

acaia



# **Umbra Lunar Duo User Manual**

AUL101

# Contents

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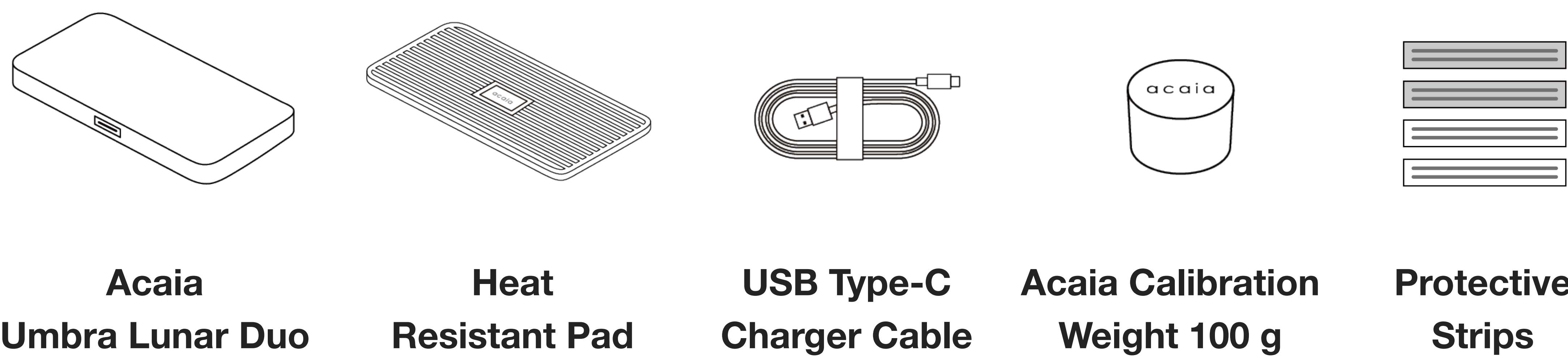
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# In the Box

## Introduction

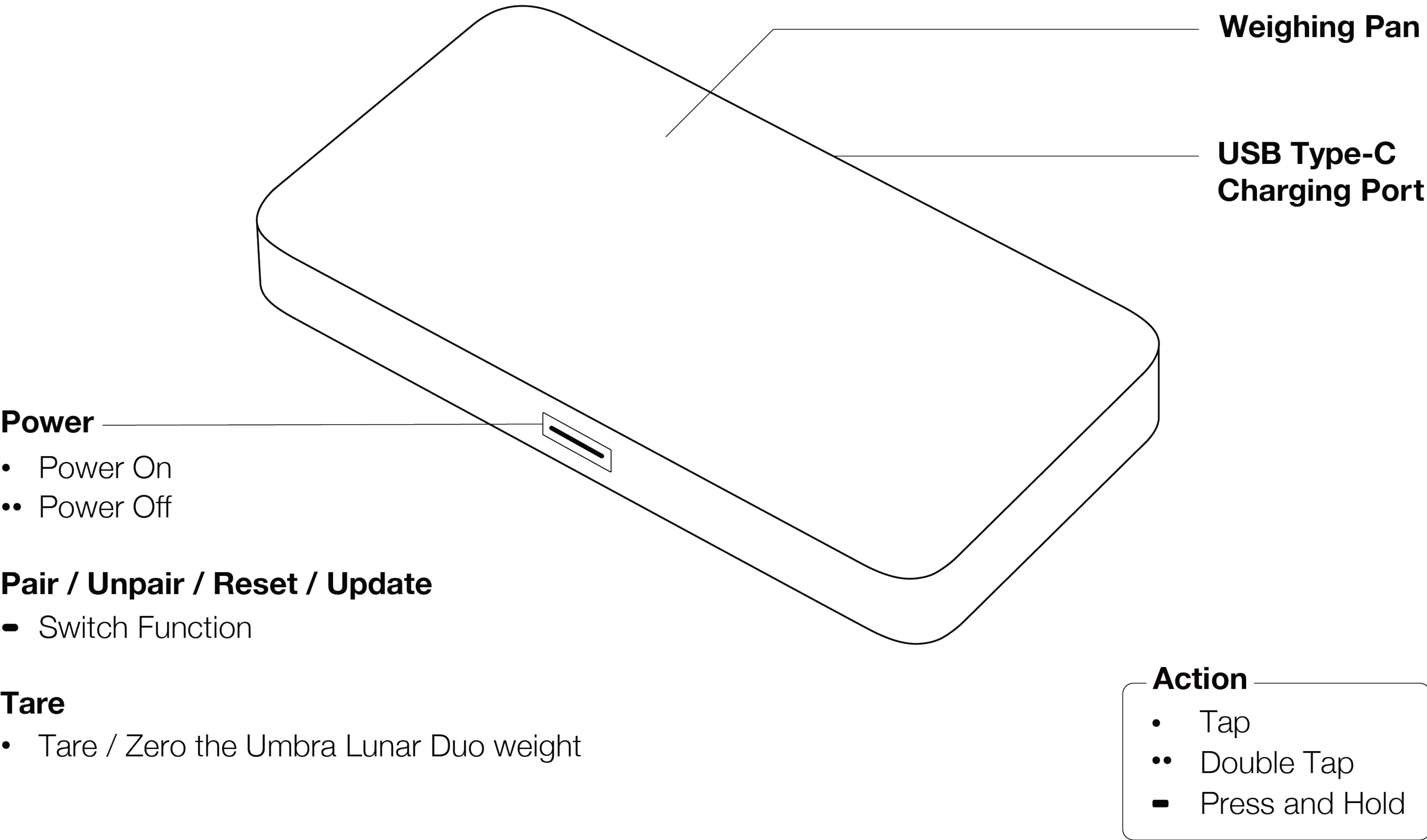
Thank you for choosing our scale. The Umbra Lunar Duo is designed and manufactured to meet the most rigorous industrial weighing standards to give you the most accurate and precise coffee brewing experience. Start by checking your Umbra Lunar Duo box to find the following items.



Next, follow the instructions in Getting Started to begin using your scale. To take full advantage of the Umbra Lunar Duo’s many features, carefully read through the manual, which contains step-by-step procedures, examples, and other information.

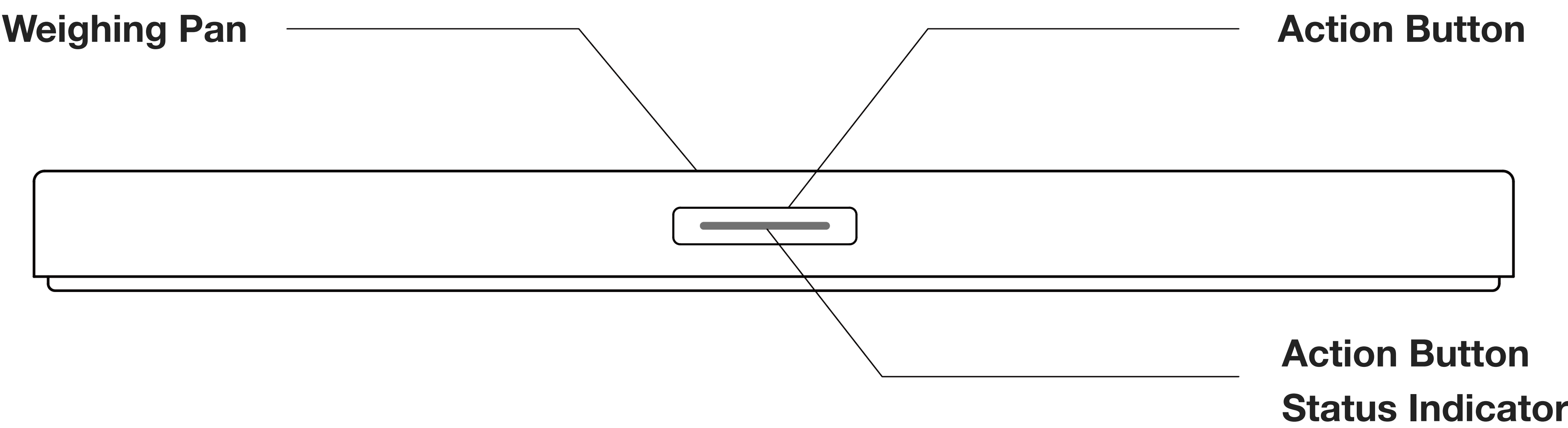
**Warning: Incorrect handling of this product may result in personal injury or physical damage.**

## Umbra Lunar Duo Overview



**Note:**  
For the best performance, place the weight in the center of the weighing pan.

# Action Button Indicators

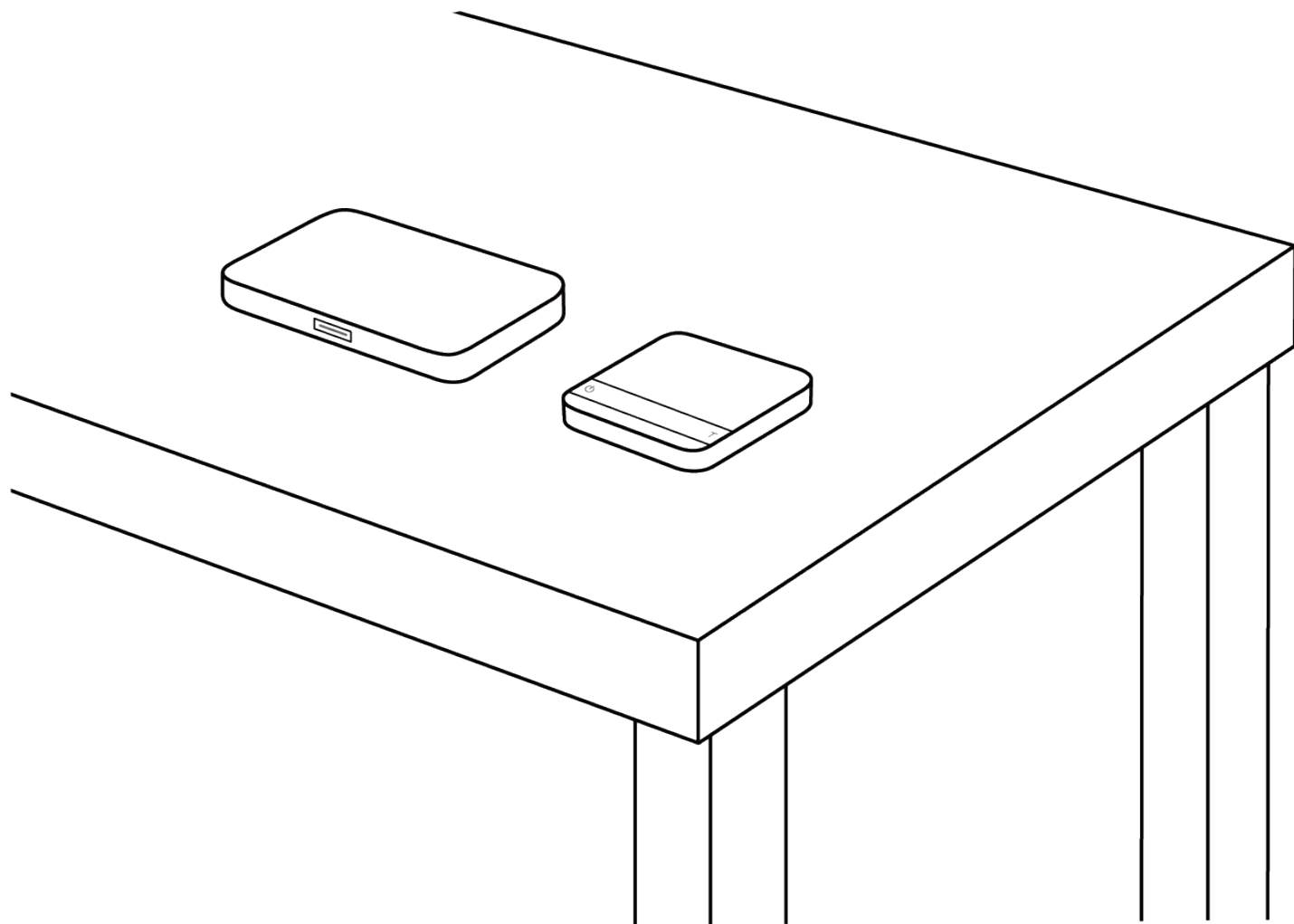


<b>Magenta</b> 	<ul style="list-style-type: none"><li>• Unpaired</li><li>• Pairing in progress</li><li>• Sleep Mode</li></ul>
<b>Blue</b> 	<ul style="list-style-type: none"><li>• Paired but disconnected</li><li>• Sleep Mode</li></ul>
<b>White</b> 	<ul style="list-style-type: none"><li>• Pairing successful</li><li>• Weighing on the Umbra Lunar Duo</li></ul>
<b>Green</b> 	<ul style="list-style-type: none"><li>• Weighing on the paired device with Battery level around 70-100%</li><li>• Charging Status: battery level is above 90%</li><li>• Reset to factory default</li></ul>
<b>Orange</b> 	<ul style="list-style-type: none"><li>• Weighing on the paired device with battery level around 40–70%</li><li>• Charging Status: battery level is between 60% and 90%</li></ul>
<b>Yellow</b> 	<ul style="list-style-type: none"><li>• Weighing on the paired device with battery level around 30%</li><li>• Charging Status: battery level is below 60%</li></ul>
<b>Cyan</b> 	<ul style="list-style-type: none"><li>• Calibration Mode</li></ul>
<b>Red</b> 	<ul style="list-style-type: none"><li>• Warning</li><li>• Firmware Update Mode</li></ul>

# Getting Started

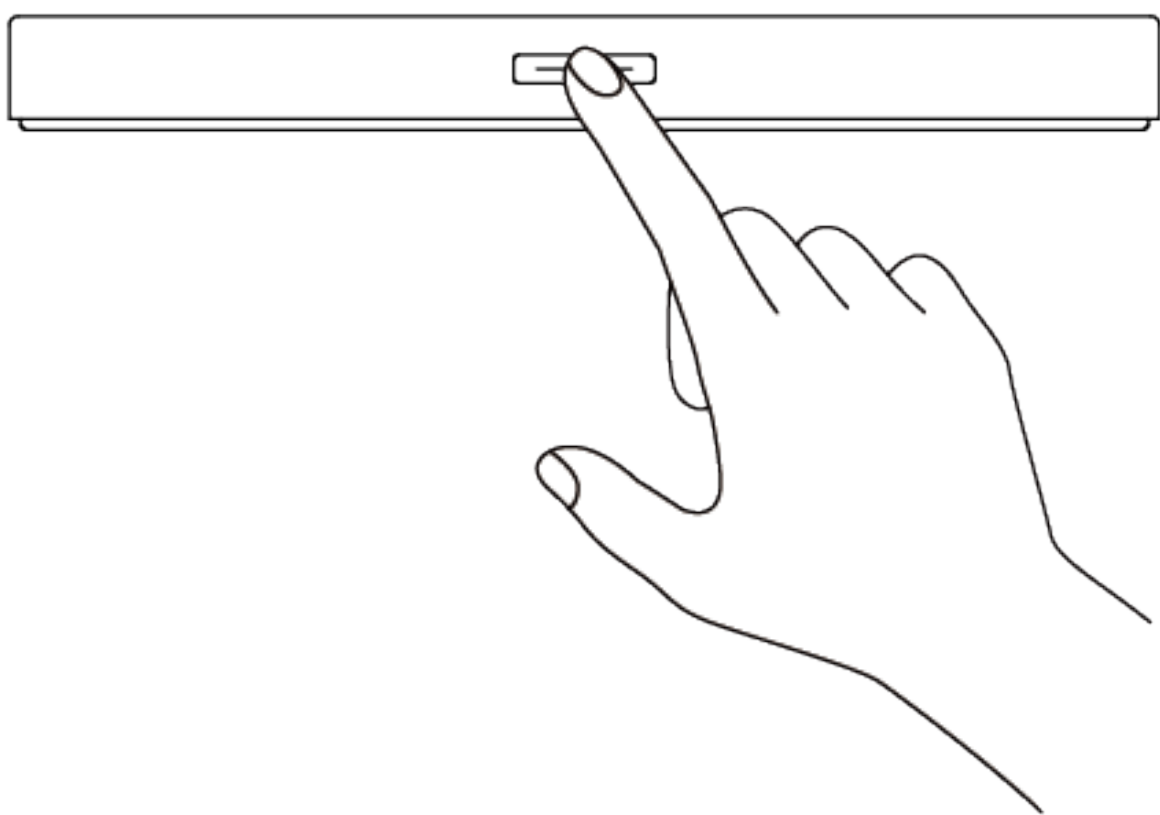
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## Placement



Place the Umbra Lunar Duo and other Acaia devices on a stable and vibration-free surface at a preferably level surface.

## Power On / Off



[Tap] Action Button to turn on the scale.

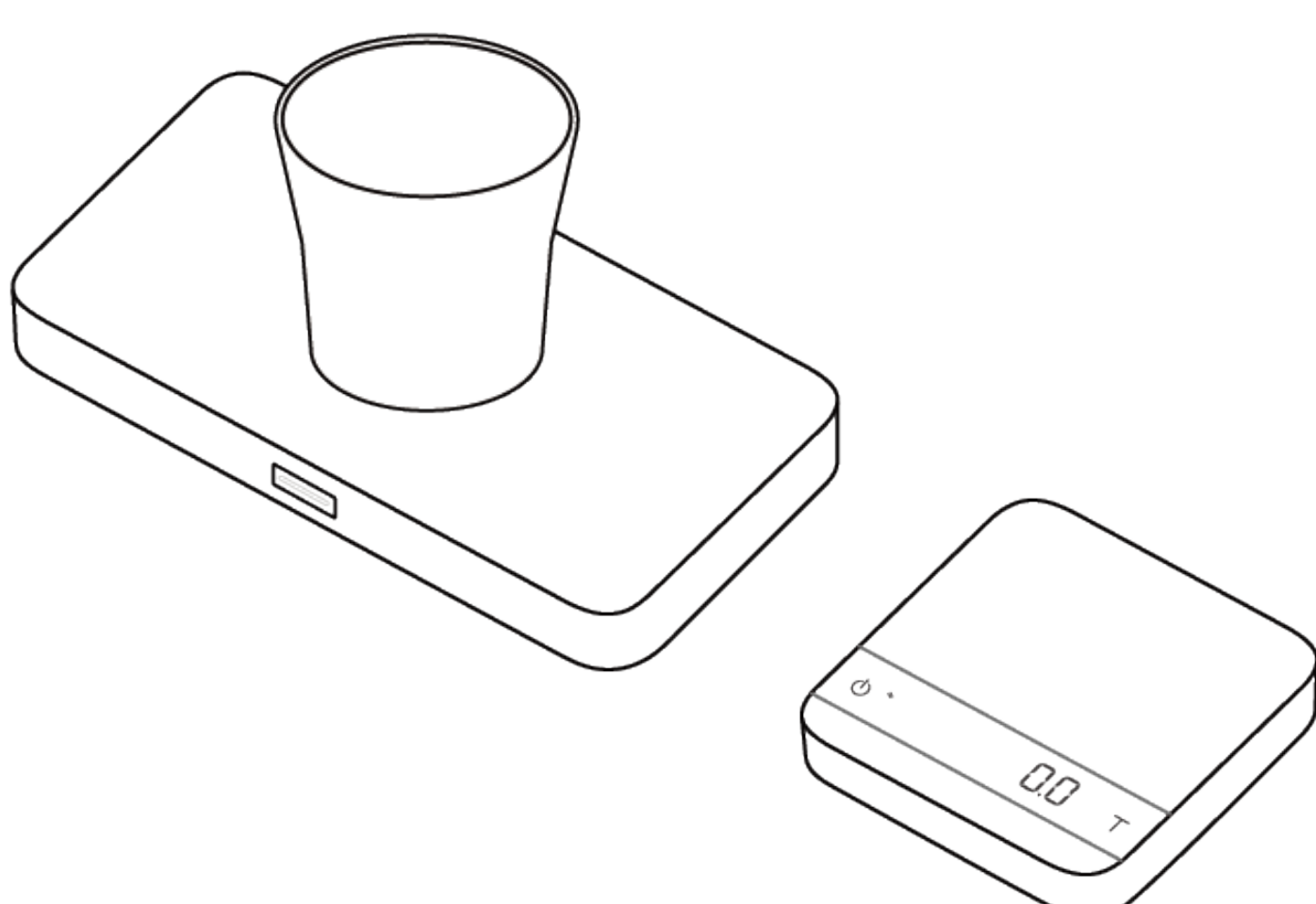
[Double tap] Action Button to turn off the scale.

## Connect With the App



Download the Brewmaster App to connect and advanced control the Umbra Lunar Duo.

## Pair With the Acacia Devices



Connect with Acaia devices to view the Umbra Lunar Duo's real-time status.

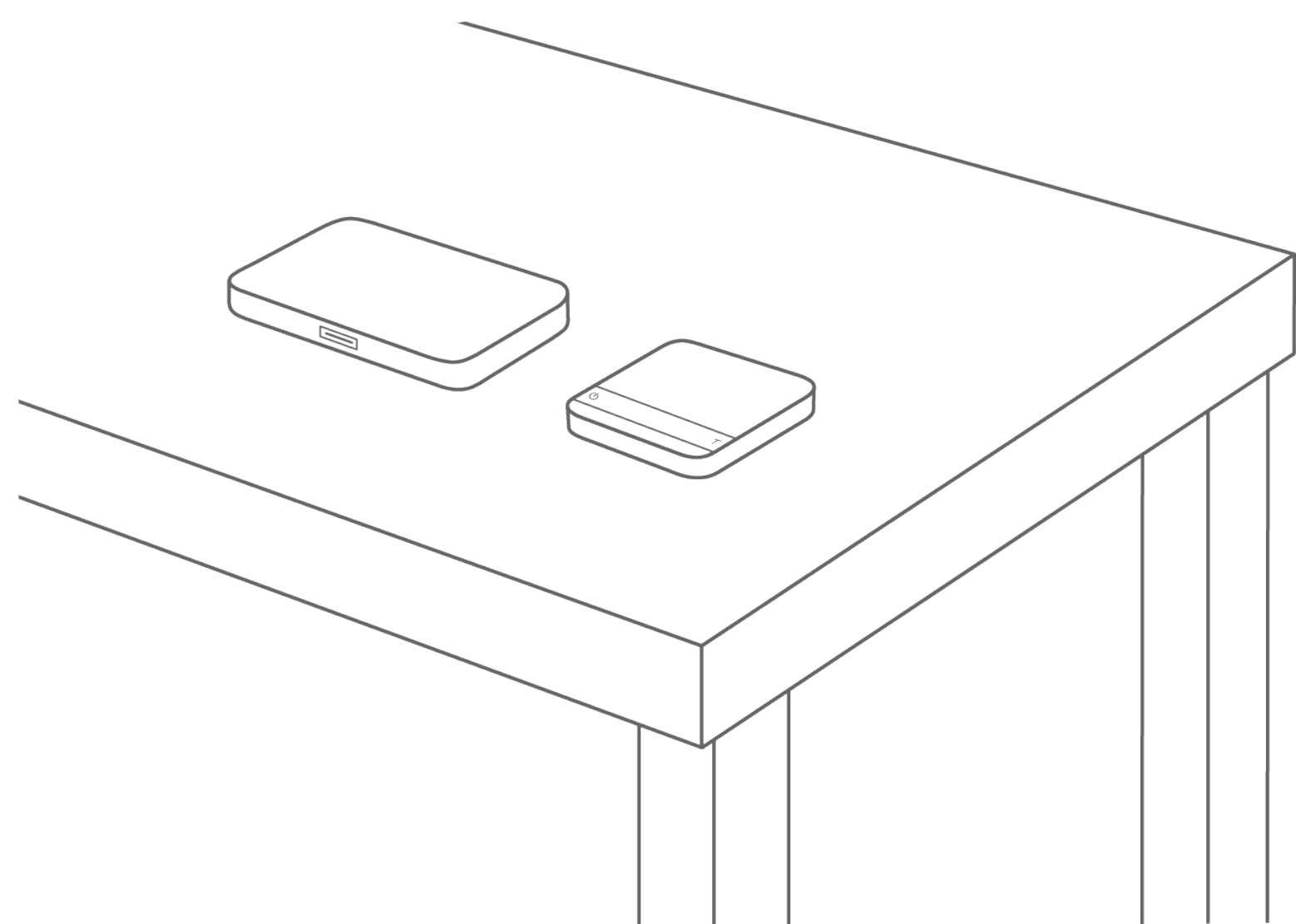
# Magic Relay Switching

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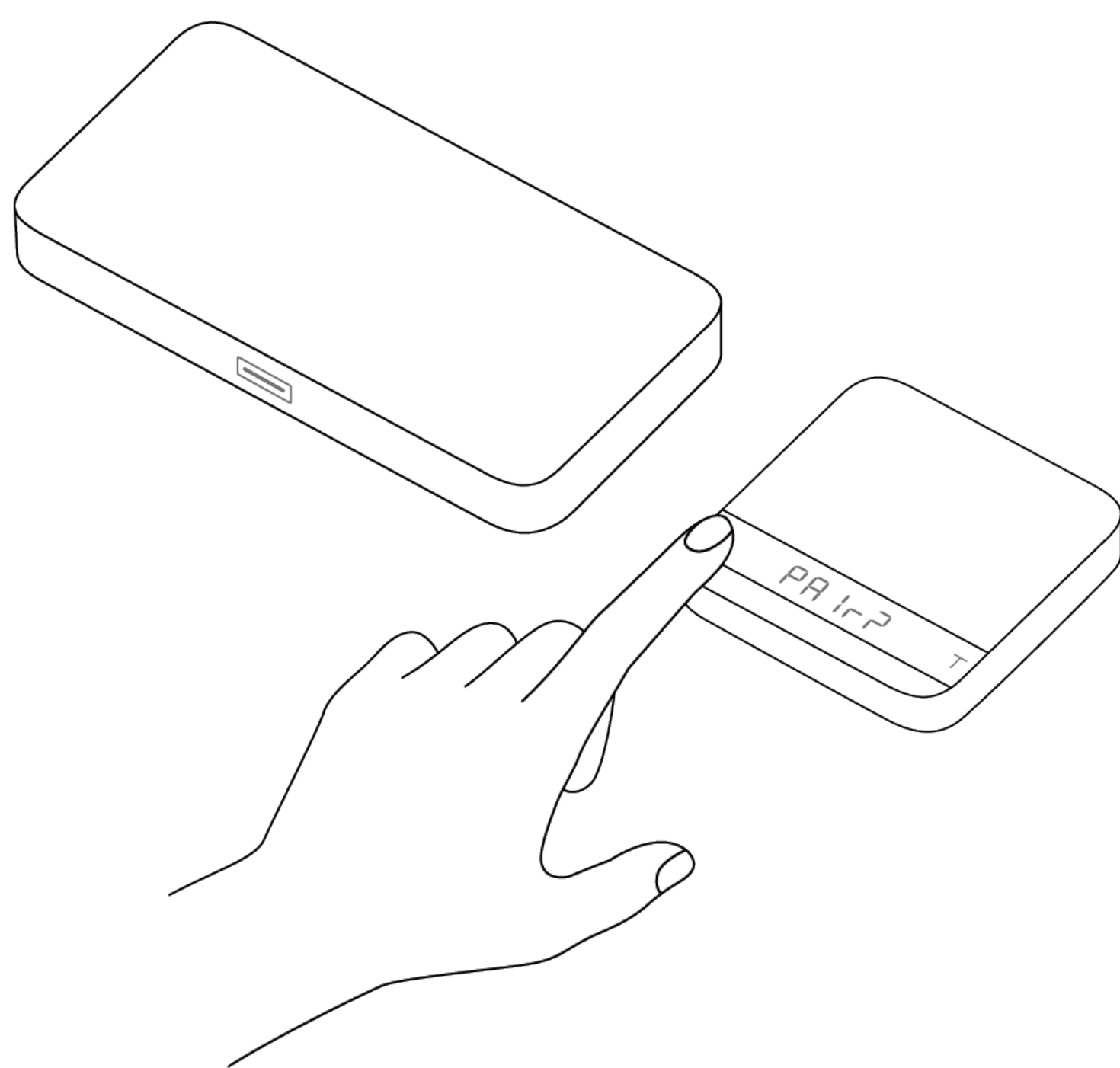
## Pairing With Acaia Devices for the First Time



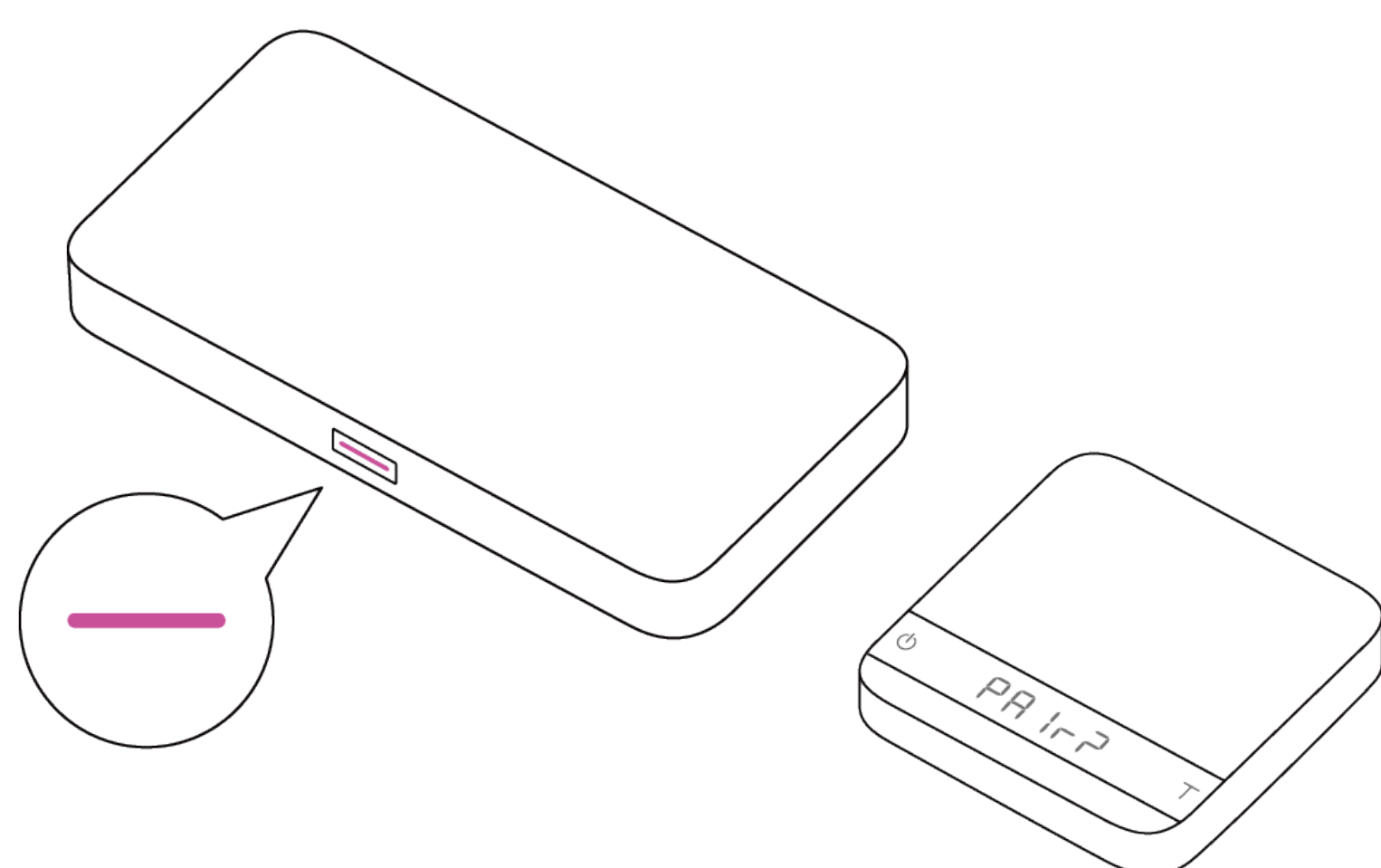
**1** Make sure both the Umbra Lunar Duo and the device you wish to pair are updated to the latest firmware via Acaia Updater App.



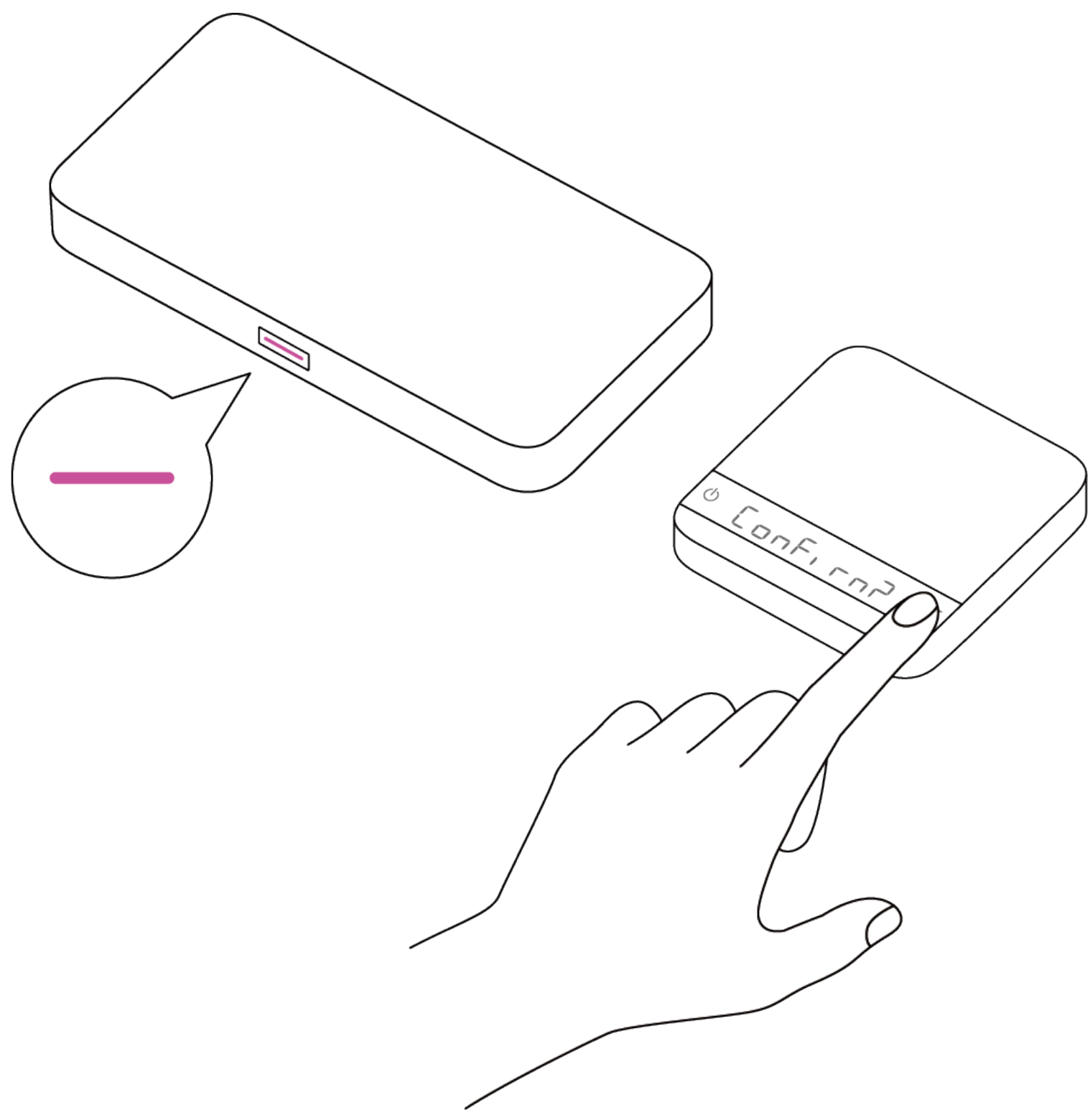
**2** Place the Umbra Lunar Duo and other Acaia devices on a stable, vibration-free, and preferably level surface.



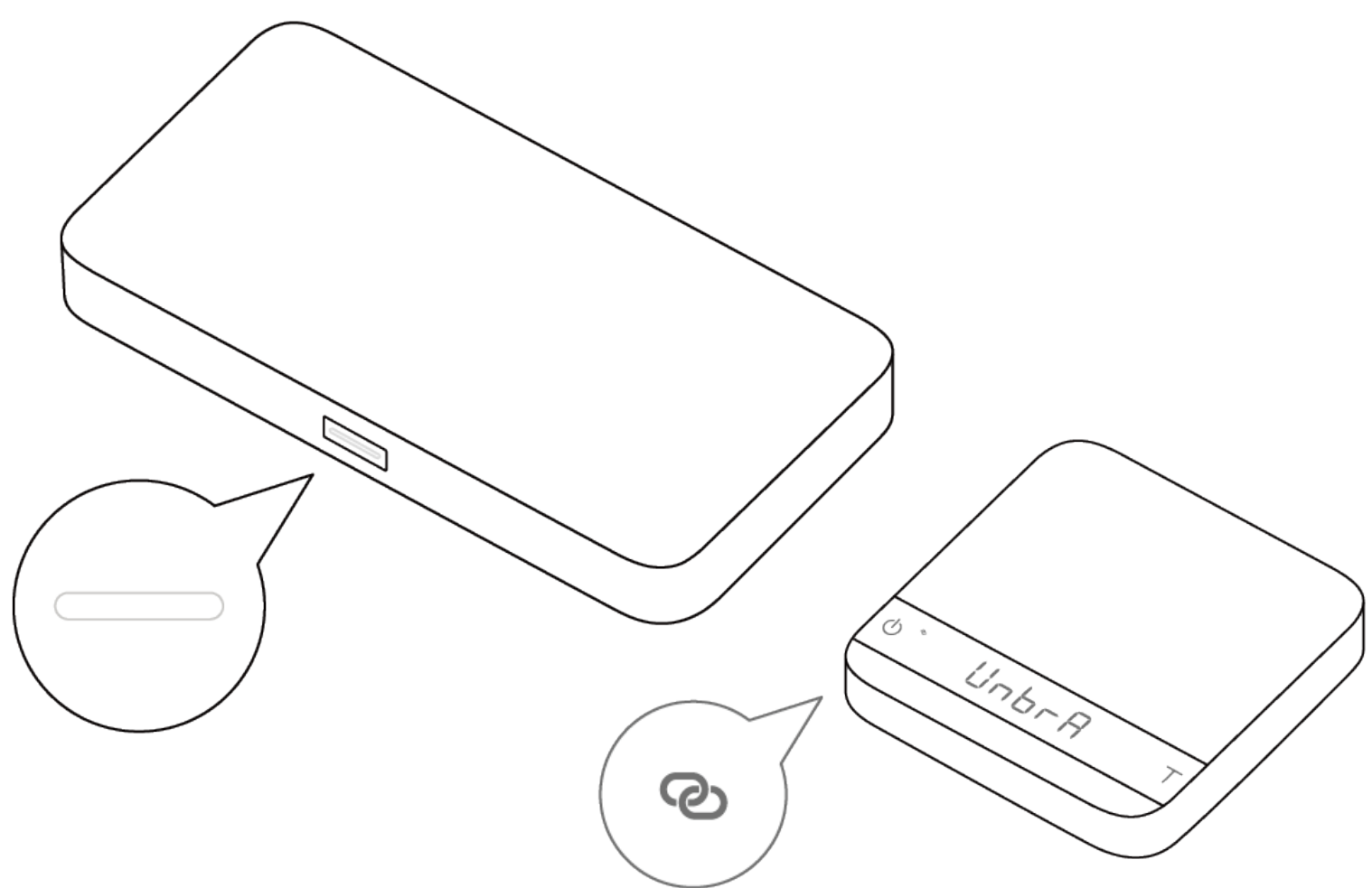
**3** With the device powered off, **press and hold** the Power Button for **10 seconds** until the LED displays **‘PAIr?’**.



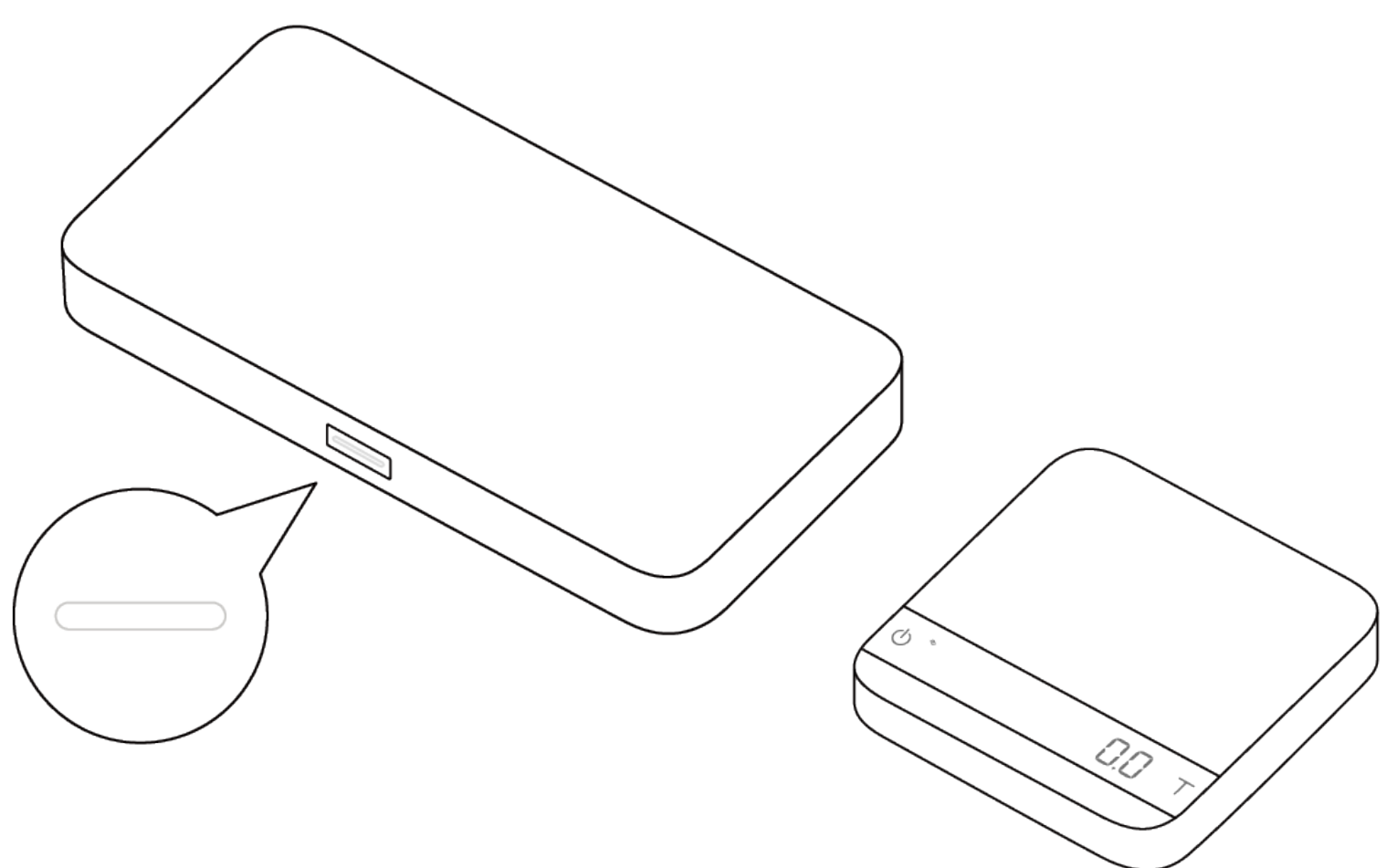
**4** Turn on the Umbra Lunar Duo and the button should display solid Magenta. **Press and hold** the Action Button for **about 10 seconds**, and release the button when it turns to blinking Magenta.



**5** When the device displays **‘ConFirm?’**, tap the Tare Button on the device to confirm pairing.



**6** When the Umbra Lunar Duo turns solid White and the Bluetooth Connection Indicator remains lit on the paired device, the pairing is complete.



**7** You will only need to pair the Umbra Lunar Duo once. The Umbra Lunar Duo will automatically connect to the paired device each time it is powered on.

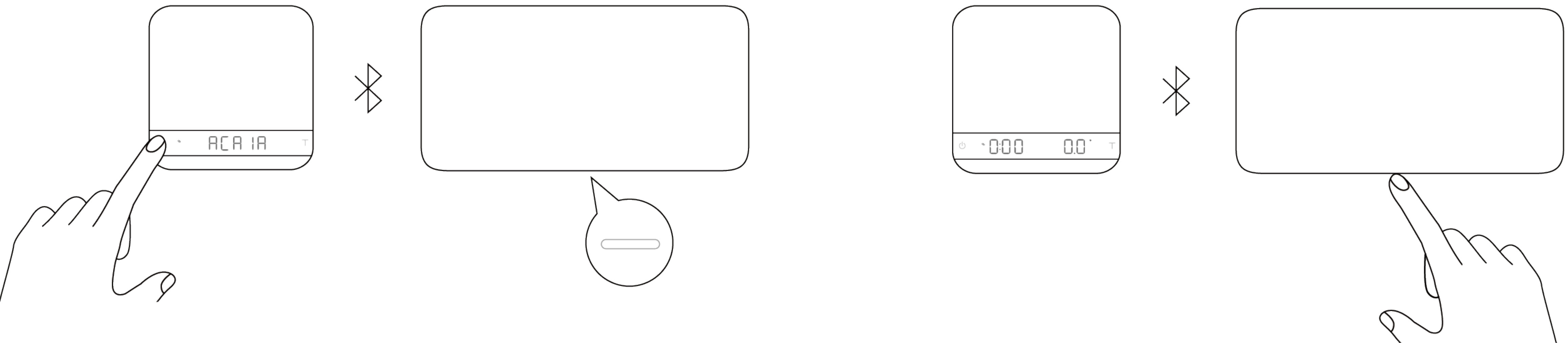
\*If the Umbra Lunar Duo is disconnected from the paired device, it will blink blue.

**Note:**

- Before pairing, please refer to the “Supported Acaia Devices and Modes” section to ensure the device compatibility.
- Each Umbra Lunar Duo can only pair with one Acaia Device at a time. If you wish to pair with another device, please reset the pairing with the instructions in the Appendix.

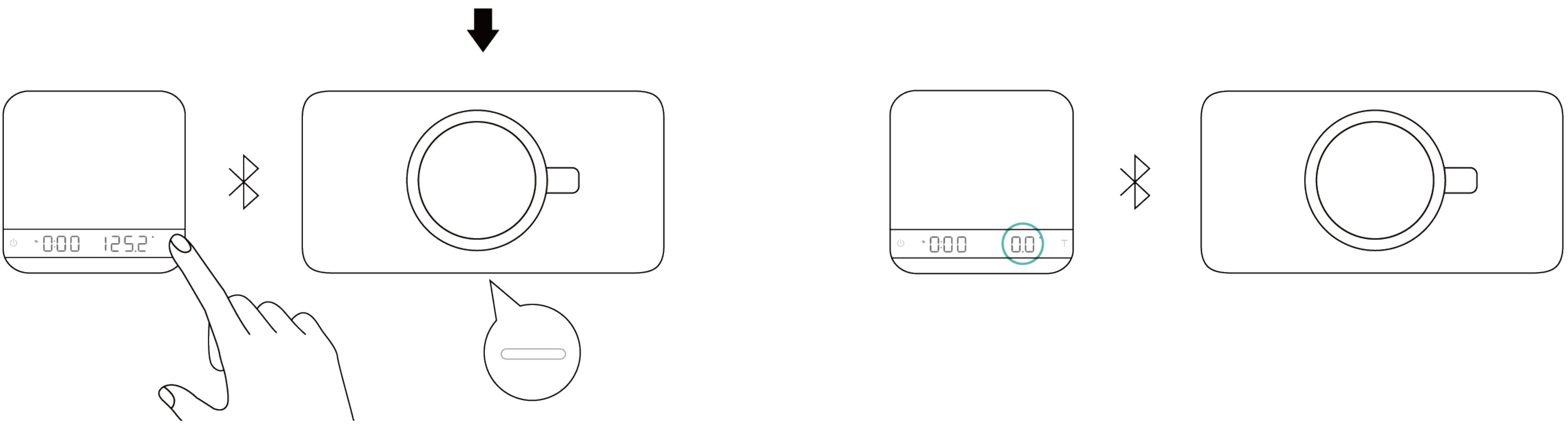
# Using Your Umbra Lunar Duo

## Power On



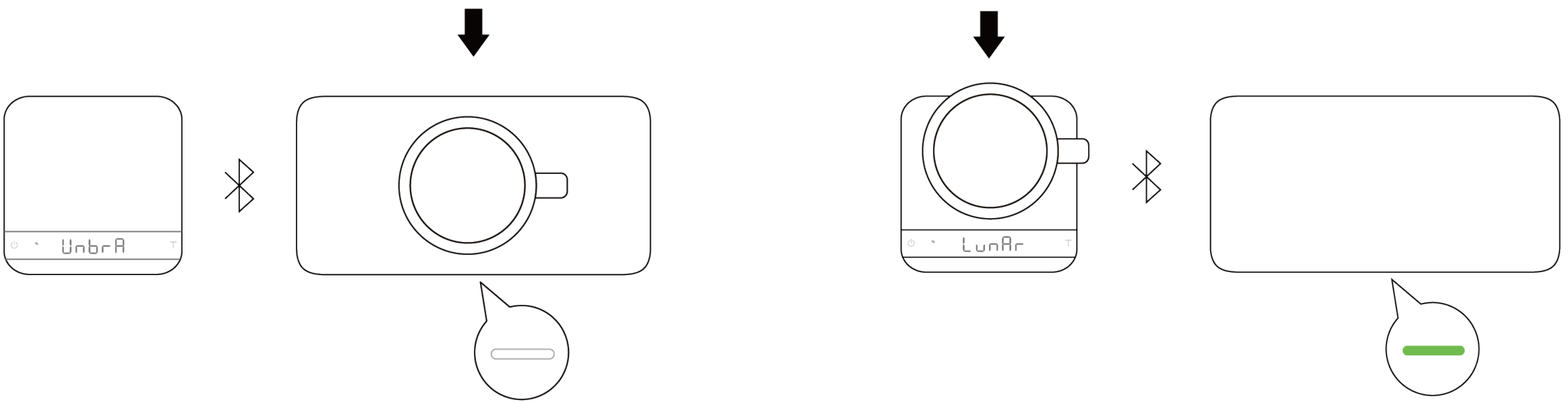
Turn on the paired device, it will wake the Umbra Lunar Duo up automatically if it's in Sleep Mode. Turn on the Umbra Lunar Duo, it will automatically connect with the paired device.

## Control



The control is now shared with the paired device. Tare, Start, Stop, Change Modes and etc.

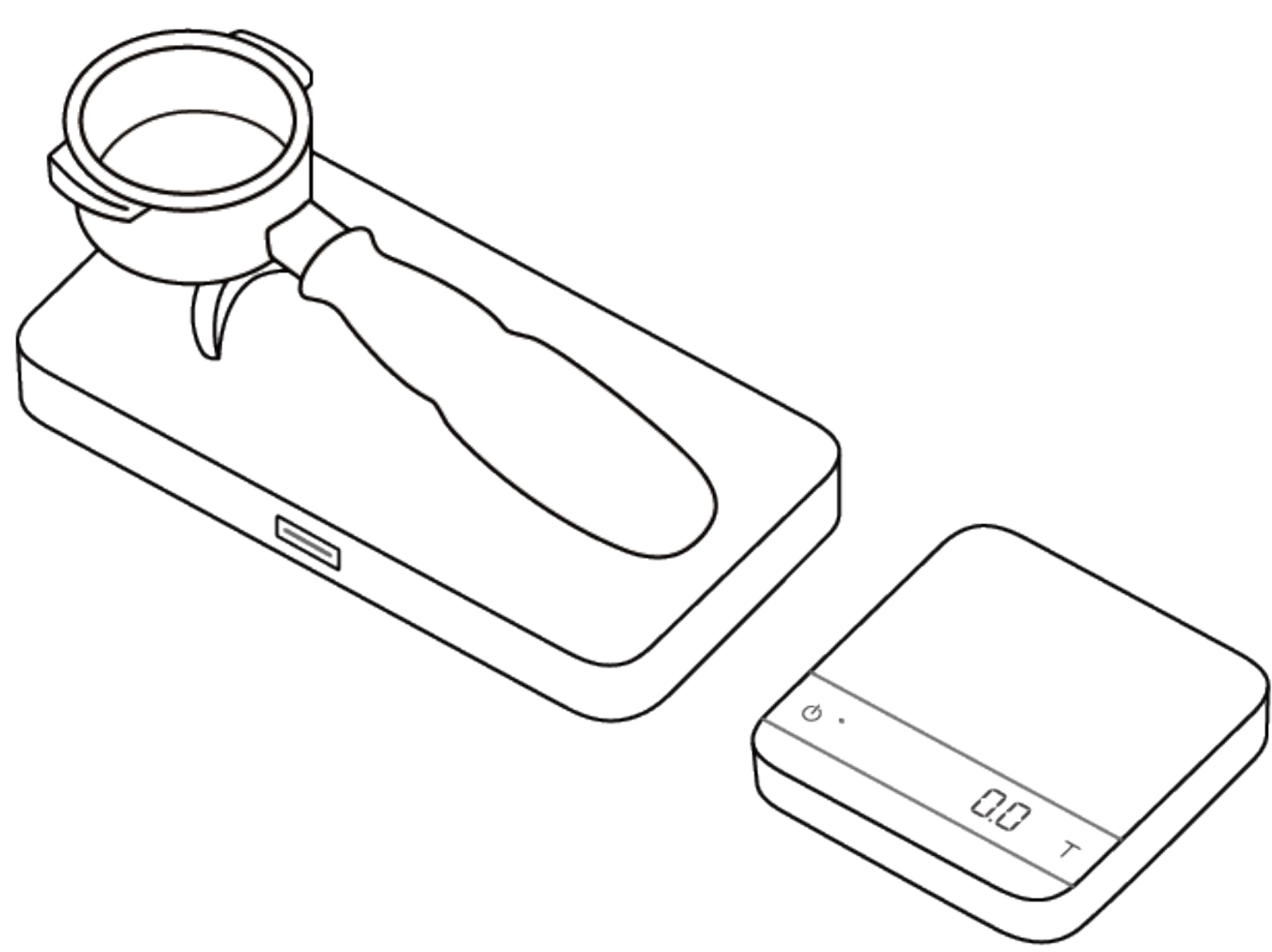
## Tap To Switch



The Magic Relay allows you to tap to switch between the Umbra Lunar Duo and the paired device.

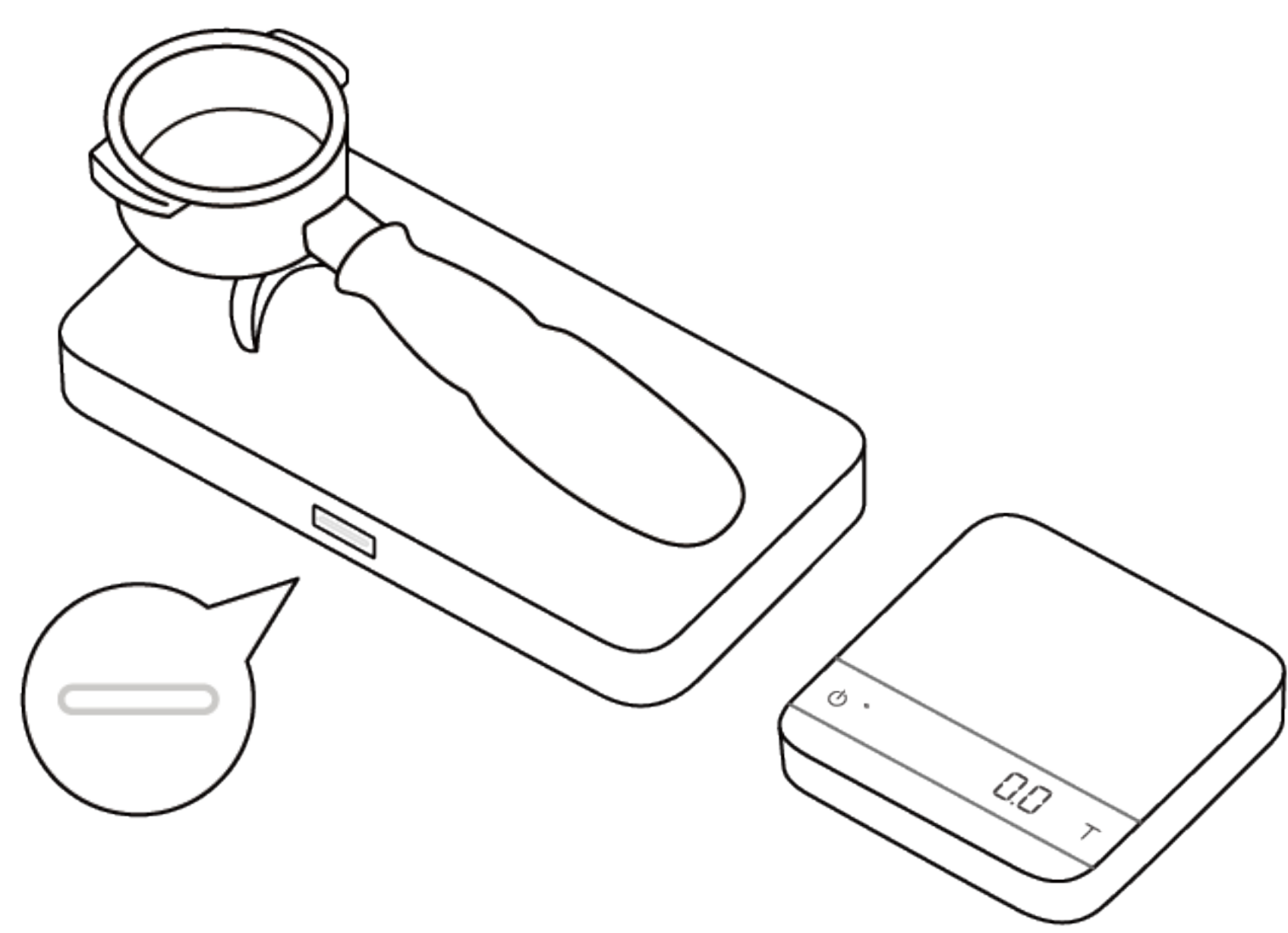
# Weighing on the Umbra Lunar Duo

**1** Place a portafilter on the Umbra Lunar Duo.

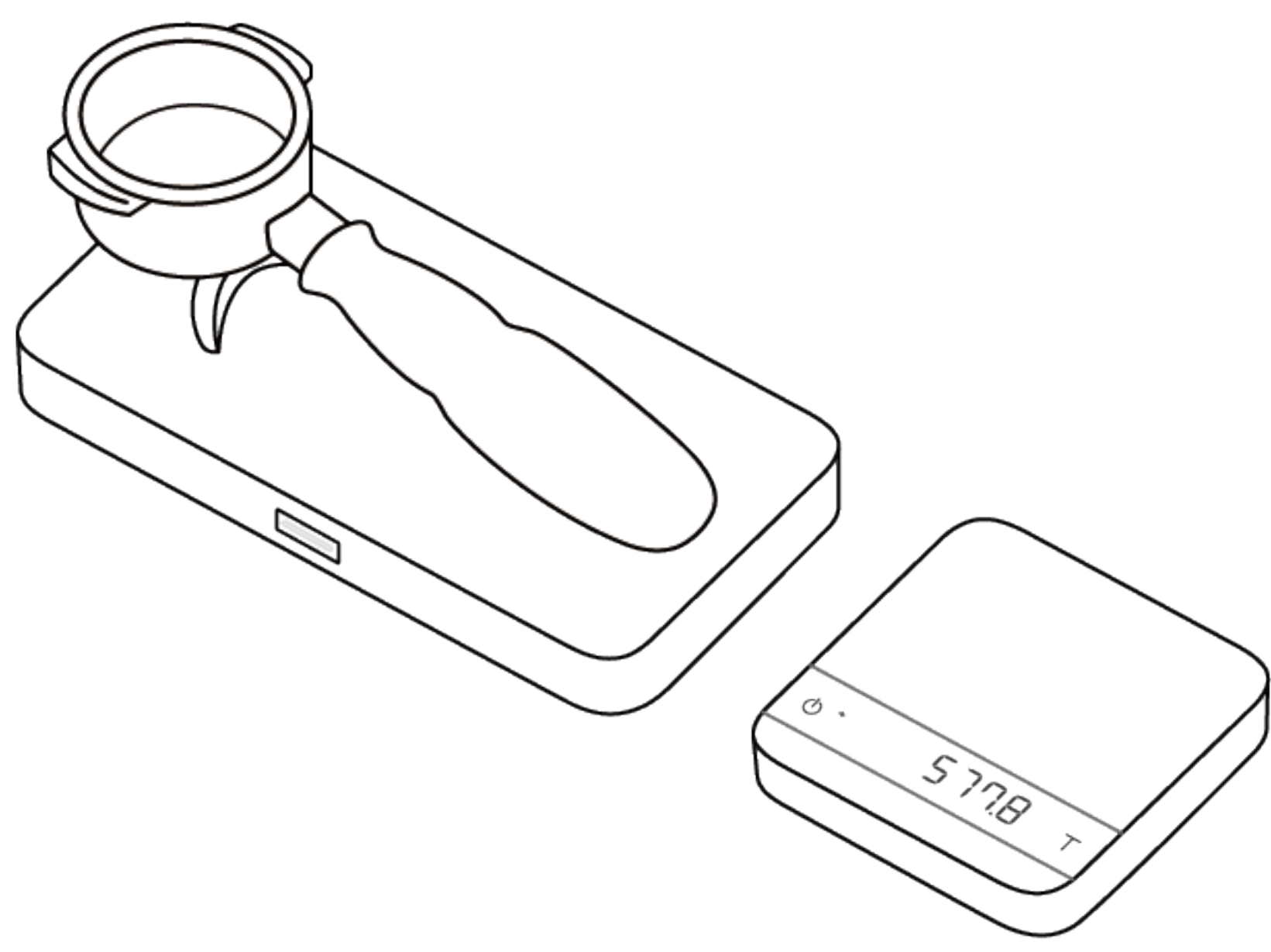


**2** The Umbra Lunar Duo turns solid White and plays the Magic Relay notification sound.

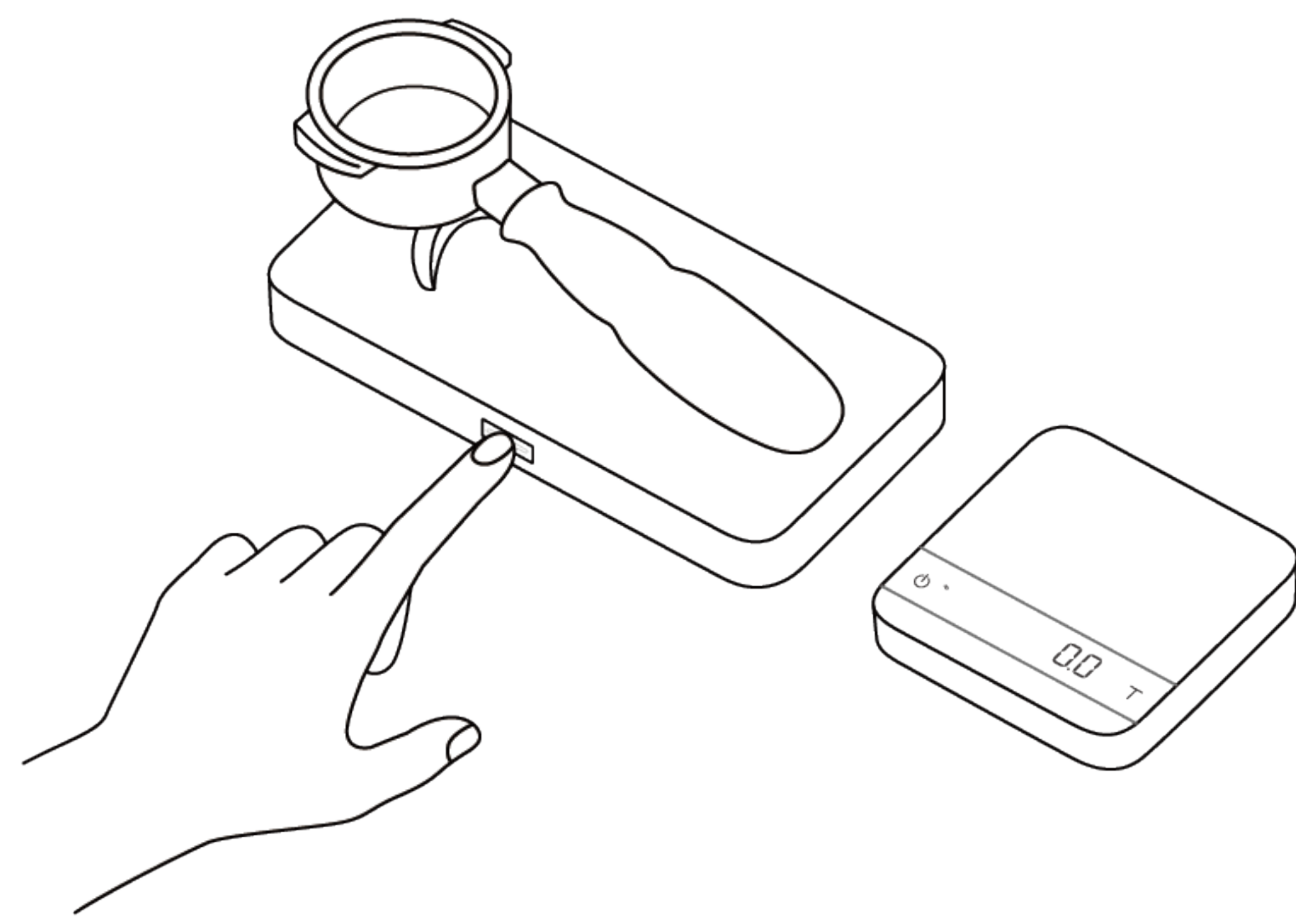
\*The Umbra Lunar Duo will not emit the Magic Relay Notification sound while continuing weighing on the same device.



**3** The paired device will display the portafilter's weight.

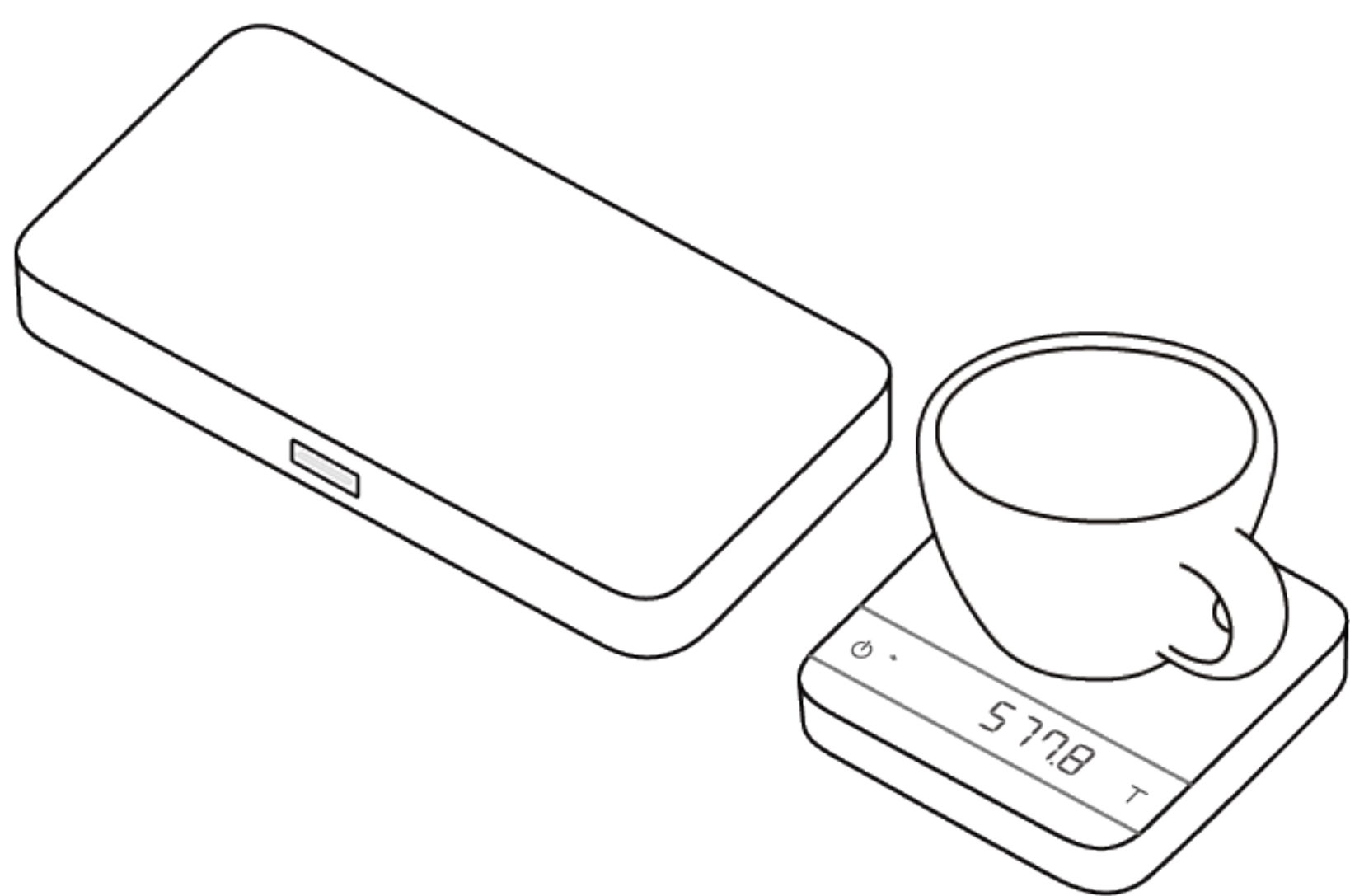


**4** Tap the Action Button or the Tare Button on the paired device to tare the weight.



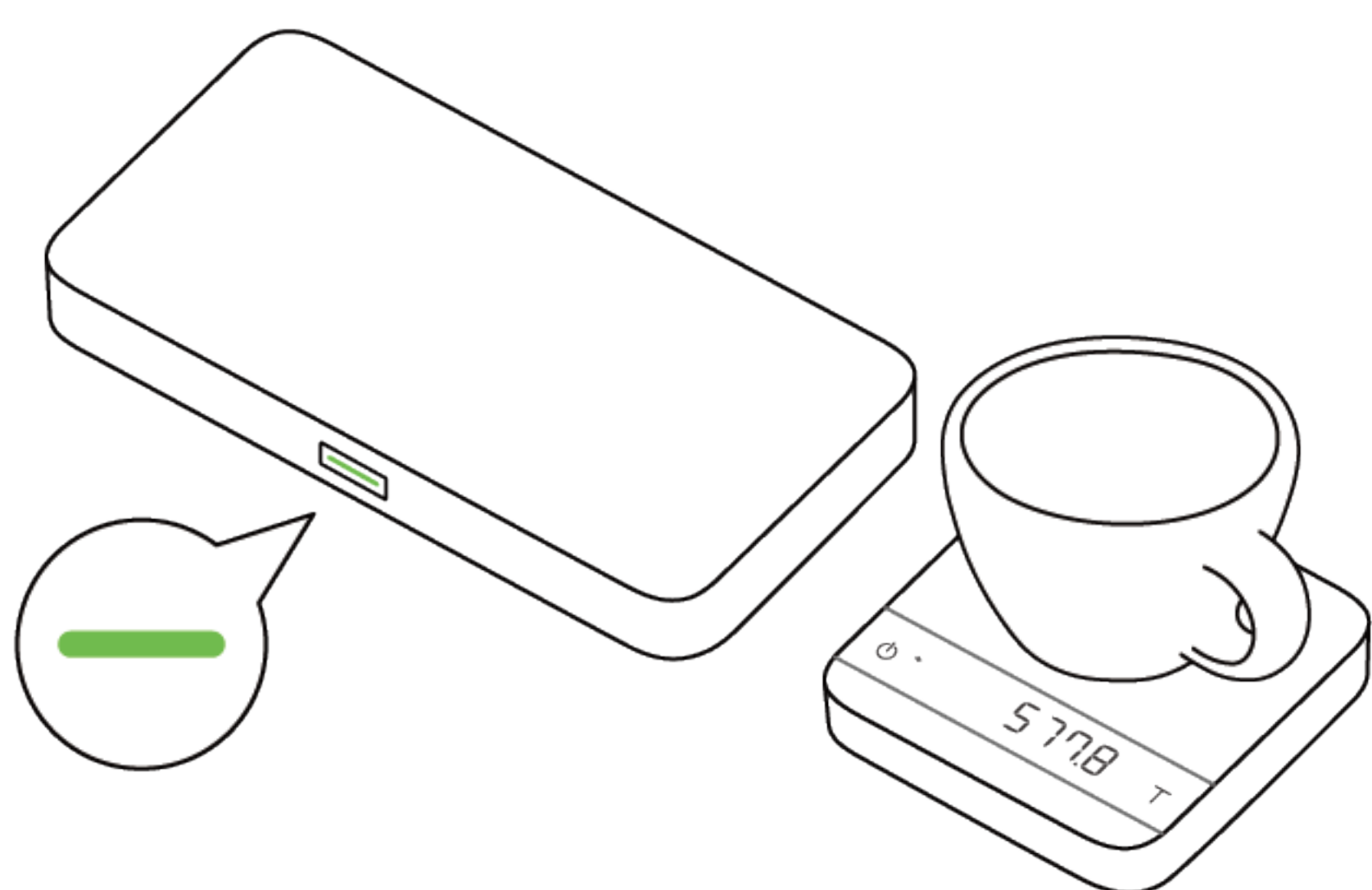
# Weighing on the Paired Device

**1** Place a container on the paired device.

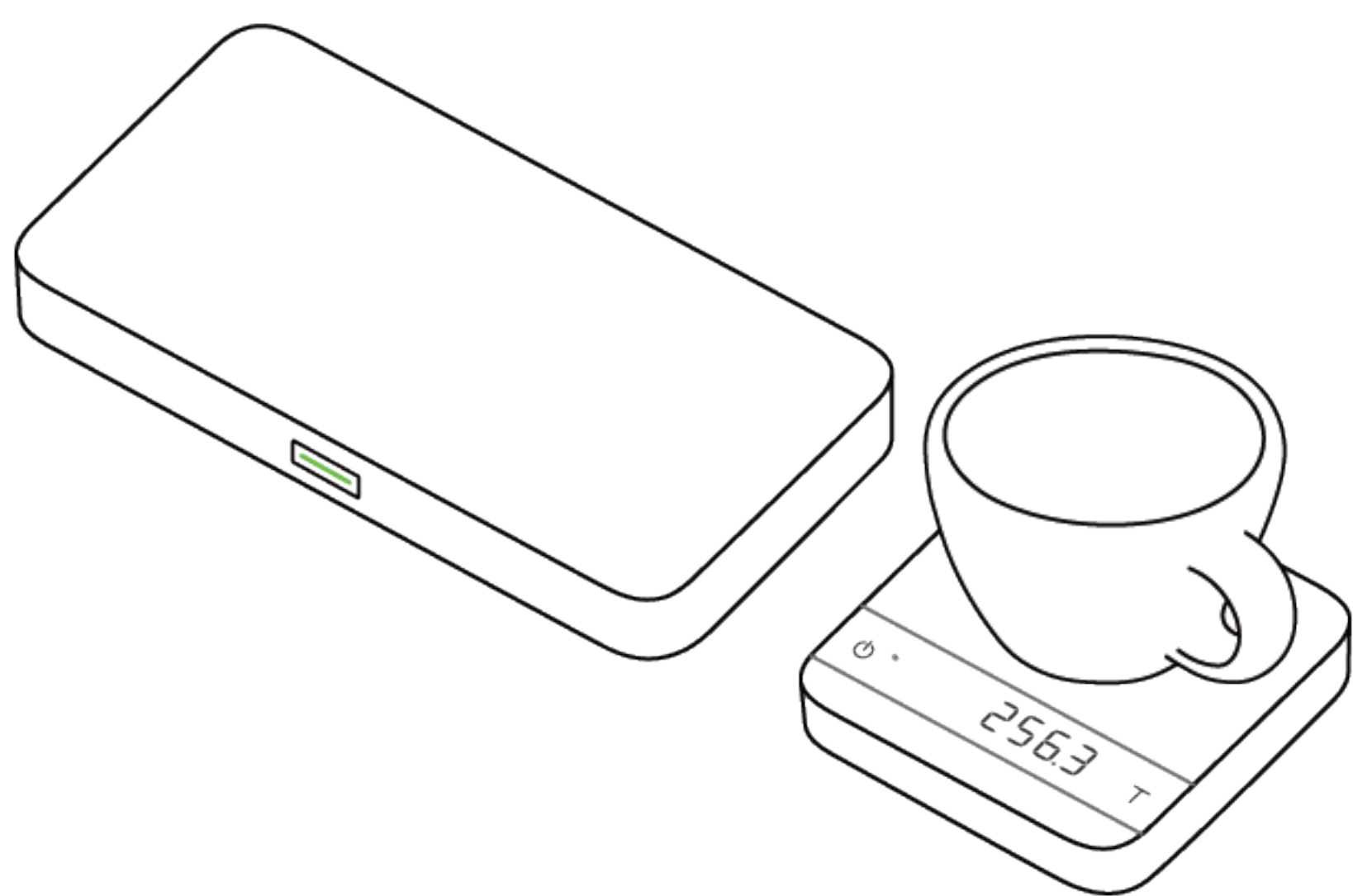


**2** The Umbra Lunar Duo turns solid Green and plays the Magic Relay notification sound.

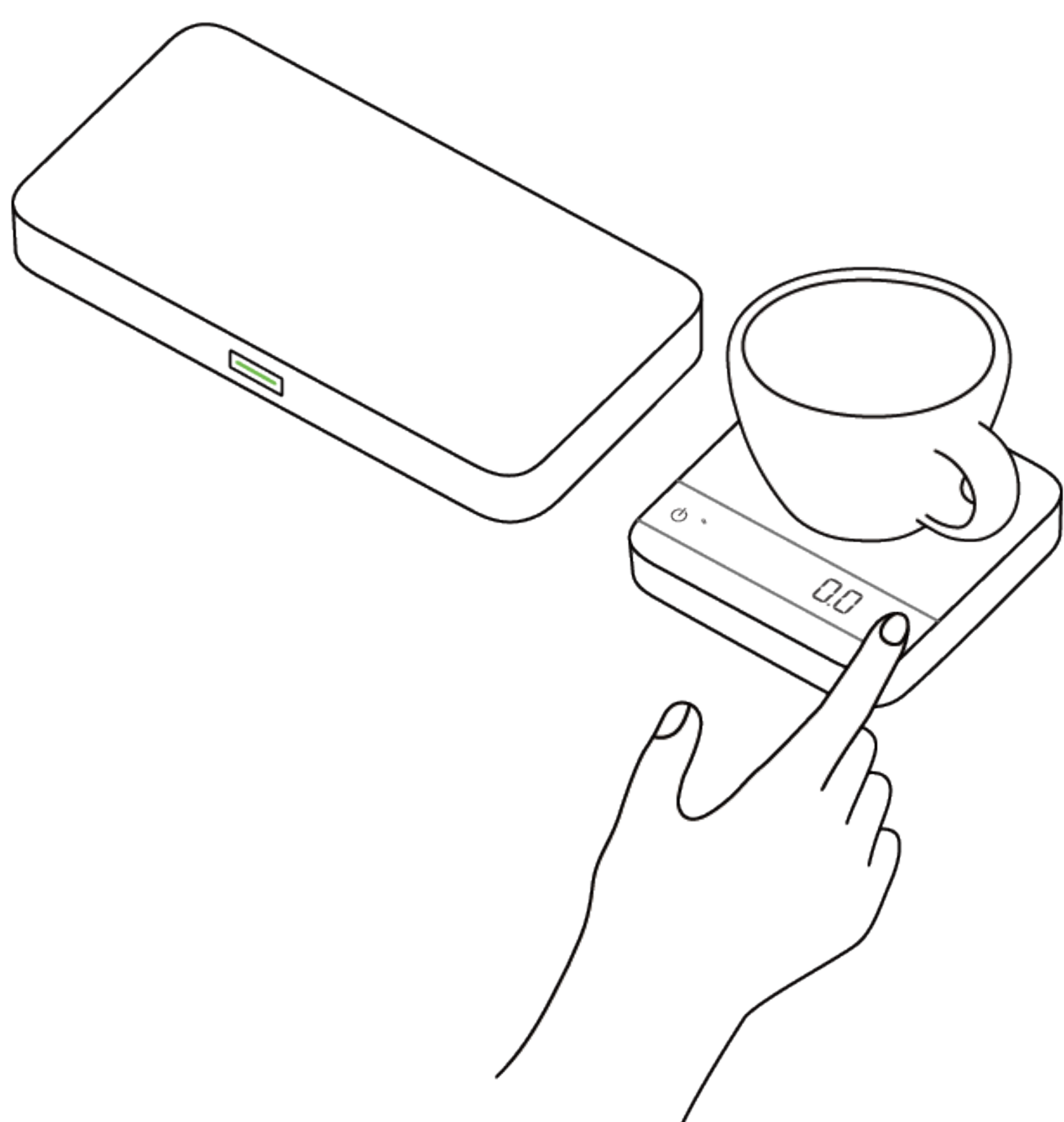
\*The Umbra Lunar Duo will not emit the Magic Relay Notification sound while continuing weighing on the same device.



**3** The paired device will display the container's weight.



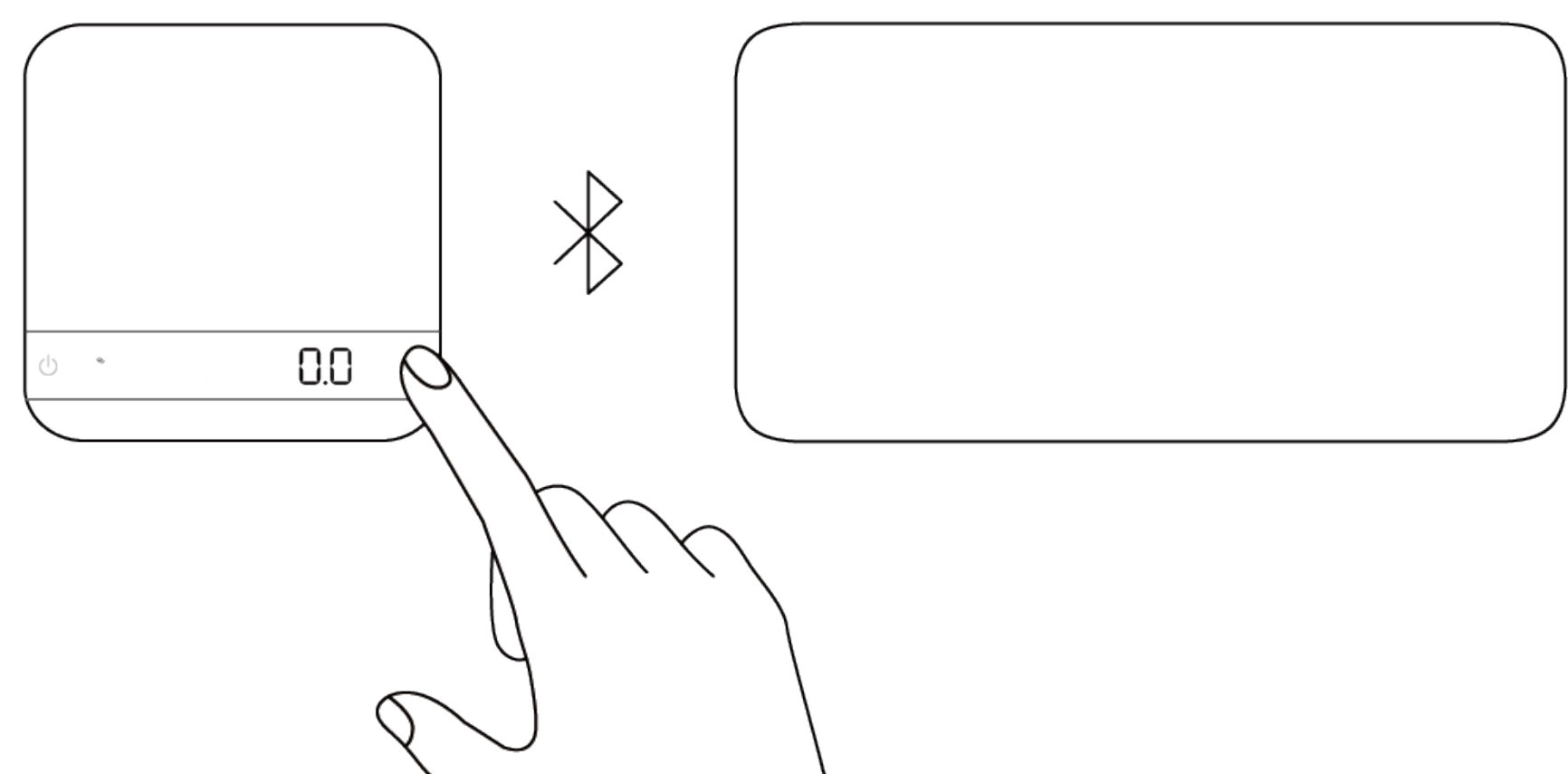
**4** Tap the Tare Button on the paired device to tare the container's weight.



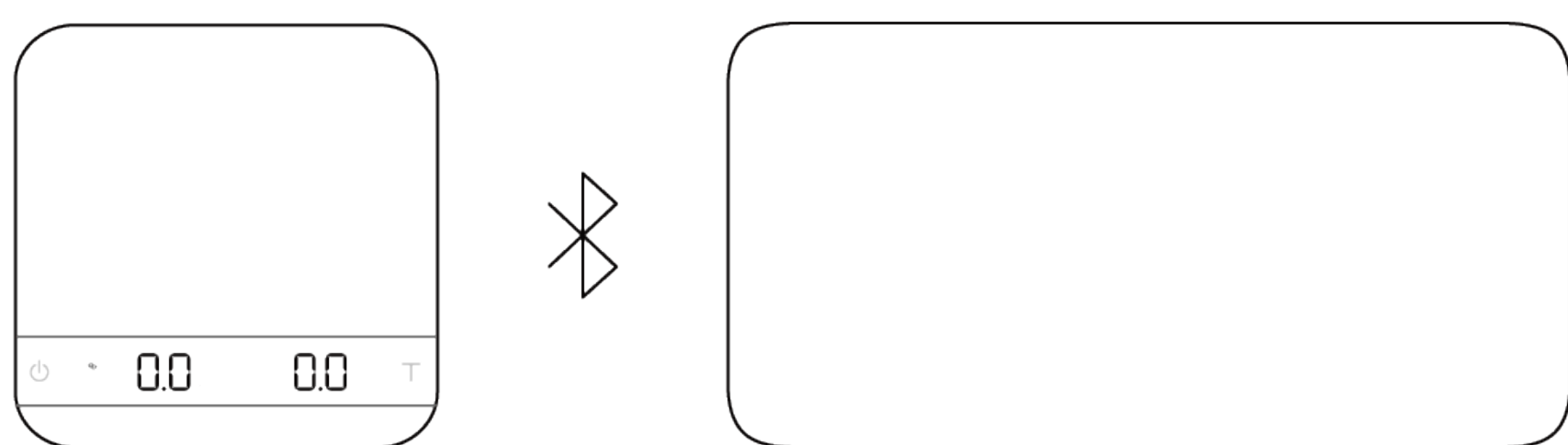
# Toggling Display in Different Modes

## Weight Only Mode

Single Weight Display



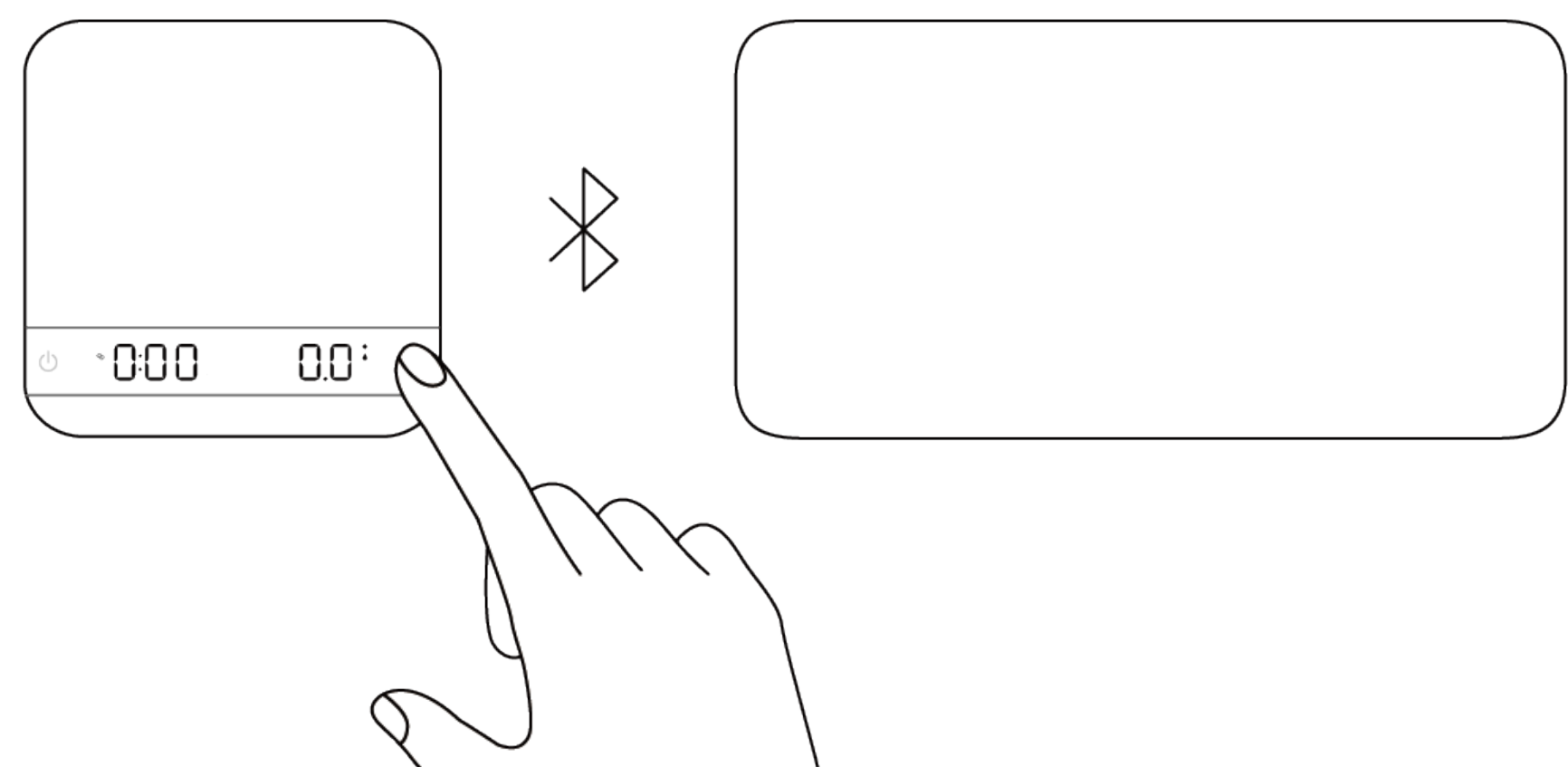
Dual Weight Display



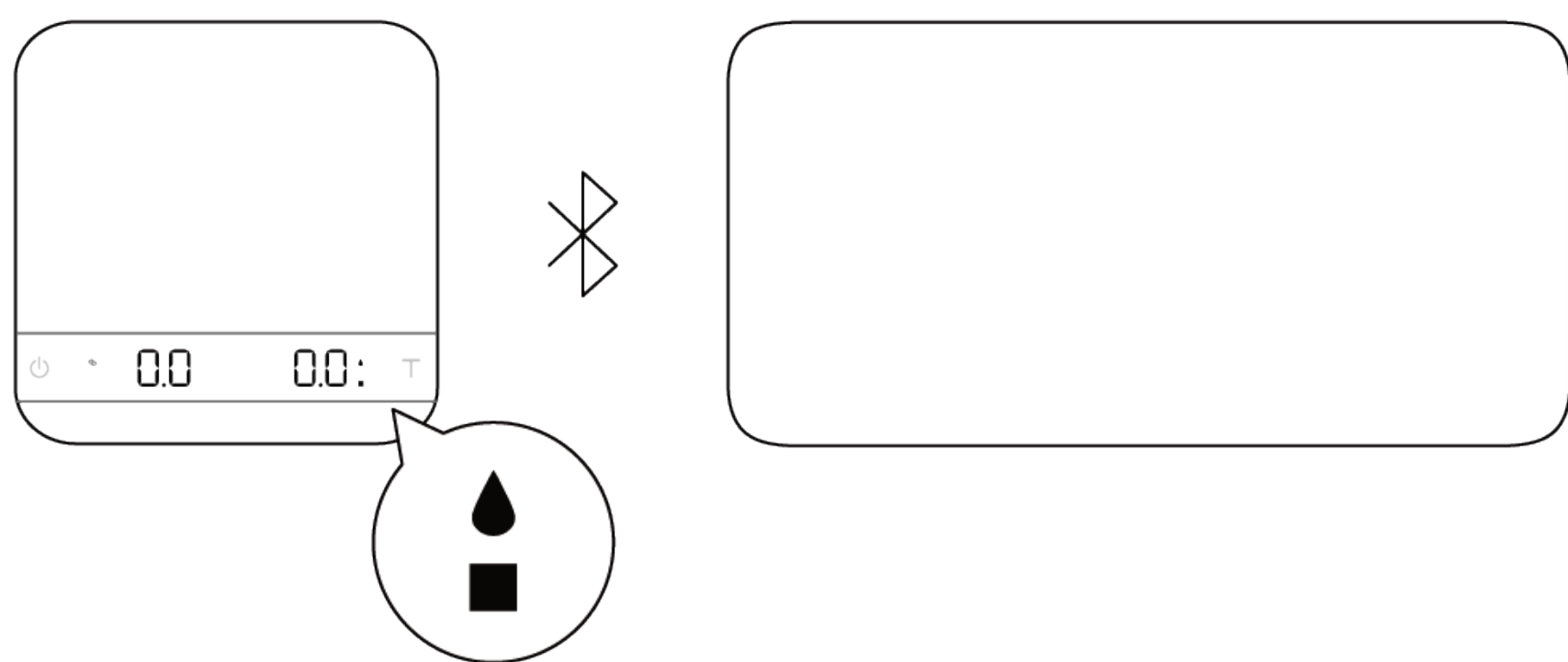
In Weight Only Mode, you can toggle between Single and Dual Weight Display by pressing and holding the Tare Button.



## Auto Mode With Flow Detection

Auto Timer with Flow Detection Display



Auto-Tare & Timer with Flow Detection Display



In Auto Mode with Flow Detection, you can toggle the Auto Mode Display (  or  ) by pressing and holding the Tare Button.

# Supported Acaia Devices and Modes

	Pearl AP007/ AP008 / AP009	Pearl S PS003 / PS004	Lunar AL008 / AL009 / AL010 / AL012 / AL013
<b>Weight Only Mode</b> Single Weight Display	● (Original Weighing Only Mode)	● (Original Weighing Only Mode)	● (Original Weighing Only Mode)
<b>Weight Only Mode</b> Dual Weight Display	●	●	●
<b>Timer and Weight Mode</b>	● (Original Dual Display Mode)	● (Original Dual Display Mode)	● (Original Dual Display Mode)
<b>Auto Mode with Flow Detection Mode</b> Auto Timer with Flow Detection Display	● (Original Pour-Over Auto-Start Timer Mode)		● (Original Pour-Over Auto-Start Timer Mode)
<b>Auto Mode with Flow Detection Mode</b> Auto-Tare & Timer with Flow Detection Display	●		● (Original Auto-Tare Timer Starts with Flow Mode)

**Note:**

- Please ensure the original modes on the paired device are enabled to ensure compatibility with your Umbra Lunar Duo.
- For the list of supported devices, please visit [acaia.co](https://acaia.co).

# Mode Introduction

## Operating Mode 1 - Weight Only Mode

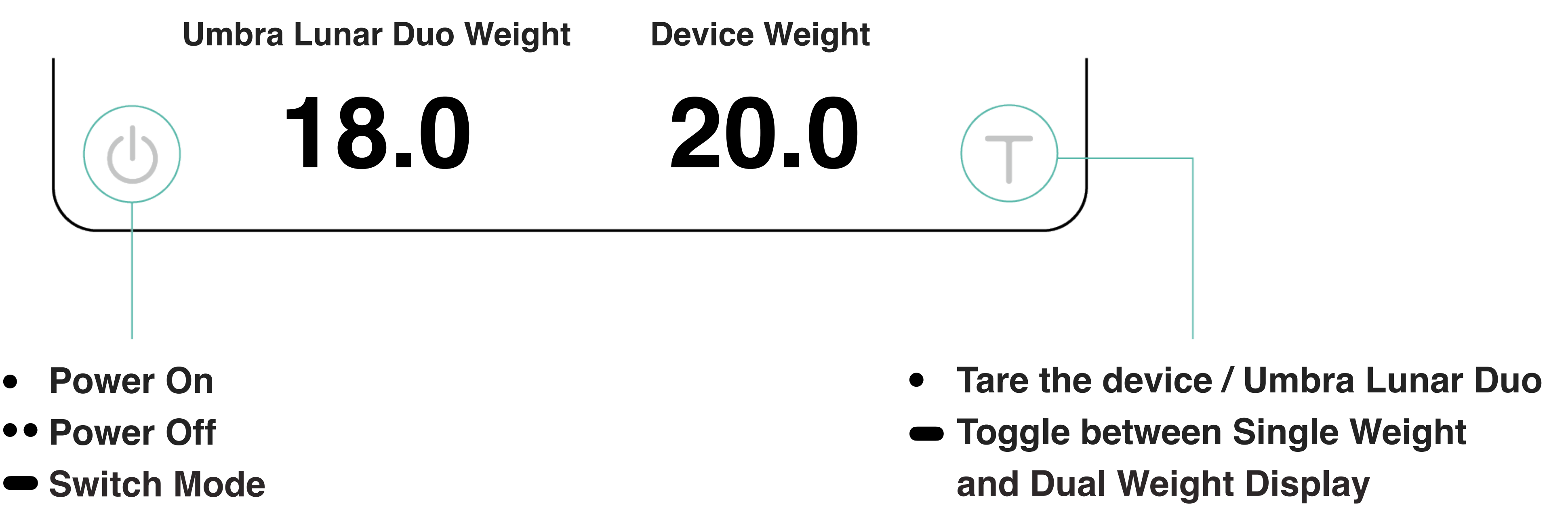
In Weight Only Mode, you can use the weighing function with the option to switch between Single and Dual Weight Display. In Dual Weight Display, you can monitor both the Umbra Lunar Duo’s weight and the paired device’s weight side by side on the paired device’s display.

### Single Weight Display

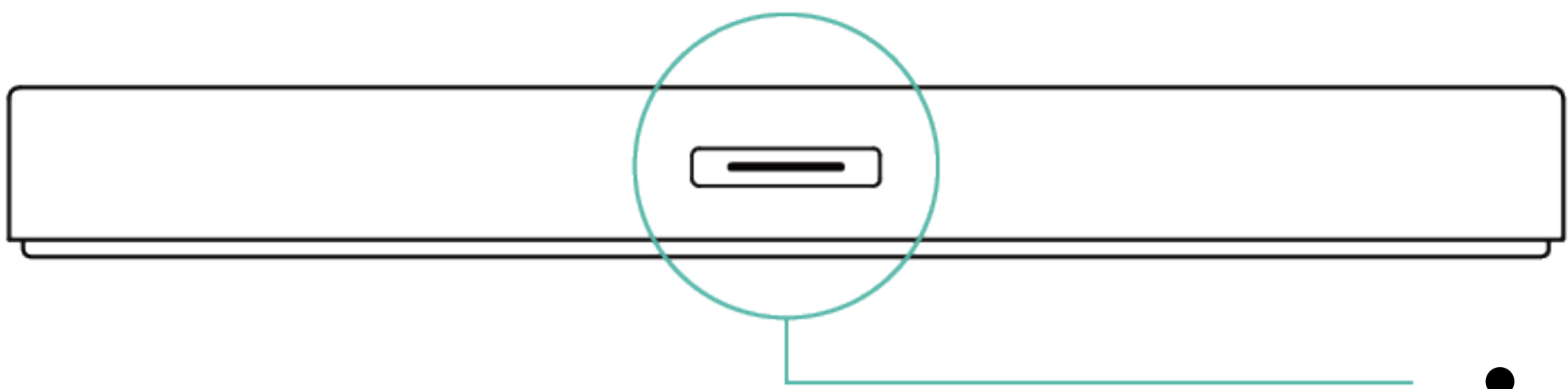


- In grams, the LED display shows [ 0.0 ].
- In ounces, the LED display shows [ 0.000 ] and the Weighing In Ounces Indicator lights up.
- The readability is 0.1 g or 0.002 oz.

### Dual Weight Display



- In grams, the LED display shows [ 0.0 0.0 ].



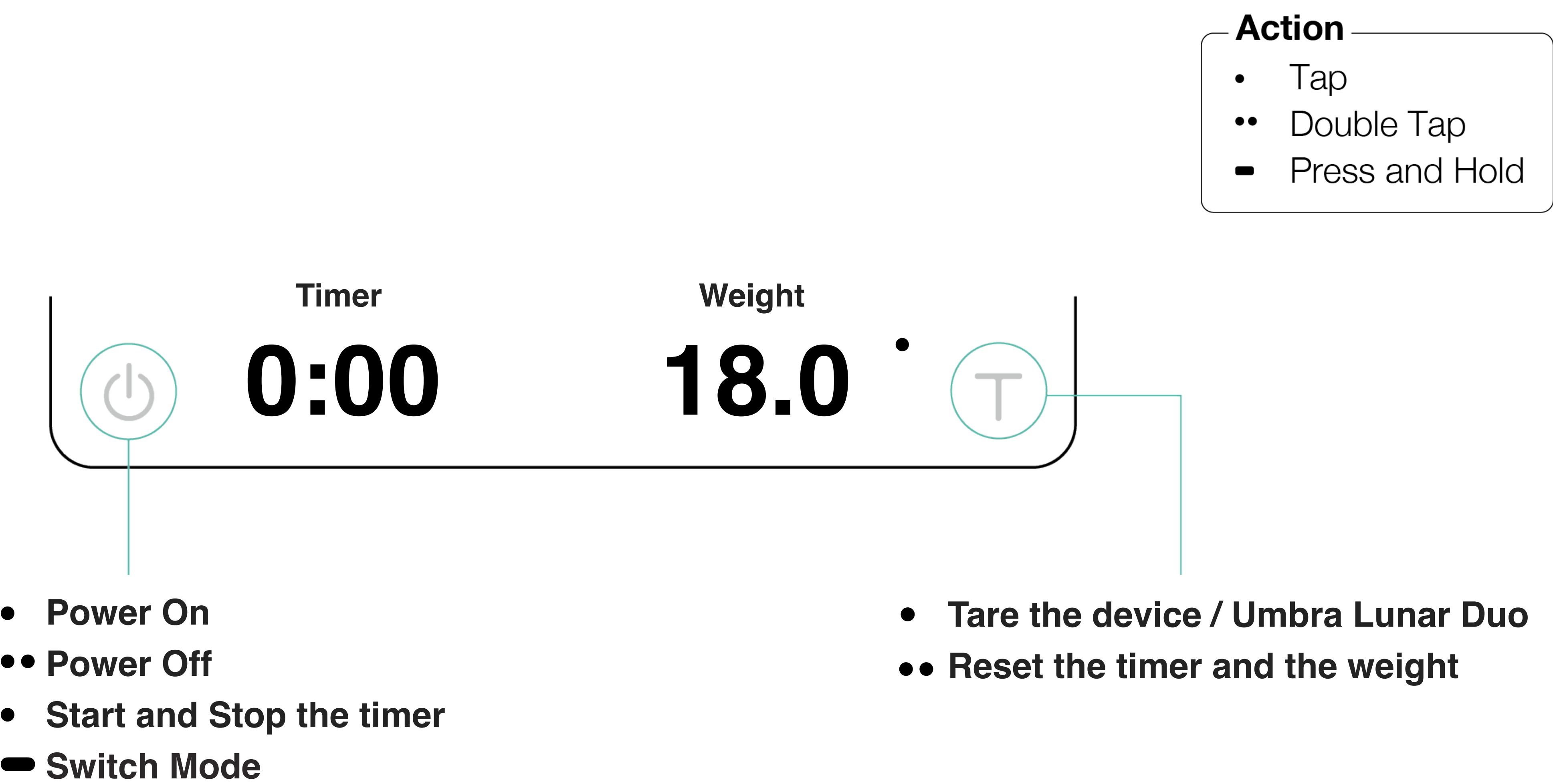
- **Tare the Umbra Lunar Duo**

#### Note:

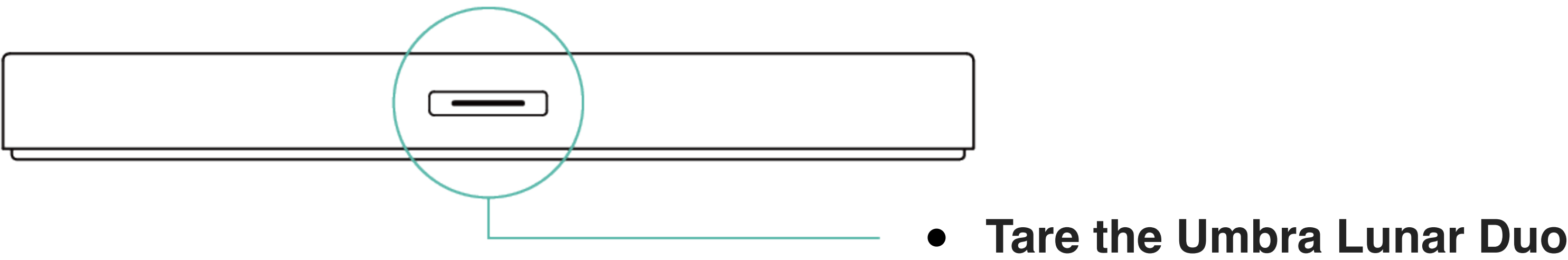
- Only gram measurements are supported in Dual Weight Display.
- To toggle between gram and ounce, please refer to Settings in the “Advanced Control with the “Brewmaster App.”
- The Magic Relay Audio Notification is not supported in Dual Weight Display and the Action Button will always remain solid White.

# Operating Mode 2 – Timer and Weight Mode

In Timer and Weight Mode, both the weight and the timer are displayed on the paired device. The Umbra Lunar Duo and the paired device can freely switch between each other based on changes in weight.






- In grams, the LED display shows [ 0:00 0.0 ].
- In ounces, the LED display shows [ 0.000 ] and the Weighing In Ounces Indicator lights up.
- The timer displays from [ 0:00 ] to [ 9:59 ].
- The readability is 0.1 g or 0.002 oz.



**Note:**  
To toggle between gram and ounce, please refer to Settings in the “Advanced Control with the Brewmaster App.”

# Operating Mode 3 – Auto Mode With Flow Detection

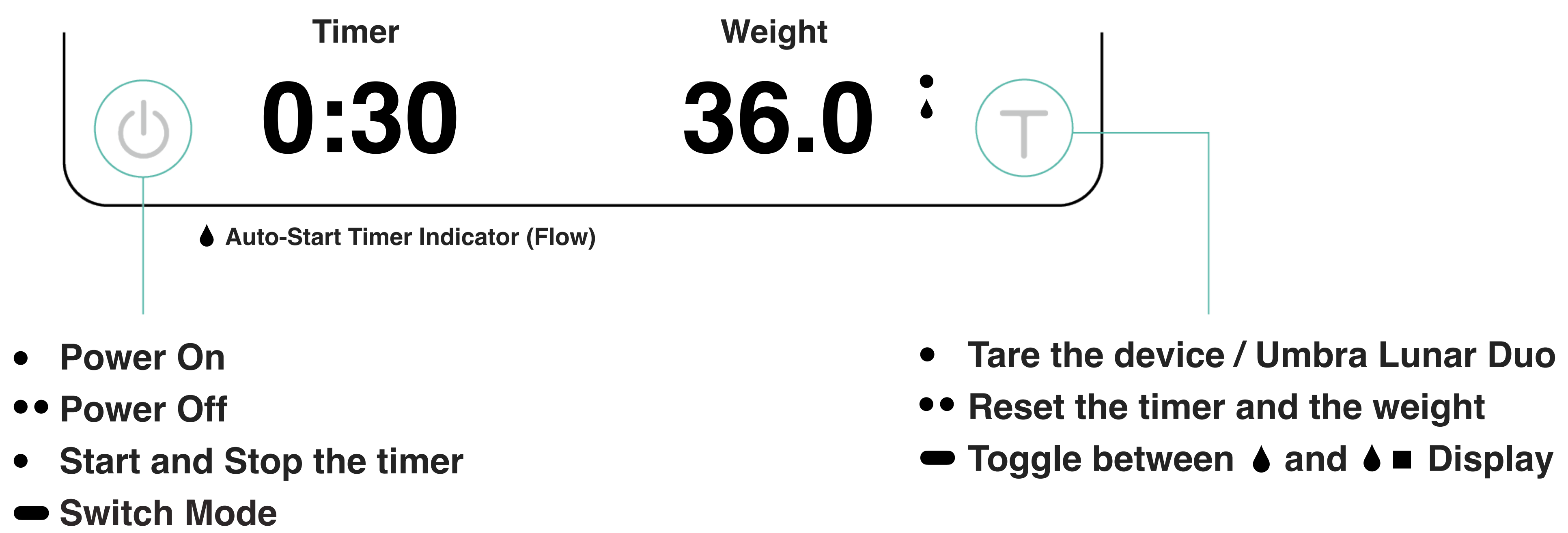
In Auto Mode with Flow Detection, this mode assists with espresso and pour-over coffee brewing, with or without auto-tare.

You can switch between the Auto Timer with Flow Detection Display  and the Auto-Tare & Timer with Flow Detection Display  . Once flow is detected, the auto-tare and timer functions will automatically activate.

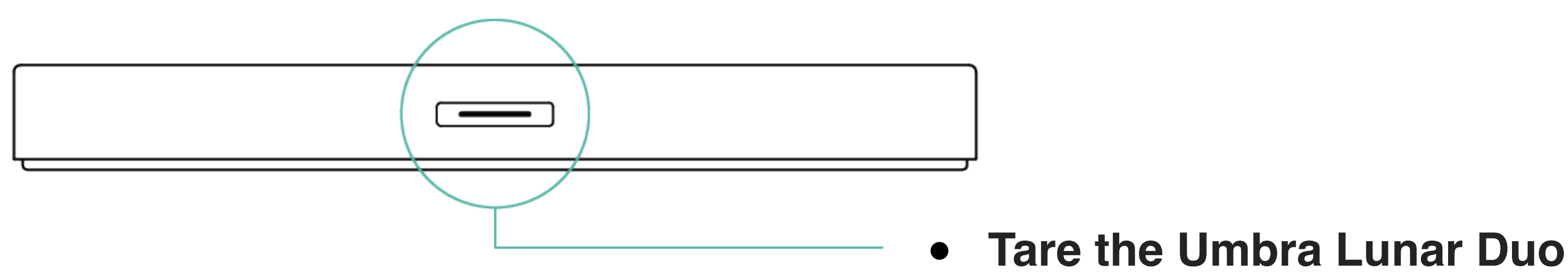
## Auto Timer with Flow Detection Display

Action

- Tap
- Double Tap
- Press and Hold



- In grams, the LED display shows [ 0:00 0.0 ].
- In ounces, the LED display shows [ 0.000 ] and the Weighing In Ounces Indicator lights up.
- The timer displays from [ 0:00 ] to [ 9:59 ].
- The readability is 0.1 g or 0.002 oz.



**Note:**  
To toggle between gram and ounce, please refer to Settings in the “Advanced Control with the Brewmaster App.”

Auto-Tare & Timer with Flow Detection Display

Action

- Tap
- Double Tap
- Press and Hold

Timer

0:30



Auto-Start Timer Indicator (Flow)

Weight


36.0

Auto-Tare Operation Indicator

- Power On
- Power Off
- Start and Stop the timer
- Switch Mode

- Tare the device / Umbra Lunar Duo
- Reset the timer and the weight
- Toggle between  and  Display

- In grams, the LED display shows [ 0:00 0.0 ].
- In ounces, the LED display shows [ 0.000 ] and the Weighing In Ounces Indicator lights up.
- The timer displays from [ 0:00 ] to [ 9:59 ].
- The readability is 0.1 g or 0.002 oz.



- Tare the Umbra Lunar Duo

**Note:**  
The Auto-Tare & Timer with Flow Detection Display (   ) is only available on the Umbra Lunar Duo.

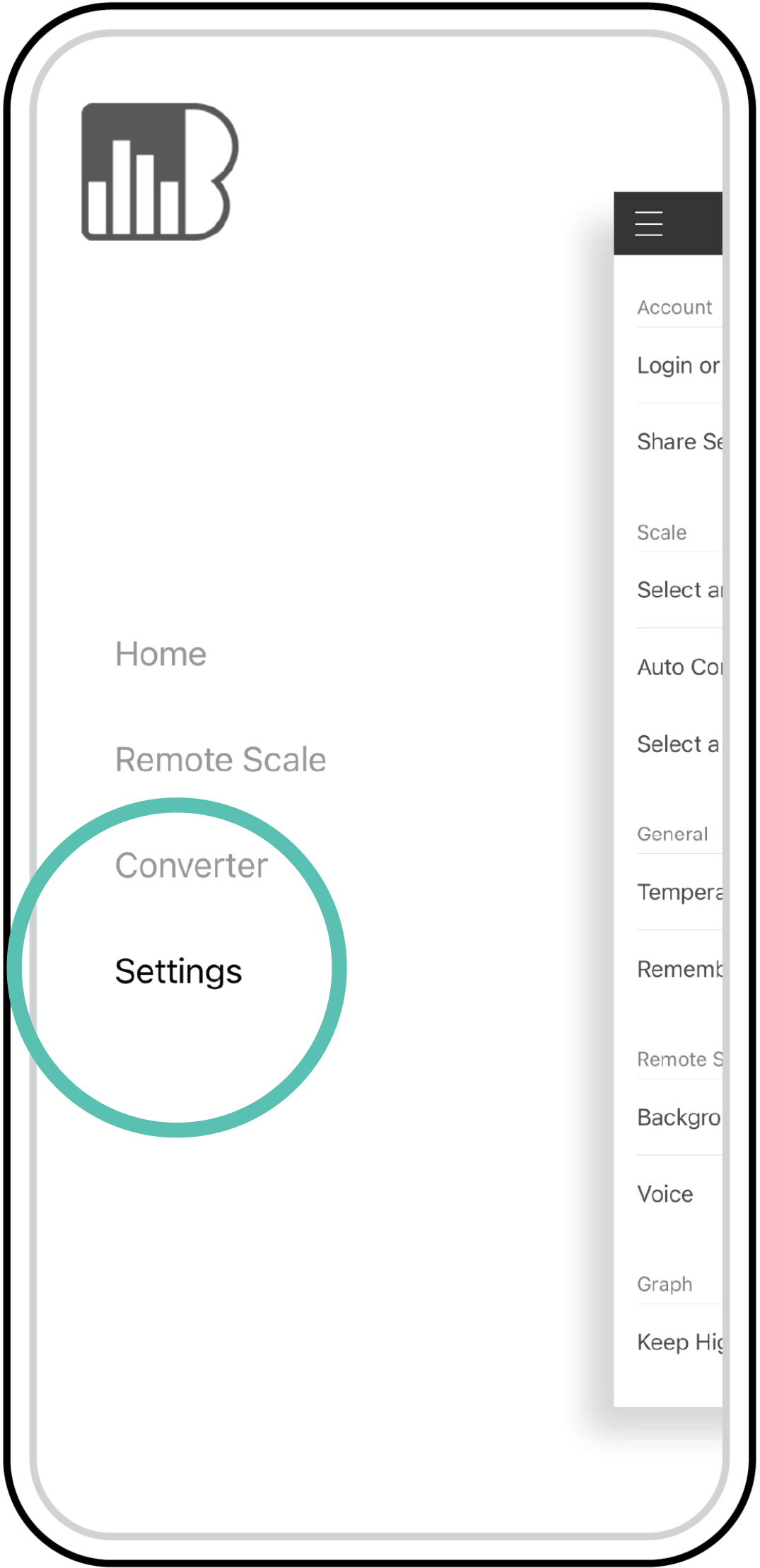
# Advanced Control with Brewmaster App

The updated Brewmaster App provides enhanced control for the Umbra Lunar Duo. You can connect the app to the Umbra Lunar Duo to use it as an extended display and configure basic settings.

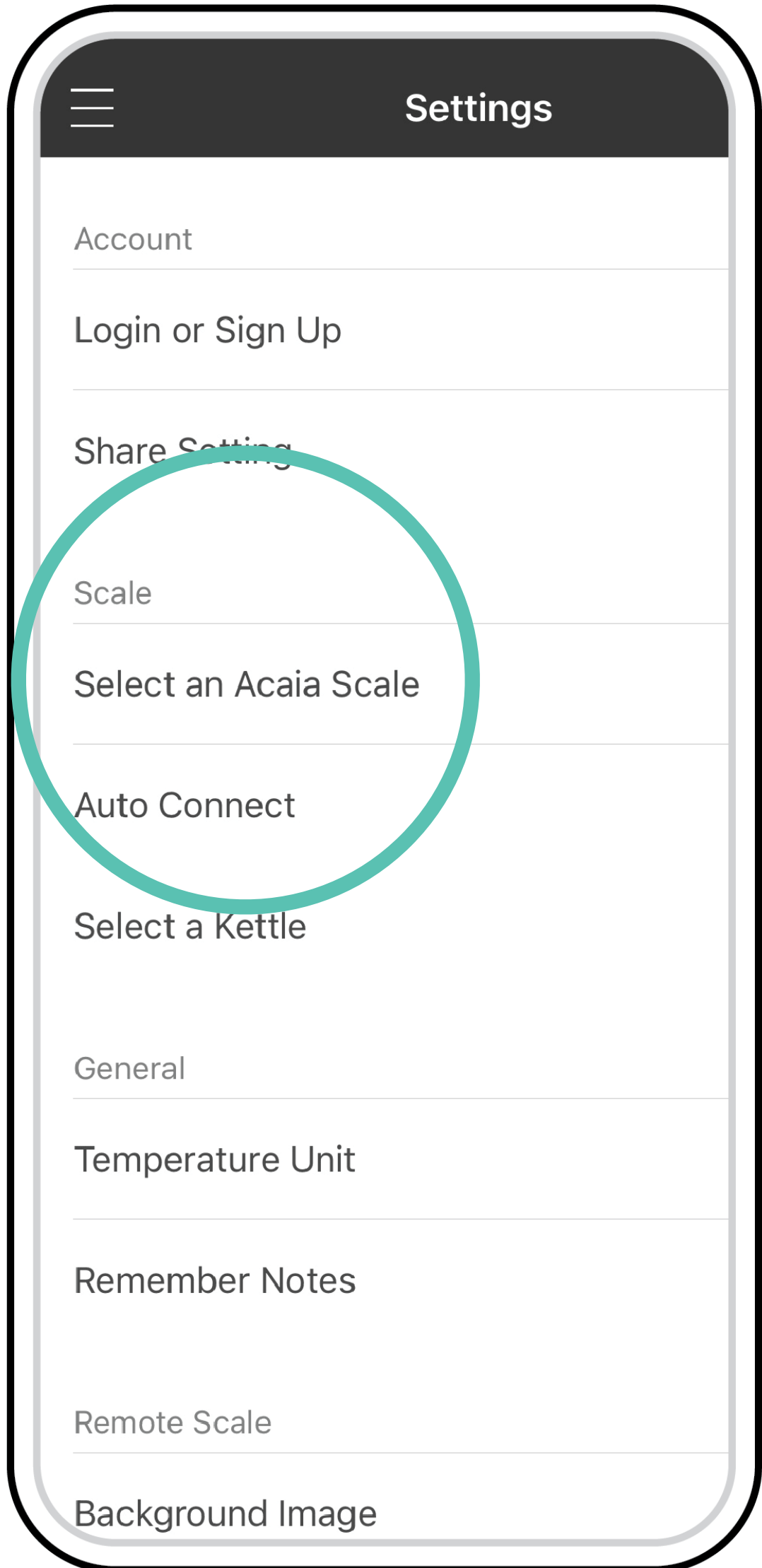
## Connected With the Umbra Lunar Duo



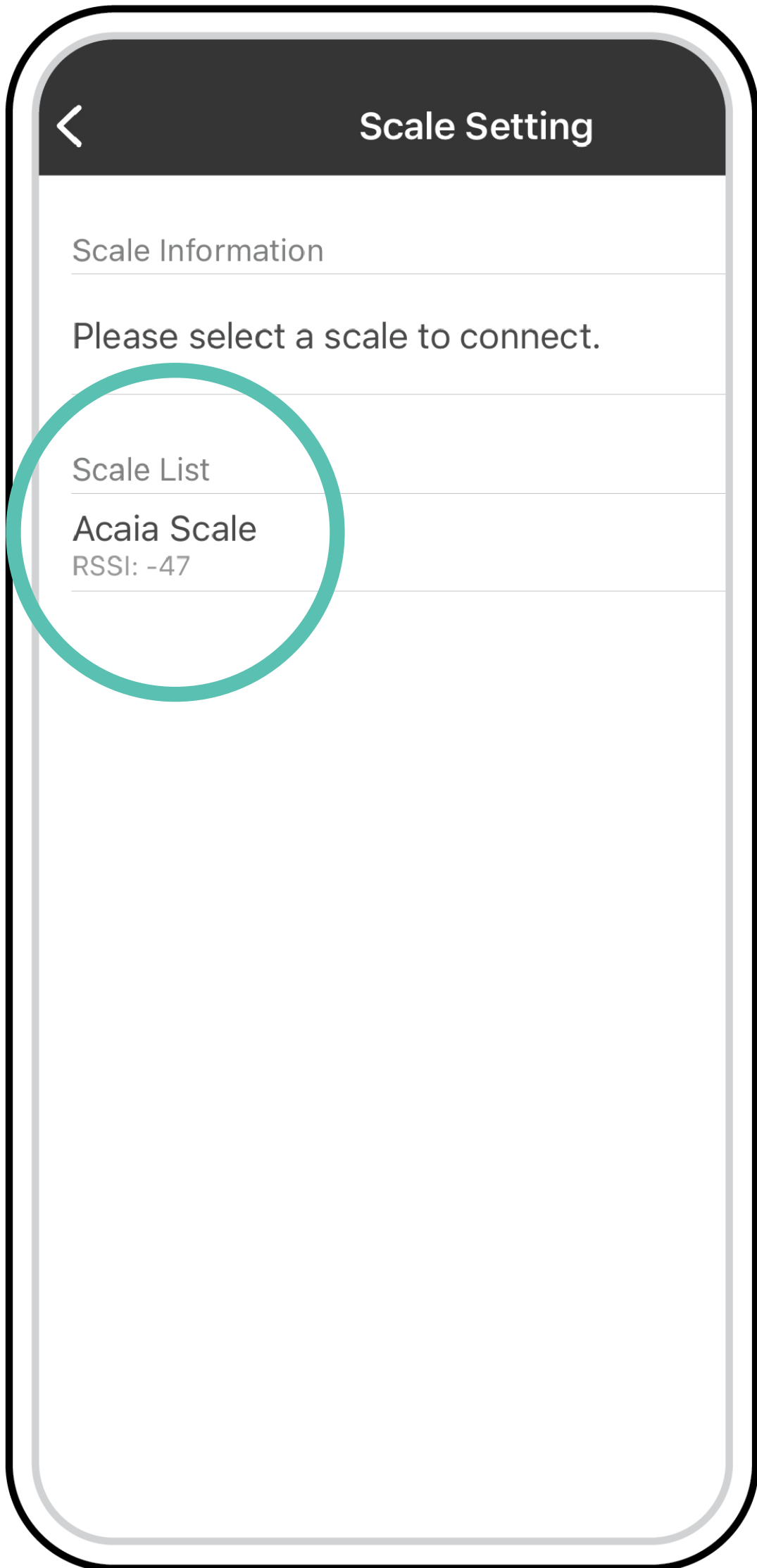
**1** Ensure the Acaia Brewmaster App is updated to the latest version.



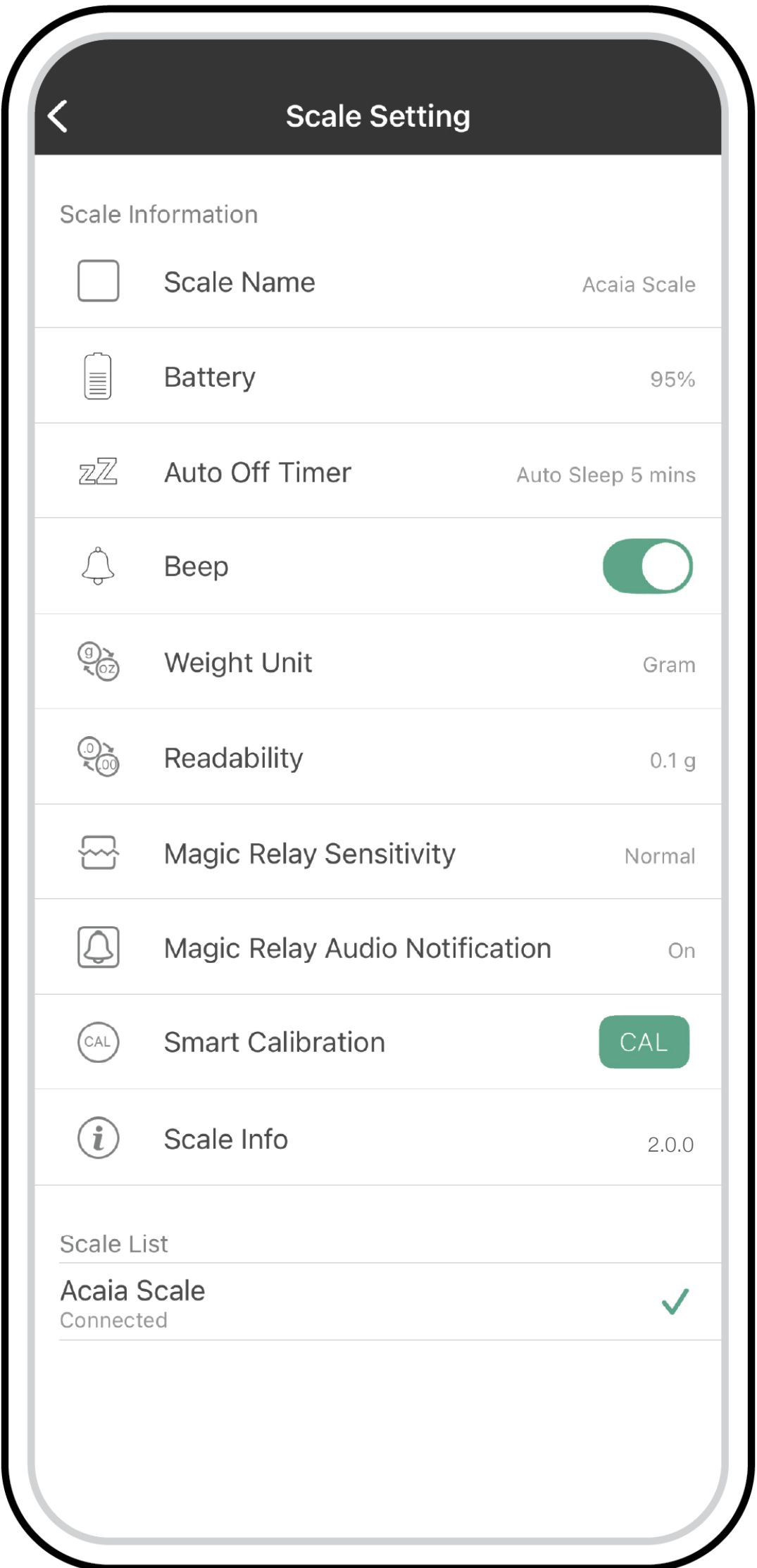
**2** Open the App and go to the [Settings].



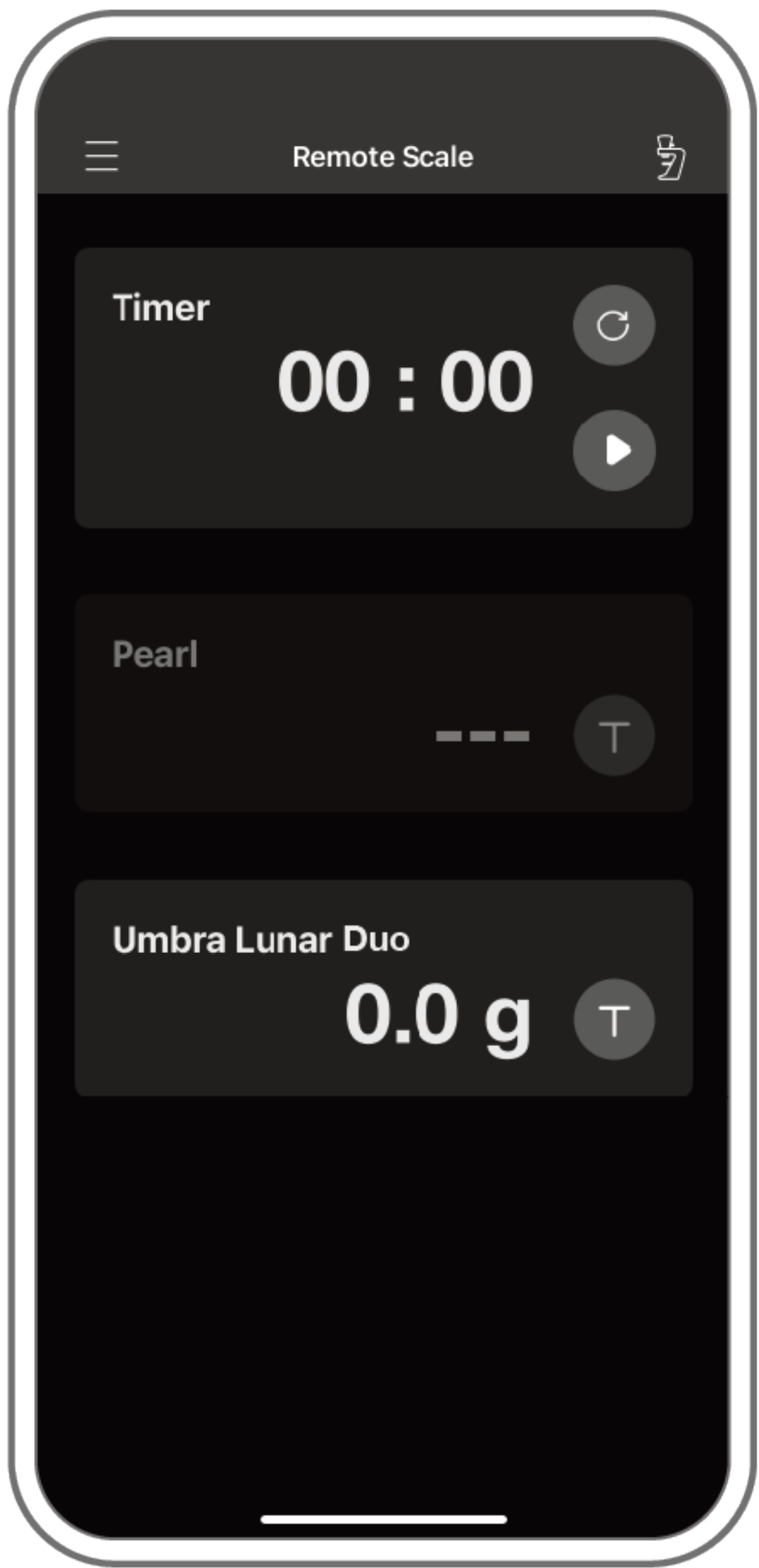
**3** Tap [Select an Acaia Scale].



**4** Turn on the Umbra Lunar Duo. It should appear in the Scale List. Tap to connect.



**5** Connection completed.



**6** Ready to use!

# Settings Menu

## **Auto Off Timer**

- 1. The default setting of Auto Sleep is 1 min.
- 2. Auto Off: The Umbra Lunar Duo will automatically turn off after a period of inactivity, regardless of whether it is connected to a paired device.
- 3. Auto Sleep:
  - a. When the paired device is turned off, the Umbra Lunar Duo will automatically enter Sleep Mode, with a blinking Blue / Magenta light around 10 seconds.
  - b. Tap the Action Button to wake up the Umbra Lunar Duo, and it will reconnect to the paired device.
  - c. The Umbra Lunar Duo will not enter Sleep Mode while it remains connected to a paired device.

## **Beep**

- 1. The default setting is On.
- 2. Use this setting to turn on or off the beeping sound of the Action Button.

## **Weighing Unit**

- 1. The Default Weighing Unit is set to gram if [ Gram ] is selected and ounce if [ Ounce ] is selected.
- 2. The display of [ 0.000 ] is currently supported only within the Brewmaster App.

## **Readability**

- 1. The default setting is 0.1 g.
- 2. When the Weighing Readability is set to 0.01g, the display will show [ 0.00 ] when the Umbra Lunar Duo is set to grams, and [ 0.0000 ] for ounces.
- 3. The display of [ 0.00 ] is currently supported only within the Brewmaster App.

## **Magic Relay Sensitivity**

- 1. The default setting is Normal.
- 2. The Magic Relay Sensitivity setting determines how quickly the load receptor responds to the weight change between the Umbra Lunar Duo and the paired device. “Low” indicates a more stable but slightly slower weighing result; “High” indicates higher sensitivity and a faster weighing result.

## **Magic Relay Audio Notification**

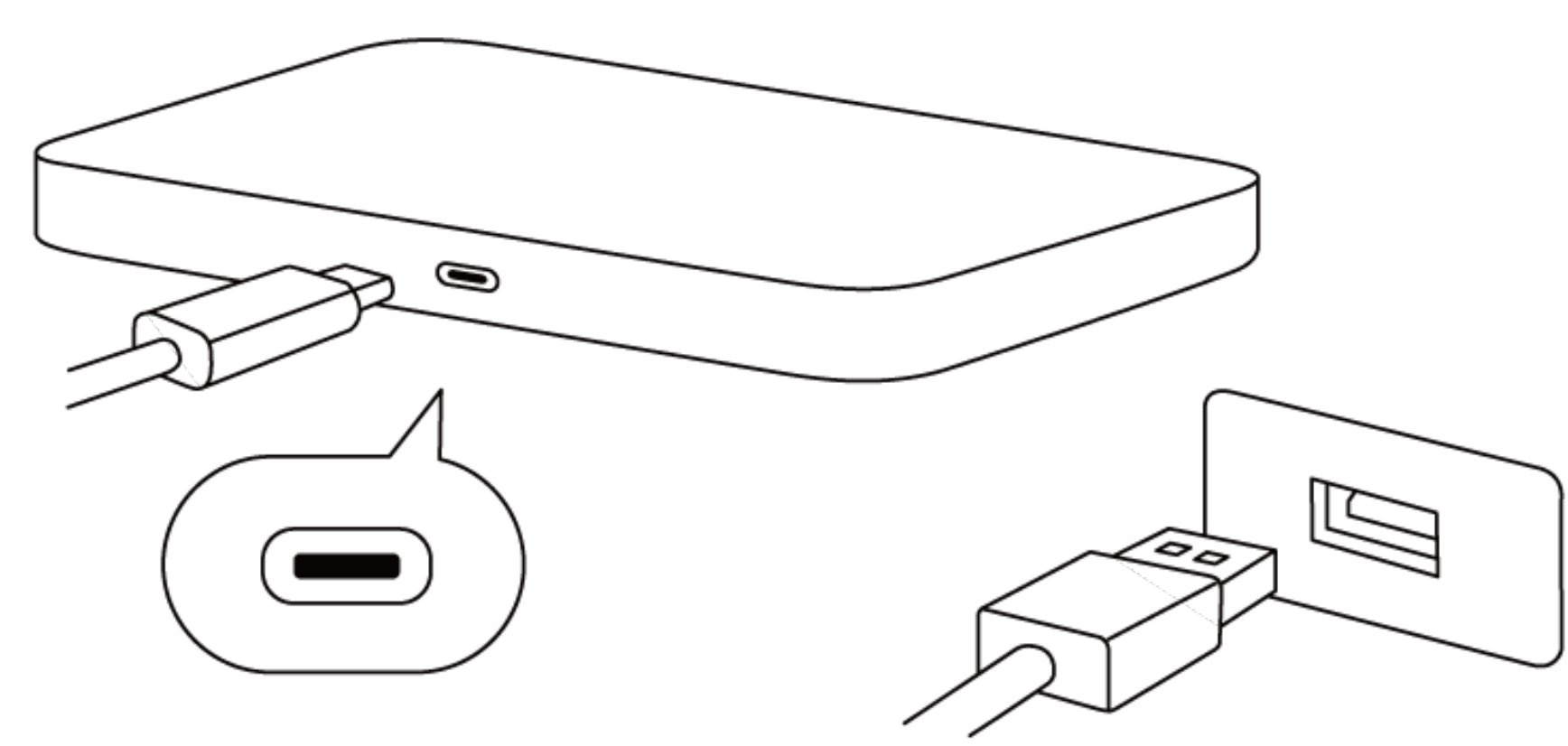
- 1. The default setting is On.
- 2. On: The Umbra Lunar Duo plays a sound effect when it detects weight changes between the Umbra Lunar Duo and the paired device.
- 3. Off: The Magic Relay Audio Notification is disabled.
- 4. This feature is not supported in Dual Weight Display Mode.

# Product Care Information

## Charging Battery

You can charge the battery by plugging the USB Type-C cable into any of the power supplies listed below:




- A computer
- A USB wall-charger with an output of 5 volts and 1 amp
- A USB-C PD charger supporting 5 volts
- A DC car-charger with an output of 5 volts and 1 amp



A fully charged battery can work continuously for about 40 - 48 hours in Standard Mode. It takes about 1 - 2 hours to fully charge. To maintain optimal battery health, avoid waiting until the battery is critically low before charging.

## Charging Status

When the Umbra Lunar Duo is charging, the Action Button Status Indicator will display different colors depending on the battery level range, as shown in the table below. You can also check the exact battery level via the Brewmaster App.

<b>Green</b> 	<b>Battery level is around 90-100%</b>
<b>Orange</b> 	<b>Battery level is around 60-90%</b>
<b>Yellow</b> 	<b>Battery level is below 60%</b>

**Note:**

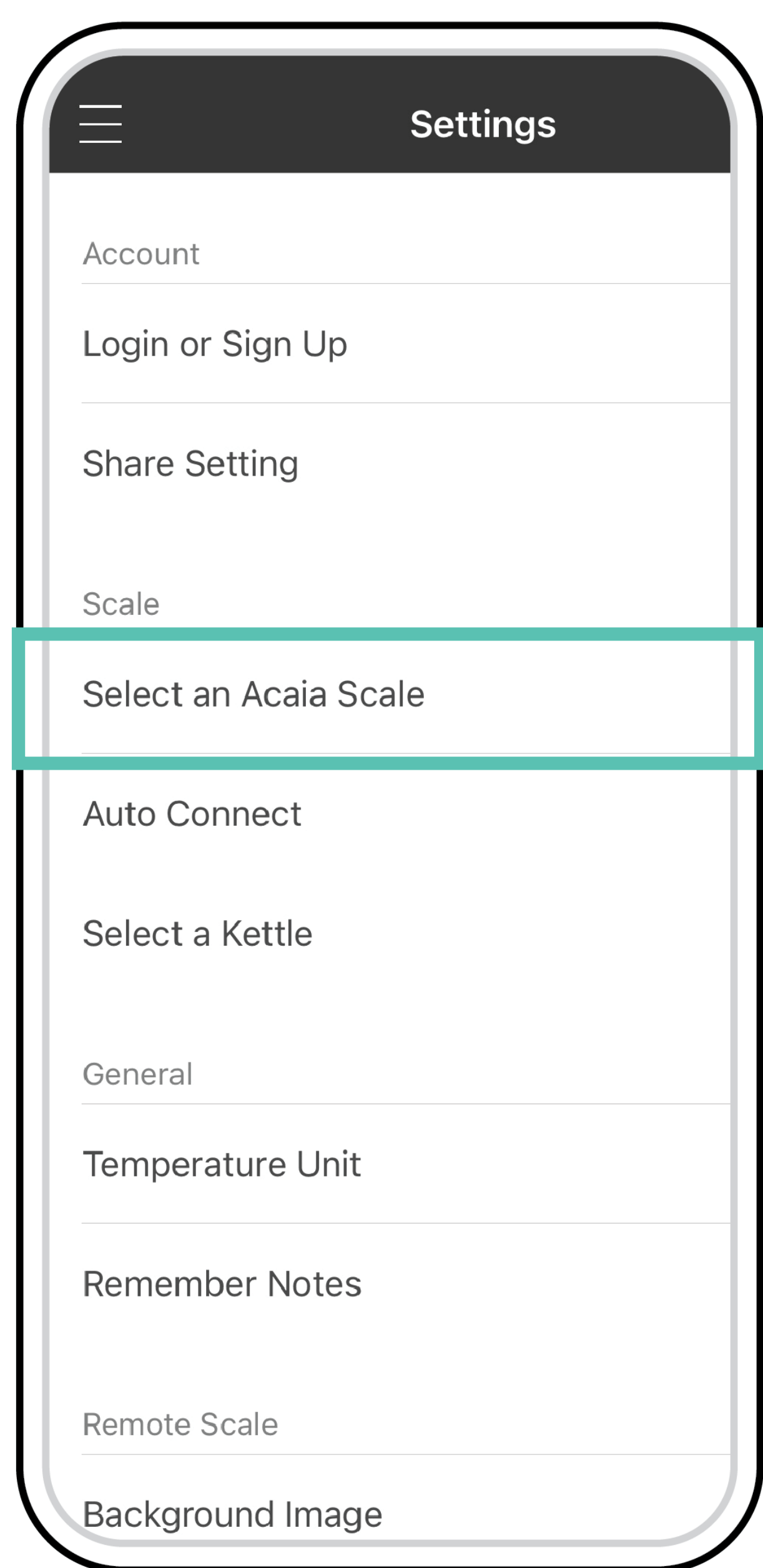
- The Umbra Lunar Duo cannot be used while it is charging.
- The Umbra Lunar Duo is equipped with charging protection to prevent the battery from charging under high temperatures. It is normal if the scale does not charge when the surface is hot from brewing coffee. The battery charging function will be enabled once the scale has cooled.

# Smart Calibration

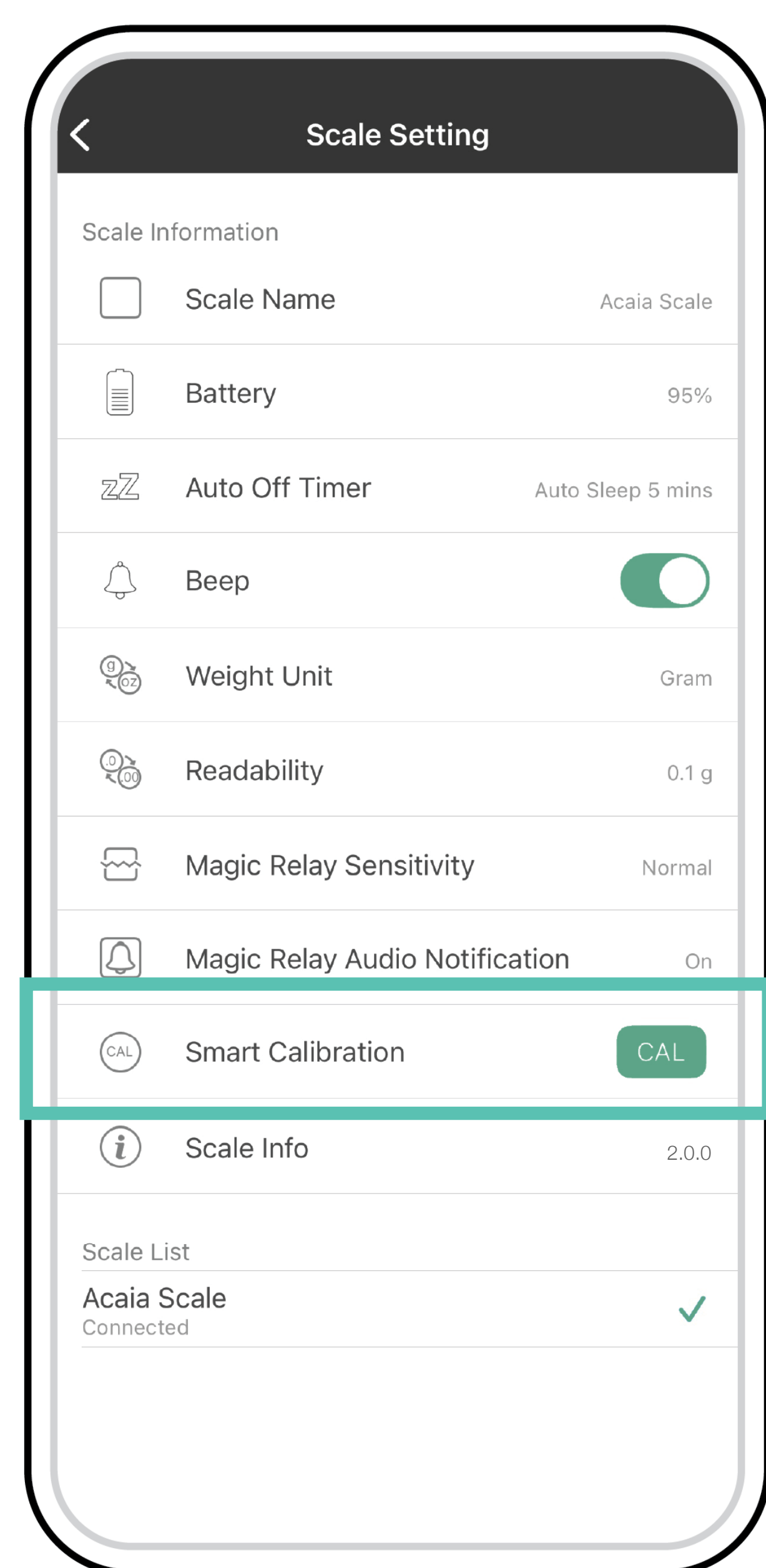
The Smart Calibration must be performed using the Brewmaster App. Follow the steps below to calibrate your Umbra Lunar Duo.



- 1** Ensure the Acaia Brewmaster App is updated to the latest version.

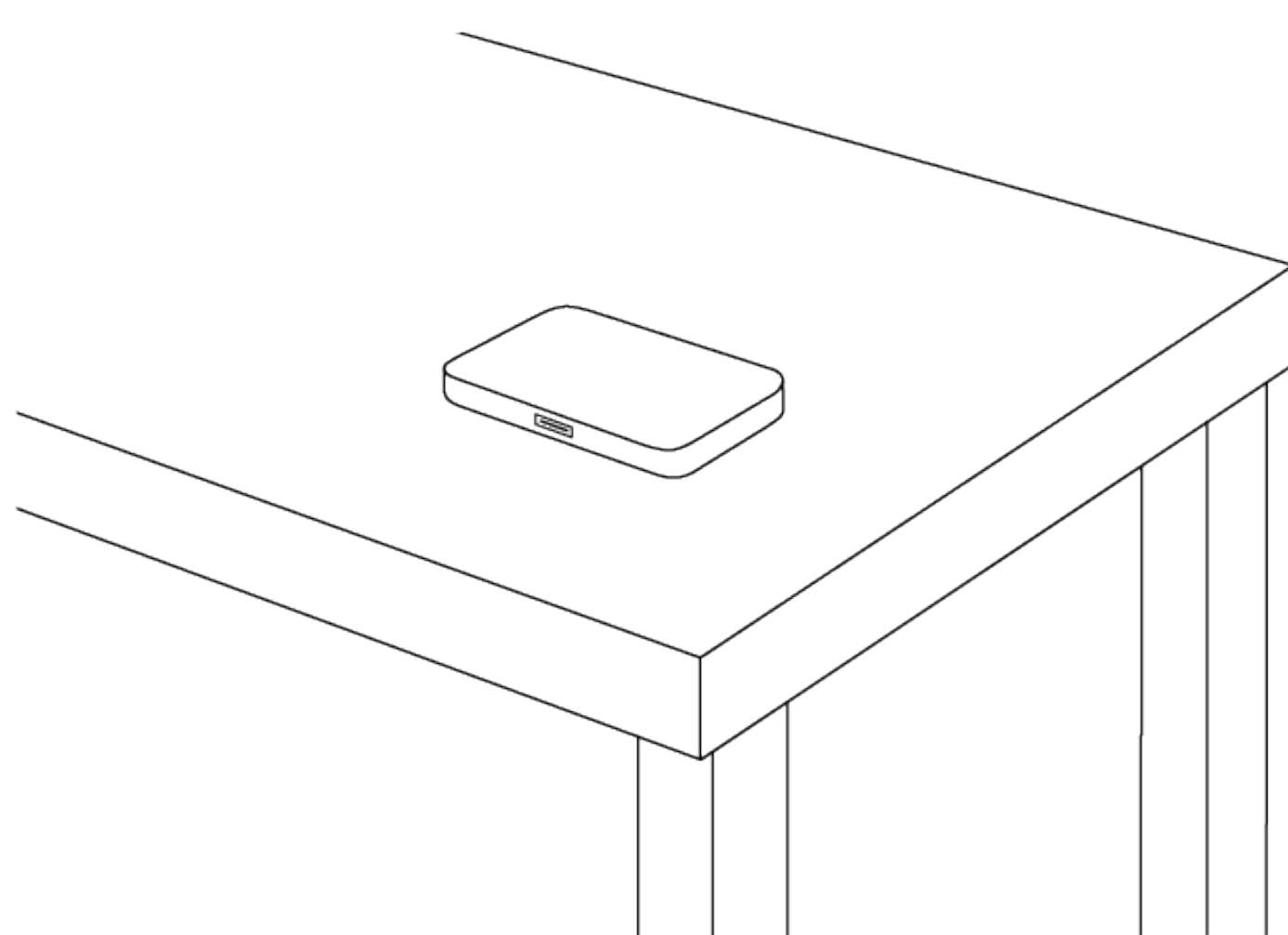
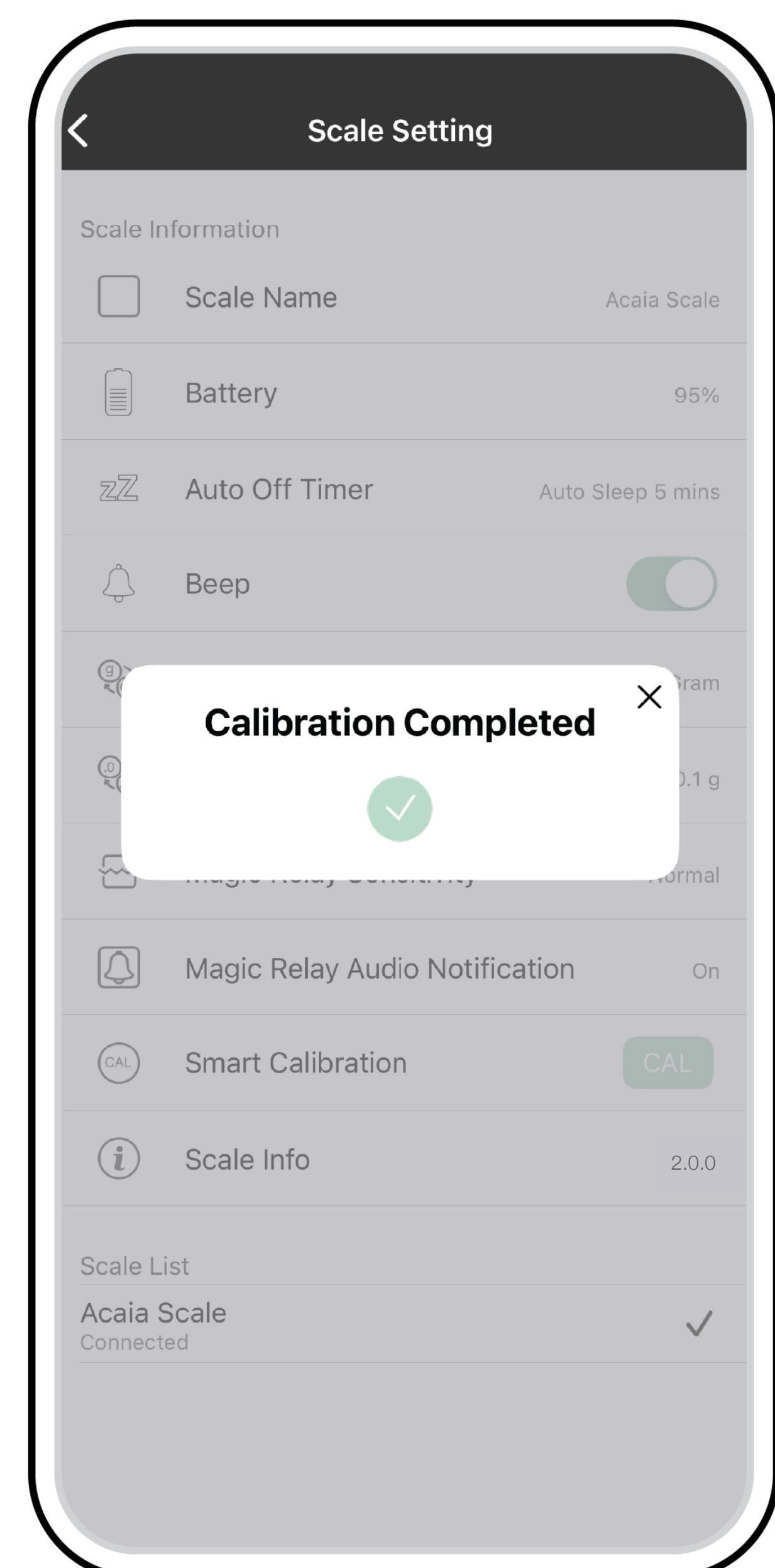
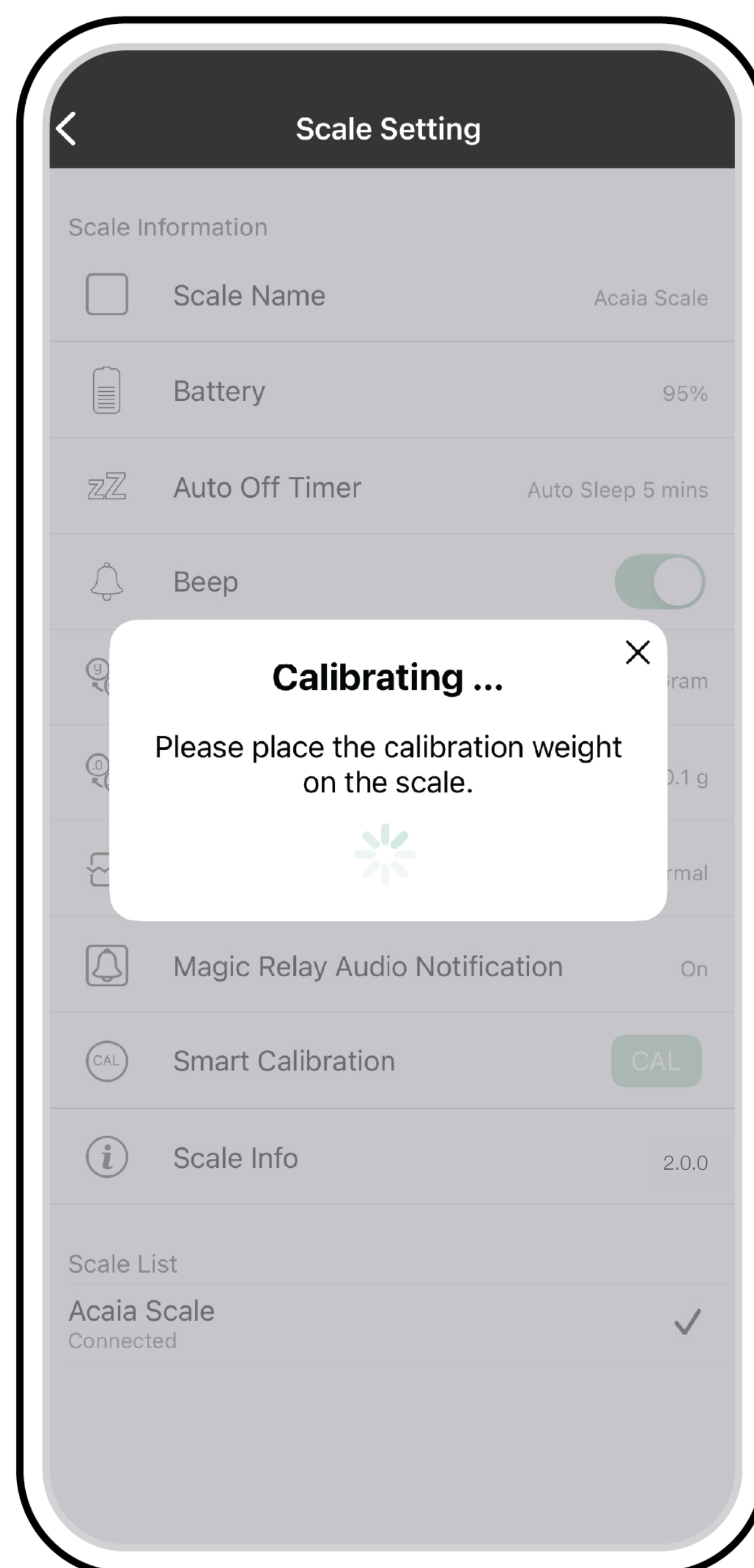
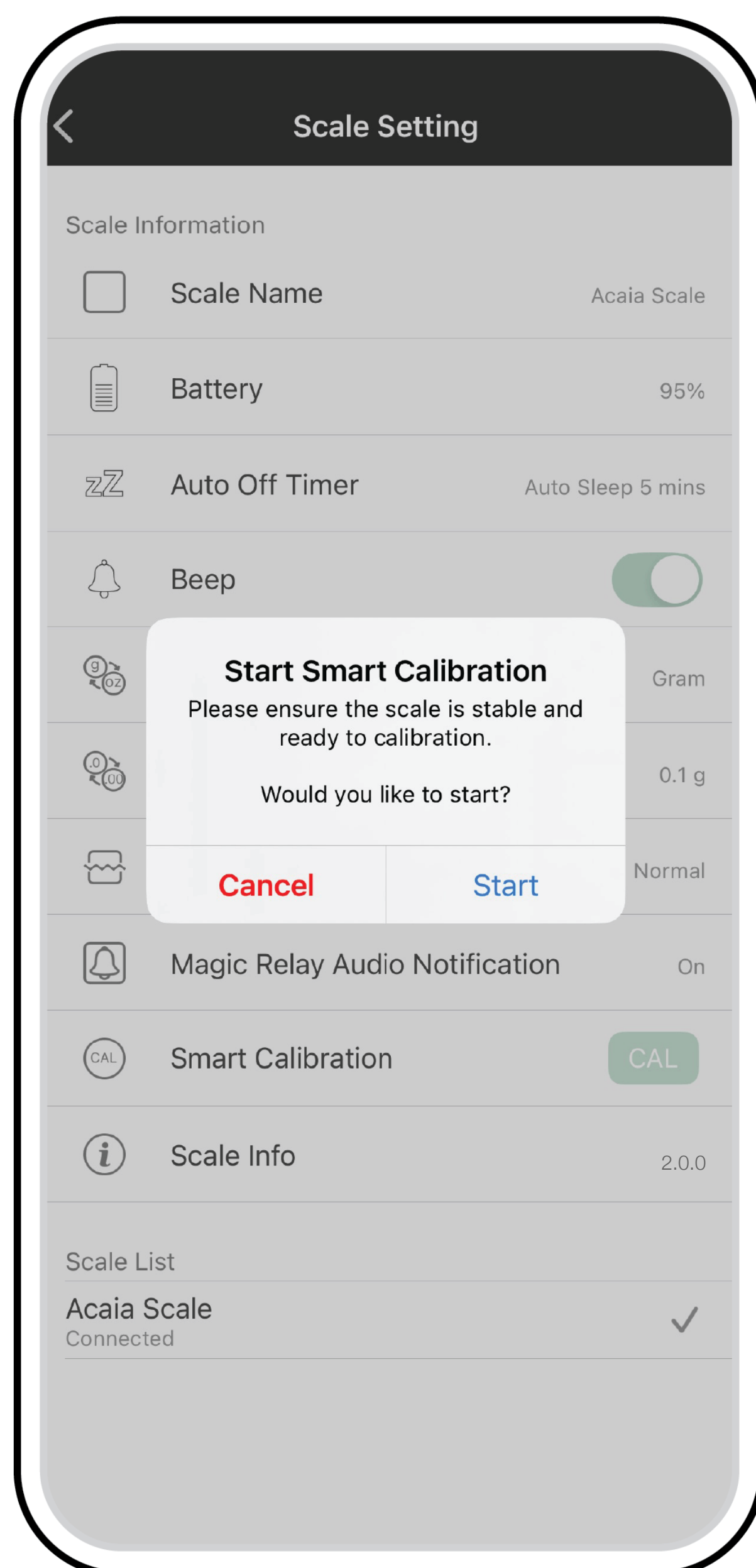


- 2** Connect your Umbra Lunar Duo with the Brewmaster App. Tap Acaia Scale to enter the [Scale Setting].

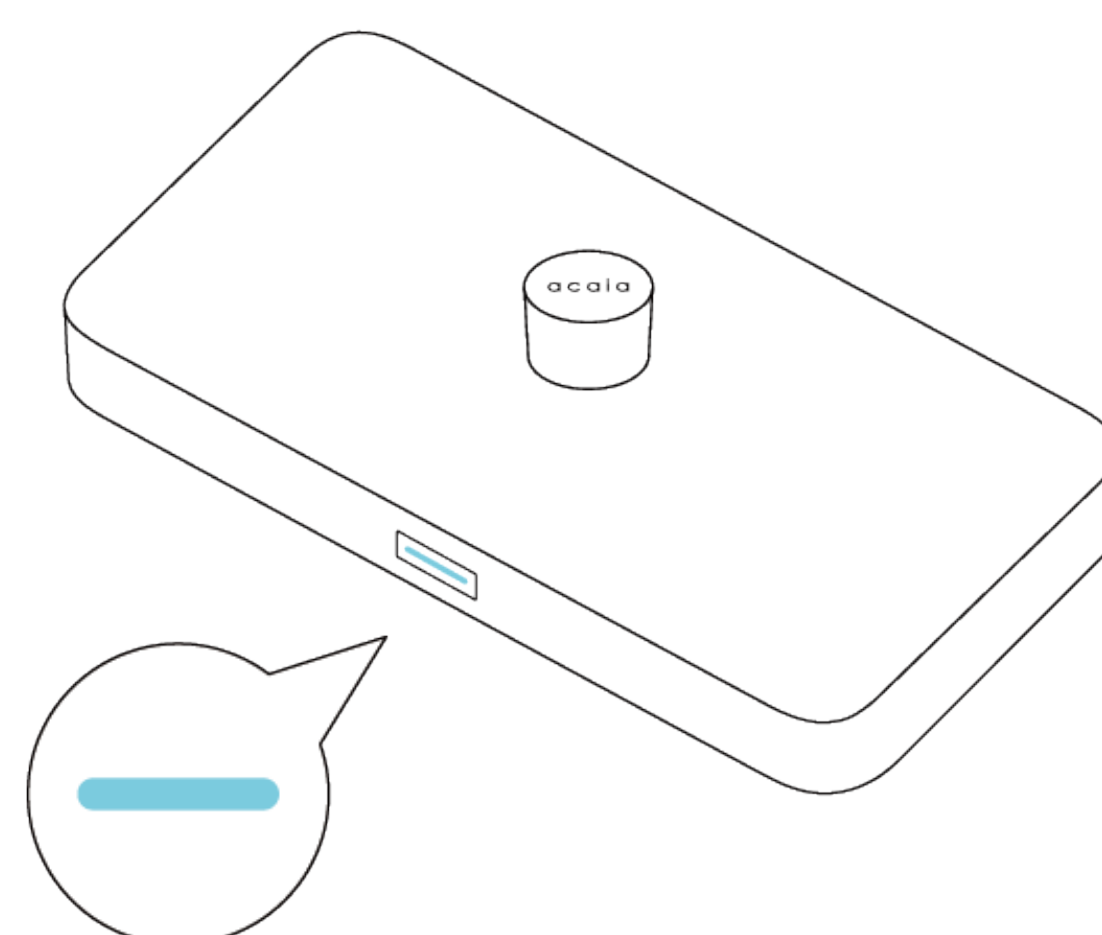


- 3** Tap the [CAL] button under [Smart Calibration].

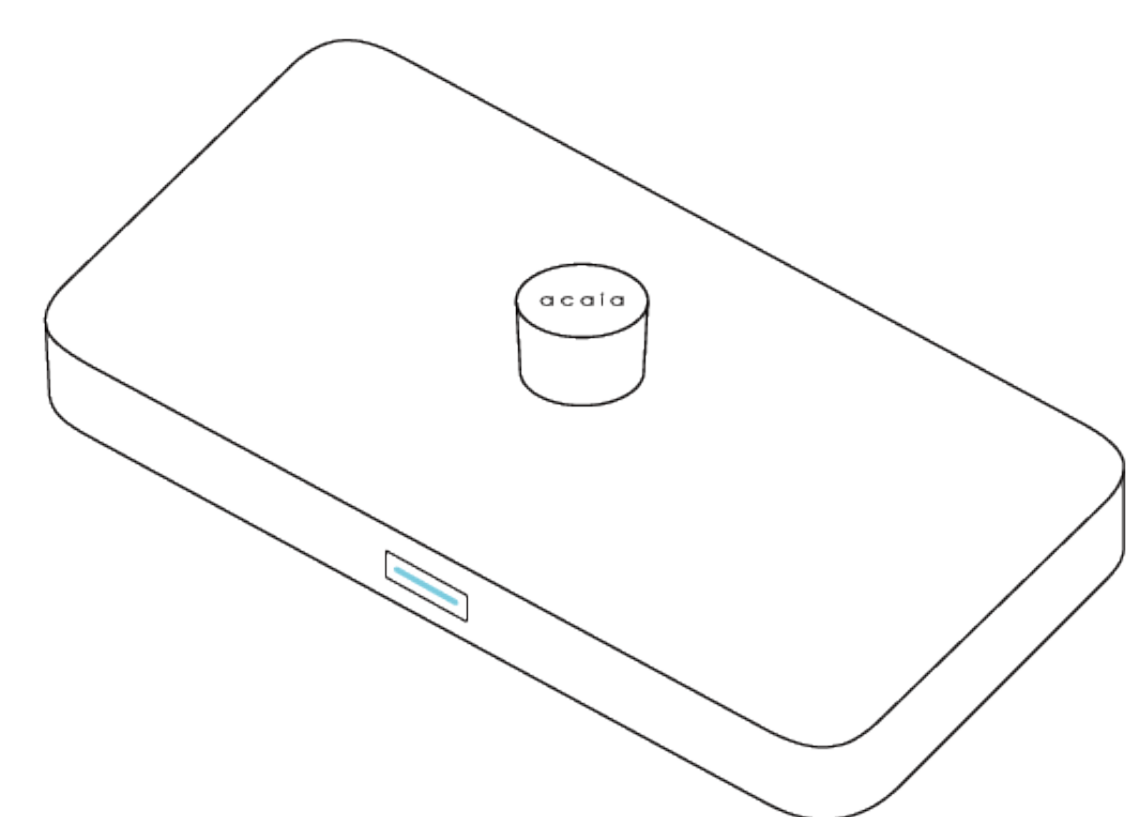
**Note:**  
Before starting calibration, set the Weight unit of the Umbra Lunar Duo to “gram”.



**4** Make sure the Umbra Lunar Duo is placed on a stable and vibration-free surface. Tap [Start] to begin the calibration process.



**5** When the Umbra Lunar Duo shows solid Cyan, place a calibration weight on it.



**6** Wait until the app shows “Calibration Completed.” Your Umbra Lunar Duo is now calibrated!

#### Note:

You may use 100 g, 500 g or 1000 g weights. If you use weights other than Acaia Weights, we recommend F2 class standard calibration weights.



## Care and Cleaning

- Use a soft cloth with warm water only to clean the product.
- Do not use detergent or other chemicals for cleaning and soaking as it can damage the anodized coating on the product.

# Appendix

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## Firmware Update

To enter the Umbra Lunar Duo Firmware Update Mode, please disconnect the Umbra Lunar Duo with the paired devices and apps first. Press and hold the Action Button while the Umbra Lunar Duo is off. Hold for about 30 seconds and release the Action Button when it turns from blinking Green  to blinking Red . Once released, the Umbra Lunar will enter the Firmware Update Mode.


**Note:**

**If the Umbra Lunar Duo blinks Magenta after blinking Green, please fully charge the Umbra Lunar Duo before proceeding with the update.**

## Unpairing the Umbra Lunar Duo

To pair the Umbra Lunar Duo with another device, unpair it first. Press and hold the Action Button for about 10 seconds while the Umbra Lunar Duo is on. Release the button when the LED changes from blinking Blue  to blinking Magenta .

## Reset To Factory Default

To reset the Umbra Lunar Duo to factory default, press and hold the Action Button while the Umbra Lunar Duo is off. Hold for about 15 seconds and release the Action Button when the button starts blinking Green . Once released, all settings of the Umbra Lunar Duo will be reset to factory default, except for the pairing.

## Error Codes

Error Code	Description
303	Unable to find acceptable starting Zero point, most likely due to loadcell damage caused by excessive force or drop. Please contact Acaia support.

## Troubleshooting

**Stuck in Firmware Update Mode:**

To exit Update Mode, press and hold the Action Button for 50 seconds until the Red light stops blinking and turns off. Afterward, you can try entering Firmware Update Mode again by following the instructions in the Appendix.

# Specifications

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Model	AUL101
Product Weight	490 ± 5 g
Product Dimensions	W: 105 mm L: 210 mm H: 21 mm
Maximum Capacity	1500 g / 52.91 oz
Minimum Capacity	0.1 g / 0.01 g
Measuring Units	g / oz
Readability	0.1 g / 0.01 g
Repeatability	0.1 g
Linearity	0.1 g
Indication Limit	1530 g / 53.97 oz
Power Supply	5 V / 500 mA
Battery	Lithium-ion rechargeable 3.7 V 1100 mAh
Battery Life	40 - 48 hours Up to 14 days (Standby Mode)
Material	PC, Aluminum
Operating Ambient Temperature	15°C - 40°C
Connectivity	Bluetooth Low Energy 5.4
Warranty	2 Years
Inside the Package	Umbra Lunar Duo Scale x 1 Heat Resistant Pad x 1 Non-slip Protective Strip x 4 Friction-reduction Protective Strip x 4 USB Type-C Charger Cable x 1 Acaia Calibration Weight 100 g x 1

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