



User Manual





COMMERCIAL SAMPLE ROASTER

Model KN1007B/E
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 coffee roasting community. We strive to empower our users to roast, brew and cup coffee to the best of its potential, in an accessible and approachable way.

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, or under a covered surface outside.
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 casing of the roaster. 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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WELCOME TO THE LINK

The LINK is a professional coffee sample roaster, created in collaboration between Nucleus Coffee Tools and Kaffelogic. Designed for samples between 50g - 100g, it is comprised of three components: a specialised smartphone app, a desktop-based program and the roaster itself.

This sample roaster was designed to make coffee roasting more affordable, accessible and technologically advanced – allowing anyone in the world to roast quality samples, no matter their experience level or where they are.

We welcome you to your new roasting journey, and invite you to reach out to our community to learn more.

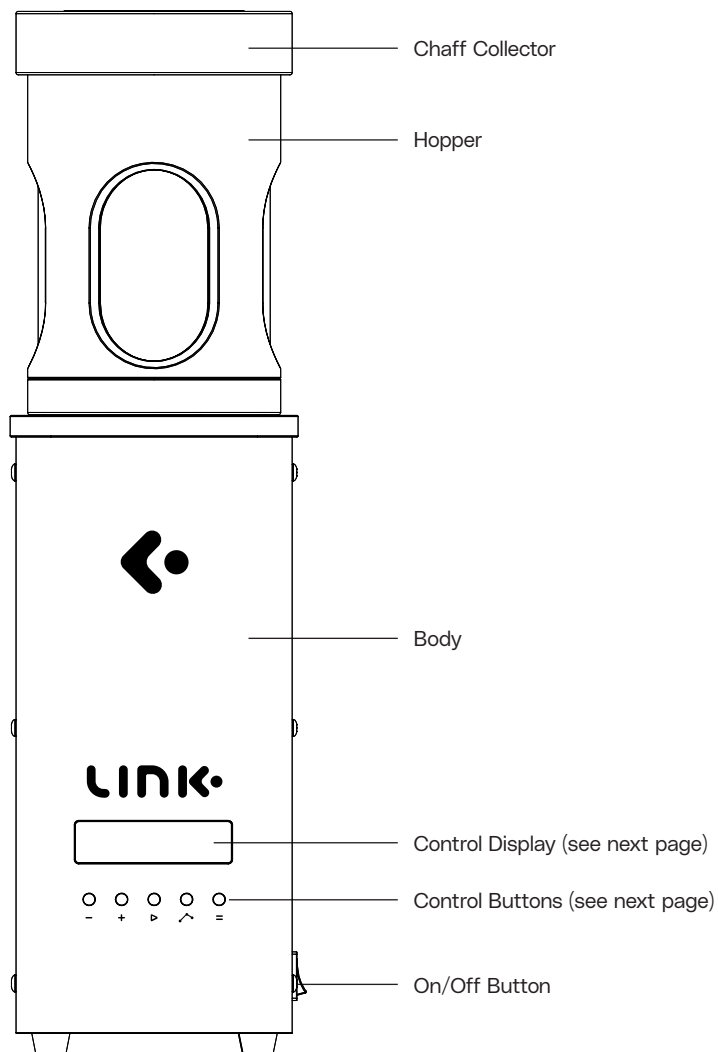


Welcome to the LINK

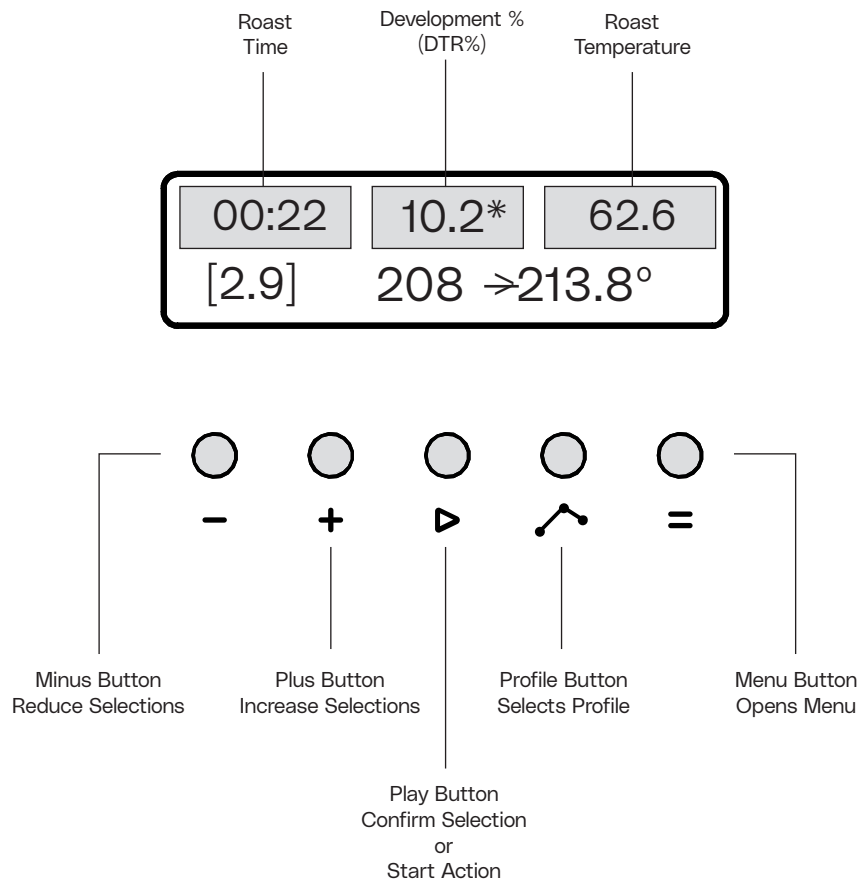
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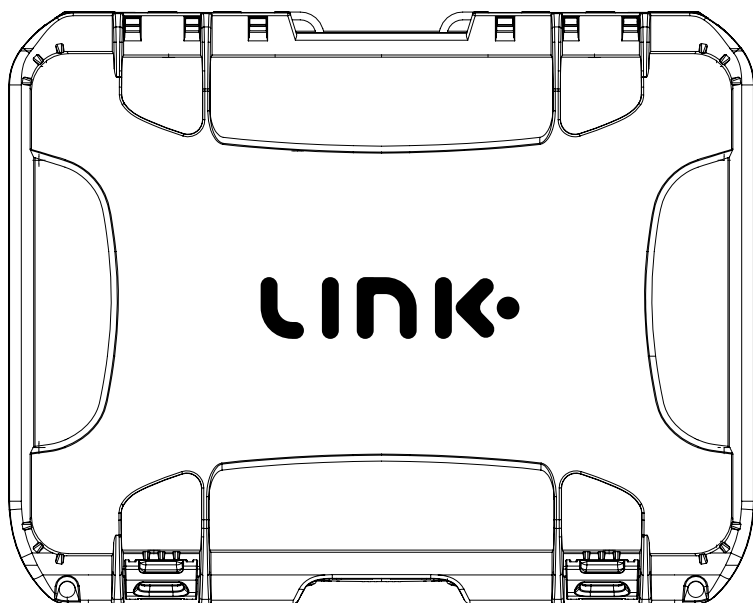
PARTS LIST



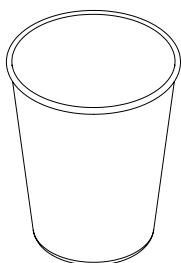
CONTROL PANEL



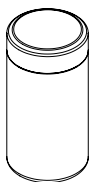
ACCESSORIES



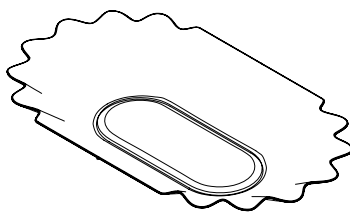
Military Grade Travel Case



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 Coffee Tools website and activate your warranty.
3. Please read 'The basics' section below and familiarize yourself with the 'Safety' section above.
4. Download both (i) the LINK App by Nucleus Coffee Tools, and (ii) the LINK Studio pro logging software to your computer desktop, via the Nucleus Coffee Tools website.
5. Install latest firmware from the Nucleus Coffee Tools website or LINK Studio.
6. Familiarise yourself with the features and terminology of the roaster, via information on the Nucleus Coffee Tools website.



Download LINK App and
LINK Studio



Activate warranty and learn
about features

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 Celcius.

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.

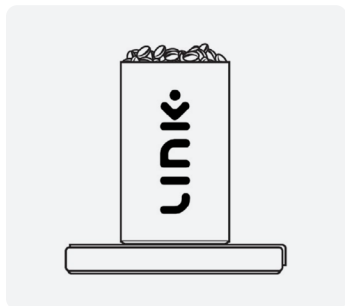
Running this test is a good way to be confident that everything is working as expected. This test will also generate a log file so it can be used to check that you have set things up correctly for collecting roast logs.

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 (eg. 65g).

A 'level' dose is when the green coffee fills the tube, and is levelled off by the lid. Do not compress the beans into the tube.



STEP 2

Set your power (eg. 220v) and Density Tube using the Preferences Tab in the LINK App.

Using the 'Profile Selector' tab, enter the Processing and Varietal of the green coffee you to receive a profile recommendation.



STEP 3

Remove the chaff collector and load 50g-100g of the same green coffee into the roaster using the dosing cup.

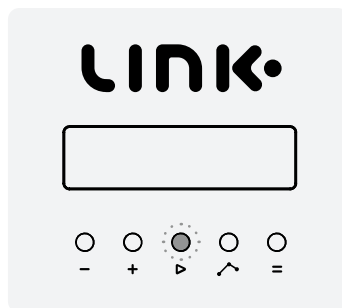
The LINK cannot be used for roasting more than 100g of green coffee at a time.

THE BASICS

STEP 4

Put the chaff collector back on, select the profile that the LINK App has chosen for you and click the start (▶) button to begin roasting. Ensure the chaff collector lid is in place as shown in the diagram.

Logging First Crack (FC) can be done by clicking the far right (=), then middle button (▶) on the roaster, or via the LINK Studio by clicking the FC button.

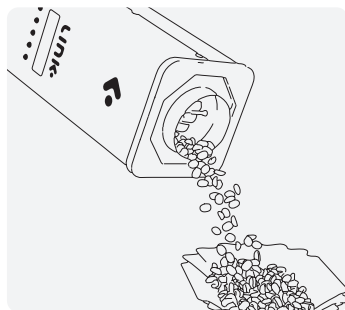


STEP 5

When the roaster has cooled down and stopped, take off the chaff collector.

Pick up the whole roaster with both hands.
Tip the roasted beans into a bowl, jar or bag.

Ensure that any chaff is cleaned from the chaff collector before beginning your next roast.
This must be done at the end of every roast.



LINK Basics and Welcome

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

The LINK profiles are designed to allow quick assessment if you're in a rush. The style of the roasts – starting from an ambient temperature – means that you can cup or brew immediately post-roast with the certainty of a fair assessment. However, note that the profiles are designed to show the coffee at their best after some ageing.

The right ageing parameters are of course subject to change for each coffee, depending on processing method, roast style, profile, development % and more. As a general guide, we recommend the following:

Cupping: Immediately to 72 hours after roast

Filter: 2-12 days after roast

Espresso: 3-14 days after roast

Omni: 2-12 days after roast

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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 PulyTM Caff detergent, CafettoTM Espresso Clean, Simple GreenTM or other non-caustic, non-abrasive cleaner. Reassemble the chaff collector before use.

Learn more about maintenance and care for the LINK roaster via our website:



Maintenance and Care

SELECTING A PROFILE

A roast profile/power curve tells the roaster the exact temperature required at each time during the roast, and is recommended by the LINK App.

Although the profile specifies when to end the roast (total roast time), the end of the roast is controlled by logging the First Crack (FC) to start the DTR%, or development percentage. Your roaster comes pre-loaded with a set of profiles, divided by Roast Style (eg. Espresso), Roast Plan/Profile Pack (eg. Espresso C), and are designated by numbers (eg. 206.5).

To achieve the best results it is necessary to match the profile and DTR% to the beans. Roast time & temperature logs are recorded automatically whenever you roast in the LINK Studio. It will also record on the roaster, provided this Preference is turned on.

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To load a new roast profile via the LINK roaster:

Click the (=) button to select a Roast Style and Roast Plan, browsing with the (+) and (-) buttons and making your selection with the Play (▶) button.

To select a profile ,click the Profile (⤴) button second from the right.

Browse with the (+) and (-) buttons and make your selection with the Play (▶) button. Or, 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 the LINK Studio via a computer/laptop:

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

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 Roast Style, Roast Plan/Profile Profile, and Profile/Power Curve that was suggested by the profile selection app.

After making your selection, the profile will automatically transfer to the roaster. If not, make your selection and then click the hand icon in the bottom right corner to send to the roaster.

Press the Start (▶) button to begin roasting.

Track the live roast progress with the Link Studio 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.

See more on p. 26-28.

ROAST LOGS

A roast log is a saved record of each roast profile, and will be saved to the internal memory of the LINK roaster. Roast logs are automatically saved in the folder called Logs.

To access the roast logs, click on the connection icon when your roaster is connected to the Link Studio software, and click the Logs tab. You can see the profile data breakdown or write notes in the tasting notes section under the 'About this file' tab. Each roast log can be exported to pdf format or in their original format (.npro) to be shared, or edited in the Studio to make a new profile.

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).

If you need to reformat your memory board as part of a hard reset, see the link below:



Reformat the memory board

MEMORY STRUCTURE

The internal memory of the LINK 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 logs, click on the connection icon in the Link Studio 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 achieve 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.



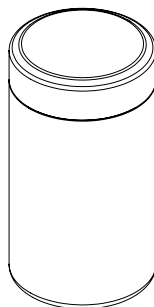
Managing the LINK memory

DENSITY TUBE

The Density tube provided provides a key to navigate and choose the right sample profile for each coffee with ease. An accurate density reading requires approximately 80g of green coffee, depending on shape and size.



IMPORTANT: There are different sizes of density tube. Use the prompts in the LINK App to determine which density tube you are using.



Density Tube

See below the steps for recommended density assessment:

1. Weigh out 80-100g 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 move the lid back and forwards across the top of the tube, pushing off excess coffee into the below tray. Ensure not to press down or compact the coffee.
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 on the scale you previously used.
9. This weight is the density number, ready to type into the Profile Selector in the LINK App.
10. For higher precision, we recommend repeating this measurement two-three times and calculating the average number for the app.



Video: How to do a
Density Measurement

PROFILING WITH THE LINK APP



IMPORTANT: Before roasting, use the Fan Calibration in the LINK App to input your altitude (p.32). This will provide a recommended fan setting for your roaster, which is important for maintaining consistency in heat application.

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 Selector, then the new sample entry tab. The other options (Advanced Dial-in and Manual Profile Selection) are to be used when wanting more specific recommendations, eg. when adjusting a profile.

Fill out the three sections for your profile recommendation:

- 1. 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.
- 2. 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.
- 3. Variety:**
This last input is for the future development of the app. Please type in the sample coffee variety.

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

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

Select this profile on your Link unit via the aforementioned buttons (p.14). if using a tethered connection, you can send the profile from the LINK Studio to the roaster.

Add 50-100gm of your green coffee sample into the roaster. Secure chaff collector and press play. You will be asked to input the batch size, and if the Fan Adjustment setting is turned on, to input any recommended fan adjustments. After this, push Play to start.

Fan adjustments:

Since May 2024, the LINK and its firmware have included the option of fan adjustments prior to starting a roast.

The profile provided by the LINK App may also have a fan adjustment recommendation (eg. +0.005) – this is used to ensure that any particularly dense coffees are able to oscillate and move like other coffees.

If provided with a fan adjustment number, ensure to enter this prior to starting your roast.

SAMPLE PROFILE PARAMETERS

The LINK roasting profiles have a standardized roast time, temperature increase and development % (DTR). To provide an honest assessment of a coffee we strive to get as close to the target with through the LINK App and its profile selector function.

The standard range for a coffee sample (Cupping) is between 7-12% development and 4-6 degrees Celcius temperate increase after First 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, log the point of First 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.

For a rolling crack between in a window of 5:50-6:10, the 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.



IMPORTANT: Note that this is generalised information and that the above may not apply specifically to each roasting profile.



Logging and modifying First Crack

ADVANCED DIAL-IN

This LINK App feature is to be utilized to provide an adjusted profile recommendation, if your coffee hasn't behaved as anticipated. It is to be *after* you run a new sample entry and perform a roast based on the initial recommendation.

Using the “new sample entry” function the profile suggested will provide an estimated first crack window (eg. 5:50min to 6:30min). 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”).

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).

If your coffee has a First Crack outside of the estimated window, you can use Advanced Dial-in mode to provide an adjusted recommendation. Note that this mode needs a defined First Crack point to further refine an exacting profile for your sample.

Once you have completed a roast and have the exact time registered for First Crack, please go back into the profile selector and in the next screen, select Advanced Dial-in.

- In the first line enter the First Crack. 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 previously 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 50-100g 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.




Advanced Dial-in

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.

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
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 off, then back on again.



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.)

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FIRMWARE UPDATES

The LINK roaster has frequent updates to its operating firmware, which are provided at no cost to all users. This includes new features, new profiles, and improvements to existing features and functions.

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

For more information, see this page:



[Learn about Firmware updates](#)

LINK STUDIO / ROASTING SOFTWARE

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 re-establish 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.

CLASSIC FUNCTION & EDITING

For profile editing its recommended that the profiles are balanced out using the smooth point function between adjustment nodes. This can be found in Draw > Smooth Point, or Draw > Smooth all (p. 29).

When editing a profile, predicting the time of the first crack (FC) will give a suggested development percentage.

Adjusting the profile DTR% (development %) 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.

ADVANCED

Once you're familiar and comfortable with the LINK operating firmware software, you can yourself greater access to the link software capabilities (p.23). To do this, click on the Options tab in the LINK Studio and select a different difficulty setting to unlock more features (eg. Engineer Mode).

Note that you should not adjust the back end settings of the LINK profiles, otherwise you risk corrupting the functionality of the LINK App and its profile selection.



See tutorial videos

MODES AND BUTTONS

LIVE ROASTING LOGGING FUNCTIONS

You will see several logging functions on the live roast feature within the LINK Studio. 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 development (DTR%) range in engineer mode.

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

LINK STUDIO - DIFFICULTY MODES

Unlocking the full functionality of the LINK software.

1. Connect the tether cable to the roaster and turn on unit.
2. Open the LINK Studio desktop software. Ensure that the roaster is connected, by locating the green 'tick' icon in the menu bar.
3. When connected, navigate to the top menu bar.
4. In the menu tab, select the Option dropdown.
5. Navigate to Difficulty and select your experience level with Link studio.
 - Basic is the default that allows a limited function to only the key operational features.
 - Advanced and expert 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.
 - Engineer mode unlocks all attributes of the roaster. Please note that this mode should only be utilised by someone with prior experience in kaffelogic or link studio functionality.
6. In all modes, we advise you don't deviate from the advice of recommended settings the program will suggest for you.
7. If you don't know what a setting do we strongly recommend that you leave it as is. Failure to follow advice may lead to damaging the unit and voiding a user's warranty.



IMPORTANT: We recommended following all software prompts and suggestions made and not to tinker with settings the system suggests you leave as is.



Changing difficulty settings
and editing a profile

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 :

On the unit, press the far-right (=) button until you get to a screen called preference and push play (▶).

The options you should now see is - for levels and + for DTR.

Please select the (+) button to activate DTR. Confirmation should appear on the screen of DTR Activation.

The main screen now reflects the development percentage of a profile. This is the target development percentage when the first crack is logged.

When you click the first crack logged it will terminate when it hits that point.

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.

ARABICA ADVANCED

The Arabica Advanced feature of the LINK App allows users to receive more specific recommendations for roast profiles, based off the screen size of their coffee.

In the LINK App, open the Preferences tab. There are several Preference options, including Arabica Advanced. Turn this on, then click 'Return' to go back to the home screen.

Now, when entering Profile Selector mode, the second pop-up that will appear will ask for the screen size of the coffee being roasted. Make a selection, then proceed to enter the remaining coffee information to receive a profile recommendation.

If you do not know what screen size is, or do not know the screen size of your coffee, it is advised to not use this feature, or to select 'Unsure'.



Using Arabica Advanced

BATCH SIZE

The Link system is designed to be optimised in a range of 50g-100g. Your selection of the volume of coffee you can input can be made as small as a single gram difference between the optimised range.

On the LINK roaster, you make your batch size selections when first pushing the play button. Pushing play a second time (once the batch size for the volume of coffee is entered) will start the roast.

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. If unsure, the best middle ground is to start with 80g of green beans.

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 a accurate density reading to best select your profile. The size of the previously selected batch will be held unless you reset the unit.

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.



IMPORTANT: Do not roast more than 100g at a time. The Kaffeelogic BOOST Kit is not compatible with the LINK sample roaster.

VARIABLE BATCH SIZE / ADVANCED ROAST DETAILS

The Advanced Roast Details feature of the LINK App allows users to receive more specific recommendations for roast profiles, based off the batch size of the coffee being roasted.

This feature is particularly useful if you are roasting two batch sizes of the same coffee – for example, 100g then 50g of the same coffee – but want the same quality/result.

In the LINK App, open the Preferences tab. There are several Preference options, including Advanced Roast Details. Turn this on, then click 'Return' to go back to the home screen.

Now, when entering Profile Selector mode, a pop-up will appear after the Density, Process and Variety are entered. Make a selection, then proceed to the next window to receive a profile recommendation.



Using Advanced Roast Details

PROFILE PACKS/ROAST PLANS

The LINK comes with a wide range of profile packs/roast plans for each Roast Style, which contain the roast Profiles.

A Profile Pack/Roast Plan can be thought of like a folder, which contains the roast profiles/power curves. Each Roast Plan follows a specific development percentage, rate of rise increase, time of 1st crack and arc of the roast curve.

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

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

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

Example: CUPPING 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



See all available Profile Packs

Accessing Profile Packs Through Studio

Access through the Link studio start by connecting the tether cord between the Link unit and your computer.

When the green tick appears to show connection, click on the bonbon icon to the immediate left of this to open the menu. At the top of this pop-up menu, there will be three tabs. Click on the middle one called 'Profiles'.

Start by making sure your profile pack file is up to date with the most recent version. Note this update can take 2-5 minutes.

Next in the "Pack" drop-down access the Letter group or development 12% that you wish to select as a reference.

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.

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.

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.



Selecting profiles from
the LINK Studio

To access directly from Roaster Unit

Push the far-right menu tab 4-5 times until you see the selection for the profile pack

Push the play button to open the profile Preference selection.

Using the (+) or (−) button navigate through the inboxes until you find the profile pack inbox you are looking for.

To confirm the change push play which will return you to the main screen.

To access the profile within that inbox now push the fourth button from the left.

You can navigate increasing through the profiles by continuing to push the profile button or also by using the + button.

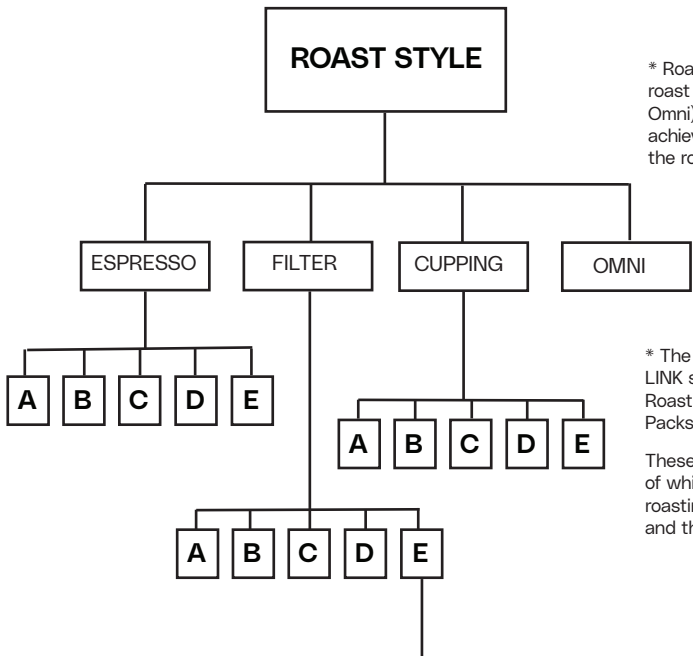
You can also use the (−) button to navigate from the highest profile backwards.

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

To load push (▶).

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.

PROFILE PACKS/ROAST PLANS: OVERVIEW



* Roast plans are determined by the roast style (Cupping, Filter, Espresso or Omni). Each Roast Plan is designed to achieve different results depending on the roast style.

* The hundreds of roast profiles for the LINK system are divided into different Roast Plans, also referred to as 'Profile Packs'.

These are like folders of profiles, each of which has a different approach to roasting based on the roasting style and the qualities of the coffee.

* Within each profile pack (eg. Filter E) are a number of Roast Profiles/Power Curves. These are denoted by a number (eg. 207), and represent the recommended roast approach as recommended by the LINK App.



See all Profile Packs/Roast Plans

EDITING A PROFILE

The LINK also provides the opportunity to edit and create your own profiles, using the LINK Studio software. These profiles can also be exported and shared with other LINK users.

To edit a profile, access the profile you wish to edit via the LINK Studio (p.27).

Rather than exiting the “Profiles” tab, select the pencil icon next to the Profile number. The profile will then open in editing mode.

Use your cursor/mouse to select any point along the roast profile curve/power curve, and drag to adjust its position.

You can also use the numeric codes along the base of the LINK Studio window to make more specific adjustments to temperature and time.

To **insert a new point** in the Roast Profile Curve, click on the spot where you wish to insert a new point. Then, select Draw > Insert Point from the LINK Studio banner menu.

To **smooth out an adjustment** and make a smooth power curve, select Draw > Smooth Point. To smooth out the entire power curve, select Draw > Smooth All.

In the About This Profile tab, you can name the profile, list yourself as the Profile Designer, and provide a description of the roast profile.

To save, click the Save icon or File > Save. To share and export as a PDF, click File > Export.



Make or edit your own profile

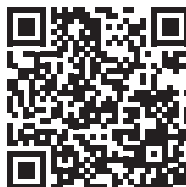
ALTITUDE CALIBRATION



IMPORTANT: Altitude calibration enables your roaster to replicate the atmospheric conditions of sea level. If roasting for the first time, or changing location (eg. from 1200 masl to 2300 masl), ensure to recalibrate the fan speed of your roaster using the below steps.

Altitude calibration

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. Push done.
6. The solution screen will tell you the Calibration point for your unit.
7. Turn on your link unit.
8. Push the far-right menu (**=**) button once till you see the option “altitude trim”. In newer versions of the LINK firmware, this may be listed as ‘fan anemometer’.
9. Using the (**+**) or (**-**) button set the number to the suggested range.
10. Push the (**►**) button to confirm and save.
11. Note this setting will hold unless the unit is reset, or the number is manually adjusted to another setting.
12. 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.
13. Note that if you have the unit set up to 50g on the roast profile the green you should put in should also match.
14. The best is to have your profile volume at 100g and put 100 grams of green coffee in.
15. When you start the fan speed trim it will only activate the fan so the element will not engage to roast the coffee.
16. Place your hopper on top and ensure the movement matches the stage 1 video 1 v log video on altitude calibration.



Altitude calibration

AUTO-HOLD OF THE FIRST CRACK

Earlier firmware versions for the Link had an auto first-crack memory feature embedded into the firmware. This feature would be activated when a user selected a profile, started a roast, and logged a reference point of the first crack for the DTR system to activate.

By logging the first crack, this becomes the last data point needed for the DTR system on the Link to adjust the roast time and RoR pitch. It ensures that the target development % of the profile pack used is reached, even if the first crack occurs earlier or later than the default setting. At the completion of the roast, the point at which you logged the first crack would be automatically remembered and repeated as the first crack reference for the next roast, provided the user did not change the selected roast profile, reset the unit, or turn it off and then on again. This means that if you did not load a refreshed version of the core profile and the Link app suggested roasting the sample on the same core profile number as the previous roast, the reference point for crack and roast time outlined in the core profile would be automatically overridden by the logged point of how the previous coffee behaved.

This feature is great when roasting many batches of the same coffee, as it's almost like setting cruise control while driving down the highway in your car. Once you set the first crack, it will remember the exact first crack time and termination point needed for the target development and desired roast degree. It will continue to mimic it for every roast automatically, so you don't need to do anything manually. However, having it always on in a sample set is not always beneficial. If you don't need to change the reference profile to a different core profile number but are roasting a different sample, you would want to be staring at a blank core profile that had no overriding pre-sets logged. Unless you selected a different profile and then reselected the same profile again to reset the hold memory, or you had reset/turned off the unit between the batches, this would not be the case, and the profile you started the roast on would be amended to the specifications of the last coffee you had roasted.

Recognising the benefits of this feature for production batch roasting of the same coffee and the need to turn it off when sampling many different coffees, we have created an optional preference into the firmware **KN1007B-7.11**. or higher firmware that allows the user to activate or deactivate it based on how they are using it.

Please follow the steps below to turn this feature on and off whenever you need:

1. Push the menu button (=).
2. Continue pushing the menu button (=) until you see the Preferences option.
3. Press the play button (►) when you reach preferences to load.
4. On the first screen, you will see DTR and levels.
5. Now push the menu button (=) once more.
6. 'Always reset FC' will appear on the screen.
7. You will see the option to select (-) for No and (+) for Yes.
8. If you want the first crack reference from the previous roast to be held until the completion of each roast from the logged point, then select (-) for No. 'Keep User FC between roasts' will appear and is now enabled.
9. If you want the log point to hold the first crack reference until the profile is changed or the unit is reset or turned off, push (+) for Yes. 'Reset Profile FC Every Roast' will appear and is now enabled.
10. This selection to activate or deactivate can be adjusted at the users' discretion if they are running firmware KN1007B-7.11. or higher.



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



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.

TROUBLESHOOTING AND FREQUENTLY ASKED QUESTIONS (FAQs)

In the event of an issue with the LINK roaster, or if you need to troubleshoot an error or unexpected occurrence, we invite you to reach out to our team or to use one of the following resources:

- The Nucleus Coffee Tools website has a list of FAQs, including error codes and troubleshooting with the LINK Studio, LINK App and the LINK itself.
- Within the LINK App and on the Nucleus Coffee Tools website, we offer a Virtual Roast Assistant (AI chatbot) that has been trained by our team that can provide live support in 95+ languages.
- The Nucleus Coffee Tools Training YouTube channel offers a range of videos on how to use the LINK and its numerous features.

If you are in need of a service, repair or replacement part, your first point of contact should be your re-seller – the company, distributor or reseller from whom you purchased the roaster.

If your re-seller is unable to assist you, please lodge a support request via our website.



FAQs and Virtual Assistant



LINK YouTube channel



Lodge support request

NOTES



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