

## Vendo

## GENERAL INFORMATION

This manual contains programming, operation, and complete parts and electrical wiring diagrams.
The V-MAX controller is a microprocessor which will permit pricing per selection from 0.00 to 99.99 . This machine also has space-to-sales programming.

Specifications:

| MODEL | V-MAX 576 | $\begin{aligned} & \hline \text { V-MAX } \\ & 540 / 720 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { V-MAX } \\ & 630 / 840 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { V-MAX } \\ & 512 / 680 \end{aligned}$ | $\begin{aligned} & \text { V-MAX } \\ & 603 / 800 \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SELECTIONS | 7-8 | 9-10 | 9-10 | 9 or 13 | 9 or 13 |
| DIMENSIONS (HEIGHT X WIDTH X DEPTH) |  |  |  |  |  |
| CURVED DOOR | $\begin{array}{r} 72^{\prime \prime} \times 321 / 1 / 2^{\prime \prime} \\ \times 343 / 4^{\prime \prime} \\ \hline \end{array}$ | $\begin{gathered} 72^{\prime \prime} \times 39^{1 / 1 / 2^{\prime \prime}} \\ \times 35^{\prime \prime} \\ \hline \end{gathered}$ | $\begin{gathered} \hline 79^{\prime \prime} \times 39^{1 / 2 "} \\ \times 35^{\prime \prime} \\ \hline \end{gathered}$ | Not Available | Not Available |
| FLAT DOOR | $\begin{array}{r} 72^{\prime \prime} \times 321 / 12^{\prime \prime} \\ \times 311 / 2^{\prime \prime} \\ \hline \end{array}$ | $\begin{gathered} 72^{\prime \prime} \times 391 /{ }^{\prime \prime} \\ \times 321 / 2^{\prime \prime} \\ \hline \end{gathered}$ | $\begin{array}{r} 79 \times 391 / 2^{\prime \prime} \\ \times 321 / 2^{\prime \prime} \\ \hline \end{array}$ | Not Available | Not Available |
| MARKETING VENDOR | Not Available | Not Available | Not Available | $\begin{gathered} 72^{\prime \prime} \times 391 / 1 / 2 "^{\prime \prime} \\ \times 343 / 4 " \end{gathered}$ | $\begin{gathered} 79 \prime \times 391 / 1 / 2 "^{\prime \prime} \\ \times 343 / 4 " \end{gathered}$ |
| ROBO DOOR | Not Available | $\begin{array}{r} 72^{\prime \prime} \times 391 /{ }^{\prime \prime} \\ \times 321 / 2^{\prime \prime} \\ \hline \end{array}$ | $\begin{array}{r} 79 \prime \times 391 / 2^{\prime \prime} \\ \times 321 / 2^{\prime \prime} \\ \hline \end{array}$ | $\begin{gathered} \text { Not } \\ \text { Available } \end{gathered}$ | Not Available |
| SINGLE COLUMNS | 8 | 10 | 10 | 10 | 10 |
| CAPACITY 12 oz. CAN*** | 72 | 72 | 84 | 51/68 | 60/80 |
| PER 16 oz. GLASS | 30 | 30 | 36 | 26 | 32 |
| COLUMN 20 oz. ** | 32 | 32 | 38 | 30 | 36 |
| SHIPPING WEIGHT | 640 lbs | 685 lbs | 750 lbs | 758 lbs | 818 lbs |
| OPERATION VOLTAGE | 115 v 60 Hz . | 115 v 60 Hz . | 115 v 60 Hz . | 115 v 60 Hz . | 115 v 60 Hz . |
| AMP. RATING | 10 | 10 | 10 | 10 | 10 |
| REFRIGERATION VOLTAGE | 115 v 60 Hz . | 115 v 60 Hz . | 115 v 60 Hz . | 115 v 60 Hz . | 115 v 60 Hz . |

*Dimensions and shipping weight will vary slightly due to manufacturing tolerances, shipping boards and whether or not coinage is installed.
** 20 oz. PET capacity may vary based on the shape and size of the bottle.
***12 oz. Can capacities are listed using a 4-deep set up.

## INITIAL SET-UP

## A. UNPACKING

Remove all plastic film, cardboard, and tape from the outside of the vendor. Loosen any shipping devices used to secure interior parts during shipment (backspacer, shims, or spacers).

To remove shipping boards from base, raise vendor on a well-stabilized lifting device. Remove the leveling bolt which holds the boards in place and remove the boards. Replace bolts to equal heights in the threaded holes.
Another method to remove shipping boards is to split the boards apart. Using a pinch bar or a heavy screwdriver and hammer, insert tool into the slots and force the board apart.

## B. POSITIONING

IMPORTANT: PLACE THE VENDOR IN DESIRED LOCATION AT LEAST THREE TO FOUR INCHES (8 TO 10 CENTIMETERS) AWAY FROM ANY REAR OBSTRUCTION. This is for proper air flow through the refrigeration compartment. The refrigeration system requires front to rear air circulation for proper operation.

## C. POWER SUPPLY CONNECTION

## CAUTION: DO NOT USE AN EXTENSION CORD!

The vendor's power requirements will vary depending upon the country it was purchased for. To verify the power requirements of the vendor, check the serial plate located on the hinged side of the outer door (see Figure 4 on page G-4). The power requirements are listed on the serial plate.

To insure safe operation of the vendor, the vendor's power supply must be a properly grounded and polarized outlet. Before plugging the vendor into the outlet, test the outlet to confirm it will meet the vendor's power requirements. If the power supply of the outlet is different from the power requirements of the vendor, a transformer may be necessary.

If the power requirements are not properly met, contact a licensed electrician and have the necessary correction made.

Should you require additional information, contact the Technical Services Department of the Vendo office in your area.


FIGURE 4
NOTE: The Model number of the vending machine is located on the top left hand corner of the serial plate. Do Not use the "BASIC UNIT" number. The BASIC UNIT number is the cabinet size, which is used on a number of different machines. A typical model number could read "540CCD00029". The 540 is the model number, CCD represents the product line of the vendor and the remaining digits tell what options are included.


## COIN INSTRUCTION LABEL \& PRICE LABEL APPLICATION:

Apply labels to a clean and dry surface. Peel backing from label and apply with firm, even pressure.

## INSTRUCTION LABEL

(Refer to Figure 5 for the following information.)
Coin insert "A" has a separate validator opening, and insert "B" shows the validator opening built into the coin insert. Apply instruction label to area shown (as needed by the vendor).

## FLAVOR LABELS INSTALLATION:

In Figures 6 \& 7, corresponding styles are indicated by A, B, C, D, E, or F notations. Insert flavor labels to the side or top of selection window or button depending on the style. See Figure 6 for selection style. Rear views of windows and buttons are shown in Figure 7. Arrows point the direction to insert labels.
Selection window and selection button labels identify product contained in stack columns.


FIGURE 7


FIGURE 8


## FIGURE 9

## ALIGNMENT CHECKS

## DOOR RAMP CHECK:

The door support is to insure that the outer door closes squarely to the cabinet. Raising the door can also insure proper alignment of the door latch (see Figure 8).

## REFRIGERATION AREA CHECK:

Check the position of the condensation pan (see Figure 9). The correct position of the pan is between the compressor and the condenser fan bracket. Be sure the drain tube is clipped to the pan and is free of kinks. A water trap is installed into the condensation pan and will prevent warm, moist air from reaching the evaporator area.

## Vendo <br> LOADING INSTRUCTIONS

## BASIC LOAD SET-UP:

The V-Max machine is capable of vending a variety of products. For specific information, refer to the product set-up label on the machine inner door or contact the Technical Services Department of the Vendo office in your area.

Load product evenly. Bottles are loaded with crown end placed toward the back of the column. In initial loading, prime the machine by advancing the product into the buckets. To advance product into buckets, use the vend test function of the electronic controller. When the bucket is loaded, the column is ready to vend.

PRIME ALL COLUMNS DURING INITIAL PRODUCT LOADING

## Vendo <br> VEND MECHANISM PARTS DESCRIPTION

The parts listed below are part of the vend motor mechanism (refer to Figure 10 on page G-9). One mechanism is required per column. The parts are interchangeable. Settings will differ between single, double, triple, and quadruple depth.

VEND MOTOR ASSEMBLY: P/N 1115821
The motor is attached to the mech. plate by three screws.

TIMING CAM: P/N 1113236, RETAINER: P/N 1113244
The motor cam assembly consists of two parts, the cam and the cam retainer. The cam controls the vend cycle. The cam is attached to the motor by the cam retainer. The retainer rotates left or right, and provides for single, double, triple, or quadruple depth operation.

## SOLD-OUT SWITCH: P/N 368299

There is one sold-out switch above the vend motor. The sold-out switch is actuated by the sold-out flap when the column is empty. It prevents the motor from running when the columns are empty.

## STEEL BUCKET: P/N 1120146

The vend bucket holds the product(s) in a "ready to vend" position at the base of each column.

## MOTOR COUPLING: P/N 1076465

The adapter coupling couples the motor to the bucket. It is located behind the motor, on the motor shaft.

## ANTI-THEFT CLIP: P/N 389712

The anti-tilt clip prevents product from dropping out of the bucket if the vendor is tilted. The anti-theft clips are located in the bucket.

GATE: P/N 1121282
The gate holds product above the vend bucket.

## Vendo

GATE LINK: P/N 1120140
The rotation of the vend bucket moves the gate link. This opens the gate, allowing one layer of product to drop into the bucket.

## GAGE BAR: P/N 1111651

The gage bar holds the product(s) inside the bucket. It also regulates which product is vended first when double, triple or quadruple settings are used (See page G-10 for motor cam settings).

GAGE BAR CLIPS: P/N 1066104(white), 1066112(black), 1066112-1(gray), 1121704(gray), 1122103(black)
Gage bar clips are attached to the gage bar to create multiple steps when vending product double, triple, or quadruple depths. (See product set-up label on inner door for details.)


FIGURE 10

## VEND CYCLE

Several operations take place during the vend cycle. When a selection is made, the cam and bucket rotate, product is dispensed and the bucket is then reloaded. The sequence of these operations changes slightly when the column's depth setting is changed. With the single-depth setting, one purchase is made and the bucket is reloaded. The cam sequence occurs one time per bucket revolution. With the double-depth setting, two purchases are made before the bucket is reloaded, and the cam sequence occurs twice per bucket revolution. With triple-depth setting, three purchases are made and the cam sequences three times per bucket revolution. With quadruple-depth setting, four purchases are made and the cam sequences four times per bucket revolution.

PURCHASE SEQUENCE: (See Figure 11, quadruple-depth setting pictured)
PS 1. Customer inserts money.
PS 2. The coinage reports credit to the vending machine electronic controller. Established credit is displayed on the digital display located near the coin insert slot.
PS 3. Customer presses a selection button.
PS 4. The controller receives the signal from the selection switch and (if sufficient credit exists), energizes the corresponding vend motor.
PS 5. The vend motor rotates the bucket and cam. As the cam rotates, the motor position switch actuator raises to the outer surface of the cam. This closes the switch, which signals the controller to remove credit.
PS 6. Product is immediately dispensed. The motor and cam continue to rotate until the motor position switch actuator drops into the low part of the cam.
PS 7. Motor stops.


FIGURE 11
NOTE: The numbers on the cam reflect the number of vends allowed per cycle.

## Vendo

## RELOADING SEQUENCE (See Figure 12.)

RS 1. The gate link rests at a locked position in a cut-out on the mech. plate. This locked position prevents the gate from opening out of sequence.
RS 2. The gate link is guided by a slot in the mech. plate and is actuated by a ridge on the bucket. As the bucket turns, the link is moved out of the locked position.
RS 3. As the link rises, the gate is opened. The spring maintains pressure on the link and the gate.
RS 4. Product falls into the bucket, the link returns to the locked position and the gate is closed.
RS 5. The bucket releases the gate link causing the gate to rest against the product.
RS 6. As the product falls into the bucket, the link returns to the locked position and the gate is closed.
RS 7. The product remaining in the column is held by the closed gate, keeping it above the bucket.
RS 8. The bucket stops, loaded with product, and is ready to vend.
FIGURE 12


NOTES

