly high performance audio and video. The Silver Series components are the most ambitious and sophisticated designs ever offered by NAD. The result of careful engineering and inspired industrial design, the Silver Series components are built from the ground up with sandblasted natural aluminium alloy extrusions and panels. The chassis are both beautiful and rugged, with optimal thermal and electrical characteristics.

Behind their elegantly understated exteriors, these handsome home theatre and audio components embody the essence of the NAD design philosophy. This can be easily stated: "Music First" engineering that avoids wasteful cost, ergonomically conceived controls that serve genuinely useful functions, and attractive design with first-rate finish and assembly. Advanced circuit designs are implemented using high precision, close tolerance parts obtained from the world's best suppliers. The Silver Series exemplifies our firm's traditional values - performance, value, and simplicity - to a higher degree than ever before.

compact disc players

As always, sonic performance is the first priority at NAD. Our Compact Disc Players offer a unique combination of uncomplicated controls, genuinely useful features, and superb sound quality. These multiple and single disc CD players employ some of the finest components available and our carefully tailored circuit designs ensure a convincingly musical performance. Experience the NAD difference for yourself and discover the true meaning of value.

- Single disc CD Player with Full Function Remote Control
- Burr-Brown Sigma-Delta 24 bit Digital to Analogue converter
- HDCD Decoder
- Coaxial Digital output
- Low output impedance
- Separate power regulators for analogue and digital sections
- Informative VFL display with switchable track, time and repeat
- Repeat mode for single track or entire CD
- Random play
- Remote control

C 541 COMPACT DISC PLAYER





Never a company to rest on its laurels, NAD has updated the award-winning C540 with a new laser mechanism that features improved tracking of the increasingly popular CD-R format for compact discs. By combining time-proven digital circuit design with the latest high performance parts, we have created a player that exceeds the already high standards for sound, quality, and value set by the C540, which itself received the industry's highest accolade from the renowned British journal, What HI-FI?, "...without a doubt one of the best CD players you can buy...."

- Single disc CD Player with Full Function Remote Control
- Burr-Brown Sigma-Delta 20 bit Digital to Analogue converter
- Coaxial Digital output
- Low output impedance
- Separate power regulators for analogue and digital sections
- Informative display with switchable track, time and repeat
- Repeat mode for single track or entire CD
- Random play
- Remote control

C 521 COMPACT DISC PLAYER





The NAD C 521 is a moderately priced but very high-performance CD player. Building on the considerable strengths of its predecessor the C 520, we have added CD-R playback capability to this "Best Buy" rated model. Everything needed for detailed and satisfying sound - along with convenience features such as remote control, random play, and repeat functions - is included.

523

MULTIPLE COMPACT DISC PLAYER

- 5 Disc carrousel
- Change 2 discs while playing one
- Bitstream converter
- Shuffle play
- 40 Track programming
- Full function remote control
- NAD Link



The NAD 523 is probably the least expensive truly high-performance CD changer in the world. The 523 combines the convenience of a 5 disc "carousel", with the kind of performance that has won widespread acclaim for single-disc NAD players. Endowed with a What HI-FI? Five Star rating, "The 523 may be a minimalist design, but it knows how to let the music shine."



turntable

533

TURNTABLE



While other manufacturers have abandoned the LP, NAD agrees with some of the world's most devoted audio and music enthusiasts that the LP still offers outstanding musicality. Unfortunately, the choices today are limited to cheap, ill-performing turntables or expensive ones built from separate decks, tone arms and cartridges requiring expert knowledge to set up and maintain.

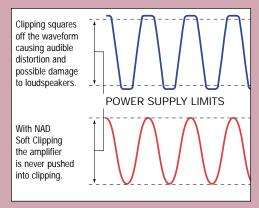
The NAD 533 is the sensible alternative; a quality deck, tone arm and cartridge at a reasonable price. Careful choice of materials and construction produces a turntable which is 'dead' acoustically, is immune to resonances and therefore leaves the music uncoloured. The NAD 533's simplicity contributes to its excellent performance but also guarantees long term reliability.

- Belt drive 2-speed turntable
- High torque synchronous motor
- One piece aluminium pressure cast tone arm
- Miniature ball bearings for tone arm
- Magnetic anti-skate
- High density non-resonant base
- Includes high quality Goldring Elektra cartridge

If music is important in your life, the exceptional performance and simple intuitive operation of these receivers may be just what you are looking for. NAD receivers have always stood out from the rest, as the engineers never compromise the quality of a receiver compared to that of separate components.

A closer look at what makes NAD special

NAD's new and exclusive Impedance Sensing Circuitry (ISC) allows the C 730 and C 740 receivers to deliver maximum performance under virtually any circumstance, independent of the loudspeakers driven. The circuitry automatically recognises the impedance characteristics of the loudspeaker and then adjusts its power supply settings to best cope with that specific load. As usual, NAD uses discrete output stages only on these receivers to maximise sonic performance. Vast reserves of dynamic power are available to reproduce the dynamic peaks that give music its drama and impact.



NAD's unique switchable 'Soft Clipping' circuit is activated when a receiver runs into overload. In other brands this situation would result in audible distortion and potential loudspeaker damage over time. The Soft Clipping circuit, on the other hand, assures clear musical reproduction virtually free from distortion while protecting your loudspeakers.

For system expansion or upgrading there is a pre-amplifier output allowing the addition of an optional power amp, so your receiver need never become obsolete.

The tuner sections on these receivers offer high performance, noise-free reception for which NAD tuners have long been acclaimed. Users will appreciate the ease of tuning in your favourite stations, even those with low signal strength or on the often over-crowded FM band. Unlike most, the tone controls on these products only work at the frequency extremes leaving the critical mid-band essentially unaltered. NAD engineers designed these tone controls to be really useful tools to make improvements in overall sound quality.

With their full remote control handsets these receivers allow the operation of the majority of functions from the comfort of your listening position. NAD Link allows many other NAD products such as CD players and cassette decks to be operated via the receiver's system remote controller.

- 35W x 2 Continuous power (8 or 4 ohms)
- 140W x 2 Dynamic power (2 ohms)
- Impedance Sensing Circuity (ISC)
- 6 Line level inputs, including 2 tape in/outs
- Pre-out/Main-in
- Connections for 2 pairs of speakers with remote selection
- 30 Random station presets in 3 banks
- 25kHz Tuning steps
- VFL Display
- 8 Character naming facility for station presets
- NAD Soft Clipping™
- Full system remote control
- NAD-Link

C 740

STEREO AM/FM RECEIVER



The NAD C 740 offers a winning combination of excellent AM/FM reception, clean and high-impact power, and all the flexibility needed to bring music convincingly alive. We expect it to become one of the most valued products in audio. NAD's reputation for high value/high performance makes the C 740 a true delight for music lovers.

- 30W x 2 Continuous power (8 or 4 ohms)
- 90W x 2 Dynamic power (2 ohms)
- Impedance Sensing Circuity (ISC)
- 6 Line level inputs, including 2 tape in/outs
- Preamp output
- RDS tuner with 30 direct access station presets
- 25kHz Tuning steps
- VFL Display
- 8 Character naming facility for station presets
- NAD Soft Clipping[™]
- Full system remote control
- 12 volt trigger output for controlling other equipment
- NAD-Link



STEREO AM/FM RECEIVER



Combining the advanced technology and musical performance of the C 740, in a package of more modest size and price, the C 730 is the ideal choice for smaller rooms. Tremendous dynamic power capability combined with delicacy and nuance assure a musically involving performance. Full remote control, RDS tuner with 30 direct access station presets, and a full complement of inputs make this receiver an exceptional value.

- Dual Deck (1 x playback;
 1 x record/playback)
- CD-Recordable (Audio Disc) and CD-ReWritable
- 4 x Dubbing Speed
- Playback of MP-3 encoded music files (up to 10 hours playback per disc)
- DSP for MP-3 decoding, running "Fraunhofer" algorithms
- Sample rate converter: accepts inputs with 32 kHz through 96 kHz sampling rate
- Record per track or copy entire CD
- CD text recognition and dubbing
- CD deck will play "unfinalised" CD-R and CD-RW discs
- Simultaneous or Sequential playback of both decks
- 2 Optical (one on front panel) and 2 Coaxial digital inputs
- 2 Optical and 2 Coaxial outputs
- 24 bit AKM DACs
- 20 bit AKM ADCs
- Remote control



C 660

COMPACT DISC RECORDER



The NAD C 660 is a unique product that not only makes perfect bit-for-bit copies of CDs in one fourth the playing time of the CD being copied, but it can also function as a first rate CD player in the best NAD tradition.

In addition, with its MP-3 decoding capability and sequential playback of both decks, it can function as a personal jukebox continuously playing up to 20 hours of music at "near CD quality" without changing discs or repeating songs! Since both decks can play at the same time, it is also possible to listen to different musical programs in different areas of your home when used with a multi-zone music distribution system.

Whether you are making a copy of an entire CD, or a compilation of your favourite music, the recording process couldn't be easier. Just place the CD to be copied in the playback tray and the blank CD-R or CD-RW disc in the recording tray. Program the tracks to be copied, and the C 660 does the rest. You can also make copies from analogue sources such as LP, tape, or radio broadcast via the analogue stereo inputs. The signal is automatically converted to digital format without loss of quality thanks to the superb Analogue-to-Digital converters built in to the C 660. External digital sources can also be easily recorded with automatic sample rate conversion if required.

As one would expect from NAD, particular care has been taken for all audio related circuitry. The ADC (analogue-to-digital converter) from AKM with its 20 bit resolution and

differential input assures that analogue sources are copied with utmost precision. The DAC (digital-to-analogue converter), also from renowned manufacturer AKM, has full 24 bit resolution and usually only found in CD players with high end aspirations. Even the MP-3 decoding has received special attention, as we utilise a dedicated Digital Signal Processor (DSP) running the "Fraunhofer" decoding algorithms, widely regarded as the most musically accurate for MP-3 listening. The analogue output stages also get the full NAD treatment, with high quality 5532 op-amps, precision metal film resistors, and Elan polypropylene capacitors, assuring a richly detailed and transparent sound quality. This scrupulous attention to detail is usually encountered only in far more expensive products.

We know of no other product on the market today that combines the superb sound quality, ease of use, and unique functionality of the NAD C 660. Whether you want to upgrade the sound of your CD player, archive precious analogue LPs and tapes into digital format, or move MP-3 files from the computer to the realm of hi-fi playback, the C 660 stands ready and willing to satisfy.

Sonic performance is always the first priority at NAD and these deceptively simple, no-frills cassette decks are no exception. In fact, they may be the only cassette decks in their price range to faithfully reproduce a wide range CD without dulling its impact. It all sounds superb thanks to Play Trim combined with Dolby HX Pro and Dolby B and C noise reduction circuitry.

Dolby HX Pro provides improved high frequency response at maximum recording levels. Play Trim provides adjustable gain or reduction of the high frequencies before the Dolby noise reduction circuits, eliminating high frequency roll-off and mistracking and thereby restoring flat frequency response, superb playback fidelity and maximum noise reduction. Play Trim also compensates for

misalignment or compatibility problems between different cassette decks. Utilising the exclusive NAD Play Trim facility in dubbing mode on the 616 dubbing cassette deck, you can even copy the corrections from the original to the copy, making it possible to produce copies better than the original!

- High performance dual well deck
- Play Trim™
- Dolby™ HX Pro
- Dolby™ B and Dolby™ C NR
- Auto reverse on both transports
- 2 Drive motors per transport
- Normal and high speed dubbing
- Repeat and sequential play
- NAD Link

616 CASSETTE DECK



The NAD 616 is a dubbing deck with uncompromised performance, useful simplicity, and every feature needed for optimum results with all sources and tape types. An astonishing performer at a sensible price.

- Play Trim™
- Dolby HX Pro™
- Dolby™ B and Dolby™ C NR
- Low noise electronics
- Memory counter
- NAD Link

613 CASSETTE DECK



The NAD 613 is a high-performance stereo cassette deck with great flexibility that makes it simple to record CDs, LPs, and broadcasts with excellent results for home or car listening - an outstanding value.

C 440

STEREO AM/FM TUNER



The NAD C 440 Stereo AM/FM tuner offers superbly musical sound quality with a nearly silent background, and the exceptional reception capabilities for which NAD tuners have long been acclaimed. Users will appreciate the ease of tuning in your favourite stations, even on the often over-crowded FM band. The NAD BLEND function reduces background noise while retaining good stereo separation on weak stations and the 8 character naming facility allows you to personalise your favourite station presets. Here is performance and convenience at a price that will astound you.

- 30 Random station presets in 3 banks
- MOS-FET RF section
- Ultra-linear I.F. filters
- 25kHz Tuning steps
- VFL Display
- 8 Character naming facility for station presets
- Manual FM blend facility
- NAD Link

C 420

STEREO AM/FM TUNER



The C 420 is a perfect blend of performance and convenience in a very affordable package. Simple and intuitive to operate, the C 420 is also impressive in its ability to bring in radio stations with remarkable clarity and a very quiet background. With its IR sensor, direct access to station presets, and 12 volt trigger input, the C 420 integrates easily with other NAD components or as part of an elaborate automated multi-zone custom installation.

- 30 Random station presets
- MOS-FET RF section
- 25kHz Tuning steps
- VFL Display
- RDS PS (station name) and RT (radio text)
- 8 Character naming facility for station presets
- Manual FM blend facility
- 12 volt trigger input for controlling other equipment
- IR sensor and NAD Link for remote control capability

NAD integrated amplifiers offer much of the convenience and value of our receivers but without the AM/FM tuner. With the proliferation of alternate music broadcasting from satellite and cable not requiring an FM tuner, buying an integrated amplifier allows you to spend more of your budget on a better quality CD player or a more powerful amplifier.



- 120W Continuous power (8 & 4 ohms)
- 400W Dynamic power (2 ohms)
- Bridgeable to 300W, when partnered with a C 270
- Impedance Sensing Circuitry (ISC)
- 7 line inputs, including 2 tape in/outs
- 2 Preamp outputs, one with a 12 dB variable attenuator

- Main amp input
- Tone controls with defeat switch
- Gold plated sockets
- Remote switching for 2 pairs of speakers
- Heavy duty speaker binding posts
- Class A preamp stages
- Discrete power amps
- Relay input switching

- Toroidal transformer
- Headphone socket
- Full system remote control
- 12 volt trigger output for controlling other equipment
- NAD Link

C 370

STEREO INTEGRATED AMPLIFIER



The C 370 occupies the top position in NAD's renowned line-up of Integrated Amplifiers. Based on the C 160 Preamp and C 270 Power Amp, the C 370 gives up very little in performance terms, and gains tremendously in value by integrating these superb separate components into a single chassis. With its well thought out architecture, many future system upgrades are easily accomplished without losing your original investment to costly trade-ups. This building-block approach allows you to attach additional speakers, or triple the amplifier power or even biamplify your speakers by simply adding a C 270 Power Amp.

But with the tremendous power already on tap, you may never find the need to add more! Yet the C 370 does not trade musical subtlety and nuance for its brute strength. As one reviewer remarked, its performance was like an iron fist in a velvet glove. Already blessed with Five Gold Stars and an Amplifier of the Year Award from Britain's renowned journal, What Hi-Fi?, the C 370 is bound for cult status with hi-fi hobbyists. The C 370 forms the ideal system centrepiece for the discriminating music lover.

AMPLIFIER STEREO INTEGRATED



Based closely on the circuitry of the C 370, but with less power and not quite so many upgrade paths, the C 350 stands out as one of the great bargains in hi-fi today. Like its larger sibling, the C 350 combines astounding soundstage, a richly textured sound with remarkable drive and the ability to keep pace with complex musical rhythms and thundering crescendos. Whether your musical tastes lean toward the acoustical warmth of classical and jazz, or the searing power of rock and dance music, the C 350 is sure to satisfy.

- 60W Continuous power (8 & 4 ohms)
- 240W Dynamic power (2 ohms)
- Impedance Sensing Circuitry (ISC)
- 7 line inputs, including 2 tape in/outs
- 2 Preamp outputs
- Main amp input
- Tone controls with defeat switch
- Gold plated sockets
- Heavy duty speaker binding posts
- Class A preamp stages
- Discrete power amps
- Relay input switching
- Toroidal transformer
- Headphone socket
- Full system remote control
- 12 volt trigger output for controlling other equipment
- NAD Link

C 320

AMPLIFIER STEREO INTEGRATED



The NAD C 320 is the direct descendant of our original 3020 integrated amplifier - the world's best-seller in its category. Times have changed, and while this new model does not include phono input for LP, it does include full remote control. Still present is power beyond its modest rating, sound that is both transparent in the midrange and highs and solid at low frequencies, and the ability to satisfy listeners of all musical tastes. If you listen in a smaller room, or have less demanding speakers, the C 320 is probably all you'll ever need in an amplifier.

Note: Not available in North America

- 40W x 2 Continuous power (8 & 4 ohms)
- 160W x 2 Dynamic power (2 ohms)
- Impedance Sensing Circuitry (ISC)
- Full system remote control
- Headphones socket
- Relay input switching
- Toroid power transformer
- 7 Line inputs, with two tape in/outs
- All discrete circuitry
- Short signal path from input to output
- All sockets gold plated
- Tone controls defeat switch
- Pre-out / Main-in
- Soft Clipping
- NAD Link



INTEGRATED AMPLIFIER STEREO



The NAD C 300 may be the least expensive, least complicated way to power and control an affordable high-performance audio system. With surprising power and first-class components, it is a perfect entry into high-fidelity sound reproduction.

Note: Not available in North America

- 25W x 2 Continuous power (8 ohms)
- 90W x 2 Dynamic power (2 ohms)
- In excess of 40A peak current!
- Toroidal transformer
- "Class A" discrete amp module driver stage
- All discrete circuitry
- Non-intrusive protection against short circuits, overheating and DC offset
- Short signal path from input to output
- All sockets Gold plated
- Remote control for Volume & Muting
- Headphone socket
- 7 Line inputs, including two tape in/outs
- Tone control defeat switch



With NAD's range of pre- and power amplifiers, you can exactly tailor your system to your individual needs. Whichever power level and feature complement you require, NAD separate components offer tremendous value. The combination of performance, flexibility and reliability make these pre- and power amplifiers ideal for demanding music, home theatre and

professional applications. The NAD 218THX is a massively powerful amplifier with the ability to drive any loudspeaker, even demanding low sensitivity and low impedance types. The C 270 follows the same design principles, with output power being the major difference. Both include a massive NAD "Holmgren" toroidal transformer and high current output stages for outstanding

performance. For maximum flexibility, the amplifiers can be operated in bridged mono mode, typically tripling their output power.

- 6 line level inputs incl. 2 Tape in/outputs with dubbing facility
- Switchable MM and MC phono input
- 2 line level preamp outputs; one is variable from 0dB to -12dB
- Gold plated in and output sockets
- Pure "Class A" discrete amplifier modules
- Independent headphone amplifier
- Bass & Treble control with Tone Defeat switch
- Full Remote Control
- "Blue Velvet" Alps motorised volume control
- Input switching through hermetically sealed relays
- 12 volt trigger output for controlling other equipment
- NAD Link

C 160

STEREO PRE-AMPLIFIER



NA 0

The NAD C 160 has everything needed for highest performance, including a phono preamp section that handles either moving-magnet or moving-coil cartridges. Class A amplifier stages and a high precision volume control, typically found only in far more expensive designs, are complemented by an over-specified power supply and selected close tolerance parts throughout. An extra, variable-level pair of outputs provides precise matching with any amplifier, and facilitates bi-amplification in more demanding applications. With a stunningly musical presentation from a dead silent background, the C 160 is a natural choice for even the most ambitious systems.

- Compact external Moving Magnet phono preamplifier
- RIAA equalisation
- Gold plated connectors
- Remote AC power supply

PP-1 PHONO PRE-AMPLIFIER



The NAD PP-1 is a simple, amazingly inexpensive plug-and-play accessory that adds an excellent phono capability to any line-level pre-amplifier, integrated amp, or receiver. Its performance is amazingly close to that of units many times the price. The PP-1 has been recognised by the high end American journal, Stereophile, as a Recommended Component: a lofty accolade for such a diminutive device!

power <u>amplifiers</u>



218THX

STEREO POWER AMPLIFIER



The NAD 218THX is a tremendously powerful and transparent sounding stereo power amplifier. This powerhouse has ample reserves of power to drive even the most demanding loudspeakers with amazing realism. We don't know of another power amplifier on the market today that delivers this kind of performance for anywhere near the price of the 218THX. A Stereophile recommended component.

- 225W x 2 Continuous power (8 ohms)
- 700W x 2 Dynamic power (2 ohms)
- Bridgeable to 780W mono (8 ohms)
- Output stage uses 8 bipolar devices per channel
- Massive Holmgren™ toroidal transformer
- Professional balanced XLR inputs and un-balanced RCA inputs
- Integral, commercial-grade rack handles
- NAD Soft Clipping™
- Certified for THX home theatre use by Lucasfilms, Ltd.

C 270

STEREO POWER AMPLIFIER



This cost-effective design epitomises the NAD's long tradition for producing power amps that perform way beyond what their specifications would suggest. The C 270's combination of very high dynamic power and ultra low distortion - even when presented with complex speaker loads - gives this amplifier a sense of ease usually reserved for the exotic "high end". Non-intrusive protection circuitry is sonically transparent, yet effectively intervenes when a fault condition exists. The C 270 has an open and transparent sound, with a strong rhythmic drive and clear delineation of individual instruments in a deep and wide soundstage.

- 120W Continuous power (8 & 4 ohms)
- 400W Dynamic power (2 ohms)
- Bridgeable to 300W, when partnered with a C 270
- Impedance Sensing Circuitry (ISC)
- 2 inputs, one with a 12 dB variable attenuator
- Gold plated sockets
- 2 pairs of heavy duty speaker binding posts for easy bi-wiring
- Discrete power amp stages
- Toroidal transformer
- 12 volt trigger input for controlling other equipment

specifications

COMPACT DISC PLAYERS	C 521	C 541	523
CD Section			
Disc capacity	1 x 120mm or 80mm	1 x 120mm or 80mm	5 x 120mm or 80mm
	CD-R Compatible	CD-R Compatible	
Programming capability	20 Tracks	20 Tracks	40 Tracks
Digital-to-analogue conversion	20 bit Sigma-Delta	24 bit Sigma-Delta	0
Digital filter	8 x oversampled	8 x oversampled	8 x oversampled linear
Analogue filter	4 pole active	5 pole active	
Frequency response 5Hz-20kHz	±0.5dB	±0.5dB	±0.4dB
De-emphasis error	<0.5dB	<0.5dB	
THD (at OdB, 1kHz)	0.0035%	0.0035%	0.003%
Dynamic range	96dB	98dB	98dB
Linearity	± 0.5dB; 0 to -90dB	± 0.5dB; 0 to -90dB	±1 dB; 0 to -90dB
Signal/noise ratio, A-weighted	108dB	108dB	>95dB
Channel separation at 1kHz	>110dB	>110dB	>85dB
Channel separation at 10kHz	>80dB	>80dB	
Wow and flutter	Quartz accuracy	Quartz accuracy	Quartz accuracy
Output impedance	300 Ω	300 Ω	
Output level at 0dB	2.2V rms	2.2V rms	2.0V rms
Digital error correction	CIRC, double error	CIRC, double error	CIRC, double error
	correction in C1 and C2	correction in C1 and C2	correction in C1 and C2
Digital output	Yes - Coaxial	Yes - Coaxial	No
Remote control	Yes	Yes	Yes
Physical Specifications			
Dimensions (W x H x D)	435 x 70 x 285mm	435 x 70 x 285mm	435 x 121 x 390mm
Net weight	4.1kg	4.1kg	6.17kg
Shipping weight	4.9kg	4.9kg	7.39kg
11 3 3	9	9	9

TURNTABLE	533	
Drive system	Belt drive	
Motor	High torque	
Speeds	33.3 & 45rpm	
Tonearm		
Operation	Manual	
Length (pivot to stylus)	244mm	
Mass	9g	
Overhang	19.1mm	
Cartridge weight	4.2g	
Vertical tracking force	1.7g	
Cable capacitance	150-400pF	
Cartridge specification		
Transducer	±3dB 20Hz-20kHz	
Frequency response	2dB at 1kHz	
Channel balance	20dB at 1kHz	
Channel separation	5mV ±2dB	
Sensitivity	1kHz at 5cm/sec	
Static compliance	16mm/N	
Equivalent tip mass	0.7g	
Vertical tracking angle	26°	
Stylus radius	18µm х 7µm	
Electrical characteristics		
Load resistance	47kΩ	
Load capacitance	150-400pF	
Internal inductance	56mH	
Internal resistance	700 Ω	
Physical Specifications		
Dimensions (W x H x D)	447 x 115 x 356mm	
Net weight	5.25kg	
Shipping weight	6.9kg	

STEREO RECEIVERS	C 730	C 740	
Pre-Amp Section			
Line level inputs			
Input Impedance (R+C)	20kΩ/200pF	20kΩ/500pF	
Input Sensitivity; ref. 0.5V	200mV	240mV	
Maximum input signal	10V rms		
Frequency response (-3dB 3Hz - 70kHz)*	±0.5dB	±0.3dB	
Signal/noise ratio, ref 1W	>90dB		
Line level outputs			
Output impedance	220 Ω	220 Ω	
Tape	Source Z + 2kΩ	Source Z + 2kΩ	
Maximum output level	4V rms		
Tone controls			
Treble	±10dB (at 10kHz)	5dB (at 10k)	
Bass	±10dB (at 100Hz)	7dB (at 50Hz)	
Remote control	Yes	Yes	
Power Amp Section			
Continuous output power †	30W(14dBW)	35W (15dBW)	
Rated distortion (THD 20Hz-20kHz)	0.05%	0.01%	
Clipping power ‡	35W (16.5dBW)	55W (17.4dBW)	
IHF dynamic headroom at 8Ω	+2dB	1.8dB	
IHF dynamic power at 8Ω	45W (17dBW)	75W (18.8dBW)	
IHF dynamic power at 4Ω	70W (18.5dBW)	120W (20.8dBW)	
IHF dynamic power at 2Ω	90W (19.5dBW)	130W (21.1dBW)	
Damping factor (ref. 8Ω , 50Hz)	>60	>60	
Line level inputs			
Input impedance		20kΩ /100pF	
Input sensitivity (for rated power into 8Ω)		1V	
Frequency response; 20Hz-20kHz	0.5dB	0.3dB	
Signal/noise ratio; ref 1W		90dB	
Signal/noise ratio; ref rated power		106dB	
FM Tuner Section			
Usable input sensitivity; FM mono:	2.2µV, IHF	1.8µV	
Usable input sensitivity; FM stereo:	16 μV, IHF	15µV	
50 dB Quieting sensitivity; FM mono:	4µV	3.0µV	
50 dB Quieting sensitivity; FM Stereo:	28µV	20μV	
Capture ratio (FM)	2.4dB	3dB	
Image rejection	>60dB	>90dB	
Harmonic distortion; FM mono	0.2%	0.15%	
Harmonic Distortion; FM stereo	0.3%	0.13%	
Signal/noise; mono	3.370	7.278 7.4dB	
Signal/noise; stereo		70dB	
Channel separation at 1kHz	>45dB	>45dB	
Frequency response; ± 1.5 dB	15Hz-15kHz	20Hz-15kHz	
AM Tuner Section Usable sensitivity	24dBµV	30 m/	
Selectivity	24dBµV 21dB	20 μV 32dB	
Image rejection		32dB 32dB	
• •	40dB		
IF rejection	45dB	50dB	
Signal/noise ratio	45dB	52dB	
Harmonic distortion		0.30%	
Physical Specifications			
Dimensions (W x H x D)	435 x 95 x 285mm	435 x 110 x 290mm	
Net weight	7.2kg	7.2kg	

8.73kg

8.73kg

Shipping weight

COMPACT DISC RECORDER	C 660	
Audio		
Play		
Signal/noise	105dB	
Dynamic range	105dB	
Total harmonic distortion	0.005%	
Headphones		
Line output voltage	2V rms +/-2db	
Digital coaxial output	0.5 Vpp/75 Ω	
Recording		
Frequency response (digital in)	2Hz - 20.05kHz	
Signal/noise (Analogue)	91dB	
Dynamic range	91dB	
Total harmonic distortion	0.005%	
Digital coaxial input (direct recording)	32kHz to 96kHz	
	sampling rate	
Digital optical input (direct recording)	32kHz to 96kHz	
	sampling rate	
Analogue input (level potentiometer)	330mV rms/50k Ω = 0dB	
General		
Compatible with	CD, (Audio) CD-R, (Audio) CD-	
December of the second	RW, MP-3 x1 x2 x4	
Recording speed (max)		
Power consumption	28W	
Physical Specifications		
Dimensions (W x H x D)	435 x 95 x 300mm	
Net weight	5.8kg	
Shipping weight	7.0kg	

- * 20 20kHz in tone defeat mode
- † Minimum power per channel, 20Hz-20kHz, both channels driven, with no more than rated distortion † Maximum continuous power per channel

Dimensions are of unit's cabinets without attached feet; add up to 18mm for total height. Dimension depth excludes terminals, sockets, controls and buttons.

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MP-3 audio compression technology licensed by Fraunhofer IIS-A.

specifications

CASSETTE DECKS	613 616		
Speed accuracy	< 1%	< 1%	
Wow and flutter	< 0.06% JIS wtd. RMS	< 0.07% JIS wtd. RMS	
	< 0.1% DIN wtd. peak	(both deck A & B)	
Frequency response‡	35Hz - 17kHz ± 3dB	30Hz - 16kHz ± 3dB	
MPX filter response	Flat within 1dB to 15kHz	Flat within 1dB to 15kHz	
Harmonic distortion	< 0.3% at -10dB	< 0.3% at -10dB	
THD at 0dB*	< 1.0%	< 1.0%	
THD at 0dB**	< 1.5%	< 1.5%	
Signal/noise ratio†	58dB (Dolby off)	58dB (Dolby off)	
	68dB (Dolby B)	68dB (Dolby B)	
	78dB (Dolby C)	78dB (Dolby C)	
	40dB at 1kHz	40dB at 1kHz	
Channel separation	35dB broadband	35dB broadband	
Erase	> 70dB at 1kHz	> 70dB at 1kHz	
Input sensitivity	40mV	80mV	
Input impedance	50kΩ	40kΩ	
Maximum input level	25V	25V	
Output level at OdB	500mV	500mV	
Remote control	No	No	
Physical Specifications			
Dimensions	435 x 125 x 290mm	435 x 120 x 285mm	
Net weight	5.0kg	5.8kg	
Shipping weight	6.6kg	6.8kg	

- Dolby NR off, Record/Playback
 Ref. 3% THD at 333Hz [biased tape] CCIR/ARM weighting)
 Normal tape
 CrO2, Metal tape

Input overload 20Hz/1KHz/20KHz; MC 1.3mV/12mV/110m Signal/noise ratio (A-weighted + cartridge); MM 78dB 80dB ref. 5mV Signal/noise ratio (Unweighted) MM 72dB Signal/noise ratio (A-weighted + cartridge); MC 81dB ref. 0.5mV RIAA accuracy; MM (20Hz - 20KHz) ± 0.5dB ± 0.4dB ± 0.4dB ± 0.4dB Eine level inputs Eine lev	STEREO PRE-AMPLIFIERS	PP-1	C 160
Phono R + C; MC	Phono stage		
Input sensitivity ref. 0.5V 1KHz; MM 2.5mV	Phono R + C; MM	47kΩ +220pF	47kΩ + 470pF
Input sensitivity ref 200mV; MM 2.5mV Input sensitivity ref. 0.5V 1KHz; MC 115uV Input overload 20Hz/1KHz/20KHz; MC 1.3mV/12mV/110m Signal/noise ratio (A-weighted + cartridge); MM 78dB 80dB ref. 5mV Signal/noise ratio (A-weighted + cartridge); MC 81dB ref. 0.5mV RIAA accuracy; MM (20Hz - 20KHz) ± 0.5dB ± 0.4dB Eine level inputs Impedance (R+C) 500kΩ + 320pF Sensitivity; ref. 0.5V 150mV 17V Signal/noise A-weighted 510dB ref. 0.5V 150mV 510dB ref. 0.5V 510dB ref.	Phono R + C; MC		100Ω + 1nF
Input sensitivity ref. 0.5V 1KHz; MC	Input sensitivity ref. 0.5V 1KHz; MM		2.1mV
Input overload 20Hz/1KHz/20KHz; MM 55/63/580mV 20mV/230mV/2V Input overload 20Hz/1KHz/20KHz; MC 1.3mV/12mV/110m Signal/noise ratio (A-weighted + cartridge); MM 78dB 80dB ref. 5mV Signal/noise ratio (Unweighted) MM 72dB Signal/noise ratio (A-weighted + cartridge); MC 81dB ref. 0.5mV RIAA accuracy; MM (20Hz - 20KHz) ± 0.5dB ± 0.4dB ±	Input sensitivity ref 200mV; MM	2.5mV	
Input overload 20Hz/1KHz/20KHz; MC 1.3mV/12mV/110m Signal/noise ratio (A-weighted + cartridge); MM 78dB 80dB ref. 5mV Signal/noise ratio (A-weighted + cartridge); MC 81dB ref. 0.5mV Signal/noise ratio (A-weighted + cartridge); MC 81dB ref. 0.5mV RIAA accuracy; MM (20Hz - 20KHz) ± 0.5dB ± 0.4dB Eine level inputs Impedance (R+C) 500kΩ + 320pF Sensitivity; ref. 0.5V 150mV 150mV Maximum input signal 17V 5ignal/noise A-weighted >100dB ref. 0.5V ± 0.2dB ± 0.2dB ± 0.2dB ± 0.2dB ± 0.2dB Eine level outputs 0.01% Eine level outputs 0.01% Eine level outputs 0.01% Tope Source Z + 1kΩ Phones 100 Ω Maximum output level; Pre-amp >15V >15V >15V >100 into 600 Ω >190mV into 8 Ω Tone controls ±5dB at 10KHz E5dB at 10KH	Input sensitivity ref. 0.5V 1KHz; MC		115uV
Signal/noise ratio (A-weighted + cartridge); MM 78dB 80dB ref. 5mV Signal/noise ratio (Unweighted) MM 72dB Signal/noise ratio (A-weighted + cartridge); MC 81dB ref. 0.5mV RIAA accuracy; MM (20Hz - 20KHz) ± 0.5dB ± 0.4dB Line level inputs ± 0.4dB Impedance (R+C) 500kΩ + 320pF Sensitivity; ref. 0.5V 150mV Maximum input signal 17V Signal/noise A-weighted >100dB ref. 0.5V Frequency response (-3dB 3Hz - 70kHz)* ± 0.2dB THD 0.04% 0.01% Line level outputs 0.01% Output impedance; Pre-amp 75 Ω Tape Source Z + 1kΩ Phones 100 Ω Maximum output level; Pre-amp >15V Tape >15V Phones >10V into 600 Ω Nome >10V into 600 Ω Tone controls ±5dB at 10KHz	Input overload 20Hz/1KHz/20KHz; MM	55/63/580mV	20mV/230mV/2V
Signal/noise ratio (Unweighted) MM 72dB Signal/noise ratio (A-weighted + cartridge); MC 81dB ref. 0.5mV RIAA accuracy; MM (20Hz - 20KHz) $\pm 0.5dB$ $\pm 0.4dB$ RIAA accuracy; MC (50Hz - 20KHz) $\pm 0.4dB$ Line level inputs $\pm 0.4dB$ Impedance (R+C) $500k\Omega + 320pF$ Sensitivity; ref. 0.5V $150mV$ Maximum input signal $17V$ Signal/noise A-weighted $> 100dB$ ref. 0.5V Frequency response (-3dB 3Hz - 70kHz)* $\pm 0.2dB$ THD 0.04% 0.01% Line level outputs 0.04% 0.01% Output impedance; Pre-amp 75Ω Tape $500mC$ z + $1k\Omega$ Phones 100Ω Maximum output level; Pre-amp $> 15V$ Tape $> 15V$ Phones $> 10V$ into 600Ω $> 10V$ $> 10V$ into 500 $> 10V$ $> 10V$ into 500 $> 10V$ $> 10V$ $> 10V$ $>$	Input overload 20Hz/1KHz/20KHz; MC		1.3mV/12mV/110mV
$\begin{array}{c} \text{Signal/noise ratio (A-weighted + cartridge); MC} \\ \text{RIAA accuracy; MM (20Hz - 20KHz)} \\ \text{RIAA accuracy; MC (50Hz - 20KHz)} \\ \\ \text{Line level inputs} \\ \\ \text{Impedance (R+C)} \\ \text{Sensitivity; ref. 0.5V} \\ \text{Maximum input signal} \\ \text{Signal/noise A-weighted} \\ \text{THD} \\ \\ \text{Output impedance; Pre-amp} \\ \text{Tape} \\ \text{Phones} \\ \\ \text{Maximum output level; Pre-amp} \\ \text{Tape} \\ \text{Phones} \\ \\ \text{Phones} \\ \\ \text{Tone controls} \\ \\ \text{Signal noise A-weighted} \\ \text{Source Z + 1k}\Omega \\ Source Z$	Signal/noise ratio (A-weighted + cartridge); MM	78dB	80dB ref. 5mV
RIAA accuracy: MM (20Hz - 20KHz) $\pm 0.5 dB$ $\pm 0.4 dB$ RIAA accuracy: MC (50Hz - 20KHz) $\pm 0.4 dB$ $\pm 0.4 dB$ Line level inputs Impedance (R+C) $\pm 0.5 V$ $\pm 0.5 V$ 150W $\pm 0.5 V$ 170W Maximum input signal $\pm 0.2 dB$ $\pm 0.2 dB$ $\pm 0.2 dB$ $\pm 0.2 dB$ 3Hz - 70KHz)* $\pm 0.2 dB$ $\pm 0.0 d\%$ 0.01% Line level outputs Output impedance: Pre-amp $\pm 0.0 d\%$ 50wcce Z + 1k Ω Phones $\pm 0.0 d\%$ 100 Ω Maximum output level; Pre-amp $\pm 0.0 d\%$ 155V 155V Phones $\pm 0.0 d\%$ 2190mV into $\pm 0.0 d\%$ 100 $\pm 0.0 d\%$ 100 $\pm 0.0 d\%$ 100 $\pm 0.0 d\%$ 100 into 600 $\pm 0.0 d\%$ 10	Signal/noise ratio (Unweighted) MM	72dB	
RIAA accuracy: MC (50Hz - 20KHz) \pm 0.4dB Line level inputs Impedance (R+C) $500k\Omega + 320pF$ Sensitivity: ref. 0.5V $150mV$ Maximum input signal $17V$ Signal/noise A-weighted $>100dB$ ref. 0.5V Frequency response (-3dB 3Hz - 70kHz)* \pm 0.2dB THD 0.04% 0.01% Line level outputs Output impedance: Pre-amp 75Ω Tape $50mCe Z + 1k\Omega$ Phones 100Ω Maximum output level: Pre-amp 100Ω Tape $15V$ Tape $15V$ Phones 100Ω Source 100Ω Maximum output level: Pre-amp 100Ω Tape 100Ω Source 100Ω Maximum output level: Pre-amp 100Ω Tape 100Ω Source	Signal/noise ratio (A-weighted + cartridge); MC		81dB ref. 0.5mV
Line level inputs $500k\Omega + 320pF$ Impedance (R+C) $500k\Omega + 320pF$ Sensitivity; ref. 0.5V $150mV$ Maximum input signal $17V$ Signal/noise A-weighted $>100dB$ ref. 0.5V Frequency response (-3dB 3Hz - 70kHz)* $\pm 0.2dB$ THD 0.04% Uine level outputs 0.01% Output impedance; Pre-amp 75Ω Tape $5000000000000000000000000000000000000$	RIAA accuracy; MM (20Hz - 20KHz)	±0.5dB	± 0.4dB
$\begin{array}{llllllllllllllllllllllllllllllllllll$	RIAA accuracy; MC (50Hz - 20KHz)		± 0.4dB
Sensitivity; ref. 0.5V 150mV Maximum input signal 17V Signal/noise A-weighted >100dB ref. 0.5V Frequency response (-3dB 3Hz - 70kHz)* $\pm 0.2\text{dB}$ THD 0.04% 0.01% Line level outputs Output impedance; Pre-amp 75 Ω Tape Source Z + 1k Ω Phones 100 Ω Maximum output level; Pre-amp >155V Tape >15V Phones >10V into 600Ω >100 Ω Tone controls $\pm 5\text{dB}$ at 10KHz	Line level inputs		
Maximum input signal 17V Signal/noise A-weighted >100dB ref. 0.5V Frequency response (-3dB 3Hz - 70kHz)* ± 0.2dB THD 0.04% 0.01% Line level outputs 0.04% 0.01% Output impedance; Pre-amp 75 Ω Tape Source Z + 1kΩ Phones 100 Ω Maximum output level; Pre-amp >15V Tape >15V Phones >10V into 600 Ω Nomes >190mV into 8 Ω Tone controls ±5dB at 10KHz	Impedance (R+C)		500kΩ + 320pF
Signal/noise A-weighted >100dB ref. 0.5V	Sensitivity; ref. 0.5V		150mV
Frequency response (-3dB 3Hz - 70kHz)*	Maximum input signal		17V
THD 0.04% 0.01% Line level outputs Output impedance; Pre-amp 75 Ω Tape Source Z + 1k Ω Phones 100 Ω Maximum output level; Pre-amp 315V Tape 315V Phones 310V into 600 Ω Phones 3190mV into 8 Ω Tone controls $\pm 5dB$ at 10KHz	Signal/noise A-weighted		>100dB ref. 0.5V
Line level outputs 75 Ω Output impedance; Pre-amp 75 Ω Tape Source Z + 1k Ω Phones 100 Ω Maximum output level; Pre-amp >15V Tape >15V Phones >10V into 600 Ω >190mV into 8 Ω Tone controls $\pm 5dB$ at 10KHz	Frequency response (-3dB 3Hz - 70kHz)*		± 0.2dB
$ \begin{array}{c c} \text{Output impedance; Pre-amp} & 75 \ \Omega \\ \hline \text{Tape} & \text{Source Z} + 1k\Omega \\ \hline \text{Phones} & 100 \ \Omega \\ \hline \text{Maximum output level; Pre-amp} & >15V \\ \hline \text{Tape} & >15V \\ \hline \text{Phones} & >10V \text{ into } 600 \ \Omega \\ \hline \hline \text{Tone controls} & \pm 5dB \text{ at } 10\text{KHz} \\ \hline \end{array} $	THD	0.04%	0.01%
$ \begin{array}{c c} \text{Output impedance; Pre-amp} & 75 \ \Omega \\ \hline \text{Tape} & \text{Source Z} + 1k\Omega \\ \hline \text{Phones} & 100 \ \Omega \\ \hline \text{Maximum output level; Pre-amp} & >15V \\ \hline \text{Tape} & >15V \\ \hline \text{Phones} & >10V \text{ into } 600 \ \Omega \\ \hline \hline \text{Tone controls} & \pm 5dB \text{ at } 10\text{KHz} \\ \hline \end{array} $			
$ \begin{array}{c c} \text{Tape} & \text{Source Z} + 1k\Omega \\ \text{Phones} & 100 \ \Omega \\ \text{Maximum output level; Pre-amp} & >15V \\ \text{Tape} & >15V \\ \text{Phones} & >10V \text{ into } 600 \ \Omega \\ & >190\text{mV into } 8 \ \Omega \\ \end{array} $	·		
Phones 100 Ω Maximum output level; Pre-amp >15V Tape >15V Phones >10V into 600 Ω >190mV into 8 Ω >190mV into 8 Ω Tone controls ±5dB at 10KHz			
Maximum output level; Pre-amp >15V Tape >15V Phones >10V into 600 Ω >190mV into 8 Ω Tone controls ±5dB at 10KHz	-		Source Z + 1kΩ
Tape >15V Phones >10V into 600 Ω >190mV into 8 Ω Tone controls ±5dB at 10KHz	Phones		100 Ω
Phones	Maximum output level; Pre-amp		>15V
>190mV into 8 Ω Tone controls	Tape		>15V
Tone controls ±5dB at 10KHz	Phones		>10V into 600 Ω
			>190mV into 8 Ω
	Tone controls		±5dB at 10KHz
Treble ±5dB at 50Hz	Treble		±5dB at 50Hz
Bass	Bass		
Remote control No Yes	Remote control	No	Yes
Physical Specifications	Physical Specifications		
•	•	135 x 35 x 70mm	435 x 80 x 285mm
Net weight 0.45 kg 4.8 kg			
Shipping weight 0.96 kg 6 kg			

STEREO AM/FM TUNER	C 420	C 440
FM Tuner Section		
Usable input sensitivity; FM mono	2.2μV, IHF	1.8µV
Usable input sensitivity; FM stereo	16μV, IHF	15μV
50dB Quieting sensitivity; FM mono	4µV	3.0µV
50dB Quieting sensitivity; FM stereo	28µV	20μV
Capture ratio (FM)	2.4dB	
Image rejection	>60dB	>90dB
Harmonic distortion; FM mono	0.2%	0.15%
Harmonic Distortion; FM stereo	0.3%	0.20%
Signal/noise; mono		74dB
Signal/noise; stereo		70dB
Channel separation at 1kHz	>45dB	45dB
Frequency response; ± 1.5 dB	15Hz-15kHz	20Hz-15kHz
AM Tuner Section		
Usable sensitivity	24dBµV	81dB(120V), 84dB(230V)
Selectivity	21dB	32dB
Image rejection	40dB	32dB
IF rejection	45dB	50dB
Signal/noise ratio	45dB	52dB
Harmonic distortion		0.30%
Remote control	No	No
Physical Specifications		
Dimensions (W x H x D)	435 x 70 x 285mm	435 x 80 x 290mm
Net weight	4kg	3.5kg
Shipping weight	4.5kg	4.5kg

Line level inputs 210kΩ / 320pF 20kΩ / 500pF 50kΩ / 320pF 300kΩ / 320pF Input impedance (R+C) 200mV 165mV 325mV 290mV 290mV Frequency response (3dB 3Hz - 70kHz)* ± 0.5dB ± 0.3dB ± / 0.3dB ± / 0.3dB ± / 0.2dB Line level outputs 200 Ω 220 Ω 100 Ω 75 Ω 325mV 290mV 220 Ω 220 Ω </th <th>INTEGRATED AMPLIFIERS</th> <th>C 300</th> <th>C 320</th> <th>C 350</th> <th>C 370</th>	INTEGRATED AMPLIFIERS	C 300	C 320	C 350	C 370
Input Impedance (R+C)	Pre-Amp Section				
165mV 325mV 290mV 165mV 325mV 290mV 165mV 20.3dB +/-0.3dB +/-0.2dB	Line level inputs				
Line level outputs 220 Ω 100 Ω 75 Ω	Input impedance (R+C)	210kΩ /320pF	20kΩ / 500pF	50kΩ / 320pF	300kΩ / 320pF
Line level outputs 220 Ω 220 Ω 100 Ω 75 Ω Source Z + 2kΩ Source Z + 2kΩ Source Z + 1kΩ Source Z + 1kΩ Source Z + 2kΩ Source Z + 2kΩ Source Z + 1kΩ Source Z + 1kΩ Source Z + 2kΩ Source Z + 2kΩ Source Z + 1kΩ Source Z + 1kΩ Source Z + 1kΩ Source Z + 1kΩ Source Z + 1kΩ Source Z + 1kΩ Source Z + 1kΩ Source Z + 1kΩ Source Z + 1kΩ	Input sensitivity; rated power	200mV	165mV	325mV	290mV
Output impedance 220 Ω source 2 + 2kΩ source 2 + 2kΩ source 2 + 2kΩ source 2 + 1kΩ s	Frequency response (-3dB 3Hz - 70kHz)*	±0.5dB	±0.3dB	+/-0.3dB	+/-0.2dB
Source Z + 2kΩ Source Z + 1kΩ 220 Ω 310dB	Line level outputs				
Prones	Output impedance	220 Ω	220 Ω	100 Ω	75 Ω
Signal/noise ratio Signal/noise ratio SidB at 10kHz S	Таре	Source Z + 2kΩ	Source Z + 2kΩ	Source Z + 1kΩ	Source Z + 1kΩ
Trobe controls Treble	Phones	220 Ω	220 Ω	220 Ω	220 Ω
Freble GdB at 10kHz SdB at 10kHz SdB at 10Hz TdB at 10DHz	Signal/noise ratio			>106dB	>100dB
Sample	Tone controls				
Remote control Yes Yes Yes Yes Power Amp Section Continuous output power ↑ 25W (14dBW) 40W (16dBW) 60W (17.8dBW) 120W (20.8dBW) Rated distortion (THD 20Hz-20kHz) 0.03% 0.03% 0.03% 0.03% 0.03% Clipping power ‡ 30W (14.8dBW) 55W (17.4dBW) 70W (18.5dBW) 140W HF dynamic headroom at 8Ω +2.4dB +3.5dB 3.5dB 3dB HF dynamic power at 8Ω 43W (16.3dBW) 90W (19.5dBW) 135W (21.3dBW) 210W (23.2dBW) HF dynamic power at 4Ω 65W (18.1dBW) 125W (21dBW) 190W (22.8dBW) 340W (25.3dBW) HF dynamic power at 2Ω 90W (19.55dBW) 160W (22 dBW) 190W (23.8dBW) 340W (25.3dBW) Siew rate 90W (19.55dBW) 160W (22 dBW) 190W (23.8dBW) 450W (26.5dBW) Siew rate 90W (19.55dBW) 160W (22 dBW) 240W (23.8dBW) 3450W (26.5dBW) Siew rate 90W (19.55dBW) 160W (22 dBW) 240W (23.8dBW) 450W (26.5dBW) Siew rate 100W (20.5dBW) 1.10W 200W	Treble	6dB at 10kHz	5dB at 10kHz		
Power Amp Section 25W (14dBW) 40W (16dBW) 60W (17.8dBW) 120W (20.8dBW) Continuous output power † 25W (14dBW) 40W (16dBW) 60W (17.8dBW) 120W (20.8dBW) Rated distortion (THD 20Hz-20kHz) 0.03% 0.03% 0.03% 0.03% Clipping power ‡ 30W (14.8dBW) 55W (17.4dBW) 70W (18.5dBW) 140W Hif dynamic power at 8Ω 43W (16.3dBW) 90W (19.5dBW) 135W (21.3dBW) 210W (23.2dBW) Hif dynamic power at 4Ω 65W (18.1dBW) 125W (21dBW) 190W (22.8dBW) 340W (25.3dBW) Hif dynamic power at 2Ω 90W (19.55dBW) 160W (22 dBW) 240W (23.8dBW) 450W (26.5dBW) Slew rate 30amping factor (ref. 8Ω, 50Hz) >100 >60 >150 >150 Damping factor (ref. 8Ω, 50Hz) >100 >60 >150 >150 >150 Input impedance 20kB, 50Hz) 20kB 20kB / 470pF 20kΩ / 300pF 1.1V 20dB 29dB 29dB 29dB 29dB 34B +1-0.3dB +1-0.3dB +1-0.3dB 312TOkHz 31Hz/70kHz	Bass	5dB at 100Hz	7dB at 100Hz		
Continuous output power † 25W (14dBW) 40W (16dBW) 60W (17.8dBW) 120W (20.8dBW) Rated distortion (THD 20Hz-20kHz) 0.03% 0.02% 0.00% 0.00%	Remote control	Yes	Yes	Yes	Yes
Rated distortion (THD 20Hz-20kHz)	Power Amp Section				
Clipping power \$\frac{1}{2}\$ 30W (14.8dBW) 55W (17.4dBW) 70W (18.5dBW) 140W	Continuous output power †	25W (14dBW)	40W (16dBW)	60W (17.8dBW)	120W (20.8dBW)
HF dynamic headroom at 8Ω	Rated distortion (THD 20Hz-20kHz)	0.03%	0.03%	0.03%	0.03%
HF dynamic power at 8Ω	Clipping power ‡	30W (14.8dBW)	55W (17.4dBW)	70W (18.5dBW)	140W
HF dynamic power at 4Ω 65W (18.1dBW) 125W (21dBW) 190W (22.8dBW) 340W (25.3dBW) 160W (22 dBW) 240W (23.8dBW) 450W (26.5dBW) 160W (22 dBW) 240W (23.8dBW) 240W (23.dBW) 240W (2	IHF dynamic headroom at 8Ω	+2.4dB	+3.5dB	3.5dB	3dB
HF dynamic power at 2Ω 90W (19.55dBW) 160W (22 dBW) 240W (23.8dBW) 450W (26.5dBW) Slew rate 520 pamping factor (ref. 8Ω , 50Hz) >100 >60 >150 20k Ω / 470pF 20k Ω / 300pF Input impedance 770mA 1.1V voltage gain 29dB 29dB 29dB 29dB 29dB 10Hz/70KHz 3Hz/70kHz 3Hz/70kHz 3Hz/70kHz 3Hz/70kHz 3Hz/70kHz 3Hz/70kHz 3Hz/70kHz 3Hz/70kHz 3Hz/20dB 210dB 2	IHF dynamic power at 8Ω	43W (16.3dBW)	90W (19.5dBW)	135W (21.3dBW)	210W (23.2dBW)
Slew rate Damping factor (ref. 8Ω , 50Hz) >100 >60 >150 >150 >150 Input impedance Input sensitivity (for rated power into 8Ω) >0 90Kg / 470pF 90Kg / 470pF 90Kg / 470pF 90Kg / 400pF / 400kg	IHF dynamic power at 4Ω	65W (18.1dBW)	125W (21dBW)	190W (22.8dBW)	340W (25.3dBW)
Damping factor (ref. $8Ω$, $50Hz$) >100 >60 >150 >150 Input impedance $20kΩ / 470pF$ $20kΩ / 300pF$ Input sensitivity (for rated power into $8Ω$) 770mA 1.1V Voltage gain 29dB 29dB 29dB Frequency response: $20Hz$ - $20kHz$ $\pm 0.5dB$ $+/-0.3dB$ $+/-0.3dB$ $+/-0.3dB$ -3dB at: $10Hz/70kHz$ $3Hz/70kHz$ $3Hz/70$	IHF dynamic power at 2Ω	90W (19.55dBW)	160W (22 dBW)	240W (23.8dBW)	450W (26.5dBW)
Input impedance $20k\Omega / 470pF$ $20k\Omega / 300pF$ Input sensitivity (for rated power into 8Ω) $770mA$ $1.1V$ $29dB$ $29dB$ $29dB$ $29dB$ $29dB$ $4.0.3dB$ $4.$	Slew rate				
Input sensitivity (for rated power into 8Ω) Voltage gain Frequency response: $20\text{Hz} - 20\text{kHz}$ $\pm 0.5\text{dB}$ $\pm 0.5dB$	Damping factor (ref. 8Ω, 50Hz)	>100	>60	>150	>150
Voltage gain 29dB 29dB Frequency response; 20Hz-20kHz ± 0.5dB +/-0.3dB +/-0.3dB -3dB at: 10Hz/70KHz 3Hz/70kHz 3Hz/70kHz 3Hz/70kHz Signal/noise ratio; ref 1W 100dB 90dB >96dB >100dB Signal/noise ratio; ref rated power 114dB 104dB >114dB >120dB Bridged Mode Continuous average power output into 8Ω † IHF dynamic headroom at 8Ω 300W (24.8dBW) IHF dynamic power at 8Ω 600W (27dBW) IHF dynamic power at 4Ω 800W (28.5dBW) Physical Specifications Dimensions (W x H x D) 435 x 80 x 285mm 435 x 100 x 290mm 435 x 100 x 290mm </td <td>Input impedance</td> <td></td> <td></td> <td>20kΩ / 470pF</td> <td>20kΩ / 300pF</td>	Input impedance			20kΩ / 470pF	20kΩ / 300pF
Frequency response; $20\text{Hz} \cdot 20\text{kHz}$ $\pm 0.5\text{dB}$ $+/-0.3\text{dB}$ $+/$	Input sensitivity (for rated power into 8Ω)			770mA	1.1V
3.3dB at: 10Hz/70KHz 3Hz/70kHz 3Hz/70kHz Signal/noise ratio; ref 1W 100dB 90dB >96dB >100dB Signal/noise ratio; ref rated power 114dB 104dB >114dB >120dB Bridged Mode Continuous average power output into 8Ω † IHF dynamic headroom at 8Ω 3dB IHF dynamic power at 8Ω 600W (27dBW) IHF dynamic power at 4Ω 800W (28.5dBW) Physical Specifications Dimensions (W x H x D) 435 x 80 x 285mm 435 x 100 x 290mm 435 x 100 x 290mm 435 x 100 x 290mm Net weight 5kg 6.5kg 7.01kg 12kg	Voltage gain			29dB	29dB
Signal/noise ratio; ref 1W 100dB 90dB >96dB >100dB >100dB $104dB$ >100dB >100d	Frequency response; 20Hz-20kHz	± 0.5dB		+/-0.3dB	+/-0.3dB
Signal/noise ratio; ref rated power 114dB 104dB >114dB >120dB Signal/noise ratio; ref rated power 114dB 104dB >120dB Signal/noise ratio; ref rated power 114dB >120dB >120dB Signal/noise ratio; ref rated power at 8 Ω 300W (24.8dBW) 3dB 3dB (HF dynamic power at 8 Ω 600W (27dBW) (1HF dynamic power at 4 Ω 800W (28.5dBW) 800W (28.5dBW) Physical Specifications Dimensions (W x H x D) 435 x 80 x 285mm 435 x 100 x 290mm 435 x 100 x 290mm 435 x 100 x 290mm 12kg	-3dB at:	10Hz/70KHz		3Hz/70kHz	3Hz/70kHz
Bridged Mode Continuous average power output into 8Ω † 300W (24.8dBW) Hiff dynamic headroom at 8Ω Hiff dynamic power at 8Ω Hiff dynamic power at 4Ω Physical Specifications Dimensions (W x H x D) 435 x 80 x 285mm 435 x 100 x 290mm 7.01kg 12kg	Signal/noise ratio; ref 1W	100dB	90dB	>96dB	>100dB
Continuous average power output into 8Ω † 300W (24.8dBW) 3dB 3dB HF dynamic power at 8Ω 800W (27dBW) 800W (27dBW) 800W (28.5dBW) Physical Specifications Dimensions (W x H x D) 435 x 80 x 285mm 435 x 100 x 290mm 435 x 100 x 290mm 435 x 132 x 350mm Net weight 5kg 6.5kg 7.01kg 12kg	Signal/noise ratio; ref rated power	114dB	104dB	>114dB	>120dB
HF dynamic headroom at 8Ω 3dB 600W (27dBW) HF dynamic power at 8Ω 800W (28.5dBW) 800W (28.5dBW) 9 Physical Specifications Dimensions (W x H x D) 435 x 80 x 285mm 435 x 100 x 290mm 435 x 100 x 290mm 435 x 132 x 350mm Net weight 5kg 6.5kg 7.01kg 12kg	Bridged Mode				
HF dynamic power at 8Ω 600W (27dBW) 800W (28.5dBW) Physical Specifications Dimensions (W x H x D) 435 x 80 x 285mm 435 x 100 x 290mm 435 x 100 x 290mm 435 x 132 x 350mm Net weight 5kg 6.5kg 7.01kg 12kg	Continuous average power output into 8Ω †				300W (24.8dBW)
HF dynamic power at 4Ω 800W (28.5dBW)	IHF dynamic headroom at 8Ω				3dB
Physical Specifications Dimensions (W x H x D) 435 x 80 x 285mm 435 x 100 x 290mm 435 x 100 x 290mm 435 x 132 x 350mm Net weight 5kg 6.5kg 7.01kg 12kg	IHF dynamic power at 8Ω				600W (27dBW)
Dimensions (W x H x D) 435 x 80 x 285mm 435 x 100 x 290mm 435 x 100 x 290mm 435 x 100 x 290mm 435 x 132 x 350mm Net weight 5kg 6.5kg 7.01kg 12kg	IHF dynamic power at 4Ω				800W (28.5dBW)
Net weight 5kg 6.5kg 7.01kg 12kg	Physical Specifications				
	Dimensions (W x H x D)	435 x 80 x 285mm	435 x 100 x 290mm	435 x 100 x 290mm	435 x 132 x 350mm
Shipping weight 6.2kg 7.7kg 8.62kg 14.36kg	Net weight	5kg	6.5kg	7.01kg	12kg
	Shipping weight	6.2kg	7.7kg	8.62kg	14.36kg

AMPLIFIERS	C 270	218THX
Power Amp Section		
Continuous output power †	120W (20.8dBW)	225W (23.5dBW)
Rated distortion (THD 20Hz-20kHz)	0.03%	0.03%
Clipping power ‡	140W (21.5dBW)	240W (23.8dBW)
IHF dynamic headroom at 8Ω	2.4dB	1 dB
IHF dynamic power at 8Ω	210W (23.2dBW)	280W (24.5 dBW)
IHF dynamic power at 4Ω	340W (25.3dBW)	470W (26.7dBW)
IHF dynamic power at 2Ω	450W (26.5dBW)	700W (28.4dBW)
Slew rate		>100V / u.sec
Damping factor (ref. 8Ω, 50Hz)	>150	>200
Input impedance	20kΩ / 300pF	47kΩ / 700pF
Input sensitivity (for rated power into 8Ω)	1.1V	1.4V
Voltage gain	x 28.3 (29dB)	x 28.3 (29dB)
Frequency response; 20Hz-20kHz	+/-0.3dB	+ 0.3dB
-3dB at:	3Hz/70kHz	2.5Hz / 80kHz
Signal/noise ratio; ref 1W	>100dB	96dB
Signal/noise ratio; ref rated power	>120dB	120dB
Bridged Mode		
Continuous average power output into 8Ω †	300W (24.8dBW)	780W (28.9dBW)
IHF dynamic headroom at 8Ω	2.2dB	1dB
IHF dynamic power at 8Ω	600W (27dBW)	940W (29.7dBW)
IHF dynamic power at 4Ω	800W (28.5dBW)	1.3kW (31.1dBW)
Physical Specifications		
Dimensions (W x H x D)	435 x 132 x 350mm	483 x 175 x 370mm
Net weight	11.2kg	23kg
Shipping weight	14.2kg	30kg

- 20 20kHz in tone defeat mode
- Minimum power per channel, 20Hz-20kHz, both channels driven, with no more than rated distortion
- Maximum continuous power per channel

Specifications are measured in accordance with EIA Standard RS-490 (IHF A-202) for amplifiers.

Amplifier measurements referenced to 8Ω are taken with the Impedance Select set at 8Ω (High).

Measurements for 4Ω and 2Ω are taken with the Impedance Select set at 4Ω (Normal)

Dimensions are of unit's cabinets without attached feet;

add up to 18mm for total height.

Dimension depth excludes terminals, sockets, controls and buttons.

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