

---

## PORTION CONTROL OPERATOR'S MANUAL



**Release Date: January 11, 2021**

**Publication Number: 3518-300OPR**

**Revision Date: January 10, 2021**

**Revision: A**

Visit the Cornelius web site at [www.cornelius.com](http://www.cornelius.com) for all your Literature needs.

---

The products, technical information, and instructions contained in this manual are subject to change without notice. These instructions are not intended to cover all details or variations of the equipment, nor to provide for every possible contingency in the installation, operation or maintenance of this equipment. This manual assumes that the person(s) working on the equipment have been trained and are skilled in working with electrical, plumbing, pneumatic, and mechanical equipment. It is assumed that appropriate safety precautions are taken and that all local safety and construction requirements are being met, in addition to the information contained in this manual.

This Product is warranted only as provided in Cornelius' Commercial Warranty applicable to this Product and is subject to all of the restrictions and limitations contained in the Commercial Warranty.

Cornelius will not be responsible for any repair, replacement or other service required by or loss or damage resulting from any of the following occurrences, including but not limited to, (1) other than normal and proper use and normal service conditions with respect to the Product, (2) improper voltage, (3) inadequate wiring, (4) abuse, (5) accident, (6) alteration, (7) misuse, (8) neglect, (9) unauthorized repair or the failure to utilize suitably qualified and trained persons to perform service and/or repair of the Product, (10) improper cleaning, (11) failure to follow installation, operating, cleaning or maintenance instructions, (12) use of "non-authorized" parts (i.e., parts that are not 100% compatible with the Product) which use voids the entire warranty, (13) Product parts in contact with water or the product dispensed which are adversely impacted by changes in liquid scale or chemical composition.

### **Contact Information:**

To inquire about current revisions of this and other documentation or for assistance with any Cornelius product contact:

**[www.cornelius.com](http://www.cornelius.com)  
800-238-3600**

### **Trademarks and Copyrights:**

This document contains proprietary information and it may not be reproduced in any way without permission from Cornelius.

This document contains the original instructions for the unit described.

Marmon Foodservice Technologies, Inc.  
101 Regency Drive  
Glendale Heights, IL  
Tel: + 1 800-238-3600

Printed in U.S.A.

---

# TABLE OF CONTENTS

<b>Safety Instructions</b> .....	<b>1</b>
Read And Follow All Safety Instructions .....	1
Safety Overview .....	1
Recognition .....	1
Different Types Of Alerts .....	1
Safety Tips .....	1
Qualified Service Personnel .....	1
Safety Precautions .....	2
Shipping And Storage .....	2
CO <sub>2</sub> (Carbon Dioxide) Warning .....	2
Power Cord .....	2
Sound Level .....	2
Unit Location .....	2
<b>Operating Instructions</b> .....	<b>3</b>
Normal Dispensing .....	3
Portion Size Buttons .....	3
Standard Pour .....	4
Top Off Pour .....	4
Cancel / Pour Button .....	4
Default Time Settings .....	4
Programming Instructions .....	5
Standard Program Mode .....	5
Top-off Programming Mode .....	5
Incremental Programming Mode .....	5
Entering And Exiting Program Mode .....	6
To Enter Standard Program Mode .....	6
To Enter Top-off Program Mode .....	6
To Enter Incremental Program Mode .....	7
To Exit Program Mode .....	7
Programming The Portion Sizes .....	7
Programming A Standard Pour .....	7
Programming A Top-off Pour .....	7
Programming An Incremental Pour .....	8
Restoring Default Time Values .....	8
Unresponsive Modules .....	9

# SAFETY INSTRUCTIONS

## READ AND FOLLOW ALL SAFETY INSTRUCTIONS

### Safety Overview

- Read and follow **ALL SAFETY INSTRUCTIONS** in this manual and any warning/caution labels on the unit (decals, labels or laminated cards).
- Read and understand ALL applicable OSHA (Occupational Safety and Health Administration) safety regulations before operating this unit.

### Recognition

#### *Recognize Safety Alerts*



*This is the safety alert symbol. When you see it in this manual or on the unit, be alert to the potential of personal injury or damage to the unit.*

### DIFFERENT TYPES OF ALERTS

#### **DANGER:**

Indicates an immediate hazardous situation, which if not avoided, **WILL** result in serious injury, death or equipment damage.

#### **WARNING:**

Indicates a potentially hazardous situation, which if not avoided, **COULD** result in serious injury, death, or equipment damage.

#### **CAUTION:**

Indicates a potentially hazardous situation, which if not avoided, **MAY** result in minor or moderate injury or equipment damage.

### SAFETY TIPS

- Carefully read and follow all safety messages in this manual and safety signs on the unit.
- Keep safety signs in good condition and replace missing or damaged items.
- Learn how to operate the unit and how to use the controls properly.
- **Do not** let anyone operate the unit without proper training. This appliance is **not** intended for use by very young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance.
- Keep your unit in proper working condition and do not allow unauthorized modifications to the unit.

### QUALIFIED SERVICE PERSONNEL

#### **WARNING:**

Only trained and certified electrical, plumbing and refrigeration technicians should service this unit. **ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES. FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY, DEATH OR EQUIPMENT DAMAGE.**

## SAFETY PRECAUTIONS

This unit has been specifically designed to provide protection against personal injury. To ensure continued protection observe the following:

### **WARNING:**

Disconnect power to the unit before servicing following all lock out/tag out procedures established by the user. Verify all of the power is off to the unit before any work is performed.

Failure to disconnect the power could result in serious injury, death or equipment damage.

### **CAUTION:**

Always be sure to keep area around the unit clean and free of clutter. Failure to keep this area clean may result in injury or equipment damage.

## SHIPPING AND STORAGE

### **CAUTION:**

Before shipping, storing, or relocating the unit, the unit must be sanitized and all sanitizing solution must be drained from the system. A freezing ambient environment will cause residual sanitizing solution or water remaining inside the unit to freeze resulting in damage to internal components.

## CO<sub>2</sub> (CARBON DIOXIDE) WARNING

### **DANGER:**

CO<sub>2</sub> displaces oxygen. Strict attention **MUST** be observed in the prevention of CO<sub>2</sub> gas leaks in the entire CO<sub>2</sub> and soft drink system. If a CO<sub>2</sub> gas leak is suspected, particularly in a small area, **IMMEDIATELY** ventilate the contaminated area before attempting to repair the leak. Personnel exposed to high concentrations of CO<sub>2</sub> gas experience tremors which are followed rapidly by loss of consciousness and **DEATH**.

## POWER CORD

If the power cord is damaged, it must be replaced by a special cord available from the manufacturer OR its service agent.

## SOUND LEVEL

The A-weighted sound pressure level has been determined to be below 70dBA..

## UNIT LOCATION

### **CAUTION:**

Appliance is not suitable for installation in an area where a water jet could be used. The appliance must be placed in a horizontal position. This unit is not designed for use in outdoor locations.

# OPERATING INSTRUCTIONS

These operating instructions apply only to the 3518-300 capacitive-touch, portion-control module. Figure 1 shows both the 3518-300 module and the previous 3518-200 module. The 3518-300 has a new user interface which features inset universal symbols for the S, M, L and XL cup sizes. The 3518-200 can be recognized by its flush buttons and green/red arrows on the Cancel/Pour button.

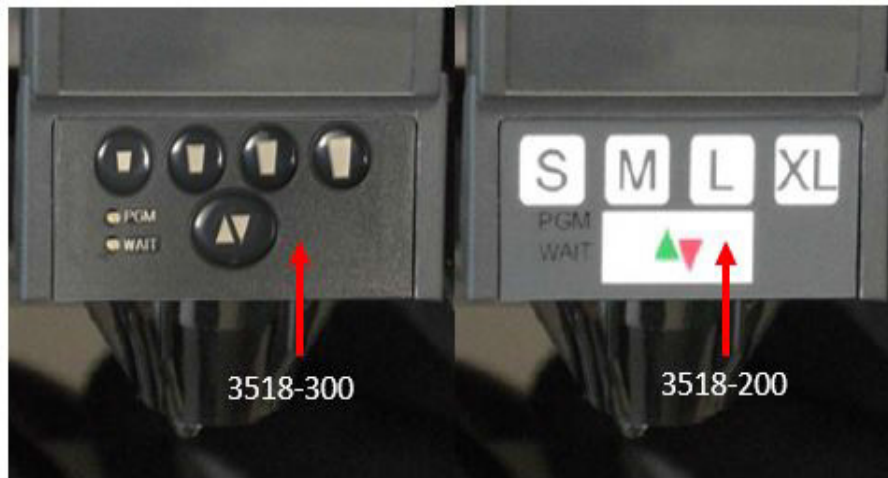


Figure 1.

## NORMAL DISPENSING

### Portion Size Buttons

To activate the dispense valve, press and release any portion size icons (S, M, L, XL). The valve will dispense for the pre-programmed time.



Figure 2.

### Standard Pour

The default program, one single timed pour for each portion size.

### Top Off Pour

A timed pour followed by a timed pause to allow the foam to settle, and an additional timed pour to “top off” the cup. The “WAIT” LED will flash during the pause to indicate a top-off pour is pending. This feature can be activated with a special programming function.



Figure 3.

### Cancel / Pour Icons

The “Cancel / Pour” icon below the four portion size icons. When the valve is dispensing, pressing and releasing this button will cancel the programmed pour. If the valve is not dispensing when pressed, the valve will manually pour as long as the button is held.

**NOTE: If the “Cancel/Pour” button is held pouring for more than 30 s, the pour times out and stops flow. The pour button must be release and re-pressed to resume flow.**



Figure 4.

## DEFAULT TIME SETTINGS

The dispense valve are factory programmed with time values that can be useful during initial installation and for testing the modules. The time values for each portion size are shown in the following table.

**NOTE:** The user may find it convenient to use the default sizes as timers for brixing purposes.

Portion Size	Initial Pour Settings
Small	2 s
Medium	3 s
Large	4 s
Extra-Large	6 s

## PROGRAMMING INSTRUCTIONS

### Standard Program Mode

The module will record the time intervals you program for each of the portion icons. When you program each portion size, the "PGM" LED will flash while programming is in progress and light solid during idle periods. You may try setting the time values many times for each portion size before leaving the program mode. **Only the last pour time will be saved when you exit the program mode.**

### Top-off Programming Mode

The module will record two timed pours with a timed pause in between for each portion size. The "PGM" LED will flash while programming is in progress and during idle periods. You may try setting the time values many times for each portion size before leaving the program mode. **The last two pour times, and the pause between them will be saved when you exit the program mode.**

### Incremental Programming Mode

The module will record the sum of all consecutive pours on a single size as one single pour time with no pauses. The "PGM" LED will flash while programming is in process and light solid during idle periods. You may try setting the time values for each portion size before leaving the program mode. The last consecutive set of pour times will be saved as the portion size when program mode is exited. If a size needs to be reprogrammed, it may be reprogrammed after another portion size has been set, or by exiting and re-entering Incremental Programming Mode.



Figure 5.



## ENTERING AND EXITING PROGRAM MODE

### Location of hidden program button and light

The dispense valve modules use a “hidden” program button to enter the program mode. It is located to the right of the “Cancel/Pour” icon directly below the “XL” icon. The “PGM” LED is located to the left of the “Cancel/Pour” icon directly below the small size icon.

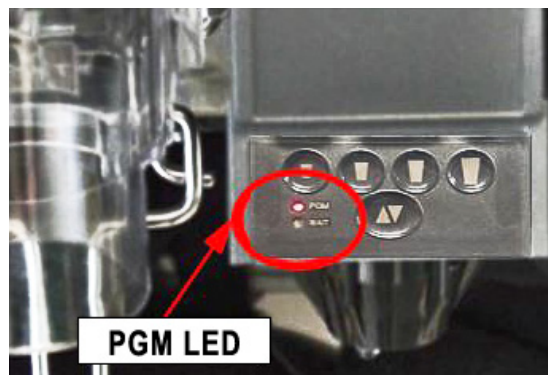


Figure 6.

### To Enter Standard Program Mode

Hold the program button for 3 seconds until the “PGM” LED turns on.

### To Enter Top-off Program Mode

Hold the program button and small size icon together for 3 seconds until the “PGM” LED turns on. After releasing them, the “PGM” LED will start flashing.

**NOTE:** To avoid accidental pour, ensure the program button is depressed slightly earlier than the small size button.



Figure 7.

## To Enter Incremental Program Mode

Hold the program button and Large size icon together for 3 seconds until the “PGM” LED turns on.

**NOTE: To avoid accidental pour, ensure the Program Button is depressed slightly earlier than the Large Size icon.**



Figure 8.

## To Exit Program Mode

Hold the program button for 3 seconds until the “PGM” LED turns off.

## PROGRAMMING THE PORTION SIZES

### Programming a Standard Pour

**NOTE: It is recommended that when programming portion sizes, use actual cups and ice level.**

1. Enter the **standard program mode** by holding the hidden program button for 3 seconds until “PGM” LED turns on.
2. Press and hold the portion size button until the desired level is reached in the cup, then release the button. That portion will be recorded when the program mode is exited.
3. Continue with other portion size icons or reset the same portion size again.
4. When complete, exit the program mode by holding the hidden program button for 3 seconds until the “PGM” LED turns off.
5. The last portion set for each size icon is now recorded.

### Programming a Top-off Pour

**NOTE: It is recommended that when programming portion sizes, use actual cups and ice level.**

1. Enter the top-off program mode by holding the hidden program button and small size icon together for 3 seconds until “PGM” LED turns on. After releasing them, the “PGM” LED will start flashing.

**NOTE: To avoid accidental pour, ensure the program button is depressed slightly earlier than the Small size icon.**

2. Press and hold the portion size icon until the desired level is reached in the cup, then release the icon. Once the foam settles, press the same icon again to add a top-off pour. The initial pour, pause, and top-off will be recorded when the program mode is exited.
3. Continue with other portion size icon or reset the same portion size again. Note that the last two dispenses and the pause between them will be saved for each portion size when the top-off program mode is exited.

**NOTE: If a size button is pressed, and then a different size button is pressed, the program saves the single pour for the first size cup and it moves on to programming the second size cup.**

4. When complete, exit the top-off program mode by holding the hidden program button for 3 seconds until the “PGM” LED turns off.
5. The last portion, pause, and top-off for each size icon are now recorded.

**NOTE: It is possible to have some portion sizes with a top-off and others without a top-off.**

## Programming an Incremental Pour

**NOTE: It is recommended that when programming portion sizes, use actual cups and ice level.**

1. Enter the **incremental program mode** by holding the hidden program button and Large size icon together for 3 seconds until “PGM” LED turns on.

**NOTE: To avoid accidental pour, ensure the program button is depressed slightly earlier than the Large size icon.**

2. Press and hold the portion size icon to be programmed to desired amount, and pause if necessary for foam settling. Repeat as necessary until final desired volume reached. The total time of the consecutive pours on that portion size will be saved upon program exit to be actuated as a single pour.
3. Continue with other portion size icon. The same portion size may be reprogrammed by either setting a different size and returning to the size that needs to be reprogrammed, or tapping the cancel/pour icon before touching the size to be reprogrammed again. Note that the last set of consecutive pours' sum will be saved for each portion size as a single pour without pause when the incremental program mode is exited.
4. When complete, exit the incremental program mode by holding the hidden program button for 3 seconds until the “PGM” LED turns off.

**NOTE: It is possible to have some portion sizes that were created with a single pour, and others created with multiple pours.**

## RESTORING DEFAULT TIME VALUES

The factory default standard pour time values can be restored using the following procedure.

1. Enter the **standard program mode** by holding the hidden Program Button for 3 seconds until “PGM” LED turns on.
2. Press and hold the “Cancel / Pour” icon and simultaneously press the desired portion size icon to be reset. The “PGM” LED will flash to indicate that the size is now set to the default time.

**NOTE: Make sure to press the “Cancel/Pour” icon and the desired portion size button about the same time in order to avoid any chances of exiting the programming mode.**

3. Release the “Cancel / Pour” icon and the desired portion size icon and repeat step 2 to restore the default time values for all size cups. The time value listed in “Default Time Values” was recorded to that size.
4. The “Cancel/Pour” icon must be released and re-pressed before resetting another size.
5. When complete, exit the program mode by holding the hidden Program Button for 3 seconds until the “PGM” LED turns off.



Figure 9.

## UNRESPONSIVE MODULES

If the module becomes unresponsive, use the following procedure.

1. Ensure there is no syrup or other residue stuck to module surface. Clean thoroughly and dry.
2. Switch off power to valves via key-switch. Wait 5 seconds.
3. Restore power via key-switch and wait for "PGM" and "WAIT" LED to turn off.
4. Verify function is restored; the last saved programmed values will still be accurate after losing power. If a reset of portion sizes is desired, see "Restoring Default Time Values."

**Cornelius Inc.**  
**[www.cornelius-usa.com](http://www.cornelius-usa.com)**