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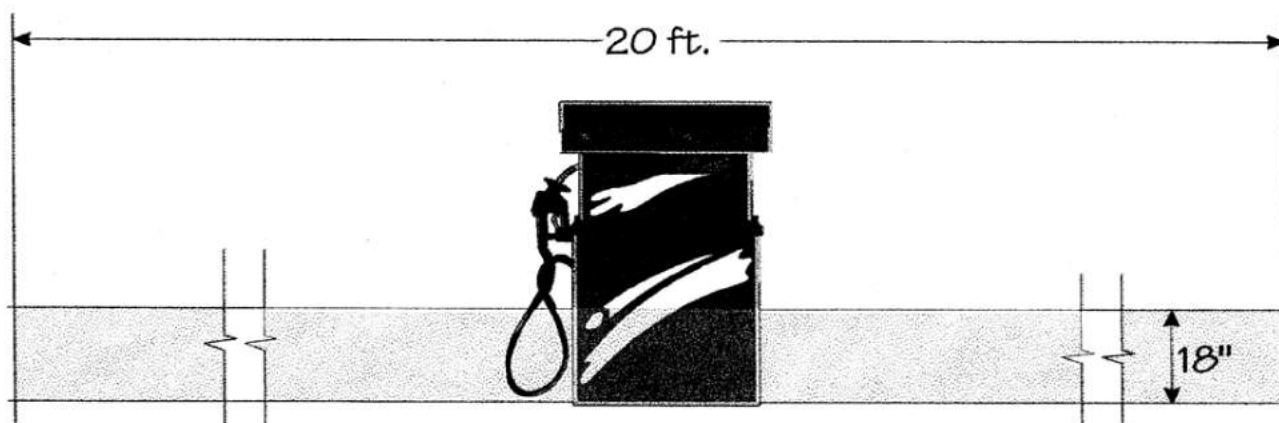
## ***IMPORTANT SAFETY INSTRUCTIONS***

### **READ ALL INSTRUCTIONS BEFORE USING THIS APPLIANCE**

**WARNING:** TO REDUCE THE RISK OF FIRE, ELECTRICAL SHOCK OR INJURY:  
Use only manufacturer's options and attachments. – Do not spray near open flame. – Do not spray on electrical equipment. – If any disposal of product is necessary, adhere to all local, state and federal laws governing its disposal. – Avoid contact with skin and eyes. – Do not spray directly on plastic or vinyl surfaces.

### **DANGER:**

This equipment incorporates parts such as switches, motors, or the like that tend to produce arcs or sparks which can cause an explosion. When located in gasoline dispensing and service stations, install and use at least 20 feet horizontally from the exterior enclosure of any pump and at least 18 inches above driveway or ground level.



# Limited Warranty

MODEL  
SAV

Fragra\*Matics Mfg. Co., Inc. warrants its equipment against defects in workmanship and material and will remedy any defect according to the terms of this *Limited Warranty*.

Fragra\*Matics will repair or replace at its option, any defective part(s) or component(s) for a period of one (1) year from the date of purchase. This *Limited Warranty* extends to the original purchaser only.

Fragra\*Matics will repair or replace at its option, any defective vacuum motors for a period of six (6) months from the date of purchase. This *Limited Warranty* extends to the original purchaser only.

This *Limited Warranty* does not cover equipment that has been damaged due to misuse, mis-application, attempted theft, vandalism, accident, connection to an improper voltage supply or as a result of modification by other than Fragra\*Matics. Components such as hose and handle assemblies, vacuum hoses and nozzles, filters, gaskets, electrical components, rubber, plastic parts, or similar items are subject to wear or consumption during normal operation and this normal disintegration is not covered by the *Limited Warranty*.

Fragra\*Matics makes no warranty concerning the compliance of the equipment with any local, state, or federal/national laws or regulations. The purchaser agrees to accept full responsibility for complying with such laws.

There are no warranties other than those on the face hereof described above and they are in lieu of all other warranties whether expressed or implied, including but not limited to the implied warranties of merchantability and fitness for particular purpose.

Fragra\*Matics Mfg. Co., Inc. shall not be liable for incidental, special, or consequential damages including without limitation damages resulting from personal, bodily injury or death or damages to or loss of use of property.

## Returns

To make a request or claim for service under the terms of this warranty, the original purchaser must contact Fragra\*Matics and provide the product serial number, a description of the problem (including some indication of the part(s) or component(s) felt to be defective) and the date of purchase. No parts, components or the equipment should be returned without authorization from Fragra\*Matics.

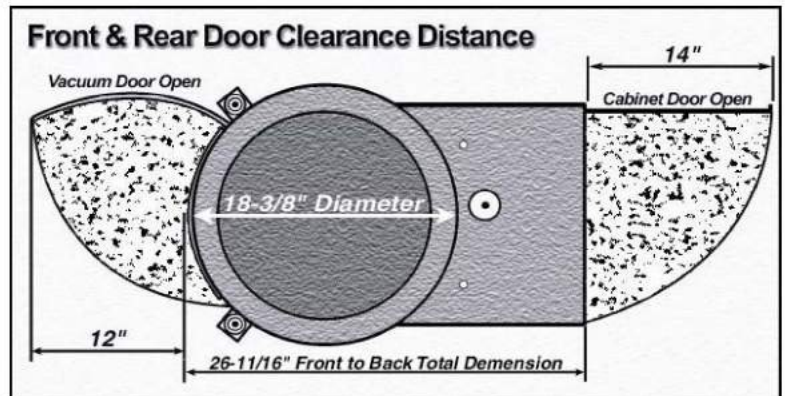
The original purchaser shall be responsible for all shipping charges. Any item authorized by Fragra\*Matics for return under the terms of this *Limited Warranty* must be shipped prepaid, in the original shipping container or equivalent to Fragra\*Matics or to a local service center as authorized and determined by Fragra\*Matics. The purchaser assumes the risk of loss or damage in transit. (Please refer to your owner's manual or contact Fragra\*Matics if you need further information about proper shipping procedures).

Replacement or repair of parts or components in accordance with the above *Limited Warranty* shall be the purchaser's sole and exclusive remedy against Fragra\*Matics.

## Proper Placement

MODEL  
SAV

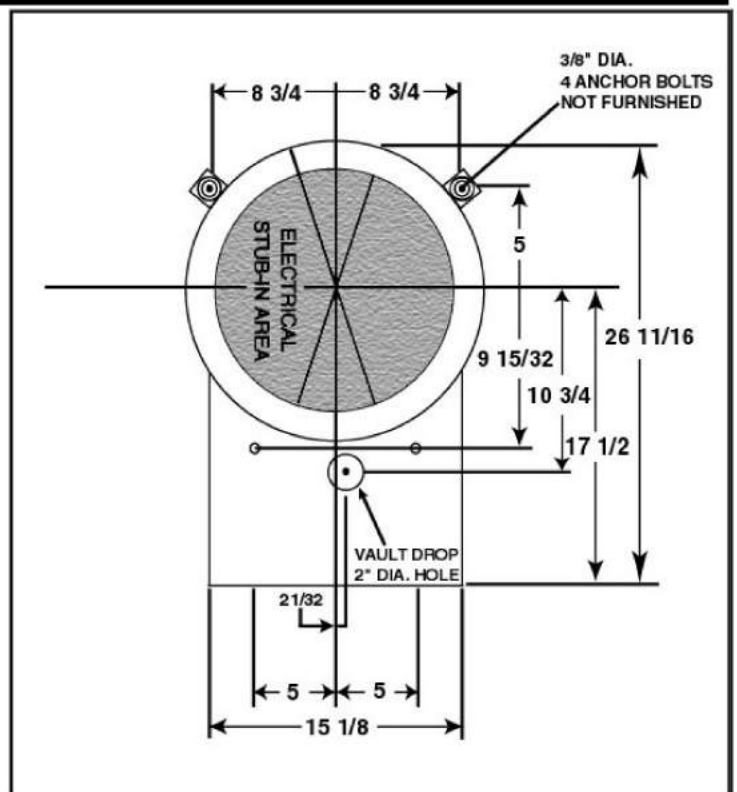
Consider vehicle traffic, ease of access, weather protection and lighting to enhance vacuum serviceability and income. Refer to SAFETY INSTRUCTIONS sheet in this manual for restrictions concerning placement of these units in gasoline dispensing locations and service stations. For vacuum island layouts, see next four (4) pages.



**CAUTION ELECTRICAL SHOCK  
HAZARD – DISCONNECT POWER  
PRIOR TO BEGINNING ANY  
SERVICE OR INSTALLATION  
WORK. CONTACT A TRAINED  
ELECTRICIAN IF YOU ARE UNSURE  
OF THESE PROCEDURES.**

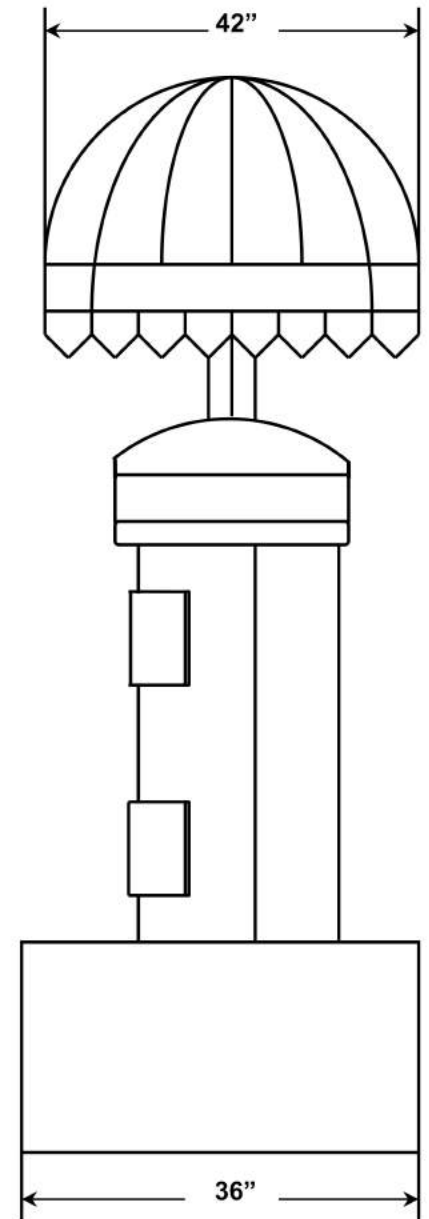
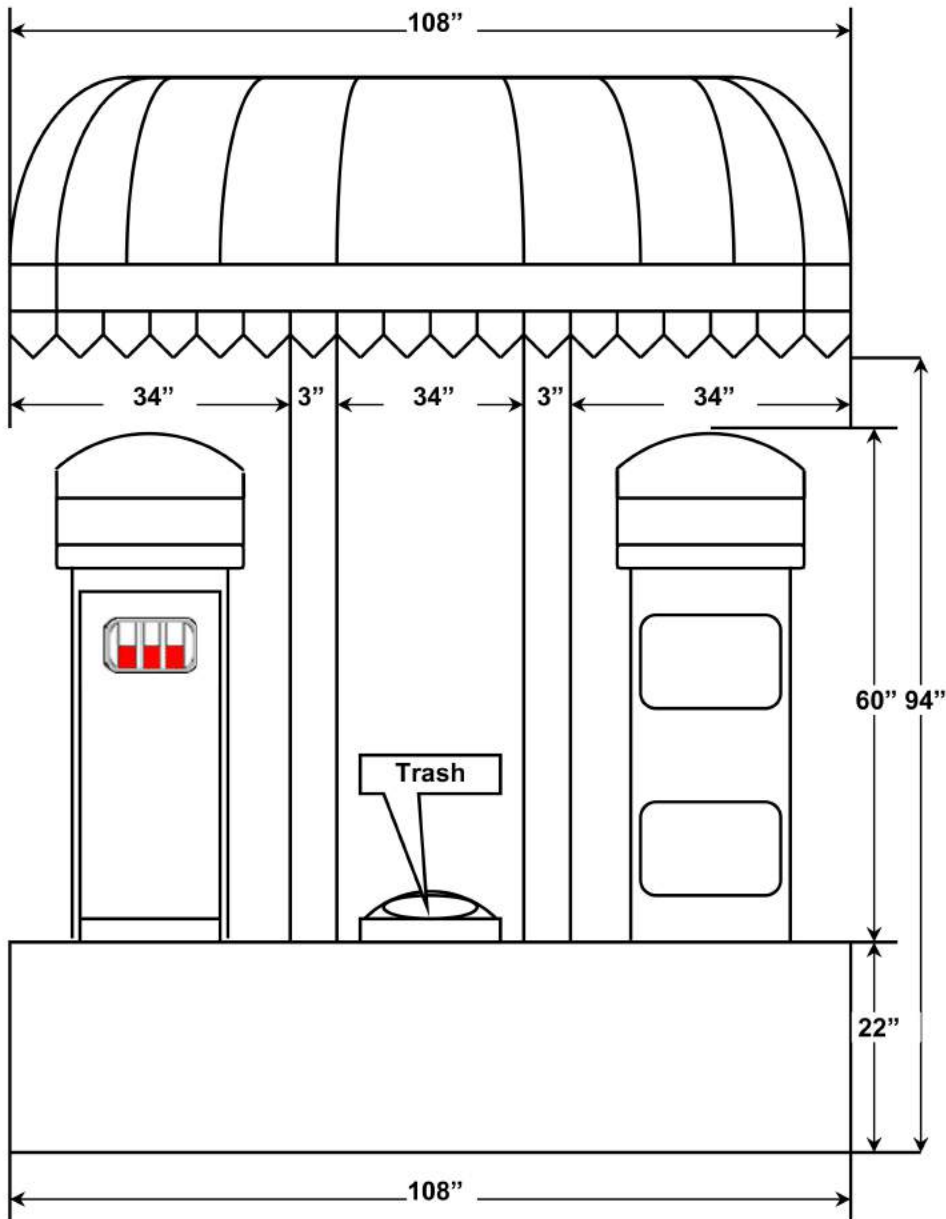
## Site Planning

Select and prepare a solid, level site for a concrete or similar base. Consult local codes for foundation requirements. Note: We recommend 22-24" base height above grade. To protect your island investment place bollards 18" from each corner of the Vac Island.



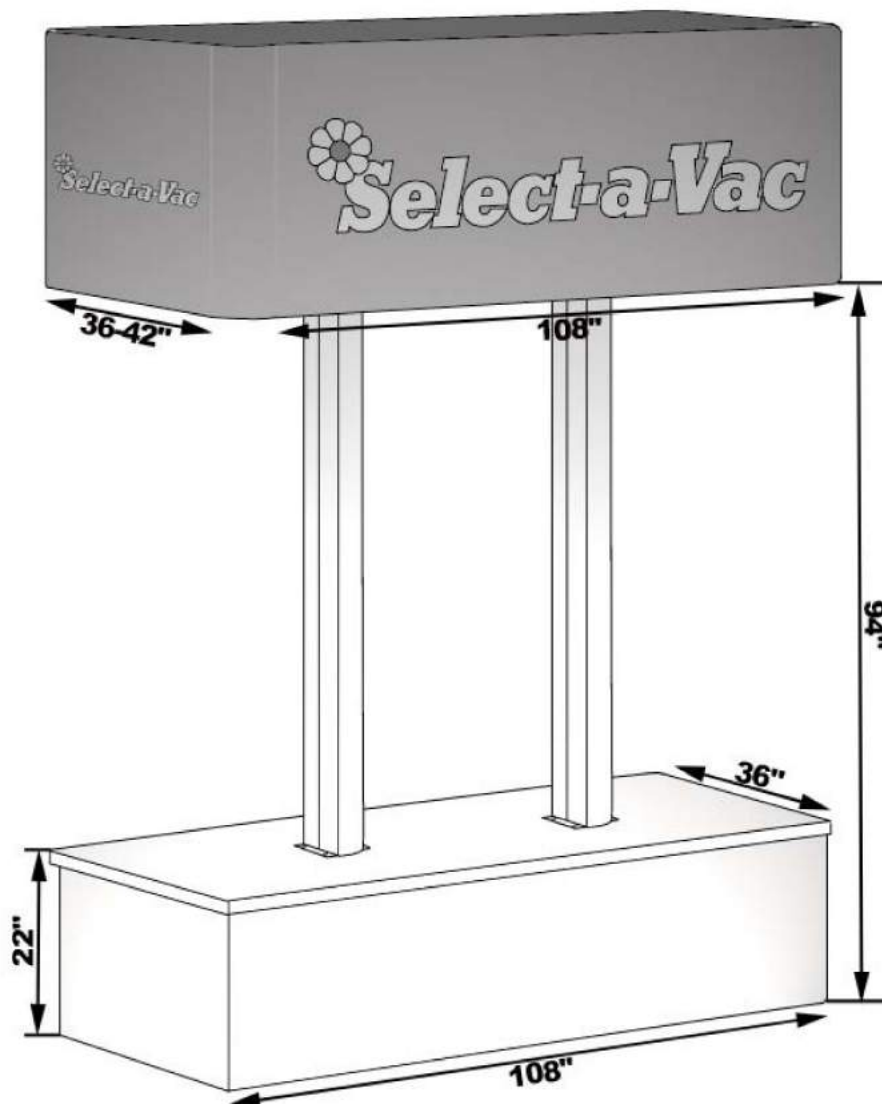
# Vacuum Island Layout

MODEL  
SAV



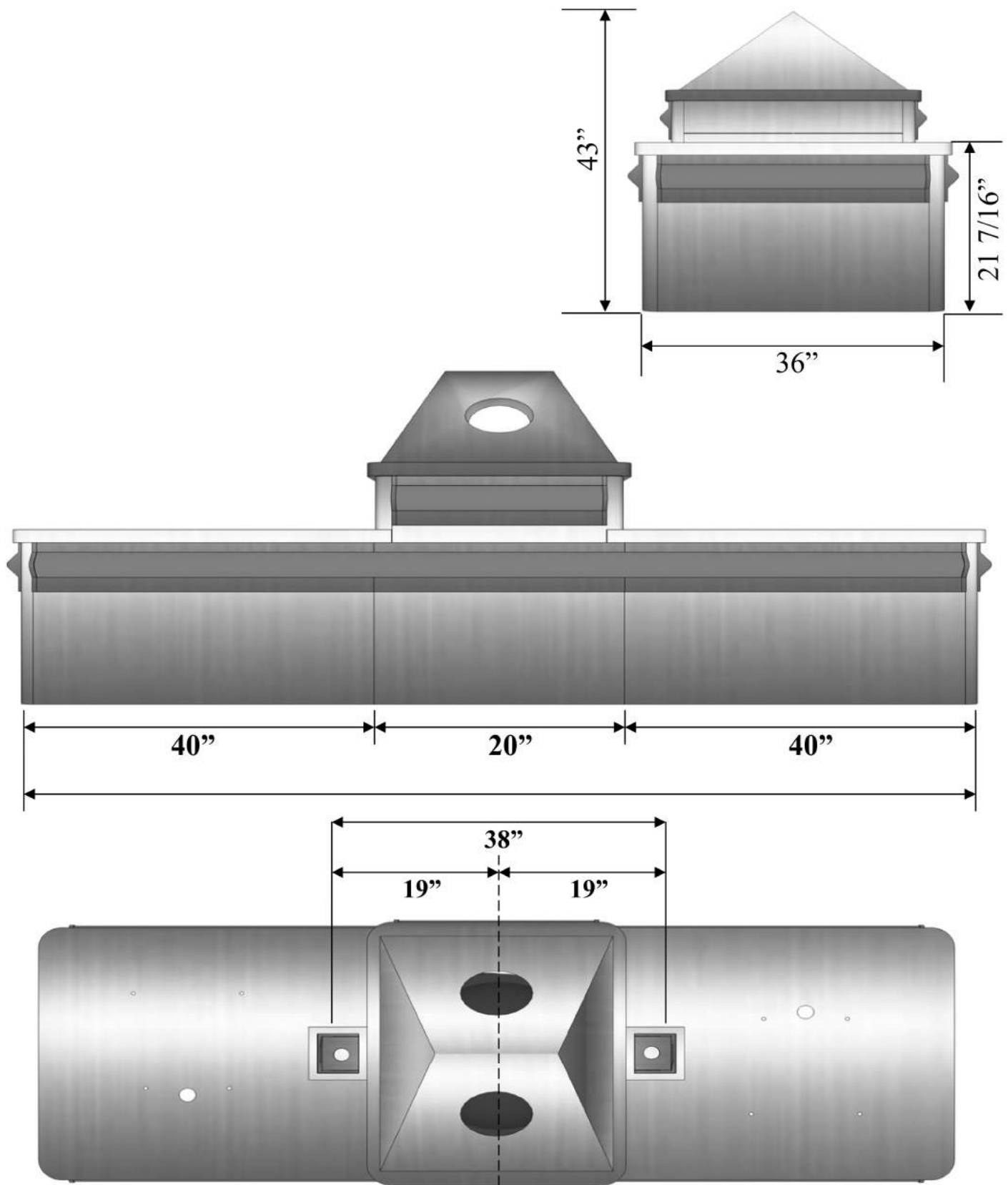
**Typical Layout – Brick or Concrete**

## Typical concrete base with metal canopy



# Vacuum Island Layout

MODEL  
SAV





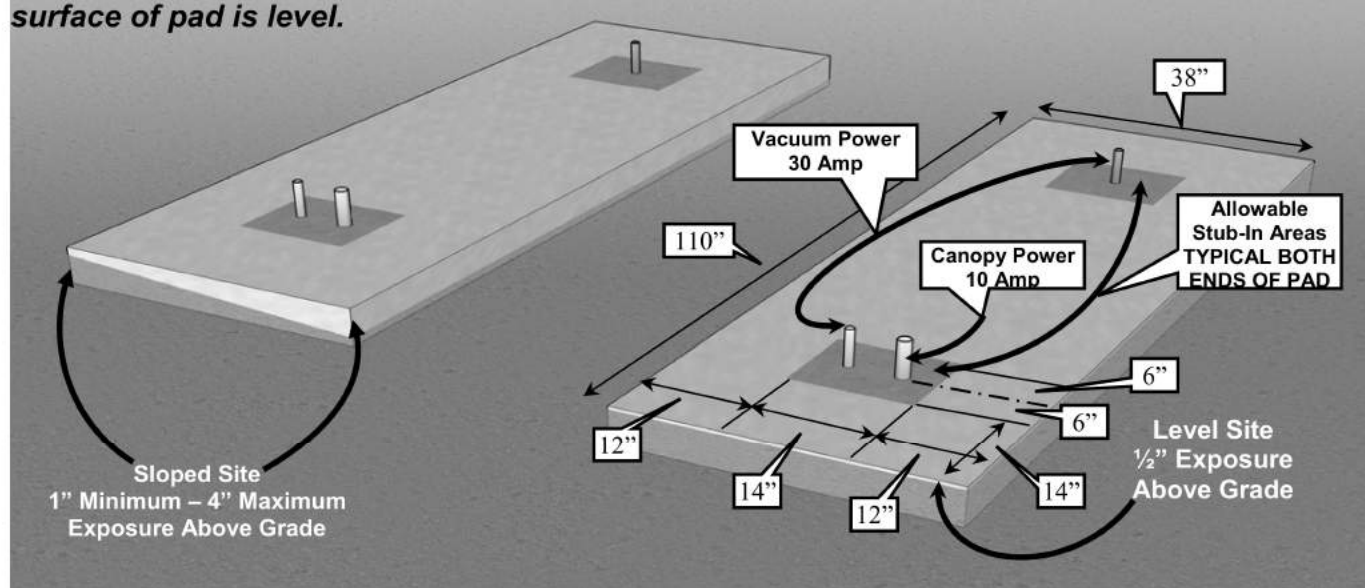
# Vacuum Island Footprint

MODEL  
SAV

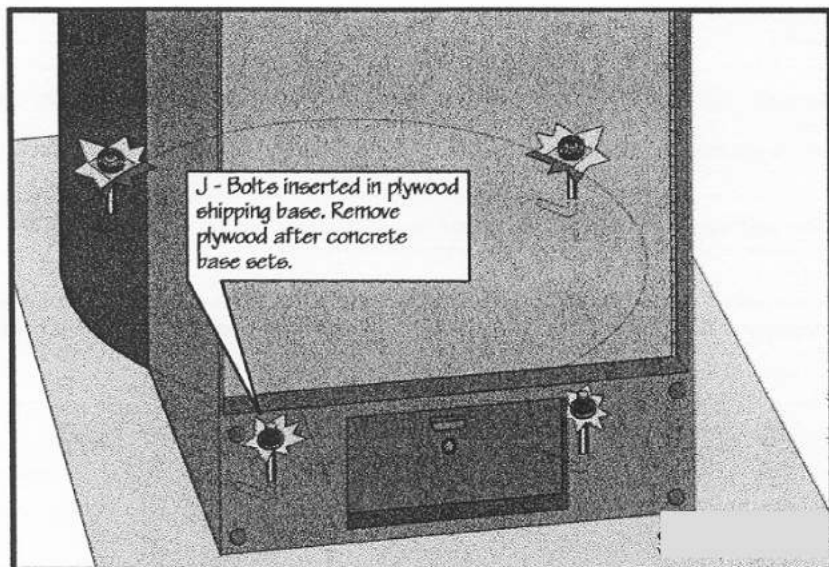


**Note:** Ensure top surface of pad is level.

Figure 1 – Concrete Pad 6" Thick

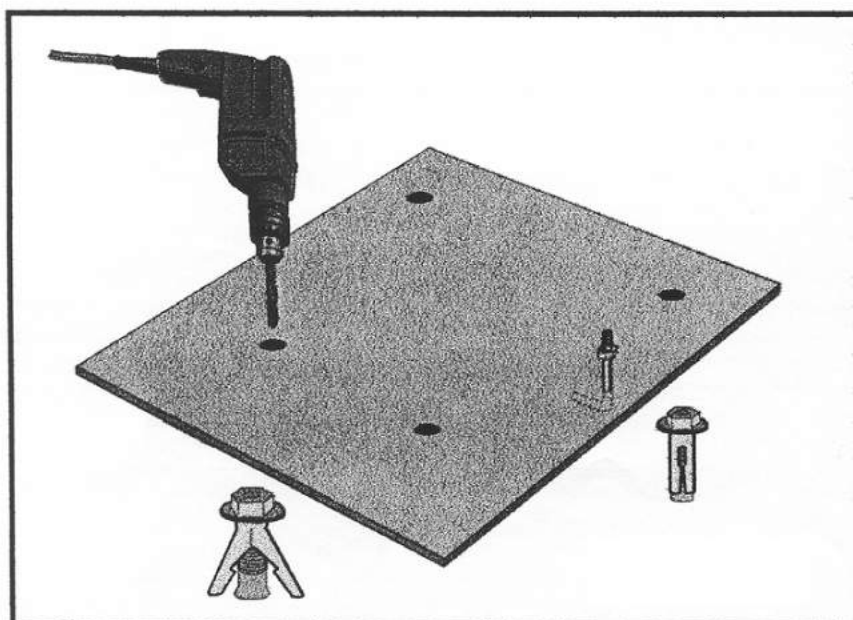






## Using "J" Bolts:

J-Bolts (new construction only). Carefully locate 4 "J" bolts (not provided) while forming concrete or masonry base. The plywood shipping base can be used as a locating fixture for the "J" bolts while the concrete is formed. See illustration to the left.



## Masonry Anchors:

Anchors are used for existing construction only. Drill and install suitable masonry anchors to accommodate a 3/8 inch lag screw. Check anchor supplier information for proper drill size. HINT: Use the plywood base as a template for drilling the anchoring pilot holes. See illustration to the left.

## Electrical Requirements

### IMPORTANT SAFETY INSTRUCTIONS. READ ALL INSTRUCTIONS BEFORE USING APPLIANCE.

Connect to electrical service. All units require a 30 amp breaker and #10 awg. Check local codes and requirements and refer to "IMPORTANT SAFETY INSTRUCTIONS" sheet in this manual.



**CAUTION ELECTRICAL SHOCK HAZARD. DISCONNECT POWER PRIOR TO BEGINNING ANY SERVICE OR INSTALLATION WORK. GET ASSISTANCE IF YOU ARE UNSURE OF THESE PROCEDURES.**

Connect to properly grounded 30 amp, 120 VAC 60 Hz power source.

Installation should only be performed by a qualified electrician.

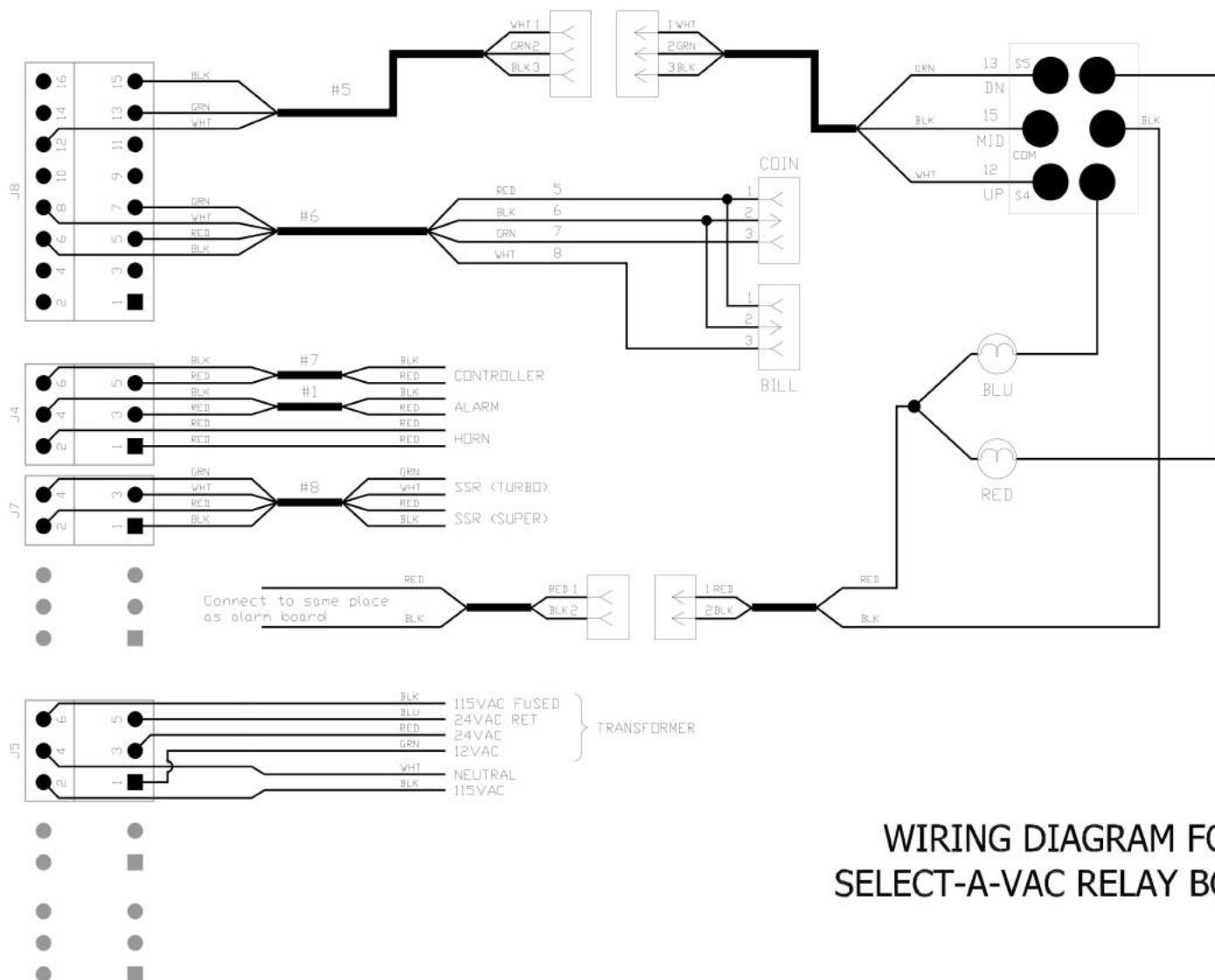
- The electrical power should be stubbed in under the 18" vacuum tank cylinder (refer to installation instructions).
- Maintain approximately 2" of clearance from the edge of the vacuum cylinder. There is 4" of vertical clearance from the mounting surface to the underside of the vacuum.
- Route the power cable through either of the holes in the vacuum tank wall, through the cabinet front to the electrical connection box.
- The cable should be inserted through the grommet at the base of the junction box. Connect the three wires: black (power), white (common), and green (ground) to the corresponding leads found inside the box. Finally, replace both the clear plastic and metal cover.

**\*THIS IS THE ONLY ELECTRICAL CONNECTION NECESSARY.**



# SAV Control Board Wiring Diagram

MODEL  
SAV



WIRING DIAGRAM FOR  
SELECT-A-VAC RELAY BOARD

# Maintenance – Exterior & Vacuum

MODEL  
SAV

## General Maintenance:

- Keep the outer appearance of the unit looking good by using a glass cleaner to clean the front door decal and lexan faceplate in front of visual display.
- Apply a stainless steel polish to the cabinet to maintain the appearance.
- Take care not to use abrasive cleaners or rags for these applications to avoid scratching the surfaces.  
**\*DO NOT USE STEEL WOOL OR OTHER FERROUS BRUSHES TO CLEAN STAINLESS STEEL SURFACES.**
- Check motor brushes for wear and replace as necessary.
- Inspect gaskets and replace with factory replacements.

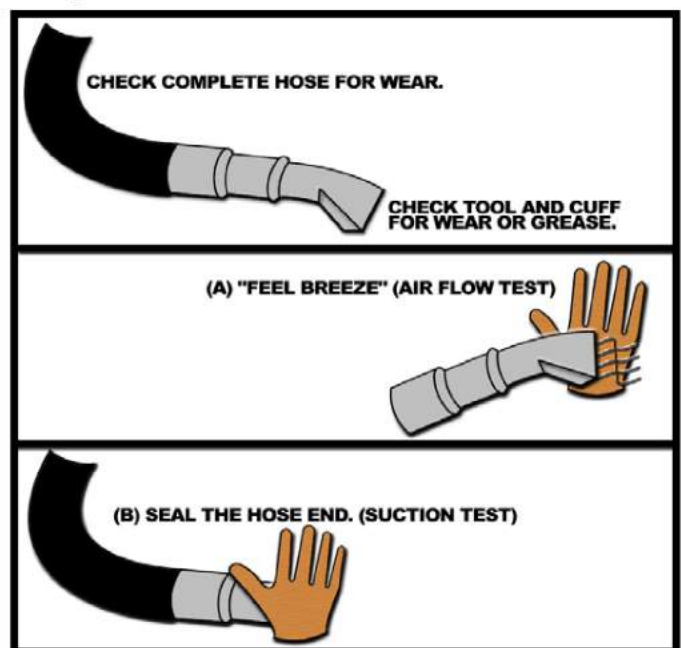
**IMPORTANT! ONE TAMPER PROOF WRENCH IS INCLUDED WITH YOUR UNIT (LOCATED ABOVE THE COIN MECHANISM). THIS IS USED FOR REMOVAL OF DOME. SAVE FOR FUTURE USE!**

## Daily/Weekly Maintenance:



- Check hose for signs of wear, replace if excessive.
- Test vacuum suction and airflow.
- Suction Test: Place hand tightly over cuff – feel for “pull”.
- Air Test: Hold cupped hand near hose inlet – feel for “breeze”.

- Remove dirt & debris from vacuum. HINT: Consider ordering a debris catcher (VAC-067) from your distributor to simplify this process.
- Empty & shake bags weekly.
- Exchange bags and wash bi-monthly.
- Check hand tools, as suction will be impaired if vacuum nozzle wears excessively.
- Always make sure vacuum doors are closed.



## Bar Graph Service Indicator

MODEL  
SAV

### Super Vac-Green Bar Graph

MAXIMUM SERVICE REMAINING

SERVICE REMAINING

SERVICE ELAPSED

### Turbo Vac-Red Bar Graph

MAXIMUM SERVICE REMAINING

SERVICE REMAINING

SERVICE ELAPSED



## Coin / Bill Counter Operation

If the coin / bill counter is removed from the controller, the machine must be turned off, counter plugged in, then the machine turned back on.

To obtain bill count press the \$ button.

To erase bill count press the reset button while on the bill count screen and follow the on-screen instructions.

To obtain coin count press the ¢ button.

To erase coin count press the reset button while on the coin count screen and follow the on-screen instructions.

To exit coin / bill mode enter \$ if on the bill count screen, enter ¢ if on the coin count screen.

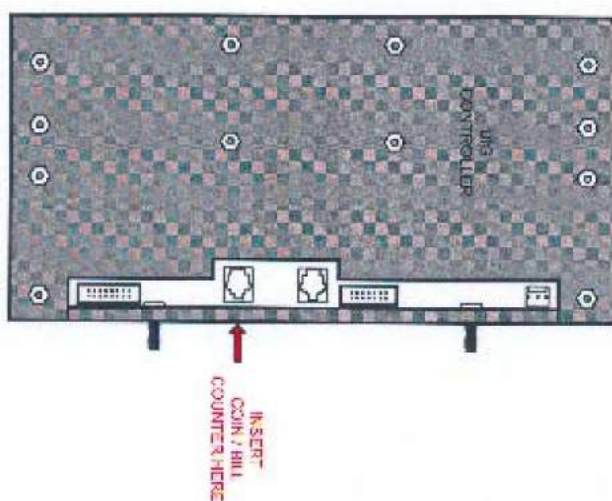
### Permacount

Permacount is a non-resettable count. The coins and bills are added together in this count. Permacount will roll over at \$30,000.00.

To obtain Permacount press \$¢¢\$.

To exit Permacount press reset.

If further assistance is needed please call Fragra\*matix at 1-800-643-1574.



# Burglar Alarm (optional, D-1 models only)

MODEL  
SAV



## Alarm LED Indicators

- Constant Green – Standby Mode
- Flashing Red – Alarm Set
- Fast Flashing Red & Green – Alarm Activated and Battery Backup Supports Alarm

**\*Approximate actuation distance 24"**



## Keyfob

- Idle Mode (Button 1) indicates that Alarm is ON but disengaged.
- Set Mode (Button 2) indicates Alarm in Alert state.
- Reset Mode (Button 3) disarms Alarm, after Alarm has been triggered



## Battery

- Shipped in separate box
- Molex Plug for easy installation
- Unit is equipped with automatic battery charger.



## Microcoin QL Quantum Leap

### Installation Instructions

- 1) Install or replace long drop bracket on faceplate
- 2) Coin cup may need to be removed and re-attached in order to mount faceplate
- 3) Place Microcoin QL into the bracket and secure with lockable brace
- 4) The two holes on the lockable brace are designed to fit over the screw heads on the back of the QL coin mechanism

### Wiring Instructions

Note 1: The Blue wires are interchangeable

Note 2: Dixmor timer users should skip to 4

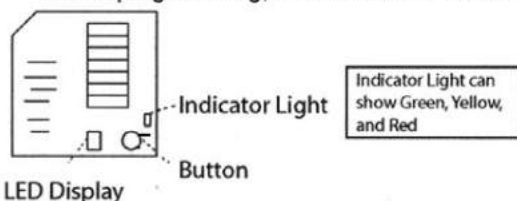
- 1) Connect the Black and a Blue wire to the 24 VAC
- 2) Connect the Yellow wire to the Neutral
- 3) The other Blue wire (see note 1) connects to the timer coin pulse
- 4) Dixmor Timers only:  
Connect Black wire to 24 VAC  
Connect Yellow and a Blue wire to Neutral  
Connect the other Blue wire to timer coin pulse

### Programming Instruction

Do not program in nickels, dimes, quarters or dollar coins. They are preprogrammed on lines 7-12 and can be turned on/off infinitely.

Note 1: Coins that are preprogrammed should not be programmed a second time.

Note 2: Programmed coins can be turned on/off without re-programming; Use Enable or Disable.



- 1) Press Button 3 times quickly. Indicator light will show yellow flashing. LED will show "1" to represent category number 1
- 2) Pressing the Button a second time will program the coin to the next category #, up to 5
- 3) When the appropriate category is showing on the LED, drop 10 different samples through the acceptor.
- 4) When the 10th coin has been sampled the Indicator light is a solid yellow
- 5) Press Button once. LED will read "0", this is the value
- 6) Press the Button one time for every 0.25 increment the token is worth, ie. "4" gives the token a \$1.00 value (Press the Button 6x and the LED will read "6", the token value will be \$1.50), up to \$2.50 value.

- 7) When the appropriate value is assigned, press and hold the Button for 2 full seconds
- 8) When the Button is released the Indicator Light will show solid green
- 9) Test the coin acceptor. When complete note the token and value on the side of the Microcoin QL

### Disable

Used to disable a coin temporarily or for long periods of time

- 1) Press twice quickly, Indicator Light will flash red
- 2) Drop coin one time, Ind. Light will show solid green

### Enable

Used to reactivate a coin, not required for programming

- 1) Press Button 1 time, Indicator Light will flash green
- 2) Drop coin one time, Ind. Light will show solid green

### Trouble Shooting Guide

Problem	Possible Cause	Action
All coins rejecting	No Power, no ind. light Low Voltage Water in coin path Programming mode interrupted	Check incoming voltage Monitor Voltage Allow to dry Return to programming mode and follow guide to reprogram most recent coin, if this mode is started and not completed all coins rej.
One coin rejecting	Coin disabled Not programmed Slightly different coin "look alike" coin	Enable coin Program coin Reprogram coin using 10 different samples Coins is actually different and can be accepted by programming on add'l category
Timer not counting	24 v. / common reversed	Refer to wiring section
Coin jam	Full coin box QL sitting crooked Coin path obstructed	Empty box and QL Reinsert into bracket Remove foreign object

### Microcoin QL Warranty

One year labor warranty from date shipped from factory

Repair or Replacement at factory option

Damage due to improper wiring, corrosion, vandalism, or water damage is not covered for any reason.

Customer is responsible for the freight charges regardless of cause or outcome.

Please include information for all warranties and service as to the nature of the problem, daytime phone #, return shipping address and any other pertinent information.



3021 Midland Dr. S Pine Bluff, AR 71603 1-877-788-2886

E-Mail: [sales@fragramatics.com](mailto:sales@fragramatics.com)

## Models MA800/MA803/MA812/X10/X10CM

### Coin Learn & Field Test Procedure for Xeptors®



#### COIN LEARN PROCEDURE

- Slide the front cover up and identify the three controls to be used in this procedure:
  - Black or Red push button near center bottom. (used to input the number of credit pulses)
  - 16 position rotary switch to the right of the push-button. (#0 is normal RUN position, #1 - #6 are for learning each of 6 possible coin types that can be accepted) **MA812** (#0 is normal RUN position, #1 - #9 and #A, #B, & #C are for learning each of 12 possible coin types that can be accepted)
  - LED indicator half way up on the right side. (Green in RUN mode, Red in LEARN mode)
- Turn the rotary switch to one of the LEARN positions #1 - #6 or #1 - #C (for example, pick #3 for learning the 3rd coin type) and observe the LED turns red to indicate it is now ready to learn.
- Push the black or red button once for each credit pulse you wish to have issued for this coin. For example, a \$1 coin would require 4 credit pulses if you are also accepting \$0.25 coins, one credit pulse per quarter.
- Slide the cover back on the unit to make sure outside light does not interfere with the sensors.**
- Show the unit **6 different samples** of the coin by depositing them into the acceptor as usual. It is best to use 6 different coins since there are typically slight variations from coin-to-coin.
- After the 6th sample coin is deposited, the LED will flash red-green a few times to indicate the LEARN procedure is complete and the coin parameters are stored in memory.
- Slide the front cover open again and turn the rotary switch back to position #0 and observe the LED turning green. Check that you have not accidentally turned it too far to position #15 which is a field test function position, in which it will not accept coins.
- Slide the front cover back down and you should now be able to accept the new coin.

#### UNWANTED COIN FEATURE

- Use the same coin learn procedures as above.
- THE COIN YOU DO NOT WANT TO ACCEPT MUST BE LEARNED IN COIN POSITION #1.** Turn to position #1 and press the test button 13 times, **drop the same sample coin through that you do not want to accept 6 times.** NEXT, LEARN THE COIN YOU WANT TO ACCEPT IN COIN POSITION #2. Turn to position #2 and press the test button for the number of times for the value of your coin to be accepted, **drop the same sample coin through that you do want to accept 6 times.** Now turn back to the #0 operating position.

#### COIN DE-LEARN PROCEDURE

- Slide the front cover up and turn the rotary switch to the coin # position you wish to DE-LEARN.
- Push the black or red button once to initiate the LEARN sequence.
- Turn the rotary switch back to position #0 without depositing any coins to signal the unit that you wish it to erase the parameters for this coin. The LED will flash red-green to indicate completion.
- Slide the front cover back down.

#### FIELD TESTS & DIAGNOSTICS FOR MA800 / MA803 / X10 / X10CM (NOT MA812)

Normal operation in switch position #0 is shown by a green LED. If the LED is flashing yellow or alternately red-green, it indicates a malfunction has been detected. Some malfunctions can be corrected in the field. See below.

##### GATE RELAY TEST (rotary switch #0)

Press the black or red button to activate the gate relay. If not normal, it may be physically obstructed or its wire unplugged.

##### INDUCTIVE METAL SENSOR TESTS (rotary switch #E & #F)

Turn the rotary switch to positions #E and #F to test the inductive sensor. Normal LED color is green. A red color indicates either there is metal in front of the inductive sensors or the circuit is malfunctioning (usually the rear flat cable unplugged).

##### DIAMETER OPTICS SENSOR TESTS (rotary switch #B, #C, & #D)

Turn the rotary switch to positions #B, #C, and #D to test the diameter thru-beam optical sensors. Normal LED color is green. A red or orange color indicates either there is an object or dirt blocking one of these three sensors and cleaning of the coin chute is required, or the circuit is malfunctioning.

##### X-MARK® CODE OPTICS SENSOR CALIBRATION (rotary switch #9 & #A) (FOR X10 XEPTORS ONLY)

Fold a piece of white paper twice (to 4 thickness) and insert it into the center of the coin chute. Turn the rotary switch to position #9 (rear side optics) and press the black or red button. The unit will use information gathered to calibrate the sensitivity of its reflective sensors for reading the X-Mark optical code on tokens. The LED should be an orange color after calibration. Repeat for switch position #A (front side optics).

##### CREDIT SENSOR TEST (rotary switch #8)

Turn the rotary switch to position #8 to test the Credit Sensors (v2.0 chip and later). If not installed, the LED will blink yellow; if installed and in good order, it will be green. If installed and dirty or blocked, the color will be an orange to red color.

##### MEMORY TEST (rotary switch #7)

Turn the rotary switch to position #7 to test the validity of memory. Normal LED color is green. A red color indicates that memory is corrupted. It may be possible to correct this by re-learning the coins. If not, the memory chip is bad.

Mailing: 401 W. Main St., El Dorado AR 71730 -Shipping 400 W. Cedar St., El Dorado AR 71730  
800-643-1109, 870-862-2051, FAX 870-862-3472 e-mail: [sales@idxinc.com](mailto:sales@idxinc.com), web site: [www.idxinc.com](http://www.idxinc.com)



# MA 820 Instruction Page

MODEL  
SAV

## Xepter® Connections to Displays & Timers - MA800 / MA812 / X10

(For MA803 and X10DM Wiring Information, Check With Factory)  
(Rev. 01/29/2004)

LTT800 / LTT802 Connections		D & S Display Timer Connections		IDX Flat Pack 24VAC Connections		Ginsan 24VAC Connections	
MA800 or X10	LTT800 / LTT802	MA800 or X10	202 / 203 / 204	MA800 or X10	AT411 / AT422 / AT412	MA800 or X10	GS-7 / 8 / 75 GS-87 / 255
Yellow	Yellow #1	Yellow	Blk / Yel #7	Yellow	#2	Yellow	#3
Black	Black #2	Black	White #6	Black	#3	Black	#1
Red / Green	Red / Green #3	Red / Green	Blue #2	Red / Green	#7	Red / Green	#4
Red / Green	Black #2	Red / Green	White #6	Red / Green	#8 or #3	Red / Green	#1
						Token Input	#5 (GS87)
BT800/BT802/BT902/ BT912/BT922 Connections		Ginsan Display Connections		IDX Flat Pack 115VAC Connections		Ginsan GS-9 115VAC Connections	
MA800 or X10	BT800 - BT922	MA800 or X10	GS31 / GS31B	MA800 or X10	AT413	MA800 or X10	GS-9
Yellow	#1	Yellow	Red	115VAC Hot	#1	Yellow	#7
Black	#2	Black	Purple	115VAC Com	#3	Black	#5
Red / Green	#3	Red / Green	Red / Green	Yellow	#2	Red / Green	#4
Red / Green	#2	Red / Green	Purple	Black	#8 or #3	Red / Green	#5
		(Call for Timer Connections)		Red / Green	#7		
				Red / Green	#8 or #3		
Monorail Display Connections		Dilling & Harris Connections		IDX Plug-In Timers 24VAC Connections		Ginsan GS-11 115VAC Connections	
MA800 or X10	MDC	MA800 or X10		MA800 or X10	AT401 / AT402 / AT403	MA800 or X10	GS-11
Yellow	Blk - 24V	Yellow		Yellow	#2	Yellow	#1
Black	Wh - COM	Black		Black	#1	Black	#4
Red / Green	Wh / Grn	Red / Green		Red / Green	#3	Red / Green	#3
Red / Green	Wh - COM	Red / Green		Red / Green	#1	Red / Green	#4
Dixmor LED 3 Connections		Specialty Mfg. Connections		Monorail Plug-In Timer 24VAC Connections		Keltner D9 Connections	
MA800 or X10	LED 3	MA800 or X10	Time Machine	MA800 or X10	G2	MA800 or X10	D9
Yellow	#7 Red	Yellow	Blk - 24V	Yellow	#2	Yellow	#1
Black	#6 Green	Black	Whl - COM	Black	#1	Black	#2
Red / Green	#2 Brown	Red / Green	Blk - 24V	Red / Green	#3	Red / Green	#4
Red / Green	#1 Gray / #6 Green	Red / Green	Yel - Coin	Red / Green	#1	Red / Green	#5 or #2
Dixmor DX2000 Connections		SecureCoin Timer 24VAC Connections		Monorail Timer 24VAC Connections		Keltner LC-1 Connections	
MA800 or X10	DX2000	MA800 or X10	#ET (same as IDX AT411E)	MA800 or X10	MDC	MA800 or X10	LC-1
Yellow	#9	Yellow	#2	Yellow	Blk - 24V	Yellow	#2
Black	#10	Black	#3	Black	Wh - COM	Black	#1
Red / Green	#10	Red / Green	#7	Red / Green	Wh / Grn	Red / Green	#4
Red / Green	#5	Red / Green	#8 or #3	Red / Green	Wh - COM	Red / Green	#3 or #1
Dixmor DX300 Connections		D & S Non-Display Connections		ParaPlate T24120 Connections		Parker Connections	
MA800 or X10	DX300	MA800 or X10	Non-Display	MA800 or X10	T24120	MA800 or X10	
Yellow	#7	Yellow	24V Hot (L1)	Yellow	#2	Yellow	#3
Black	#6	Black	24 COM (L2)	Black	#3	Black	#1
Red / Green	#6	Red / Green	Coin	Red / Green	#7	Red / Green	#4
Red / Green	#1	Red / Green	24V COM (L2)	Red / Green	#8 or #3	Red / Green	#1
Time Master - TM5 / TM5J LED5 / CT2000 Connections		Magic Wand & Jim Coleman TM5 / TM5J / CT2000 Con.		ParaPlate T24200 Connections		Mark VII AccuTime Connections	
MA800 or X10	Time Master	MA800 or X10	Time Master	MA800 or X10	T24200	MA800 or X10	AccuTime
Yellow	#9 Orange	Yellow	#9 Orange	Yellow	#1	Yellow	#2
Black	#10 Green	Black	#10 Green	Black	#2	Black	#1
Red / Green	#10 Green	Red / Green	#10 Green	Red / Green	#5	Red / Green	#4
Red / Green	#2 Orange/Black	Red / Green	#2 Orange/Black	Red / Green	#6 or #2	Red / Green	#1