

TOP BY PLOP



A new, exciting record cleaning machine comes from

Kirmuss Audio in the USA. The KA-RC-1 uses ultrasound – and the

power of bursting bubbles.

It was a popular analogue highlight at the 2018 HighEnd show: the new “Ultimate Ultrasonic Vinyl Restoration System” KA-RC-1 from the American manufacturer Kirmuss Audio, which is largely unknown in Germany. In fact, audio-nerd Charles Kirmuss, who started out as a hobbyist, has already been professionally working in the field of HiFi since the seventies, when he was building loudspeaker cabinets and tube amplifiers. Today he is best known for his elaborate cables.

That is, however, soon going to change, because for three years the born Canadian, whose company is based in Denver, Colorado, worked and experimented together with analog specialist Dr. Eric Watson on his “Vinyl Restoration System”.

It had long been clear to both of them that contactless high-frequency cleaning is a good idea. In their opinion, it was, however, necessary to devise a process that is specialized on the vinyl, in order to achieve an optimum cleaning result and avoid damage. Also, their record cleaning machine should be versatile as well as affordable.

The result is a 54 centimeter wide, light grey device with a plastic cabinet, practical grips, a display and an anthracite cover featuring four slots of different lengths. Underneath is a stainless steel tank that holds around six liters of distilled water, which is mixed with 40 milliliters of 70% isopropyl alcohol – that’s it, no expensive ingredients are necessary. The five-liter canister of distilled water was available in our closest DIY store for around 1.50 euros; 200 ml of the alcohol mixture cost us around seven euros, but is enough for five fillings, which usually last for 25 to 30 rather dirty records. If the discs are in normal condition, it may be sufficient for even more before the “waste water” has to be drained, using a lever on the front side, a lateral connection piece and a rubber hose.

KEYWORD

cavitation:
The term describes the formation and dissolution of vapor-filled cavities in liquids, i.e. bubbles.

The Kirmuss’ highlight is, however, that it can clean up to four records simultaneously: two LPs, one single and one shellac disc. Underneath the cover is a patented construction of gears and belts, driven by a small motor that slowly rotates the discs through the water bath. Slim foam wipers at the outlets prevent the discs from taking the liquid up with them and possibly draining it over the label.

In fact, the “Vinyl Restoration System” is quite simple to use, but still requires a few manual actions from its user. After switching on, the display in the upper right corner automatically jumps to five minutes. If desired, this can be reduced or extended to up to 15 minutes. Our experience showed that with heavily used second-hand discs at least 10 minutes should be estimated.

It’s, however, worth it, as playing the first disc after the procedure might very well be nothing short of a delightful revelation, with all the crackling being considerably reduced and the ultrasonically cleaned vinyl sounding softer, more airy and, above all, a lot more three-dimensional. With 35 kilohertz at a defined amplitude, Mr. Kirmuss and Mr. Watson supposedly have determined the perfect frequency for precise record cleaning in a long series of tests. After all, what works for earrings, glasses and technical components does not necessarily have to be suitable for delicate vinyl grooves.

In fact, the Americans explain that the cleaning effect of the ultrasonic bath

The control panel with display and control buttons allows washing times of up to 15 minutes. Also sufficient for heavily contaminated records. ▶



▲ Typical American? This funny sticker decorates the front of the Kirmuss machine. Apart from that everything about it is meant seriously.

is not based on the movements of the high frequency generated by the three ceramic generators. Rather it is based on the fact that frequencies generate bubbles in the water that absorb energy and then burst at a certain point. Due to this **cavitation**, a pressure wave extending at speeds of up to 500 km/h is created, which “kicks” dust, grease and the like out of the groove – “Top by Plop!” so to speak.

The frequency decides how much energy the bubbles release during their implosion. According to Kirmuss Audio, the dirt remains unaffected, if it is too little, while it can even damage the audio information if it is too much. The optimum level is at 35 kHz, or 35 degrees, as the washing process automatically heats the liquid. The washing procedure goes as follows:

- ◆ After refilling or restarting, the fluid must be “degassed”, which is done within 90 seconds by pressing the “Pulse” button twice.
- ◆ Then insert the record(s) into the slot(s) and press the “On/Off” button, whereupon the cleaning process starts under buzzing noises and ends after the specified time, while the display is counting down to zero.



The delivery includes a soft cloth with bunny pattern, **1** a small felt mat **2** on which the record is to be placed after washing in order to wipe it with the microfibre cloth **3**. A velvet wiper **4** removes the last moisture from the groove. Then the treatment with antistatic spray **5** and camel hair brush **6** follows. Even a needle cleaner **7** is included. ►

◆ Then the hardly damp plate is taken out and placed on the soft cloth with the rabbit heads. Any remaining water drops are removed, using the included microfibre cloths. Finally, a velvet wiper removes the last bit of moisture from the grooves.

◆ Last but not least you apply a small splash of antistatic spray onto the extremely soft camel hair brush and move it in a circle over the disc – done!

Granted, it does sound like a lot of work, but it's actually quite fun. Some colleagues who initially complained about the effort and said they'd prefer classic brushing machines with suction, were seen as they stealthily dragged small piles of vinyl into the washing corner and couldn't get enough of the wiping and spraying, cleaning and caring. But wait: after a good half hour, the KA-RC-1 should be allowed to cool down for ten minutes. In fact, the washing water was well warmed subsequent to an afternoon of cleaning, which was certainly not only due to the extremely hot climate. The obviously robust mechanics showed nevertheless no weakness and tirelessly rotated disc after disc through the cleaning liquid.

The results of the high-frequency cleaning attacks were consistently positive. Even stubborn crackling was often significantly reduced afterwards. Sometimes it was,



however, necessary to repeat the cleaning process, but people who want to rush through washing dozens of LPs in as little time as possible wouldn't enjoy the Kirmuss anyway. Here, care is celebrated!

In parallel, we washed the records on Clearaudio's luxurious "Double Matrix Professional Sonic" for a whopping 3950 Euros, whose cleaning power is beyond doubt and which relieves the user of doing absolutely anything. Remarkably, one and the same disc tended to sound more robust, more fundamental and more compact, after having been washed on the Clearaudio, while after the Kirmuss treatment they tended to sound more spacious, more relaxed and more brilliant. Maybe a result of the different cleaning fluids?

Not only, but also because of its price, the brushless KA-RC-1 represents an interesting enrichment in the field of record cleaning machines. Further, also the operating costs remain low – and the dirt is simply "plopped" away.

Matthias Böde

KIRMUSS AUDIO KA-RC-1

Price: around 1200 € (without liquids)
 Dimensions: 54 x34 x28 cm (WxHxD)
 Warranty: 2 years
 Contact: Kirmuss Audio div of
 Kirmuss & Associates, LLC
 Phone: (303) 263-6353
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The „Ultimate Ultrasonic Vinyl Restoration System“ works great. It takes longer to clean the records than with a standard brush machine, but then again it works completely contact-free. And the necessary „after-treatment“ of the discs satisfies the analog desire to play. Huge recommendation!.

FEATURES

Flexible time setting up to a maximum of 15 minutes; simultaneous washing of up to four discs, including two LPs; six-liter stainless steel tank with valve and drain connection plus supplied rubber hose; extensive accessories .

STEREO-TEST

PRICE/PERFORMANCE

★★★★☆
EXCELLENT

The motor-driven mechanism, which turns the discs through the water bath at a leisurely pace, is located underneath the record insert. ►

