

DLS-R Series



*Distortion Limiting System
Series Subwoofers*



Advanced Subwoofer Technology



Distortion Limiting System (DLS™-R) Series Subwoofers

DSP-CONTROLLED DLS-3500R, DLS-3750R, DLS-4000R, AND DLS-5000R

Velodyne Acoustics, the #1 rated subwoofer company for over 20 years, now brings the power and precision of Digital Signal Processing (DSP) to a series of very affordable, high-performance, remote-controlled subwoofers. The DLS-R Series consists of four models: DLS-3500R, DLS-3750R, DLS-4000R, and DLS-5000R. Powered by amplifiers that produce up to 1000 watts of dynamic power and 1000 watts RMS*, each subwoofer also features four presets on its remote control for movies, rock music, jazz/classical and games, allowing you to select the perfect bass without ever leaving your chair.

DSP-CONTROLLED

DSP subwoofer control has never been available before at such affordable prices. DSPs are embedded computer chips that control all audio functions of the subwoofer with digital accuracy. Presets for customized listening, volume control, night mode, low-pass crossover, phase, anti-clipping and overdrive protection are all controlled with the precision of a high-speed computer. DSP technology means that the DLS-R subwoofers deliver the cleanest, deepest, and highest output bass possible, while maintaining a flat, detailed and accurate frequency response.

CONVENIENT REMOTE CONTROL

Included with your DLS-R subwoofer is a full-featured remote control. This remote lets you control all the sub's functions from the comfort of your favorite chair.



Select the Perfect Bass with the DLS-R Series Remote Control

Presets: Choose between four presets — Movies, R&B — Rock, Jazz — Classical or Games. Whether you're looking for the driving bass in rock music, the excitement of hard hitting bass for games, maximum output and impact for movie special effects, or the purely accurate bass reproduction demanded by jazz and classical material, DLS-R subwoofers can be instantly customized for any performance or program material.

Night Mode: This "polite" feature limits the maximum output of the subwoofer for late night listening, or to be considerate of close neighbors.

Volume Control: Lets you balance the subwoofer's output with the main speakers in your system.

Light Control: Lets you illuminate or turn off the front panel light.

Phase Adjustment: Ensures a seamless interface and timbre match with your main speakers.

Mute: Mutes and unmutes the subwoofer.

*At the DLS-5000R



Features:

- DSP-control
- Full-feature remote control
- 4 customized listening mode presets
- Night-mode
- Distortion Limiting logic/circuitry
- Extended Excursion vented pole-piece drivers
- Built-in Maximum Dynamic Power (MDP) amplifiers
- Anti-clipping logic/circuitry
- Adjustable low-pass crossover with Subwoofer Direct setting
- Auto-on/off feature (defeatable)
- Four position selectable phase control



DLS-R SERIES: Available in 8", 10", 12" and 15" Models.



*Vented Pole-Piece Increases Power
and Assures Longtime Reliability*

*Powerful Amplifiers Guarantee Maximum
Dynamic Power and Deep Bass*



MAXIMUM DYNAMIC POWER AMPLIFIERS

Great performance starts with great amplifier design. DLS-R amplifiers are capable of delivering enormous continuous and reserve dynamic power; whether you consider the high quality Class A/B amplifiers in the DLS-3500R, DLS-3750R, and DLS-4000R, or the Class D amp in the DLS-5000R. This power is critical in reproducing the dramatic impact of a special effects explosion, pulsing percussive drumbeats, or the very low, sustained pedal notes in a classical organ piece. Velodyne DLS-R subwoofers are among the very few at any price range that are able to accurately reproduce the wide spectrum of low frequency material.

EXTENDED EXCURSION DRIVERS

To compliment these powerful amplifiers, Velodyne has developed four custom designed "Extended Excursion" drivers. These drivers are engineered with vented pole-pieces that increase power handling and assure long-term reliability. Dual layer large copper wound voice coils are specifically matched with massive 2.5 to 4.4 lb. magnets to provide dynamic bass you can actually feel.

CABINET DESIGN AND STYLING

The DLS-R Series cabinets feature a front-firing, bass-reflex design. This approach minimizes the distortion created in ported cabinets known as "port noise" and maximizes bass impact. With all the bass energy generated forward, DLS-R subwoofers are also ideal for custom installation. In addition, the front panels of these subwoofers add a beautiful, high-quality touch. Finished with 15 coats of high-gloss, hand-buffed, black lacquers, the front baffles of the DLS-R subwoofers convey the class and extraordinary value of this unique series.

DISTORTION LIMITING SYSTEM

DLS-R subwoofers would be best-in-class even if we only offered the powerful amplifiers, long-throw woofers, and elegant styling. However, we didn't stop there. Another key to the DLS-R subwoofers' superior sound is Velodyne's exclusive Distortion Limiting System (DLS). This system, programmed into each unit's DSP, maximizes usable amplifier power and provides maximum available cone travel without overdriving. The software parameters used for the DLS system are customized for each DLS-R amplifier and driver. With digital precision, it is possible to achieve the maximum allowable performance from both the amplifier and woofer motor structure without overdriving either. The result is deeper bass extension, bigger impact and cleaner output. You can be sure that your DLS-R subwoofer will reproduce music and home theater with amazing precision without sacrificing output or dynamics.

FLEXIBLE CROSSOVER WITH "SUBWOOFER DIRECT"

Every subwoofer must integrate seamlessly with the rest of the audio system. So, DLS-R subwoofers include an adjustable 40Hz-120Hz low-pass crossover that allows the sub to ideally match any main speakers and room acoustics. Velodyne's exclusive "Subwoofer Direct" feature allows the subwoofer to receive and play, unaltered, the output of the Low Frequency Effect (LFE, or ".1") channel of a receiver or processor (that has its own low-pass crossover), without the loss of impact or accuracy that is created in competitive models that pass this signal through a second crossover. Subwoofer Direct assures the highest levels of performance and full compatibility with all digital surround processors, both today and into the future.



The DLS-R front panels are finished with 15 coats of high-gloss, hand-buffed, black lacquers.

Specifications

Model	DLS-3500R	DLS-3750R	DLS-4000R	DLS-5000R
Power Requirements	117V, 60 Hz	117V, 60 Hz	117V, 60 Hz	117V, 60 Hz
Configuration	Extended Excursion Slot-Loaded Bass-Reflex	Extended Excursion Slot-Loaded Bass-Reflex	Extended Excursion Slot-Loaded Bass-Reflex	Extended Excursion Slot-Loaded Bass-Reflex
Driver	8" forward firing (6.3" piston diameter) with vented pole piece	10" forward firing (8.2" piston diameter) with vented pole piece	12" forward firing (9.9" piston diameter) with vented pole piece	15" forward firing (12.7" piston diameter) with vented pole piece
Frequency Response	34-140 Hz ± 3 dB	28-120 Hz ± 3 dB	25-120 Hz ± 3 dB	23-120 Hz ± 3 dB
Distortion Limiting System	Yes	Yes	Yes	Yes
High-Pass Crossover (Digital)	80 or 100 Hz (6 dB/octave slope)	80 or 100 Hz (6 dB/octave slope)	80 or 100 Hz (6 dB/octave slope)	80 or 100 Hz (6 dB/octave slope)
Low-Pass Crossover (Digital)	40 Hz-120 Hz (adjustable) (12 dB octave, 24 dB ultimate)	40 Hz-120 Hz (adjustable) (12 dB octave, 24 dB ultimate)	40 Hz-120 Hz (adjustable) (12 dB octave, 24 dB ultimate)	40 Hz-120 Hz (adjustable) (12 dB octave, 24 dB ultimate)
Digital Phase	0, 90, 180, 270 degrees	0, 90, 180, 270 degrees	0, 90, 180, 270 degrees	0, 90, 180, 270 degrees
Digital Presets	Movies; R&B-Rock; Jazz-Classical; Games	Movies; R&B-Rock; Jazz-Classical; Games	Movies; R&B-Rock; Jazz-Classical; Games	Movies; R&B-Rock; Jazz-Classical; Games
Auto On/Off	Yes	Yes	Yes	Yes
Continuous Power	160 watts	185 watts	200 watts	1000 watts
Dynamic Power	350 watts	375 watts	400 watts	1000 watts
Magnet	2.5 lbs.	2.5 lbs.	3.5 lbs.	4.4 lbs.
Voice Coil	2" 2-layer copper	2" 4-layer copper	2" 4-layer copper	2.5" 4-layer copper
Inputs	Gold plated line-level and speaker-level	Gold plated line-level and speaker-level	Gold plated line-level and speaker-level	Gold plated line-level and speaker-level
Outputs	Line-level and speaker-level	Line-level and speaker-level	Line-level and speaker-level	Line-level and speaker-level
Crossover Bypass	Subwoofer Direct	Subwoofer Direct	Subwoofer Direct	Subwoofer Direct
Cone	Reinforced fiber	Reinforced fiber	Reinforced fiber	Reinforced fiber
Cabinet (H/W/D)	15.25" x 12" x 16.375"	16" x 15" x 18.25"	18" x 15" x 19.5"	21" x 18.375" x 20.75"
Shipping Weight (approx.)	44 lbs.	55 lbs.	61 lbs.	75 lbs.
Finish	Black gloss lacquer front with black ash body	Black gloss lacquer front with black ash body	Black gloss lacquer front with black ash body	Black gloss lacquer front with black ash body

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