



## **SILCLEAR OWNER'S MANUAL**

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### **PERFORMANCE AND DESIGN**

SilClear will significantly improve the sound (or video quality) of any interconnect, power cord, speaker cable, etc. The sonic improvements we hear are, first and foremost, a remarkable increase in treble extension, transparency, detail and sparkle, all without any added edginess. Bass sounds tighter, less boomy. Attacks are noticeably quicker and punchier. Midrange timbres and harmonic details are articulated more clearly, yielding a more natural and intimate musicality.

We have tested SilClear against most of the well-known contact enhancers—Cramolin, Tweek, Kontak, Cardas TC-2, XLO TPC, H2L, ProGold, DW and some exotic products costing up to \$200. Most of them yield audible improvements; none came close to the remarkable SilClear sonics. As best we can gage, treating a \$500 interconnect yields roughly the upgrade we would expect from switching to a \$1000 interconnect. Ditto for power cords and speaker cables. The cumulative effects of treating all the connections in a system are beyond expectation; we know no way of investing an hour that yields greater sonic returns.

Technically, the SilClear engineering objective is simple: to create the thinnest possible continuous layer of silver between the two mating surfaces of any electrical connection. The test results are unequivocal: SilClear improves sound. The reasons are not so obvious. We hypothesize two mechanisms. One is the beneficial effect of a near-monomolecular layer of silver in reducing skin effect (i.e., the velocity disparity between signal propagation on the surface and in the interior of a conductor). Second is eliminating the distorting diode effects (i.e., unequal resistance to the + and – halves of a music waveform) of the inevitable oxide films on any conductor surface.



There are a number of available silver-filled greases that could be used to meet the thin silver coating objective. Unfortunately, all were developed for maximum thermal conductivity, that is, for conducting heat out of transistors, integrated chips or high current switch contacts. Though these silver greases can enhance sound, their sonic benefits are limited by the high dielectric absorption of the grease and the too-thick silver grains necessary to optimize heat flow.

We started from scratch in formulating SilClear. First and foremost, after investigating silver powders of decreasing grain size, we shifted to a technology that produces silver platelets far thinner than the finest silver powders made. Our final formulation uses silver platelets close to one-millionth of an inch thick—and with an astonishing surface area of 8 square feet for each gram. Besides giving a far better continuous silver-plating effect than powders, the ultra-thin platelets also make possible a higher proportion of silver to binder. For binder, we rejected the conventional thermal greases and sorted through dozens of others to find the one with the lowest dielectric absorption and the highest surface clinging properties (to allow many plug-unplug cycles).

### **APPLICATION TIPS**

For best results with SilClear, the following three rules are essential:

1. Using the enclosed brush, coat **ONLY** the male surfaces of any connector, never the female surfaces. On RCAs, this means coat only the center pin of the male conductor and the outside cylindrical metal surface of the female jack. For RCAs, also coat the threads of any removable outer metal shell.
2. Use the thinnest possible uniform coat of SilClear on the entire male surface. Do **NOT** leave any excess or thick lumps.
3. Do not allow any SilClear to coat the insulating plastic of any plug. If you allow excess SilClear to coat a bridge across the plastic between the hot and the ground, you will create a short because of the high conductivity of SilClear. Fortunately, SilClear is easy to dissolve and remove with a Q-tip dipped in kerosene or white gas (or alcohol, though this takes more rubbing).



SilClear's initial sonic enhancement improves significantly with continued playback. You will hear overall system warmth and depth continue to improve for at least 4 to 10 hours

The more completely you treat your system's connections, the greater the sonic (or video) improvement. Treat all of the following:

- All interconnect plugs, whether RCA, BNC, DIN or XLR. For turntables, treat both the cartridge pin clips and the tone arm wire plugs.
- All power cord connectors (AC wall plug as well as IEC). For DC power supplies, treat the umbilical cord connector (DC plug or DIN). For batteries, treat the + and – contact surfaces.
- All tube pins; SilClear will improve tube cooling and will be left unchanged by tube pin temperatures.
- All amplifier and speaker and ground wire binding posts.
- All fuse contact surfaces, particularly amplifier and power supply fuses.
- If you have your speakers apart, don't forget to treat the quick disconnects on the drivers.
- All FM antenna wire connections and couplers.
- As long as you don't unplug a connection, there is no need to re-treat. Re-treating after 10-20 unpluggings is recommended (visual inspection will make it clear if it's needed).

### **SPECIAL NOTE FOR RCAs**

To understand why it's so important to leave no excess of SilClear, look down into the male plug. At the bottom of the center pin, you'll see a circle of plastic. That plastic insulates the pin (+) from the outer barrel ground (-). If a blob of



SilClear bridges the plastic circle, you'll have a short, which will mute all sound. Fortunately, the short will not damage your equipment because interconnects carry only very low currents and voltage.

If you get a short, it can be cured by using a Q-tip or matchstick soaked in kerosene or white gas or, less effectively, alcohol.

### **SPECIAL NOTE FOR TUBES**

Never let SilClear spread onto the glass at the base of the tube pins. SilClear on the glass between two pins can cause a short, but can be easily removed. (See above).