



Loudspeaker Protection Technology



SA300 Specifications

Maximum Power Specifications

The D-fend SA300 has maximum peak voltage and current ratings of 300 volts and 25 amps, respectively. Therefore, maximum power specifications are impedance dependent. Below is a table listing the maximum input power D-fend is capable of safely managing.

D-fend Maximum Power Specifications				
1,250 W @ 2Ω	2,000 W @ 4Ω	3,000 W @ 6Ω	4,000 W @ 8Ω	2,000 W @ 16Ω

Minimum Power Requirements

The D-fend SA300 requires a minimum amount of audio signal power in order for the protection circuit to function properly. The amount of power required to activate the D-fend protection circuit is dependent upon the source of the supplied power as well as the impedance load of the connected system(s) that are to be protected. The minimum power required can be greatly reduced with the use of an external power supply (sold separately) which may be advantageous for some applications. Below is a chart illustrating the minimum power requirement of the D-fend SA300 if incorporating an external power supply, or if using only the audio signal as the power source.

Minimum Continuous Audio Signal Power Required		
Impedance (Ω)	Using External Power Supply (W)	Using Only the Audio Signal (W)
2	0.500	32.0
4	0.250	16.0
6	0.167	10.7
8	0.125	8.0
16	0.063	4.0

Thermal Limits

D-fend incorporates built-in thermal protection circuitry which will temporarily disable the unit in the event that the thermal limit has been reached or exceeded. Failure to mount the device in the recommended orientation will increase the likelihood of reaching this limit. Reaching the temperature threshold signifies the SA300 is being subjected to extremes beyond what it is rated for, and/or that there is an issue with the protected system or the system demands.

Weights and Dimensions

	Weight	Width	Height	Depth
SA300 Unit Only	2.4 lbs / 1.09 kg	5.94 in / 15.09 cm	2.38 in / 6.05 cm	6.75 in / 17.15 cm
SA300 in Retail Carton	3.1 lbs / 1.41 kg	8.0 in / 20.32 cm	3.0 in / 7.62 cm	7.0 in / 19.05 cm



D-fend™

DIGITALLY FACTORED ENERGY DAMPING

SA300

300 Volt Stand-Alone Unit



PROTECT MORE THAN JUST YOUR LOUDSPEAKERS!



With the D-fend™ SA300 there are no more worries about blown speakers, HF drivers or crossovers. Or even worse: fire caused by excessive heat. Not only does this revolutionary, patent-pending technology keep your system safe, but your venue and audience as well. The user simply sets the thresholds and D-fend™ monitors and limits the amount of input power it passes through to the loudspeaker. It's USB compatible, and can be programmed to your specifications from a desktop or laptop. Just set it and forget it. Protect your products, venue, customers, and your reputation with the first passive speaker protection system that is virtually indestructible.

D-fend™ loudspeaker protection is ideal for:



SYSTEM INSTALLERS

Word of mouth can be an installer's best friend or worst enemy. D-fend™ will not only protect your carefully installed equipment, but also gives you peace of mind knowing your reputation is protected as well.



RENTAL COMPANIES

By using D-fend™ you can rent out your speakers and know that you'll get them back in the same condition they left. So what comes in on Monday can go back out the door again without a visit to your repair shop.



OEM MANUFACTURERS*

What can be better than offering a bullet-proof loudspeaker system? With D-fend you can offer your customers something they've never seen before: a passive speaker that can't be destroyed, no matter how hard you punish it.



VENUES AND BANDS

Own some passive speakers? Chances are you've come closer than you think to blowing a driver. There's nothing worse than stopping a show in progress because you just lost your subwoofer. Why take the chance?

[Read more >>](#)

D-fendTM **FEATURES**

DIGITALLY FACTORED ENERGY DAMPING

DIGITAL SIGNAL PROCESSING

With on-board digital filtering, D-fendTM provides multiple frequency dependent thresholds and independent attack/release timing parameters. This enables the user to employ D-fendTM technology prior to passive filtration, and allows increased sensitivity in specific frequency bands such as woofer over-excursion bands or high frequency peak damage regions.

DIGITAL ATTENUATION

Significantly reduced heat, no bulbs, no light output.

FULLY PROGRAMMABLE

On-board microprocessor allows user customizable attack, release, and threshold settings to maximize loudspeaker performance.

HIGH POWER

Capable of protecting high power woofers and sub-woofers from over-power conditions as well as mechanical damage thresholds; an achievement unseen within the audio industry.

VERSATILE

Allows damage-free operation of woofers, tweeters, and/or midrange devices. Any combination of parallel, series, or parallel-series connected speaker systems can be used on the output of the SA300.*

NO AUXILIARY POWER

Operates from a standard speaker-level signal, does not require auxiliary power.*

MUSICAL

Attenuation slewing algorithms provide lamp-like musicality without the nuisance of light and flammability concerns. Think of it as a high-power, speaker-level limiter allowing the user to guarantee unmatched levels of protection for their unpowered loudspeaker solutions.

MAXIMUM POWER SPECIFICATIONS

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Learn more at

D-fend.net

and Eminence.com/d-fend



 **You Tube**

See the technology demos on our YouTube channel:
www.youtube.com/user/eminencespeaker

* The SA300 is designed for use with transistorized amplifiers with a low-impedance output. Auxiliary power may be required for low-power applications. External power supply sold separately. D-fendTM can be incorporated into your OEM application in board-only configurations. To license this technology for Professional Audio and Musical Instrument applications worldwide, please contact Eminence at (502)845-5622 or dfend@eminence.com. © Eminence Speaker LLC. All rights reserved. D-FENDTM is a trademark of Intrinsic Audio Solutions, Inc., D.B.A SLS Audio.