



Kuzma RD Kit for ultrasonic record cleaning
(ULTRASONIC CLEANER BATH IS NOT SUPPLIED WITH KIT)

INFORMATION BROCHURE
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General introduction:

Ultrasonic cleaning is used in industry for cleaning the most precise and delicate parts such as bearings for the aerospace industry or gold and silver jewellery. Ultrasonic high frequency waves (40 kHz) are transmitted through water creating a process called cavitation. This creates microscopically small bubbles between the surface of the submerged parts and any small particles on surfaces, such as dirt. These bubbles burst and push the dirt away from surfaces. When cleaning metal or plastic the process must be optimised to avoid damage to surfaces. To do this it is necessary to control power, temperature and the time of the cleaning process.

This is how all dirt in the grooves of records, even in new pressings is removed. Sonic results are beyond expectations!

To bring the **ultrasonic cleaning process to every record collector** we decided to make the RD kit's (rotating and drying kit) purchase price as low as possible, thus enabling the customer to purchase the ultrasonic cleaner bath locally (using our guidelines).

The Rotating and Drying record rack kit (RD kit) will allow you to submerge records in the ultrasonic cleaning bath and position them in a suitable drying position.

It will allow you to clean 10 LPs in one hour by the ultrasonic process, giving you the cleanest records ever, free of static charge.

Brief description of the ultrasonic cleaning process:

Records are positioned on the spindle with spacers on the stand and then submerged into the ultrasonic cleaner warm bath for a limited time. The liquid is distilled water with a few drops of isopropyl alcohol and wetting agent added. The spindle rotates with the records, powered by a small motor while dipped into the liquid just below the record labels. The records rotate with 0.4-0.6 rpm (less than one revolution per minute).

If by any chance the record label gets wet no harm is done.

After ultrasonic cleaning the spindle with records is lifted out and positioned on the stand to air dry. When dry, any particles on the record surface are brushed with a carbon fibre brush (records have no static electrical charge) and the records are inserted if you wish into new sleeves.

Description of RD kit: (kit does not include ultrasonic cleaner bath)

The RD kit comprises frame with motor, supporting legs, spindle for holding records, record spacers, a clamp for fixing records on the spindle and a stand for drying records. In the kit small starter bottles of isopropyl alcohol and wetting agent are also included as well as a carbon fibre cleaning brush and DC power supply for motor. Kit assembly requires only 10-15 minutes and a medium size Philips screwdriver.



RD kit (rotating and drying)



8 pcs extension legs included

RD kit:

- 1x main frame with motor (DC 9V with provided mains adaptor)
- 1x spindle (record holder)
- 1x drying stand
- 1x clamp (grip lock)
- 8x extension legs(40 mm- for higher size cleaners)
- 10x PVC spacers
- 1x record carbon brush
- 1x PVC bottle wetting liquid- as for photography (for 5 bath fillings)
- 1x PVC bottle isopropy alcohol (for 2 bath fillings)
- 1x instruction manual
- 2x allen key for leg and rods fixing

To start cleaning your records you need to purchase :

- 1x ultrasonic cleaner bath
- 10 liters distilled water(for one filling: 300-400 LPs)



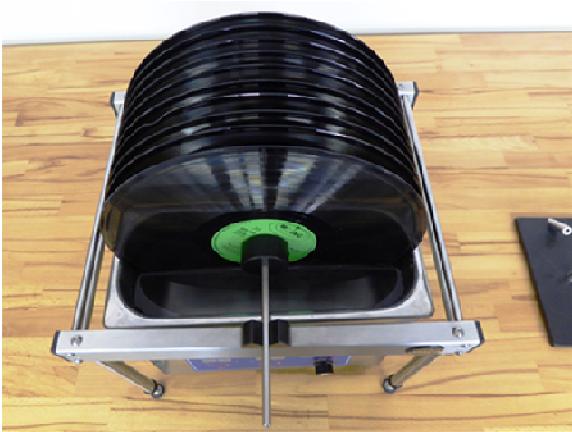
Ultrasonic cleaner bath- typical sample

The main frame is positioned around the ultrasonic cleaner bath. Records are placed with spacers on the spindle fitted on the stand. The spindle holding the records is then positioned on top of the frame where the motor slowly rotates them in the bath.

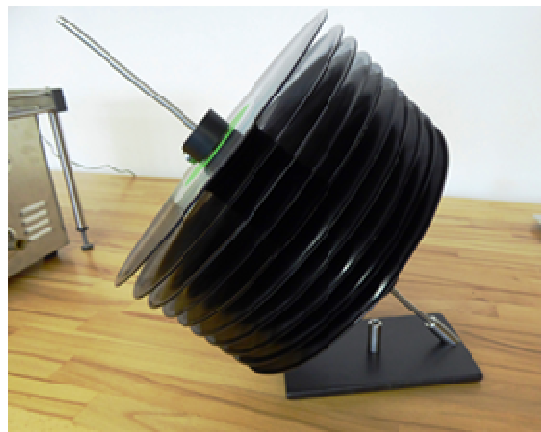


Frame is positioned over ultrasonic (US) cleaner bath

US cleaner must have time, temperature and ultrasonic power control. After approx 10-15 minutes the spindle with the records is lifted from the bath and positioned back onto the stand to air dry records. Once records are dry, the top surface of the record is swept with the carbon brush to get rid of any possible dust particles and the records put in new record sleeves. As the records are free of static charge, this process is very easy.



Spindle with records on frame in ultrasonic bath



Spindle with records in drying position

Technical requirements for ultrasonic cleaner bath:

There are various ultrasonic cleaners on the market. Simply look into the technical data and if they meet the following criteria it will clean safely.

- Bath inner size: min 297 x 220 x 135 (mm: Length x Width x Depth)
max 305 x 240 x 150 (mm: L x W x D)
- Cleaner outer size: min 325 x 265 x 270 (mm: Length x Width x Height)
Max 365 x 278 x 395 (mm: L x W x H)
(special size frame can be made on request)
- Volume: min 8-10 lit (depends on the bath size)
- Ultrasonic frequency: 35-40 kHz
- Temperature control: min 20-50 Celsius range (suggested temperature is 30-33 C degrees)
- Timer: min 5-20 minutes range (suggested cleaning time is 10-15 minutes)
- Power control: 0-100% (suggested cleaning power is 50-60 % of full power)

In case of doubt ask your dealer or us directly, sending us technical details about cleaner.