



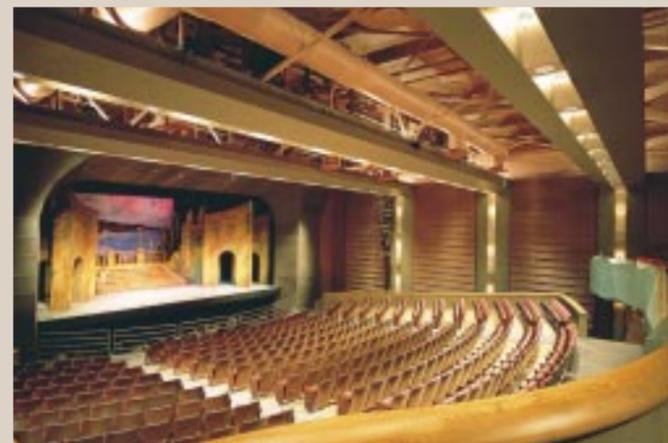
LEXICON. DIGITAL AUDIO EXPERTS
FOR TWENTY-FIVE YEARS



The wealth of features that characterize the DC Series are the result of careful research, meticulous design, and superb engineering, providing you with the facilities and capabilities you always wanted – and, of course, the sought-after “Lexicon Sound.” That Sound is no myth: it’s a legend. When you purchase a Lexicon DC Series product, you’re buying more than the most sophisticated digital surround system controller on the market – you’re investing in a heritage that stretches back to the very beginnings of digital audio – because Lexicon was there.

Lexicon introduced the first commercially-available digital audio system in 1971. Since then we have continued to lead the way, developing new and increasingly acclaimed digital audio products for the world’s top recording studios, engineers, broadcasters and musicians. Lexicon products have won many prestigious awards, including an Emmy™ and six TEC Awards – professional audio’s highest accolades.

And, more than nine out of ten commercially released recordings have employed a Lexicon digital signal processor in their production, whatever the musical genre. Lexicon systems subtly complement natural acoustics in classical recordings, add



Lexicon’s LARES system is used in concert halls, cathedrals and other performance venues to tailor the acoustics of the environment – and Lexicon Home Theater products can faithfully re-create those same environments. Photo of the Tsai Performance Center, Boston, MA, ©Steve Rosenthal.



The Lexicon Opus was one of the first Digital Audio Workstations available, with the ability to record, mix and assemble several simultaneous digital audio tracks into a composite mix of the highest quality – without the use of tape.

unique and impressive effects to popular music and movie soundtracks, and even shape the acoustics of some of the world’s foremost concert-halls.

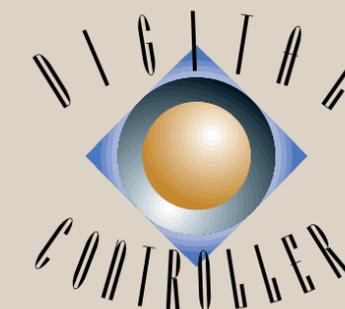
The DC-2 shares the source of its processing platform, reverberation and spatialization algorithms with Lexicon’s finest studio units. The technology that enables the Lexicon Acoustic Reinforcement and Enhancement System (LARES) to tailor and complement the sound of classic concert halls all is the same technology that, via the DC-2, can tailor your own home audio system to re-create the sound and feeling of a fine natural acoustic environment. Chances are, your favorite albums, movies and even concert broadcasts employ Lexicon professional audio technology, such as the Opus digital audio workstation shown above, which enables audio engineers to compose complex sound balances for record, film and broadcast applications entirely in the digital domain and without the use of recording tape.

Doesn’t it make sense that a company as deeply involved as Lexicon in the recording and production of music and soundtracks should also be the best choice in home audio systems that seek to reproduce the sound and experience of such recordings?

lexicon



SURROUND



DC-2

lexicon

HEARD IN ALL THE RIGHT PLACES

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THE DC-2 DIGITAL CONTROLLER

With the introduction of the DC-1 in 1996, Lexicon set a new standard for high-performance multi-channel music and home theater processors. The critical acclaim was immediate and universal.

The DC-2 Digital Controller is a refinement of this benchmark. However, replacing this paragon was not a task undertaken lightly; every aspect of the ubiquitous DC-1 was scrutinized.

We examined sound quality, video switching, reliability, features and ease of use with an eye and ear for improvement. We also examined new technologies, developed and refined processing algorithms and thoroughly reviewed the operational ergonomics. The result is destined to become the new industry standard.

The DC-2 is available in three versions:

The DC-2 is available in three versions: THX,® Dolby Digital® and DTS.® All versions include a plethora of modes including: ambience extraction, acoustic environment simulation and digital Pro Logic® with Auto-Azimuth. Simple upgrades allow you to progressively add Dolby Digital (AC-3) and DTS encoding. All versions conform to the strict THX Ultra® specifications.

"Few products on the market can rightfully call themselves paragons – the highest possible achievement within current state-of-the-art technology.

The DC-1 surround controller is such a product."

*E-Town – June, 1997
(www.e-town.com)*

"The DC-1 is one of the nearest things the home entertainment industry has to being a classic."

Home Entertainment – April, 1997

THX,® Dolby Digital® and DTS.® All three versions contain a comprehensive set of listening effects: ambience extraction for surround sound, ambience generation for stunningly real environment simulation and digital Dolby Pro Logic® with Lexicon's patented Auto-Azimuth™ and Logic 7™ technologies.

A simple upgrade path allows you to progressively add Dolby Digital and DTS multi-channel discrete digital decoding, while all three versions adhere to the rigorous THX Ultra® specifications.

The DC-2 performs all signal processing, including filters, EQ and crossovers, in the digital domain, while true 24-bit A/D and

"The best digital surround processor to date – at any price."

EQ Magazine – May, 1998

D/A converters outperform exotic stand-alone devices. The result is a seamless presentation that draws you, the listener, more deeply into a film or musical performance. But behind the complexity and sophistication of Lexicon technology lies simplicity. The DC-2

delivers a level of flexibility and sheer audio quality that will satisfy the most demanding listener while retaining the ease of use that even a casual user will appreciate.

"...the DC-1's sound quality was little short of stunning. No component I've heard can provide the depth of DSP ambience processing (and extraction), user-customization, and flexibility of the DC-1."

Video – January, 1998

Over a decade ago, we introduced the world to the benefits of seven-channel surround sound with the advent of the first



Lexicon has won many awards – including an Emmy and an impressive six TEC Awards, the pro-audio industry's highest accolade.

high-end digital processor, the CP-1. Like its predecessors, the DC-2 takes full advantage of the substantial psychoacoustic benefits of providing sound from the sides of and from behind the listener, in addition to the traditional front three channels.

Whether you are listening to a classic stereo recording, a vintage Dolby Surround-encoded video tape or the latest Dolby Digital or DTS 5.1 channel release, the seven-channel capability of the DC-2 provides the most enveloping, spacious and involving audio reproduction available. However, if your media environment or budget will not allow full seven-channel playback, the DC-2 utilizes sophisticated HRTF (Head Related Transfer Functions) to produce a virtual seven-channel surround presentation through five speakers.

"Looking for the most advanced digital processing you can buy?"

This [DC-1] is it, no contest."

Home Theater Buyer's Guide/Winter, 96-97



Power is Chaos without Control

As with any piece of equipment, if it isn't easy to use, product flexibility can quickly turn into user frustration. With this in mind, the DC-2 was designed with the often-conflicting goals of providing an unparalleled level of flexibility with ease-of-use.

For the casual user, using the DC-2 is as simple as pressing an input key and adjusting the volume up or down. For the more demanding user, the remote control and on-screen menus provide a greater level of flexibility and allow you to fine-tune the DC-2 for your specific listening room and tastes. And for the truly power hungry, the DC-2 includes a back-panel infrared input and RS-232 port for integration with control systems like the *Lexicon 700t*.

The Music Experience

To recreate the magic of being at a live musical performance,



"The [DC-1's] ability to recreate a sense of height as well as width, depth and surround was uncanny... Unbelievably good."
Audio - May, 1996

Lexicon draws upon recent studies of concert hall acoustics and psychoacoustics and applies their findings to the home listening environment.

For recordings that capture the original acoustic space, ambience extracting modes are provided. The *Panorama* mode achieves a remarkably accurate re-creation of an acoustic environment by canceling inter-aural crosstalk. Alternatively, the *Music Logic* and *Music Surround* modes are ideal for extracting the enveloping effects of studio-produced pop and rock recordings. And these effects offer true stereo ambience extraction, significantly improving the listening experience of any stereo material. Stereo recordings are converted into 5 or 7 channels,

increasing spaciousness and listening area, while preserving the front soundstage, image width and vocal balance.

"[The] beyond-stereo sound of the Lexicon defies traditional multi-channel chaos... I revelled in convincing, seamless, but above all, lifelike surround."
Hi-Fi News & Record Review - October, 1996

Often, however, recordings do not capture ambience accurately. Here, *Nightclub*, *Concert Hall*, *Church* and *Cathedral* effects employ Lexicon's proprietary, professional-audio specification DSP engine and reverberation algorithms to transform your listening room into a new acoustic space. You choose an audio environment to suit your music or your mood - concert-hall realism; an intimate club atmosphere; or spacious churches and cathedrals.

Also included is the *Party* effect for playing background music, and a direct 2-channel mode for purist stereo listening.

"The DC-1 did a better job of serving both music and soundtracks than any surround processor I've experienced to date."
Stereophile's Guide to Home Theater - Winter, 1996

The Home Theater Experience

Home Theater applications require a completely different approach to that required for listening to music. Lexicon's software-based technology permits the DC-2 to successfully perform both tasks.

The DC-2 incorporates Lexicon's unique *Auto-Azimuth™* algorithm, detecting and correcting phase and level errors in matrixed soundtracks. Combined with all-digital processing, our decoding system is recognized as the most accurate available.

"The surround steering has the sort of drive-by-wire precision that even Ferrari can't match."
Home Entertainment - April, 1997

All three versions of the DC-2 include a special implementation of the *Lucasfilm® Home THX Cinema* processing system, providing maximum accuracy in home film presentation: clear dialog, precise sound localization, enveloping surround-sound, smooth frequency response and wide dynamic range.

Several additional effects are also provided. These include the ability to expand mono film soundtracks with *Mono Logic* and *TV Matrix* for viewing regular TV programs.

Perhaps the most stunning achievement of



The rear panel of the DC-2 reveals a wealth of interface capabilities, including full audio/video switching for five A/V sources plus three additional audio inputs, and multiple coax and optical digital (S/PDIF) connectors. On the output side, there are both monitor and record video and S outs, the monitor output including system menu video overlays if desired; independent outputs for recording and for a second room;

and a full complement of main front, side and rear line level outputs plus center and subwoofer feeds. 12v triggers (DIN or bare wire) can control external devices such as amplifiers, projection screens or lighting controllers, and a connector is provided for direct infrared remote control input.



Lexicon's research is a effect called *Logic 7*. This effect allows your playback system to optimally reproduce matrix or discrete soundtracks with seven individual channels of processing (plus subwoofers). Even old video tapes or TV broadcasts can sound like they were recorded with today's discrete technologies.

"Using Logic 7...standard 4:2:4 matrixed soundtracks actually sounded as if they were 5.1 encoded, so convincing was the overall channel separation and rear-channel imaging."
Home Theater, February, 1998

The Multimedia Experience

We call the DC-2 a digital controller as it serves as the "heart and brains" of a complete home entertainment system. Today, that means more just than playing movies. Whether you're enjoying multimedia from the internet, challenging your friends on the latest video game, or exploring a new CD or DVD-ROM, you'll find the DC-2 will fully deliver all the excitement and energy in new media. The level of realism the sophisticated audio processing of the DC-2 creates whole new worlds to explore.

DC-2 Processing Power

The DC-2's unique, expandable design means that whichever model you purchase, you can upgrade at a later time. All units include the powerful Lexichip™ DSP engine, plus a high-speed Motorola processor dedicated strictly to equalization and crossovers. A plug-in card slot allows the addition of more

DSP processing so that a single DC-2 can contain as many as five DSP engines, each dedicated to and optimized for a specific task. Should six-channel bitstreams become available, an optional digital input/output board will allow an outboard decoder to be effortlessly coupled with the DC-2.

Psychoacoustically correct loudness compensation ensures that you hear a truly balanced frequency range, even at low levels. Useful, no-compromise digital equalization capabilities are also included. High resolution double-precision shelving bass and treble controls and a spectral balance "tilt" EQ are all standard. A digital domain speaker distance compensation capability allows you to create an ideal effective path length for every speaker to the primary listening position.

All too often, a plethora of features results in compromised audio quality, because of additional circuitry required in the audio path. But in the DC-2, all audio processing is performed in the digital domain, resulting in unparalleled flexibility without compromise.

"The Lexicon DC-1 clearly competes with the finest and most costly processors available, despite its comparatively modest price...it has the best ergonomics and real-world features of any A/V preamp/processor I have encountered."
Audio - June, 1998

The rear panel of the DC-2 reveals a wealth of interface capabilities, including full audio/video switching for five A/V sources plus three additional audio inputs, and multiple coax and optical digital (S/PDIF)

"The DC-1 produces staggering audio. It's easy to set up and it delivers every conceivable (and inconceivable) surround mode - both for home cinema and music. If you are a connoisseur of home cinema, then look no further."

Home Cinema Choice - June, 1997

connectors. On the output side, there are both monitor and record video outs (composite and S-video), the monitor output displaying menu overlays if desired; independent outputs for recording and audio for a second zone. A full complement of main front, side and rear line level outputs plus

center and subwoofer feeds are provided. An RS-232 interface, 12v triggers and a direct, infrared remote control input are all standard.

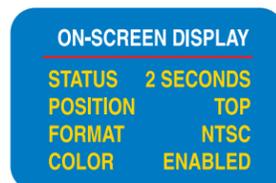
Perhaps there are a handful of companies that can hope to match the sound of the DC-1, but only one company is qualified to exceed its high standards. Please visit your Lexicon dealer and experience the beyond sublime sound of the DC-2 Digital Controller.

"A sublime sound that only a handful of companies the world over can hope to match"
Home Entertainment: "The Year's Best Gear Award" - November, 1998

DC-2 SPECIFICATIONS

Inputs		Output Level:	6V rms (System Volume = +12dB)
Audio:	8 stereo (RCA) pairs	Output Impedance:	100 Ω in parallel with 150pF
Video:	5 composite (RCA), 5 S-video, NTSC M, PAL standards (SECAM-compatible)	General Video Specifications	
Digital:	8: 5 coaxial (RCA), 3 optical (TosLink), conforms to S/PDIF standard	NTSC M, PAL and SECAM-compatible	
Outputs		Output Level:	1V peak-to-peak
Audio:	8 outputs: Left, Center, Right, L&R Sides, L&R Rears, Subwoofer (RCA)	Impedance:	75kΩ
Video:	2 composite (RCA), 2 S-video,	Video Signal-to-Noise Ratio:	70dB
General Audio Specifications		Bandwidth:	10mHz
A/D Conversion:	24-bit Delta-Sigma	Physical Specifications	
D/A Conversion:	24-bit Delta-Sigma	Power Requirements:	90-250 VAC, 50-60Hz, 35 Watts (universal input); IEC detachable power cord
Frequency Response:	10 Hz - 20 kHz, +0.2dB, -0.3dB Ref. 1kHz	Dimensions:	17.3"W x 11.5"D x 3.6"H (440 x 292 x 92mm) 19.0"W x 11.5"D x 3.5"H (483 x 292 x 89mm with rack mounting brackets)
THD+Noise:	Less than 0.005% @ 1kHz, maximum output level	Weight:	11.25 lbs. (5.11kg)
Dynamic Range:	100dB minimum, 22kHz bandwidth, Ref. 1kHz @ -60dB below maximum output level	Environment	
Signal-to-Noise Ratio:	100dB minimum, 22kHz bandwidth, Ref. 1kHz at max O/P level	Operating Temp.:	32° to 95°F (0° to 35°C)
Input Level:	2 Vrms for maximum output (with Input Gain = 0 dB) 200mV rms for Dolby level	Storage Temp.:	-22° to 167°F (-30° to 75°C)
Input Impedance:	100 kΩ in parallel with 150pF	Relative Humidity:	95% max without condensation
		Remote Control	Hand-held, battery-powered infrared remote control unit, uses 2 AA batteries

Specifications subject to change without notice. Trademarks and registered trademarks are the property of their respective owners.



Parameters of the DC-2 can be set up with ease, thanks to a simple on-screen menu system. Menus are optionally superimposed on video from the Monitor output, and are controlled with dedicated buttons on the remote.

