USER GUIDE

for the automatic record cleaning machine.

USER GUIDE VERSION 2.2-ENG



Degritter



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WARNING Read before use

- Make sure that you have selected correct AC voltage range on the back of the machine before plugging it into your wall outlet. Failing to do so will cause serious harm to the machine.
- The machine must be properly grounded. Failing to do so can result in serious electric shock or death.
- Do not stick metallic objects into the machine from any of its openings, e.g. the ventilation slots on its sides. Doing so may result in serious electric shock or death.
- The machine must be placed on a level surface before operating. Failing to do so may cause a spill and damage the machine.



- When washing the removable water tank in a dishwasher, do not exceed 60 °C or 140 °F. It is not recommended to wash the tank with dishware.
- ① Do not cover the vertical ventilation slots on the sides of the machine. Free airflow is needed to guarantee the proper functioning of the machine.
- Do not operate the machine in a tight closed environment such as a cupboard or a closet.

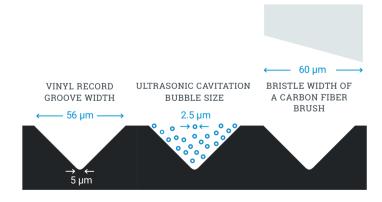
Cleaning effect

- Ultrasonic cleaning
- The principle
- Cleaning records

1) ULTRASONIC CLEANING

Ultrasonic cleaning has a unique ability to remove dirt that is not easily accessible using other traditional means. Ultrasonic cleaners are used to clean many types of objects, including jewellery, optical parts, dental and surgical instruments and electronic equipment.

The smallest features in a vinyl record groove are the size of a few micrometres. The bristles on a typical vinyl cleaning brush are unable to reach the bottom of the groove as they are too large in size.



2) THE PRINCIPLE

Ultrasonic cleaning works by agitating the cleaning medium with high frequency acoustic pressure waves. This creates a large number of microscopic vacuum bubbles in the cleaning medium, a phenomenon called cavitation. With every pressure wave, countless small vacuum bubbles are created and collapsed, releasing heat and water jets towards the record. This action will safely loosen and remove dirt and contaminants from the record.



CAVITATIONAL BUBBLE GROWING PHASE



BUBBLE IMPLOSION WITH WATER JET

3) CLEANING RECORDS

Ultrasonic cleaning as used in Degritter removes contaminants from records layer by layer. The cleaning occurs equally strongly on the top of the groove and in the groove.

However, when records are covered with a thick layer of gunk, it can take ultrasonic cleaning some time before the deepest dirt is reached. We therefore recommend to first wipe heavy surface dirt away with a microfibre cloth. This will speed up the cleaning process and will give better results faster.



Wiping the record with a microfiber cloth wet in record cleaning fluid or isopropyl alcohol will speed up the cleaning process when cleaning very dirty records.

Machine overview

1) CONTENTS OF THE PACKAGE

- Degritter machine
- Removable water tank with lid
- AC power cable
- o 100 ml cleaning fluid
- Fluid dosing pipette
- Water level measurement strip
- Pack of replacement filters

2) PHYSICAL AND ELECTRICAL SPECIFICATIONS

- Weight: 8.7 kg or 19.2 lb
- Dimensions: 37 × 28 × 21 cm or 14.6 x 11 x 8.3 in
- Suggested ambient operating temperature: 10-28 °C or 50-83 °F
- Water tank capacity: 1.3 L or 0.35 gal
- Power input: AC 100-240 V, 4 A, 50/60 Hz
- Power usage: ~ 320 W at full power, ~2 W in sleep mode
- **Fuse:** 4 A, slow, 20 x 5 mm, DIN 41.660
- Noise level: 70 db
- Ultrasonic cleaning frequency: 120 kHz with fine-band frequency sweep





3) MACHINE FRONT & SIDE PANELS

Degritter is operated with two multifunctional buttons and a screen on the front panel. Records are inserted into the slot on top of the machine. The water tank is accessible from the top of the machine. There are vertical ventilation openings on both side panels.

The circular cap in the lower half of the right side panel is the access port to the water filter.



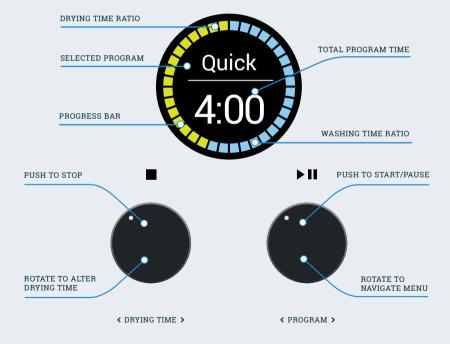
4) MACHINE REAR PANEL

On the right side of the rear panel are the AC cable input and the AC on-off switch. The AC cable input socket contains the fuse drawer. On the left side are the AC select slide-switch and the SD card input slot.

5) BUTTONS AND SCREEN

Degritter is operated with two buttons on its front panel.

They are multifunctional and can be both pushed and rotated.



6) REMOVABLE WATER TANK

The removable water tank is located at the back of the machine. There are two markings on the outside of the tank, "Min" and "Max". When filling the tank, the "Max" label can be ignored and it is recommended to fill the tank with as much water as one feels comfortable carrying.



The tank is ethanol proof and can be washed in a dishwasher at max 60 °C or 140 °F. It is not recommended to wash the tank with dishware in a dishwasher.



Getting started

- o Select proper AC voltage
- Place on level surface
- o Turn Degritter on
- Put water into the tank
- o Insert the record into the machine
- Press start

1) SELECT PROPER AC VOLTAGE

Make sure the slide switch is in the position indicating your wall output voltage, either 230 V or 115 V. Use the tip of a pen to slide the switch.

An incorrect AC setting will damage the product and is not covered by the product warranty.



2) PLACE ON LEVEL SURFACE

Degritter must be placed on a level surface for it to function properly.



3) TURN DEGRITTER ON

Plug one end of the power cable into the machine and the other end into your wall outlet. Turn on the machine from the AC switch at the back.



4) PUT WATER INTO THE TANK

Fill the water tank with distilled water to a level exceeding the "Min" marking. It is recommended to fill it past the "Max" marking.



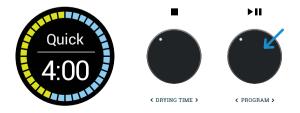
5) INSERT THE RECORD INTO THE MACHINE

Insert the 12" record into the machine as shown.



6) PRESS START

Start the quick washing program by pressing the button on the right. Washing progress is tracked by the countdown timer on the screen. You will be alerted with three beeps when the program finishes.



Turning on/off

- o AC on-off switch
- Powering on
- Soft shutdown and startup
- Timed shutdown
- Long term storage

1) AC ON-OFF SWITCH

The black switch on the back panel turns off all power to the machine. This is the best option if you are not planning to use Degritter for a long time or for transportation.





2) POWERING ON

After turning the machine on from the AC switch you'll first see a welcome text on the screen. After this, the machine will prime its pumps.



When the external tank is empty, a "No Water" warning will be displayed. Once the tank is filled, press any front panel button to resume.

3) SOFT SHUTDOWN AND STARTUP

For a soft shutdown, hold down the left button for 2 seconds. This is the recommended method for turning off Degritter. It cuts all power to the machine except for a small current to the processor and its power supply.



Press any button to start the machine again. You will be prompted with a welcoming screen.

4) TIMED SHUTDOWN

Degritter shuts down automatically when left idle for 15 minutes. Press any front panel button to start the machine up again.

5) LONG TERM STORAGE

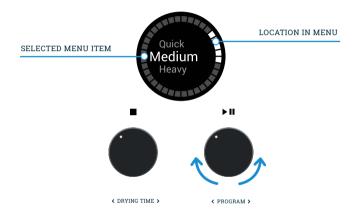
When storing Degritter for a long time, do the following:

- Remove the water tank and pour away its contents;
- o Insert the tank back into the machine;
- o Turn Degritter off from the AC power switch;
- o Remove the cord from power socket.
- Unscrew and remove water filter cap.

Using the machine

- Menu navigation
- Adjusting drying time
- Running programs
- Washing programs
- Quick
- Medium
- Heavy
- o Cooling water
- o Dry
- Degas
- Fan power
- o Water level
- Info

1) MENU NAVIGATION



The Degritter menu will appear when the right button is turned. Turn the button to move between menu items. The machine will automatically enter the highlighted menu item in 1 second or you can push the right button to enter it promptly.

MENU ITEM	DESCRIPTION
Quick	Quick program for record cleaning
Medium	Medium program for record cleaning
Heavy	Heavy program for record cleaning
Dry	Program for drying the record without wash
Degas	Program for removing gas from new water
Fan power	Fan power setting configuration
Water level	Water level setting configuration
Info	Information section about the machine

2) ADJUSTING DRYING TIME

Turn the left button to change drying time for all programs. Turn it left to make the drying time shorter and turn it right to make the drying time longer. Drying time will change the overall length of the program, but you cannot change the washing cycle's length with it.

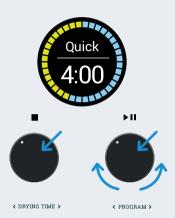
You can also adjust drying time during a cleaning program when the record is being dried.



You can run record cleaning programs without the drying cycle. To do so, you can set the drying time to zero.



3) RUNNING PROGRAMS



Select the desired program by rotating the button on the right. To start the selected program, press the button on the right. You can stop the program by pressing the button on the left or pause the program by pressing the button on the right. You will be notified with three audible beeps when the program has finished.

4) WASHING PROGRAMS

PROGRAM NAME	WASHING DURATION
Quick	2 minutes 15 seconds
Medium	3 minutes 45 seconds
Heavy	6 minutes 45 seconds

Degritter has three washing programs with fixed pre-defined washing cycle lengths. The program washing durations above do not include drying time that can be configured as needed.



Washing programs move the record back and forth.

This is normal and helps with the cleaning process.

5) QUICK

Quick program is suitable for mostly clean records that need rinsing or have light dust on them.

6) MEDIUM

Medium program runs a thorough cleaning cycle that will clean most of the records. This program is normally recommended.

7) HEAVY

Use the heavy program when the quick or medium programs have not been sufficient to clean the record. Heavy program features an extra long cleaning period.

8) COOLING WATER

Energy emitted during ultrasonic cleaning will slowly increase the cleaning water temperature. Excess heat is mitigated automatically to protect records by adding 3 minutes of cooling to the washing time when over-temperature is sensed (35 $^{\circ}$ C or 95 $^{\circ}$ F). The ultrasonic generator stops working for this time and air is forced through the machine.





Water cooling cycles can lengthen the washing program, but they will not increase the total ultrasonic cleaning time that the record is exposed to.

9) DRY

The Dry program allows you to run the drying mode separately, without a washing cycle. Increase or decrease the drying time by rotating the button on the left. You can also adjust drying time during a program when the record is being dried.

10) DEGAS

The Degas program gets rid of excessive gas in your distilled water. This improves the ultrasonic cleaning process. Run Degas program before adding cleaning fluids to the water.

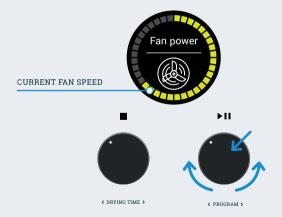


It is recommended to run Degas program with every new tank of distilled water before adding cleaning fluid.

11) FAN POWER

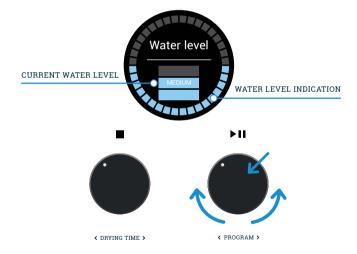
The fan power setting allows you to adjust the drying fan speed. Adjust fan power by pressing the button on the right; this starts the fans. Now rotate the button on the right to adjust fan power. Press the button on the right again to save your desired fan power value.

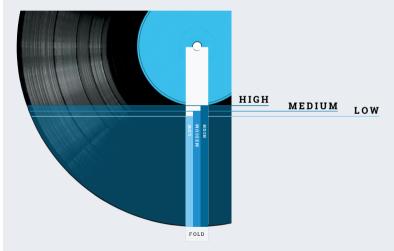
Less power means less audible noise but also dictates a longer drying time and vice versa.



12) WATER LEVEL

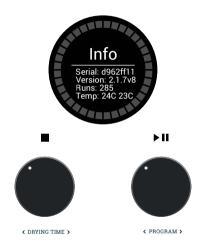
The water level setting allows you to change the water level in the ultrasonic tank. Press on the button on the right to activate selection. Rotate the button to choose between the three water level settings. When cleaning 12" records it is recommended to start with the Low setting.





Degritter comes packaged with a color coded measurement strip. With it you can measure the distance from the edge of your record to the desired water level setting.

13) INFO



INFO ITEMS	DESCRIPTION
Serial	The machine's unique serial number
Version	The current software version on the machine
Runs	How many washing cycles the machine has gone through
Temp	The temperature in the ultrasonic tank

Water, cleaning fluid, and filtering system

- Use distilled water
- o Adding cleaning fluid
- How to change and maintain Degritter water filter

1) USE DISTILLED WATER

Use only distilled or demineralised water to clean records. Limescale in tap water can have an adverse effect on cleaning and it can leave residue onto the inner surfaces of the machine over time.



It is recommended to change the water in the tank at least once every week or after every 30 records. This is to avoid any microbial growth.

Do not add foaming cleaning fluids to the water. Excessive amount of foam can affect the machine's sensors.

2) ADDING CLEANING FLUID

Add cleaning fluid to distilled water to improve the cleaning process. The machine will run without it, but some impurities need a detergent to properly get rid of them.

Fill the tank with distilled water, run the degas function and only then add the cleaning fluid. Mix the fluids evenly by stirring them with the pipette. The suggested quantity of cleaning fluid to use is on the label of the fluid bottle.

If used in prescribed concentrations, the Degritter cleaning fluids do not need to be rinsed.





3) MAINTAINING THE FILTER

To access the water filter, unscrew the cap found on the bottom half of the right side panel of the machine. Use a coin for screwing and unscrewing the cap. Turning the cap counterclockwise loosens it and turning it clockwise tightens it. The foam filter can easily be removed and washed. We recommend washing the filter mesh after every 50 to 100 records cleaned.

When screwing the cap back into the chassis, make sure that the cap is flush with the side panel. This assures that the cap seal will not leak.



Clean or replace the filter after every 50 to 100 cleaning cycles.

Software updates

- o Copying software onto the SD card
- Insert the SD card
- Wait for the upgrade to finish
- Remove the card
- Check the software version

1) COPYING SOFTWARE ONTO THE SD CARD



Take the following steps:

- o Start with an empty SD card (FAT32 file system).
- Download the latest compatible software from https://degritter.com/support.
- Copy "degrittr.bin" file to SD card.
 File name must be exactly the same.
- $\circ\,$ Safely remove SD card from PC by ejecting it first.

2) INSERT THE SD CARD

Turn off the machine from the back panel AC switch and wait 10 seconds. Insert the SD card into the machine and turn the machine back on again. The SD card contacts should face right when looking at the back of the machine.

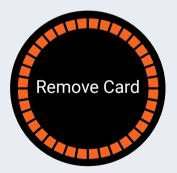


3) WAIT FOR THE UPGRADE TO FINISH

After you have turned the machine on with the SD card inserted, the machine will automatically perform the software update. The update will take a few seconds. During this time, the screen will remain black.

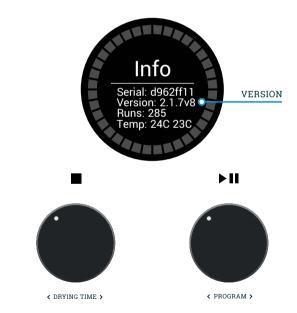
4) REMOVE THE CARD

After updating has finished, the screen will prompt you to remove the SD card.



5) CHECK THE SOFTWARE VERSION

Navigate to the Info screen and check whether the displayed version number matches the downloaded software version. If they match, then the update has been successful.



Troubleshooting guide

THE MACHINE HAS STARTED TO SMELL

It is likely that there is stagnant water in the machine which has started to develop microbial growth. Try running a couple of medium-heavy cleaning runs with 100 ml or 3.38 oz vinegar added to a tank of distilled water.

MY RECORD LABEL IS GETTING WET

Check your water level height setting. Use the water level measurement strip packaged with Degritter if needed.

MY MACHINE IS MAKING STRANGE SOUNDS DURING WASHING

If the sound resembles slurping, then it is likely that the pumping system is not properly primed. Make sure that your machine is on a level surface. Turn off the machine from the AC switch at the back, wait 10 seconds and turn it on again to run priming.

Clicking sounds at the beginning and end of washing cycle are normal.

I ACCIDENTALLY POURED WATER ONTO THE MACHINE

Switch off the machine from the AC switch and disconnect the power cable from the wall. Remove the water tank from the machine. Pick the machine up and tilt it 90 degrees from side to side to drain the chassis of water. You can now turn on your machine again. A bit of water in the bottom of the machine will not harm the electronics inside, but it should still be gotten rid of.

THE MACHINE BOTTOM IS LEAKING WATER

Switch off the machine from the AC switch and disconnect the power cable from the wall. Remove the water tank from the machine. Pick the machine up and tilt it 90 degrees from side to side to drain the chassis of water. Check if the water tank is properly docked into the machine and try running the machine again. If this does not help, contact customer support.

WATER IS DRIPPING FROM THE FILTER CAP

Try to tighten the filter cap by turning clockwise with a coin. If this does not help, remove the filter cap and make sure that the O-ring seal is properly seated on the cap. If the seal is missing, contact customer support.

THE MACHINE WONT TURN ON

Check if your machine is properly connected to a power outlet. If possible, try an alternative cable. If this does not help, check the fuse on the back of the machine. If it is an open circuit (blown), replace it. If the fuse blows again, contact customer support.

MACHINE IS BLOWING AIR WHILE IDLE

Degritter machine is constantly monitoring its internal temperature. When the temperature exceeds 30 °C (86 °F), the machine will automatically cool itself by running the fans at a low power. The fans will automatically turn off when the internal temperature is lowered to 28 °C (82 °F).

Solving error codes

- o ERR Sens1 ERR Sens6
- o ERR Temp
- No Tank
- o Run Drain
- No Water
- o Fill Fail
- o Drain Fail
- o Temp High
- o ERR P1srt ERR P2srt
- ERR P1opn ERR P2opn
- o ERR V1srt ERR V2srt
- ERR V1opn ERR V2opn

1) ERR SENS1 - ERR SENS6

Explanation: trouble with measuring the water level.

Solution 1: turn the machine off from the back panel AC switch, wait 10 s, and then turn the machine on again.

Solution 2: refer to sensor cleaning guide in Support Center.

If this does not help, contact customer support.



2) ERR TEMP

Explanation: the machine is unable to get a temperature reading.

Solution: turn the machine off from the back panel AC switch and on again.

If this does not help, contact customer support.



3) NO TANK

Explanation: there is no water tank in the machine or it is not sensed.

Solution 1: insert the water tank into the machine.

Solution 2: if the water tank already is in the machine, remove it from the machine and put it back again.

If this does not help, contact customer support.



4) RUN DRAIN

Explanation: there is water in the ultrasonic tank.

Solution: run the Drain function by pressing both buttons while Info menu is selected

If this does not help, contact customer support.



5) NO WATER

Explanation: no water is detected in the machine.

Solution: pour water into the tank.

If this does not help, contact customer support.



6) ADD WATER

Explanation: the machine has failed to fill the ultrasonic tank.

Solution 1: check if the water tank is properly docked into the machine.

Solution 2: make sure that there is enough water in the water tank.

If this does not help, contact customer support.





7) DRAIN FAIL

Explanation: draining the ultrasonic tank has failed.

Solution 1: turn the machine off from the back panel AC switch, wait 10 s, and then turn the machine on again.

Solution 2: clean the water sensors.

If this does not help, contact customer support.



8) WATER TEMP HIGH

Explanation: water temperature is above 35 °C.

Solution 1: let the water cool for 15 minutes.

Solution 2: change water in the tank for colder water.

If this does not help, contact customer support.



9) ERR P1SRT - ERR P2SRT

Explanation: there is a problem with the water pumps.

Contact customer support.



11) ERR V1SRT - ERR V2SRT

Explanation: there is a problem with the valve system.

Contact customer support.



10) ERR P10PN - ERR P20PN

Explanation: there is a problem with the water pumps.

Contact customer support.



12) ERR V10PN - ERR V20PN

Explanation: there is a problem with the valve system.

Contact customer support.



Frequently Asked Questions

HOW MANY RECORDS CAN I WASH WITH A SINGLE TANK OF WATER?

You need to change the water at least once per week. Otherwise the tank will develop microbial growth. More frequent water changes will depend on how many records you clean and how dirty they are. A simple water change indication is water clarity: if the water is unclear, you'll want to change the water.

IS THE MACHINE SAFE FOR CLEANING A SHELLAC RECORD?

We have not conclusively tested cleaning shellac records with Degritter. If you decide to clean a shellac, then do so on your own responsibility.

HOW OFTEN DO I HAVE TO CLEAN THE FILTER?

We recommend cleaning or replacing the filter after every 50 to 100 cleaning cycles

IS THE MACHINE SAFE FOR LACQUER-ACETATE RECORDS?

We have not conclusively tested cleaning lacquer-acetate records with Degritter. If you do clean a lacquer-acetate record, then do so on your own responsibility.

CAN I USE MY OWN CLEANING FLUID?

Yes, you can use your own cleaning fluid. Avoid pH extreme solutions, such as very high acidity or very alkaline chemicals. Also avoid strong organic solvents, as these will likely damage the vinyl.

MY WALL OUTPUT VOLTAGE IS NOT AC 230 V NOR AC 115 V, WILL DEGRITTER WORK?

Yes, Degritter will work with AC voltages from 100 V to 240 V. You have to make sure that the AC selection switch is in the same value range, eg. 230 V switch position for 210-240 V wall outputs and 115 V switch position for 100-130 V.

LIMITED WARRANTY DISCLAIMER

Degritter (Degritter OÜ) warrants each new ultrasonic cleaning product against defects in materials or workmanship for a period of two years from the date of purchase, and agrees to repair or replace any defective Degritter record cleaning machines without charge. Shipping costs are non-refundable. This warranty is non-transferable. All warranty claims must be accompanied by the original proof of purchase.

THIS WARRANTY DOES NOT COVER DAMAGE RESULTING FROM ACCIDENT, MISUSE OR ABUSE, LACK OF REASONABLE CARE, SHIPPING DAMAGE, MODIFICATIONS, THE AFFIXING OF ANY ATTACHMENT NOT PROVIDED WITH THE PRODUCT, OR LOSS OF PARTS.

Use of unauthorised chemical cleaning agents or liquids will void this warranty. Degritter will not pay for warranty service performed by a non-authorized repair or diagnostic service and will not reimburse the consumer for damage resulting from warranty service performed by a non-authorized repair service. No responsibility is assumed for any special incidental or consequential damages due to a defective Degritter product.

In order to obtain warranty service, contact our customer support (support@degritter.com) for information. The product must be shipped postage prepaid to an authorized Degritter service location. It is suggested that, for your protection, you return shipments of product by insured mail, insurance prepaid. Damage occurring during shipment is not covered by this warranty. Shipping costs are nonrefundable. No other warranty, written or oral, is authorized by Degritter.

DISCLAIMER

In no event shall Degritter OÜ, or its employees, agents, suppliers, manufacturers, or contractors be liable for any damages of any kind or character, including without limitation any compensatory, incidental, direct, indirect, special, punitive, or consequential damages, loss of use, loss of data, loss of income or profit, loss of or damage to persons or property, claims of third parties, or other losses of any kind or character, and whether or not the possibility of such loss or damage has been notified to Degritter OÜ.

CUSTOMER SUPPORT CONTACTS

When emailing a support request, please describe what has happened, take a picture if possible and attach it to the email. Also provide us with your machine's serial number and software version found in the Info menu.





Monday to Friday, 8:00-16:00 UTC

Customer support language is English.

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Degritter