



## HEAR & FEEL THE DIFFERENCE®

Comprehensive Maintenance Technologies.

*A must have for your toolkit.*

3404-84th Street East  
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## Product Review

As written for Collectible Guitar Magazine

### SoundSynergies® Penetrating Maintenance Conditioners & Lubricants



By Mike Fitch

*Mike Fitch has been a professional musician in the Pacific Northwest for over 40 years, and is also a copywriter and graphic designer.*

#### Overview

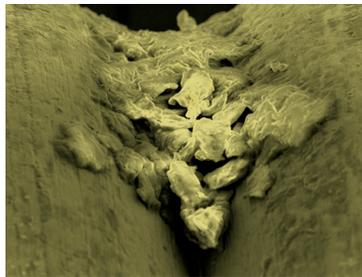
When it comes to your music gear, dirt, dust, and grime pose a threat. Contaminants and corrosion can compromise your tone and degrade critical components. SoundSynergies® spray-on products are made to condition and lubricate a wide range of musical instruments in order to optimize and protect sound quality and playability. I put three of their products to the test in my project studio, and then spoke with Dean K. Hart, a musician, sound engineer and researcher who has extensive experience with SoundSynergies®.



**BASS STRING - Detail**

Exposed String Core - Mag. X20

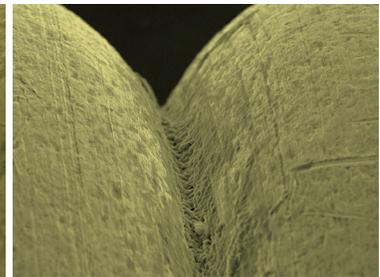
The engineered complexity of a bass string illustrates how important STRINGTone's penetrating action can be in the effort to maintain and condition strings for sound and longevity.



**USED STRING - Before treatment**

Between string coils - Mag. X60

Shown above; sound-dampening grit and grime that causes wear and drains life from guitar strings.



**USED STRING - After treatment**

Between string coils - Mag. X60

STRINGTone® lifts away contaminants to restore string tone and sustain while conditioning to protect.

#### Studio Test

I applied STRINGTone®, made for guitars, basses, and other string instruments, on my Martin DM acoustic guitar, wiping the strings and fretboard down. The grime and gunk that accumulated on the cloth was impressive. Strumming a few chords, the sound seemed richer and more present than it had been before treatment, particularly in the mid and low registers. The strings' tactile response felt extra sensitive to plucking and hammer-ons.

Next up was PROcussionCare®, which I tested on my Rogers snare. The drum's chrome shell cleaned up nicely, without appearing highly polished. I grabbed my sticks and tried out a few strokes and rolls. The stick rebound felt lively and the sweet spot seemed extra-large, sounding fatter and less choked closer to the rim. I then treated my age-darkened, stick-marked K Zildjian ride cymbal. Conventional cymbal cleaners strip the surface for a brilliant



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sheen-PROcussionCare® instead lifted away obvious grime while preserving the surface patina. The cymbal felt very responsive and sounded brighter without losing its dark, smoky overtones. When it came to my PDP kick pedal, its already smooth and quiet action seemed to free up a bit more as the product worked in.

I applied LECTRICare® to my amp and mixer. The switches and faders lost any trace of stiffness or resistance. I went on to treat the all the pots, cable tips, and jacks on my electronics. Electronic gear can be problematic, and it stands to reason that LECTRICare's promotion of better metal-to-metal contact and anti-static properties would help to ensure that everything runs smoothly.

**MF:** SoundSynergies® products create a "micro-lubricant barrier film" on treated surfaces. How does this enhance an instrument's sound and performance?

**DH:** The product reduces surface tension on metals by virtue of its composition and bonding action. It's a very flexible film boundary that penetrates, in the case of a wound string, down to the core. This multi-boundary film formula is what we call self-leveling—it does not build up after multiple applications like other products do.

The particle sizes are micro-sized, or micron particles. Typically a micron-sized particle is millionth of a millimeter (0.000001), and that is part of the film's ability to penetrate very, very small areas. SoundSynergies® "loves" metal surfaces and the larger the surface area, the better. In the case of guitar strings, with lots of surface area, we're getting considerably improved sustain—the strings will actually resonate longer. It essentially improves the acoustic energy of the string.

**MF:** How do SoundSynergies® products differentiate themselves from other musical instrument conditioners on the market?

**DH:** The products use three to four compounds, as opposed to others with only a single active ingredient. One of the compounds is a dual-purpose lubricant and corrosion preventative; another is a specifically-purposed corrosion inhibitor; and a third compound is a high-load carrier with high-lubricity boundary lubricant properties. Another compound, four-X, has an extreme corrosive environment protector, used in long-term protection against extreme exposures and surface punishment.

These products are balanced specifically for each type of instrument, depending how much lubrication it needs, how much impact is going on, etc. STRINGTone's compounds are in a solvent base that acts as a carrier, transporting the agents to dislodge and remove oxidation and corrosion. Its job done, the carrier then evaporates, leaving your instrument dry to the touch with no sticky or wet feel. PROcussionCare® is a heavy-duty, high load-bearing formula created for the demands placed on high impact drums and percussion applications. LECTRICare® is a coating-oriented formula that's very rich in corrosive protection and promotes stable electrical conductivity. BRITETone®, for brass, is formulated for higher-lubricity needs, close tolerances, and high-load areas. Another aspect of these products is that they prevent electrostatic build-up—particularly important in the case of LECTRICare®.

Other products, made of silicone or liquid Teflon, are unlike SoundSynergies in that they don't self-level—they end up migrating, and can cause problems with finishes. They also wear off quite quickly so you have to keep re-applying.

**MF:** How exactly do SoundSynergies® products penetrate and lift away dirt and contaminants?



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**DH:** The carrier, the active agent in removing oxidation and corrosion, does not act with chemical action—it displaces. It actually penetrates underneath surface contaminants and corrosion particles and lifts them away. Once that action is completed, the tri-boundary film sets up and establishes a surface bond that lasts much longer than typical cleaners with just a single layer.

**MF:** Have tonal improvements been verified with lab tests?

**DH:** I ran a series of tests on stringed instruments ranging from bass guitar to acoustic guitar to electric guitar to mandolin. These were using used strings, not new. They had some degree of corrosion, oxidation—strings that had been played. In my recording studio I digitally sampled electric guitars, mic'd acoustics, and after establishing a base reference level, measured the responses using a spectroscope, which shows a continuous graphical representation of the sound spectrum. I overlaid the treated string results over the untreated string results. On some models the improvements were more subtle than others, but I measured striking improvements in the classical guitar, mandolin and most especially in the fundamental frequencies of bass guitar.