acaia

ORION BEAN DOSER™ OPERATION MANUAL

Contents

Chapter 1: Introduction

Orion Bean Doser™ is a professional weight-based coffee bean dosing system that offers exceptional speed, precision, and control over bean portioning.

1.1 Features

The Orion Bean Doser™ is designed for dosing green beans or roasted beans based on weight.

Weight-based efficiency
The speed of the dosing depends on the weight. It'll dose 225 g in 12 seconds or 20 g in 3 seconds with an error margin of 2-3 beans.

Automatic mode
Dose multiple containers with automatic taring and no required button pushing.

Dial-in interface
The controls and settings menu can all be accessed through the dial interface.

Weighing scale mode
The Orion Bean Doser™ can function as a smart industrial weighing scale with a 3000 g capacity.

Intelligent dosing: Based on previous target weights and actual outputs, the Orion will automatically adjust and decrease the margin of error.

Manual control: For the times you want to do it yourself, the Orion allows you to quickly pause or dose those last few beans.
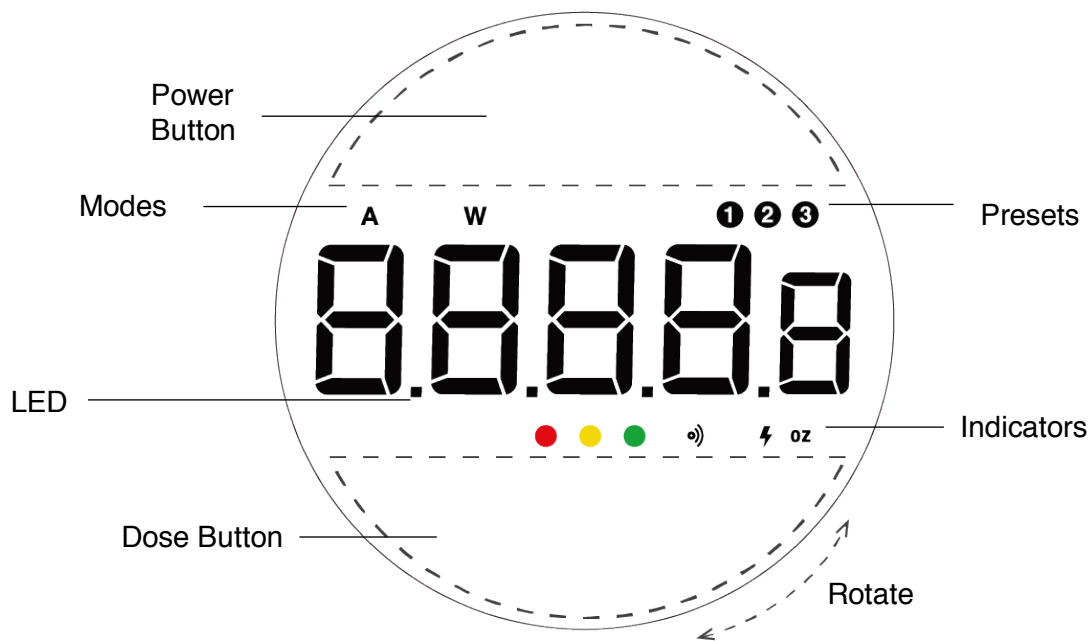
Firmware updates supported: Like all of our products, the Orion will receive periodic updates to its firmware, which you can update through our firmware app.

1.2 Specifications

Product Name	Acaia Orion Bean Doser
Model Number	AO001
Dimensions	33.5 cm x 20 cm x 36 cm
Weight	3.24 kg
Capacity	6.6 lbs / 3000 g
Max	3000 g

Min	0.1 g
Dosing Error Margin	~ 2 beans (+/- 0.5 g)
Battery	Li-Ion 18650 7.4V 2600mAH
Measuring Units	g, oz
Display	LED
Connectivity	Bluetooth 4.0
Input	12 Vdc, 2.0 A
Warranty	1 Year

1.3 Interface & Buttons

1.4 LED Indicators

Green Light - Dosing progress indicator
When the green light is blinking, dosing is in progress. Once dosing is completed, the indicator will show a solid green light.

Yellow Light - Dose warning indicator
When the yellow light is lit, it means that the current dose exceeds +/- 0.5g (2 beans). You may want to add some beans with "pulse" function by short click Dose Button.

<u>Red Light - System message Indicator</u>

When the red light is lit, there is a system error on the Orion. Restart the Orion by unplugging and plugging back in. If the problem persists, please contact us at support@acaia.co.

⚡ Orion is charging

•)) Bluetooth connection indicator

oz Measured in Oz.

Next, follow the instructions in the Preparation and Installation sections in the manual to get started. To take advantage of its many features, carefully read through the operation manual containing step-by-step procedures, examples, and other information.

Warning: Incorrect handling of this product could possibly result in personal injury or physical damage.

Chapter 2: Getting Started

2.1 Initial Setup

1. Prior to using your Orion for the first time you should rinse and clean the bean hopper in warm soapy water. Dry immediately after cleaning.
2. Attach the hopper to the Orion adapter and rotate the hopper clockwise until it clicks into place.
3. Place a container on the weighing platform to avoid accidental dispensing.
4. Connect the power cord to the Orion.
5. Put coffee beans into the hopper.

2.2 Getting Started

1. Turn on the Orion by pressing the **Power** button. (See Chapter 1.2)
2. Set target weight by short pressing the **Power** button. Adjust values by turning the dial then short press the **Power** button to confirm.
3. Press the **Dose** button to start dosing.
4. When dosing is complete, press the **Power** button to return to dosing.

2.2 General Operation

The Orion is designed for dosing portions of beans from 4 g to a maximum of 3000 g per dose with an accuracy of +/- 2 beans (~0.5 g).

There are two dosing mode in the Orion — **manual mode** and **auto mode**. To choose between modes, long press the **Power** button and the display will show the current mode of operation. Rotate the dial to toggle between modes.
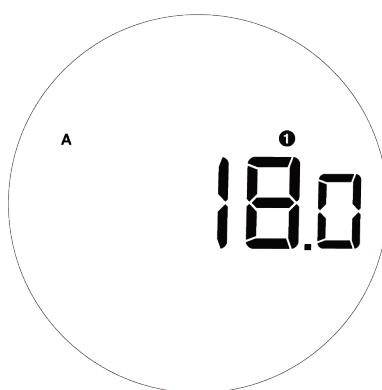
Manual Dosing Mode

This is the default mode of dosing.

1. Select a preset by rotating the dial. Adjust the preset value by short pressing the **Power** button and rotate the dial. Short press the **Power** button to confirm.
2. Press the **Dose** button, and the Orion will begin dosing until desired weight is reached within +/- 0.5g (Solid Green LED will light to indicate an accurate dose).
3. At the end of dosing, you may press the **Dose** button several times to 'Pulse'. Pressing the **Dose** button to add a few more beans as needed.
4. Press the **Power** button to return to dosing mode.

'Pulse' in Manual dosing mode
The Orion has a pulse function that adds a few beans to the dose manually at the end of each dose. To pulse (add) a few more beans at the end of each dose, simply press the **Dose** button. If one press doesn't drop any beans, you can press it multiple times until the desired weight is reached.

Automatic Dosing Mode

There will be an 'A' indicator on the top left corner of the display when in automatic dosing mode. The auto dosing mode is designed to dose automatically whenever a container is placed on the Orion platform. When the display shows 'Ready,' it means the Orion is in auto dosing mode and any container placed on top of the platform will automatically dose to the target weight.

1. Switch to Automatic dosing mode by long pressing the **Power** button and selecting the auto mode with the dial. Press **Power** button again to confirm.
2. Select a preset or adjust a preset weight.
3. Press the **Dose** button to start automatic dosing, the display will show [READY].
4. To start the first dose, press the **Dose** button again to start dosing.
5. Remove the completed dose and container, and wait for the display shows [READY] again.
6. Place another container on top of the platform and it will automatically dispense another dose.
7. Press the **Power** button to set a different dose and leave the current auto dosing session.

'Pulse' in Automatic dosing mode

The pulse function also works in the auto dosing mode. To pulse (add) a few more beans at the end of each dose, simply press the **Dose** button. If one press doesn't drop any beans, you can press it multiple times until the desired weight is reached.

Weighing Mode

Indicated by a W in the top left corner of the display. The weighing mode is Orion's smart scale mode. It will function like an industrial weighing scale. To switch to weighing mode, long press the **Power** button and rotate the dial until it display [SCALE], then press **Power** button to confirm.

The weight of the object on the platform will show on the display.

The **Power** button and the **Dose** button will function as 'Zero' and 'Tare'.

Chapter 3: Operations

3.1 Basic Operations

Action	Operation
Turn On Scale	Short Press **Power**
Turn Off Scale	Double Press **Power**
Toggle Presets	Rotate **Dial**
Set Preset Weight	Short Press **Power,** rotate **Dial,** then short Press **Power/Dose**
Switch Mode	Long Press **Power,** rotate **Dial,** then short Press **Power/Dose**
Start Dosing	Short Press **Dose**
Reset Mode	Short Press **Power**
Empty Hopper	Long Press **Dose**
Stop Emptying Hopper	Short Press **Dose**

In the main display menu, you may use the controls above to choose between presets, enter different dosing modes, or start dosing in current mode.

3.1.1 Set Preset Weight

Action	Operation
Enter Preset Weight Setting	Short Press **Power**
Change Value	Rotate **Dial**
Save Preset Value	Short Press **Power/Dose**

You can store 3 preset weights in the Orion. For example, you can set preset 1 at 20.0 g, preset 2 at 30.0 g and preset 3 at 225.0 g for different applications. You may adjust the preset values with the controls above.

3.1.2 Switch Mode

Action	Operation
Enter Mode Setting	Long Press **Power**
Switch Mode	Rotate **Dial**
Set Mode	Short Press **Power/Dose**

The Orion has 2 dosing modes: **Manual dosing mode** and **Automatic dosing mode**. You may change the modes with the controls above.

3.1.3 Empty the Hopper

Place container on the platform and dosing will start when weight detected

Action	Operation
Empty the hopper	Long Press **Dose**
Stop emptying process	Short Press **Dose**
Back to preset	Short Press **Power**

To empty the bean hopper, you can long press the **Dose** button. The Orion will continuously dispense the beans until you press the **Dose** button again to stop. Make sure you place a big container on the platform for this operation.

There will be an 'E' indicator on the top left corner of the display when emptying the hopper.

3.2 Modes

3.2.1 Manual Dosing Mode

Action	Operation
Start Dosing	Short press **Dose**
Stop Dosing	Short press **Dose**
Pulse Beans	Short press **Dose**
Reset Mode	Short press **Power**

Manual dosing mode can dose on demand with a selected preset. At the end of manual dosing, you may short press the **Dose** button to 'Pulse' a few more coffee beans if required.

3.2.2 Auto Dosing Mode

Action	Operation
Enter Ready State	Short press **Dose**
Start Dosing	Short press **Dose**
Stop Dosing	Short press **Dose**
Pulse Beans	Short press **Dose** to add a few beans as needed
Reset Mode	Short press **Power,** return to preset mode

Automatic dosing mode can dose automatically whenever a container is placed on the platform. There will be an 'A' indicator on the top left corner of the display when in automatic dosing mode.

At the end of auto dosing, you may short press the **Dose** button to 'Pulse' a few more coffee beans if required. A [READY] message will show on the display when auto dosing mode is in action. To leave the [READY] state, short press the **Power** button. You will be able to return to the preset selection state.

3.2.3 Weighing Mode

Action	Operation
Tare	Short press **Dose**
Reset Mode/Zero	Short press **Power**

In Weighing mode, the Orion functions as an industrial weighing scale with 3000 g capacity. The **Dose** button functions as the Tare button. There will be a 'W' indicator on the top left corner of the display when in weighing mode.

Chapter 4: Settings

4.1 Speed Settings

Action	Operation
Enter Set Menu	Long press **Power** and rotate the dial to **SEt**. Press **Dose** to enter Settings menu.
Enter Speed Settings	When **Speed** is displayed, short press **Dose** to enter Speed menu.
Toggle Speed Options	Rotate the dial to toggle between dosing options. There are 3 speed settings: Precision, Fast, and Green.

You may adjust the dosing speed to increase accuracy or speed of dosing.
There are three speed settings available:

PrEC — **Precision**: Default speed, high accuracy (default)
FASt — **Fast**: Faster speed, default accuracy (227 g within 12 seconds); recommended for doses of 100 g or more
GrEEn — **Green Bean**: default speed for green bean or light roast beans doses

4.2 Zero Tracking Settings

Action	Operation
Enter Set Menu	Long press **Power** and rotate the dial to **SEt**. Press **Dose** to enter Settings menu.
Enter Trace Settings	When trAcE is displayed, short press **Dose** to enter Trace menu.
Toggle Trace Options	Rotate the dial to toggle between trace options. There are 6 options: 0.5d, 1d, 2d (default), 3d, 4d, 5d, and off. Short press **Dose** to confirm.

4.3 Beep Settings

Action	Operation
Enter Set Menu	Long press **Power** and rotate the dial to **SEt**. Short press **Dose** to enter Settings menu.
Enter Beep Settings	When bEEP is displayed, short press **Dose** to enter Beep menu.
Toggle Beep Options	Rotate the dial to toggle between beep options: On, Off. Short press **Dose** to confirm.

4.4 Unit Settings

Action	Operation
Enter Set Menu	Long press **Power** and rotate the dial to **SEt**. Short press **Dose** to enter Settings menu.
Enter Unit Settings	When **Unit** is displayed, short press **Dose** to enter Unit menu.
Toggle Unit Options	Rotate the dial to toggle between unit options: g (gram) and oZ (ounce). Short press **Dose** to confirm.

4.5 About

Action	Operation
Enter Set Menu	Long press **Power** and rotate the dial to **SEt**. Press **Dose** to enter Settings menu.
Enter Unit Settings	When **About** is displayed, short press **Dose** to display the firmware version.

Chapter 5: Calibration

5.1 Calibrating the Orion

In weighing mode, press the **Dose** button 5 times to enter the user calibration mode. Place a 500 g calibration weight on the platform and allow the Orion to calibrate.

1. While the Orion is in Weighing Mode and the weighing unit is in gram, press the **Dose** button quickly multiple times until LED display shows [CAL] and then [500].
2. Place a 500 g calibration weight on platform and wait for the scale to execute calibration procedure.
3. The Display shows [-End-] when the calibration procedure is completed.
4. Remove the calibration weight from the platform when calibration is completed.
   * Note: Calibration weights of 100 g, 1000 g, 1500 g, 2000 g, and 3000 g can also be used to calibrate the Orion.