NCD

PULSE

nucleus

NCD
PULSE

Welcome to the ***NCD Pulse.***

Please read this booklet to ensure proper set up and usage of your new coffee distributor.

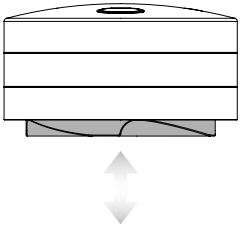
- This appliance contains batteries that are only replaceable by skilled professionals.
- This appliance contains non-replaceable batteries.
- The appliance is for household and indoor use only.
- This appliance can be used by children aged 8 years and above, as well as by persons with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, if they have received supervision or instruction on safe use and understand the hazards involved. Children should not play with the appliance. Cleaning and user maintenance should not be performed by children without supervision.
- Avoid placing the tool on hot surfaces or near open flames to prevent damage to components.
- Use only as directed to distribute coffee grounds in portafilters; misuse may result in improper distribution or potential harm.
- Do not immerse in water or expose to excessive moisture; clean with a damp cloth and ensure it is thoroughly dry before reuse.
- Use only the power adapter provided with the product, and avoid using it if the cord is damaged.
- Keep the power adapter away from water and avoid touching it with wet hands.
- Store the tool in a dry place, avoiding exposure to extreme temperatures, which may damage internal components.
- Keep out of reach of children when not in use.

- This product is designed solely for distributing coffee grounds within portafilters; do not attempt to use it on other materials or for unintended purposes.
- The tool contains sensitive components; avoid dropping or applying excessive force, as this may compromise functionality.
- Modifications to the product or use of unapproved accessories may void the warranty and reduce effectiveness. This product comes with a USB-C charging cord but does not include a power adapter.
- Use only compatible power adapters that meet the voltage and current requirements specified for this product.
- Avoid using adapters that are damaged, of unknown origin, or that do not comply with local safety standards, as this may damage the product or pose safety risks.
- When charging, ensure the USB-C cable is securely connected and do not pull or twist the cable excessively, as this may damage the cord.
- Do not use the USB-C cable near water, wet surfaces, or in damp environments.
- Keep the charging cord out of reach of children to prevent accidental injury or damage.
- Disconnect the USB-C charging cable after charging is complete to avoid unnecessary wear on the battery.

1

Propeller Height

Adjust the propeller height (p.10) to best suit your dose. Adjusting the height too high or too low can both create negative outcomes.



2

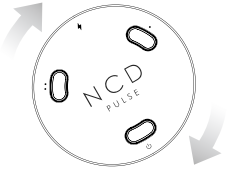
Vibration Intensity

Lightly touch the buttons to select your Pulse Vibration preference (p.11). This will determine the intensity of the Pulse Vibration, either low or high.

3

Spin and Contact Time

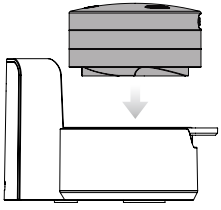
While it is vibrating, spin the ***NCD Pulse*** clockwise 3-4 times on the portafilter (p.12). Ideal contact time of the ***NCD Pulse*** is 1-2 seconds (p.13).



4

Activation Dock

For efficiency, Pulse Vibration will automatically pause in between uses without needing to press any buttons. Simply place the ***NCD Pulse*** on the Activation Dock (p.16-17) - in any orientation, you don't need to align the gold charging pins. When picked up from the Activation Dock, the Pulse Vibration will start again automatically.



Overview

The Nucleus Coffee Tools team is excited to produce the first innovation in vibration distribution technology for coffee: the ***NCD Pulse.***

This coffee distributor uses subtle Pulse Vibration to ensure even distribution of coffee grinds when preparing espresso. Over many years, we have experimented with how vibrations can affect the distribution of coffee within portafilters in the preparation of espresso.

Using ultra-low vibration settings, we are able to achieve positive results – after much experimentation, we are now excited to share it with you and other coffee lovers across the globe.

To ensure your ***NCD Pulse*** is set up correctly and is used to achieve optimal results, please read all of of the following information. For a digital and visual guide to all of the features, maintenance and FAQs related to the ***NCD Pulse***, please scan the below QR code:

Benefits

NCD Pulse combines both top-layer distribution and horizontal distribution. This ensures complete distribution of your entire dose within your filter basket. These are two separate purposes, both improving consistency between shots, quality of taste and extraction.

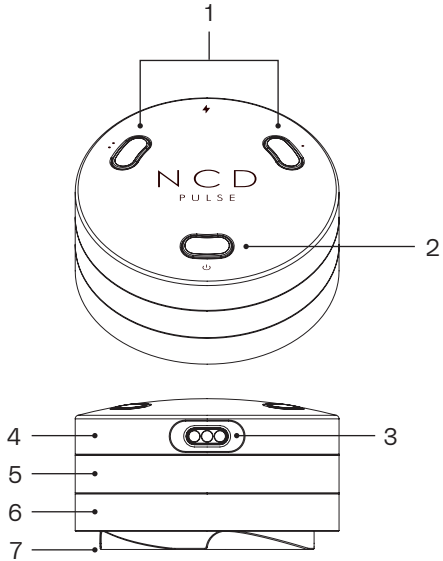
NCD Pulse is our practical solution for optimal distribution, designed for efficient use in a cafe environment and at home.

1. **Horizontal Distribution**
   Vibration removes air pockets in the middle and lower portions of the dose. Allowing even distribution underneath the top layers without applying compression. Creating an even density and a flat surface allows an optimal foundation before tamping.

2. **Top-layer Distribution**
   Correct top-layer distribution fills in the gaps prior to tamping. The goal here is to create a flat, even bed of coffee. Achieved by correct height adjustment and correctly spinning your ***NCD Pulse.***

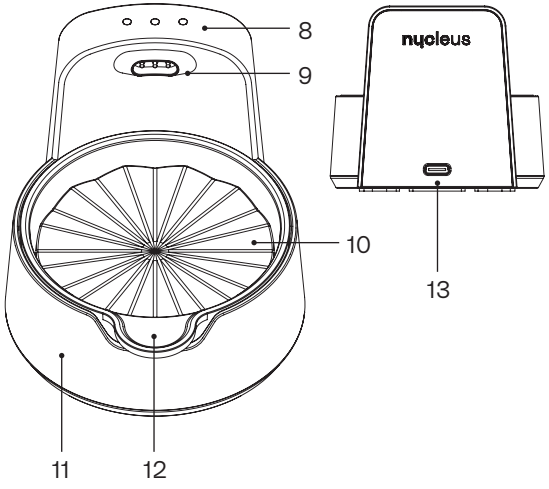
3. **Optimal Pre-tamping**
   Uneven distribution leaves uneven density within your basket prior to tamping. Creating an even distribution and flat surface allows the even density to continue when tamped.

Parts List



1. Vibration buttons (Low and High)
2. Power Button
3. Charging Connection
4. Top Outer Ring
5. Middle Outer Ring
6. Bottom Outer Ring (Adjustable)
7. Propeller

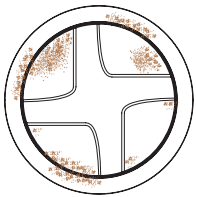
Activation Dock



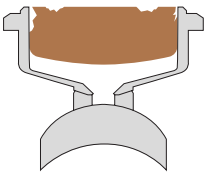
8. Charging Indicator Lights
9. Charging Connection
10. Silicone Brush
11. Charging Base
12. Coffee Grounds Tray
13. USB-C Power Port

Adjust the Propeller Height Correctly
Correct propeller-height ensures optimal top-layer distribution of coffee, leading to a better extraction.

If your propeller buries into your dose too much, uneven distribution or compression occurs. Causing inferior taste and increased coffee ground retention on NCD base. If your propeller is set too high, you will not create complete 'top-layer' distribution, causing gaps which promote water channelling.



Set too low



Set too high

An ideal propeller height creates a flat and even appearance.

To adjust, follow these 3 steps:
1. Holding the top 2 outer rings of the NCD, turn the bottom ring clockwise to loosen.
2. Spin the propeller clock-wise or anti-clockwise to adjust up or down until finding your ideal height.
3. Hold the top 2 outer-rings and turn the bottom ring anti-clockwise to secure.

Set your Pulse Vibration
We've designed the ***NCD Pulse*** with Pulse Vibration that occurs while you spin the distributor, ensuring optimum efficiency and fast workflow. The ***NCD Pulse*** does not need to sit stationary on top of the portafilter – it operates like a regular coffee distributor, with the Pulse Vibration operating whilst the spinning is occurring.

To benefit from the effects of Pulse Vibration, ensure the unit is vibrating by lightly pressing either of the two vibration setting buttons. Then, simply perform 3 spins of your ***NCD Pulse*** on top of your dose/filter basket. Once you are finished, remove the ***NCD Pulse*** and either (i) turn it off, or (ii) place it back on the Activation dock.

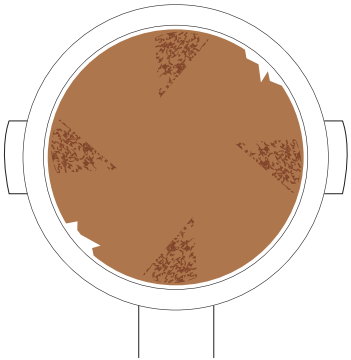
! Note: The buttons have been designed for ergonomic 'soft-touch' use. To avoid damage, press the buttons on your NCD Pulse like a touch-pad screen. Do not 'push' the buttons, as this can cause damage.

Follow these steps:
1. Set the correct height for the NCD Pulse, according to the dose of coffee being used (see Page 10).
2. Ensure your ***NCD Pulse*** unit is vibrating.
3. Place unit on-top of your dose/ filter basket and immediately spin clockwise.
4. Spin your ***NCD Pulse*** 3 times and immediately remove.

If you do not immediately turn off the vibration settings, the Pulse Vibration will automatically stop once the ***NCD Pulse*** is placed back on the Activation Dock. The Pulse Vibration will automatically start again once removed from the dock.

Spin your NCD Pulse Correctly
Once your ground coffee dose is in the filter basket, set the vibration and spin your ***NCD Pulse*** clockwise. Spinning anti-clockwise will not distribute the coffee properly. Spinning clockwise allows the propeller to evenly sweep the coffee grounds, removing any high points and filling in any gaps/low points.

If you spin the wrong way (anti-clockwise), or do not spin enough times, you'll be able to see the depression of the propeller in the coffee (see image below).

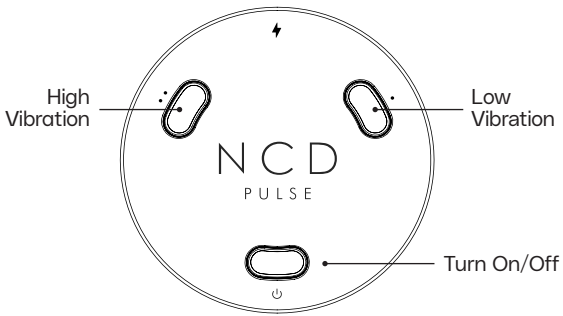


! Tips: We recommend 3 spins/3 laps of the basket, the goal is enough spins until a flat surface is achieved. Not enough spins will leave gaps. Once a flat surface is achieved, excess spinning is not necessary.

Contact Time
We've designed the ***NCD Pulse*** to have optimal effect with 1-2 seconds of contact time.

! Note: Extending the contact time of the vibration with your dose (>2 seconds) can lead to over agitation and negative results in coffee distribution and taste. Insufficient contact time of the Pulse Vibration (<1 seconds) with your dose will not be detrimental, however it does not allow optimal effect to take place.

After 3 quick spins of your ***NCD Pulse***, we recommend removing the unit immediately to avoid over-agitation of the dose.



Buttons
The buttons have been designed for ergonomic 'soft-touch' use. To avoid damage, press the buttons on your ***NCD Pulse*** like a touch-pad screen.

Do not 'push' the buttons, as this can cause damage.

Turning On / Stand-by Mode
When power is off, no lights will be illuminated. To turn on, soft-touch the Power Button for 0.5 seconds.

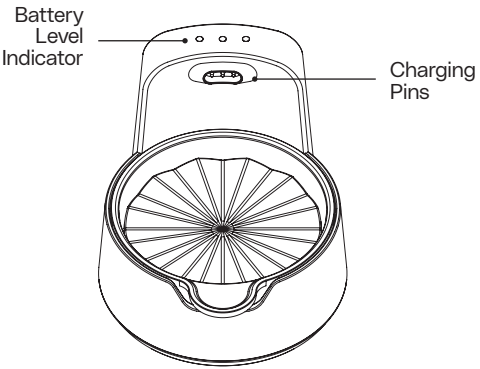
The unit will pulse 2 times and the power button will illuminate gold. When Power Button is illuminated, the unit is in standby mode. This uses small amounts of battery over time.

Turning Off / Power Saving Mode
Soft-touch the power button for 0.5 seconds. The unit will pulse 3 times and no buttons will illuminate.

Turning the unit off will save power. This is ideal when using infrequently.

- **Low Vibration**
  To select Low Vibration, soft-touch the Low Vibration button. The Low Vibration Button will illuminate gold.

- **High Vibration**
  To select High Vibration, soft-touch the High Vibration button. The High Vibration Button will illuminate gold.



Activation Dock & Charging
This item achieves 2 separate purposes: (1) Automatic Activation of Pulse Vibration for fast workflow and (2) Charging:

Automatic Activation
An in-built sensor detects when the ***NCD Pulse*** unit is placed on the Activation Dock and automatically stops the vibration. When the ***NCD Pulse*** is picked-up and removed from the Activation Dock, the vibration automatically starts.

! Tip: You don't need to align the charging pins to stop and start the Pulse Vibration. This feature works placing the ***NCD Pulse*** on the Activation Dock in any orientation.

This feature promotes efficiency, allowing the barista to seamlessly incorporate ***NCD Pulse*** vibration into standard workflow. No pressing of buttons are needed to start and stop.

Note: This feature occurs when either the low or high vibration is illuminated. If neither is selected (Power button illuminated, or unit is switched off), vibration will not occur.

Charging: Once charged, ***NCD Pulse*** lasts at least 1000 cycles on high setting.

To charge, follow these 2 steps:
1. Ensure Activation Dock is plugged in to power (middle light will illuminate white).
2. Align the charging pins of the ***NCD Pulse*** with the pins on the charging station. Once charging begins, ***NCD Pulse*** button lights will cycle on and off repeatedly. Whilst connected to the charger, battery level is signified via 3 lights on the Activation Dock.

- ● ● ● **85% - 100% Battery Level:** All 3 LEDs are solid.
- ● ● ○ **50% - 84% Battery Level:** Left and middle LEDs are solid + right LED is blinking.
- ● ○ **21% - 49% Battery Level:** Left LED is solid+middle LED is blinking+right LED is off.
- ○ **0% - 20% Battery Level:** Left LED is blinking+ middle and right LED are off.

! Tip: ***NCD Pulse*** has a low battery warning, when this appears, we recommend charging. This is signified by the illuminated light on the Pulse unit flashing red.

Technical Specifications

Low or High Vibration
NCD Pulse has 2 vibration intensity options. After thorough testing, we noticed there isn't one perfect setting for all coffees. This is due to roast profile and coffee variation around the world, dose in the basket and personal taste preference. We recommend basing your preference on taste.

If you prefer not to explore, we recommend using the High Vibration as this setting has proved highly successful across broad coffee styles and taste preferences. If you wish to explore, try the same coffee by comparing Low vs High vibration, and choose your favourite.

Standard Use
We recommend keeping your unit on the dock, with your preferred vibration setting (Low or High) illuminated. Then, as soon as it is time to use your ***NCD Pulse***, the simple act of picking it up activates the vibration.

Placing it back down stops the vibration with no need to press any buttons. This is ideal for efficient back-to-back coffee making. Then, once you've made your last coffee, turn off to save power.

Alternate Use
Alternatively, you may prefer to use without the activation dock. Once charged, you can manually turn on and off the Pulse Vibration using the buttons independently from the dock.

Note that the ***NCD Pulse*** will not charge if not properly connected to the charging base.

Care & Maintenance

1. The ***NCD Pulse*** and Activation Dock are not waterproof, and should never be immersed in water or placed into a dishwasher.

2. Dropping the ***NCD Pulse*** or hitting it against hard surfaces should be avoided, as it may cause damage to the unit.

3. The propeller should be removed and cleaned internally around the thread depending on amount of usage. Use a dry cloth or soft brush to remove dirt. We recommend cleaning at least once monthly.

To remove, follow these 3 steps:
1. Holding the top 2 outer rings of the NCD, turn the bottom ring clockwise to loosen all the way until the propeller and bottom ring are removed.
2. Remove all dirt from the threads and internal surfaces. Use a dry cloth or soft brush.
3. Screw the pieces back together carefully, ensuring both threads are aligned.

The ***NCD Pulse*** should be used for coffee preparation only, as the Pulse Vibration is not designed for other, personal uses.

For further information and FAQs related to cleaning, maintaining and proper care of the ***NCD Pulse***, please visit our website and watch our tutorial videos.

Warranty

Thank you for purchasing our product. We hope you are satisfied with your purchase and that it meets your expectations. Please read the following warranty disclaimer carefully before using the product.

Our product comes with a limited warranty that covers defects in materials and workmanship under normal use for a period of 1 year from the date of purchase. This warranty does not cover damage caused by misuse, abuse, or normal wear and tear. It also does not cover any incidental or consequential damages, such as loss of use, or inconvenience.

To make a warranty claim, please contact your Nucleus re-seller with your proof of purchase and a description of the problem. We reserve the right to inspect the product before approving any warranty claim. If we determine that the problem is covered by the warranty, we will repair or replace the product at our discretion.

In no event shall our liability exceed the purchase price of the product.

Notes

Notes

Thank you!

We hope you enjoy your experience
with the ***NCD Pulse.***

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