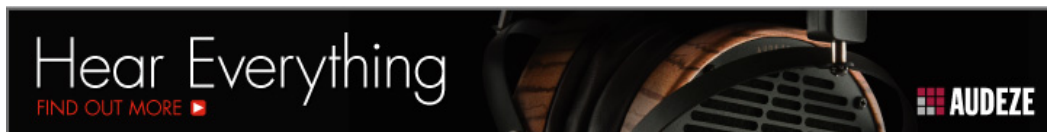
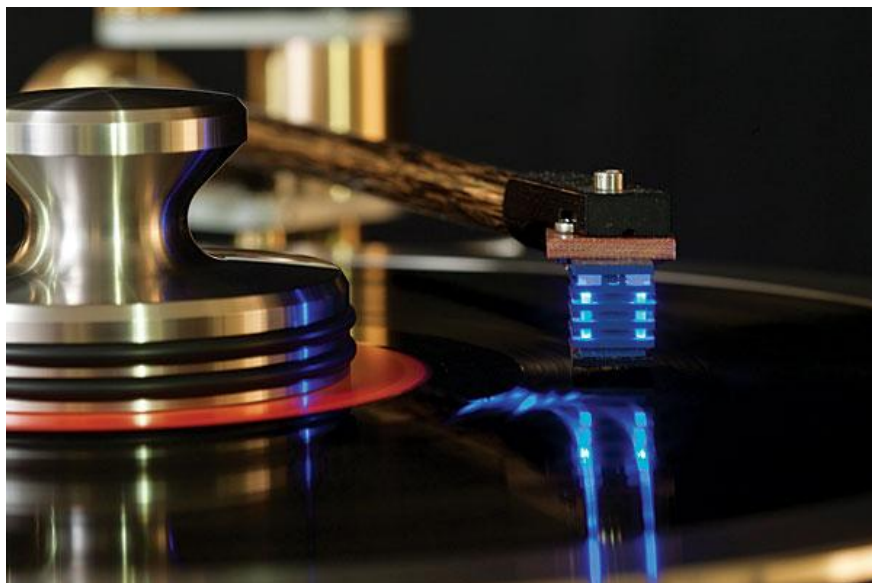


» SUBSCRIBE
» DIGITAL EDITION
» RENEW
» GIVE A GIFT
» SUB SERVICES
» FREE NEWSLETTER



Soundsmith Strain Gauge SG-200 phono cartridge system

By Michael Fremer • Posted: Mar 22, 2011



Strain-gauge phono cartridges are rarely made and seldom heard; for most vinyl fans, they are more myth than fact. Panasonic once made one, as did Sao Win, but those were decades ago. I've heard about those two models for years but have never seen, much less heard one.

As if he's not got enough to do building his extensive lines of moving-iron cartridges, preamplifiers, amplifiers, and speakers, Soundsmith's Peter Ledermann also makes a full line of strain-gauge cartridge systems available with a choice of six user-replaceable stylus profiles. I believe the Soundsmith is the only strain-gauge cartridge currently made anywhere in the world. Ledermann says it takes him a full day to build one.

I've often seen—and sometimes even heard—Soundsmith's blue-lit strain-gauge models at Consumer Electronics Shows and various consumer audio events, but only in entirely unfamiliar systems. Because of the impossibility of making any kind of judgment of their sound under such conditions, I've pretty much ignored what I heard in those rooms, though the reactions of other listeners have ranged wildly, from wide-mouthed "Wow!"s to scrunched-face grimaces of distaste. All it did was intensify my curiosity to hear one at home in my own system.

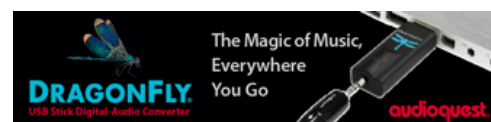
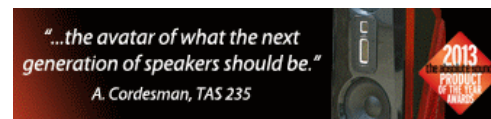
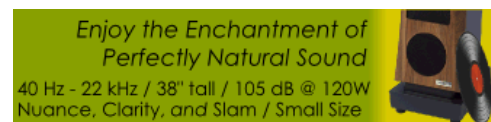
However, because a strain-gauge model requires an active power source, the cartridge must be used with an outboard preamplifier and power supply. Until very recently, Soundsmith incorporated its strain-gauge circuitry within a wide range of standalone full-function preamplifiers: if you wanted to own or review one of their Strain Gauge models, you had to replace your preamplifier with Soundsmith's—not only an unattractive proposition for anyone already happy with his or her preamp, but the simultaneous swapping out of two audio components makes for an unsatisfactory review context: how do you know which new

SPONSORED TECH CENTER



Ground Breaking Technology
in High Resolution Audio

Benchmark
the measure of excellence



component is doing what to the sound?

Soundsmith now offers its Strain Gauge cartridge with a reasonably priced dedicated interface that simply and only plugs into any preamplifier's line-level input. Ledermann says that this circuit is identical to what's in the full-featured preamps. The long-promised SG-200 system, which Soundsmith calls its "entry-level" model, recently arrived here, and I immediately installed it in a [Graham Engineering Phantom II](#) tonearm.

What is a strain-gauge cartridge, anyway?

In a standard phono cartridge, a mass—a magnet or a coil—must be moved to generate a voltage. The mass must be supported by an elastomer suspension that acts as a kind of shock absorber for the mass, which is attached to a cantilever-stylus assembly. When that assembly moves, displaced by the modulations in the record groove, it in turn moves the coil or magnet. A certain amount of that transferred energy is transformed into heat in the suspension and is thus lost. The coil-magnet system turns what's left into a tiny amount of voltage.

A strain gauge is a tiny piece of silicon or other material whose resistance to a current flow supplied to it changes as it expands and contracts. It's typically used in devices that measure pressure. A stereo strain-gauge phono cartridge uses two of these ultradelicate devices, which are flexed by the cantilever pressing on the carrier holding them. The design of the Strain Gauge carrier is proprietary to Soundsmith, and Ledermann didn't want to tell me much about it. The interface that supplies current to the cartridge includes a low-noise preamplifier that increases the cartridge's tiny modulated voltage to line level.

The biggest advantage of such a system over a standard voltage-generating system such as a moving-magnet or a moving-coil is, of course, that virtually no mass need be moved in order to produce a modulated voltage, which means that almost no energy is lost in overcoming the

REVIEWS **RECOMMENDED** COLUMNS SHOWS NEWS FORUMS GALLERIES

Displacement-, not velocity-based performance

I haven't mentioned RIAA equalization so far because, with this system, none is needed.

RIAA equalization is applied when a lacquer is cut, attenuating the low frequencies and boosting the high frequencies. When the resulting LP is played, a complementary RIAA filter in the preamplifier attenuates the highs, dropping noise in this region well below audibility while restoring flat HF response. Attenuating the lows during cutting limits the lateral groove displacement, thus permitting a tighter groove spiral, which means that more music can be packed onto each LP side. When the record is played, the preamp's RIAA equalizer restores a flat bass response to the sound by boosting the lows.

NEXT: [Page 2](#) »

COMPANY INFO

The Soundsmith
8 John Walsh Blvd., Suite 417
Peekskill, NY 10566
(800) 942-8009
www.sound-smith.com

ARTICLE CONTENTS

- [Page 1](#)
- [Page 2](#)
- [Page 3](#)
- [Page 4](#)
- [Specifications](#)
- [Associated Equipment](#)

[Share](#) |

[Log in](#) or [register](#) to post comments



SPONSORED LINKS

KEF LS50

Ciamara - Leader In High End Audio. Call For Unbeatable Price
ciamara.com/kef-ls50-anniversary

Download Audio Converter

Compress Your Audio Track & Save to MP3 M4A WMA WAV AAC FLAC AMR etc
www.avs4you.com/AVS-Audio-Converter

How To Remove Dark Spots

A Weird Trick To Remove Dark Spots Without A Doctor
consumersguides.com

Airfloat Turntables

Rotate large, heavy loads on air. Simple design, easy installation.
www.airfloat.com/turntables

ITT Tech - Official Site

Tech-Oriented Degree Programs. Education for the Future.
www.itt-tech.edu



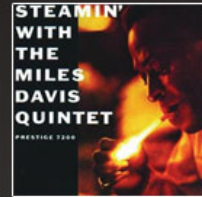
[f](#) [t](#) [LOGIN](#) [JOIN](#)



Vinyl Lives Here!

ACOUSTIC SOUNDS

We're Music Lovers



The Miles
Davis Quintet
Steamin'



The Reiner Sound
Reiner/CSO



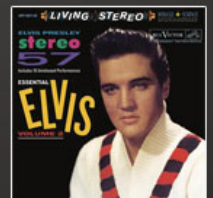
Peter, Paul & Mary
Album 1700



Harry Belafonte
At Carnegie Hall



Ted Nugent
Ted Nugent



Elvis Presley
Stereo '57



The World's Largest Selection of
Audiophile Recordings

ACOUSTICSOUNDS.COM
800.716.3553



SPONSORED LINKS

PSB Speakers Dealer
 PSB CHS-40 Bookshelf
 Speaker \$699.00 each!
 Save Over 50%
www.dmc-electronics.com

Local Audio Recording
 Affordable Audio Recording Studios. Compare
 Quotes & Save. Search Now!
thumbtack.com/RecordingStudios

Jolida Audio Components
 Authorized dealer, most
 models in stock, free shipping.
www.spearitsound.com

National Finals Rodeo DVD
 2013 watch ten nights, all
 events 100's of other rodeo
 DVDs available
www.rodeovideo.com

Champlifier Audio Repair
 Repairs & Servicing Fast
 Turnaround Amp Audio
 Repair 100% Satisfaction
www.champlifier.com

Immortality

Loudspeakers

Floorstanding
 Stand/Bookshelf
 Subwoofers

Amplification

Tube Preamps
 Tube Power Amps
 Solid Preamps
 Solid Power Amps
 Integrated Amps
 Phono Preamps

Digital Sources

CD
 Hi-Rez Disc
 Digital Processors
 Computer Audio
 Media Servers

Analog Sources

Turntables
 Tonearms
 Phono Cartridges
 FM Tuners

Accessories

Cables
 Phono Accessories
 Powerline
 Room Treatments
 Stands/Racks
 Headphones
 Miscellaneous

Featured

Budget Components
 Audacious Audio
 J. Gordon Holt

Music

Recording of the Month
 Records To Die For
 Music/Recordings
 Face The Music

Columns

As We See It
 Art Dudley Listening
 The Entry Level
 The Fifth Element
 Music in the Round
 Fine Tunes

Features

Special Features
 Reference
 Audiophile Essentials
 Interviews
 Think Pieces
 Historical

Show Reports

CES 2014
 CES 2013
 CES 2012
 CES 2011
 CES 2010
 CES 2009

RMAF 2013
 RMAF 2012
 RMAF 2011
 RMAF 2010
 RMAF 2009
 RMAF 2008

AXPONA 2014
 AXPONA 2013
 AXPONA 2012
 AXPONA NY 2011
 AXPONA 2011

Show Reports

SSI 2014
 SSI 2013
 SSI 2012
 SSI 2011

Newport 2014
 Munich 2014
 AudioFest 2013
 NY 2013
 TAVES 2013
 CAS 2013

More Reports

Latest News
 Audio News
 Past eNewsletters

Recommended Components

Rec Comp 2013
 Rec Comp 2012

Products of the Year

POTY 2013
 POTY 2012

Blogs

Robert Baird
 Fred Kaplan
 Stephen Mejias
 Ariel Bitran
 Wes Phillips

Community

Forums
 Galleries
 Vote
 Sweepstakes

Shop

Recordings
 Backissues
 Buyer's Guides
 More . . .

Resources

Audiophile Societies
 eNewsletter Sign-up
 Contact Us
 Customer Service
 RSS Feed
 Media Kits
 Privacy
 Terms of Use

Subscriptions

New Subscription
 Digital Subscription
 Renew
 Give a Gift
 Sub Services

Copyright © SOURCE INTERLINK MEDIA All rights reserved.

