Mapleshade

IONOCLAST ION GENERATOR
OWNER'S MANUAL

PERFORMANCE AND DESIGN

Among interested audiophiles it has been known for some time that neutralizing the static charges that naturally build up on CDs (*and on wires and LPs*) will yield significant improvements in sound. In the case of CDs, it is not hard to see why: a spinning, statically charged CD will induce minute (but audible) spurious currents in the nearby digital signal wires inside the CD player. Ditto for a statically charged LP: it induces sound—smearing spurious currents in the cartridge coil windings.

WE BELIEVE IT IS IMPOSSIBLE FOR ANYONE TO GET THE FULL SONIC POTENTIAL OF THEIR WIRES OR THEIR CDs or THEIR LPs WITHOUT NEUTRALIZING THEIR STATIC REGULARLY.

The most effective way of neutralizing static charges is to generate clouds of positive and negative ions near the charged object. That charged object will attract exactly those ions (+ or -) needed to neutralize the charge. On electronics assembly lines, these neutralizing ions are usually created by air flowing over high voltage probes. Our Ionoclast works on the same principle: a piezo-ceramic cylinder inside the housing, when squeezed by the trigger, generates voltages of 50,000 V plus, enough to jump a spark gap of nearly 1/2″. These very high voltages easily ionize the surrounding air. (Note that squeezing and releasing the trigger creates voltages of opposite sign, thus generating both positive and negative ions.) When these high voltage discharges in the Ionoclast tip are generated near the surface of a CD or LP, the resulting ion clouds neutralize any of the disc's nearby static charges.

Audiophiles from the LP era may well remember the Zerostat, a pistol-like device originally designed for neutralizing the static on LPs (to avoid attracting dust particles). The Zerostat, still in limited production, is also a piezo-ceramic based device that can be used to neutralize CD static. The Zerostat design has three

drawbacks relative to the Ionoclast: 1) it generates significantly less voltage and fewer ions; 2) it is far less durable; and 3) it costs almost twice as much. We have tested the Zerostat directly against the Ionoclast on new CDs and LPs of equal static charge. Discs neutralized by the Ionoclast sound noticeably better than Zerostat-treated discs, confirming the importance of the higher voltage and greater ion generation of the Ionoclast design.

The Ionoclast is well worth using by itself as the only treatment you use on your CDs. Nevertheless, you get remarkably better results if you do what we do at Mapleshade on all our CD-R masters: we polish with Mikro-Smooth first, then spray with Optrix, then neutralize static with the Ionoclast. We think the disproportionate improvement of the three treatments together is probably due to three interrelated factors: 1) the excellent Mikro-Smooth optical jitter reducing effect, when Mikro-Smooth is used by itself, is diminished by the static buildup that is simultaneously generated during polishing; 2) Optrix helps because it helps *spread* static charges by increasing the very low surface conductivity of the plastic CD disc [but it does not *neutralize* the static already on the disc]; 3) the Ionoclast neutralizes all the Mikro-Smooth [and other] static buildup on the disc, aided by the better surface conductivity of the Optrix-treated disc.

In typical use, CDs and LPs should be neutralized every 10 plays or so—much more often in dry weather or in the presence of static-generating wool or acrylic carpets, less often with humid weather and wood or stone floors.

To get full performance out of your interconnects, speaker cables and power cords, they should be neutralized at least every month or two months.

APPLICATION TIPS

Hold the electrodes of the Ionoclast within 1/2-inch of the CD (1/2 to1-inch away from LPs). Zap the entire disc, top and bottom, by moving the Ionoclast continuously over the surface (in an expanding spiral, starting at the center), clicking it at 1 to 2-inch intervals. You will not harm the CD or LP if the spark jumps to the CD, but avoid touching the CD with the electrodes since you might scratch it.

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Zap wires in the same way, except that you move the Ionoclast down the length of the wire and then turn the wire over 180 degrees and zap the second side.

Use the Ionoclast on DVDs (it will improve both the sound and the video picture) and on CD-Rs before and after burning the disc.

You can calibrate how often to re-apply the Ionoclast by listening for the sonic improvement you get from each application. If you re-treat after ten plays and if the improvement is nearly as large as the very first treatment, then you need to increase treatment frequency. If you hardly hear a difference, then double the number of plays between treatments.

We *highly* recommend using the Ionoclast on all wires: interconnects, speaker cables, AC powercords, etc. HOWEVER, IT IS ESSENTIAL TO DISCONNECT THE WIRES FROM THE EQUIPTMENT BEFORE ZAPPING. SOLID STATE INTEGRATED COMPONENTS CAN EASILY BE DESTROYED BY THE HIGH STATIC VOLTAGE OF THE IONOCLAST DISCHARGE.

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