

LINK.

User Manual



# LINK

## COMMERCIAL SAMPLE ROASTER

Model KN1007B - firmware version 7.7 or higher

### SAFETY

This is an electrical appliance that contains sophisticated electronics. Like other cooking appliances, such as a toaster, if something goes wrong it could start a fire.

Thank you for joining the Link Community. We strive to empower our users to Roast, Cup, and Brew Amazing coffee with ease.

This appliance is suitable for professional use and is also intended to be used in household and similar applications (such as staff kitchens in workplaces, farm houses, and for client use within the hospitality industry), provided that either (i) the user can manage the flow of smoke so that smoke detector alarms are not activated, or (ii) the user can safely temporarily disable smoke detector alarms in the vicinity of the appliance in accordance with the smoke detector manufacturer's or building owner's instructions. This appliance is not suitable for use in a building within range of smoke detectors that are directly connected to a sprinkler system or to the fire service.

## IMPORTANT SAFETY

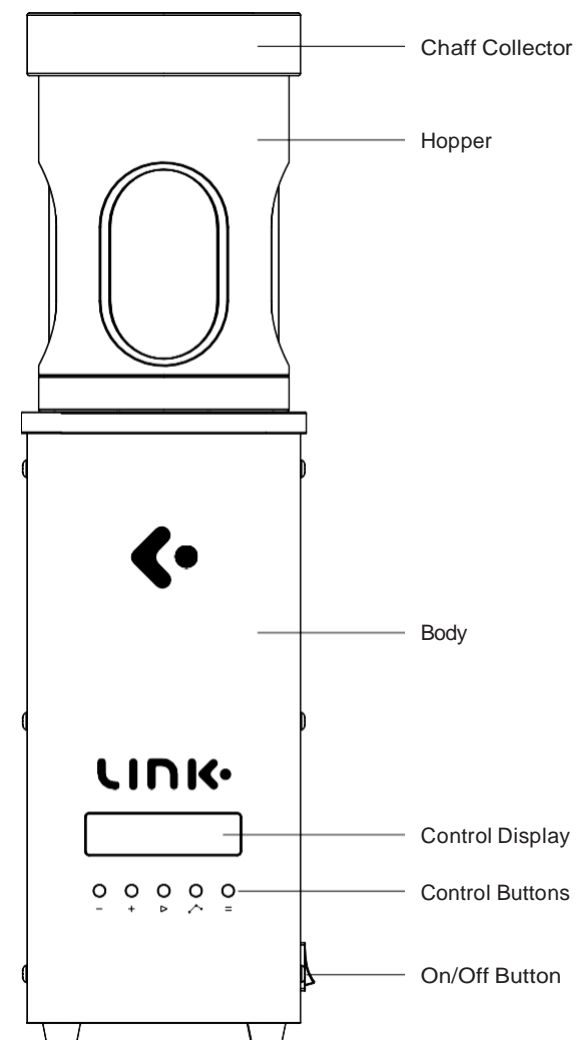
This is an electrical appliance that contains sophisticated electronics. Like other cooking appliances, such as a toaster, if something goes wrong it could start a fire.

1. Read all safety instructions before use.
2. For indoor use only.
3. Use upright on a solid level surface.
4. Do not overload.
5. Use only for roasting green coffee beans. Although it contains many safety features, other substances – such as popcorn or nuts – could mislead the safety checks and may result in fire or damage to the appliance.
6. If you operate the appliance on an induction cook top the appliance feet must be at least 20mm above the cook top surface, e.g. by using a chopping board or thick mat. This prevents the cook top from detecting the appliance as a pan.
7. Use only with adequate ventilation, preferably close to a kitchen extractor fan.
8. Use at least 100mm away from walls and 150mm away from curtains measured horizontally.
9. Make sure that nothing blocks the air inlet (under the base) or outlet (at the top) when the appliance is in use. Slowing the air down will cause it to heat faster. It will ruin a batch of coffee if the safety systems shut it down midroast, and if the air is completely blocked it could damage the appliance or start a fire.
10. Keep the area around the appliance free of spilled chaff and other loose material that could be sucked into the roaster during operation.
11. Remain in the vicinity while the appliance is running.
12. This appliance is not intended to be operated by means of an external timer or separate remote control system.
13. May trigger a smoke alarm during normal operation. Ensure that you follow the smoke alarm manufacturer's instructions if you need to temporarily disable a smoke alarm during the operation of the coffee roaster. Do not use this appliance in a commercial building where smoke detectors may trigger sprinklers, a building evacuation or fire service call out.
14. Wait until the cool down part of the roasting cycle has finished before removing the chaff collector.
15. Do not immerse the base unit in liquid. Use a damp cloth to wipe it down if required. Water will damage the electronics. For more information on cleaning, see the section on 'Cleaning'.
16. If liquid enters the roast chamber or any other part of the appliance, unplug the power supply and allow 24 hours in a warm place for the interior of the appliance to dry completely before attempting to use the appliance again.
17. If damaged, the supply cord must be replaced by a qualified technician.
18. Do not open the case. There are live wires in the appliance, so there is a risk of electrical shock.
19. Contact the distributor if you see persistent error messages on the display.
20. The symbol means 'Caution: hot surfaces.'
21. If a foreign substance (such as rice, flour or liquid) gets into the roast chamber you should have a service technician strip and clean the appliance before you attempt to use it again. This is because such substances can fit between the fins and get onto the element or fan motor inside the appliance.
22. It is advisable to plug the roaster directly into the power supply without using an extension cord.

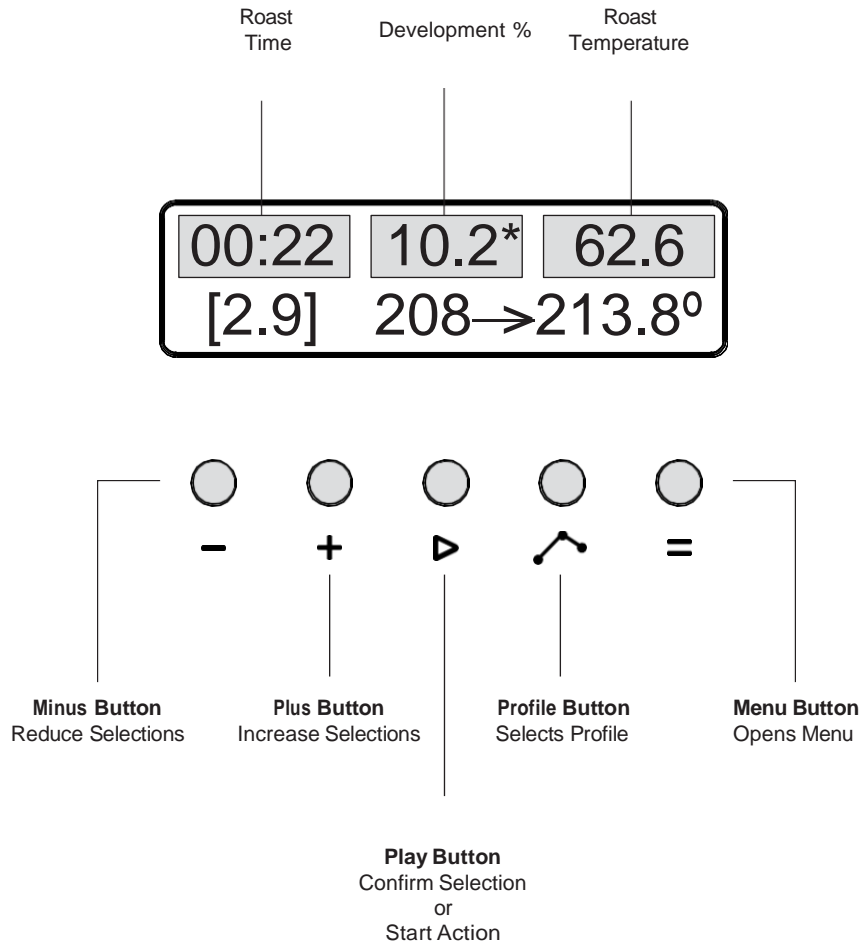
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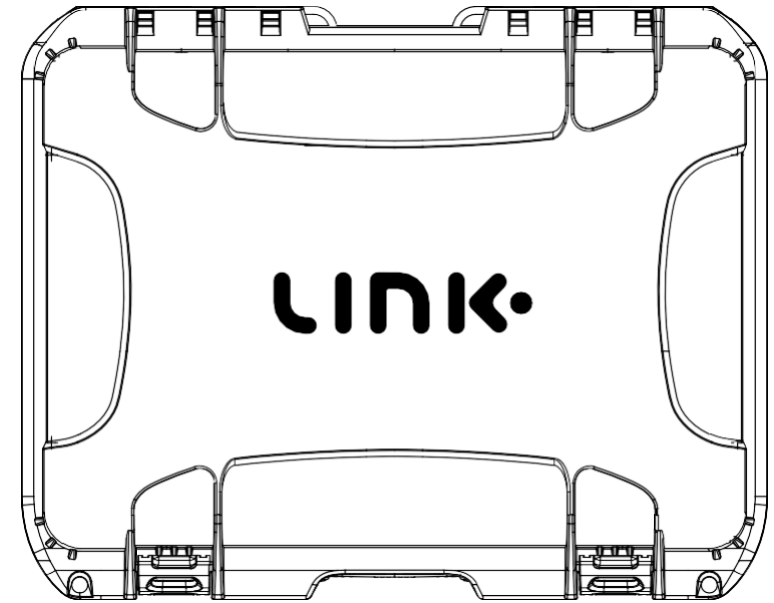
## PARTS LIST



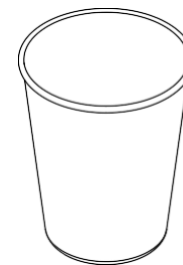
## CONTROL PANEL



## ACCESSORIES



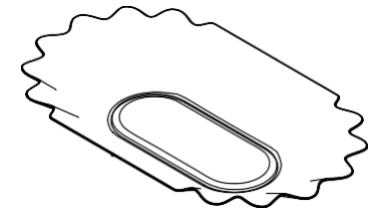
Travel Case



Dosing Cup



Density Tube



Tray

## BEFORE FIRST USE

1. Remove all packaging including the interior packaging around the chimney inside the chaff collector.
2. Go to the Nucleus website and activate your warranty.
3. Please read 'The basics' section below and familiarize yourself with the 'Safety' section above.
4. Download the Nucleus Link pro logging software to your computer desktop.
5. Download the Link Profile selector app.

## TESTING

The correct way to test the roaster is to start it with no beans. It will heat up for 10 to 20 seconds, reaching about 90 degrees.

Then a message will flash up: "Heat too fast. Please check beans." At this point, the machine doesn't stop, but it begins the cool-down cycle and runs for another 10 to 20 seconds until it has cooled down to about 40 degrees. At this point, it stops.

Running this test is a good way to be confident that everything is working as expected. This test will also generate a log file so it can be used to check you have set things up correctly for collecting roast logs.

**Note: that at each 150 run motor hours unit is taken to your countries service partner for a preventive Maintenance.**

At 250 run motor hours, preventive maintenance has yet to be undertaken your unit will notify you that this servicing is a must.

Failure to adhere to servicing requirements may void remaining the warranty on your unit.

## THE BASICS



### STEP 1

Place the density tube on a scale and tare the scale. Use a level dose of coffee into the density tube and make note of the weight of the beans.



### STEP 2

Enter the weight of your coffee into the Nucleus Density App and receive a profile and select the Processing and Varietal of the Green coffee you are using.



### STEP 3

Remove the chaff collector and load 100g of the same green coffee into the roaster.

## THE BASICS

### STEP 4

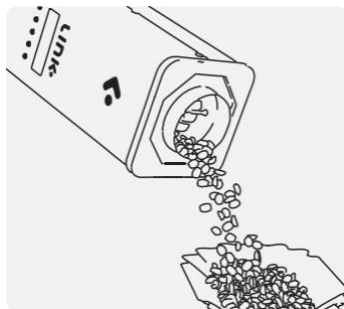
Put the chaff collector back on, select the profile that the App has chosen for you and click the start (▶) button to begin roasting.

Ensure chaff collector lid is in place as shown in the diagram.



### STEP 5

When the roaster has stopped, take off the chaff collector. Pick up the whole roaster with both hands. Tip the roasted beans into a bowl, jar or bag.



## AGING THE COFFEE

Coffee changes flavour very rapidly during the first week after roasting, and the most rapid changes take place in the first few days. Waiting before using the coffee is known as 'Aging' the coffee.

The purpose of resting is to let the coffee degas allow clarity of qualities to be improved.

The Link core Profiles are designed to allow quick assessment if you're in a rush. You can cup or brew immediately post-roast with the certainty of a fair assessment.

Note that the Core profiles are designed to show their best 24-72hours post roast for cupping and after 2 to 5 days resting if you intend to showcase them as a filter brew.

## CLEANING

Brush off any loose chaff. Wipe the outside of the roaster with a damp non-abrasive cloth. There will be a build-up of coffee oils in the roast chamber over time. We recommend that you do not clean the roast chamber, but a dry cloth can be used if desired.




**IMPORTANT:** You need to be particularly careful not to touch the sensitive tip of the temperature probe that sticks into the roast chamber part way down. Do not clean the tip of the probe.

For regular cleaning of the inside of the inner glass of the chaff collector, use a paper towel. For a deep clean, disassemble the chaff collector and soak the glass in a solution of a suitable cleaner such as Puly™ Caff detergent, Cafetto™ Espresso Clean, Simple Green™ or other non-caustic, non-abrasive cleaner. Reassemble the chaff collector before use.

## PROFILES

A roast profile is a curve that tells the roaster the exact temperature required at each time during the roast.

The profile does not specify when to end the roast. The end of the roast is controlled by the roast level. Your roaster comes pre-loaded with a set of core profiles. Select a different profile with the Profile (  ) button. To achieve the best results it is necessary to match the profile and level to the beans.




Roast time & temperature logs are recorded automatically whenever you roast.

For help selecting a profile see The Nucleus Link profile App.

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### To load a new roast profile:

Plug the supplied Tether cable into the back of the roast unit and your computer

To select profiles from the unit click the Profile (  ) button second from the right. Keep clicking the Profile (  ) button until the profile you want shows up on the display. Press the Start (  ) button to load onto the roaster.

To load from your desktop, click on the connection icon in the link pro software that is located next to the green tick. Then click the Profiles tab and select the right profile that was suggested by the profile selection app. When the profile opens click the hand icon in the bottom right corner to send to the roaster.

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### To start a roast click Start ( ).

Track the live roast progress with the Link Pro logging software to see the roast curve, log colour change or development %. Alternatively, you can monitor the majority of these basic functions directly on the unit display screen if you don't wish to connect the Tether to a desktop.

## LOGS

A roast log will be saved to the internal memory. Roast logs are automatically saved in the folder called Logs Open the log tab by clicking on the connection icon to see each roast log file through Link Pro software. See the profile data breakdown or write notes in the tasting notes section under the About this file tab. This file can be exported to pdf format to be shared if needed.

The roaster does not date the log files; instead, it gives them sequential numbers. This makes it easy to keep the files in order, but if you need to record the actual roast date you must include it in the tasting notes.

You can verify that logs are being generated by running a test roast (see the 'Testing' section above).

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## MEMORY STRUCTURE

The internal memory will notify you when it is at 80% capacity, about 300 logs. At this point, it will ask you for permission to begin to automatically override the oldest logs. Alternatively, you can choose to manually store the logs in a separate place on your computer if you wish to archive them longer.

To archive or delete click on the connection icon in the link pro software that is located next to the green tick. Then click the log tab. At the top left of that screen, you will see an open folder link in blue. Open this link and remove to bin or archive the profiles you wish to delete/store.

Once complete, make sure to click the re-sync button in the middle of the top right-hand side. wait for the connection tick to return green before switching off the unit or removing the tether connection.

Failure to complete these steps when removing files may lead to the unit needing to be reset if the unit is not synced correctly to the server.



## DENSITY TUBE

The Density tube provided provides a key to navigate and choose the right sample profile for each coffee with ease.

**See below the steps for recommended density assessment:**

1. Weigh out 100g sample into a dosing cup.
2. Remove the lid and zero off the empty density tube on a scale.
3. Place the density tube into a sample coffee tray or shallow dish.
4. Gently add your weighed-out green sample and overfill the density tube until excess starts to fall into the tray below.
5. Invert the lid of the density tube so that the logo side is face down against the coffee.
6. Gently press down to compact slightly before moving the lid back and forwards. Pushing off excess coffee into the below tray.
7. Continue the movement until a level surface is achieved enabling the lid to sit flush with the top of the tube.
8. Remove the lid and weigh the green coffee in the density tube.
9. This weight is the density number, ready to type into the profiling app.
10. For higher precision, we recommend repeating this measurement two-three times and calculating the average number for the app.

## PROFILING APP

The link app is your compass to guide you through the accurate selection of a recommended start profile for any coffee.

Once you have completed the density assessment open your link app.

Select the **profile section**, then the **new sample** entry tab.

Fill out the 3 sections for your profile recommendation.

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**Density Reading:**

Enter the number from your density assessment. Note the density information is drawn from a 0.5g-1g range so don't be alarmed if you are 0.3-0.5g different in each reading.

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**Process:**

Choose from the 7 options which are categorized into broad groups. Please select a group that best represents the style of processing of that coffee sample.

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**Variety:**

This last input is for the future development of the app. Please type in the sample coffee variety.

This input will allow Nucleus to further refine the profiling algorithm for the future. Currently, this can be left blank if you wish.

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**Click Done:**

You will now be shown the recommended profile for your sample.

Select this profile on your Link unit via the menu tab.

\*Or if using a tethered connection, you can send the profile. Select New Profile in the Link Pro software profile inbox. Click send to roaster button in the bottom right corner.

Add 100gm of your green coffee sample into the roaster. Secure chaff collector and press play.

## ADVANCED DIAL-IN

This app feature is to be utilized after you run a new sample entry stage and perform a roast based on the initial recommendation.

During this first log, it is best to take note of the time of Audible first crack (when it has two or more consecutive “pops”).

Using the “new sample entry” function the profile suggested will have your sample usually cracking between a range 5:50min and 6:30min

Please note some coffee samples or specific coffee species will not have an easy-to-define first crack (these samples are best to leave the roaster running its auto-programmed functions of the suggested profile in the first stage). As the advanced dial-in mode needs a defined cracking point to further refine an exacting profile for your sample.

For suitable samples, once you have completed a roast and have the exact time registered for crack, please go back into the profile selector and in the next screen select Advanced dial in.

In the First line Enter the Minute on the left and the seconds on the right. Please enter minutes as a single-digit number and seconds as a two-digit number (i.e. for 6:01min you would enter “6” on the left in the minute box and “01” in the right second’s box).

Next please enter the Profile Number that the sample was roasted on in the start profile box (i.e. if your new sample entry suggested 207, you would enter 207 into the start profile box).

Once the 3 data boxes are populated, please select done.

The information will be run through the algorithm and a new solution for the suggested profile will be shown on the next page.

Select this profile on your unit via the menu tab or send it to the roaster when the tether connection is made by first selecting the new profile in the Link pro software profile inbox and then clicking the send to roaster button in the bottom right corner.

Weigh out another 100g of the same green coffee from the first roast into your dosing cup.

Place in the roaster and then put on the chaff collector and press play.

Your new suggestion should now have a more focused crack range between 5:55min and 6:15min which will allow for the optimized development of Maillard, sugar browning stages for a fully developed expression

## SAMPLE PROFILE PARAMETERS

The link core profiles have a standardized roast time, temperature increase, and development % for each core. To unlock an honest assessment of a coffee we strive to get as close to the target with through the link profile selector app.

The standard range for a coffee sample is between 7-12% development 4-6c temperature increase after 1st crack. The standard roast is between 6:30-7:00min. Recommended development of 9-10% if manually terminating.

Allowing a core profile to run automatically you will generally sit within these parameters.

Expect coffee to have first “pops” between 5:50min and 6:10min.

And rolling the first crack to be around 6:00 – 6:20min.

For this unit call the point of crack at the rolling crack where there are 2 or more consecutive pops and a continuation of the first crack from there. At this point click the FC button on the logging software or by hitting the far-right menu button followed by the Play button to activate the first crack development timer.

The rolling crack between in a window of 5:50-6:10. A user is recommended to manually terminate a roast if the development counter is above 10.5% development and the auto termination has not come into effect. This can be done by + and then – on the unit or simply clicking end on the software.

If a rolling crack occurs after 6:30min you may want to consider Re-roasting the sample on a higher-powered profile. Please consider that for every 5 seconds late, choose a profile 0.5 higher in the profile number.

- Eg a coffee rolling crack at 6min25 using 209.5 profile. Selecting profile 210.5 will speed this up to approximately 6min15.

Alternatively, if a profile has an early rolling crack before 6:00min you may consider applying the same principle in reverse. For every 5 seconds before 6:00min look to remove 0.5 in the profile number.

- Eg a coffee rolling cracking 5:50 using a 209.5 profile I would suggest that 208.5 be used for a correctly developed expression.

## TIMER MODE

The roaster has a timer mode so that you can use it as a brew timer. Put the roaster into timer mode by pressing both Profile and Menu (↵+≡) buttons together.

Press Profile & Menu (↵+≡) buttons together again to go back to automatic roasting mode.

In timer mode, the Start (▶) button starts and stops the timer, but it does not control the roaster.

## RESETTING

Occasionally the memory where the profile details are stored can become corrupt, for example, a power failure during a roast could cause this.

This can cause unusual characters to appear on the display and the roaster may become unresponsive. To reset the roaster and restore factory defaults, hold down the Start (▶) button while you turn the roaster on.



### IN THE UNLIKELY EVENT OF AN EMERGENCY:

You can stop the roast early by pressing Start (▶) then the Minus (←) button while it is roasting. Stopping the roast early puts the machine straight into cool down. (Turning the machine off will also stop the roast – it will automatically enter cool down if you turn it back on again straight away.)

## UPDATES

Any New updates will be notified to you through a message popup when opening the Nucleus Link software. Please follow the prompts to download and install new firmware our profiling updates.

## LINK SOFTWARE

The Link Pro software is the monitoring system used to log and create profiles for the Nucleus link sample roaster. Please note that the 41 core profiles are locked to this unit. Npro profiles are not compatible with any other Kaffelogic-manufactured product.

### BASICS

You have a stable connection between the unit and the computer when the tick icon is green.

When the connection icon shows as severed and a triangle with an exclamation mark is shown you will need to re-establish the connection.

You can reestablish connection by switching the unit's power off and on again or by going to the menu bar clicking on tools > connection tools > and selecting re sync.

Once familiar to the software To give yourself greater access to the link software capabilities click on the Options tab and select a different difficulty setting to unlock more features for manual profiling it is recommended to follow all software prompts and suggestions made and not to tinker with settings the system suggests you leave as is.

Note that you should not adjust to core profiles back end setting otherwise you risk corrupting the functionality of the link profile selection app.

### TIMER MODE

Live Roasting Logging Functions

You will see several logging functions on the live roast feature here is a glossary of what they mean and how to utilise them.

**CC** = Colour change

**FC** = First crack

**END** = Profile termination

**FE** = First crack end

**SC** = Second crack

**SE** = Second crack end

## LOGGING STAGES

**CC** you click CC after the drying phase is complete and when you see the coffee bean colour starting to change to a light straw through the visual sight. This will log time spent in the drying phase and mallard reaction phase shown as a proportion of the overall roast % and total temperature increase during each of those phases.

**FC** should be clicked at the first clearly audible consecutive pops that continue to crack from that point. If you believe you call early then re-click at the correct time to override the original selection. Once the clicked increases average, the development % and time in the development counter start.

**END** should be clicked when you want to manually terminate a roast earlier than the preset time for that profile. Use development % recommendation for suggestions found in the core profile explanation.

**FE** Is if you are manually profiling an espresso log and the first crack has ended.

**SC** is for dark roasts where you are taking profiles into that very dark range. This function will only be utilized if someone has made a custom profile with manually altered level range in engineer mode.

**SE** for full carbonized roasts where the first crack is completed. Intentionally Roasting to this level is not recommended.

## CLASSIC FUNCTION

For profile editing its recommended that the profiles are balanced out using the smooth point function between adjustment nodes.

When editing a profile Predicting the time of the first crack will give a suggested development percentage.

Adjusting the profile level adjusts the temperature increase of the profile from the point of the first crack.

Clicking on an adjustment node and moving the temperature click function up or down is the easiest way to make micro-adjustments to a custom profile.

## LINK SOFTWARE

### Unlocking the full functionality of the link software.

1. Connect the tether cable to the roaster and turn on unit.
2. Open the link desktop software.
3. When open navigate to the top menu bar.
4. In the menu tab and select the option dropdown.
5. Navigate to difficulty and select your experience level with Link studio.
6. Basic is the default that allows a limited function to only the key operational features.
7. Advanced and export modes allow the user to have more freedom to the back-end parameters that control the heating phases, precision and monitoring attributes of the roaster.
8. Engineer mode unlocks all attributes of the roaster. Please note that this mode should only be utilised by someone with prior experience in kaffelagic or link studio functionality.
9. In all modes, we advise you don't deviate from the advice of recommended settings the program will suggest for you.
10. If you don't know what a setting do we strongly recommend that you leave it as is.
11. Failure to follow advice may lead to damaging the unit and voiding a users warranty.

## DTR ACTIVATION

**The link and link app profile suggestions were designed to function in DTR mode. If it is not active, please follow the steps and re-activate it.**

1. On the unit, press the far-right ( = ) button until you get to a screen called preference and push play ( ▶ ).
2. The options you should now see is - for levels and + for DTR.
3. Please select the ( + ) button to activate DTR.
4. Confirmation should appear on the screen of DTR Activation.
5. The main screen now reflects the development percentage of a profile.
6. This is the target development percentage when the first crack is logged.
7. When you click the first crack logged it will terminate when it hits that point.
8. If you don't log a first crack it will continue roasting to the default parameters. Failure to follow advice may lead to damaging the unit and voiding a users warranty.

## VARIABLE BATCH SIZE

1. The Link system is designed to be optimised in a range of 50g-100g.
2. Your selection of the volume of coffee you can input can be made as small as a single gram difference between the optimised range.
3. You make your batch size selections when first pushing the play button. Pushing play, a second time once the correct batch size for the volume of coffee you are wanting will start the roast
4. You don't need a different profile for smaller or larger batches. The Link system will calibrate its fan and heating element to suit each volume.
5. The best middle ground is to start with 80g of green beans.
6. Please note that even though the batches can be roasted as small as 50g, a minimum sample size of 80g and above is needed for an accurate density reading to best select your profile.
7. The size of the previously selected batch will be held unless you reset the unit.
8. Please note that failing to suggest the correct batch size for the input of coffee may result in triggering the heat to fast alarm if the green weight is lower than the selected volume. A failed roast may also occur if the green volume is too large as the bean will not have the correct movement within the chamber.

## CUPPING PROFILE PACKS

### Link comes with 5 different profile packs for cupping.

Each profile pack follows a specific development percentage, rate of rise increase, time of 1st crack and arc of the roast curve.

As there are 5 different 'packs', this allows 5 variations of the 41 core Cupping profiles, giving the user the freedom to adapt their preference of taste or purpose of use.

Each profile pack is differentiated by a letter (A,B,C,D,E). This letter will be present after the profile number e.g. 213 NCT (D)

1. In the above example, 213 is the reference number of which profile has been suggested to the user from the profile app.
2. NCT stands for, Nucleus Coffee Tools, and is there so you know this is a profile designed, tested, and refined by Nucleus Coffee Tools.
3. The letter (in this example D), references the profile pack chosen.

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### D 12% PACK

These profiles are designed to be your Default pack that will generally suit a fair expression for all styles of coffee. They are the most balanced in the time 1st crack should fall and the time spent in development % whilst optimising roast stability and control.

#### Best suited:

These profiles are best for all-around cupping and filter expression. This pack provides a fair and honest expression of any process or variety of coffee. This should be your reliable go-to if ever in doubt, as it will always give you the best reference point.

#### Expected crack window:

5:40 - 6:05min

#### Optimised rolling crack Range:

5:45 - 6:00min

## CUPPING PROFILE PACKS

### A 10% PACK

These profiles are designed to have the more delayed crack to focus on more time spent in Maillard and the sugar browning phases. To compensate for more development time prior to crack we see a shorter time spent in development percentage at 10% of the entire roast time.

#### Best suited:

These profiles are best suited for those who like a more Scandinavian-styled roast approach where the focus is on acid forward profile with a vibrant, clean and light body. These profiles are also well suited for heavier fermented or extended-time processing methods.

#### Expected crack window:

5:45 - 6:15min

#### Optimised rolling crack Range:

5:55 - 6:10min

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### B 15% PACK

These profiles have a good balance between the pitch of heat applied prior to 1st crack occurring to control the time developing your coffee attributes, versus the amount of time spent after 1st crack breaking down the acidity intensity and caramelizing the sugars of the profile.

#### Best suited:

These profiles are best suited if you enjoy the balance and style of the D12% pack profiles but want a slightly fuller body with more caramelized over fresh expression of flavours. This pack is a great all-around go-to especially for washed process coffees and the cleaner and more classic natural and honey-processed samples.

#### Expected crack window:

5:30 – 6:00min

#### Optimised rolling crack Range:

5:35 – 5:50min

## CUPPING PROFILE PACKS

### C 18% PACK

These profiles are designed to get enough development and heat energy into the coffee at a slightly earlier point so that more time can be spent post 1st crack. This rounds out the intensity of the coffee to give the most similar experience to a traditional gas-roasted sample.

#### Best suited:

This expression is for someone looking for a profile that is most familiar with full-body, integrated acidity, and rich caramelized sugars. The profile expression mimics most like a traditional gas sample roast in body. This is also a great starting point for omni-style espresso that lean to the more acidic bright expression whilst being a clean and balanced filter.

#### Expected crack window:

5:25 – 5:55min

#### Optimised rolling crack Range:

5:25 – 5:40min

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### E 20% PACK

These profiles are designed to allow the most time possible within the optimised overall roast time after the point of 1st crack to break down acidity intensity and completely caramelize available sugars. These profiles have the most aggressive heat application to the arc and pitch of the roast-curve to force an earlier cracking point whilst controlling the roast degree to a slightly darker point.

#### Best suited:

This expression is for someone looking for a rich espresso-tailored, omni-style profile that will still work well for a fuller-body, richer filter.

#### Expected crack window:

5:15 – 5:40min

#### Optimised rolling crack Range:

5:20 – 5:35min

### Access Through Studio

1. Access through the Link studio start by connecting the tether cord between the Link unit and your computer.
  2. When the green tick appears to show connection, click on the bonbon icon to the immediate left of this to open the menu.
  3. At the top of this pop-up menu, there will be three tabs. Click on the middle one called 'Profiles'.
  4. Start by making sure your profile pack file is up to date with the most recent version.
  5. Note this update can take 2-5 minutes.
  6. Next in the "Pack" drop-down access the Letter group or development 12% that you wish to select as a reference.
  7. Once selected to the right of this a second dropdown will appear that allows you to navigate through all the different profiles within that inbox.
  8. Find the one you are looking for and click the little send to roaster icon on the right of the profile selection you have made, and the profile will be sent across to your unit.
  9. If you wish to set up a different profile selection, go back to the Pack drop-down and select which inbox you wish to load.
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### To access directly from Roaster Unit

1. Push the far-right menu tab 4-5times until you see the selection for the profile pack
2. Push the play button to open the profile Preference selection.
3. Using the (+) or (−) button navigate through the inboxes until you find the profile pack inbox you are looking for.
4. To confirm the change push play which will return you to the main screen.
5. To access the profile within that inbox now push the fourth button from the left.
6. You can navigate increasing through the profiles by continuing to push the profile button or also by using the + button.
7. You can also use the (−) button to navigate from the highest profile backwards.
8. If you overshoot your selected desired profile number use either the (+) to increase or (−) to decrease till you are on the right number or profile, you would like to roast
9. To load push (▶).
10. Note that unless wanting to change to a different profile pack a user does not need to continually enter the preference menu as the selected profile pack will be held, unless the unit is reset.

## CUPPING PROFILE PACKS

### Selecting the right profile pack

#### Beginners:

It is advised for cupping and for most first-time roasters that we don't recommend deviating from the (D)12% or Default profile pack until familiar with the taste outcome. If deviating, generally, your secondary preference will be (B)15%.

#### Intermediate:

For someone with minor experience in roasting and setting up your preference system, we suggest that you do the profile selection on a green coffee you have 250-500g of and can experiment with. Do your Volume by Weight (Density) profile selection. With this number proceed to roast the same profile number on each of the different profile packs

The main inbox preference choices usually fall between (B15%, C18%,D12%) But it's worthwhile roasting on the A10% and E20% also if wanting to understand the differences.

#### Advance:

For the more advanced user, we recommend you exercise fluidity between the different profile packs depending on the Processing, Origin, and Varietals of the coffees you are sampling. The best use is to establish an internal protocol for your company to manage the best use of which profile pack should be used.

#### Generalisation:

Classic Washed	B15% or C18%
Classic Natural	D12% or B15%
Classic Honey	D12% or B15%
Anaerobic/Experimental Washed	D12%
Anaerobic/Experimental Natural	A10% or D12%
Anaerobic/Experimental Honey	D12%

## CUPPING PROFILE PACKS

### Industry Professional:

For professional cupping labs, or passionate enthusiasts, looking to work on a more detailed approach to their sampling protocol we would be factoring the density data into your profile pack choice.

#### Washed:

56 - 63g Density Washed recommend D12% or B15%  
63 - 75g Density washed D12%, B15% or C18%

#### Natural:

56 - 63g Density recommend D12%  
63 - 75g Density recommend D12% - B15%

#### Honey:

56 - 63g Density recommend D12%  
63 - 75g Density recommend D12% - B15%

#### Anaerobic/Experimental Washed:

56 - 63g Density recommend D12%  
63 - 75g Density recommend D12% - B15%

#### Anaerobic/Experimental Natural:

56 - 63g Density recommend A10% - D12%  
63 - 75g Density recommend A10% - D12%

#### Anaerobic/Experimental Honey:

56 - 63g Density recommend A10% - D12%  
63 - 75g Density recommend D12%



## The Omni Profile Pack

The Omni pack is for the barista and coffee lover on the go or looking for flexibility on how to extract their roasts. Whether you want something more espresso or filter-focused this is a great user-friendly profile pack to allow you multi-purpose roasting from one inbox space. You can select a development range right at the end of the filter range and the start of espresso ranges for use over both extraction styles and can lean more towards one development % range if you are focused on just one extraction style. The choice is really yours. Additional benefits are the faster roasts mean these will usually be more expressive straight off the roast

### Procedure:

1. Start with 80-100g of green coffee and follow the density protocol.
2. Open your Link app.
3. Select a new sample entry.
4. Select Omni
5. Input your density reading.
6. Select the best-fitting process category for your sample.
7. Select the power of your unit.
8. Click done to get your profile suggestion and development % range.
9. Go to the link profiling studio or Filter inbox on the unit.
10. Select Omni and the associated profile number suggested.
11. Once selected use the + or the – buttons to set the development percentage % for the sample you are roasting.
12. You can suggest between 6%-22% but working within the recommended ranges is suggested.
13. Once you have selected the suggested development % Push the play button to select the batch size you wish to roast between 50- 100g.
14. Put in the associated weight of green beans.
15. Push play to start the roasting process.

### Recommended Ranges:

Process	More Filter driven	More Espresso driven
Washed	12% - 15%	15 – 19%
Anaerobic washed	10% - 14%	15-18%
Honey	10% - 14%	15-18%
Natural	10% - 14%	14 – 17%
Anaerobic Honey	10% - 14%	14 – 17%
Anaerobic Natural	8% - 13%	12 – 16%

#### Expected crack window:

6:35 - 7:15min

#### Optimal crack window:

6:45 - 7:00min

## The Filter Profile Packs

The Filter Packs A, B And C are designed to optimize roasting for filter extraction off your Link. The style of these profiles mimics the roasting theory used by Sam Corra for his 2017 WBrC runner-up presentation in Budapest. The primary difference in these roast approaches-compared to the Core profiles is how the body articulates in the cooler stages. These profiles are designed for rested filter coffees served 3-14 days after roast and target assessment brackets outlined in the WBrC Competition Scoresheet. The main difference between (A), (B) (C) is the ROR Pitch, roast time and first crack time. For more Acidity clarity and brightness we suggest manipulating the (A) Filter. For more body, weight and texture-driven look at utilising the (B) Filter Pack. For low to mid dense anaerobic or classic processed naturals as well as high density washed and honey we would suggest (C) Filter as the best all rounder to start on.

### Procedure:

1. Start with 80-100g of green coffee and follow the density protocol.
2. Open your Link app.
3. Select a new sample entry.
4. Input your density reading.
5. Select filter
6. Select the best-fitting process category for your sample.
7. Select the power of your unit.
8. Click done to get your profile suggestion and development % range.
9. Go to the link profiling studio or Filter inbox on the unit.
10. Select filter and the associated profile number suggested.
11. Once selected use the + or the – buttons to set the development percentage % for the sample you are roasting.
12. You can suggest between 6% - 20% but working within the recommended ranges is suggested.
13. Once you have selected the suggested development % Push the play button to select the batch size you wish to roast between 50- 100g.
14. Put in the associated weight of green beans.
15. Push play to start the roasting process.

### Recommended Ranges:

Process	Suggested development
Washed	10% - 15%
Anaerobic washed	9% - 13%
Honey	9% - 13%
Natural	8% - 14%
Anaerobic Honey	7% - 14%
Anaerobic Natural	6% - 12%

#### FILTER A

##### Expected crack window:

6:30 - 7:00min

##### Optimal crack window:

6:35 - 6:45min

#### FILTER B

##### Expected crack window:

6:40 - 7:20min

##### Optimal crack window:

6:50 - 7:10min

#### FILTER C

##### Expected crack window:

5:50 - 6:25min

##### Optimal crack window:

6:00 - 6:20min

# The Espresso Profile Pack

The Espresso Pack is designed to optimise espresso roasting off your Link. The espresso profile pack has been designed from the feedback of the accepted and celebrated espresso style of the WBC. It looks to maximise flavour clarity, tactile and balance for coffees roasted to be extracted via an espresso concentration range of **1:1.8** to **1: 2.5**

## Procedure:

1. Start with 80-100g of green coffee and follow the density protocol.
2. Open your Link app.
3. Select a new sample entry.
4. Input your density reading.
5. Select espresso
6. Select the best-fitting process category for your sample.
7. Select the power of your unit.
8. Click done to get your profile suggestion and development % range.
9. Go to the link profiling studio or espresso inbox on the unit.
10. Select espresso and the associated profile number suggested.
11. Once selected use the + or the – buttons to set the development percentage % for the sample you are roasting.
12. You can suggest between 6%-22% but working within the recommended ranges is suggested.
13. Once you have selected the suggested development % push the play button to select the batch size you wish to roast between 50-100g.
14. Put in the associated weight of green beans.
15. Push play to start the roasting process.

## Recommended Ranges:

Process	Suggested development
Washed	17% - 19%
Anaerobic washed	16% - 18%
Honey	16% - 18%
Natural	15% - 17%
Anaerobic Honey	14% - 16%
Anaerobic Natural	12% - 14%

## Expected crack window:

8:10 - 8:45min

## Optimal crack window:

8:15 - 8:30min

## ALTITUDE CALIBRATION

### Altitude calibration set-up

1. Download or open a mobile app that allows you to see your current M.A.S.L (Metres Above Sea Level).
2. Once your MASL has been established open your Link app.
3. Click on the fan calibration selection to the right .
4. When the next screen opens populate your altitude in the top box.
5. Next, select the unit power you are using.
6. Push done.
7. The solution screen will tell you the Calibration point for your unit.
8. Turn on your link unit.
9. Push the far-right menu (≡) button once till you see the option “fan speed trim”.
10. Using the (+) or (–) button set the number to the suggested range.
11. Push the (▶) button to confirm and save.
12. Note this setting will hold unless the unit is reset, or the number is manually adjusted to another setting.
13. If you want to confirm the movement of your coffee or make a custom increase or decrease from the suggested range by the app, put in your desired roast volume.
14. Note that if you have the unit set up to 50g on the roast profile the green you should put in should also match.
15. The best is to have your profile volume at 100g and put 100 grams of green coffee in.
16. When you start the fan speed trim it will only activate the fan so the element will not engage to roast the coffee.
17. Place your hopper on top and ensure the movement matches the stage 1 video 1 v log video on altitude calibration.

## 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.



### FURTHER INFORMATION

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

(Instruction for Australia and New Zealand only)

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This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be done by children without supervision.

(Instruction for EU countries only)

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This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge (person in need of assistance) if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children unless they are older than 8 and supervise. Keep the appliance and its cord out of reach of children less than 8 years.

(Instruction for USA, Canada, and Japan only)

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Visit the support pages at  
[nucleuscoffeetools.com/support](https://nucleuscoffeetools.com/support)



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