# SNACKTRON 1 SNACKTRON ${ }^{-}$ 

 SET-UP INSTRUCTIONSREAD THESE INSTRUCTIONS BEFORE PLACING THE MERCHANDISER ON LOCATION

## SAVE FOR FUTURE REFERENCE

CRANE<br>St. Louis, MO 63115



This machine has been engineered to our own rigid safety and performance standards. It has earned a "Letter of Compliance" from NAMA indicating that it complies 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 FCC Verified and UL listed.
To retain the safety and performance
built into this machine, it is important that installation and maintenance be conducted so as to not alter the construction, or wiring, and that replacement parts are as specified in the Parts Manual. Your investment in this equipment will be protected by using the Set-Up Instructions and Parts Manual in your operation and maintenance work. By following prescribed procedures, machine performance and safety will be preserved.

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## SPECIFICATIONS

SNACKIRON $\mathbf{1}^{\text {m }}$ SNACKIRON $2^{\text {m }}$Merchandiser
Merchandiser
72" (183 cm) high72" (183 cm high$38^{\prime \prime}(97 \mathrm{~cm})$ wide$35 \mathrm{l} / 2^{\prime \prime}(90 \mathrm{~cm})$ deepWEIGRT: 640 lbs. ( 288 kg )
$30^{\prime \prime}$ (76 cm) wide$351 / 2^{\prime \prime}$ (90 cm deep)
522 Jbs. ( 237 kg )POWER
110-120 volts, 60 Hertz,3 amps.
TRAY
CAPACITIES*: 5 selection snack tray -

4 selection snack tray -67 items10 selection candy tray -220 items

52 item 8 selection candy tray 160 items
OPTIONAL EQUIPHENTS

## COIN

MECHANLSM: COINTRON 3000
MARS TRC 6000
Same
(Dropped Shipped)
COIN ACCEPTORS C300
(Dropped Shipped)
Same
,
BLLL
VALIDATOR: MAKA NB11B 400 Same (BILT CAPACITY - 400)

## (Factory or Field Installed)

Door Locks (Flex-Ace® or Van Lock)
Cabinet Base Plate
Data Access Control Keylock
Exhaust Fan
Money Box Lock
5 Selection Vertical Gum and Mint (SNACKTRON $1^{m}$
Merchandiser only)
Spirals: (SNACKTRON 2" Merchandiser only)
Dual Gum and Mint Spiral
13-Item on 38-Item Candy Spiral
20-Item or 25-Item Snack Spiral
*The number of items is based on the suggested arrangement of the snack and candy spirals.


Figure $A$. Snacktron $T^{\text {T }}$ Merchendiser


FIqure B. Snacktron $2^{\text {m }}$ Merchandiser

# SECTION I <br> INSTALLATION 

## INTRODUCTION

This section contains instructions for unpacking and installing the merchandiser. Read all instructions thoroughly before starting.

## CAUTION

Do Not connect the machine power cord or attempt to operate the merchandiser before it is completely inspected and the power supply is checked for proper voltage and grounding.

## UNPACKING AND INSPECTING

Verify the model and part numbers with the merchandiser invoice or freight bill; immediately report any shortage or discrepancy with the carrier.

Remove all shipping and packing materials. Remove both spanner straps from the SNACKTRON $1^{\text {T }}$ merchandiser (See Figure A). Save all shipping and packing materials until a thorough inspection has been completed.

Examine the merchandiser for dents, scratches or other damage resulting from improper handling. If any shipping damage is detected, file an immediate claim with the carrier.

Inspect the inside of the cabinet and each tray. Pull out the trays by raising the front slightly and pulling forward (see Figure 1-1). Carefully remove all packing material.

Inside the coin box is a plastic bag containing candy spiral product pushers and an instruction card.

When the gum and mint option is purchased for the SNACKTRON $1^{\text {™ }}$ merchandiser, a cloth bag, containing a small mint spacer and an ejector extension, is also placed inside the coin box.


Figure 1 -1. Pulling Out Trays
When the merchandiser is equipped with the Flex Ace or Van Iook ontion, the key is taped inside the coin return cup.

## ELECTRICAL PROVISIONS

A wall outlet, capable of delivering 120 -volts, 60 Hz , single phase must be available within six feet of the merchandiser. Check the outlet for proper grounding, using a neon test lamp or voltmeter (see Figure 1-2).

## LOCATION

## WARNING

This merchandiser is intended for indoor use only.

In some locations it may be necessary to move the SNACKTRON $1^{\text {m" }}$ merchandiser through a small door opening. If this occurs, read the following instructions.


To Test Wall Receptacle
For Proper Grounding:
On a three-slot receptacle, insert one test probe into the semi-circular ground slot and the other test probe into each of the elongated slots.

Receptacle is properly grounded when test lamp lights (or voltmeter reads voltage) with test probes in the hot and ground slots.

Figure 1-2. Testing Wall Receptacle For Proper Grounding ( 120 volt receptacle shown)

1. For doorways as small as 31" $(78.7 \mathrm{~cm})$, remove the top and bottom filler plates (see Figure 1-3).
2. For doorways as small as 29" ( 73.7 cm ), remove the top and bottom filler plates plus all the trays. For removing and replacing trays, refer to Section 3.
3. Work the merchandiser around in an arc through the doorway (see Figure 1-4). Replace the filler plates and trays.

Move the merchandiser to the desired location. Level the cabinet left-to-right and front-to-rear; adjust the leg levelers (see Figure A or C) as required and check with a spirit level. Securely support the merchandiser when tilting the cabinet.


Figure 1-3. Filler Plate Removal (Snacktron $1^{\text {m }}$ Merchendiser Only)


Figure 1-4. Merchandiser Through Doorway (Snecktron $1^{\text {tm }}$ Merchandlser Only)

## INSTALLATION OF THE *FLEX-ACE LOCK CYLINDER (Part No. 9992000) OR THE ** VAN LOCK CYLINDER (Part No. 3112163) FOR MERCHANDISERS EQUIPPED WITH THE LIFT-HANDLE LOCK LEVER.

## To Install The Lock Cylinder:

1. Position the lift-handle lock lever as shown in the illustration.
2. Depress the lock spring at the square hole of the lock cylinder receptacle and pull the lock spring out the front.
3. Position the lock cylinder as shown in the illustration. Depress the spring-loaded lock pin and push the lock cylinder into the lever cylinder receptacle until the pin snaps up into the square hole
4. If the cylinder lock pin does not engage with the square hole, press against both ends of the lock cylinder and rotate the cylinder untll the pin snaps into place.
5. Test the lock mechanism with the key.

*FLEX-ACE* is a registered trademark of the Chicago Lock Co. - specify Part No. 9994000 for corresponding lock key.
*"Specify Part No. 3112164 for corresponding Van lock key or specify Van Lock Kit No. 3112165

- kit includes lock cylinder and key.

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Figure l-b. Installing a Fiex-ACE# or Van Lock
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## INSTALLATION OF OPTIONAL MONEY BOX LOCK (Part No. 1101906)

## To Install The Money Box Lock:

1. Remove money box from the Merchandiser.
2. Remove the screw, cam, nut, and washer from the lock assembly.
3. Insert lock into opening on the money box, and secure with the washer and nut.
4. Install the cam and secure with the screw.
5. Place money box back in the Merchandiser and test the lock with the key(s) provided.



Figure 1-8. Instaliing Optional Exhaust Fgn
4. Install the fan screen and connect the wixing harness to the fan motor connector (C).
5. Route the wiring harness behind each tray receptacle block on the mounting channel ( $D$ ), through the bushing (E) on the partition panel, and connect to the empty socket connector (F) at the lower left side of the cabinet.
6. Seeure the wiring harness with existing cable clamps (G) or the wire clips provided.
7. Turn power ON at the main switch (A) - fan should run; if not, tuxn power OFF and check wiring conneetions.
8. Turn power OFF and carefully reinstall all trays (see Section 3).

# SECTION II <br> PREPARING THE MERCHANDISER FOR VENDING 

## CAUTION

Set the main power switch to "OFF" before loading the spirals and coin mechanism. Set power switch to "ON" for all other preparation procedures.

## LOADING THE SPIRALS

Refer to Table 2-1 and Table 2-2 for the spiral/product specifications. Refer to Section 3 when adjusting or re-arranging the spirals and trays.
A. SNACKS:

1. With a tray fully extended, load the spirals consecutively from the front to the back of the tray (see Fgure 2-1). The trays tilt down for loading convenience. DO NOT force a product between the spirals. DO NOT use a spiral with too great of a pitch.
2. Position bagged products as straight as possible; then push the tops slightly toward the rear of the tray.
3. Positioning a thin packaged product such as microwave popcorn should be used in a 15,20 or 25 count snack spiral, placing the package upright in the spiral (see Figure 2-2).
4. Adjust width of tray columns as needed with the respective product spacers provided (see Section 3).

## B. CIGARETTES:

1. Loading procedures and spiral count will vary depending on the size of the pack. The following specifications and Figure 2-3 will give aid in loading the spirals.

| \$PIRALS | PART NuMEER | RETAINER COLOR | CAPACITY | NDM. PRODUCT THICKNESS |
| :---: | :---: | :---: | :---: | :---: |
|  | *1457124 | GRN | 13 | 1-1/2" (3.8 cm) |
| C | *1457116 | WHT | 38 | 1/4" (0.6 cm) |
| A | 1457114 | RED | 30 | 3/8" ${ }^{\text {(1.0 cm) }}$ |
| $N$ | 1457112 | YEL | 20 | $3 / 4 "(1.9 \mathrm{~cm})$ |
| 0 | 1457110 | BLU | 15 | 1" (2.5 cm) |
| Y | +1467127 | ORN | 38 | $3 / 4^{\prime \prime}(1.9 \mathrm{~cm})$ |
| S | *1457041 | GRN | 25 | $1 / 2 \mathrm{C}(1.3 \mathrm{~cm})$ |
| N | *1457038 | WHT | 20 | $3 / 4 "(1.9 \mathrm{~cm})$ |
| A | 1457035 | RED | 15 | 1m1/4"(3.2 cm) |
| C | 1457032 | YEL | 13 | 1-1/2" (3.8 cm) |
| k | 1457029 | 8إ | 11 | $1-5 / 8^{\prime \prime}(4.1 \mathrm{~cm})$ |
| * Optional Candy/Shack Spirals <br> + Optional bual 家um \& Mint spiral (requires \#1467135 motor) |  |  |  |  |

Table 2-1. Splral Specifications

| 6-TRAY MODELS |  | 5-TRAY MODELS |  |
| :---: | :---: | :---: | :---: |
| TRAY | HEIGHT | TRAY | HEIGHT |
| A (Top) | 7" 17.8 cm ) | A $\quad$ - | --- |
| B | 5-3/4" (17.1 cm) | B (Top) | 6-3/4" 17.1 cm ) |
| c | $5-3 / 4^{\prime \prime}(17.1 \mathrm{~cm})$ | c | 6-3/4"(17.1 cm) |
| D | $6^{\prime \prime}(15.2 \mathrm{~cm})$ | 0 | $6^{\prime \prime}(15.2 \mathrm{fm})$ |
| E | $6^{\prime \prime}(15.2 \mathrm{~cm})$ | E | $6^{\prime \prime}(15.2 \mathrm{~cm})$ |
| F (Bottom) | $5-1 / 2^{\prime \prime}(14.0 \mathrm{~cm})$ | F (Bottom) | $5-1 / 2^{\prime \prime}(14.0 \mathrm{~cm})$ |

Table 2-2. Maximum Product Helght


Figure 2-1. Loading the Sprials


Figure 2-2. Thin Product Loading


Figure 2-3. Cigarette LotdIng
2. Cigarette packs, with the exception of the "wider" 25 counts, should set on the tray NOT the spiral. The suggested spiral counts are:

- Most U.S. Cigarette Packs - 15 spiral
- Slim Size Pack - 15 or 20 count spiral
- Some Canadian Box Packs - 13 count spiral


## NOTE

In all cases, the tab at the front of the tray must be flattened.

Cigarette packs must fit loosely in spirals (to prevent failure).
3. The "wider" 25 count packs will vend using a 15 count spiral, but the pack must rest on the spiral, and a product pusher must be used and positioned as shown in the illustration.
C. Recheck all spirals to products are loaded in consecutive positions, and carefully push the tray back into the cabinet. Raise front of tray to lock the front rollers in place.

## LOADING THE GUM AND MINT COLUMNS (SNACKTRON $1^{\text {™ }}$ merchandiser only)

The gum and mint magazine has 5 columns from which various sizes of gum, mints, and roll candy can be vended. However, DO NOT vary the sizes in a given column.

Adjustments to the gum and mint columns may be made to accomodate small diameter mints and extra long mints (see Section 3).

## LOADING THE COIN MECHANISM

Fill the respective coin tubes to the desired levels. Insert coins one at a time and make certain that all coins lie flat in the coin tubes.

## INSERTING THE TRAY TAGS

Select price tag(s) from the printed price sheet provided and insert into the tag slots below the appropriate product spiral (see Figure 2-4).

Item selection tags are factory inserted on new merchandisers. Check to see that these tags are positioned in alphanumerical order.


FIgure 2-4. Selection Panel and Display

## CHECKING THE DIAGNOSTICS

Press DIAG on the control panel (see Figure 2-5) ~ display will read "8.8.8.8.8.8.8.8.8.8."

## NOTE

Actuating door switch (closing door) will terminate diagnostics.


Flgure 2-5. Control Panel
Press the DOWN pad on the selection panel (see Figure $2-6$ ) and observe the following display readouts each time the DOWN pad is pressed.


FIgura 2-6. Selection Panel and DIsplay

1. Display reads "VERS" plus a five digit code - this is the merchandiser's software version number. The first two digits will be "00".
2. Display illuminates each segment of all the characters at one time. This is a visual check of the 10 digit display.
3. Display reads "SENSOR OK" indicating that the sensors are functional. "BAD SENSOR" indicates a failure of the electronic sensor.
4. Display reads an item letter and number plus "ERROR" when selection is out of order. If a gum and mint selection is "sold out" this will display a gum and mint
letter and number plus "ERROR" (SNACKTRON $1^{7 *}$ merchandiser only). When an error is found, the system will continue to display the message until the DOWN pad is pressed. In the event of multiple errors, the remaining errors will be displayed sequentially as the DOWN pad is pressed.

## NOTE

Once this step is completed, all error information is lost. Record all error codes as they are displayed.
5. Display reads "IN ABCDEF" (for six trays) or "IN BCDEF" (for five trays) when all trays are properly in place. If the optional gum and mint columns are present, the letter "G" will be shown (SNACKTRON $1^{\text {"" }}$ merchandiser only). A plain letter represents a 5 -selection tray (for the SNACKTRON $1^{\text {"" }}$ merchandiser) or a 4 -selection tray (for the SNACKTRON $2^{\text {mu }}$ merchandiser). A letter followed by a decimal point represents a $10-$ selection tray (for the SNACKTRON $1^{\prime \prime \prime}$ merchandiser). A blank position indicates that a tray is not being sensed as being present.
6. This step causes a homing test for all the selection motors. The controller attempts to "home" all motors. If a motor fails to "home" the selection letter and number plus "error" will be displayed. Pressing the DOWN pad will continue the test.
7. Display reads "8.8.8.8.8.8.8.8.8.8 this indicates the end of diagnostics.

## NOTE

If the merchandiser is equipped with the optional Data Access Control, unlock (keyslot in \#2 position) to perform the following operations.

## SETTING THE MACHINE ID NUMBER

Press and hold the ID pad (selection panel) for 10 to 15 seconds. After releasing pad, display will read "ID"; a number up to six digits may also appear. Do not actuate door switch before the machine number is properly set.

Press and release the DOWN Pad - first display digit on the right will blink. Each time this pad is pressed, the blinking eursor will move one digit at a time to the left for six digits; then returns to the first digit.

Press and release the UP pad - blinking digit will advance to the next higher number. When this pad is repeatedly pressed or held, the blinking digit will advance to the number "9" and roll over to "0" to advance again.

When the desired number is set, test or set another machine control function or close the door to store ID number in the machine memory.

## SETTING THE VEND PRICE

Press PRICE on the control panel display will read "PRICE". Do not actuate door switch (close door) before the vend prices are properly set.

To recall the selection price, press the item tray letter and spiral number on the slection panel. When $A$ and 1 are pressed, for example, the display will read "A1 PR . 00" if no price was set. If the vend price was 45 cents, the display would have read "A1 PR .45".

To increase vend price, press UP pad on the selection panel - display price will be increased by $\$ .05$ each time the pad is pressed. If pad is held, display price will advance at faster rate to the coin mechanism limit ( $\$ 12.75$ for COINTRON and MARS/\$6.35 for COIN ACCEPTORS) and roll over to zero to advance again.

To decrease vend price, press DOWN pad on the selection panel - display price will be decreased by $\$ .05$ each time the pad is pressed. If pad is held, display price witl reduce at faster rate and stop at zero at which time a steady beep will be heard until pad is released. If pad is pressed again, it will start over again and display \$12.75.

Setting a vend price for a different selection or closing the door will store each vend price in the machine memory .

## SETTING THE FREE VEND

To free vend selected items only, simply set the respective vend prices to zero.

To free vend entire merchandiser, press FREE VEND on the control panel display will flash "NO MONEY REQUIRED". Price settings are not affected by this free vend function. To terminate the free vend, press FREE VEND a second time.

## MAKING A TEST VEND

Press TEST VEND on the control panel display will read "TEST" indicating a single test vend can be made.

After closing the door, any selection may be made without using money. If money is inserted, change will be paid out when eredit excedes the vend prices. However, a few seconds after vend completion, the price of the selection is returned.

## TESTING THE PAYOUT SWITCHES

Pryout switches on the control panel, function with the COINTRON and MARS Coin Mechanisms. Press 5 $\$$, 10 $\phi$, or $25 \phi$ PAYOUT on the control panel - nickels, dimes or quarters will be dispensed one at time.

## RETRIEVING DATA FROM MACHINE MEMORY (RAM)

Merchandiser should be immediately serviced if random data, no data or obvious errors appear on the display readout. Actuating door switch (closing door) will terminate data retrieval.

Press DATA on the control panel display will read the machine ID number.

Observe the following display readouts each time DOWN pad (selection panel) is pressed.

1. Display reads "SLS" plus the total sales amount.
2. Display reads "VND" plus the total vend count.
3. Display reads "FV" plus the total free vend count.
4. Display reads "TST" plus the total test vend count.
5. Display reads "CBX" plus the total cash amount in the money box. (total cash data available only on merchandisers equipped with the MARS Coin Mechanism.)
6. (Bill validator option only) Display reads "DOL" plus the total number of dollar ( $\$ 1$ ) bills accepted by the bill validator.

## Clearing data from machine MEMORY (RAM)

Press * on the control panel - a beep will sound. Read the following caution before proceeding to the next step.

## CAUTION

Failure to observe "RAM CLEAR" on the display readout and pressing CLEAR switch pad longer than 15 seconds will place merchandiser into an automatic test mode (display will read "TST", five short beeps will sounds, stored data is modified, and spiral motors operate consecutively). Test mode can be terminated only by placing the machine power switch to "OFF".

Press CLEAR pad on the selection panel and hold approximately 10 seconds until display reads "RAM CLEAR". Release pad immediately. Verify data cleared with the data retrieval procedure.

## NOTE

If test mode is accidentally started, immediately shut off machine power switch. Clear erroneous data from memory by repeating the "clearing data" procedure. Reset machine ID number and vend prices.

## ESCROW OR NO-ESCROW (Bill Validator Option)

The merchandiser can be set in either ESCROW or NO-ESCROW mode.

ESCROW MODE: Permits returning four quarters on operation of the reject lever when a $\$ 1$ bill is inserted.

NO-ESCROW MODE: On insertion of a $\$ 1$ bill, a selection must be made. However, if the selection, is inoperative (sold-out or jammed), four quarters will be returned on operation of the reject lever.

To set the ESCROW or NO-ESCROW mode, perform the following steps.

1. Press PRICE pad on controller panel, display will read PRICE.
2. Press "UP" pad. Display will read ESCROW.
3. Press "DOWN" pad. Display will read NO-ESCROW.

When a MARS TRC 6000 Changer and a bill validator option is installed on the merchandiser. The "high quarter" switch, located on the back of the rejector unit, must be set in the ON position (see Figure 2-7).


FIgure 2-7* Escrow Swltches

## DATA ACCESS CONTROL (option)

The data access control makes some control panel and selection panel functions unaccessible. Access is controlled by a keylock switch. The keylock switch assembly is mounted on the inside of the cabinet door, opposite the control panel. All functions, except diagnostics, can go through the data access control.
To make all modes operational, insert key and turn to \#2 position (see Figure 2-8).

DATA ACCESS CONTROL
If key slot is in 42 position: all modes are operational (a beep will sound when pad is pressed.)
If key slot is in\# 1 position:
touch pad desired.
if operational, a short beep sounds
if not accessible, a long beep sounda
TO CHANGE STATUS OF AVAILABILITY OF PAYOUTS, TEST VEND, FREE VEND,
DATA, PRICE OR MACHINE I.D. (See note)
(1) Insert key and turn to \#2 position
(9) Press * pad (3) Press desired pad: Long beep means mode is not actessible
Shor beep means mode is accessible
(4) Turn key to \# 1 position \& remove Note: Machine I.D. is the bottom unmarked button in the center column of selector buttons on door.
DIAGNOSTICS CANNOT BE LOCKED OUT
Printad in t . $\mathrm{F}, \mathrm{A}_{1}$
145 20es

Figure 2-8. Data Accoss Control

To lock out access to certain functions, perform the following steps.

1. Insert key and turn to \#2 position.
2. Press * pad on the control panel - a short beep will sound.
3. PAYOUTS, TEST VEND, FREE VEND, DATA, PRICE: Press desired switch pad on the control panel - a long warbled beep will sound when function is locked out. (If a short
warbled beep is heard, indicating the function is accessible, repeat steps 2 and 3.)
4. MACHINE ID: Press ID pad on the selection panel and hold for about 10 seconds - a long warbled beep will sound when function is locked out. (If a short warbled beep is heard, indicating the function is accessible, repeat steps 2 and 4.)
5. Turn key to \#1 position and remove.

## SECTION III

## ADJUSTMENT, REMOVAL, AND REPLACEMENT PROCEDURES

Set the main power switeh to "OFF" before performing any adjustment or removal/replacement procedure. Restore power and test vend the merchandiser before returning it to service.

## ADJUSTING TRAY COLUMNS

Use the metal spacer(s) provided to adjust column width on a 4 or 5-selection snack tray. To install spacer, insert and lock tabs in the desired tray slots (see Figure 3-1).

Use the plastic spacer(s) provided to adjust column width on an 8 or 10 -selection candy tray (see Figure 3-2). This spacer is not intended for use with the dual gum and mint spiral.


Figure 3-1. Adjusting Snack Tray Column

## ADJUSTING GUM AND MINT COLUMNS (SNACKTRON $1^{\text {T }}$ merchandisers only)

By using the small mint spacer assembly and the ejector extension, a gum and mint column can be adapted to vend small diameter mints (see Figure 3-3).


Figure 3-2. Product Spacer

By changing the location of the adjustable channels in the center column, the column can be adapted to vend extra long mint packages see Figure 3-4).

## ADJUSTING CANDY SPIRALS

Most candy products will vend reliably when the spirals are properiy loaded. Certain products, however, may tend to arag or hang up at the front of the tray. Should this occur, install the small plastic pusher(s) provided, with the flange on the outside of the spiral (see Figure 3-5). Test vend and adjust position of the pusher(s) as needed.


Figure 3-3. Gum and Mint Adapters
(Snacktron $1^{\text {"' }}$ Merchandiser)


FIgure 3-4. Gum and Mint Magazinin (Snacktron $1^{\text {m }}$ Merchandiser)


Figure 3-5. Adjusting Candy Spiral
REMOVING/REPLACING TRAYS

## CAUTION

Assistance is recommended to remove trays. Always unload any merchandiser first.

## TO REMOVE:

1. Raise front of tray to release the front rollers from the tray ramps (plastic stops); then pull tray all the way forward.
2. Raise front of tray until it stops; then slowly push tray back until it stops again.
3. Raise front of tray until the tray support guides clear top of the tray rams; then pull tray all the way forward. DO NOT FORCE.
4. Raise end of tray to release the rear rollers and carefully remove tray from the cabinet.

## TO REPLACE:

1. Hold tray horizontally, or with the front tilted slightly down, and engage the two rear rollers with the tray ramps (plastic stops).
2. Raise front of tray until the tray support guides clear top of the tray ramps. Slowly push tray back until it stops; then lower the front tray is now supported by the cabinet guide rajls.
3. Push tray all the way back; then raise the front to engage the two front rollers with the tray ramps.

## REMOVING/REPLACING SPIRALS

When removing and replacing any spiral, first make certain that the spiral retainer at the motor coupling is upright (see Figure 3-6); if not, carefully hand turn the spiral clockwise. Release bottom of retainer from the motor coupling before lifting out the spiral. Check to ensure bottom of retainer snaps into place when reinstalling the spiral.


Ftgure 3-6. Removing/Replacing Splrals

When interchanging candy spirals, remember to flatten the metal tray tab for dual gum and mint spirals or use the tab for regular candy spirals (see Figure 3-7 and Figure 3-8).


FIgure 3-7. Removing/Replacing Candy Splrals


Flgure 3-8. Removing/Replacing Gum and Mint Spirals


Figure 3-9. Removing/Replacing Spiral Motor

## NOTE

Full-cycle motor (single flat cam) must be replaced with a half-cycle motor (dual flat cam) when replacing a candy spiral with a gum and mint spiral. To remove motor: remove tray from cabinet, remove spiral, remove motor mounting screws and disconnect wiring connectors (see Figure 3-9); reverse procedure to install motor.

## REMOVING/REPLACING DOOR LOCK

The following procedure pertains to the removal and replacement of Flex-ACE ${ }^{\text {® }}$ lock cycle (Part No.9992000), Van lock cylinder (Part No. 3112163 ) or equivalent - refer to Figure 1-6 in Section 1.

1. To remove look eylinder, depress the look pin and push the cylinder out the front of the lift-handie lock lever.
2. To replace loek cylinder, depress the lock pin and push the eylinder into the eylinder receptacle until the lock pin snaps in place. Test the lock cylinder with the key before closing and locking the merchandiser door.

## REMOVING/REPLACING DOOR PANELS

To remove top and bottom deconator door panels, remove the left side door trim and loosen the horizontal trim (top and bottom) as needed. Slide out panels save trim and all fasteners for reuse.

To replace: slide new panels behind the horizontal trim, install the left side trim and secure with original fasteners.

## SECTION IV <br> ROUTINE SERVICE AND SANITATION

This merchandiser is designed for low maintenance and ease of service. Lack of proper service and sanitation, can result in unsatisfactory vending operation and loss of sales. National Vendors stresses "A Clean Merchandiser is the Most Profitable Merchandiser".

## GENERAL

Set the main power switch to "OFF" before cleaning or servicing the merchandiser. Use aerosol spray cleaners or spray waxes only in well -ventilated areas. NEVER use any spray product containing silicone - silicone sprays can coat electrical contacts causing a machine malfunction.

## WARNING

Before using any liquid cleaner, unplug the merchandiser power cord or shut off power to the wall receptacle to avoid hazard of electrical shock. Make certain all components are thoroughly dry and properly installed before restoring power.

## CLEANING THE MERCHANDISER

Regularly elean the interior and exterior of the merchandiser with a mild detergent solution; rinse thoroughly with clean water and wipe dry with a soft, lint-free cloth. Remove and separately clean spirals, trays and fan screen (optional exhaust fan) as needed. The door display glass can be cleaned with any commercial glass cleaner.

To prevent any buildup of foreign material, the gum and mint columns and related surfaces should be periodically inspected (SNACKTRON $1^{\text {"" }}$ merchandiser only). To clean, use warm water and a mild detergent, rinse, and wipe dry. Special note should be given to the following areas.

1. The dividers of the gum and mint column, particularly the lower portion.
2. An accessible white areas of the gum and mint ejectors.
3. The metal surfaces beneath the ejectors.
4. The gum and mint chute (Remove to clean).

Periodically remove and inspect the coin mechanism. Dust or dirt accumulation can result in coin jams. Use only a damp, lint-free eloth to clean the coin acceptor and coin ramp (see instructions provided with the coin mechanism for details).
To clean the bill validator (optional), perform the following steps (see Figure $4-1$ ).

## WARNING

Never use water or spray lubricants to clean the bill validator - disconnect main power and unplug electrical circuits.

1. The bill insertion opening may be cleaned with a mild detergent. (View A).
2. Periodically open the bill validator and inspect the magnetic heads. Open the bill validator by pulling down on the bottom latch. If the magnetic heads appear dirty, apply a small amount of denatured alcohol to a cotton applicator, and clean (View B).
3. Wipe clean the rollers and belt. Remove any foreign matter. Inspect the latches and levers for smooth operation (View C).
4. Connect main power and test vend the merchandiser for acceptance of genuine dollar bills.


Figure 4-1. Cleaning Bill Validator

## SERVICING THE MERCHANDISER

Regularly check to ensure that all trays and spirals are properly in place - install spacers(s) and pusher(s) as needed.

Replace the door light whenever the fluorescent tube flickers, becomes discolored or burns out; replace starter if new fluorescent tube does not light.
Replenish coin tubes in the coin mechanism as needed - insert coins one at a time into the appropriate coin slot and make certain coins lie flat intubes.

To empty the coin tubes: push respective PAYOUT pad on the control panel for the COINTRON/MARS Coin Mechanism, or actuate respective payout switch on the COIN ACCEPTORS Coin Mechanism.
To clear coin jams: empty all coin tubes, remove coin mechanism and carefully insert a narrow sorewdriver into bottom of the cash box chute or coin reject chute. DO NOT FORCE.

To empty the bill validator (optional) push up the latch and pull down the billstacker. The dollar bills may then be removed (see Figure 4-2). Reset stacker in the original position before closing machine.

Observe the green and red indicator lights on side of the controller (see Figure A or C preceding Section 1) when door is open and power is turned on.

Both Lights Off indicates power cord is disconnected or no voltage at wall receptacle.

Red Light On indicates low voltage exists - all vends disabled until power voltage reaches 108 VAC.

Green Light Flashes indicates malfunction exists disabling the controller.

Green Light On indicates the controller is functioning.


Flgure 4-2. Retrieving BIIIs

## NOTE

Controller assembly must be serviced or replaced (see Parts Manual) when green light flashes or when meaningless information or wrong data appears on the digital display.

Do not reset machine circuit breaker more than once before locating and resolving the reason(s) for it tripping. Refer to the wiring diagram in Section 5.

A periodic lubrication of push door rollers and tray rollers is recommended. Remove all trays and add a small drop of oil to each roller. Apply oil at the point betwen roller and stud head. DO NOT remove rollers to accomplish this. (DO NOT OVER OIL).

Refer to the Parts Manual for additional service information and replacement parts. For factory assistance, contact the nearest National Vendors representative.

