

ingle Basket Dispense Installation and Operation Manual





Frymaster, a member of the Commercial Food Equipment Service Association, recommends using CFESA Certified Technicians.

24-Hour Service Hotline 1-800-551-8633

819-5874 MARCH 2005



IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE, OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY, OR DEATH. READ THE INSTALLATION, OPERATING, AND SERVICE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

A DANGER

FOR YOUR SAFETY, DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE LIQUIDS OR VAPORS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

THIS EQUIPMENT IS TO BE INSTALLED IN COMPLIANCE WITH THE BASIC PLUMBING CODE OF THE BUILDING OFFICIALS AND CODE ADMINISTRATORS INTERNATIONAL, INC. (BOCA) AND THE FOOD SERVICE SANITATION MANUAL OF THE FOOD AND DRUG ADMINISTRATION.

COMPUTERS FCC

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

1) This device may not cause harmful interference, and 2) This device must accept any interference received, including interference that may cause undesired operation. While this device is a verified Class A device, it has been shown to meet the Class B limits.

CANADA

This digital apparatus does not exceed the Class A or B limits for radio noise emissions as set out by the ICES-003 standard of the Canadian Department of Communications.

Cet appareil numerique n'emet pas de bruits radioelectriques depassany les limites de classe A et B prescrites dans la norme NMB-003 edictee par le Ministre des Communcations du Canada.

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# Sin 300 II SINGLE BASKET DISPENSER CHAPTER 1: GENERAL INFORMATION

# 1.1 Parts Ordering and Service Information

In order to assist you as quickly as possible, the **Frymaster** Factory Authorized Service Center (FASC) or Service Department representative requires certain specific information about your equipment. Most of this information is printed on a data plate affixed to the upper right corner of the right side of your unit. Specific part numbers are listed in Chapter 5 of this manual.

Parts orders may be placed directly with your local FASC or distributor. Included with your unit when shipped from the factory is a list of **Frymaster** FASCs. If you do not have access to this list, contact the **Frymaster** Service Department at 1-800-551-8633.

When ordering parts, the following information is required:

Model Number:	
Serial Number:	
Voltage:	
Item Part Number:	
Quantity Needed:	

Service information may be obtained by contacting your local FASC or Distributor. Service may also be obtained by calling the *Frymaster* Service Department at 1-800-551-8633.

When requesting service, please have the following information ready:

Model Number:	
Serial Number:	
Voltage:	

In addition to the model number, serial number, and voltage, please be prepared to describe the nature of the problem and have ready any other information that you think may be helpful in solving your problem.

### 1.2 Safety Information

Before attempting to operate your unit, read the instructions in this manual thoroughly. Throughout this manual, you will find notations enclosed in double-bordered boxes similar to the one below.



**CAUTION** boxes contain information about actions or conditions that *may cause or result in a malfunction* of your unit.

**WARNING** boxes contain information about actions or conditions that *may cause or result in damage to your unit,* and which may cause your unit to malfunction.

**DANGER** boxes contain information about actions or conditions that *may cause or result in injury to personnel*, and which may cause damage to your unit and/or cause your unit to malfunction.

# 1.3 Equipment Description

The Sin Bo II Single Basket Dispenser is designed to dispense french fries in batches of consistent weight into standard fryer baskets. The Sin Bo II is a follow-on version of the original Sin Bo design. It is identical to the original unit in operation but has a smaller cabinet.

The units consist of

- a hopper which holds up to 39 lbs/17.79 kg of fries
- a dispensing chute into which the specified weight of fries for one basket is loaded
- a computer and an operator control panel for controlling operation
- a proximity switch that dispenses the fries into the basket when the basket is inserted beneath the dispensing chute
- a sight-glass for visually monitoring the level of french fries in the hopper.

Additionally, the units are equipped with casters to allow them to be easily moved into position. The front casters are equipped with locking mechanisms to secure the units in place.

The Batch Weight Selectors of your Sin 20 unit have been factory-programmed to dispense batches of four standard sizes, but they may be reprogrammed for other weights. The weights programmed by the factory vary according to the country for which the unit was manufactured. Refer to Page 2-3 for the factory programmed weight settings.

# 1.4 Installation, Operating, and Service Personnel

Operating information for **Frymaster** equipment has been prepared for use by qualified and/or authorized personnel only, as defined in Section 1.5.

All installation and service on **Frymaster** equipment must be performed by qualified, certified, licensed, and/or authorized installation or service personnel, as defined in Section 1.5.

### 1.5 Definitions

### **QUALIFIED AND/OR AUTHORIZED OPERATING PERSONNEL**

Qualified/authorized operating personnel are those who have carefully read the information in this manual and have familiarized themselves with the equipment functions, or who have had previous experience with the operation of the equipment covered in this manual.

### **QUALIFIED INSTALLATION PERSONNEL**

Qualified installation personnel are individuals, firms, corporations, or companies which, either in person or through a representative, are engaged in and are responsible for the installation of commercial electric appliances. Qualified personnel must be experienced in such work, be familiar with all electrical precautions involved, and have complied with all requirements of applicable national and local codes.

### **QUALIFIED SERVICE PERSONNEL**

Qualified service personnel are those that are familiar with **Frymaster** equipment and who have been authorized by **Frymaster** to perform service on its equipment. All authorized service personnel are required to be equipped with a complete set of service and parts manuals, and to stock a minimum amount of parts for **Frymaster** equipment.

A list of Factory Authorized Service Centers (FASCs) is included with your unit when shipped from the factory. Failure to use qualified service personnel will void the warranty on your equipment.

# 1.6 Shipping Damage Claim Procedure

Your equipment was carefully inspected and packed before leaving the factory. The transportation company assumes full responsibility for safe delivery upon its acceptance of the equipment for transport.

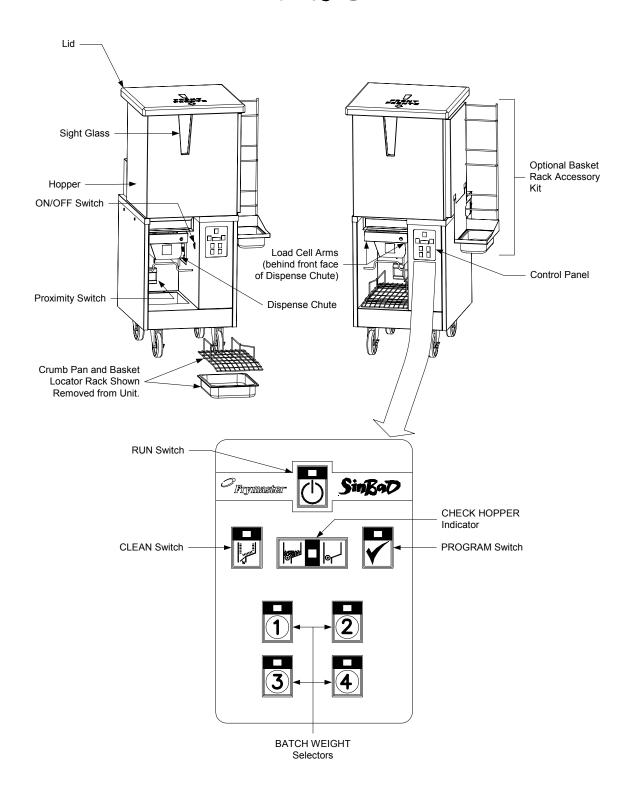
### What to do if your equipment arrives damaged:

- 1. **File a claim for damages immediately**, regardless of the extent of damages.
- 2. **Inspect for and record all visible loss or damage**, and ensure that this information is noted on the freight bill or express receipt and is signed by the person making the delivery.
- 3. **Concealed loss or damage** that was unnoticed until the equipment was unpacked should be recorded and reported to the freight company or carrier **immediately** upon discovery. A concealed damage claim must be submitted within 15 days of the date of delivery. Ensure that the shipping container is retained for inspection.

**Frymaster** DOES NOT ASSUME RESPONSIBILITY FOR DAMAGE OR LOSS INCURRED IN TRANSIT.

# Sin 300 II SINGLE BASKET DISPENSER CHAPTER 2: INSTALLATION AND OPERATION

# FINDING YOUR WAY AROUND YOUR NEW Sin So UNIT



### 2.1 Installation



All electrically operated appliances must be electrically grounded in accordance with local codes, or in the absence of local codes, with the applicable national electrical code. If this appliance is equipped with a three-prong grounding plug for your protection against electrical shock hazard, it must be plugged directly into a properly grounded three-prong receptacle. DO NOT CUT OFF OR REMOVE THE GROUNDING PRONG FROM THIS PLUG.



This appliance is intended for indoor use only. IT IS NOT SUITABLE FOR OUTDOOR USE.



This appliance is not suitable for installation in an area where a water jet could be used.



This appliance must be installed on a horizontal surface, i.e., a surface having a slope of less than 2°.

# **A** CAUTION

For proper operation, this appliance should be installed in an area having an ambient temperature within the range  $40^{\circ} - 110^{\circ}F$  ( $4^{\circ} - 43^{\circ}C$ ).

Installation of your Sin Zo unit consists of locating the unit on a horizontal surface adjacent to an AC outlet of appropriate voltage (refer to the data plate affixed to the upper right corner of the right side of the unit), locking the casters, and connecting the unit to an appropriate electrical source. When the unit is permanently connected to the electrical source by means of a flexible cord, a disconnecting means that complies with applicable local and national codes must be provided as part of the installation.

Locate the unit in an area where it will not be bumped or jarred during normal activities. Movement of the unit during operation may cause inaccurate filling of the dispensing chute. Once the unit has been positioned, and connected, remove the load cell shipping protector. The load cell shipping protector consists of a bolt, red wingnut, shim, and large red tag. The bolt and shim MUST be removed for proper operation.

### 2.2 Self-Zeroing

The Sin Row unit is self-zeroing. Each time the unit is placed in the RUN mode, it performs a self-zeroing routine. The routine is characterized by the Dispensing Chute door opening for about 20 seconds and the sequential flashing of the batch weight selector lights. The door will close and the lights will stop flashing when the self-zeroing routine is complete.

# 2.3 Operation

# **CAUTION**

# Ensure the ON/OFF Rocker Switch is in the OFF position before installing the hopper.

- 1. Verify that the ON/OFF Rocker Switch is in the "OFF" position.
- 2. Verify that the crumb pan is properly inserted in the deck cutout.
- 3. Verify that the basket locator rack is properly positioned with the wide end facing you.
- 4. Verify that the dispensing chute is properly positioned on the load cell arms, with the door hinge screws to the right as you face the unit. Failure to properly position the chute will result in erratic batch weights.
- 5. Verify that the drum and deflector are properly positioned inside the hopper. Failure to do so will result in a malfunction of your unit. If the deflector is deformed (i.e., bent or distorted), a malfunction of your unit is likely.



A pinch-point exists between the drum and hopper when the drum is turning. When removing or installing the deflector or dispensing chute, place the ON/OFF Rocker Switch in the "OFF" position.

- 6. Verify that the hopper is properly positioned in its cradle. Make sure that the hopper is seated behind the locking shoulder on the cradle. Failure to do so will result in malfunctioning of your unit.
- 7. Verify that the sight glass is installed. If it is not installed, fries will fall out of the hopper during operation.
- 8. Place the ON/OFF Rocker Switch in the ON position. The switch will illuminate, indicating that electrical power is being supplied to the unit.
- 9. Press the RUN Switch once to place the unit in the RUN mode. The indicator light in the switch will illuminate. The dispensing chute door will open as the unit begins self-calibration and the lights in the batch weight selectors will sequentially flash. The door will close about 20 seconds later and the lights will stop flashing when calibration is completed. Only the RUN mode indicator will be illuminated.
- 10. Open the hopper lid and load up to 39-lbs./17.79 kg of French fries into the hopper. Close the hopper lid.
- 11. Press the BATCH WEIGHT Selector that corresponds to the desired weight of potatoes. The weights programmed by the factory vary according to the end user and country for which the unit was manufactured. The four groups of factory-programmed weights are listed in the following table. (NOTE: BK denotes units built for Burger King[®]).

U.S.	Non-BK U.S.	Canada	All Others
1 = 1.00  lb/.45 kg	1 = 1.38  lb/.62 kg	1 = 0.50  lb/.23 kg	1 = 0.38  lb/.17  kg
2 = 1.25  lb/.57  kg	2 = 1.23  lb/.56  kg	2 = 1.10  lb/.50  kg	2 = 0.75  lb/.34 kg
3 = 1.50  lb/.68 kg	3 = 0.94  lb/.43 kg	3 = 1.30  lb/.59  kg	3 = 0.94  lb/.43 kg
4 = 1.00  lb/.45  kg	4 = 0.75  lb/.34 kg	4 = 1.70  lb/.77  kg	4 = 1.38  lb/.62  kg

The indicator light in the selector will illuminate and the drum will begin to rotate, transferring fries from the hopper to the dispensing chute. When the prescribed weight has been transferred, drum rotation will cease.

12. Insert an empty basket all the way to the rear of the dispensing chamber. The dispensing chute door will open, dropping the fries into the basket. When the chute is empty, the door will close and the unit will begin to transfer another batch of fries into the chute.



The dispensing of fries into a basket is initiated by an inductive proximity switch located in the dispensing well. The proximity switch activates only when it senses a metallic mass greater than a certain size (e.g., an inserted basket). Thus, it will not be activated by the operator's hand, a cleaning cloth, or any other non-metallic object. However, a ring, watch or some other type of metal could initiate a dispense cycle if inserted into the switch detection area.

NOTE: Built-in logic recognizes the removal and replacement of the basket. Once a dispense cycle has been completed, another basket may be inserted into the dispense well. As soon as the fries in the chute reach the specified weight, the unit will immediately dispense them into the waiting basket. The unit will NOT initiate another dispense cycle if the full basket is not removed and replaced, nor will it initiate another dispense cycle if there is no basket in the dispense well.

To change the batch weight, press another of the numbered selectors <u>before</u> the chute is emptied. If the weight is increased, fries will be dispensed until the new weight is attained. If the batch weight is reduced, the change will take effect with the <u>next cycle after</u> the dispensing chute is emptied.

If the dispensing chute does not fill within 30 seconds, the CHECK HOPPER indicator in the middle of the control panel will begin to blink and drum rotation will stop. Check the hopper to see if it is empty, reload the hopper then press the PROGRAM Switch once to place the unit back into operation. If the hopper appears to contain plenty of fries, the fries have probably "bridged" (i.e., stuck together to form an arch over the drum). Redistribute the fries then press the PROGRAM Switch once to place the unit back into operation.

### 2.4 Programming the Batch Weight Selectors

The four Batch Weight Selectors in your  $\mathfrak{SinBa}$  are factory programmed with four standard batch weights (see page 2-3). If desired, they can be reprogrammed to dispense batch weights ranging from a minimum of .38 lb/.23 kg up to a maximum of  $2\frac{1}{4}$  lbs/1 kg.



Programming the unit for weights less than .38 lb/.23 kg will result in erratic batch weights.

The PROGRAMMING mode can only be entered when the unit is in STANDBY mode. To enter the STANDBY mode, press the RUN Switch once. Verify that the indicator light in the Switch is out. If not, press the RUN Switch again.

- 1. Remove the hopper assembly from the unit. **NOTE:** If the hopper is not empty, refer to Section 3.1 for instructions on emptying the hopper.
- 2. Press the PROGRAM Switch once to enter the PROGRAMMING mode. The indicator light in the switch will blink. Press BATCH WEIGHT Selector 1 four times. The indicator lights in each of the selectors will light in sequence until all four are lit, at which time the indicator in the PROGRAM Switch will stop blinking and the indicator in the CLEAN Switch will blink.

NOTE: If you do not begin pressing Selector 1 within 5 seconds after entering the PROGRAMMING mode, the unit will automatically return to the STANDBY mode. If you press a BATCH WEIGHT selector other than 1, the unit will return to the STANDBY mode immediately after the selector is pressed.

- 3. Press the CLEAN Switch once. The dispensing chute door will open and the lights above the numbered selectors will blink, indicating that the system is "zeroing" itself and performing its self-calibration routine. This process takes about 20 seconds. When the process is complete, the dispensing chute door will close and the indicator lights will go out.
- 4. Carefully place an object weighing ½-pound (.11 kg) less than the desired batch weight on the dispensing chute door and wait at least 5 seconds for the load cell to stabilize. For example, to program a batch weight of 1 lb/.45 kg, use an object weighing ¾ lb/.34 kg.
- 5. Press one of the numbered switches to program the weight associated with that switch. The switch's indicator will light momentarily then go out, showing that the weight for that switch has been successfully recorded.
- 6. Repeat steps 4 and 5 for each of the remaining numbered switches.
- 7. Press the PROGRAM Switch once to exit the PROGRAMMING mode.
- 8. Press the RUN Switch once to return to the RUN mode. The light in the switch will illuminate and the dispensing chute door will open and remain open for about 20 seconds as the unit re-zeros itself. Additionally, the lights in the batch weight selectors will sequentially flash during the self-zeroing routine. When the door closes, replace and reload the hopper to return the unit to operation.

### 2.5 Manual Operation

If the unit fails to zero, the unit can be manually operated until a servicer arrives to make repairs. Follow the procedure below.

- 1. Turn the computer off (press the RUN Switch ...).
- 2. Place a basket under the hopper dispense door.
- 3. Press the CLEAN Switch once to dispense fries into the basket. NOTE: If the dispense door fails to open, pull down on the door arm to manually open the door.
- 4. When the basket is filled to the desired level, press the CLEAN Switch 💆 once to stop dispensing fries.

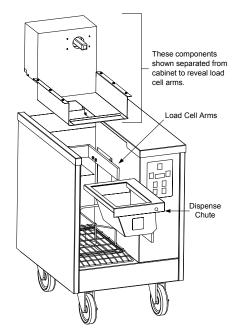
# Sin Bo 2 II SINGLE BASKET DISPENSER **CHAPTER 3: MAINTENANCE & OPERATOR TROUBLESHOOTING**

### 3.1 **Cleaning and Maintenance**

Routine cleaning in accordance with the following steps is the only operator maintenance required for your Sin Ba Dunit.

- 1. Put the unit in STANDBY mode. Place a container beneath the dispensing chute and press the CLEAN D Switch. The indicator in the switch will light. The dispensing chute door will open and the drum will rotate, transferring fries from the hopper to the container. Press the CLEAN Switch again to stop transferring. To transfer more fries, press the CLEAN Switch again. When the hopper is empty, press the RUN Switch once to return to the STANDBY mode. The dispensing chute door will remain open.
- 2. Place the ON/OFF Rocker Switch in the OFF position.
- 3. Remove the hopper lid and the metal deflector. Lift up on the hopper while carefully pulling it toward you. This will disengage the hopper from its retainer, allowing it to slide forward for removal.

Remove the dispensing chute by lifting it up from the load cell arms and carefully sliding it out toward you.



WARNING

NEVER REMOVE THE ALUMINUM LOAD CELL ARMS FROM YOUR UNIT! DOING SO CAN CAUSE SERIOUS DAMAGE TO YOUR UNIT.

4. Clean all components in accordance with the prescribed sanitary procedures of your organization. Completely dry all components before reassembling the unit by reversing the disassembly process.



L DANGER!

Do not use a water jet to clean this appliance. The hopper, deflector, crumb pan, dispense chute, etc. may be cleaned with a water jet if removed from the unit.



CAUTION

When replacing the dispensing chute, ensure that the door hinge screws are to the right as you face the unit.

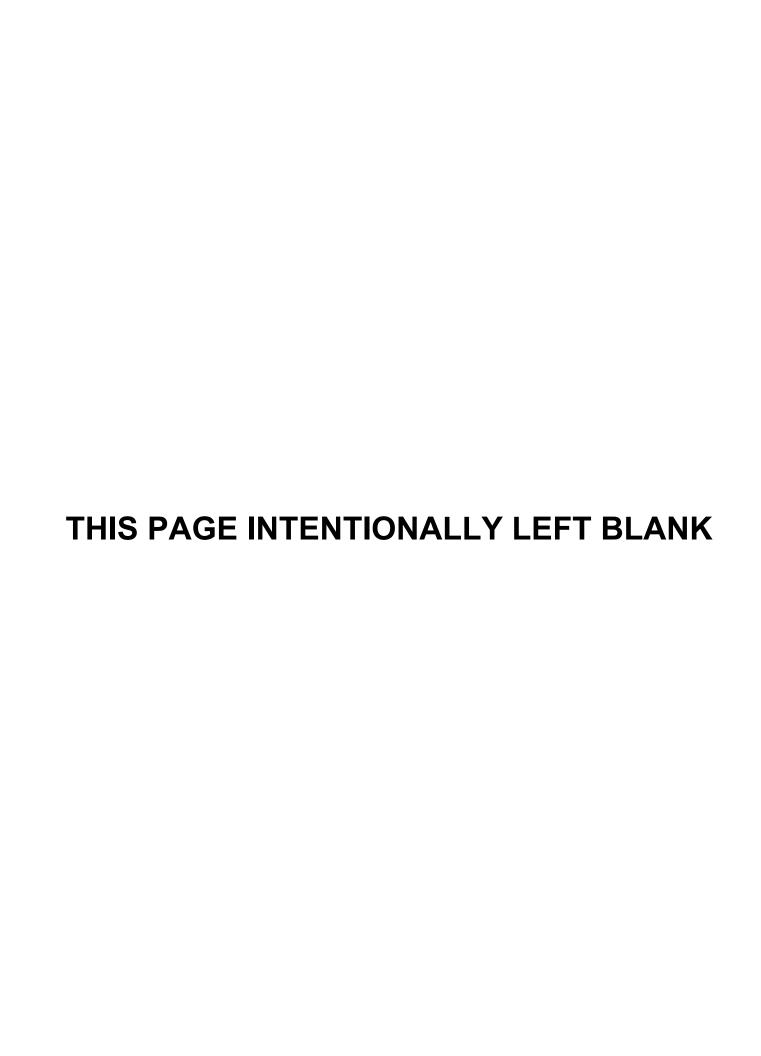
### 3.2 **Operator Troubleshooting**

The operator troubleshooting guides found on the following pages are intended to help operators resolve routine problems that may be encountered during operation of the unit.

PROBLEM	Probable Causes	Corrective Action
UNIT WILL NOT	A. ON/OFF rocker switch is in OFF	A. Place rocker switch in the ON
POWER UP or	position.	position.
NOTHING HAPPENS	B. Unit is not plugged in.	B. Plug unit in.
WHEN "RUN" MODE	C. Main circuit breaker is tripped.	C. Reset circuit breaker.
IS SELECTED.	If the problem is not corrected by one of th	
RUN SWITCH INDICATOR AND PROGRAM SWITCH INDICATOR ARE FLASHING.	A. Dispensing chute is not properly positioned on the load cell arms.  Simultaneous flashing of the run switch inc	A. Reposition dispensing chute so that is firmly seated on the load cell arms. Turn the unit OFF then back ON using the ON/OFF rocker switch. Press the RUN switch dicator and program switch indicator
FLASHING.	signals that the unit is not properly zeroed. above action, call FASC.	
NOTHING HAPPENS WHEN A BATCH SIZE SELECTOR IS PRESSED.	A. Dispensing chute is full.	A. If the dispense chute has been loaded but not dispensed, nothing will happen until the batch has been dispensed, except when the batch weight is increased. Insert a basket into the dispensing well to dispense batch.
	B. Unit is not in RUN mode.	B. Press RUN switch once.
	If one of the above actions did not correct t	the problem, call FASC.
DISPENSE DOOR DOES NOT OPEN WHEN BASKET IS INSERTED.	A. The load cell may not have been satisfied within 30 seconds, normally because the hopper is empty or the fries have "bridged".	A. Check the hopper to verify that the deflector is properly positioned. If there are fries in the hopper, verify that there is no bridging. If the hopper is empty, reload the hopper. Press the PROGRAM switch once to place the unit back into operation.
	If the above action did not correct the prob	lem, call FASC.
ERRATIC BATCH WEIGHTS ARE	A. If the erratic batch weights are occurring only occasionally, the probable cause is bumping, jarring, and/or unusual vibration (such as caused by inserting a basket with undue force, the slamming of a freezer door, or the passing of a nearby train).	effect of environmental vibrations.
BEING DISPENSED.	B. If the erratic batch weights are occurring consistently, the probable causes are misaligned components (B1) or improperly programmed batch weights (B2).	B1. Verify that the dispensing chute is properly positioned on the load cell arms, that the deflector is properly positioned in the hopper, and that the hopper is fully seated behind the locking rim on the cradle assembly.

PROBLEM	Probable Causes	Corrective Action
ERRATIC BATCH WEIGHTS ARE BEING DISPENSED. (Continued from previous page.)	Continued from previous page.  If one of the above actions does not correct	B2. The minimum weight that should be programmed is .38 lbs. (.17kg). If a weight less than .38 lbs. (.17kg) has been programmed and selected, the unit will dispense batches of erratic weights. Verify programming in accordance with instructions in Chapter 2.
	with the load cell. Call FASC.	t the problem, there may be a problem
DRUM MOTOR RUNS CONTINUOUSLY UNTIL UNIT TIMES	A. Fries in hopper are bridging.	A. Clear bridging (i.e., clumps of fries stuck together and forming an arch over the drum and/or hopper outlet.
	B. Improperly positioned drum and/or hopper or improperly positioned dispense chute.	B. Verify that the hopper and drum are properly installed. If the drum motor does not engage the drum properly, the motor may run, but the drum will not turn or may turn erratically.
OUT WITH "CHECK HOPPER" ERROR, EVEN THOUGH		Verify that the dispense chute is properly positioned on the load cell arms.
HOPPER APPEARS FULL OR DISPENSE CHUTE IS FULL.	C. Batch weight of 2.25 lbs. (1kg) or greater has been programmed.	C. The maximum weight that the load cell can measure is 2.25 lbs. (1kg). If a greater weight is programmed and selected, the unit cannot "satisfy" the load cell. For best operation, the batch weight should be kept to 2 lbs. (.9kg) or less. Verify programming in accordance with instructions in Chapter 2.
	If one of the above actions does not correct with the load cell. Call FASC.	t the problem, there may be a problem
INIT WILL NOT CO	A. Unit was not in STANDBY mode when attempt was made to enter CLEAN mode.	A. The CLEAN mode can only be selected when the unit is in the STANDBY mode.
UNIT WILL NOT GO INTO CLEAN MODE.		B. Press the RUN Switch once to place the unit in the STANDBY mode, and then press the CLEAN Switch.
	If the above action did not correct the prob	olem, call FASC.

PROBLEM	Probable Causes	Corrective Action
UNIT GOES BACK TO "STANDBY" MODE WHILE OPERATOR IS TRYING TO ENTER "PROGRAM" MODE.	A. Operator error.	A. Batch weight selector "1" must be pressed four consecutive times within 5 seconds after the PROGRAM Switch is pressed. If more time is taken, or if a selector other than "1" is pressed, the unit automatically returns to the STANDBY mode.
	If the above action did not correct the prob	olem, call FASC.





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