

# SWITCHMODE PRECISION SERIES

ultra light weight power amplifiers



LX1600 · LX2200 · LX3000

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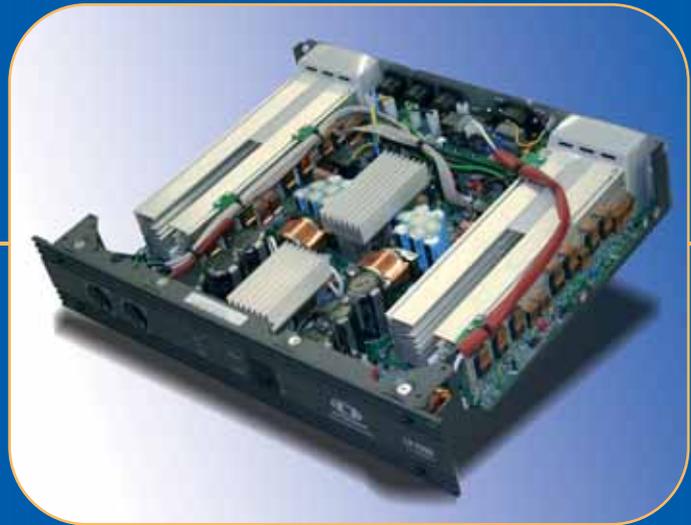
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## PHILOSOPHY

For decades, **DYNACORD** has been one of the leading manufacturers in the pro audio sector and has established a commanding position in the amplifier market thanks to the excellent audio performance, absolute reliability and high stability of the **Linear Precision series**.

## SWITCHMODE TECHNOLOGY

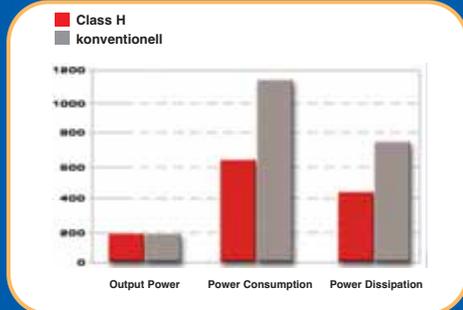
The combination of an analogue **class-H** design with a state-of-the-art switching power supply has made possible the creation of a professional power amplifier delivering up to **2 x 1500 watts into 4 ohms** with excellent audio specifications but weighing only **8.7 kg**. Even complex loads as low as 2 ohms can be driven with absolute reliability. Amp racks containing several LX power amplifiers for active multi-way use are therefore easy to manipulate.



- Comprehensive set of protective circuits
- High-efficiency class-H design
- Switching power supply
- Extremely light and compact
- Dynamic audio limiter
- Highest reliability at 2 ohms
- 30% dynamic headroom
- Constant gain with 32dB
- Precise raster pots on the front panel

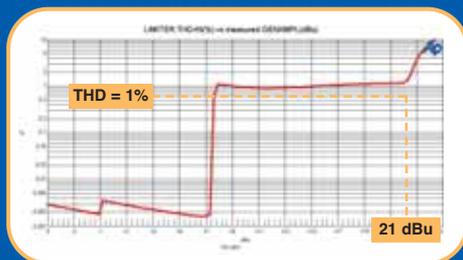
## CLASS - H TECHNOLOGY

With this technology, two different power supply rails are permanently available internally to the power amplifier blocks. For most of the program material, the lower operating voltage is able to reproduce the audio signal flawlessly; however, as soon as there are dynamic peaks, the amplifier switches internally and at high speed to the higher supply voltage. Since for long periods the power amplifier blocks are operating with the lower supply voltage, there is considerably less power dissipation than with conventional class AB power amplifiers, which also means considerably less waste heat.



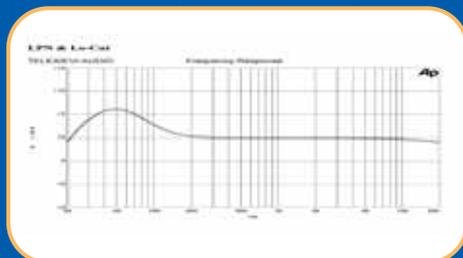
## DYNAMIC LIMITERS

Dynamic limiters are general components in all DYNACORD power amplifiers. High-speed audio processors are continuously comparing the input signal to the output signal, and in the event of any non-linearity, the processors send control signals to the limiters, which operate dynamically upon the input level. As a result, the THD all the way up to 21 dBu is limited to an inaudible 1% max at the output.



## LPN + LO-CUT

The retrofitable **NRS 90268** kit, which is available as an option for all LX power amplifiers, combines the patented LPN (low-pass notch) filter with a low-cut filter. These eliminate transient non-linearities in the low frequency range in small to medium-sized full-range speakers and thereby considerably extend the reproducible range at the bottom end. The acoustic result is bass reproduction with more punch and greater substance.



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## FRONT

The dB-calibrated level controls are implemented as ultra-precise detent potentiometers that are recessed in the front panel to protect them from accidental contact. Power, Protect, Signal and Limit LEDs provide a quick overview of the operating status.



## REAR

The electronically balanced XLR IN / OUT sockets are provided for direct operation with professional mixing consoles and signal processors. All the models in the LX series are designed for a Constant Gain of 32 dB. The power outputs for Channels A and B are on Speakon connectors. A Ground Lift switch is also provided to separate the chassis ground from the signal ground in order to eliminate ground loop hum.



## LX1600

With an output rated at 2 x 1300 watts into 2 ohms and 2 x 800 watts into 4 ohms, this is the ideal power amplifier for small to medium-sized full-range cabinets and MF/HF components in active multi-way systems.



## LX2200

With a stable output of 2 x 1600 watts into 2 ohms and 2 x 1100 watts into 4 ohms, this is the ideal amplifier for professional multi-way components as well as medium-sized subwoofers in concert sound systems.



## LX3000

The new flagship of the LX series delivers a mighty 2 x 2100 watts into 2 ohms and 2 x 1500 watts into 4 ohms and therefore has plenty of headroom for large subwoofer arrays.



## SAFETY PACKAGE

The complete LX series is equipped with protections against overheating, overloading, short-circuits, DC and HF as well as a Back-EMF protection. With the Soft Start system, the power out-

puts are switched on via a relay when a safe operational state has been reached and a power-up delay prevents the mains fuses being activated.

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## TECHNICAL SPECIFICATIONS

	LX1600			LX2200			LX3000		
Load Impedance	2 ohms	4 ohms	8 ohms	2 ohms	4 ohms	8 ohms	2 ohms	4 ohms	8 ohms
Max. Midband Output Power THD = 1%, 1kHz	1300 W	<b>800 W</b>	500 W	1600 W	<b>1100 W</b>	600 W	2100 W	<b>1500 W</b>	900 W
Rated Output Power THD < 0.1%, 20Hz ... 20kHz	----	<b>700 W</b>	350 W	----	<b>900 W</b>	450 W	----	<b>1200 W</b>	600 W
Max. Single Channel Output Power Dynamic Headroom, IHF-A	2200 W	<b>1200 W</b>	625 W	2600 W	<b>1400 W</b>	720 W	2900 W	<b>1800 W</b>	1000 W
Max. Single Channel Output Power Continuous, 1kHz	1700 W	<b>1000 W</b>	550 W	2100 W	<b>1300 W</b>	660 W	2600 W	<b>1700 W</b>	950 W
Max. Bridged Output Power THD = 1%, 1kHz	----	<b>2600 W</b>	1600 W	----	<b>3200 W</b>	2200 W	----	<b>4200 W</b>	3000 W
Maximum RMS Voltage Swing THD = 1%, 1kHz	72 V			78 V			95 V		
Power Bandwidth, ref. 1kHz THD = 1%, half power @ 4 ohms	10Hz ... 60kHz								
Voltage Gain, ref. 1kHz	32.0 dB								
Input Sensitivity rated power @ 8 ohms, 1kHz	+4.7 dBu (1.33 V rms)			+5.8 dBu (1.51 V rms)			+7.0 dBu (1.74 V rms)		
THD at rated output power MBW = 80kHz, 1kHz	< 0.05%								
IMD-SMPTE, 60Hz, 7kHz	< 0.02%								
DIM 30, 3,15kHz, 15kHz	< 0.05%								
Maximum Input Level	+22 dBu (9.76 V rms)								
Crosstalk ref. 1kHz, at rated output power	< -80 dB								
Frequency Response, ref 1kHz	15Hz ... 40kHz (-1dB)								
Input Impedance, active balanced	20 kohms								
Damping Factor, 1kHz	> 300								
Slew Rate	30 V/μs			35 V/μs			38 V/μs		
Signal to Noise Ratio, A-weighted	107 dB			107 dB			108 dB		
Output Stage Topology	Class H								
Power Requirements	100V, 120V, 220V, 230V, 240 V; 50Hz ... 60Hz (factory configured)								
Power Consumption 1/8 max. output power @ 4 ohms	625 W			850 W			1070 W		
Protection	Audio Limiters, High Temperature, DC, HF, Back-EMF, Peak current Limiters Inrush Current Limiters, Turn-On delay								
Cooling	Front-to rear, 3-stage fans								
Ambient Temperature Limits	+5° ... +40° ( 40°F ... 105°F )								
Safety Class	I								
Dimensions ( W x H x D ) mm	483 x 88,1 x 384								
Weight	7.80 kg (17.2 lbs)			8.15 kg (18.0 lbs)			8.70 kg (19.2 lbs)		
Optional Accessories:									
Rear Rackmount 15.5"	D112 930 (RMS15-CL)								
Rear Rackmount 18.0"	D112 933 (RMS18-CL)								
LPN + Lo-Cut Filter	D112963 (NRS 90268)								

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