

LORICRAFT AUDIO

PROFESSIONAL RECORD CLEANER

PRC4i - PRC6i

INSTRUCTIONS

INTRODUCTION

The Loricraft Professional Record Cleaner is based on the work of the late Percy Wilson, Technical Editor of the Gramophone Magazine in England. A prototype (handmade) machine was demonstrated at the Buxton Hi-Fi show in the 1960's and generated much attention for its ability to thoroughly clean a record. The design was improved and perfected using premium high quality components and modern manufacturing methods by Loricraft Audio. Thousands of Loricraft record cleaning machines are now in use around the world by leading record studios, record dealers, serious collectors and vinyl enthusiasts.

The first Loricraft Professional Record Cleaning Machine (PRC) was made in 1990, it was originally intended as a one off to clean a growing collection of personal records. Other record cleaning machines available at the time were noisy and not suited to continuous running. Over 30 years later the Loricraft is now universally acknowledged as the reference standard for record cleaning machines. After improvements to the original Loricraft PRC the production version became the PRC2, the vacuum pump was housed in a separate box. In 1997 the PRC2 officially ceased production to make way for the PRC3 which was the result of extensive experimentation work with the objective to make a more affordable machine. Each parameter was tested to find the optimum efficiency and ultimate performance. After many frustrating disappointments a machine as good as the original PRC became reality. These improvements led to an understanding of how to improve all subsequent Loricraft machines.

The Loricraft professional record cleaner has been subject to continuous advancement over the years from PRC to PRC2, PRC3, PRC4, PRC5 and PRC6. In 2021 the new improved version PRC4i and PRC6i was launched with advanced engineering input and manufacture by SME Limited.

DESCRIPTION

Record cleaning is carried out by applying cleaning fluid directly onto the rotating record and using the nylon cleaning brush supplied spread the fluid evenly and to agitate the cleaning process on the record surface. Cleaning the first 25mm three times can be the very best use of time and liquids. The outer edge is the most exposed to thumb prints and can be very noisy.

The motorised vacuum arm traverses the record vacuuming the waste cleaning fluid and dispensing the fluid into a waste collection jar. The vacuum arm produces an intensive vortex via a nozzle over the grooves of the record. This vortex intimately searches out each section of record grooves. The suction force is provided by an internally housed vacuum pump that relentlessly pulls out dirt and grime contaminants within the record grooves. A nylon thread separates the nozzle from the record surface. The cleaning of a 12" LP record (one side) will take approximately one minute. The cleaning thread will automatically advance to a new clean section of thread by approximately 5mm each time the vacuum arm is parked (plugged) into the vacuum arm rest.

The waste fluid jar is housed on the right side of the machine cabinet. For optimum performance the waste jar should be emptied before 25% full to maintain maximum suction power. Above 75% full will cause the vacuum pump to induce waste fluid. The pump can cope with induced fluid as it is a specialist laboratory type, however suction and operation performance will be impaired. Should this happen run the vacuum pump without the waste jar attached for approximately 10 minutes to clear the fluid vapour. Any induced waste fluid into the vacuum pump will be discharged under the machine. The pump will not be harmed from induced waste fluid and the electrical safety, like a domestic washing machine, is arranged to cope with this. Warning do not place the PRC above electrical appliances or audio equipment for this reason.

Construction differs considerably from a record player/turntable and the main bearing is a substantial oil filled precision bearing in a phosphor bronze housing which is necessary to resist considerable side loading induced during the cleaning process of fluid application and agitated brushing. The platter drive motor is of very high torque to provide support to the manual cleaning process. The vacuum arm has horizontal and vertical sealed unit precision bearings to resist damage from any spilt fluid ingress.

INSTRUCTIONS

Setting Up

- 1) Unpack carefully.
- 2) Place the machine on a level surface.
- 3) Attach the waste jar holder to right hand side of the cabinet (align locating pegs and push firmly into place). Place waste jar into holder.
- 4) Connect the vacuum pump hose (clear hose) to the large fitting on the waste jar lid and onto the vacuum pump inlet adaptor (right hand lower side of the cabinet).
- 5) Attach the vacuum arm by pushing firmly into the vacuum arm mounting base. Ensure that the magnet faces, base of vacuum arm and inside the mounting base are clean. Positive magnet engagement is important (Diagram 1).
- 6) Attach the vacuum arm hose to the waste fluid jar small adaptor (notice the cleaning thread protruding from the hose). Switch the pump on to draw the thread into the waste jar. Switch the pump off, then push the hose onto the locating adaptor to make a good airtight seal. Also check the jar lid to ensure a positive secure fit. For best results position the waste fluid jar larger hose facing forward.
- 7) The vacuum arm is pre-set at the correct down force pressure of approximately 0.75 grams (nozzle to record contact pressure). The arm should traverse across the record without lifting or bouncing. The vacuum hose should assume a gentle curve and not to lift or impede the arm travel/operation. Slight rotation of the waste jar will optimise the tube position ensuring smooth operation. The vacuum arm balance weight can be adjusted if required by loosening the grub screw (allen key provided) at the side of the weight body and moving the weight forward or aft to achieve correct force pressure. Reducing the down force has no detrimental effect as long as the arm rotates without lift or bounce.
- 8) Connect the mains power lead to the AC socket at the rear of the machine.
- 9) Switches/Operation:

MOTOR / Platter

- OFF - Centre
- Forward - Clockwise Rotation
- Reverse - Anti Clockwise Rotation

ARM / Vacuum Arm

- OFF
- ON

PUMP / Vacuum Pump

- OFF
- ON

INSTRUCTIONS

Preparation & Cleaning

Loricraft Audio recommends L' Art du Son cleaning fluid which is a high quality biodegradable type and should only be used with deionised water or reverse osmosis water (RO). Never use tap water as it contains chalk and will contaminate the record. The cleaning fluid has been scientifically developed for the purpose of cleaning records and in conjunction with the Loricraft cleaning machine will deliver superb results. Avoid flooding the record with cleaning fluid but be generous as only a light moistening will not be good enough to thoroughly clean a record.

- 1) Using the pipette provided apply a measured 3ml of cleaning fluid to the 125ml mixing/dispenser bottle supplied and fill with deionised water.
- 2) Ensure the platter mat is clean before applying the record, wipe with a damp clean cloth (lint free cloth or microfiber cloth is recommended).
- 3) Turn the motor switch on and apply the mixed cleaning fluid to the rotating record, using the nylon brush supplied spread the cleaning fluid over the record applying downward pressure agitating the fluid into the record grooves. The motor is strong enough to cope with positive cleaning pressure forces. Once the record has been cleaned (motor-forward direction) it is recommended to repeat the cleaning cycle using the motor-reverse direction (Diagram 2).
- 4) With the motor still on switch the pump and arm switches to the on position and place the vacuum arm onto the rotating record, the waste fluid will be vacuumed away from the record surface. When the cleaning/vacuum cycle is complete lift the arm off the record and stow.
- 5) With the vacuum pump still on and the vacuum arm stowed into the nozzle holder the cleaning thread will automatically advance by approximately 5mm in preparation for the next cleaning cycle. The dispensed (used) thread will collect in the waste fluid jar (avoid allowing too much thread to bunch in the waste jar by cutting off surplus thread occasionally). The thread is a special nylon woven type and should only be used with Loricraft record cleaning machines, other thread types may damage the record surface and not function correctly.
- 6) Cleaning records in the motor-reverse direction mode was highly recommended by inventor (Percy Wilson) who had a strong preference for this method as it cleans the record against the grooves removing contamination driven in by a playing record stylus. In motor-reverse mode apply cleaning fluid as described above and position the vacuum arm at the centre of the record (12 o'clock position behind the record label). Lift the vacuum arm off the record when it reaches the outer edge of the record and stow.
- 7) Dry the outer edge of the record before cleaning the second side. A clean cotton cloth (or cotton handkerchief) is ideal, but do not touch the record grooves. Please don't use a valuable record for practising the cleaning technique.

HINTS AND TIPS

- 1) Never block the bottom of the machine, it needs ventilation.
- 2) Before positioning a cleaned record side onto the platter wipe the platter mat with a clean damp cloth (lint free) and repeat the cleaning process.
- 3) For very dirty records leave the cleaning fluid to soak into the grooves for a minute or two before starting the brushed cleaning and vacuuming process.
- 4) Occasionally clean the vacuum arm internal piping by use of pure alcohol, this prevents sediment building up inside the tubing. A teaspoon (5ml) offered to the vacuum nozzle will be sufficient (vacuum pump on). This is especially true if cleaning 78 shellac records or acetates. Alternatively a larger volume of warm soapy water can be used.
- 5) Never clean 78's or acetates with alcohol, seek specialist products.
- 6) The waste jar must be emptied when the waste fluid reaches the Max Fluid Level mark (which is approximately 25% of the jar capacity). This is important to maintain a positive vacuum pressure. If the waste fluid exceeds the Max Fluid Level the pump can induce moisture/fluid. The pump will survive the occasional ingestion of moisture and fluid. A full waste jar risks jamming the pump with fluid, which may require being returned to Loricraft for repair. Taking reasonable care, no adverse effects will occur, even after thousands of hours of use. These pumps are robust and are designed to work with the recommended cleaning fluids.
- 7) To attach a new nylon thread, knot the old thread to the new thread and cut off surplus. Test the knot before pulling it through and slowly draw the new thread through the vacuum arm by hand. If the thread is accidentally removed from the vacuum arm, the pump can be used to re-thread as follows:

Detach the vacuum hose (3mm) from the vacuum arm top tube (rear). With the vacuum pump on and the thread held at the rear of the bottom tube, use the hose to suck the thread through the arm by positioning the vacuum hose at the pointed nozzle tip (bottom tube forward). With the thread drawn through the arm bottom tube suck the thread through the top tube via the record nozzle by applying the vacuum hose at the rear of the upper tube. With the thread drawn through the upper tube suck into the vacuum hose and firmly push the hose back on the rear of the upper arm tube. The thread will then be sucked into the waste jar.
- 8) Don't remove the vacuum arm nozzle as damage can be caused to the arm tubes. In the unlikely event of replacing the nozzle take time to ease it out by pulling the nozzle downwards with gentle rotation. On refitting the nozzle the inner rigid pipe inside the arm housing must engage fully into the nozzle.
- 9) When transporting the machine remove the arm. The arm need not be removed if the machine is gently transported in a motorcar. If the arm is removed check the magnets for condition and cleanliness before refitting.
- 10) Retain the original packaging for shipping.
- 11) Do not flood the record with cleaning fluid to prevent damage the record label. All switches and construction avoids safety concerns with fluids, however never use the machine if the rubber switch covers are damaged, ripped or torn.

TROUBLE SHOOTING

- Vacuum Arm not tracking:
 - Dirty magnets or vacuum arm/gearbox magnets not engaged correctly.
- Loss of vacuum:
 - Air leak(s), loose vacuum hose connections or poor seal at waste jar lid/adaptors.
- Thread jammed not flowing:
 - The vacuum arm can get blocked with contaminants from the record cleaning process. If this happens flush with pure alcohol or warm soapy water.
- Platter not rotating or incorrect rotation:
 - Drive belt worn or damaged: replace drive belt.
- No power/unit not running
 - Check mains power secure
 - Check/replace fuse

A spare fuse is located in the AC power socket. Do not substitute a fuse of a higher rating.
Fuse Ratings: 2.5 amp at 230 volts and 4 amp at 115/100 volts.

IMPORTANT SAFETY NOTICE

The mains lead on this equipment when supplied for use in the UK, is fitted with a moulded plug incorporating a fuse. The value of the fuse is indicated on the pin face of the plug and if it required replacing a fuse approved to BSI 1362 of the same rating must be used. Never use the plug with the fuse cover omitted if the cover is detachable. If the plug fitted is not suitable for the power points in your house or the cable is not long enough to reach the power point, you should obtain a suitable safety approved extension lead or consult your dealer for assistance. However, if there is no alternative but to cut off the plug, remove the fuse first and then safely dispose of the plug. DO NOT connect the plug to a mains socket as there is a risk of shock hazard from the bared flexible cord.

IMPORTANT:

The wires in the mains lead are coloured in accordance with the following code:

BLUE NEUTRAL, BROWN LIVE. As these colours may not correspond to the coloured markings identifying the terminals in your plug, proceed as follows: The wire coloured BLUE must be connected to the terminal marked with the letter N or coloured Blue or BLACK. The wire coloured BROWN must be connected to the terminal marked with the letter L or coloured BROWN or RED.

WARNING:

DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL, WHICH IS MARKED WITH THE LETTER E OR BY THE EARTH SYMBOL OR COLOURED GREEN OR GREEN AND YELLOW.



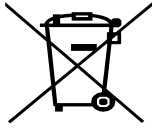
Warning! Important Safety Instructions:

RISK OF ELECTRIC SHOCK DO NOT REMOVE TOP OR BOTTOM COVERS

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE TOP OR BOTTOM COVERS. THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER ALL SERVICING TO QUALIFIED PERSONNEL.

- The holes in the record cleaning machine on the underside are provided for necessary ventilation. To ensure reliable operation of this apparatus, and protect from overheating, these holes must never be blocked or covered.
- If this apparatus accidentally gets wet outside of normal operation, unplug it and contact an authorised dealer immediately.
- Do not overload wall outlets, extension cords or adaptors beyond their capacity, since this can result in fire or electric shock.
- Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at the plug end, adaptors and the point they exit from the appliance.
- Before connecting the AC power cord to the record cleaning machine, make sure the voltage of the record cleaning machine, as marked on the label at the rear, corresponds to the local electricity supply.
- Never insert anything metallic into the open parts of this apparatus.
- Only a qualified technician should remove the top or bottom access cover.
- If this apparatus does not operate normally, in particular if there are any unusual sounds or smells, unplug it immediately and consult an authorised dealer.

IMPORTANT INFORMATION



WEEE SYMBOL INFORMATION

Correct Disposal of This Product Waste Electrical & Electronic Equipment

The marking shown on this product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible damage to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable re-use of material resources.

Household users should contact either the retailer where they purchased this product or their local government office, for more detailed information of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

(Applicable to the European Union and other European countries with separate collection system).

EC DECLARATION OF CONFORMITY

The Loricraft Record Cleaner has been manufactured to conform with the protection requirements of the EC Council Directive 89/336/EEC relating to EMC by application of the following standards:

BS EN 61000-6-3:2007 + A1:2001 Emissions Standard & BS EN 61000-6-1:2007 Immunity Standard.

Also the requirements of the EC Low Voltage Directive relating to electrical safety by application of the following standard:

BS EN 62368-1:2014 International Safety Standard.

For the purposes of testing the Record Cleaner was used with the high quality interconnects supplied by SME Limited. Compliance with the above standards may only be made if the unit is installed as per this manual and using the correct cables.

Loricraft Audio

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PACKING LIST

LORICRAFT - PRC4i & PRC6i

Serial No:

Voltage: 100 115 230 Volts AC

Cycles: (Hz) 50 60

Standard Equipment

- PRC4i / PRC6i
- VACUUM ARM
- VACUUM ARM HOSE
- PUMP VACUUM HOSE
- CLEANING THREAD
- WASTE JAR
- WASTE JAR HOLDER
- CLEANING FLUID
- FLUID DISPENSER BOTTLE
- FLUID MEASURE TUBE - PIPET
- LP 12" CLEANING BRUSH
- AC POWER LEAD
- ALLEN KEY

Optional Equipment

- SOFT DUST COVER
- 10" CLEANING BRUSH
- 7" CLEANING BRUSH
- GOAT HAIR BRUSH

Genuine Parts & Accessories

Spare Parts and Accessories are available direct from Loricraft Audio.