3280032   *Model 327, 328*

SUREVEND

Cold Drink Center

Operators' Guide

This machine has been engineered to our own rigid safety and performance standards. It has been designed to comply with sanitation and health guidelines recommended by the Automatic Merchandising Health-Industry Council (AMHIC) and it conforms with all other NAMA safety recommendations.

This machine has been manufactured in accordance with the safety standards of both Underwriter's Laboratories and the Canadian Standards Association. To maintain this degree of safety and to continue to achieve the level of performance built into this machine, it is important that installation and maintenance be performed so as to not alter the original construction or wiring and that replacement parts are as specified in the ***Parts Manual***. Your investment in this equipment will be protected by using this ***Operatos's Guide*** and the ***Parts Manual*** in your operation, service and maintenance work. By following prescribed procedures, machine performance and safety will be preserved.

Crane Merchandising Systems Parts and Support
Parts: 1-800-621-7278 Service:1-800-628-8363

TABLE OF CONTENTS

Initial Set-up

Power Requirements

This merchandiser requires power as shown in the following table. NOTE: Each merchandiser should have its own electrical circuit.

Power Requirements

Country	Volts	Frequency (Hz)	Current (Amps)
U.S., Mexico, and Canada	115	60	20
International	230	50	13 - 16

This merchandiser is supplied with a service cord for the country of use and is terminated in a grounding type plug. The wall receptacle used for this merchandiser must be properly polarized, grounded, and of the correct voltage. Operating the merchandiser from a source of low voltage will VOID YOUR WARRANTY. Each merchandiser should have its own electrical circuit and that circuit should be protected with a circuit breaker or fuse conforming to local regulations.

Voltage Check - Place the leads of a voltmeter across the LINE (LIVE) and NEUTRAL terminals of the wall receptacle. The voltmeter should indicate 110-130 volts ac for 120 volt, 60 Hz locations, or 220-240 volts ac for 230 volt, 50 Hz locations.

Polarity Check - Place the leads of a voltmeter across the LINE (LIVE) and GROUND terminals of the wall receptacle. The voltmeter should indicate 110-130 volts ac for 120 volt, 60 Hz locations, or 220-240 volts ac for 230 volt, 50 Hz locations.

Noise Potential Check - Place the leads of a voltmeter across the NEUTRAL and GROUND terminals of the wall receptacle. The voltmeter should indicate 0 volts ac. A measurement greater than 1.5-2.0 volts ac could result in problems for the merchandiser's electronic circuitry caused by electrical noise.

Any deviation from these requirements could result in unreliable performance from your merchandiser.

Water Requirements

If your location has chemically softened water, one of the following steps is advised:

- Have a non-softened supply line run to the merchandiser
- Contact your local water filter supplier for information and suggestions

Well water can also be used in the Cold Drink Center. However, you should have it checked for levels of carbonates and alkalies. Contact your water filter supplier if these values are relatively high.

Water Pressure

Minimum water pressure: 20 psi (138.0 KPa) at 1/2 gallon/minute
Maximum water pressure: 80 psi (522.0 KPa) at 1/2 gallon/minute

Cold Drink Center (327/328) Operator's Guide

Supply Line Requirements

Locate supply line at the rear of the merchandiser.

Equip the line with a shut-off valve.

Flushing Water Supply Line

Flush the water supply line before connecting it to the merchandiser. A minimum of five gallons is usually required before connecting the merchandiser to the supply line. To avoid introducing possible water line contaminants into the merchandiser, DO NOT flush the merchandiser water system.

Positioning The Merchandiser

You can position this merchandiser anywhere in a bank of machines. It can even be placed on the end flush against a side wall.

Leave enough room in front of the merchandiser for the door to move freely.

BE SURE THE REAR OF THE MERCHANDISER IS AT LEAST 6" AWAY FROM THE WALL. THIS WILL ENSURE WARM MOIST AIR IS VENTED OUT OF THE MACHINE'S INTERIOR AND THE REFRIGERATOR CONDENSER FAN IS NOT OBSTRUCTED.

NOTE

This machine is only rated for installation in an indoor location.

Final Installation

1. Connect the merchandiser to the water supply:

    a. You will need the following:

    - A coil of copper tubing with outside diameter of 3/8 inch (9.5 mm) or greater. The appropriate plastic tubing may be substituted.

    - A 3/8 inch (9.5 mm) flare nut. A 3/8 inch (9.5 mm) male flare is provided.

    b. Connect the merchandiser to your water supply.

2. Connect the merchandiser to the power source:

Power to the merchandiser is controlled by the main power switch, located on the power panel.

    a. Make sure the main power switch is **OFF**.

    b. Connect the merchandiser's power cord to your wall outlet.

3. Using a spirit level, level the merchandiser front to back and side to side.

4. Set up the menu assembly:
    a. Swivel the cup turrets away from the door.
    b. Remove the thumb screws as shown, and slide out the menu assembly.
    c. Install selection inserts as shown.
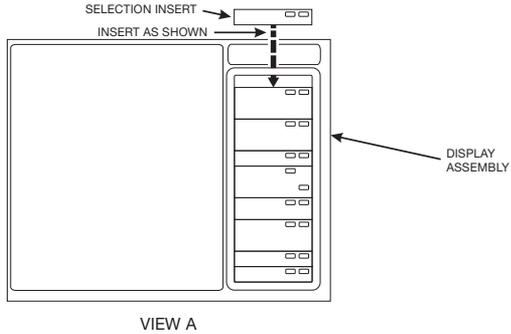
5. Reinstall the menu assembly in the reverse order of assembly.

6. Load the coin mechanism:
    a. Open the cabinet door and the monetary door.
    b. Insert coins into their respective tubes until each tube has been filled.
    c. Inspect the tubes for shingled coins and correct if necessary.

SELECTION INSERT

INSERT AS SHOWN

DISPLAY ASSEMBLY

VIEW A

DOOR

VIEW A

SLIDE

THUMB SCREW
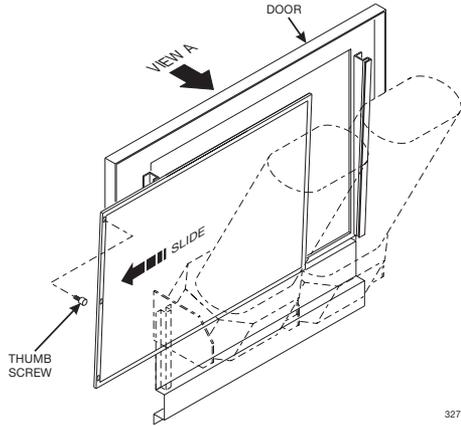
327p0001

BRAND NAME LABELS FOR COLD DRINK SELECTIONS ARE AVAILABLE FROM THE FOLLOWING SOURCES:

National Beverage Screen Printers
609 East Main Street
Williston, SC 29853-5272
Outside South Carolina call: 1-800-325-9021
Inside South Carolina call: 1-803-266-5272
Fax: 1-803- 266-5301
The suggested style is: NBS-57
Size: .81 x 2.62

Install Options

1. Install the coin box lock:
   a. Install the lock cylinder, washer, and nut in the order shown.
   b. Tighten the nut.
   c. Install the lock bar as shown, and secure with the screw.

LOCK
CYLINDER

SCREW

NUT

WASHER

363pk020
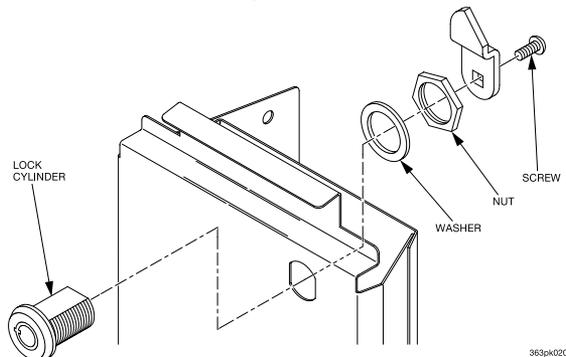
2. Mount the base plate brackets:
   a. Secure a base plate bracket at each of the remaining pairs of holes with two of the hex head screws.

3. Mount the base plate and slides:
   a. Insert the short arm of the slides into the hinged tabs of the base plate. Position the slide so the notch near the short arm is on the bottom side.
   b. Insert the long arms of the slides into the base plate brackets.
   c. Insert a cotter pin through the hole in the back end of each slide. Secure the pins in place.
   d. Push the base plate toward the merchandiser cabinet. The front tab of the base plate bracket should seat in the notch in the long arm of the base plate slides.

BASE PLATE
MOUNTING
BRACKET

LEFT HAND
BASE PLATE
SLIDE

COTTER
PIN

HEX HEAD
SCREW
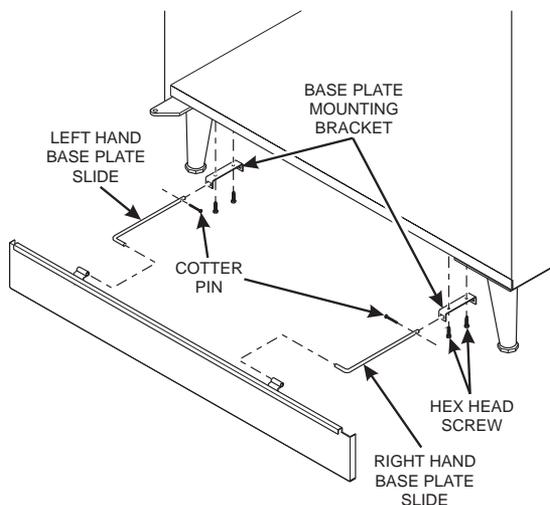
RIGHT HAND
BASE PLATE
SLIDE

NOTE

The mounting brackets are subject to damage when moving the machine with a fork lift. Remove the brackets prior to moving the machine with a fork lift to prevent damage.

4. Install the water filter cartridge:

IF YOUR MERCHANDISER HAS THE WATER FILTER OPTION, IT CANNOT BE OPERATED WITHOUT A PROPERLY INSTALLED WATER FILTER CAR-TRIDGE.

NOTE

Check the water filter installation record. There is a place to write the vend number on the cartridge. Local conditions may require more frequent replacement.

a. Your filter cartridge is shipped inside the waste pail. Locate it and remove the wrapping.
b. Install the filter in accordance with the appropriate procedure:

EVERPURE WATER FILTER INSTALLATION

Check the water filter installation record. There is a place to write the vend number on the cartridge. The cartridge is effective for a maximum of 10,000 18 oz. vends, 11,000 16 oz. vends, 15,000 12 oz. vends, or 20,000 9 oz. vends. Local conditions may require more frequent replacement.

a. Your filter cartridge is shipped inside the waste pail. Locate it and remove the wrapping.
b. Gain access to the water filter head assembly, located at the cabinet back wall above the water bath.
c. Install the filter as shown.

TO INSTALL FILTER:

1. ALIGN RAISED RIB ON FILTER CARTRIDGE WITH MATING SLOT IN HEAD ASSEMBLY.

2. FIRMLY INSERT FILTER CARTRIDGE INTO HEAD ASSEMBLY AND ROTATE COUNTER-CLOCKWISE 1/4 TURN TO THE STOP.

3. OPEN THE WATER SHUT-OFF VALVE BY PUSHING THE HANDLE TO THE HORIZONTICAL POSITION AS SHOWN BELOW.

TO REMOVE FILTER:

1. CLOSE THE WATER SHUT-OFF VALVE BY LIFTING THE HANDLE TO THE VERTICAL POSITION AS SHOWN BELOW.

2. ROTATE THE FILTER CLOCKWISE AND PULL DOWN AS SHOWN.

WATER SHUT-OFF VALVE HANDLE

WATER SHUT-OFF VALVE HANDLE

EVERPURE FILTER HEAD ASSEMBLY

EVERPURE FILTER HEAD ASSEMBLY

RAISED RIB

EVERPURE FILTER CARTRIDGE   631P0010

HYDROLIFE FILTER INSTALLATION

    a. Place the filter inside the canister. Be sure the o-ring is seated in the canister just below the threads.

    b. Screw the canister and filter assembly onto the filter head until it comes to a stop.

    c. Open the water valve on the inlet line by rotating the handle to the vertical position as shown.

HYDROLIFE FILTER REMOVAL

    a. Close the valve on the inlet line by rotating the handle into the horizontal position as shown.

    b. Relieve water pressure by performing two or three water throws (See **"Test Throw Still Water" on page 64**).

    c. Unscrew the filter and canister assembly from the filter head. Remove the filter from the canister.
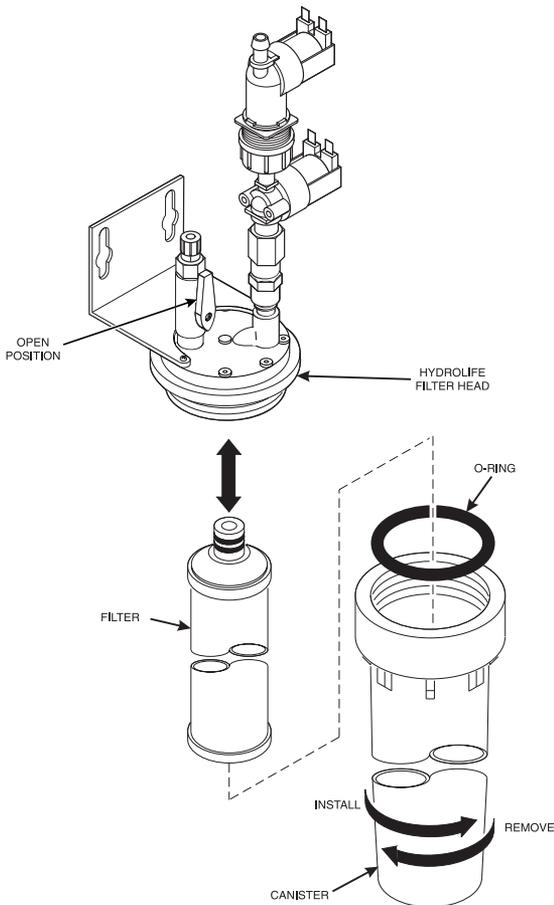
327p0007

Get The Machine Ready To Vend Drinks

1. Fill the water bath:
    a. Open the convenience valve.
    b. Fill the water bath level with the carbonator top, or until water runs out the water bath overflow tube.

2. Load and set up cold drink products:

Bag-in-box machines:

   a. Place the bag-in-box containers on the left hand side of the cabinet with the fittings facing up.
   b. Connect the syrup lines to the bag-in-box containers. Note that the syrup lines are marked with the numbers **1** through **8**. These correspond to the pumps, which provide syrup for selections **A** through **H**, respectively. Make sure the bag-in-box containers you have installed agree with these markings.
   c. Place connectors inside box.

Syrup tank machines:

   a. Load syrup into the tanks.
   b. Insert the syrup dip tubes into the tanks and place the lids on the tanks. Note that the syrup lines are marked with the numbers **1** through **8.** These correspond to the pumps, which provide syrup for selections **A** through **H**, respectively. Make sure the syrup tanks you have installed agree with these markings.

Load the cup mechanism:

<div align="center">

NOTE

Use cups that have been designed for use in a cold beverage vending machine. Do **NOT** use cups made of clear (transparent) material.

</div>

For single cup size machines, the same size cups must be loaded in turrets 1A, 1B, 2A, and 2B. For dual cup size machines, small cups are loaded in turrets 1A and 1B; large size cups are loaded in turrets 2A and 2B. **The size of cup you load, and its location, must agree with the available cup mechanisms and the cup size that you select during programming. Refer to the programming section (and the section on cup mechanisms) for more information.**

   a. Support the cup mechanism in the upright position.
   b. Push the latch forward to release the cup mechanism. Continue to support the cup mechanism while you lower it into the loading position.
   c. Remove the turret cover.
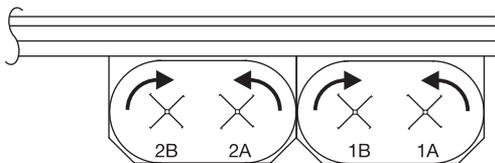
327p0006

OBSERVE PROPER HYGIENE - DO NOT TOUCH THE CUPS!

d. Open the bottom of the wrapper on a stack of cups.
e. Insert the wrapped cups into the turret and pull the wrapper out. DO NOT FILL CUPS ABOVE THE LEVEL MARKED ON THE OUTSIDE OF THE CUP TURRETS OR ABOVE THE "FILL LINE" LABEL INSIDE EACH TURRET, OR MOTOR JAMS WILL OCCUR.

USE ONLY THE SAME SIZE AND BRAND OF CUPS IN EACH TURRET; DO NOT INTERMIX!

f. Replace the turret cover after the turrets have been loaded.
g. Be sure the cup mechanism is locked into the upright position.

CABINET DOOR

LID

RETAINING STRAP

LOAD CUPS HERE

CUP MECH MOUNTING BRACKET

CUP TURRET

LATCH

CUPS

TOP VIEW
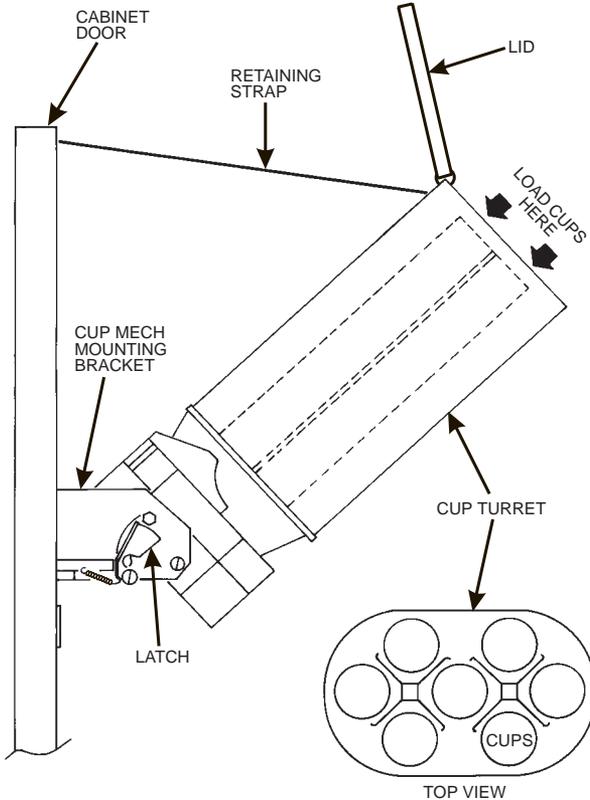
Set up the CO₂ tank:

NOTE

A full CO_2 tank can be dangerous if it is dropped or mishandled. Handle with care and keep the tank lid in place until the tank is properly secured in the merchandiser.

    a. Place the power switch in the OFF position.

    b. Install a full CO_2 tank on the merchandiser as shown. Secure the CO_2 tank with the retaining chain. (Note the various retaining chain configurations.)

(REAR OF TANK SHOWN)
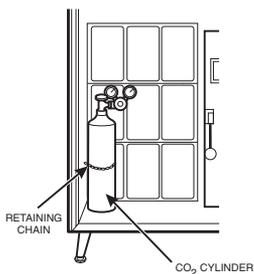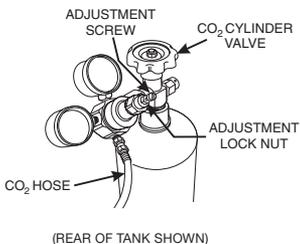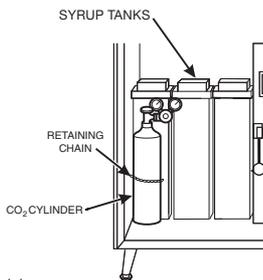
LOCATION 1

LOCATION 1
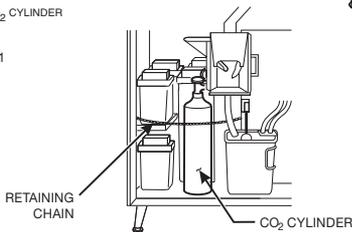
LOCATION 2

327p0008

    c. Remove the CO_2 tank lid. Briefly open and close the CO_2 cylinder valve to blow out any foreign matter.

    d. Locate the CO_2 regulator and flat plastic washer (in a box), and the tapered plastic washer (in plastic bag).

    e. Connect the CO_2 hose from the secondary regulator tee fitting to the regulator. Firmly tighten the fitting.

NOTE

Not using a wrench on the tank side may damage the CO_2 tank, resulting in personal injury.

f. Using two wrenches, tighten the line to the regulator.
g. Insert the flat washer into the regulator nut.
h. Using two wrenches, connect the regulator to the tank outlet and tighten in place.
i. Open CO_2 tank valve.
j. Adjust the CO_2 regulator so that the gauge reads 60 PSI (4.10 bar).
k. The secondary regulator is located behind the monetary panel on the right side of the cabinet. Adjust the secondary regulator to 40 PSI (2.76 bar).
l. Lock the adjustment screw in place.
m. Remove the water bath cover and actuate the pressure relief valve located on top of the carbonator tank for 3 to 5 seconds.
n. Check for gas leaks along the CO_2 line.

PRESSURE
SWITCH

SOLENOID
VALVE

ADJUSTMENT
KNOB

327p0003
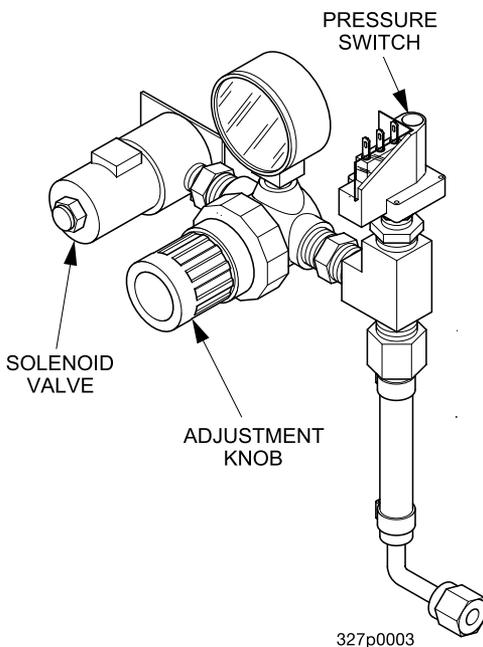
BRIX	Is the ratio of syrup to water in a cold drink machine. Also, to **BRIX** the machine is to set up that ratio.

1. Prime the Syrup System:
    Before trying to **brix** the machine: Operate each syrup valve (increase flow) to flush any air or water out of the tubing, pump, or syrup system. This residual air and water is left in the system from factory leak testing and machine setup. If air passes through the syrup valve, syrup cannot, and the drink will be weak.
    a. Place a cup in the cup delivery compartment.
    b. Perform a syrup test throw. Refer to **"Set Up A Drink" on page 36.** Measure the amount of syrup you get.
    c. Repeat step b until 1.7 oz (50 ml) of syrup (the proper amount of syrup for the 12 oz cup) is dispensed.
    d. Repeat steps a through c for all the remaining selections in the machine.
    e. Remove and discard the cup.

2. Test for Gas Leaks
    Now that the pumps are primed, they will not pulse until syrup is called for. Test the lines for gas leaks as follows:
    a. Close the CO_2 cylinder valve.
    b. Observe the high pressure gauge. If the reading on the gauge decreases, there is a leak in the system.
    c. Locate the source of the leak and repair it.

3. Purge the Carbonator of Air

When a merchandiser is first put into service, air may be present in the carbonator. This air will not mix with the water, nor will it be absorbed into the water. As pressure builds up in the carbonator, the air will be trapped in the top of the carbonator and will prevent the carbonator from filling with water. The water pump will no longer be able to pump against this high pressure, and it will stop and display a $CARB\ LEVEL$ diagnostic message. Purge the carbonator of any trapped air by lifting up on the pressure relief valve handle as shown. Once this condition is corrected,

RELIEF VALVE   SCREWDRIVER

CARBONATOR   WATER BATH   316P0103

it will not happen again as long as the merchandiser is properly serviced.
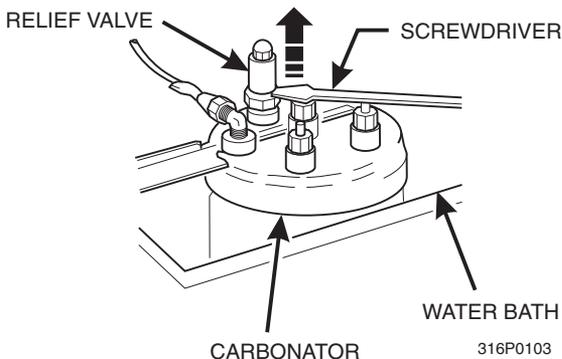
Adjustments and Minor Maintenance

1. Emptying the bill stacker:

1. PUSH UP LATCH

2. PULL DOWN BILL STACKER

3. REMOVE DOLLAR BILLS

430P0017
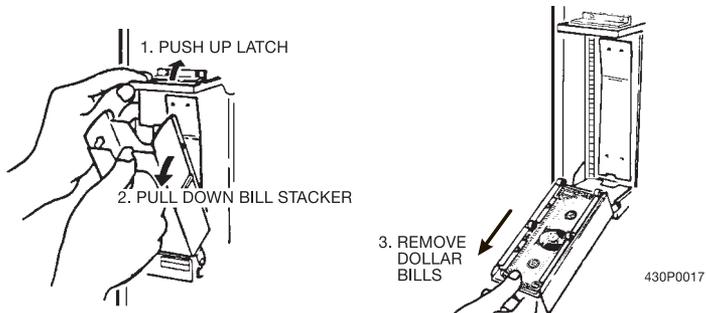
2. Cup mechanism adjustment.
   a. Place seven cups in the cup ring.
   b. Observe the clearance as shown in view B.
   c. If necessary adjust by first loosening the adjustment arm screw (view A).
   d. Move adjustment arm until correct clearance is achieved.
   e. Hold adjustment arm in place and tighten adjustment arm screw.

LOOSEN SCREW MOVE ARM   ADJUSTMENT ARM

View A

VIEW FROM BENEATH

View B

CUP CAM   CUP CAM

CORRECT ADJUSTMENT

This clearance is just large enough to allow cup ejection

This side is snug against cam

ADJUSTED TOO TIGHT

ADJUSTED TOO LOOSE
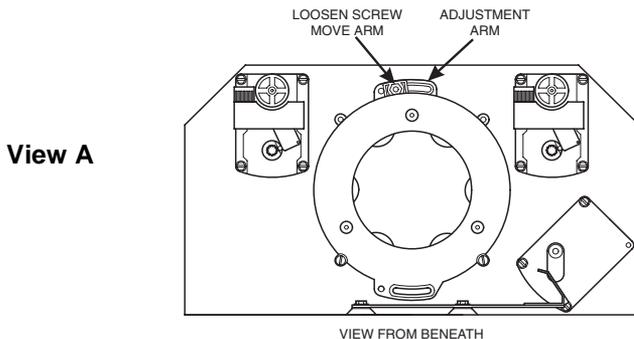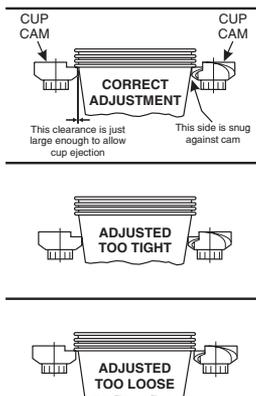
327p0015

3. Testing the water pump flow

The water pump should require between 13 and 21 seconds to completely refill the carbonator. To check the water flow, proceed as follows:

   a. Place a cup in the cup station and make sure the waste pail is in place.

   b. Press [TEST START], then [↓] until the display shows: $CARB\ TEST$.

   c. Press [TEST START]. The water pump starts, and the display shows $EMPTYING$ while the carbonator dispenses, then shows $FILL\ XX$ as the carbonator refills.

   d. After adjusting the flow, repeat step c until the desired time is achieved.

4. Adjusting the water pump flow:

   a. Remove the cap nut to expose the adjustment screw.

   b. Turn the adjustment screw:

   CLOCKWISE to decrease refill time.

   COUNTERCLOCKWISE to increase refill time.

NOTE

Failure to replace the cap nut will cause the water pump to leak.

   c. Replace the cap nut.

WATER PUMP

CAP NUT
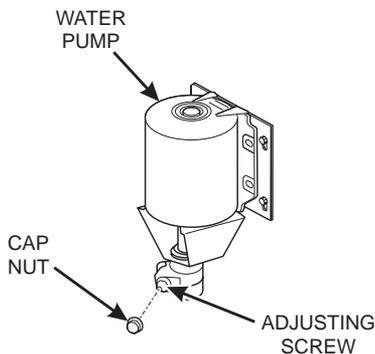
ADJUSTING SCREW

5. Adjusting the water valve:

   The water valves are located under the water bath cover.

NOTE

To prevent personal injury, only turn the adjusting screw when making adjustments. **DO NOT** loosen or remove the limit screw located above the adjusting screw.

NOTE

See **"Set Up A Drink" on page 36**, for the procedure and table for setting throws.

a. Rotate the adjusting screw 1/8 turn:
   CLOCKWISE to decrease water throw.
   COUNTERCLOCKWISE to increase water throw.
b. Repeat the testing steps until the water throw is as desired.

LIMIT SCREW
(SEE WARNING)

ADJUSTING SCREW
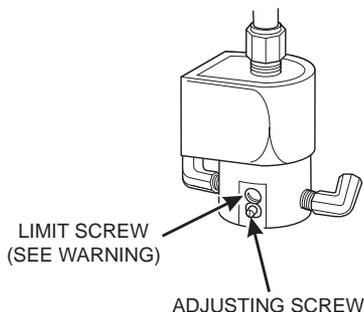
6. Testing the syrup throw:
   a. Place a graduated flask in the cup station.
   b. Refer to **"Set Up A Drink" on page 36**, for information on how to set your syrup and perform test throws.
   c. Test throw syrup and compare the volume of syrup to the suggested volume in the table for the cup size being vended.
   d. If necessary, adjust the syrup valve to obtain the proper volume.
   e. Repeat steps c and d for all selections.

NOTE

Software times do not control the output volume of diaphragm pumps; they simply start the motor. The output volume is controlled with a mechanical adjustment in the pump.

7. Adjusting the Syrup Throw (DIAPHRAGM PUMP):
   a. Locate the adjusting block within the syrup pump. Momentarily activate the prime switch to put the adjusting block into clear view.

   NOTE
   When adjusting the crank arm adjuster screw, loosen the limit screw ¼ turn only. Loosening the limit screw more than ¼ turn may allow the adjuster screw to shift when the limit screw is tightened. This will result in an inaccurate adjustment.

   PRIMING SWITCH
   ADJUSTING SCREW
   LOCK SCREW
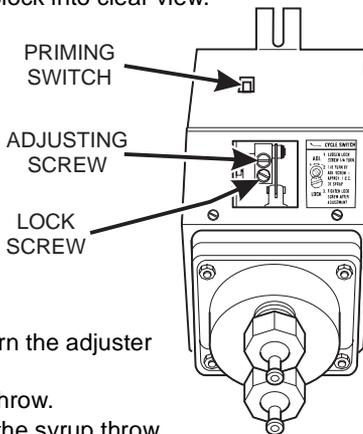
   b. Loosen the limit screw ¼ turn, then turn the adjuster screw:
   CLOCKWISE to decrease the syrup throw.
   COUNTERCLOCKWISE to increase the syrup throw.
   c. Tighten the limit screw.
   d. Repeat the test and adjustment procedure until the syrup throw is as desired.
   e. Repeat the above steps for each syrup pump.

8. Adjusting the Syrup Throw (CO_2 PUMP)
   a. Turn the adjustment screw:
   CLOCKWISE to decrease the volume.
   COUNTERCLOCKWISE to increase the volume.
   b. Repeat step a for each pump.
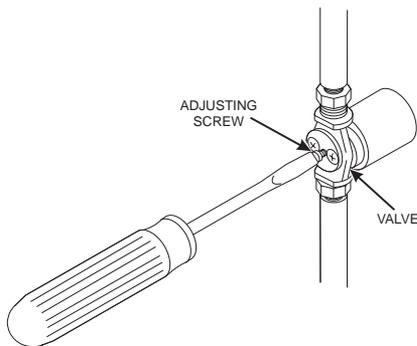
   ADJUSTING SCREW
   VALVE

9. Setting the icemaker water level:
   A proper level should be maintained within the icemaker. To determine the water level, a label is located on the icemaker that indicates the proper level in the melt-down tube. The icemaker water level is dependent upon the feeder cup water level.
   a. Set the MAIN SWITCH to the **OFF** (down) position.
   b. Remove the water feeder cup cover.
   c. Adjust the float shaft bushing:
      UP - to raise the water level.
      DOWN - to lower the water level.
   d. Replace the water feeder cup cover.
   e. Check the new water level:

   • Set the MAIN SWITCH to the ON (up) position.

   • Press [⚹ TEST START] , then [⬇] until the display shows *CARB TEST*.

   • Press [EDIT] to dispense still water; press [EDIT] again to stop.

   • Press [⬇] . The feeder cup will refill after you leave the carbonator test.

   When the feeder cup is full, press [⬆] to return to *CARB TEST*.

   • When the water flow stops, check the water level in the melt-down tube.

   f. Repeat steps a through e until the water level is correct.

WATER LEVEL
SWITCH ACTUATOR

WATER FEEDER
FLOAT SHAFT

1¼

WATER FEEDER
FLOAT ASSEMBLY

FLOAT SHAFT
BUSHING
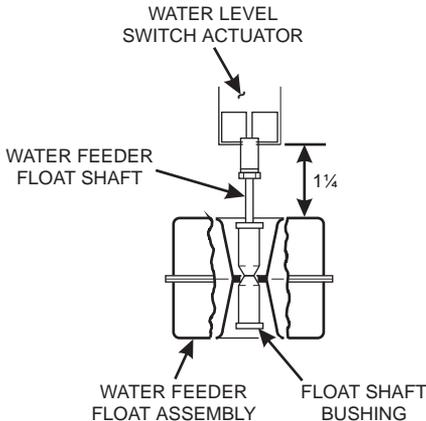
Programming The Cold Drink Center

Getting Around

Getting around the Cold Drink Center software is pretty easy once you know the features that are available to you, and how to use them. The three main parts you will use are the SERVICE KEYPAD, the SELECTION SWITCH PANEL, and the DISPLAY.

The Service Keypad
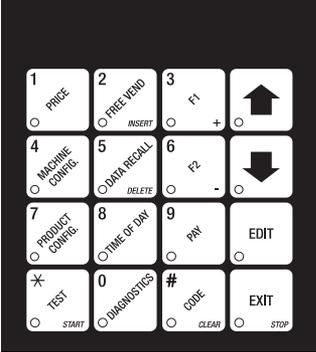
For most of your programming jobs, you will be using the service keypad, conveniently located on the monetary panel. The service keypad has 16 keys. The three columns on the left are the *MODE keys. The right hand column contains the MOVEMENT keys.*

The Selection Switch Panel
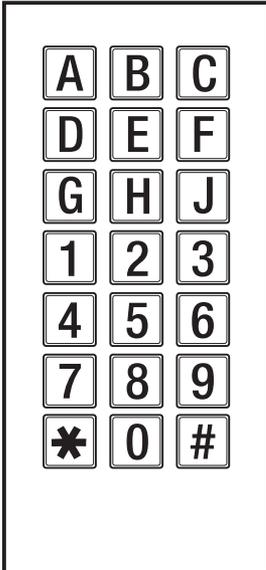
The selection switch panel is also located on the monetary panel. Unlike the service keypad, it is accessible when the cabinet door is closed. These are the keys the customer will use to make selections. You can also use these keys during programming procedures.

Cold Drink Center (327/328) Operator's Guide

The Displays

The 10-character display performs two functions, and is referred to in this book as "the display":

- It shows the customer's selection and how much credit is in the machine, as well as the ready, service, and time of day messages.

- It provides information and feedback to the service person during maintenance.

```
DISPLAY
```

The Function Keys

The keys on the control panel can be used for up to three things:

THE PRIMARY PURPOSE
This is the main job of the key. From the standby message, it will allow you to enter a programming mode. In this example, you can view stored sales data.

THE NUMBER
You might be asked to enter a numerical value. Pressing this key will enter a "5".

5
DATA RECALL
DELETE

THE SECONDARY PURPOSE
This is the key's "second job". For example, this key can be used to delete a character when you are editing custom messages.

Other Keys

The MOVEMENT keys on the control panel let you move inside a mode, and back and forth between modes.

These keys are your "legs", which let you move up and down the list of tasks. They let you continue from one step to the next in programming procedures.

EDIT This is your "activate" or "choose" key. It "opens a door" to additional information and lets you begin a programming task once you are inside of a mode. Sometimes, it is used as a toggle switch to show you your choices during a programming task.

TEST START This key can be used before running a function, or to choose "ALL" in a multiple selection.

EXIT STOP This is your "end" key. Pressing it one or more times will move you back to the start of the mode, or all the way back to the standby message.

Some Conventions:

All programming procedures assume that you are starting with the standby mes-

sage showing in the display. If not, just press [EXIT STOP] until you get there.

Each programming procedure is highlighted by a pointing hand: ☞ so it will
stand out.

Definitions and helpful information will appear in shadow boxes:

Helpful Hint

When you see the word **CONTINUE** at the end of a function, it means to press

[EXIT STOP] until you return to the standby message.

Cold Drink Center (327/328) Operator's Guide

Control Panel Switch Functions Explained

1 PRICE ○

Press this button to put your machine into the Price Setting mode. You can see maximum and minimum machine prices, and change prices for entire machine, entire tray, or individual selection.

2 FREE VEND ○ *INSERT*

Press this button to set up how the Free Vend mode will operate.

3 F1 ○ +

Press this button to view the software version number, machine and accessory configuration, and active selection status.

4 MACHINE CONFIG. ○

Press this button to:
- Select display language
- Select coin mechanism and options
- Select bill validator and options
- Select card reader and options
- Select monetary options
- Set winner feature
- Set mug discount option

5 DATA RECALL ○ *DELETE*

Press this button to:
- View total sales and vends by whole machine, selection, or drink size
- Clear resettable data
- View or set machine ID

6 F2 ○ -

Press this button to:
- Download data into your portable data collection device (PDCD), **OR**
- Set printer baud rate, depending upon which device you are using

7 PRODUCT CONFIG. ○

Press this button to:
- Set machine configuration
- Set which selections are active

8 TIME OF DAY ○

Press this button to:
- Set time of day
- Set day, month, year
- Select display messages
- Edit messages
- Set message scrolling speed
- Set up time of day intervals for inhibit, freevend, and discount vending

9 PAY ○

Press this button to pay one or more coins from the coin mechanism.

0 DIAGNOSTICS ○

Press this button to see any fault or condition that may place the machine out of service

✳ TEST ○ *START*

Press this button to:
- Perform TEST VENDS
- Test machine functions
- Test displays

 # CODE ○ *CLEAR*

Press this button to:
- Enter the SUPERVISOR mode
- Change the SUPERVISOR access code
- Lock and unlock access to functions
- Set free vend code

SureVend™

SureVend™ ensures that a cup is always available in the cup station before any money is collected or product delivered. The sensing system is a beam of infrared light across the cup station that is broken by the cup when it falls into position.

The SureVend™ software monitors the cup station sensor during the time the cup ring is cycled and for three seconds afterward. If a cup is not detected, the software will first determine if a second cup ring with the same size cups exists and will then try to drop a cup from the second ring. If the second ring also fails to drop a cup or is not usable, the software will repeat the attempt from the first cup ring to attempt to clear any jams in the cup delivery area. Each ring will be tried up to two times. If a cup is still not detected by the infrared sensor then several things happen:

- Any ring that failed twice in a row is placed temporarily out-of-service for a length of time that is determined by the user,

- The customer's credit is either restored for another vend attempt or is returned automatically,

- Three beeps sound and the message SELECT ANOTHER SIZE flashes (if another size cup ring is available), or the message INSERT MUG flashes in the event that no other cups are available. The customer may always get a refund by pressing the coin return button.

NOTE
INSERT MUG is the default message. You may customize this
message if desired (see **"Edit Custom Message" on page 49**
for more information).

Special rules exist to protect both the customer and the operator from loss. First and foremost, the customer is protected because no drink is spoiled nor money lost because a cup fails to fall to the cup station. The customer is given every chance to get his original choice of cup size by trying at least twice per ring to eject a cup. If two rings are available with the same cup size, the system will alternately try to vend a cup from each ring until the cup is delivered or both rings are placed out-of-service.

The operator is protected by the anti-jackpot program of the system. It is conceivable that a customer could prevent cups from reaching the sensing area of the cup station in order to steal the cups and then get a refund for the vend. Under the SureVend™ Anti-Jackpot system, the operator can lose no more than two cups in a row per ring. Then that ring is temporarily placed out-of-service both to protect the customer and to discourage theft. The amount of time that the cup ring is out-of-service is programmable from 0 to 99 minutes. After the time has elapsed, the cup ring will return to service but the count of the two failures is kept. If the previous problem was theft, then the next vend attempt from that ring will be successful and the count of the two previous failures will be erased. If the problem is an actual system failure, then the third failure will permanently place that cup ring out of service until a service technician visits the machine.

An induced SureVend™ failure cannot cause an alternate vend from a selected small cup to a large cup at the small cup price. This protects the operator from customers trying to get large cup drinks at a small cup price. (SureVend™ will not automatically switch to a different cup size in mid-vend because it cannot be ensured that correct change will be returned for the new price.)

To turn SureVend™ off, see **"Turn SureVend™ On or Off" on page 42**.

The Supervisor Mode
The supervisor is allowed to do things that a normal user cannot, like controlling access to certain modes. The supervisor can lock out any of the programming modes to anyone who does not have the right "key". Once a supervisor enters the proper code, he or she will be able to:

- Change the supervisor access code
- Lock out any or all of the service keypad modes
- Set whether data is cleared with [#CODE / ○ CLEAR] or after being downloaded into a portable data collection device
- Grant or deny access to data items during **DATA RECALL**
- Modify the machine configuration

Programming Procedures

👉 GAIN ACCESS TO THE SUPERVISOR MODE

1. Press ⟦#/CODE/CLEAR⟧ . The display shows: *ENTER CODE*. You must enter the four-

    digit supervisor code within 6 seconds to gain access.

    NOTE
    A new machine has a factory-set supervisor code of **0000.**

    When you have entered the right code, you will hear two beeps and see
    UNLOCKED in the display.

2. CONTINUE.

👉 ENTER A NEW SUPERVISOR CODE

1. Follow the steps in **"Gain Access To The Supervisor Mode" on page 23**.

2. Press ⟦#/CODE/CLEAR⟧ . The display shows *SUPER XXXX*. The X's represent the

    current supervisor code. Use the number keys to enter a new code.

    NOTE
    If you enter a new code, be sure to keep a written record of it.
    There is no other way to access the SUPERVISOR mode.

3. CONTINUE.

👉 ENTER A FREEVEND CODE
(Supervisor Mode Only)

1. Follow the steps in **"Gain Access To The Supervisor Mode" on page 23**.

2. Press ⟦#/CODE/CLEAR⟧ , then ⟦⬇⟧ until the display shows *FREE XXXX*. The X's

    represent the current freevend code. Use the number keys to enter a new
    code. If the code is anything other than "0000", it must be entered after the
    key lock is turned in order to enable free vends.

3. CONTINUE.

👉 ## ENTER A NEW DATA RECALL CODE
(Supervisor Mode Only)

If the proper non-zero code is entered, sales and non-resettable sales data can be viewed without opening the machine's door.

1. Follow the steps in **"Gain Access To The Supervisor Mode" on page 23**

2. Press [# CODE CLEAR], then [⬇] until the display shows *NR XXXX*. The X's

   represent the currently entered code. Use the number keys to enter a new code, if desired.

NOTE
A code of 0000 disables this feature.

Usage:

In ready mode, enter the 4-digit code. When the correct code is entered, the non-resettable sales total is displayed. Press # to view the total number of vends. Enter a letter key (ex. *B*) to view the sales total for that product. Press a letter key and 0 (ex. *0B*) to view the sales total for that product, regular size cup (*1 B* will show the large cup total). Press # to cycle through the complete selection list. The display will remain active for 9 seconds.

3. CONTINUE.

👉 ## LOCK OR UNLOCK MODE OR PAYOUT KEYS
(Supervisor Mode Only)

1. Follow the steps in **"Gain Access To The Supervisor Mode" on page 23**.

2. Press [# CODE CLEAR], then [⬇] until the display shows either # *LOCKED* or #

   UNLOCKED. To see if a key is locked or unlocked, press that key on the maintenance keypad.

3. Press [EDIT] to change between locked and unlocked. When anyone other

   than the supervisor tries to enter a locked mode, the display shows *LOCKED*.

EXAMPLES: Press [5 DATA RECALL DELETE], then [EDIT] to lock the function. Now, non-supervi-

sors cannot view any sales data. If you want non-supervisors to view data but not

be able to clear data, leave the [5 DATA RECALL DELETE] key unlocked, but do lock [# CODE CLEAR].

NOTE
Mode keys [3 ↶ +] and [0 DIAGNOSTICS] cannot be locked out:

4. CONTINUE.

☞ **SET TALKER MODE**

   (Supervisor Mode Only)

1.   Follow the steps in **"Gain Access To The Supervisor Mode" on page 23**.

2.   Press [# CODE CLEAR] , then [⬇] until the display shows *TALK ON* or *TALK OFF*

3.   Press [EDIT] to turn the talker option ON or OFF.

NOTE
Talker hardware must be installed for this to work.

☞ **SET PRINTER OR DEX MODE**
   (Supervisor Mode Only)

1.   Follow the steps in **"Gain Access To The Supervisor Mode" on page 23**.

2.   Press [# CODE CLEAR] , then [⬇] until the display shows:

PRINTER   - means that data will be sent directly to a printer,
DEX ONLY - data remains in memory after it is downloaded into a portable
            data collection device (PDCD),
DEX+CLR - resettable data is cleared after it is downloaded into a PDCD.
DEX NR   - a special DEX option. All sales data will become non-resettable.
            Consult your DEX supplier before choosing this option.

3.   Press [EDIT] to change between the three choices.

4.   CONTINUE.

SET DEX OPTIONS

1. Follow the steps in **"Gain Access To The Supervisor Mode" on page 23**.

2. Press $\boxed{\substack{\text{\#}\\ \text{\tiny CODE}\\ \circ\ \text{\tiny CLEAR}}}$, then $\boxed{\downarrow \\ \circ}$ until the display shows one of two resettable bill

   validator totals transmitted to the DEX device:

   $CA\ 304 = N.C.$ - the value of bills in the stacker will be transmitted in a cash for-
   mat. For example: 200 for two dollars. (This is the default setting.)
   $CA\ 304 = N.O.$ - the value of bills in the stacker will be transmitted in a dollar
   count format. For example: 2 for two dollars.

3. Press $\boxed{\text{EDIT} \\ \circ}$ to switch between the two choices. Consult your DEX

   handheld supplier for the proper settings for your machine.

   NOTE

   If the bill count is incorrect, the CA304 setting may be wrong. Try another setting.

4. Press $\boxed{\downarrow \\ \circ}$ until the display shows one of the following two options:

   $LAST.VND.ON$ - the DEX device will transmit the date and time of the last vend
                        for each selection.
   $LAST.VND.OFF$ - the DEX device will NOT transmit the date and time of the last
                        vend for each selection. (This is the default setting)

5. Press $\boxed{\text{EDIT} \\ \circ}$ to switch between the two choices.

6. CONTINUE.

SELECT PRINTER BAUD RATE
(Printer mode only)

> **BAUD RATE** The speed of data transfer, expressed in bits per second. Your printer can receive data at a certain rate, and you must tell the machine what that rate is.

1. Press $\boxed{\substack{6\\ \leftarrow\hspace{-2pt}\rfloor\\ \circ\ \ -}}$. One of the following is displayed:

   $BAUD\ 1200$ $BAUD\ 2400$ $BAUD\ 4800$ $BAUD\ 9600$

2. Press $\boxed{\text{EDIT} \\ \circ}$ until the correct baud rate for your printer is displayed.

3. CONTINUE.

☞ SELECT DISPLAY LANGUAGE

1. Press [4 MACHINE CONFIG.] . The current **LANGUAGE** is shown in the display. Press

    [EDIT] to choose the desired language. Your choices are:

    ENGLISH, DEUTSCH, FRANCAIS, ESPANOL, PORTUGUES, SWEDISH, NEDERLANDS, or FINNISH.

2. CONTINUE.

☞ SELECT COIN MECHANISM

1. Press [4 MACHINE CONFIG.] , then press [⬇] until the current **COIN MECHANISM** is

    shown in the display. Press [EDIT] to choose the desired coin mechanism.

    Your choices are:
    MDB MECH, DUMB MECH, EXEC MECH, or NO MECH

2. Proceed to **"Select Monetary Options" on page 30**, to customize your coin
    mechanism choice.

    NOTE
    Depending upon your choice of coin mechanisms, some
    displays may not appear.

3. CONTINUE.

☞ **SELECT BILL VALIDATOR AND OPTIONS**

1. Press [4 MACHINE CONFIG.], then press [⬇] until one of the following is displayed:

NO DBV — No bills will be accepted or there is no bill validator installed (you can exit the function).

SER.1.2.5.10.20 — The serial bill validator is selected and will accept $1, $2, $5, $10, and $20 bills. Use BILL SELECTION METHOD below to change the bills that will be accepted.

PULSE DBV — The pulse bill validator will accept $1 bills.

MDB.1.2.5.10.20 — A standard MDB bill validator is selected. It will accept $1, $2, $5, $10 and $20 bills. Use BILL SELECTION METHOD below to change the bills that will be accepted.

MDB. (≡) — An MDB bill validator that accepts non-standard bills or tokens is connected and operating. Press [✳ TEST START] to enter list of bills. See **"Initial Setup Of NonStandard Bill Validator" on page 29**.

BILL SELECTION METHOD:
The standard $1, $2, $5, $10 and $20 bills are enabled by pressing the **1, 2, 5, 6,** or **7** key(s), respectively, to display which bill(s) will be accepted.

1. Press [EDIT] to choose the desired option.

2. CONTINUE.

☞ 👉 **INITIAL SETUP OF NONSTANDARD BILL VALIDATOR**

1. Connect the bill validator, and follow the steps in **"Select Bill Validator and Options" on page 28**, to select *MDB.12.5.10.20* in the bill validator selection screens. *MDB.:<*>* will not be an option yet. Exit the bill validator setup by

   pressing ☐ EXIT STOP . Bill information is now collected from the validator.

2. Press ☐ 4 MACHINE CONFIG. , then press ☐ ⬇ until *MDB.:<*>* displays.

3. Press ☐ EDIT . *1 1.00 ON* will display. The first number (*1*) indicates bill

   validator channel 1, the *1.00* is the bill denomination, and *ON* indicates that the validator will accept $1.00 bills.

4. Press ☐ EDIT to toggle the bill acceptance *ON* or *OFF*.

5. Press ☐ ⬆ and ☐ ⬇ to scroll through the list of other denominations

   and ☐ EDIT to set them to *ON* or *OFF*.

6. Press ☐ EXIT STOP to move up to the top level screen.

NOTE

If a denomination does not display in the scroll list of available denominations, check the binary switch settings for the validator. If the binary switch for a given denomination is set to "off", it will not display in the list of denominations.

7. CONTINUE.

☞👉 **SELECT CARD READER AND OPTIONS**

1. Press [4 MACHINE CONFIG.], then press [⬇] until the current card reader is shown in the display. Your choices are:

   NO CARD, **DUMB CARD**, or **MDB CARD**.

2. Press [EDIT] to choose the desired card reader.

3. Press [⬇] until one of the following is displayed (not available if **NO CARD** is selected above):

   REVALUE.ON - Allows credit to be transferred onto the card
   REVALUE.OFF - Credit cannot be transferred to the card

4. Press [EDIT] to display the desired choice.

5. CONTINUE.

☞👉 **SELECT MONETARY OPTIONS**

This function lets you:

Set change return criteria	Set overbuy options
Set currency acceptance on low change	Set last bill stacking options
	Set declining balance

Depending on the coin mech and bill validator selected, some options below may not be available.

1. Press [4 MACHINE CONFIG.], then press [⬇] until the display shows **CHANGE X.XX**.

   X.XX represents the largest denomination coin or bill that will be changed without a purchase. Any non-zero value here will return all escrowed coins. (Each coin denomination that the coin mech has a tube for is called an **ESCROWED** coin because it can be returned.) When the coin return button is pressed, all coins inserted will be returned provided there is a coin mech tube for each of those coins, **EXCEPT** in the forced vend mode.

Some examples:

CHANGE 0.00 - Forced vend; NO change returned without a purchase.

CHANGE .25 - Returns change without purchase if all accepted coins are less than .25 denomination or have a payout tube. Acceptance of a dollar coin will not cause a Force Vend if the coin mechanism has a dollar coin pay-out tube. Otherwise, accepting a dollar coin or accepting and stacking of a dollar bill will cause a Force Vend.

CHANGE 100 - Bills and non-escrowed coins less than or equal to $1.00 will be changed without purchase. All escrowed coins are returned.

Use the keypad to enter a value for the change number.

2. Press ⬇ until one of the following is displayed:

ACC <$$ X.XX -Accept any bill of value $X.XX or less, regardless of available change. Hold the last bill that meets or exceeds maximum price in escrow. (This setting is normally used.)

ACC.STK X.XX -Accept any bill of value $X.XX or less, regardless of available change. Immediately stack the last bill.

Example: If setting is *ACC.STK 100* **and maximum price is $1.50. This set-ting will immediately stack the second $1.00 bill inserted.**

3. Press | EDIT | to display the desired choice.

4. The value of "X.XX" has two purposes:
   a. The value of "X.XX" tells the machine how big a bill or coin to accept even though there is not enough change in the coin mech to cover all possible paybacks.
   For example, enter 1.00. Therefore, the machine will take a dollar bill or coin even though there is less than $1.00's worth of change. Entering 5.00 tells the machine to take a five even though there is less than $5.00's worth of change, and so forth.

NOTE

This could cause a customer to be short-changed.

Entering **0.00** means that bills or coins not held in escrow or in a tube will only be accepted if there is enough change to cover them.
   b. The value of "X.XX" tells the machine how much the customer is allowed to overbuy a product. The customer will be short-changed when an overbuy occurs.

Example:
For a value of $0.25: if there is no change in the machine and the customer inserts a $1.00 bill, the customer can purchase a product for $0.75 even though the change cannot be paid back. The customer will be short-changed. Normally a purchase will not be approved unless all change can be paid.

> Entering **0.00** means that the vend will only be approved when the correct change can be returned (overbuy disabled).

5. Press ⬇ until the display shows: *LOW.MSG X.XX*. The display will show

USE EXACT CHANGE when the amount of available change in the coin mechanism falls below the value of "X.XX". Enter a value with the number keys. For example, if *LOW.MSG 1.00* is displayed, the *USE EXACT CHANGE* message is displayed when less than a dollar's worth of change is in the coin mechanism.

> **DECLINING BALANCE:** Once credit is established, multiple vends may occur until the coin return is pressed.

6. Press ⬇ until one of the following is displayed:

DECLINE.ON - More than one vend is allowed, with a declining balance.
DECLINE.OFF - A declining balance is not allowed.

7. Press | EDIT | to display the desired choice.

8. Press ⬇ until one of the following is displayed:

FAIL=CASH - If the customer's primary selection is unavailable, they will be able to collect a full refund by pressing the change return button.
FAIL=CREDIT - If the customer's primary selection is unavailable, they will be able to make an alternate selection, but not get a full refund.

NOTE:
This option only available if SureVend is ON.

9. CONTINUE.

☞👆 SET UP WINNER MODE

WINNER At preselected intervals, a customer may receive a refund for a selection. You can select the interval and qualifying selections.

1. Press [4 MACHINE CONFIG.] , then press [↓] until one of the following is displayed:

   WINNER OFF Winner function is disabled.
   WIN XXX Winners are allowed at certain intervals, represented by "XXX".

2. Press [EDIT] to display the desired choice.

   If you selected *WINNER OFF*, you can exit the function.

3. The display shows *WIN XXX*. XXX represents the number of vends that must occur per each winner vend. For example, an interval number of 50 means that a winner can happen any one time during the next 50 vends. Using the number keys, enter an interval number between 10 and 9999.

4. Press [↓] . The display shows *·---------. The dashes in the display

   represent which selections are allowed winners. Press the appropriate letter key to enable a selection, press the key again to disable it. For example, pressing A, C, and E will cause the display to look like this:
   *·*A - C - E - - - , meaning that all A, C, and E selections can have a winner.

ADVANCED OPTIONS:

- Press [✳ TEST START] to enable all selections.

- Press [# CODE CLEAR] to deactivate all selections.

- Press **0** or **1** to set winner selections by cup size.

NOTE

If displaying WINNER by selection, press [EXIT STOP] once to

redisplay wildcard (*·* *ABC*....) selections.

AN EXAMPLE . . .

You want to enable winners on all selections except E and F. Do the following:

a. Press [⚹ TEST START]. The letters A through J appear in the display instead of the dashes.

b. Press "**E**" and "**F**". The letters E and F in the display are replaced by dashes.

NOTE

This is a two-part screen. Press [EDIT] to display selections

$* .y z . . . 8 9.$

5. CONTINUE.

👉 SET UP MUG DISCOUNT

You can establish a discount for customers who use their own mug.

1. Press [4 MACHINE CONFIG.], then press [⬇] until the display shows $MUG\ DSC\ .00$. This example shows the existing discount amount is zero.

2. Enter a discount amount. This will be in cents, for example press [5 DATA RECALL DELETE] or **5** to enter a discount amount of 5 cents.

3. CONTINUE.

👉 DISABLE SELECTIONS IN THE MERCHANDISER

1. Press [7 PRODUCT CONFIG.], then press [⬇] until the display shows something like:

$LK.\ ABCDEF.$ This display means that all regular size selections (A - F) are **not** available for vending. An available selection has its letter replaced by a blank space.

2. Press the appropriate letter to toggle the display on or off.

NOTE

Press [⚹ TEST START] to lock all selections; press [# CODE CLEAR] to unlock all

selections. Press [EDIT] to display the second screen.

3. CONTINUE.

☞ **SET UP CUP SIZES**

Make sure the cup sizes you select agree with the cups you have actually loaded during setup.

1. Press [7 PRODUCT CONFIG.] then [↓] until the display shows *X OZ Y*. "X" is the currently selected drink size for the cups in turret 2 (normally large cups), "Y" is the currently selected drink size for the cups in turrets 1A and 1B (normally regular cups).

2. Press [1 PRICE] to cycle through the available #1 cup ring sizes; press [2 FREE VEND INSERT] to cycle through the available #2 cup ring sizes.

3. Any changes made to the cup sizes must be "locked in". There are two ways to do this:

    a. If you are keeping some cup sizes the same, or putting the cups in different cup rings, press and hold [✳ TEST START]. The display momentarily shows *CLEARING*, two beeps sound, then shows *FINISHED*. This will reassign the old throw times to the new cup ring, if possible.

    b. If you are loading all different size cups, or want to load all new default times, press and hold [# CODE CLEAR]. The display momentarily shows *CLEARING*, two beeps sound, then shows *FINISHED*. This will reload the factory default times for all cup sizes, clearing any custom throw times you have established. (See **"Factory Default Throw Times and Volumes" on page 37**.)

    NOTE
    Machines with diaphragm pumps (see **"Configure Pump Type" on page 39**) can only vend one cup size.

4. CONTINUE.

👉 SET UP A DRINK

Be sure that the cup sizes you set in **"Set Up Cup Sizes" on page 35**, agree with the cup sizes actually in your machine. All procedures for setting up the drinks are similar, so this example will demonstrate how to set up the A selection, regular size drink.

1. Press [7 PRODUCT CONFIG.], then press [⬇] until the display shows *SETUP* -- *. The star (*) represents the selection (A, B, etc.). The dash (-) represents the size of the selection.

2. Press **A**. (If you were setting up the A selection for the large size drink, you would press **1** first, then **A**.) The display shows something similar to: *CLD. A 12.00*. This means that the currently set still water throw time for the A selection is 12.00 seconds. Enter a new time if desired.

3. Press [⬇]. The display shows *CRB. A 12.00*. This means that the currently set carbonated water throw time for the A selection is 12.00 seconds. Enter a new time if desired. A value of .00 will lock out carbonation for the selection.

4. Pressing [⬇] after each display will cause the following screens to appear:

   SRP.A View and change the settings for syrup
   PCT. A View and change the settings for percentage of carbonation (0-100). A value of 100 will lock out non-carbonation for the selection.
   ICE. A View and change the settings for ice throw time
   ICE. A+ View and change the settings for extra ice throw time

OPTIONS:

a. At any of the preceding displays, you can press [* TEST START] to test throw that item.

b. At any of the preceding displays, you can press * or # (on the selection switch panel) to step through a list of that item's throw times for other selections where that item is active. For example, pressing # at the *CLD. A* display will show the throw time for either *CLD. 1A* or *CLD. B* (depending on how the drink sizes are set up). This is a handy way to move from one selection to another without going to the *SETUP* screen first.

NOTE
If you try to set up a selection that is not configured, the *SETUP* screen will remain in the display.

Special Selections:

Ice and Cup	8-4	(small cup)
	1-8-4	(large cup)
Carbonated Water	9-3	(small cup)
	1-9-3	(large cup)
Non-Carb. Water	9-4	(small cup)
	1-9-4	(large cup)

5.   CONTINUE.

☞ **FACTORY DEFAULT THROW TIMES AND VOLUMES**

Cup Size		Syrup Throw			Still and Carb. Water			Ice			Extra Ice		
		Volume		Time	Volume		Time	Volume		Time	Volume		Time
oz	mL	oz	mL	sec	oz	mL	sec	oz	g	sec	oz	g	sec
5	148	0.7	21	3.40	3.6	107	5.10	1.5	42	1.85	2.0	57	2.50
7	210	1.0	30	4.80	5.0	150	7.20	1.5	42	1.85	2.0	57	2.50
8	237	1.1	33	5.30	5.7	169	8.10	1.5	42	1.85	2.0	57	2.50
9	270	1.4	40	6.40	6.7	200	9.60	1.5	42	1.85	2.0	57	2.50
10	295	1.5	45	7.20	7.5	222	10.70	2.0	57	2.50	2.0	57	2.50
12	355	1.7	50	8.00	8.4	250	12.00	2.0	57	2.50	3.0	85	3.50
16	473	2.3	69	11.00	11.7	345	16.60	3.0	85	3.50	3.7	105	4.50
18	532	2.7	79	12.60	13.3	395	19.00	3.0	85	3.50	3.7	105	4.50
20	590	3.0	88	14.00	15.0	439	21.00	3.0	85	3.50	3.7	105	4.50

NOTE: For all cup sizes...   Carbonation percentage is 100%; Blend mixture percentage is 50%.

(milliliters (mL) and cubic centimeters (cc) are equivalent)

☞ BLENDED DRINKS

In addition to regular syrup drinks, specialty drinks can be produced by blending two syrups in a single drink. An example of this would be Iced Tea with Lemon. Use the regular tea syrup with the lemonade syrup to make tea with lemon. Other well-known combinations are Lemon Pepsi or Cherry Coke.

NOTE

These types of drinks are only available on machines using the CO_2 pumps, because of the need to control the syrup throw time. The throw volume of a diaphragm pump cannot be controlled electronically, so the needed adjustment is not available with that type of machine.

1. Press ⏚ **7 PRODUCT CONFIG.**, then ⏚ ⬇ until the display shows *SETUP -- **. Select the drink you want to blend (**X**, **Y**, and **Z** are valid), then press ⬇ to view the different screens of the recipe.

   Most screens are similar to normal drink setups, such as cold water (*CLD . X*), carbonated water (*CRB . X*), and syrup (*SYR . X*). The setup screens that you will NOT normally see are the percentage plus (*PCT . X+*) and valve selection (*MIX . X*) screens. On these screens, you will add information needed only for the blended drinks.

   Percentage plus is where you will select the amount of each syrup you want to use. For example, set percentage plus to .80 (*PCT . X .80*). This means the syrup will be divided 80% from the first valve, and 20% from the second.

   Valve selection is how you decide which syrups to mix together. (Obviously, you will need to know which valves dispense which syrups.)

2. Press ⬇ until something like *MIX . X V1* displays. Press ⏚ EDIT to change the valve selection for the first syrup in the mix.

3. Press ⬇ until something like *MIX . X V2* displays. Press ⏚ EDIT to change the valve selection for the second syrup in the mix. In the examples above, the drink is configured so that 80% comes from syrup valve 1 and 20% comes from syrup valve 2.

4. Set the remaining screens as you would for a normal drink.

Spritz Drinks

Spritz drinks are special versions of blended drinks that require a slightly different setup. The idea is to dispense a cold water drink with just a hint of flavoring. An example would be water with lemon. You can easily do this with a blended setup by doing the following:

1. Set up all times as you would with a water only drink.

2. Set the $MIX.X$ and $MIX.X+$ screens to dispense from the same valve.

3. Set the $PCT.X+$ screen to 50%.

4. Alter the syrup timer so that the total syrup throw is only a fraction of a normal throw (1 or 2 seconds).

5. An alternate technique is to set the first valve to the desired flavor, then set percent plus to 100%. Either way, all the syrup comes from only one valve, and the throw time can be adjusted to taste.

☞ **CONFIGURE PUMP TYPE**

(Supervisor Mode Only)

1. Press [7 PRODUCT CONFIG.] , then [↓] until the display shows one of the following:

    $GAS\ PUMP$ - The machine is configured for CO_2 pumps.
    $DIAPH.\ 50\ HZ$ - The machine is configured for 50 Hz diaphragm pumps.
    $DIAPH.\ 60\ HZ$ - The machine is configured for 60 Hz diaphragm pumps.
    NOTE: Machines with diaphragm pumps can only vend one cup size.

2. Press [EDIT] to select the type of pumps in your machine.

NOTE

If you select $GAS\ PUMP$ and press [* TEST START] , a decimal will display. This setting

puts the machine into mug only vending. If the machine will not drop cups, ensure that this setting is not the source of the problem.

3. CONTINUE.

👉 **CONFIGURE NUMBER OF SELECTIONS**

(Supervisor Mode Only)

1. Press [7 PRODUCT CONFIG.] , then [⬇] until the display shows one of the following:

    SIX SELECT - The machine can vend six selections.
    EIGHT SEL - The machine can vend eight selections.

2. Press [EDIT] to configure the number of selections in your machine.

3. CONTINUE.

👉 **SET UP AUTOMATIC DELIVERY DOOR OPTIONS**
(Supervisor Mode only)

1. Press [7 PRODUCT CONFIG.] then [⬇] until the display shows one of the following:

    DOOR ON **+** The door opens at the beginning of the vend.

    DOOR ON **-** The door opens at the end of the vend.

    DOOR OFF The door does not open automatically.

2. Press [EDIT] to select the desired option.

3. CONTINUE.

☞ **ASSIGN CUP SIZES TO SELECTIONS**
 (Supervisor Mode Only)

You can load up to two different sizes of cups in your machine (see **"Set Up Cup Sizes" on page 35**). You may not always want a certain selection to use all of the cup sizes in your machine.

1. Press [7 PRODUCT CONFIG.], then [↓] until the display shows something like this:

   0. ABCDEF. This display means that the smaller of the two cup sizes (*0*) is available for all selections (A - F).

2. Press the appropriate letter to toggle the display on or off. A selection that doesn't vend the displayed size cup has its letter replaced by a blank space.

   NOTE

   Press [✳ TEST START] to display all selections; press [# CODE CLEAR] to clear all selections.

3. Press [EDIT] to display remaining selections.

   NOTE

   If you have only one cup size in your machine, you will not see
   the next display.

4. Press [↓]. The display shows something like this:

   1. ABCDEF. This display means that the larger of the two cup sizes (*1*) is available for all selections (A - F).

5. Press the appropriate letter to toggle the display on or off. A selection that doesn't vend the displayed size cup has its letter replaced by a blank space.

   NOTE

   Press [✳ TEST START] to display all selections; press [# CODE CLEAR] to clear all selections.

6. Press [EDIT] to display remaining selections.

   To vend a cup only, press *1*, *2*, *3* (large size) or *2*, *3* (regular size).

7. CONTINUE.

☞ 👆 **TURN SUREVEND™ ON OR OFF**

1. Press [7 PRODUCT CONFIG.] then [⬇] until the display shows one of the following:

    SURE.V OFF: None of the SureVend™ functions are available. Use this if the SureVend™ system is not installed, or there is some reason you do not want to use it (for example in a high cup theft situation).
    SURE.V ON. The SureVend™ system is operative. All of the SureVend™ functions are available.

2. Press [EDIT] to switch between the two choices.

3. CONTINUE.

☞ 👆 **OPTIONAL OR MANDATORY SUREVEND™**

1. Press [7 PRODUCT CONFIG.] then [⬇] until the display shows one of the following:

    OPT'N SURE.V: The machine reverts to home switch operation of the ring motors if the SureVend™ system cannot operate normally because of an obstruction in the cup station or for any other reason.

    MUST SURE.V: The vending machine is operational only if the SureVend™ system is determined to be working. Otherwise, the machine will go temporarily out of service until the blockage or other error is corrected.

2. Press [EDIT] to switch between the two choices.

3. CONTINUE.

☞ **SET UP THE SUREVEND™ ANTI-JACKPOT TIMER**

1. Press [7 PRODUCT CONFIG.] then [⬇] until the display shows *AJP .TMR XXM*.

   XX represents how many minutes SureVend™ will be disabled for either cup ring. The same value applies to the two timers (one on each ring).

2. Enter a number using either keypad.
   If any cup ring motor fails to deliver a cup on two consecutive attempts, the cup ring goes out of service. After the time set in step 2 has elapsed, the cup ring goes back in service and is given one more chance to deliver a cup. If cup delivery is again unsuccessful, the ring goes out of service until the machine is serviced. A successful delivery on any cup ring will reset the failed attempts for that particular cup ring. If both cup rings perform three consecutive failed attempts (and the SureVend™ sensor is determined to be working), the entire machine goes into the "mug only" mode until the machine is serviced. If either cup ring performs three consecutive failed attempts with the other cup ring in anti-jackpot timer mode, the entire machine will be in "mug only" mode (assuming SureVend is working) until the preset time elapses (one more attempt will be made to deliver a cup) or the machine is serviced by a route operator.

   NOTE
   A setting of *00* will disable this feature. A setting of *99* will disable the ring until the next service call.

   NOTE
   If the cup sizes are the same, the machine alternates ring motor cycles until either a cup is detected or both rings reach two consecutive failed attempts. If the cup sizes are different, the selected ring is cycled up to two times before returning credit. If the customer selects a large size drink and that ring is out of service, the customer gets a small drink (if in service) and receives change.

☞ **VIEW SOFTWARE VERSION**

1. Press [3 ↶ +], and press [⬇] until the display shows *VER XXXXXX*.

   "XXXXXX" represents the current software version number.

2. CONTINUE.

👉 SET THE TIME OF DAY

1. Press [8 TIME OF DAY]. The display shows *TIME HH.MM*. "HH.MM" is the time of day in 24-hour format.

2. Enter the current time using the number keys.

NOTE
9:00 am is entered with a leading zero, like this: 0900; 9:00 pm is entered as 2100.

3. CONTINUE.

👉 SET MONTH, DATE, AND YEAR

1. Press [8 TIME OF DAY], then press [⬇] until the display shows *MM/DD/YY Z*.

   "MM" is the month, "DD" is the date, "YY" is the year.
   "Z" is the day of the week, starting with "1" for Sunday.

2. Enter the current month, date, and year using the number keys.
   For example, to enter August 15, 2003 press: **0, 8, 1, 5, 0, 3**

NOTE
The number representing the day of the week automatically changes based on the month, date, and year you entered. You will not be able to change that number.

3. Press [EDIT] to switch between MM/DD/YY and DD-MM-YY formats

4. CONTINUE.

👉 SET DAYLIGHT SAVINGS TIME OPTIONS

Your merchandiser can automatically change its internal clock to comply with Daylight Savings Time provided you set it up correctly.

1. Press [8 TIME OF DAY], then press [⬇] until the display shows either:

   DST OFF - Daylight savings time option is off.
   DST N.AMER - North American Daylight Savings Time is activated.
   DST UK/EUR - UK and European Daylight Savings Time is activated.
   DST AUS'LIA - Australian Daylight Savings Time is activated.

2. Press [EDIT] to select your region.

3. CONTINUE.

☞ SET TIME-OF-DAY INHIBIT VENDING

Vending can be inhibited up to four times a day.

1. Press ⎡8 TIME OF DAY⎤, then press ⬇ until the display shows *INHIB* - - - -.

2. See **"Time Interval Editing" on page 46** for an example of how to set up time-of-day inhibited vending.

3. CONTINUE.

☞ SET TIME-OF-DAY FREE VENDING

1. Press ⎡8 TIME OF DAY⎤, then press ⬇ until the display shows *FREEV* - - - -.

2. See **"Time Interval Editing" on page 46** for an example of how to set up time-of-day free vending.

3. CONTINUE.

☞ SET TIME-OF-DAY DISCOUNT VENDING

1. Press ⎡8 TIME OF DAY⎤, then press ⬇ until the display shows *DISCT* - - - -.

2. See **"Time Interval Editing" on page 46** for an example of how to set up time-of-day discount vending.

3. CONTINUE.

TIME INTERVAL EDITING

You can select up to four times of day for each special vending period.

NOTE
If two or more of these time periods overlap, the interval with the highest priority will overrule the other(s). This order of precedence is:

- INHIBIT
- FREEVEND
- DISCOUNT

For example, if a DISCOUNT time period is scheduled for a certain area before the end of an INHIBIT time period, DISCOUNT does not begin until the INHIBIT interval has ended for that area.

The time interval editing procedure is almost the same for the INHIBIT, FREEVEND, and DISCOUNT intervals. There is one difference for the DISCOUNT time interval, so we will use it in our example. Assume you just finished the SET TIME-OF-DAY DISCOUNT VENDING procedure. Step 1 picks up where you left off . . .

1. The display shows *DISCT* - - - - . Press the number of the time interval you want to edit, or [EDIT] to edit time interval 1 (we'll use interval 1 for this example).

2. The display shows *1DISCT ON* or *1DISCT OFF* This display tells you whether your time interval (represented by 1) is on or off. Press [EDIT] to change the condition of the time interval.

NOTE
If you turn an interval ON, it must be edited. You can edit a time interval now, then turn it OFF until another time.

3. Press [↓]. The display shows *1DSCT X* . "X" represents the discount percentage for this period. Enter a discount percentage of 25 with the number keys. (Discount percentages of from 0 to 99 are permitted.) The machine will apply a 25% discount to each price, rounding up to the nearest nickel (or whatever the smallest coin accepted by the coin mechanism is).

4. Press [↓]. The display shows *1STRT X.XX.* X.XX is the currently set start time. Enter a new start time (24-hour format) for this interval. To enter the time for 3:30 pm, enter 1530.

5. Press [↓]. The display shows *1.STOP X.XX*. X.XX is the currently set stop time. Enter a new stop time (24-hour format) for this interval. To enter the time for 6:00 pm, enter 1800. You have now established a 25% discount that starts at 3:30 pm and ends at 6:00 pm.

6. Press [↓]. The display shows *1. @ - - - - - - - -*. The dashes represent the days that this time interval is active. Pressing number keys 1 through 7 switches the days on/off. For example, press "2", "4", and "6". The display now shows
    1. @ - M - W - F -. This discount interval is only active on Monday, Wednesday, and Friday.

7. Press [↓]. The display shows ** - - - - - - - - - -*. The dashes represent the selections affected by this time interval. Press the appropriate letter key to enable a selection, press the key again to disable it. For example, pressing A, C, and E will cause the display to look like this: **. A - C - E - - -*, meaning that all A, C, and E selections are affected by this interval.

    Press [* TEST / START] to turn on all levels; press [# CODE / CLEAR] to turn all levels off.

8. Limit selections by cup size by pressing 0 or 1 and then pressing the letter keys of desired selections. Press [↓] to toggle between the 0 and 1,

    press [EXIT / STOP] to move back up to the ** - - - - - - - -* display.

9. Press [↓]. The display shows *1. MESG OFF* or *1. MESG X*. "OFF" means there is no custom message selected, and "X" represents the custom message number set for this interval. Press the number key of the message

    (1 through 8) you want displayed. To edit this message, press [EDIT] and

    follow the procedure given in **"Edit Custom Message" on page 49**. Press **0** to turn the message OFF for this time interval.

10. CONTINUE.

👉 **SELECT A STANDBY MESSAGE**

STANDBY MESSAGE	The message that displays during normal vending periods when there are no out-of-service faults on the machine.

1. Press ⬜ (8 TIME OF DAY), then press ⬇ until the display shows *STANDBY XX*.

    "XX" represents the current message number selected for the standby message. Two dashes mean that the factory-set message is selected.

2. To select a message, just press the corresponding number (**1** through **8**). To display the factory-set message, press 0.

3. The selected message (except the factory-set message) can be edited. To do this, press and follow the procedure given in **"Edit Custom Message" on page 49**.

4. CONTINUE.

👉 **SELECT AN OUT-OF-SERVICE MESSAGE**

1. Press ⬜ (8 TIME OF DAY), then press ⬇ until the display shows *SERVICE XX*.

    "XX" represents the current message number selected to display when the machine is out-of-service. Two dashes mean that the factory-set message is selected.

2. To select a message, just press the corresponding number (**1** through **8**). To display the factory-set message, press 0.

3. The selected message (except the factory-set message) can be edited. To do this, press and follow the procedure given in **"Edit Custom Message" on page 49**.

4. CONTINUE.

☞ **SELECT A FREEVEND MESSAGE**

1. Press ⌈8 TIME OF DAY⌉ , then press ⌈⬇⌉ until the display shows *FREEV XX*.

    "XX" represents the current message number selected for the message that displays when the machine is in freevend mode. Two dashes indicate that the factory-set message is selected.

2. To select a message, just press the corresponding number (**1** through **8**). To display the factory-set message, press 0.

3. The selected message (except the factory-set message) can be edited. To do this, press and follow the procedure given in **"Edit Custom Message" on page 49**

4. CONTINUE.

☞ **EDIT CUSTOM MESSAGE**

1. Press ⌈8 TIME OF DAY⌉ , then press ⌈⬇⌉ until the display shows *EDIT MSG'S*. Press

    the number of the message you want to edit. *MESSAGE X* is displayed (X represents the message number you pressed).

    NOTE
    Custom message 8 represents the *INSERT MUG* message.

2. Press ⌈EDIT⌉ . The message text is displayed with the first character

    flashing.

3. To view the message, press ⌈✳ TEST START⌉ . The message scrolls across the

    display. To stop the scrolling, press ⌈EDIT⌉ .

4. When the character you want to change is flashing, either enter it directly, or

    use ⌈3 + ⌉ and ⌈6 - ⌉ to step through the character set until the desired

    character is displayed. Use the arrow keys to highlight different characters. See the section on the next page for an explanation of special keys and the character set.

SHORTCUT

Instead of stepping through the whole character set to enter a letter that is not on your keypad, enter one close to the one you want, then step to it. Example: If you want to enter an **L**, first press [1 PRICE] ,

then press [6 F2 -] six times. Your **L** should now be displayed.

The End Of Message Character

This is the most important character in your message, because it tells the machine when the message is ended. If you don't use this character, your message will be followed by a bunch of zeros. This character can be selected either from the character set or by a direct key entry (see **"Edit Custom Message" on page 49**).

ENTERING YOUR MESSAGE

Most of the keys on the control panel have a special purpose to help you create and edit your messages:

[1 PRICE] Inserts an **R** at the flashing character.

[2 FREE VEND INSERT] Inserts a space at the flashing character.

[4 MACHINE CONFIG.] Inserts an **S** at the flashing character.

[5 DATA RECALL DELETE] Deletes the current character and closes up the space.

[7 PRODUCT CONFIG.] Inserts a **T** at the flashing character.

[# CODE CLEAR] Deletes the current character and leaves the space.

[8 TIME OF DAY] Repeats the letter to the left of the flashing character.

[9 PAY] Enters the special "end of message" character, which denotes the end of the message.

[EDIT] "Pages" through the message, ten characters (one screen) at a time.

[↓] [↑] Steps forward and backward through the message, one character at a time.

[3 F1 +] [6 F2 -] Steps forward and backward through the character list, one character at a time.

0	A	J	U	(	
1	B	L	V	)	
2	C	M	W	#	
3	D	N	X	P	
4	E	O	Y	+	
5	F	P	Z	-	>
6	G	Q	(SPACE)	/	?
7	H	R	.	.	@
8	I	S	$	<	0
9	J	T	'	=	⌧

☞ **VIEW MACHINE CONFIGURATION SETTING**

1. Press [3 ↺ +] . The display shows the configured syrup pump type.

2. Press [⬇] . The display shows the configured number of selections.

3. Press [⬇] . The display shows the configured automatic vend door setting.

4. Press [⬇] . The display shows the active selections for the regular size drink (0). Press [EDIT] to view the rest of the available selections.

5. Press [⬇] . The display shows the active selections for the large size drink (1) - (provided you have two sizes of cups loaded and configured). Press [EDIT] to view the rest of the available selections.

6. CONTINUE.

👉 ## VIEW CUP SIZES ASSIGNED TO SELECTIONS

1. Press [3 key], then press [down arrow key] until the display shows something like: $0. - - C - - - G -.$

    This example shows that regular size cups are assigned to selections C and

    G. Press [EDIT key] to view the rest of the available selections.

    NOTE
    If you have only one cup size in your machine, you will not see
    the next display.

2. Press [down arrow key]. The display shows $l. ABC- - FGH.$ This example shows that

    large size cups are assigned to selections A thru C and F thru H. Press

    [EDIT key] to view the rest of the available selections.

3. CONTINUE.

👉 ## PAYOUT COINS

1. Press [9 PAY key]. If a dumb mech was selected, the display shows $NDO= l23$; if

    an MDB mech was selected the display shows $PAY l23$.

2. Press [1 PRICE key]. A dumb mech pays out one Nickel; an MDB mech pays a

    coin from tube 1.

3. Press [2 FREE VEND / INSERT key]. A dumb mech pays out one Dime; an MDB mech pays a coin

    from tube 2.

4. Press [3 key]. A dumb mech pays out one Quarter; an MDB mech pays a

    coin from tube 3.

5. To continuously pay out coins, hold down the appropriate key.

6. CONTINUE.

☞ **SET PRICES**

1. Press [1 PRICE] . The display shows something similar to: ** *2.50 .25*. This display shows the maximum and minimum prices set in the machine. In this example, the maximum price is $2.50 and the minimum is $0.25.

2. Enter prices as using one of the following methods:

SET ENTIRE MACHINE TO ONE PRICE . . .

   a. Press [EDIT] . The display shows ** *X.XX* . Enter a price using the number keys. All selections in the machine are now set to this price.

SET THE PRICE OF AN INDIVIDUAL SELECTION:

   a. Press the number of the selection to be priced. (Example: **1A**.) The display shows *A X.XX* . Enter a price using the number keys. The selection is now priced.

   b. Enter the number and letter of another selection, or [↓] to price cycle through and edit the list of available selections.

3. CONTINUE.

☞ **VIEW NONRESETTABLE SALES AND VEND DATA**

1. Press [5 DATA RECALL DELETE] . The display shows *NR$ XX.XX*. "XX.XX" is a dollar and cents figure showing the total of all sales in the machine. This is a running total, and is not resettable.

2. Press [↓] . The display shows *NR X*. "X" is the total number of vends made by the machine. This is a running total, and is not resettable.

3. CONTINUE.

👉 ## VIEW DATA FOUR DIFFERENT WAYS

Paid sales and vends can be viewed four different ways:

1. $**\$ XX.XX$ - Total Paid Sales for the machine
2. $0*\$ XX.XX$ - Total Sales by Drink Size
3. $*A\$ XX.XX$ - Total Sales by Selection (both sizes)
4. $1 A\$ XX.XX$ - Total Sales by Individual Selection.

    See the next four section for details.

👉 ## VIEW TOTAL PAID SALES

1. Press [5 DATA RECALL DELETE], then press [⬇] until the display shows $**\$ XX.XX$.

    "XX.XX" is a dollar and cents figure showing the total of all PAID sales in the machine (as opposed to unpaid sales like winner and free vends). This is the total since the last time it was cleared.

2. If desired, view this data by individual selection or drink size (see below).

3. CONTINUE.

👉 ## VIEW TOTAL SALES BY DRINK SIZE

1. Press [5 DATA RECALL DELETE], then press [⬇] until the display shows $**\$ XX.XX$.

2. Press 0. The display will read $0^* XX.XX$. XX.XX is the total sales for the small cup size.

3. Press [⬇] to see the total sales of the larger cup size.

4. CONTINUE.

👉 ## VIEW TOTAL SALES BY SELECTION
(BOTH CUP SIZES)

1. Press [5 DATA RECALL DELETE], then press [⬇] until the display shows $**\$ XX.XX$.

2. Press A. The display will read $*A XX.XX$. XX.XX will be the total sales, for both the large cup and small cup for selection A,

3. Press [⬇] to cycle through all available selections.

4. CONTINUE.

👉 ## VIEW TOTAL SALES BY INDIVIDUAL SELECTION

1. Press [5 DATA RECALL / DELETE], then press [⬇] until the display shows **$ XX.XX*.

2. Press 0 and A. The display will read *0A XX.XX*. XX.XX will be the total sales, for selection A, small cup.

3. Press [⬇]. The display will show *0B XX.XX*. Press [⬇] repeatedly to cycle through the total sales of each small cup selection. Continue pressing

   [⬇] to view the total sales of each large cup selection.

4. CONTINUE.

👉 ## VIEW TOTAL PAID SALES BY PRICE LINE

1. Press [5 DATA RECALL / DELETE], then press [⬇] until the display shows **$ XX.XX*.

2. Press [1 PRICE]. The display shows something similar to: *.30' 3430.50*. This is

   an example of a price line for items priced at $0.30. The amount following the apostrophe ('), is the total dollar amount of the sales for this price. In this example, there was total sales of $3,430.50 for the $0.30 item.

3. Press [⬇] repeatedly to view all price lines.

4. CONTINUE.

👉 ## VIEW TOTAL PAID VENDS

1. Press [5 DATA RECALL / DELETE], then press [⬇] until the display shows ** XX*.

   "XX" is the total number of paid vends for the entire machine.

2. If desired, view this data four different ways as above (by entire machine, by cup size, by selection (both cup sizes) or by selection (each cup size).

3. CONTINUE.

CLEAR ALL RESETTABLE DATA

1. Press [5 DATA RECALL / DELETE]. The display shows *NR$ XX.XX*. This is a running total, and is not resettable.

2. Press and hold [# CODE / CLEAR] until two beeps sound and the display shows *CLEARING* momentarily, and then changes to *FINISHED*. All resettable data is cleared.

3. Clear specific resettable totals by pressing [↓] from the *NR$ XX.XX* display until the desired sales total appears. Press and hold [# CODE / CLEAR] to clear only that total.

4. CONTINUE.

CLEAR PAID SALES DATA ONLY

1. Press [5 DATA RECALL / DELETE], then press [↓] until the display shows ***$ XX.XX*. "XX.XX" is a dollar and cents figure showing the total of all PAID sales in the machine (as opposed to unpaid sales like winner and free vends). This is the total since the last time it was cleared.

2. Press and hold [# CODE / CLEAR]. Two beeps sound and the display shows *CLEARING* momentarily, and then changes to *FINISHED*. All paid sales data is cleared; other data is not cleared.

3. CONTINUE.

VIEW AMOUNT IN COIN BOX
(Not Shown if Zero)

1. Press [5 DATA RECALL / DELETE], then press [↓] until the display shows *CBX XX.XX*. "XX.XX" is the dollar and cents amount in the coin box.

2. CONTINUE.

☞ 👉 **VIEW AMOUNT IN VALIDATOR**
    (Not Shown If Zero)

1. Press [5 DATA RECALL / DELETE], then press [⬇] until the display shows *DBV XX.YY*.

    "XX is the bill denomination and "YY" is the dollar amount in the bill stacker.

2. Press [EDIT] to show the quantities of bills in the stacker. For example, the

    display shows *$01.20*, meaning that there are 20 $1dollar bills in the bill

    stacker. Press [EDIT] again to show the quantities of other bills, such as

    $5s, $10s, or $20s.

3. CONTINUE.

☞ 👉 **VIEW FREEVEND SALES BY TIME INTERVAL**
    (Not Shown If Zero)

1. Press [5 DATA RECALL / DELETE], then press [⬇] until the display shows *-0$ XX.XX*.

2. Press [EDIT], then press [⬇] until the display shows *1FRV .00*. This is

    the total sales for freevend interval 1.

3. Press [⬇] to view intervals 2 through 4.

4. CONTINUE.

👉 **VIEW DISCOUNT SALES BY TIME INTERVAL**
  (Not Shown If Zero)

1. Press [5 DATA RECALL DELETE], then press [⬇], until the display shows ****$ XX.XX.**

2. Press [EDIT] . The display shows **1.DSC .00**. This is the total sales for discount interval 1.

3. Press [⬇] to view intervals 2 through 4.

4. CONTINUE.

👉 **VIEW FREE VENDS**
  (Not Shown If Zero)

1. Press [5 DATA RECALL DELETE], then press [⬇] until the display shows **-0$ XX**.

2. Press [EDIT] , then press [⬇] until the display shows **FRV XX**. "XX" is the total machine-wide freevends, shown even if zero.

3. CONTINUE.

👉 **VIEW WINNERS**
  (Not Shown If Zero)

1. Press [5 DATA RECALL DELETE], then press [⬇] until the display shows **-0$ XX.XX**.

2. Press [EDIT] , then press [⬇] until the display shows **WIN XX.XX**.
   "XX.XX" is the total machine-wide winners, shown even if zero.

3. CONTINUE.

👉 **VIEW TIME DATA**

1. Press 〔5 DATA RECALL DELETE〕, then press 〔⬇〕 until the display shows *TIME DATA*.

2. Press 〔EDIT〕. The following message scrolls across the display:

   MAIN.1 237M 0 V30 10.13

   This example shows the latest time interval the main (machine) door (*1*) was open. It was open for 237 minutes, and was opened on January 30 (*0 V30*)

   at 10:13 am (*10.13*). Press 〔⬇〕. If applicable, similar displays will appear

   for intervals 2, 3, and 4. Otherwise, go to the next step.

3. Press 〔⬇〕. The following message scrolls across the display:

   LAST POWER 0 V30 13.51 FOR 00. 0.23

   This example shows that the last time the machine lost power was on January 30 (*0 V30*) at 1:51pm (*13.51*) for zero days, zero hours, and 23 minutes (*00. 0.23*).

4. Press 〔⬇〕. The following message scrolls across the display:

   LONGS.T POWER 0 V30 10.58 FOR 00. 247

   This example shows that the longest time the machine was without power was on January 30 (*0 V30*) at 10:58am (*10.58*) for zero days, 2 hours and 47 minutes (*00. 247*).

5. Press 〔⬇〕. The following message scrolls across the display:

   FULL CLEAR 0 V30 8.58

   This example shows that the last time resettable sales was fully cleared was on January 30 (*0 V30*) at 8:58am (*8.58*).

6. Press 〔⬇〕. The following message scrolls across the display:

   TIME SET 0 V30 9.15

   This example shows that the last time the time or date was set was on January 30 (*0 V30*) at 9:15 am (*9.15*).

7. Press [↓]. The following message scrolls across the display:

    PRICE SET 01/30 9:42

    This example shows that the last time prices were set was on January 30
    (01/30) at 9:42 am (9:42).

8. Press [↓]. The following message scrolls across the display:

    LAST.VND 01/30 11:00

    This example shows that the last vend was made on January 30 (01/30) at
    11:00 am (11:00).

9. CONTINUE.

☞ **VIEW TOTAL UNPAID SALES**
   (Not Shown If Zero)

1. Press [5 DATA RECALL / DELETE], then press [↓] until the display shows _0$ XX.XX.

    "XX.XX" is the total unpaid sales (free vends, winner vends, 100%
    discounts, zero price vends) for the entire machine.

2. If desired, view this data by tray and individual selection.

3. CONTINUE.

☞ **VIEW TOTAL UNPAID VENDS**
   (Not Shown If Zero)

1. Press [5 DATA RECALL / DELETE], then press [↓] until the display shows _0 XX.

    "XX" is the total number of unpaid vends for the entire machine.

2. If desired, view this data by cup size and individual selection.

3. CONTINUE.

👉 **VIEW NUMBER OF TEST VENDS**

(Not Shown If Zero)

1. Press [5 DATA RECALL DELETE], then press [⬇], until the display shows *TST X*.

    "X" is the number of test vends.

2. If desired, view this data by cup size and individual selection.

3. CONTINUE.

👉 **VIEW NUMBER OF MUG VENDS**

(Not Shown If Zero)

1. Press [5 DATA RECALL DELETE], then press [⬇], until the display shows *MUG X*.

    "X" is the number of mug vends.

2. If desired, view this data by cup size and individual selection.

3. CONTINUE.

👉 **VIEW NUMBER OF ALT VENDS**

(Not Shown If Zero)

An ALT VEND occurs when one cup size is unavailable and the machine vends the selection by using the other size cup. If the customer attempts to purchase a small drink when the machine is out of small cups, they will receive a large drink at no additional charge. If the customer attempts to purchase a large drink when the machine is out of large cups, they will receive a small drink and change.
To view the number of ALT VENDS,

1. Press [5 DATA RECALL DELETE], then press [⬇] or [⬆] until the display shows *ALT X*.

    The "X" is the number of alternate vends.

2. CONTINUE.

👉 **VIEW MACHINE ID NUMBER**

1. Press [5 DATA RECALL DELETE], then press [⬇] or [⬆] until the display shows

    I.D. XXXXXX . The X's represent the 6-digit machine ID number.

2. You can edit the machine ID number if you are in supervisor mode (see **"Gain Access To The Supervisor Mode" on page 23**).

3. CONTINUE.

☞ **VIEW CUP RING CYCLES RELATED TO SUREVEND™ (Not Shown If Zero)**

1. Press [5 DATA RECALL / DELETE], then press [⬇] until the display shows *SV.TOT XX*.

   XX represents the number of vends during which more than one ring cycle was required to successfully dispense a cup.

2. Press [# CODE / CLEAR] to clear the count.

3. CONTINUE.

☞ **VIEW NUMBER OF CUP RING CYCLE FAILURES (Not Shown If Zero)**

1. Press [5 DATA RECALL / DELETE], then press [⬇] until the display shows *SV.FL1 XX*.

   XX represents the number of times a cup was not detected after ring 1 cycled. Check the cup ring adjustment (see **"Cup mechanism adjustment." on page 12**), or the cup stack for damage if the count is excessive.

2. Press [# CODE / CLEAR] to clear the count.

3. Press [⬇] until the display shows *SV.FL2 XX*. XX represents the number

   of times a cup was not detected after ring 2 cycled. Check the cup ring adjustment (see **"Cup mechanism adjustment." on page 12**), or the cup stack for damage if the count is excessive.

4. CONTINUE.

☞ **VIEW HOME SWITCH USE RELATED TO SUREVEND (Not Shown If Zero)**

1. Press [5 DATA RECALL / DELETE], then press [⬇] until the display shows *WO.SV XX*.

   XX represents the number of times home switches were used due to *OPT'N SUREV* selected but not working.

2. CONTINUE.

👉 **TEST VEND SELECTIONS AND VERIFY CREDIT ADDED**

1. Press [✳ TEST START]. The display shows *TEST .00*. You may now test vend

    selections. If you insert money into the machine, the zeros in the display will be replaced with the amount of the credit. After the item vends, your money will be returned.

2. To prevent the machine from dropping cups during test vending, press

    [EDIT]. The display will show *TEST.NC .00*.

    NOTES

    SureVend™ is not operational during a test vend.

    You may make one more test vend if you close the door while still in TEST VEND mode.

3. CONTINUE.

👉 **TEST THE DISPLAY**

1. Press [✳ TEST START], then press [⬇] until the display shows *DSPLY TEST*. The "DRINK BEING SERVED" lamp is lighted (if so equipped), and remains lighted until you leave this function.

2. Press [✳ TEST START] to light all display segments; press [# CODE CLEAR] to turn them off.

3. Pressing a NUMBER KEY on the control panel causes all segments to display that character.

4. CONTINUE.

☞ TEST DROP A CUP

1. Press [TEST/START] , then press [↓] until the display shows *CUP TEST*.

2. Press [TEST/START] to drop a cup from each turret. Press 1 to drop a cup from only the hinge side turret, press 2 to drop a cup from the lock side turret.

3. CONTINUE.

☞ TEST THE AUTOMATIC DELIVERY DOOR

1. Press [TEST/START] , then press [↓] until the display shows *DOOR TEST*.

2. Press [TEST/START] . The automatic delivery door operates.

3. CONTINUE.

☞ TEST THROW STILL WATER

1. Press [TEST/START] , then press [↓] until the display shows *CLD. A .XX*.

   XX is the currently set throw time for still water.

2. Press [TEST/START] to throw still water.

3. CONTINUE.

☞ TEST THROW CARBONATED WATER

1. Press [TEST/START] , then press [↓] until the display shows *CRB. A .XX*.

   XX is the currently set throw time for carbonated water.

2. Press [TEST/START] to throw carbonated water.

3. CONTINUE.

☞🖝 **TEST THE SYRUP PUMPS**

1. Press [✱ TEST START], then press [⬇] until the display shows SYRUP TEST for a

   few moments. The display will then show S.
   A number after the S. indicates a sold out condition on that pump.

2. Press the number of the syrup pump you want to test. Press the same
   number again to stop testing. A decimal will display whenever a pump is
   running.

NOTE

In a diaphragm pump machine, there are no sold out sensors,
so the display only shows the pump number. With gas pumps,
the numbers shown also reflect the sold out status. However,
status is only updated while dispensing. Soldout status is
"frozen" when dispensing stops.

3. CONTINUE.

☞🖝 **TEST THE ICE MAKER**

1. Press [✱ TEST START], then press [⬇] until the display shows ICE TEST.

2. Press [✱ TEST START] to dispense ice for about 1 second. Press [EDIT] to throw

   ice until [EDIT] is pressed again. The time delay (as described below) can

   be reset by dispensing ice for approximately 7 seconds.

NOTE

When the merchandiser is idle for an extended period of time,
there is a software-controlled delay for replenishing ice to the
ice maker. This predetermined delay is initiated from the
actuation of the low level hopper switch. The delay is
automatically reset during normal vending conditions. For
testing purposes, you can manually reset the delay: Press and

hold [# CODE CLEAR]. The display shows CLEARING, then FINISHED.

3. CONTINUE.

☞ TEST THE CARBONATOR

This screen serves several functions. One is to test the refill capability of the carbonator pump. The second is to empty the carbonator before storage or shipping. The third function is to dispense still water.

1. Press [✳ TEST START], then press [⬇] until the display shows CARB TEST.

2. Press [✳ TEST START] to test the carbonator. The carbonator will dispense until it is

    empty, then it will refill. As it fills, the display will show the refill time. You can adjust the carbonator pump to set the refill time to 15 - 25 seconds.

3. Press [EDIT] to run non-carbonated water through the dispensing lines.

4. Press [# CODE CLEAR] to empty the carbonator without refilling. Before doing this,

    you should turn off water to the machine and dispense still water (see step 2) until the feeder cup is empty.

5. CONTINUE.

☞ COOLSAN OPERATION

1. Remove the ice chute from the machine.

2. Empty the waste pail and place it directly under the ice maker door using the hook provided.

3. Press [✳ TEST START], then press [⬇] until the display shows COOL SAN.

4. Press and hold the [✳ TEST START] key. The display will briefly show "CLEARING" and

    three beeps will sound. Release the [✳ TEST START] key.

5. Coolsan will empty the ice maker (approximately 3-5 minutes). The display will flash the "DUMP ICE" message transposed with the time left for the coolsan process to complete. All messages will flash between the current operation notification and the time left in the coolsan process. The operator may remove the pail when all the ice is visually removed from the hopper.

6. Dump the ice and place the pail back in its original position underneath the cup station. It is recommended that you dump the ice so that the pail will not fill during the Coolsan process.

7. For convenience, the machine will wait one minute after the ice is dumped to allow the operator to move the pail under the cup station. The display will read "*MOVE PAIL*" with the time message transposed.

8. Once the one minute delay expires, the hopper will drain and the feeder cup will be prepared for adding solution. This operation will last about 2 minutes.

9. Once the feeder cup is prepared, the display will read "*ADD SOLUT'N*". At this time the operator will have one minute to add the Coolsan solution.

10. From this point, the machine will run the rest of the coolsan process automatically and no operator interaction will be required.

11. The ice maker will be washed and drained. This operation will last about 11 minutes. After the ice maker is washed and drained, the ice maker will be rinsed. Rinsing will take about 17 minutes.

12. The last Coolsan operation will clean out the water system. This will take about 4 minutes.

13. At the end of the process the display will show "*FINISHED*" for 10 seconds and beep 3 times. After 10 seconds, the display will return to the "COOLSAN" list item.

ADDITIONAL NOTES:

- If power is interrupted during the Coolsan process, the process will automatically continue once power is restored.

- The pail may fill during the coolsan process if the ice is not dumped from the ice maker when the pail is replaced. If the pail is full, the process will stop and "*PAIL FULL*" will display. To continue the Coolsan process, remove the pail and dump its contents. The display will show "*PRESS START KEY TO CONTINUE*" in a flashing sequence. Replace the pail under the cup station and press the [⁑ ☞ ○ START] key and the Coolsan process will continue.

14. CONTINUE.

☞ **TEST VARIOUS SWITCHES AND SENSORS**

1. Press ⟨✳ ☞ START⟩ then ⟨⬇⟩ until the display shows *INPUT TEST* momentarily,

   then switches to *IN. - - - - - - - -*. This is the first input screen, consisting of 8
   positions. Depending on the condition of switches or sensors, the dashes in
   the display are replaced by letters or numbers. The positions are numbered
   as shown:

Position
Diagram

IN. - - - - - - - -

Position 1   Position 8
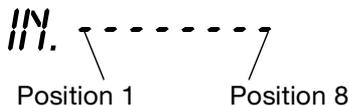
Input Screen 1 Definitions:

Position 1: *m*   Mug switch
2: *K*   Key switch
3: *P*   Waste pail switch
4: *B*   Ice bath probe (a decimal point means the ice bath compressor
       is on)
5:      Not used
6: *1*   Cup ring 1 is empty
7: *2*   Cup ring 2 is empty

2. Actuate each switch or sensor to test its function. As you actuate each input,
   the display element representing that switch blinks on. Releasing the switch
   causes that element to blink off again.

3. Pressing **B** cancels any delays and forces the compressor to start
   immediately if a block of ice is not yet formed to its maximum size. This is
   useful for troubleshooting compressor problems.

4. Press ⟨EDIT⟩ to switch to input screen #2.

Input Screen 2 Definitions:

Position 1: *H*   Feeder cup high
2: *L*   Feeder cup low
3: *1*   Ice maker full (a decimal point means the ice maker is on)
4: *C*   No CO_2 (a decimal point means the CO_2 valve is on)
5:      Not used
6: *H*   Carbonator level high
7: *L*   Carbonator level low (a decimal point means the carbonator
       pump is on)

On input screen #2, you can press the following letters to perform the indicated operation:

> A   Dispense ice (and turn on the icemaker compressor if the hopper is not full)
>
> B   Force CO_2 valve on
>
> C   Dispense carbonated water
>
> D   Dispense still water

5. Actuate each switch or sensor to test its function. As you actuate each input, the display element representing that switch blinks on. Releasing the switch causes that element to blink off again.

6. CONTINUE.

☞ VIEW SUREVEND™ AVERAGE CALIBRATION VALUE

1. Press [✳ TEST START], then press [⬇] until the display shows *CAL.AVE XXX*.

   XXX represents the average sensor calibration value (should be between 50 and 255 for proper sensor operation - i.e. 51 through 254). Although this number could go as low as 20, the SureVend™ system will be inoperative in this condition.

2. CONTINUE.

☞ VIEW SUREVEND™ LAST RECORDED CALIBRATION VALUE

1. Press [✳ TEST START], then press [⬆] until the display shows *CAL.LST XXX*.

   XXX can be any number from 0 to 255, and represents the most recent value read from the sensor. The lower the number, the greater the sensor blockage. A number of 255 means that there is a fatal problem with the SureVend™ interface board. Ensure the SureVend™ interface PCB is properly connected to the main controller PCB.

2. CONTINUE.

👉 TEST THE DISPLAY

1.   Press [✳ TEST START], then press [⬆] until the display shows *DSPLY TEST*.

2.   Press [✳ TEST START] to light all display segments; press [# CODE CLEAR] to turn them off.

3.   Pressing a NUMBER KEY on the control panel causes all segments to display that character.

4.   Pressing a key on the maintenance keypad causes all segments to display that character (found in the upper left hand corner of the key). Please note that the character is displayed along with a leading apostrophe to indicate that the maintenance keypad is being tested.

5.   CONTINUE.

👉 VIEW DIAGNOSTIC MESSAGES

1.   Press [0 DIAGNOSTICS]. The display shows any of the following diagnostic messages, depending upon any fault(s) present:

NO ERRORS   None of the following errors are detected:

KEYPAD XY   Key(s) x, y stuck.

ROM ERROR   Error in the programming EPROM. Machine will not operate.

RAM ERROR   One or more of the configuration settings may be incorrect. Check the machine settings (time of day, cup size, pricing, etc).

   1.   If the problem is corrected, the RAM ERROR message can be cleared by pressing [# CODE CLEAR] once.

   NOTE: If the source of the error is not resolved, [# CODE CLEAR] will clear the error code, but will ***not*** resolve the problem.

   2.   If you cannot find the problem, you can initialize your RAM by performing the following procedure:

   Press AND HOLD [# CODE CLEAR] until two beeps sound and the display shows FINISHED. Reconfigure the merchandiser.

   IMPORTANT NOTE: Initializing RAM will erase all data and settings (price, time, monetary options, messages, etc). Record this information and be ready to reprogram the machine from factory default settings before continuing.

KEYSWITCH	The keyswitch input is active and configured as an inhibit.
D+J+WXYZ	Configuration error; displays the machine configuration screen. NOTE: this is the actual config screen. You may enter the correct config number directly on this screen without further action.
RING 1 2	The cup ring is jammed.
MTR 1A 1B2X	Cup turrets are jammed
NO CUPS 1 2	Out of cups.
WASTE PAIL	The waste pail is full.
DOOR JAM	The automatic delivery door is jammed.
NO MECH	Coin mech not detected - machine will not operate if configured for coin mech.
MECH COMM	Incomplete coin mech communications — check harness.
MECH.SENSOR	Coin mech reporting a bad tube sensor — replace mech.
MECH ROM	Replace the coin mechanism.
MECH.ACCEPT	Coin mechanism acceptor section is unplugged from the main body of the coin mech. Connect the cable and cycle machine power OFF and then ON.
MECH JAM	One or more coin tubes are jammed. Pay a coin from each tube until the jam is cleared.
DEBIT CARD	Card reader reporting error — machine will not operate if configured for DEBIT ONLY.
CHECK DBV	Bill validator reporting error — machine will not operate. Empty stacker, clear jams, etc.
DBV COMM	Incomplete bill validator communications — check harness.
DBV MOTOR	One of the motors has failed. The unit will disable itself until the error is corrected. Check for bill stuck in the acceptance path. If no bill is present, replace the validator. Cycle machine power OFF and then ON.
DBV SENSOR	One of the sensors in the bill validator has failed. The unit will disable itself until the error is corrected. Check for bill stuck in the acceptance path. If no bill is present, replace the validator. Cycle machine power OFF and then ON.
DBV JAM	A bill is jammed in the acceptance path. The unit will disable itself until the error is corrected. Remove bill stuck in the acceptance path. Cycle machine power OFF and then ON.
DBV STACKR	The stacker is open or removed. The unit will disable itself until the error is corrected. Install the stacker correctly.
CHK PRICE	Price error detected and changed to maximum - check prices.
LOCKS SET	All selection keys are locked out.
NONE READY	All selections are reported out of service.
SV.ERR CUP 1	Cup ring 1 is out of service due to a SureVend™ error.
SV.ERR CUP 2	Cup ring 2 is out of service due to a SureVend™ error.

SV.ERR PCB	SureVend™ is ON but not working. The last calibration sample was 255. Check that the SureVend™ PCB is present at J34.
SV.ERR SNSR	SureVend™ is ON but not working. The last calibration sample was ≤50. Check for a blocked sensor or disconnected harness.
AJ.ATMR1 XX	SureVend™ is active and ring 1 anti-jackpot timer is ON. XX is a value between 1 and 99 in minutes.
AJ.ATMR2 XX	SureVend™ is active and ring 2 anti-jackpot timer is ON. XX is a value between 1 and 99 in minutes, and represents the amount of time left on the anti-jackpot timer for this cup ring.

DOWNLOAD DATA TO A PDCD

1. Connect your portable data collection device (PDCD) in accordance with its operating instructions.

2. Press ⌷. The display shows *DEX MODE* while data is being downloaded into your PDCD.

NOTE
Depending upon the setting selected in **"Set Printer or DEX Mode" on page 25**, data may be cleared after the download is complete.

3. If there is a problem with your PDCD or its connection, several beeps sound and the error message *ABORT T.O.* appears briefly. Check your PDCD, connections, or consult your PDCD user's manual.

4. CONTINUE.

👉 **SET FREEVEND OPTIONS**

1. Press [2 FREE VEND INSERT], then press [⬇] until one of the following is displayed:

    FREE OFF - Normal vending mode. No items are on freevend. (A closure on the optional keyswitch input causes the machine to go out of service.)

    FREE ON - All items are on freevend. The credit display shows NO MONEY REQUIRED (A closure on the optional keyswitch causes the machine to go out of service.)

    FREE W/KEY - All items are freevended while there is a closure on the optional keyswitch input. Normal cash sales are supported when the optional keyswitch input is open. When using this option, leave the key in the horizontal position.

    FREE ONCE - A closure on the optional keyswitch input causes only the next item to be freevended. Coin mechanism errors are ignored. this state is designed for card or token systems where one item is vended per token. Normal cash sales are also supported.

2. Press [EDIT] until the option you want is displayed.

3. If you selected FREE W/KEY, press [⬇]. The display shows *ABC... . This display represents the selections which may get free vends. Enable the selections by pressing the appropriate letter key.

4. CONTINUE.

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Terms and Conditions of Sale

LIMITED WARRANTY: Subject to the limitation specified herein, all parts included on original equipment manufactured by CRANE MERCHANDISING SYSTEMS and sold to purchaser are warranted for two years from the date of shipment of the equipment in question. This warranty applies only to the original purchaser of the Merchandiser and is null and void if the Merchandiser is sold during the period of warranty.

Defective parts will be repaired or replaced free of charge when the defective part is returned, with transportation charges prepaid by purchaser, to a destination designated by CRANE MERCHANDISING SYSTEMS.

This warranty does not include any cost of service rendered or repairs made by customer or its agents on Merchandiser, or parts, unless authorization to incur such expense has been given in writing by CRANE MERCHANDISING SYSTEMS prior to incurring such expense. This warranty does not cover labor and service charges performed by CRANE MERCHANDISING SYSTEMS service technicians.

This warranty does not apply to A) electrical components, wiring, or circuits or mechanical parts or assemblies damaged as a result of operating the Merchandiser at other than the design voltage and frequency specified on the Electrical Rating Tag, or B) in event of vandalism, fire or negligence, or C) incandescent lamps, neon lamps, fluorescent lamps, ballasts, starters or other expendable items, or D) when seal is broken on electronic boards, or E) when other manufactured components are installed in CRANE MERCHANDISING SYSTEMS Merchandisers.

Replacement parts sold by CRANE MERCHANDISING SYSTEMS as After Market shall be covered for three months from the date shown on the parts invoice. Purchaser must obtain prior RETURN AUTHORIZATION for return of all parts, following guidelines given by CRANE MERCHANDISING SYSTEMS.

New, unused parts purchased as After Market can be returned within 30 days from date of parts invoice, with prior authorization from CRANE MERCHANDISING SYSTEMS.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE. CRANE MERCHANDISING SYSTEMS SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL OR PUNITIVE DAMAGES. CRANE MERCHANDISING SYSTEMS neither assumes nor authorizes any person to assume for it any obligation or liability in connection with the sale of said equipment or any part thereof.