SURESHOT
SOLUTIONS

REFRIGERATED DAIRY
DISPENSER
AC110-PC-51

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

INTRODUCTION

Read this manual now then store it for future reference.

MAIN COMPONENTS

Familiarize yourself with the names and locations of the dairy dispenser components.
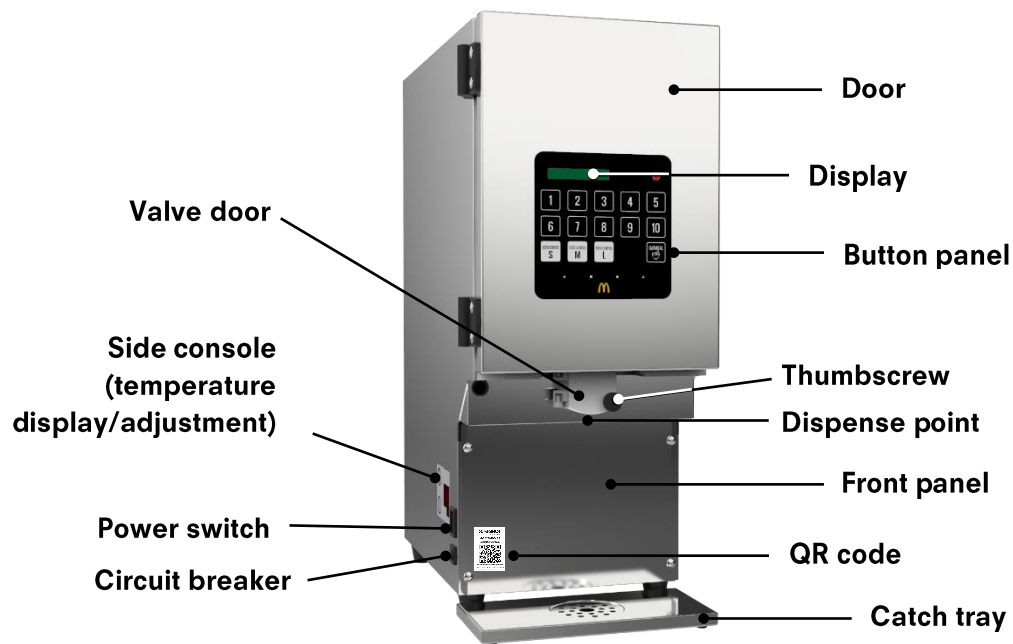
Figure 1: Main exterior components of the AC110-PC-51 dairy dispenser
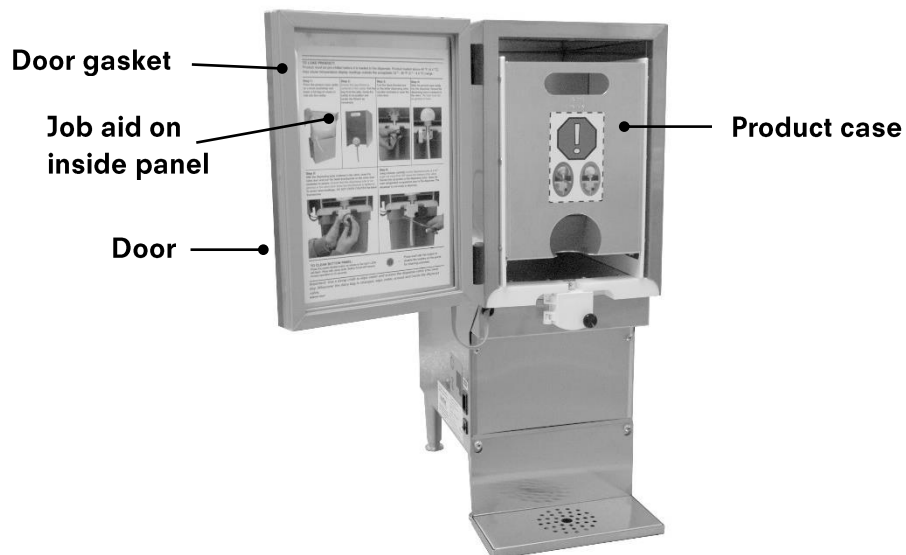
Figure 2: AC110-PC-51 dairy dispenser with door open

SPECIFICATIONS

Model:	AC110-PC-51
Weight (empty):	65 lbs. (29.48 kg)
Dimensions (LxWxH):	18" x 10" x 27" (45.72 cm x 25.4 cm x 68.58 cm)
Power requirements:	120 V AC, 60 Hz, 1 amp, 1 ph

LEGEND

These icons are used in this manual.

Note icon
Used for explanations and reminders.

Tip icon
Used for information that will help the dispenser perform better.

Caution icon
Used for actions or features that could cause damage to the dispenser or users.

RECEIVING THE DISPENSER

INSPECT FOR DAMAGE

Do not accept shipment if damage is extensive. Always note damage in detail with the carrier whether shipment is accepted or refused as proof for damage claims.

If damage is found after accepting shipment:
1. Immediately contact A.C. Dispensing Equipment Inc. at 888-777-9990 or 902-865-9602 for a Return Material Authorization (RMA) number. No returns will be accepted without prior approval.
2. A.C. Dispensing Equipment Inc. will then contact the shipping company to retrieve and return the damaged goods to our facility.
3. Hold damaged goods with the carton and packing materials until the shipping company returns to make an inspection and pick up the damaged goods.

If shipment has been sent using the customer's preferred carrier and charged on customer's account, the customer is responsible for any and all damages that may occur during shipment and are not covered by warranty.

SETTING UP THE DISPENSER

GETTING THE DISPENSER READY FOR OPERATION

The dispenser **must** be placed on a level surface. It must be level to dispense accurate portions and to make sure the refrigeration system operates properly. Use a level to make sure the dispenser is level. Adjust legs as required. For maximum stability make sure that at least one leg extension is adjusted as far in as possible.

Place the dispenser where it will best serve your operation at an appropriate serving and filling height so that users can operate the dispenser without obstructions. The surface must be strong enough to support the dispenser and a full product load.

Do not place the dispenser too close to a source of heat or moisture.

The ambient (room) temperature range for dispenser operation is 50 °F to 90 °F (10 °C to 32 °C).

Do not block the vents at the back or top of the dispenser. The vents must be free and open so that the cooling system operates properly and to prevent over-heating and damage to the dispenser. Maintain a 1-inch (2.5 cm) air space on all sides of the dispenser.

The default bag type is "Cream 5L L". If the bag type you are using is different, then follow the steps for the bag select function in the Program Mode section of this manual.

Make sure the legs are tightened in place at the four corners on the bottom of the dispenser. Do not remove the legs from the dispenser or allow the dispenser to sit directly on the counter. Air flow and circulation under the dispenser are essential for proper operation of the refrigeration system.

Operating the dispenser without the legs installed automatically voids the warranty.

This dispenser is not suitable for outdoor use.

SAFETY PRECAUTIONS

Always follow these safety precautions. Failure to do so will void the warranty.

- Always plug the dispenser into an approved, grounded electrical outlet.
- Unplug the dispenser from its electrical outlet before servicing.
- Do not immerse the dispenser in water.
- Observe all safety precautions with this dispenser that you would with any electrical appliance.

POWER REQUIREMENTS

This dispenser requires a power source receptacle with these specifications: 120 V AC, 1 phase, 60 Hz, supporting 1 amp current draw.

The power cord has a UL-approved 3-prong attachment plug. This plug is designed to fit a receptacle with provisions for a grounding stud. The dispenser must be operated on grounded electrical wiring at all times. Failure to do so will void the warranty.

TOOLS NEEDED FOR SET UP AND MAINTENANCE

You will need these tools for installation and maintenance:
- ¼-inch hex screwdriver
- Medium Philips (2P) screwdriver
- Large Philips (3P) screwdriver
- Level

CLEANING THE DISPENSER

Before using the dispenser for the first time, it must be thoroughly cleaned and dried. The dispenser also needs to be cleaned on a regular basis to keep it operating smoothly. Follow the instructions in the Clean the Dispenser section of this manual.

INSTALLING THE SWEETENER BRACKET

1. Open the door. There is a rubber gasket around the inside edge of the door. Gently lift the top portion of the gasket. Locate the two screws at the top of the door. These screws fasten the gasket and the inside panel to the door.
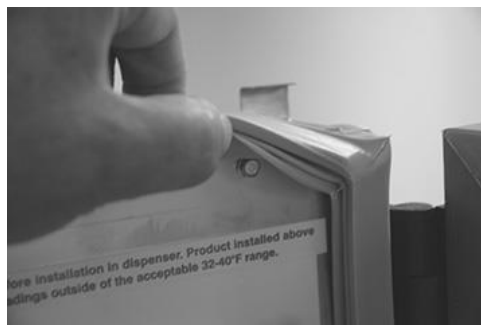
Figure 3: Lift the gasket

2. Remove the two screws. Do not misplace the screws. Set them aside to reinstall later.

When you lift the gasket, be careful not to pull it out from between the inside panel and the door. If the gasket does come out from between these two parts, very carefully pull the inside panel away from the door just far enough to push the gasket back in place. The sweetener bracket installs between the gasket and the door.

3. Fit the bracket over the door with the hooks towards the front of the door. Gently slide the bottom of the bracket (with screw holes) into the top of the door between the gasket and the inside panel.
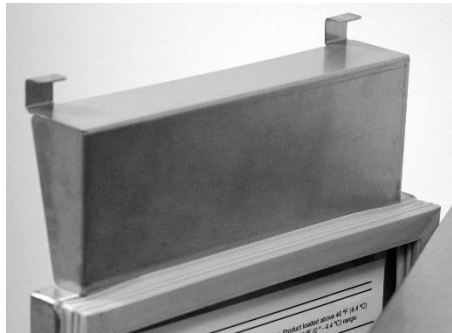
Figure 4: Install the sweetener bracket over the door

4. Align the holes in the bracket with the screw holes on the door, the gasket and the inside panel. Reinstall the screws to secure the sweetener bracket, gasket and inside panel to the door. Do not over-tighten the screws. The bracket is now installed.
5. Attach the sweetener holder to the bracket by following the instructions that come with the bracket.
6. Place the sweetener containers in the holder.

Figure 5: Installed sweetener holder and containers

INSTALLING THE CATCH TRAY

1. Align the two screw holes of the catch tray with the screw heads located on the bottom of the front panel.
2. Hang the catch tray on the screw heads, and gently pull the catch tray down to secure it to the dispenser.

TURNING ON THE DISPENSER

All liquid refrigerant and compressor oil must be settled at the bottom of the compressor before turning on the dispenser. If you suspect the dispenser was not kept upright, allow it to sit upright and level for 24 hours before turning it on.

Follow these steps to turn on the dispenser:
1. Plug the power cord into an approved electrical outlet.
2. Turn the power switch on. The power switch is located on the lower left side toward the front of the dispenser.

When the dispenser is turned on, you will hear the fan, you may see various lights on the button panel turn on and off, and finally `Select Size` will appear in the display.

SETTING THE LANGUAGE

The default display language is set to English. This dispenser has a second language option available, Spanish. Follow these instructions to set the display language.

1. Turn the dispenser off. Wait a few seconds then turn it back on while watching the display.
2. When you see the language, either `English` or `Espanol`, immediately press and hold the **Program Mode** button (■) for a few seconds until the other language is displayed.

The language setting is only displayed for a few seconds so you need to press and hold as soon as you see the language.

3. Look at the display to confirm the correct language is set. There is a three-second delay to allow you to change the language again without restarting the dispenser.

OPERATING THE DISPENSER

LOADING DAIRY PRODUCT

Preparing the Dispenser

1. Clean and dry the dispenser and all of its components.
2. Make sure product is pre-chilled to a temperature between 34 °F and 40 °F (1.1 °C and 4.4 °C) before loading it into the dispenser.
3. Turn on the dispenser.
4. Allow the dispenser to run empty for one hour to reach operating temperature before loading product into the dispenser. You can feel the cold temperature by placing your hand on the top or back wall inside the product compartment.
5. Sanitize your hands or wear clean gloves to load the product.

The dispenser must be on and cold before loading product.

Loading Product into the Product Case

This dispenser delivers dairy product from a sanitary, pre-filled dairy bag loaded into a product case. The dairy bag has a product tube attached.

Although the product case can hold a 10-liter dairy bag, it has been supplied with an insert that must be used when dispensing from 5-liter bags, as shown in Figure 6.

1. Open the door and remove the product case.
2. Place a pre-filled dairy bag in the product case. Place it so the bag fitment and tube naturally exit the opening at the bottom front of the product case.
3. Adjust the bag to remove wrinkles as much as possible to improve product flow and emptying.

Product case insert
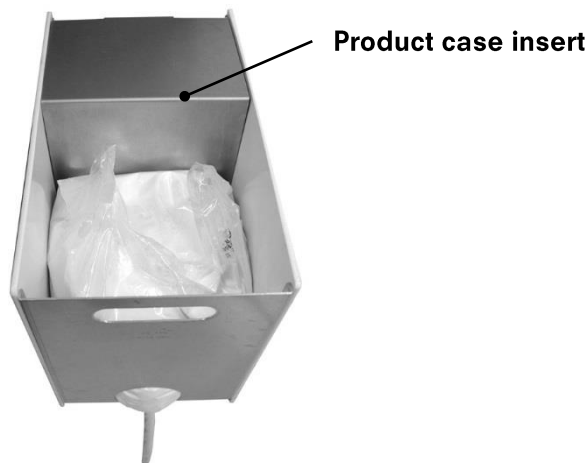
Figure 6: Product case with insert and 5-liter dairy bag

If you adjust the tube and fitment instead of the bag, the fitment can loosen causing the bag to leak.

4. Locate the ring/notch on the fitment that is closest to the bag. Slide it onto the floor of the product case to secure it in place. Be sure not to use the other ring as it will not secure properly.

Fitment ring/notch

Product case floor

Figure 7: Dairy bag fitment secured on product case floor

Loading the Product Case into the Dispenser

1. With the door open, open the valve door by turning the black thumbscrew counterclockwise to loosen.
2. Insert the product case with the pre-filled bag into the product compartment with the tube facing the front.
3. Remove and discard the plastic film covering the end of the tube, if present.
4. Center the tube in the vertical groove on the valve. Do not pull or stretch the tube. Make sure that the tube is in the vertical groove and is not twisted, kinked or pinched.
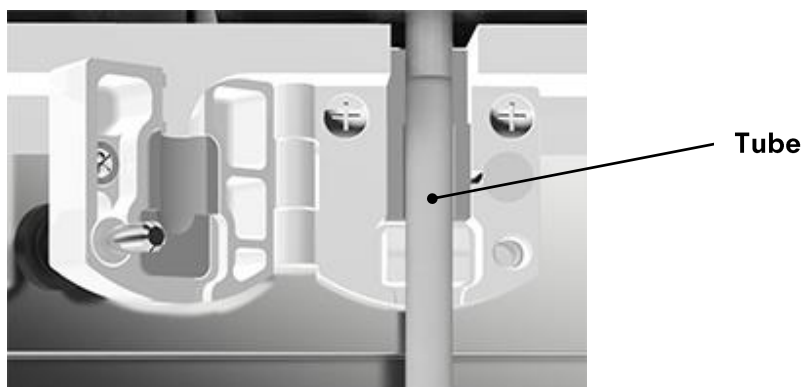
Tube

Figure 8: Tube properly placed

5. To prevent product from spraying when it is time to cut the tube, fold up and hold the tube with your fingertips just below the valve. This will push product out of the tube and up into the bag.

6. Continue to hold the tube, close the valve door and turn the thumbscrew clockwise until the valve door is snug and you hear a click. Do not over-tighten the thumbscrew. Release the tube.

The solenoid opens when the valve door is closed to reduce the effort required to tighten the thumbscrew. Wait to hear it click closed when the thumbscrew is tightened.

Figure 9: Fold up and hold the tube with fingertips

7. Close the door of the dispenser.
8. Use sanitized, sharp scissors to carefully cut the tube at a 45-degree angle to a maximum length of 5/8-inch (1.5 cm) from the bottom of the valve door. Discard the cut portion of the tube.
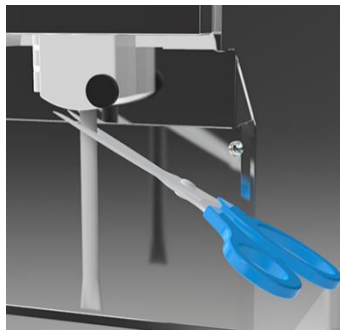
Figure 10: Properly cut tube

DISPENSING PRODUCT

1. Place a cup under dispense point.
2. Press a dispense size or a specialty product button.

REMOVING AN EMPTY DAIRY BAG

1. Open the door.

2. Place a clean container under the tube to catch any residual product that may drain once the valve door is opened.
3. Open the valve door by turning the black thumbscrew counterclockwise to loosen.
4. Allow any residual product to drain.
5. Clamp the tube shut to reduce drips. Remove the product case with the empty dairy bag.
6. Discard the empty dairy bag.

BUTTON PANEL

Figure 11: Button panel

Display: The display at the top of the button panel shows the current dispenser function. In normal operating mode, the display will show `Select Size`. The dispenser ships with the default language set to English. To change the language, follow the instructions for Setting the Language in this manual.

Panel disable button: Press and hold for two seconds to disable buttons for cleaning the panel. The panel lights will flash in sequence. The panel will remain disabled for 10 to 15 seconds. During this time, normal operating mode is not available.

Dispense size buttons: Press the size button that matches the amount you need to dispense. For example, pressing 1 selects a single portion; pressing 2 selects a double portion; and pressing 3 selects a triple portion.

Specialty product buttons: Press the product button that matches the product type and size you need to dispense.

Program mode buttons: These buttons are used for advanced features. Refer to the Program Mode section of this manual for more information.

Lights: Indicator lights are embedded in the button panel. A light is located above each button and illuminates when a selection is made.

Low product indicator: The Reset button (▲) light will flash on and off when product remaining in the bag is less than 40.6 oz., or 1200 ml, which is about 25 percent of a five-liter bag.

SIDE CONSOLE

Cool/top temperature adjust button: Decreases the temperature

Warm/bottom temperature adjust button: Increases the temperature; Changes the display mode between d1 and d2

Temperature display

Infrared programming window
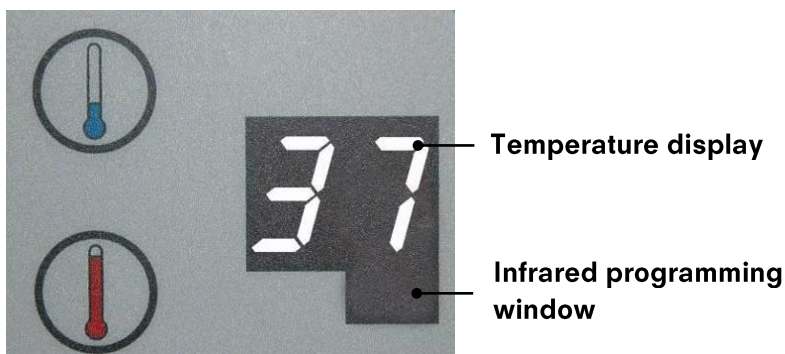
Figure 12: Side console

The side console displays the operating functions for the dispenser's refrigerated product compartment. There are two buttons on the left that are used to adjust the compartment's temperature, if necessary. There are two windows on the right used to show current temperature and to reprogram the temperature, if necessary.

Temperature Control

The temperature has been set to maintain the product within the range of 34 °F to 40 °F (1.1 °C to 4.4 °C). The temperature can be adjusted on the side console located on the lower left side of the dispenser. You can also adjust the temperature using the Refrigeration function in Program mode. (See the Program Mode section of this manual for instructions.)

Temperature Display

The temperature display shows the current temperature of the refrigerated product compartment in degrees Fahrenheit (°F).

This temperature display operates in two modes:
- Continuous Display mode shows the current temperature and allows adjustments to be made to the refrigeration setting.
- Selective mode is used to temporarily display the temperature as required when a button is pressed.

You can tell which mode the dispenser is in by looking at the display. If the temperature is showing all the time, then the dispenser is in Continuous Display mode. If the display is blank, then the dispenser is in Selective mode.

In either mode a red dot will be visible when the compressor is on.

ILLUSTRATION	DISPLAY	INDICATION
	37 displays continuously	Dispenser is in Continuous Display mode and the current temperature is 37 °F
	blank	Dispenser is in Selective mode Compressor is off
	d1	Temporary display; confirms dispenser is in Continuous Display mode
	d2	Temporary display; confirms dispenser is in Selective mode
	Red dot	Compressor is on
	Flashing red dot	Defrost cycle is underway

Table 1: Side console display options

If temperature adjustments are needed, make sure the dispenser is set to Continuous Display mode. Adjustments cannot be made in Selective mode. Dispensers are set in Selective mode as the default.

Side console display modes

To switch from Selective mode to Continuous Display mode, press and hold the **Warm** (bottom) side console button for a few seconds until you hear a beep. The display will show `d1` for a few seconds and the dispenser will be in Continuous Display mode.

To switch from Continuous Display mode to Selective mode, press and hold the **Warm** (bottom) side console button for a few seconds until you hear a beep. The display will show `d2` for a few seconds and the dispenser will be in Selective mode.

Temperature Adjust Buttons

Cool (blue)	• Press this button to decrease the temperature in the product compartment. Each press increases the refrigeration setting by 1 to make it cooler. • Press this button to show the refrigeration setting (07, 08, etc.).
Warm (red)	• Press this button to increase the temperature in the product compartment. Each press decreases the refrigeration setting by 1 to make it warmer. • Press and hold this button to toggle between d1 (continuous) and d2 (selective) display modes. • Press this button to show the refrigeration setting (07, 08, etc.).

Table 2: Temperature adjust buttons

When you press either the Warm or Cool button in Selective mode, the temperature in the refrigerated product compartment will be displayed for a few seconds.

In Continuous Display mode, the temperature in the refrigerated product compartment will be continuously displayed. The first press of either the Warm or the Cool button will show the refrigeration setting. These settings range from 0 (off) to 12 (coldest). A refrigeration setting of 07 equals 36 °F, for example.

Adjusting the Temperature

The refrigerated dairy dispenser is set in Selective mode as the default. If the temperature needs to be adjusted, follow the instructions below.

Refrigeration adjustments cannot be made in Selective mode.

Increasing the temperature
1. Make sure the dispenser is in Continuous Display mode. (See the Display modes section of this manual for instructions.)
2. Press the **Warm** button once to display the current refrigeration setting. Press it a second time to decrease the setting by 1 to make it warmer.

3. Wait four to six hours for the new temperature to stabilize. If necessary, repeat the procedure, including the wait time.
4. When the adjustment is complete, switch the dispenser to Selective mode. (See the Display modes section of this manual for instructions.)

Decreasing the temperature
1. Make sure the dispenser is in Continuous Display mode. (See the Display modes section of this manual for instructions.)
2. Press the **Cool** button once to display the current refrigeration setting. Press it a second time to increase the setting by 1 to make it cooler.
3. Wait four to six hours for the new temperature to stabilize. If necessary, repeat the procedure, including the wait time.
4. When the adjustment is complete, switch the dispenser to Selective mode. (See the Display modes section of this manual for instructions.)

Infrared Programming Window

The infrared programming window is used to update the dispenser program, if necessary.

ADDITIONAL FEATURES

PROGRAM MODE

There are several functions available within the dispenser's Program mode for both restaurant-level and service-level procedures. This section describes the available restaurant-level functions: Recipe, Calibration, Bag Selection and Refrigeration.

SYMBOL	MEANING
★	Adjust up
■	Program mode
⬟	Adjust down
▲	Reset

Table 3: Program mode buttons

Entering or Exiting Program Mode

1. Press and hold the **Program Mode** button (■) until the display briefly shows `Calibration` before changing to the default product (i.e., Cream 0%   0%).
2. Once in Program mode, press the **Program Mode** button (■) repeatedly until the display shows the required function. The functions are described below.
3. To exit Program mode and return to normal operating mode, press and hold the **Program Mode** button (■) for a few seconds until `Select Size` appears in the display.

Program mode times out from most program pages and returns to normal operating mode after three minutes of inactivity.

Program Mode Functions

Recipe
Recipe amounts are the default dispense amounts that have been preset according to McDonald's specifications. This function allows for changes to the recipe amounts, which is the amount of liquid dispensed in 1/8 oz. increments.

If you notice the product is not being dispensed accurately according to the default recipe amounts, do not use the Recipe function to make a correction. This type of correction should only be done using the Calibration function.

To adjust the Recipe amount:
1. Enter Program mode. The display will briefly show `Calibration` before changing to the default product (i.e., Cream 0%   0%). Press the **Program Mode** button (■) repeatedly until the display shows `Recipe`.

2. Press the desired dispense size button then press the **Adjust Up** (★) or **Adjust Down** (●) button as required to change the recipe amount.
3. Once the recipe amount has been changed, you can either press another product button to change its amount, or exit Program mode and return to normal operation.

The recipe amount can quickly be set to zero by pressing and holding the **Reset** (▲) button for a few seconds when you are in Program mode.

Calibration

In some circumstances, the actual volume of dispensed product may be slightly different from the recipe amount. In this case, the calibration function can be used to correct the dispensed volume.

This function should only be used when the actual dispensed amount is consistently different from the recipe amount set within the program. There could be other issues impacting the dispense amounts, therefore the following should be verified before using the calibration function:

- recipe amounts are set correctly,
- correct product, bag size, and bag type (or closest possible choice) are selected,
- valve is clean and functioning properly,
- product is at the correct temperature (34 °F to 40 °F/1.1 °C to 4.4 °C),
- the bag is loaded correctly with minimal wrinkling, and
- the tube is centered in the valve opening with no twists or kinks.

If calibration (QuickCAL) is required

To prepare the dispenser for calibration (QuickCAL) follow these vital steps:
1. Scan the dispenser's QR Code to access a calibration instructional video.
2. It is imperative the valve is cleaned before calibrating. Refer to the Valve Assembly and Front Panel cleaning instructions in this manual.
3. Load a full dairy bag and cut the tube. The dairy bag must be loaded correctly and the tube cut as directed for successful calibration. Refer to the Loading Dairy Product section of this manual.
4. After loading a full dairy bag, place a cup under the dispense point. Press the 3-shot button 3 times to dispense product which will remove air from the tube and allow the bag to settle.

To calibrate (QuickCAL) using a scale:

1.	**Set the scale to grams.**
2.	Place a clean, empty cup on the scale and press the **ZERO/TARE button**.
3.	Press and hold the **program mode button** (■) for a few seconds until the display briefly shows Calibration before changing to the default product (i.e., Cream 0% 0%).

4.	With the empty cup under the dispense point, press and hold the **1 shot quantity button** until dispensing is complete. The display will show the expected weight in grams Scale: 20.0 g.
5.	Place the cup with product on the scale.
6.	Press the **adjust up button** (★) or **adjust down button** (●) as required until the number in the display matches the weight on the scale.
7.	Press and hold the **3 shot quantity button** to save the number you entered. The display will show the two calibration percentages (e.g., Cream 2% 0%).
8.	Discard product and place the cup on the scale. Press the **ZERO/TARE button**.
9.	**Repeat steps 4 – 8 to dispense product a second time before proceeding to step 10.**
10.	With the empty cup under the dispense point, press and hold the **2 shot quantity button** until dispensing is complete. The display will show the expected weight in grams Scale: 60.0 g.
11.	Place the cup with product on the scale.
12.	Press the **adjust up button** (★) or **adjust down button** (●) as required until the number displayed matches the weight on your scale.
13.	Press and hold the **3 shot quantity button** to save the number you entered. The display will show the two calibration percentages (e.g., Cream 2% -1%).
14.	Discard product and place the cup on the scale. Press the **ZERO/TARE button**.
15.	**Repeat steps 10 – 14 to dispense product a second time.**
16.	Calibration is now complete. To exit program mode, press and hold the **program mode button** (■) until the bottom row of red lights turn off. The display will show Select Size.

Bag selection

The bag selection function allows you to select the type of product and the bag size and type installed in the dispenser. The display will show the type of dairy bag currently selected; for example, `Cream 5L L`. There are five types of bags to choose from, as shown in Table 4.

Display	Bag details
Cream 5L L	5-liter Liquibox bag filled with 18% cream
Cream 5L S	5-liter Scholle bag filled with 18% cream
Milk 5L S	5-liter Scholle bag filled with 1% milk
Milk 5L L	5-liter Liquibox bag filled with 1% milk
Cream 2.5 G	2.5 gallon Liquibox bag filled with 18% cream

Table 4: Five types of dairy bags

Follow these steps to select a bag type:
1. Enter Program mode.
2. Once in Program mode, press the **Program Mode** button ◼ repeatedly until the display briefly shows `Bag Select` and then shows the type of bag currently selected.
3. Press the **Adjust Up** (★) or **Adjust Down** (●) button to select a bag type.
4. Once you have selected the appropriate bag type, press and hold the **Program Mode** button (◼) to exit Program mode.

The default bag selection is `Cream 5L L`.

Refrigeration
This page provides access to information and functions used to control the refrigeration system.

1. Enter Program mode.
2. Once in Program mode, press the **Program Mode** button (◼) repeatedly until `Refrigeration` appears in the display.
3. Press the desired button for the function you wish to enter. The button location for each function is listed below.

Display	Button Location	Description
ESW-XXXX…	1	This displays the refrigeration software number and version currently installed.
Setting "X"	2	This function displays the current refrigeration setting and allows for adjustments to be made.
Offset "Y"	3	This function displays a temperature offset value that is used to calibrate the temperature displayed on the side console to the actual temperature of the product inside the dispenser. This function also allows for adjustments to be made.

Table 5: Refrigeration mode functions

Adjusting the refrigeration setting value
When the setting is displayed, you can adjust it.
1. Enter Program mode.
2. Once in Program mode, press the **Program Mode** button (◼) repeatedly until `Refrigeration` appears in the display.
3. Press the number **2** product button to enter the refrigeration setting function; the current setting value will be displayed (e.g., `Setting 7`).
4. Press the **Adjust Up** (★) or **Adjust Down** (●) button, depending on whether you need to make the dispenser cooler or warmer. These settings range from 0 (off) to 12 (coldest). The default refrigeration setting is 7, which equals 36 °F.
5. Exit program mode when you have finished making the adjustment.

When the adjustment has been made, wait four to six hours for the new temperature to stabilize. If necessary, repeat the procedure, including the wait time.

Adjusting the temperature offset value

Adjusting the temperature offset is not normally required and should only be done with extreme care and precision to make sure that the entered value represents an accurate offset.

The offset values range from 0 (no offset) to 15 (maximum offset). The higher the number, the warmer the displayed temperature will be. Each change to the offset value adjusts the display reading by 2 °F. The default setting is 7.

Follow these instructions to change the temperature offset:
1. Accurately determine the temperature offset required.
    a. Make sure that the dispenser is loaded with a pre-chilled, full bag of product and allow it to stabilize for 24 hours.
    b. Dispense a sample into a cup and measure the temperature with a probe type thermometer. Dispense a large enough portion into the cup to make sure that the product temperature is not affected by the cup temperature.
    c. Calculate the temperature difference (in degrees F) by subtracting the actual product temperature from the displayed temperature.
    d. Divide the result by 2. This is the *additional* offset required.

    Example 1: Temperature of the product = 38 °F
        Temperature displayed on the side console = 34 °F
        Additional offset value = (38 - 34)/2 = 2
        If the offset were 7, then the value should be increased to 9 (7 + 2).

    Example 2: Temperature of the product = 38 °F
        Temperature displayed on the side console = 42 °F
        Additional offset value = (38 - 42)/2 = -2
        If the offset were 7, then the value should be decreased to 5 (7 - 2).

2. Enter Program mode.
3. Once in Program mode, press the **Program Mode** button (■) repeatedly until `Refrigeration` appears in the display.
4. Press the number **3** product button to enter the temperature offset function; the current offset value will be displayed (e.g., `Offset 7`).
5. Adjust the offset value by pressing the **Adjust Up** (★) or **Adjust Down** (●) button as required. Each press of the button will adjust the temperature offset value by 1.
6. Exit Program mode.

Service

Functions in this mode are typically used by service technicians. However, there may be special cases where you are instructed to enter this function.

CLEANING THE DISPENSER

- The product case must be washed and sanitized regularly.
- Do not use any abrasive material or cleaners on the dispenser.
- Dispenser must not be cleaned by water jet.
- Do not spray any liquid or cleaners in or around the valve area. Liquid could damage electrical components behind the valve.

RECOMMENDED CLEANING SCHEDULE

Descriptions of the cleaning procedures follow the table.

Equipment	Frequency
• Exterior • Button panel • Catch tray • Valve area	Daily
• Product case • Product compartment	Inspect and clean as required every time a new dairy bag is loaded
• Valve assembly and front panel • Door gasket	Once a month or more frequently as required
• Condenser • Fan and inner body	Every six months

Table 6: Recommended cleaning schedule

CLEANING INSTRUCTIONS

Exterior

1. Clean exterior surfaces, including the sweetener bracket, using a soft cloth dampened with warm, clean, soapy water.
2. Rinse using a soft cloth dampened with warm, clean water.
3. Wipe dry with a soft cloth to prevent water spotting.
4. A stainless steel cleaner is recommended. Spray cleaner on the cloth and then use cloth to wipe the exterior. Use on stainless steel surfaces only.

Do not allow stainless steel cleaner to come in contact with the valve, button panel or any plastic parts.

Button Panel

1. Press and hold the **Panel Disable** button (⬤) until you hear a beep and lights on the button panel flash in sequence.
2. Clean the panel using a soft cloth dampened with warm, clean, soapy water.

3. Rinse using a soft cloth dampened with warm, clean water.
4. Wipe dry with a soft cloth.
5. The button panel will automatically return to normal operating mode after 10 – 15 seconds.

Catch Tray

If a dishwasher is available, the catch tray can be cleaned on the full wash cycle. Should a dishwasher not be available, the items may be cleaned following these steps:

1. Remove the catch tray from the dispenser.
2. Separate the two pieces of the catch tray.
3. Rinse both thoroughly with warm, clean water.
4. Wash in hot water (minimum 140 °F/60 °C) with a good quality cleaner. Wash thoroughly to reach all corners and crevices.
5. Rinse well with warm, clean water.
6. Air-dry thoroughly.
7. Put the two pieces of the catch tray back together.
8. Replace the catch tray.

Valve Area

The area around the valve door must be kept clean for proper sanitation and to maintain accurate portion amounts.

1. Open the product compartment door.
2. Thoroughly clean the area around the valve using either a soft cloth dampened with warm, clean, soapy water or a sanitized wipe.
3. Rinse using a soft cloth dampened with warm, clean water.
4. Dry thoroughly with a soft cloth.
5. Close the door.

Product Case

1. Remove the product case with empty dairy bag from the product compartment.
2. Remove bag from product case.

Partially used dairy bags cannot be reloaded because the portion amounts will not be accurate for the remainder of the bag. Therefore, the product case should be cleaned every time a new dairy bag is loaded.

3. Rinse using a soft cloth dampened with warm, clean water.
4. Wash in hot water (minimum 140 °F/60 °C) with a good quality cleaner. Wash thoroughly to reach all corners and crevices.
5. Rinse well with warm, clean water.
6. Dry thoroughly with a soft cloth or air dry completely.

Product Compartment

Cleaning and drying the product compartment each time a new bag is loaded will remove condensation and improve the efficiency of the dispenser.

Ice may form inside the product compartment. Remove ice with a clean, dry cloth prior to cleaning the compartment.

Ice will form in the product compartment occasionally. This does not necessarily mean the temperature of the product is too cold. The dispenser is not a frost-free system; some ice will be present under normal operation.

1. Remove any ice that may be in the product compartment.
   a. Turn the dispenser power off and open the door.
   b. Remove the product case with the empty dairy bag from the product compartment.
   c. With the door open, wait approximately 15 minutes for ice to soften.
   d. Wipe product compartment with a dry cloth to remove loose ice. Discard the ice.
2. Clean inside the product compartment, including the inside of the door, using a soft cloth dampened with warm, clean, soapy water.
3. Rinse using a soft cloth dampened with warm, clean water.
4. Dry thoroughly with a soft cloth.
5. Turn the dispenser back on.

Valve Assembly and Front Panel

The valve assembly holds the tube in place and guides the plunger. It also contains electronic devices to assist in temperature control and valve door open/close indication.

Prior to taking the valve assembly apart, prepare containers of
- warm, clean, soapy wash water,
- warm, clean rinse water, and
- sanitizing agent approved by McDonald's.

Do not dislodge any attached wires during cleaning.

Removing and cleaning the valve assembly and front panel
1. Turn the dispenser off and unplug it.
2. Open the door of the dispenser.
3. Open the valve door by turning the thumbscrew counterclockwise.
4. Remove the dairy bag from the dispenser.
5. Remove the catch tray (if applicable).
6. Remove the four screws that attach the front panel to the dispenser.
7. Squeeze the black grommet at the top left of the front panel and pull it forward to release it and the wires from the panel. This can take some effort.
8. Clean the front panel and screws.
   a. If a dishwasher is available, the front panel may be cleaned on the full wash cycle. Otherwise, wash thoroughly in warm, soapy water with the screws.

b. Rinse well with warm, clean water.
c. Wipe with a sanitizer soaked towel.
d. Wipe dry with a soft cloth to prevent water spotting.
9. Remove the screw at the top of the metal valve insert of the valve assembly. If the metal valve insert has a thermistor wire attached to it, remove the metal valve insert in step 11. Otherwise you can remove it now. Set aside these parts for cleaning.
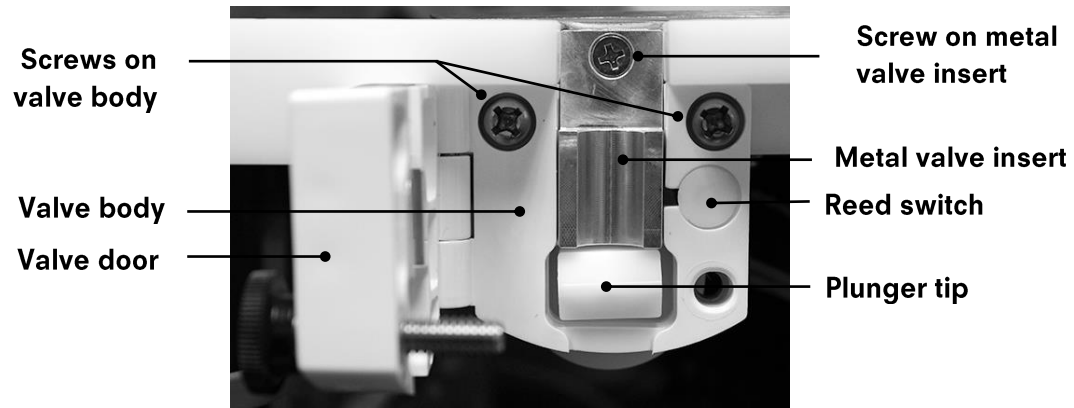

Figure 13: Valve interior

10. Firmly hold the valve body assembly (the spring may push the valve assembly forward when removing the screws). Remove the two screws from the upper corners of the valve body. Set aside the screws for cleaning.
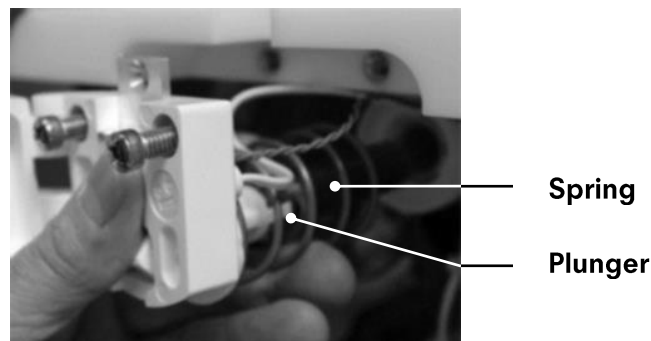

Figure 14: Remove the valve assembly from the dispenser

11. Gently remove the valve door, plunger, and spring from the valve body.
The metal valve insert and reed switch sensors are wired to the dispenser and are threaded through the valve body. In some cases, the valve body style will prevent it from being completely removed from the dispenser.

For a newer style valve body, remove the metal valve insert and reed switch from the valve body by sliding the wires horizontally through the cut-out and gently remove them through the larger opening of the cut-out. Set aside the valve body for cleaning.

Reed switch cut-out
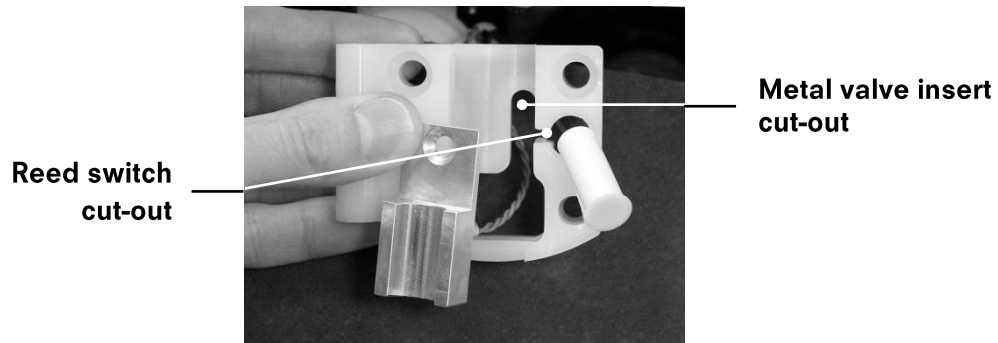
Metal valve insert cut-out

Figure 15: Removing metal valve insert and reed switch

12. Remove the round plastic ring (spring retainer) from the solenoid. It cannot be fully removed from the dispenser as the metal valve insert and the reed switch wires are threaded through an eyelet on the plastic ring (spring retainer).

Plastic ring (spring retainer)
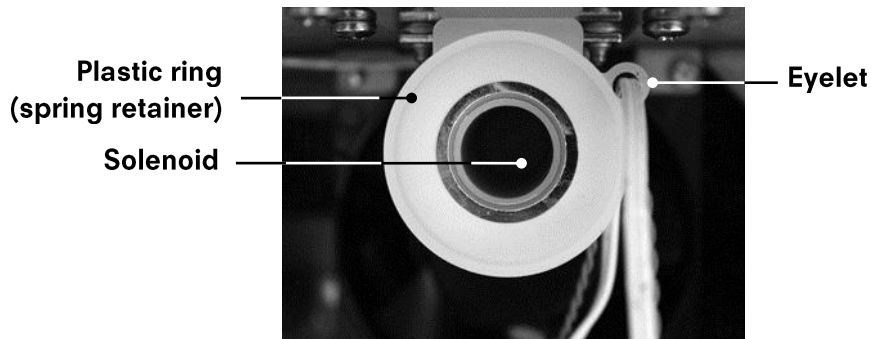
Solenoid

Eyelet

Figure 16: Plastic spring retainer and solenoid

13. Clean the valve door, valve body, plunger, spring, and screws in warm, soapy water. Rinse thoroughly, then sanitize and air dry. If the valve body style prevents it from being completely removed from the dispenser, clean the metal valve insert, reed switch, and plastic ring (spring retainer) by carefully dipping them in clean, soapy water. Rinse in clean water, sanitize and very carefully wipe dry with a clean, soft cloth.
14. While cleaning, examine the hinges. Broken hinges can result in over dispensing and must be replaced immediately.
15. Wipe the valve block with a clean, damp cloth.
16. Before reassembling the valve, check to see if there is product buildup inside the solenoid. If necessary, use a plastic knife and damp cloth to clean the area.

Reinstall the valve assembly
1. Install the plastic ring (spring retainer) snugly onto the solenoid with the flat section at the top so that the eyelet is on the right side.
2. Position the spring onto the plunger.
3. Place the plunger and spring into the solenoid, ensuring the plunger tip is positioned horizontally, and the back of the spring is pushed up against the plastic ring. Ensure the spring is centered on the plastic ring (spring retainer).
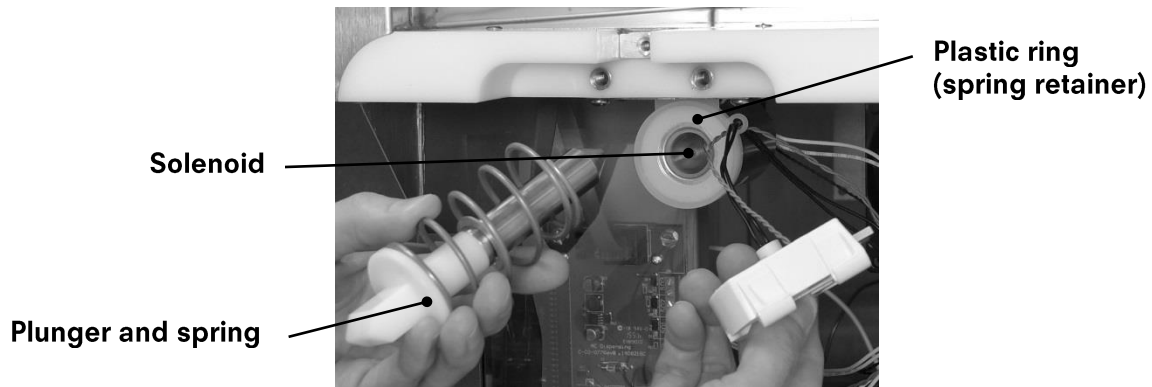
Figure 17: Install the plunger and spring into the solenoid

4. If required, re-install the metal valve insert and reed switch into the valve body by sliding the wires through the wire cut-outs on the valve body. Skip this step if the metal valve insert does not have a thermistor wire attached to it.
5. Attach the valve door to the valve body.
6. With the valve door open and attached to the valve body, line up the screw holes on the valve body with the screw holes on the valve block (dispenser). Push and hold the valve body firmly to compress the spring. While holding firmly, install the long screws to secure the valve body to the dispenser. Tighten until snug, but do not over-tighten.
7. If not done in step 4, re-install the metal valve insert. Install the short screw to secure the metal valve insert to the dispenser. The screw must fit snugly so that the refrigeration system operates properly. Do not over-tighten.

Make sure that the valve door is installed before tightening the screws because you will not be able to install the valve door after the assembly has been installed.

8. Gently pull the wire(s) back through the eyelet to ensure they move freely and that they are not pinched in the spring or hanging down.
9. Close the valve door by turning the thumbscrew clockwise. Do not overtighten.

Reinstall the front panel
1. Re-install the front panel. Slide it up between the valve body and the plunger. Install the four screws that were removed earlier and saved for reuse.
2. Close the dispenser door, plug it in and turn it back on.
3. Place a tube in the valve and close the valve door.
4. Press any button that will dispense product. Listen for the solenoid to open and close to make sure that the plunger is moving freely and operating properly. The solenoid will make a sound when it opens and closes. Once verified, the spare tube can be removed.
5. Load product case into the dispenser.

Door Gasket

1. Open the door.
2. Examine the door gasket for damage. Make sure it seals properly and there aren't any holes or gaps.
3. Clean the gasket using a soft cloth dampened with warm, clean, soapy water. Use a small brush to reach all the corners and crevices.
4. Rinse using a soft cloth dampened with warm, clean water.
5. Dry thoroughly with a soft cloth.
6. Close the door.

Condenser

1. Turn the dispenser off and unplug it.
2. Remove the back panel by removing the screws that secure it in place. Carefully pull the back panel off the dispenser.
3. Gently clean the condenser using a vacuum with a soft brush attachment. Using a vacuum prevents damage to the condenser coils.

⚠️ The condenser fins—the thin, vertical strips of metal lying over the condenser coil—are very sharp and can cut you, even if touched gently. Do not touch the condenser fins.
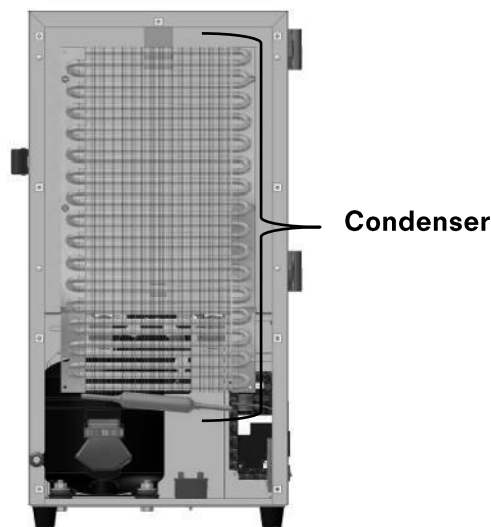
Figure 18: Condenser

4. Replace the back panel. Reinstall the screws to secure the back panel in place.
5. Plug in the dispenser and turn it back on.

Fan and Inner Body

1. Turn the dispenser off and unplug it.
2. Remove the front panel by removing the screws that secure it in place. Carefully remove the panel.
3. Gently clean the fan and inner body using a vacuum with a soft brush attachment. Using a vacuum prevents damage to the fan.

4. Make sure that you remove any cleaning supplies and tools from the inside of the dispenser.
5. Plug in the dispenser.
6. Turn the dispenser on.
7. Make sure that the fan is spinning smoothly and is unobstructed. Do a visual inspection only.

⚠ To avoid injury or equipment damage, keep hands and other objects clear of the fan when the equipment is plugged in.

8. Replace the front panel. Reinstall screws to secure it in place.

TROUBLESHOOTING

If the troubleshooting instructions do not correct the problem, contact the SureShot Solutions Technical Assistance Center at 1-888-777-9990 or 1-902-865-9602, ext. 1.

Problem	Action
Dispenser does not turn on	1. Make sure that the dispenser is plugged into an active power source. If the power source does not have power, have a qualified person inspect your facility's fuse box or circuit breaker and restore power. 2. Make sure that the power switch is in the on position. 3. Make sure that the dispenser's circuit breaker has not tripped. a. Turn the power off. b. Locate and press the circuit breaker below the power switch to make sure it has not tripped. c. No white should be showing. If white is showing on the top of the breaker, it is tripped. d. The breaker will make a clicking noise when pressed. e. Turn the power switch on. 4. Make sure that the cord in the bottom of the door is securely installed.
Display on the front door is blank	1. Press any dispense size button. Listen for the solenoid to open and close (you'll hear a click) to make sure that the plunger is moving freely and operating properly. This action must be performed with a dispense tube in place in the valve. (A spare piece of tubing can be used; a dairy bag does not have to be in place.) a. If the solenoid does not respond, try the solutions in "Dispenser does not turn on," above. b. If the solenoid responds, the display may be faulty. 2. Make sure that the cord in the bottom of the door is securely installed.
Side console is displaying unexpected characters	1. Make sure that the start-up sequence is complete; this should take about 30 seconds. `Select Size` should be showing in the door display. 2. Turn off the dispenser, wait 10 seconds, then turn the dispenser back on. This resets the program.

Problem	Action
Dispenser does not dispense product	1. Make sure that all required selections have been made. 2. Make sure that the product loading procedures have been completed. 3. Make sure that the product tube is not twisted, kinked, pinched or blocked. 4. Make sure that the product is not frozen in the tube. 5. Make sure that the recipe amounts are configured correctly and are not set to zero. 6. Make sure that the valve assembly is clean. 7. Remove valve assembly to make sure the plunger is not broken. 8. Turn the dispenser off, wait 10 seconds, then turn the dispenser back on. This resets the program. 9. Make sure all actions are followed for "Dispenser does not turn on," above.
Dispense amounts are incorrect	1. Make sure that the valve door is closed securely and the thumbscrew is tight. 2. Make sure that the product tube is properly aligned in the center of the valve and is not twisted, kinked, pinched or blocked. 3. Make sure that the dairy bag does not have a fold that obstructs product flow to the tube. 4. Make sure that the product is not frozen in the tube. 5. Make sure that the product temperature is between 34 °F and 40 °F (1.1 °C and 4.4 °C). Temperature affects the flow of dairy. 6. Make sure that the valve assembly is clean. 7. Make sure the valve assembly is installed correctly. 8. Make sure that the valve door was not opened and then closed with a partial dairy bag in the product compartment. Each time the valve door is opened and then closed, the dispenser assumes a full dairy bag has been loaded. If the dispenser incorrectly assumes a full bag was loaded, the amounts dispensed will be inaccurate for the remainder of the bag. 9. Make sure that the recipe amounts are configured correctly and are not set to zero. 10. Make sure that the correct bag type is selected.
Dispenser is leaking product	1. Make sure that the valve door is closed securely and the thumbscrew is tight. 2. Make sure that the product tube is properly aligned in the center of the valve. 3. Make sure that the product tube does not have any holes or cracks. 4. Make sure that the dairy bag does not have any holes. 5. Make sure that the valve assembly is clean. 6. Remove valve assembly to make sure the plunger is not broken. 7. Make sure that the valve assembly is installed correctly. 8. Make sure the valve hinges are not broken.

Problem	Action
Dispenser is leaking water (coming from frost)	Defrost the compartment and wipe out any ice or water with a clean, soft cloth.
Product temperature is too warm or too cold	1. Make sure that the product temperature is between 34 °F and 40 °F (1.1 °C and 4.4 °C) before loading it into the dispenser. If the temperature isn't within that range, check the temperature of the fridge where the dairy bags are stored. 2. Make sure that the dispenser is not too close to a heat-generating source, such as a coffee maker, heat lamp or direct sunlight. 3. Make sure that there is a 1-inch (2.5 cm) air space on all sides of the dispenser. 4. Make sure that the vents at the back of the dispenser are not blocked. 5. Make sure that the condenser is not dirty. 6. Make sure that the dispenser is level. Adjust legs as required. The dispenser must be level for the refrigeration system to operate properly. 7. Make sure that the fan is operating. 8. Make sure that nothing is obstructing the intake holes on the underside of dispenser. 9. Adjust the temperature. A temperature setting of "00" means the dispenser's refrigeration system is turned off. **Too warm**: If the "dot" is flashing on the side console display, the dispenser's defrost cycle is on and it is not currently cooling. If the defrost cycle time extends past 22 minutes and the dispenser is not cool, reset the defrost cycle by turning the dispenser off, wait 10 seconds, then turn it back on. The inside walls of the product compartment should become cold after approximately 12 minutes. **Too cold**: Excess ice may have formed inside the product compartment. Defrost the compartment and wipe out any ice or water with a clean, soft cloth.
Excess ice or frost in the product compartment	1. Make sure that the temperature inside the product compartment is between 34 °F and 40 °F (1.1 °C and 4.4 °C). 2. If excessive ice or frost builds up, remove it. 3. Examine the door gasket for damage. Make sure that it seals properly and there aren't any holes or gaps. **Note:** Ice will form in the product compartment occasionally. This does not necessarily mean the temperature of the product is too cold. The dispenser is not a frost-free system; some ice will be present under normal operation.
Red light is flashing on the Reset button	This indicates that the product in the bag is getting low (less than 40.6 oz. (1200 ml) remains).

SERVICE AND WARRANTY

The warranty on this product is for two years for on-site parts and labor and includes access to the USA- and Canada-wide Technical Service Network.

The warranty will be null and void if the dispenser is serviced by unqualified personnel. Under warranty, service technicians must be approved and dispatched by the SureShot Solutions Technical Assistance Center. The customer is responsible for all costs not approved by SureShot Solutions.

Contact the SureShot Solutions Technical Assistance Center at 1-888-777-9990 or 1-902-865-9602 for approval, ext. 1.

If you are within the Warranty Period for your dispenser, please contact:
SureShot Solutions Technical Assistance Center
A.C. Dispensing Equipment, Inc.
1-888-777-9990 or 1-902-865-9602
www.sureshotsolutions.com
service@sureshotsolutions.com

If your warranty has expired, feel free to contact SureShot Solutions Technical Assistance Center for telephone support. If you require onsite repairs, please contact your local Service Technician.

Consumable parts may be ordered through the SureShot Solutions website.

The serial number, model number and part number of your dispenser are located on the Product Identification Label on the outside of the dispenser. Please refer to these numbers when contacting the SureShot Solutions Technical Assistance Center. These numbers are crucial in helping us provide prompt and effective service. This will save you time.

Product identification label

Figure 19: Product identification label

USA AND CANADA WARRANTY

This dispenser is covered by a two (2) year on-site warranty, unless otherwise specified.

All dispensing equipment manufactured by A.C. Dispensing Equipment Inc. is warranted against defects in materials and workmanship for a period of two (2) years from the date of purchase.

A.C. Dispensing Equipment Inc.'s obligation under this warranty is limited to the repair of defects as outlined by an A.C. Dispensing Equipment Inc. factory-authorized service agency or one of its sub-service agencies.

This warranty does not apply to installation or problems caused by installation. This warranty does not apply to normal preventative maintenance, maintenance or adjustments deemed appropriate by A.C. Dispensing Equipment Inc.

THIS WARRANTY WILL BE NULL AND VOID IF THE DISPENSER'S WARRANTY HAS NOT BEEN REGISTERED WITH A.C. DISPENSING EQUIPMENT INC. WITHIN 60 DAYS OF PURCHASE.

This warranty is subject to the following conditions:
- This warranty applies to the original owner only and is not assignable.
- Only pre-authorized service agencies directed by A.C. Dispensing Equipment Inc. are to be utilized.
- Should any product fail to function in its intended manner under normal use within the limits defined in this warranty, at the option of A.C. Dispensing Equipment Inc., such product will be repaired or replaced by A.C. Dispensing Equipment Inc. or its Authorized Service Agency. A.C. Dispensing Equipment Inc. will be responsible only for charges incurred or service performed by its Authorized Service Agencies. The use of other than A.C. Dispensing Equipment Inc. Authorized Service Agencies will void this warranty and A.C. Dispensing Equipment Inc. will not be responsible for such work or any charges associated with such work. The closest A.C. Dispensing Equipment Inc. Authorized Service Agency must be used and must be dispatched by A.C. Dispensing Equipment Inc.

TIME PERIOD
Two years on parts and labor, effective from the date of purchase. The Authorized Service Agency may, at its option, require proof of purchase. Parts replaced under this warranty are warranted for the unexpired portion of the original product warranty only.

A service consultant is available to assist you during our normal business hours. All service related issues will be addressed with a return telephone call by the next business day.

WARRANTY PROCEDURE
1. Secure the serial number, model number and option code from the product identification label on the outside of the equipment.
2. Call the number provided on the service label on the dispenser.
3. Our Technical Assistance Center staff will discuss the issue with you and, if necessary, dispatch a technician to your location for repairs. If after-hours or emergency assistance is required, A.C. Dispensing Equipment Inc. will not be responsible for any additional charges.

4. To order parts, call the service center and the appropriate parts will be sent to your location or that of the servicing agency.

The following procedures and conditions are not covered by this warranty:
- Equipment failure related to improper installation, improper utility connection or supply or problems due to ventilation.
- Equipment that has not been properly maintained, calibration controls, adjustments, damage from improper cleaning and water damage to controls.
- Equipment that has not been used in an appropriate manner or has been subject to misuse or misapplication, neglect, abuse, accident, alteration, negligence, damage during transit, delivery or installation, fire, flood, riot or act of God.
- Equipment on which the model number or serial number has been removed or altered.
- If the equipment has been changed, altered, modified or repaired by other than a qualified service technician during or after the warranty period, then the manufacturer shall not be liable for any damages to any person or property which may result from the use of the equipment thereafter.
- Any and all adjustments deemed appropriate for the customer to perform will not be covered under warranty, i.e., temperature adjustment, leveling of the unit by its leg extensors, adjustments to portion control, resetting of the circuit breaker found on the unit, tube positioning, temperature offset adjustment, or any other adjustment that can be performed by the operator of the unit deemed necessary by A.C. Dispensing Equipment Inc.
- All warranty calls will be strictly monitored. Any parts that are used may be required to be returned to the manufacturer for examination with the signed field report outlining all work performed on the unit. Any part replaced that is found not to be defective, A.C. Dispensing Equipment Inc. reserves the right to refuse payment for the associated replacement part(s).
- All preventative maintenance and cleaning requirements will not be covered under warranty.

This warranty does not cover services performed at overtime or premium labor rates. Should service be required at times which normally involve overtime or premium labor rates, the owner shall be charged for the difference between normal service rates and such premium rates. A.C. Dispensing Equipment Inc. does not assume any liability for extended delays in replacing or repairing any items beyond its control.

In all cases, the use of other than A.C. Dispensing Equipment Inc. authorized OEM replacement parts will void this warranty.

This equipment is intended for commercial use only. Warranty is void if equipment is installed in other than commercial applications.

THE FOREGOING WARRANTY IS IN LIEU OF ANY AND ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS AND CONSTITUTES THE ENTIRE LIABILITY OF A.C. DISPENSING EQUIPMENT INC. IN NO EVENT DOES THE LIMITED WARRANTY EXTEND BEYOND THE TERMS STATED HEREIN.

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