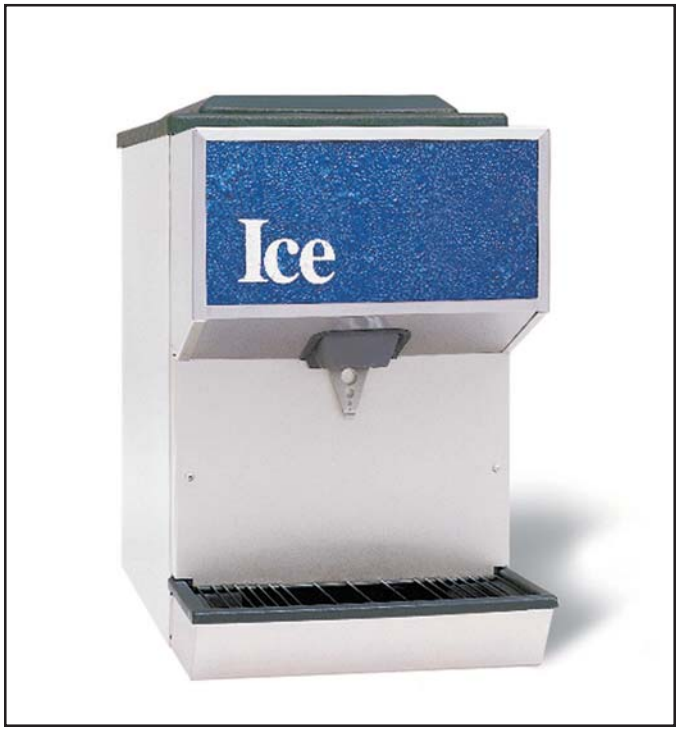
M & H SERIES

M-15, 45, 90,150,200 & H-265

Servend

INSTALLATION & SERVICE GUIDE

Part Number 5001192



Manitowoc™ Foodservice Group

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5001192 Revision 27 January, 2003

FOREWORD

SerVend developed this manual as a reference guide for the owner/operator, service agent, and installer of this equipment. Please read this manual before installation or operation of the machine. Consult the troubleshooting guide within this manual for service assistance

If you cannot correct the service problem, call your SerVend Service Agent or Distributor. Always have your model and serial number available when you call.

Your Service Agent _____

Service Agent Telephone Number _____

Model Number _____

Serial Number _____

The model and serial numbers are located on the right side of the dispenser, just behind the drainpan.

Installation Date _____

Your Local SerVend Distributor _____

Distributor Telephone Number _____

A qualified service technician should perform installation and start-up of this equipment.

UNPACKING AND INSPECTION

Note: The Unit was thoroughly inspected before leaving the factory. Any damage or irregularities should be noted at the time of delivery (or not later than 15 days from the date of delivery.)

WARRANTY INFORMATION

Consult your local SerVend Distributor for terms and conditions of your warranty. Your warranty specifically excludes all beverage valve brixing, general adjustments, cleaning, accessories and related servicing.

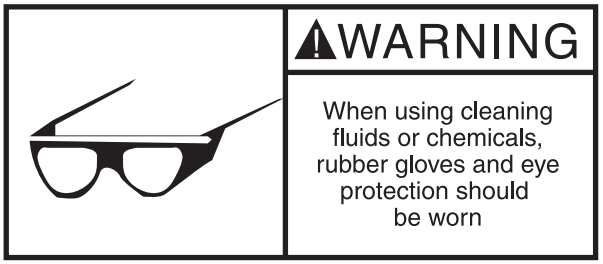
Your warranty card must be returned to SerVend to activate the warranty on this equipment. If a warranty card is not returned, the warranty period can begin when the equipment leaves the SerVend factory.

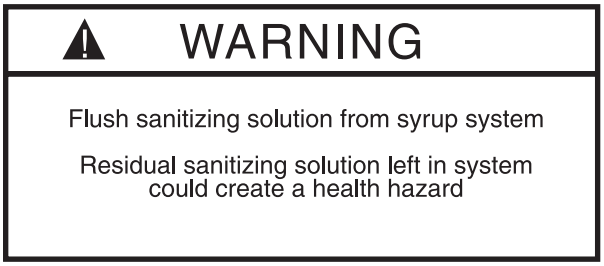
No equipment may be returned to SerVend without a written Return Goods Authorization (RGA). Equipment returned without an RGA will be refused at SerVend's dock and returned to the sender at the sender's expense.

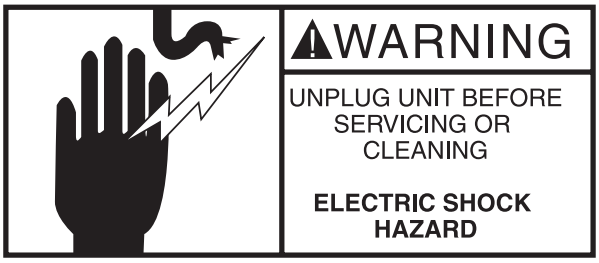
Please contact your local SerVend distributor for return procedures.

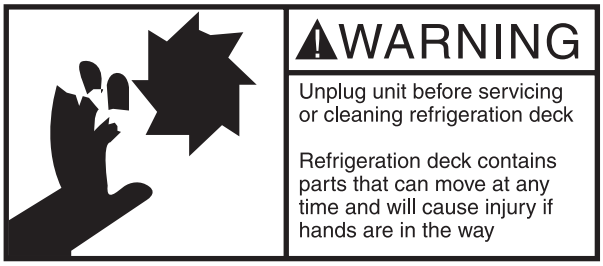
SAFETY INSTRUCTIONS

Installation and start-up of this equipment should be done by a qualified service technician. Operation, maintenance, and cleaning information in this manual are provided for the user/operator of the equipment.









DAILY CHECK LIST FOR THE OPERATOR

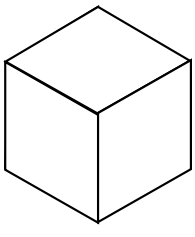
- Check CO_2 supply. If CO_2 supply is low, an arrow on the primary regulator gauge will point to a shaded area that reads “Low CO_2” or “Change CO_2 Cylinder.”
- Check Syrup supply.
- Clean drain pan, grid, and splash panel. See daily cleaning instructions on page 18.
- Clean the valve nozzles and diffusers. See daily cleaning instructions on page 18.

TABLE OF CONTENTS

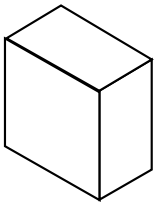
TABLE OF CONTENTS

COMPATIBLE ICE

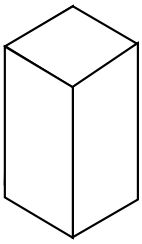
ICE RECOMMENDED FOR DISPENSING



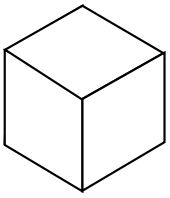
FULL CUBE
7/8" x 7/8" x 7/8"



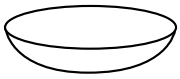
MINI CUBE
3/8" x 7/8" x 7/8"



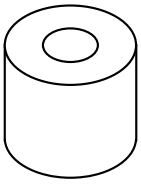
CUBELET
5/8" x 5/8" x 5/8"



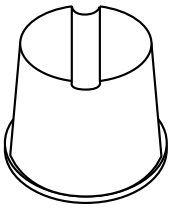
NEW EAGLE SERIES
MINI CUBE
3/4" x 3/4" x 3/4"



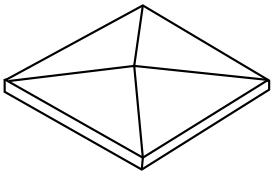
LENTICULAR
1 3/8" x 3/8"



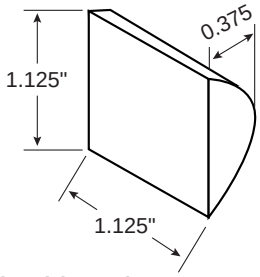
MINI
7/8" DIA x 3/4" LONG



GOURMET-SMALL
1" DIA x 3/4"



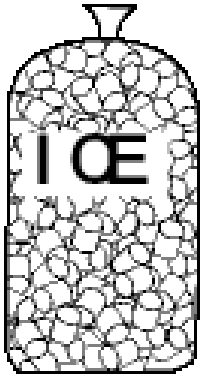
CONTOUR
3/8" x 1 1/4" x 1 1/4"



CRESCENT CUBE

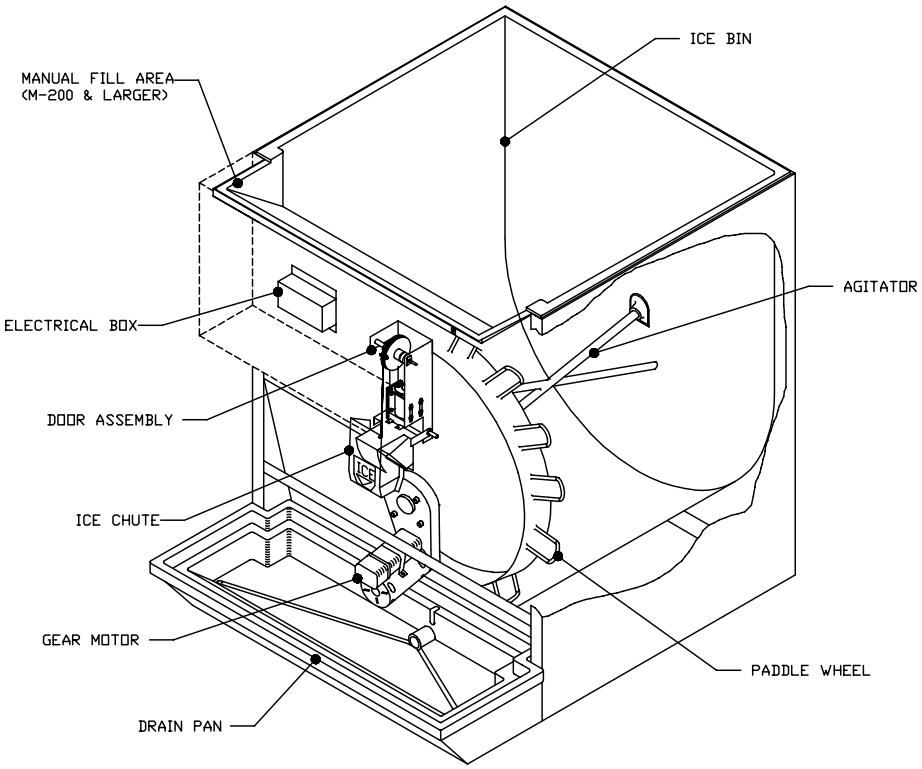
SerVend Dispensers are designed to dispense hard, cube ice up to two and one half cm (one inch) square. The ice shapes and sized listed are recommended for dispensing.

"Super Cooled" bagged ice is not recommended for dispensing. "Super Cooled" ice is ice that has been stored in freezers at or below -17°C (0°F). Should it be necessary to use "Super Cooled" ice, allow the bag(s) to warm at room temperature for 25 to 30 minutes before placing the ice in the dispenser.



EQUIPMENT OVERVIEW

HOW THE ICE DISPENSER WORKS



ICE STORAGE AND DISPENSING

Ice is stored in the dispenser's bin. Ice is transported from the bottom of the bin to the ice dispense point by the paddle wheel. The injection molded paddle wheel has paddles which lift the ice to the dispense point.

SEQUENCE OF OPERATION: PUSH LEVER ICE DISPENSING

The customer's cup presses against the push plate. The push plate then raises a microswitch actuator arm on the right side of the dispensing chute. The microswitch actuator arm hits the lever of the microswitch.

The energized microswitch activates the solenoid, which pulls down the solenoid plunger. The plunger is connected to a cable, which is then connected to a pulley. This raises the door of the ice chute.

The energized microswitch also activates the gear motor. The gear motor turns the agitator and paddle wheel, lifting the ice from the bottom of the bin to the ice dispenser point. Ice falls forward through the open door, through the bin spout, through the ice chute and into the customer's cup.

SEQUENCE OF OPERATION: PUSH BUTTON ICE DISPENSING

Customer's finger presses the push button, located in the merchandiser frame. The button is labeled "ICE"

The push button energized the plunger microswitch. The energized microswitch activating the solenoid, which pulls down the solenoid plunger. The plunger is connected to a cable, which is then connected to a pulley. This raises the door on the ice chute.

The energized microswitch also activates the gear motor. The gear motor turns the agitator and paddle wheel, lifting ice from the bottom of the bin to the ice dispense point. The dispenser paddle wheel turns counter clockwise looking at the wheel from the outside front of the dispenser. Ice falls forward through the open door, through the bin spout, into the ice chute and into the customer's cup.

HOW THE ICE DISPENSER WORKS (CONT'D)

SEQUENCE OF OPERATION:
KEY SWITCH OR COIN OPERATED ICE DISPENSING (H265)

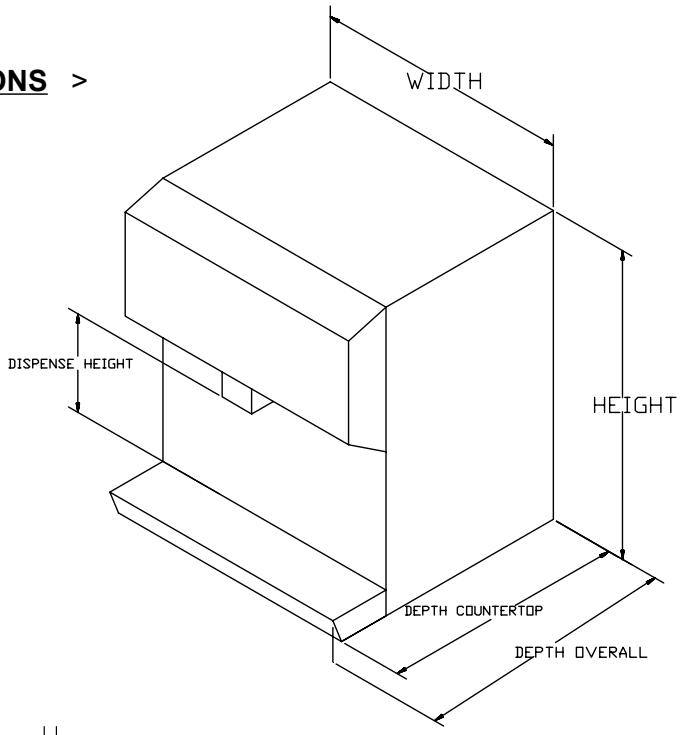
The key switch or coin mechanism engages a microswitch. The energized microswitch activates the solenoid, which pulls down the solenoid plunger. The plunger is connected to a cable, which is then connected to a pulley, this raises the door of the ice chute.

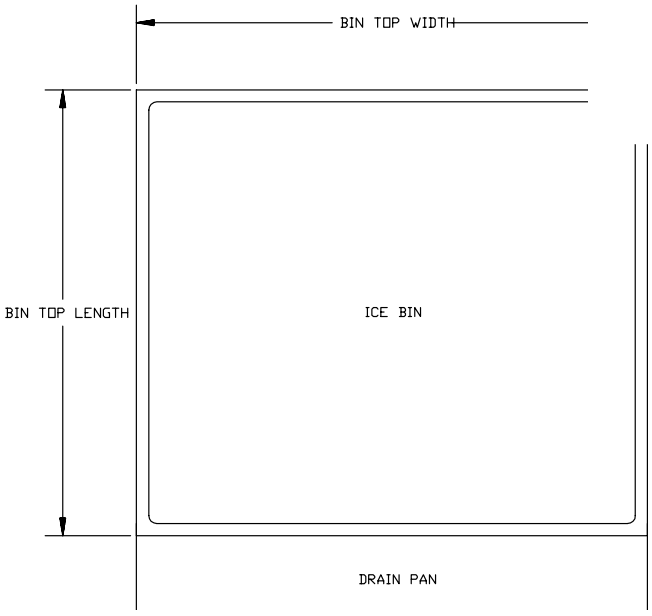
The energized microswitch also activates the gear motor. The gear motor turns the agitator and paddle wheel, lifting ice from the bottom of the bin to the ice dispense point. Ice falls forward through the open door, through the bin spout, into the ice chute and into the customer's container.

EQUIPMENT SPECIFICATIONS

OVERALL M - SERIES DIMENSIONS

FRONT DIMENSIONS >

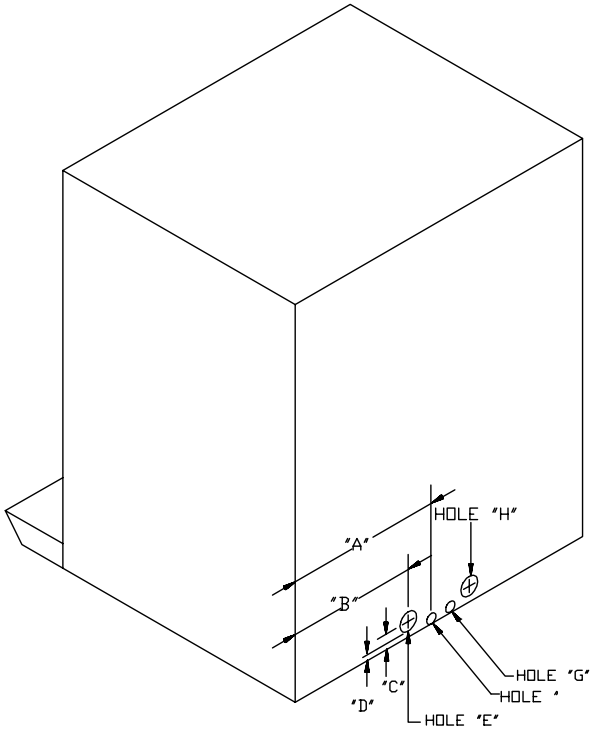




< **TOP DIMENSIONS**

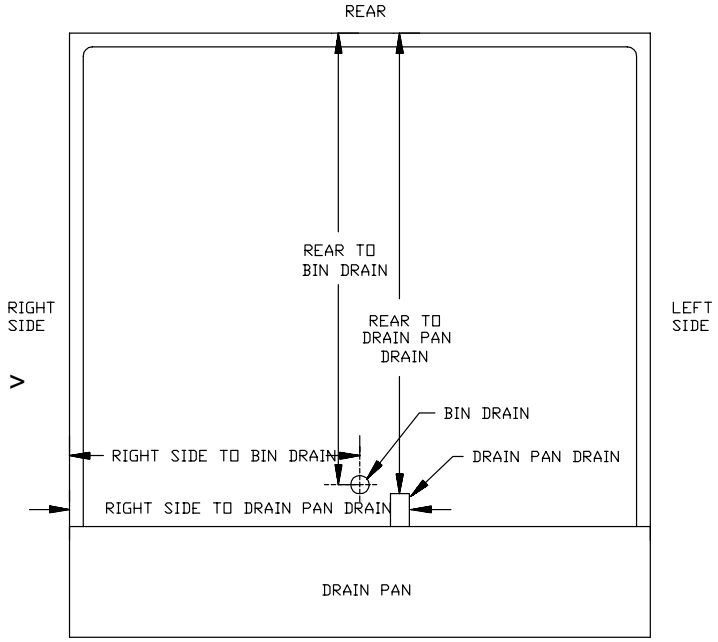
OVERALL DIMENSIONS (CONT'D)

M - SERIES



< REAR DIMENSIONS

BOTTOM DIMENSIONS >



SPECIFICATIONS

M - 15

Dimensions:

Width		38.1 cm (15”)
Depth - overall		71.1 cm (28”)
Depth - counter top		66 cm (26”)
Height		81.3 cm (32”)
Bin Top Size	- width	38.1 cm (15”)
	- depth	52.1 cm (20.5”)
Rear “A”		19.1 cm (7.5”)
Hole “E” Height (top hole)		20.5 cm (8.06”)
Hole “H” Height (bottom hole)		7.8 cm (3.06”)
Hole “E” Diameter		5 cm (2”)
Hole “H” Diameter		5 cm (2”)
Right side to bin drain		19.0 cm (7.5”)
Right side to drain pan drain		25.4 cm (10.0”)
Rear to bin drain		35.9 cm (14.12”)
Rear to drain pan drain		53.3 cm (21.0”)
Bin drain fitting size		3/4” M.I.P.T.
Drain pan fitting size		3/4” M.I.P.T.
Ice storage capacity:		40.8 kg (90lb)
Electric voltage - Cycle - Amperage:		
		120 Volts - 60 Hz. - 1.2 amp (U.S. Standard)
		100 Volts - 50 / 60 Hz. - N/A
		220 Volts - 50 Hz. - 0.44 amp
		220 Volts 60 Hz. - N/A
		240 Volts 50 Hz. - 0.35 amp
Motor Horsepower		1/15

M - 45

Dimensions:

Width		38.1 cm (15”)
Depth - overall		71.1 cm (28”)
Depth - counter top		66 cm (26”)
Height		61.6 cm (32”)
Dispense Height		24.8 cm (9.75”)
Bin Top Size	- width	38.1 cm (15”)
	- depth	45.4 cm (17.88”)
Rear “A”		29.3 cm (11.5”)
Rear “B”		19.1 cm (7.5”)
Hole “F” Diameter		5 cm (2”)
Hole “G” Diameter		5 cm (2”)
Right side to bin drain		18.8 cm (7.5”)
Right side to drain pan drain		25 cm (10”)
Rear to bin drain		38.7 cm (15.25”)
Rear to drain pan drain		47.6 cm (18.75”)
Bin drain fitting size		3/4” M.I.P.T.
Drain pan fitting size		3/4” M.I.P.T.
Ice storage capacity:		20.4 kg (45lb)
Electric voltage - Cycle - Amperage:		
		120 Volts - 60 Hz. - 1.2 amp (U.S. Standard)
		(Eight foot cord with plug is included with the U.S. unit)
		100 Volts - 50 / 60 Hz. - N/A
		220 Volts - 50 Hz. - 0.44 amp
		220 Volts 60 Hz. - N/A
		240 Volts 50 Hz. - 0.35 amp
Motor Horsepower		1/15

SPECIFICATIONS

M - 90

Dimensions:

Width		38.1 cm (15”)
Depth - overall		71.1 cm (28”)
Depth - counter top		66 cm (26”)
Height		81.3 cm (32”)
Dispense Height		24.8 cm (9.75”)
Bin Top Size	- width	38.1 cm (15”)
	- depth	45.7 cm (18”)
Rear “A”		29.2 cm (11.5”)
Rear “B”		19.1 cm (7.5”)
Hole “E” Diameter		5 cm (2”)
Hole “H” Diameter		5 cm (2”)
Right side to bin drain		16.8 cm (6.62)
Right side to drain pan drain		25.4 cm (10”)
Rear to bin drain		35.9 cm (14.12”)
Rear to drain pan drain		53.3 cm (21”)
Bin drain fitting size		3/4” M.I.P.T.
Drain pan fitting size		3/4” M.I.P.T.
Ice storage capacity:		40.8 kg (90lb)
Electric voltage - Cycle - Amperage:		
		120 Volts - 60 Hz. - 1.2 amp (U.S. Standard)
		(Eight foot cord with plug is included with the U.S. unit)
		100 Volts - 50 / 60 Hz. - N/A
		220 Volts - 50 Hz. - 0.44 amp
		220 Volts 60 Hz. - N/A
		240 Volts 50 Hz. - 0.35
Motor Horsepower		1/15

M - 150

Dimensions:

Width		55.9 cm (22”)
Depth - overall		71.1 cm (28”)
Depth - counter top		66 cm (26”)
Height		81.3 cm (32”)
Dispense Height		29.2 cm (11.5”)
Bin Top Size	- width	55.9 cm (22”)
	- depth	47 cm (18.5”)
Rear “A”		23.8 cm (9.375”)
Rear “B”		14.9 cm (5.875”)
Hole “E” Diameter		6.4 cm (2.5”)
Hole “F” Diameter		3.5 cm (1.375”)
Hole “G” Diameter		3.5 cm (1.375”)
Hole “H” Diameter		6.4 cm (2.5”)
Right side to bin drain		25.4 cm (10”)
Right side to drain pan drain		35.6 cm (14”)
Rear to bin drain		38.1 cm (15”)
Rear to drain pan drain		53.3 cm (21”)
Bin drain fitting size		3/4 M.I.P.T.
Drain pan fitting size		3/4 M.I.P.T.
Ice storage capacity:		68 kg (150 lb)
Electric voltage - Cycle - Amperage:		
		120 Volts - 60 Hz. - 1.7 amp (U.S. Standard)
		(Eight foot cord with plug is included with the U.S. unit)
		100 Volts - 50 / 60 Hz. - 1.7 amp
		220 Volts - 50 Hz. - 0.85 amp
		220 Volts 60 Hz. - 0.85 amp
		240 Volts 50 Hz. - 0.85 amp
Motor Horsepower:		1/7 H.P.

SPECIFICATIONS

M - 200

Dimensions:

Width	76.2 cm (30”)
Depth - overall	76.2 cm (30”)
Depth - counter top	72.4 cm (28.5”)
Height	81.9 cm (32.25”)
Dispense Height	30.5 cm (12”)
Bin Top Size - width	76.2 cm (30”)
- depth	57.2 cm (22.5”)
Rear “A”	34 cm (13.375”)
Rear “B”	25.1 cm (9.875”)
Rear “C”	3.2 cm (1.25”)
Hole “E” Diameter	6.4 cm (2.5”)
Hole “F” Diameter	3.5 cm (1.375”)
Hole “G” Diameter	3.5 cm (1.375”)
Hole “H” Diameter	6.4 cm (2.5”)
Right side to bin drain	38.1 cm (15”)
Right side to drain pan drain	44.5 cm (17.5”)
Rear to bin drain	37.5 cm (14.75”)
Rear to drain pan drain	45.1 cm (17.75”)
Bin drain fitting size	3/4” M.I.P.T.
Drain pan fitting size	3/4” M.I.P.T.
Ice storage capacity:	90.7 kg (200 lb)
Electric voltage - Cycle - Amperage:	
	120 Volts - 60 Hz. - 1.7 amp (U.S. Standard)
	(Eight foot cord with plug is included with the U.S. unit)
	100 Volts - 50 / 60 Hz. - 1.7 amp
	220 Volts - 50 Hz. - 0.85 amp
	220 Volts 60 Hz. - 0.85 amp
	240 Volts 50 Hz. - 0.85 amp
Motor Horsepower:	1/7 H.P.

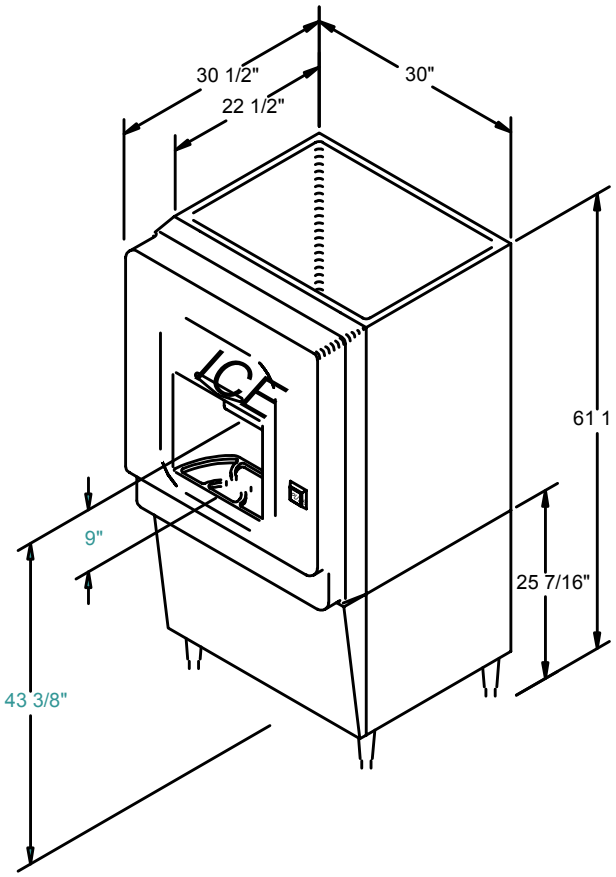
M - 250

Dimensions:

Width	76.2 cm (30”)
Depth - overall	76.2 cm (30”)
Depth - counter top	72.4 cm (28.5”)
Height	91.4 cm (36”)
Dispense Height	30.5 cm (12”)
Bin Top Size - width	76.2 cm (30”)
- depth	50.2 cm (19.75”)
Rear “A”	32.1 cm (12.625”)
Rear “B”	25.1 cm (9.875”)
Rear “C”	3.2 cm (1.25”)
Hole “E” Diameter	6.4 cm (2.5”)
Hole “F” Diameter	3.5 cm (1.375”)
Hole “G” Diameter	3.5 cm (1.375”)
Hole “H” Diameter	6.4 cm (2.5”)
Right side to bin drain	35.6 cm (14”)
Right side to drain pan drain	35.6 cm (14”)
Rear to bin drain	36.8 cm (14.5”)
Rear to drain pan drain	62.2 cm (24.5”)
Bin drain fitting size	3/4” M.I.P.T.
Drain pan fitting size	3/4” M.I.P.T.
Ice storage capacity:	113.4 kg (250lb)
Electric voltage - Cycle - Amperage:	
	120 Volts - 60 Hz. - 1.7 amp (U.S. Standard)
	(Eight foot cord with plug is included with the U.S. unit)
	100 Volts - 50 / 60 Hz. - 1.7 amp
	220 Volts - 50 Hz. - 0.85 amp
	220 Volts 60 Hz. - 0.85 amp
	240 Volts 50 Hz. - 0.85 amp
Motor Horsepower:	1/7 H.P.

OVERALL H - SERIES DIMENSIONS

H - 265



SPECIFICATIONS

H - 265

Dimensions:

Width		76.2 cm (30”)
Depth - overall		77.5 cm (30.5”)
Depth - floor space		72.4 cm (28.5”)
Height- with 15 cm (6”) legs		156.8 cm (61.75”)
Dispense Height		22.9 cm (9”)
Bin Top Size	- width	76.2 cm (30”)
	- depth	57.2 cm (22.5”)

Electrical entrance - Cord exits machine from the bottom

Drain to floor	38.7 cm (15.25”)
Drain to right side	38.1 cm (15”)
Drain fitting size	3/4” F.I.P.T.
Ice storage capacity:	113.4 kg (250lb)

Electric voltage - Cycle - Amperage:

120 Volts - 60 Hz. - 1.7 amp (U.S. Standard)
(Eight foot cord with plug is included with the U.S. unit)
100 Volts - 50 / 60 Hz. - 1.7 amp
220 Volts - 50 Hz. - 0.85 amp
220 Volts 60 Hz. - 0.85 amp
240 Volts 50 Hz. - 0.85 amp

Motor Horsepower: 1/7 H.P.

INSTALLATION

COUNTER TOP INSTALLATION

(M Series Dispenser)

Check the equipment location. Assure the proper drain and electrical requirements are available before proceeding. Carefully remove the dispenser from the shipping carton.

If the dispenser is to be set on legs, lay the dispenser on its' back. Use the shipping cardboard as a protective interface between the dispenser and the floor. Thread the legs into the leg gussets on the bottom corners of the dispenser. If the dispenser is to be set on a counter without the legs, most local codes require the dispenser to have a silicone seal between the counter and the dispenser.

Carefully pick up the dispenser, setting it in place. Be sure the dispenser is stable and level. Place a level on the top of the bin, side to side and front to back to see if the bin is level. If the dispenser has legs, level the dispenser bin by adjusting the dispenser legs. If the dispenser does not have legs, shim between the counter top and the dispenser.

Remove the splash panel and drain pan from the front of the dispenser. If your dispenser has beverage valves attached, these valves will be attached to the splash panel. Included inside the dispenser from the factory is a length (1.8m [6ft.]) of vinyl tubing. One half of this tubing is to be used for the bin drain, with the other half of the tubing used for the drain pan drain. Attached to the tubing are two tubing adaptors.

OPTION A:

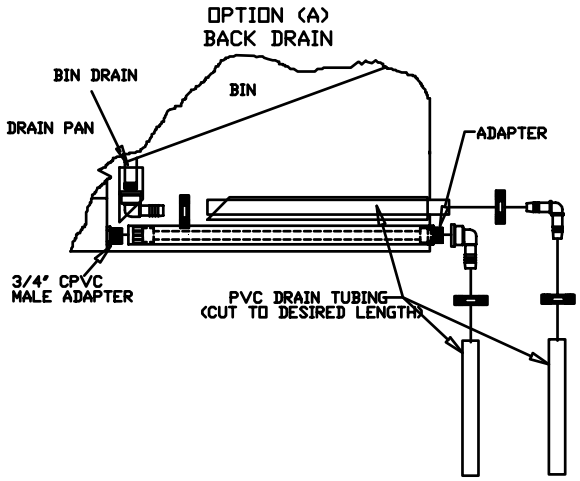
One drain tube fitting is with a 90° bend. This fitting attaches to the bin drain fitting. Underneath the dispenser toward the front of the dispenser is the bin drain. Attach the 90° fitting to the bin drain outlet. Slip the drain tubing over the tubing end of the fitting. Secure the tubing with the hose clamp provided.

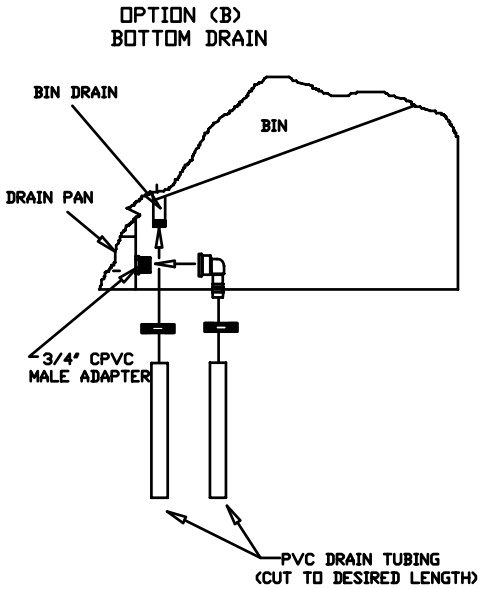
The second drain tube fitting is a straight connector. This fitting attached to the drain pan fitting of the dispenser. Attach the fitting to the drain pan. Slip the drain tubing over the tubing end of the fitting. Secure the tubing with the hose clamp provided. Insulate all drain tubes.

OPTION B:

One drain tube fitting is with a straight connector. This fitting attaches to the bin drain fitting. Underneath the dispenser toward the front of the dispenser is the bin drain. Attach the straight fitting to the bin drain outlet. Slip the drain tubing over the tubing end of the fitting. Secure the tubing with the hose clamp provided.

The second drain tube fitting is a 90° bend. This fitting attached to the drain pan fitting of the dispenser. Attach the fitting to the drain pan. Slip the drain tubing over the tubing end of the fitting. Secure the tubing with the hose clamp provided. Insulate all drain tubes.





COUNTER TOP INSTALLATION

If beverage valves are supplied with your dispenser, connect them to the beverage system at this time according to the information supplied by the beverage supplier.

Route the electric wires under the dispenser and out to the electrical receptacle.

Replace the drain pan to the dispenser. Secure the free ends of the vinyl drain tubing to the drain connections supplied by the owner/operator. Attach the splash panel to the front of the dispenser.

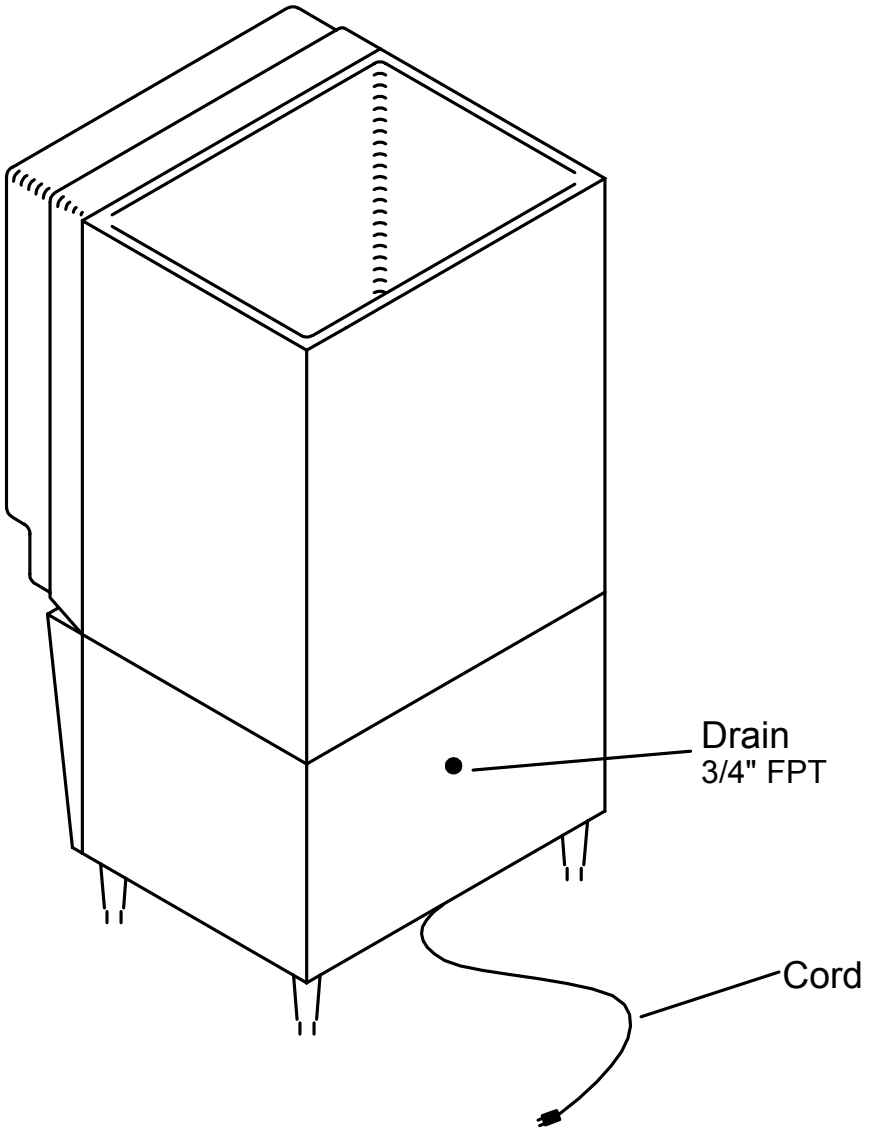
Clean and sanitize the dispenser according to the directions in this manual.

FLOOR INSTALLATION

(H265 Series Dispenser)

Check the equipment location. Assure the proper drain and electrical requirements are available before proceeding. Carefully remove the dispenser from the shipping carton. Lay the dispenser on its' back. Use the shipping cardboard as a protective interface between the dispenser and the floor. Thread the legs into the leg gussets on the bottom corners of the dispenser.

Carefully pick up the dispenser, setting it in place. Be sure the dispenser is stable and is level. Place a level on the top of the bin, side to side and front to back to see if the bin is level. Adjust the bin legs to level the dispenser.



ADDING AN ICE MACHINE TO A SERVEND DISPENSER

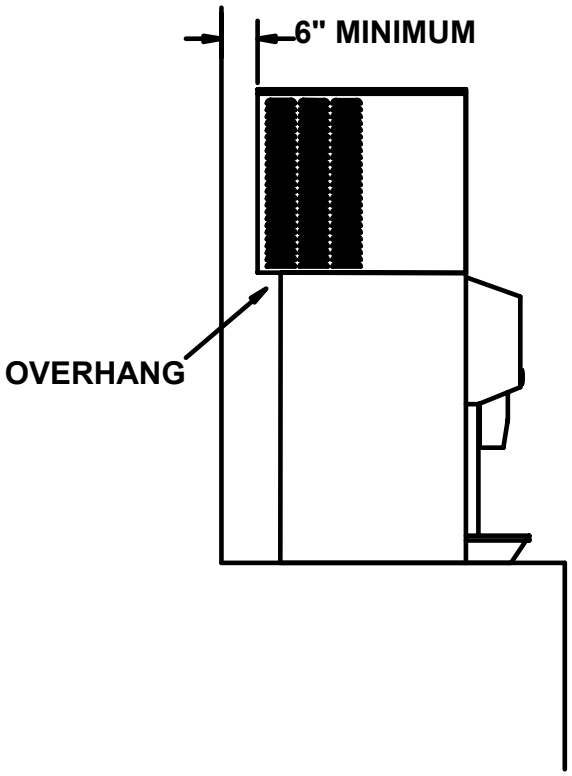
When mounting an ice machine on top of a SerVend dispenser place the front edge of the machine with the outside front edge of the dispenser bin. With some ice makers, there may be an overhang of the ice machine on the back of the dispenser.

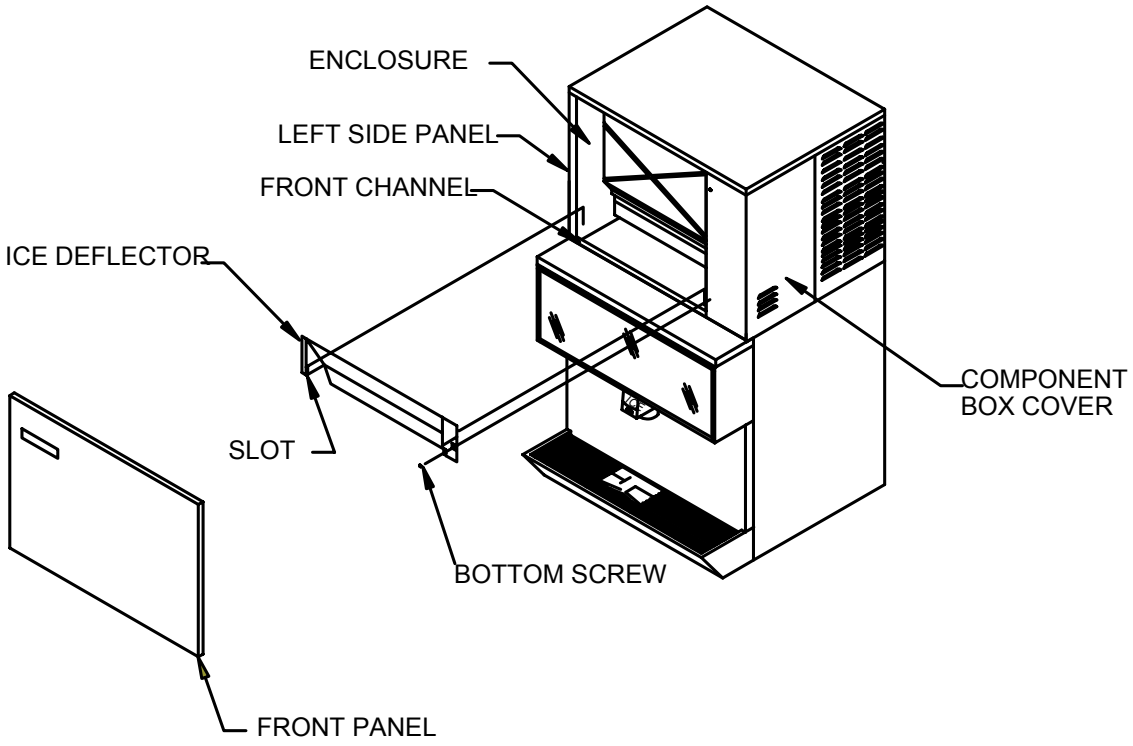
Installations that include a SerVend ice machine on a SerVend dispenser, you must install an ice deflection baffle. Some installations may also require a manual fill lid, and possibly a strip lid kit.

With a SerVend ice machine, the baffle will mount through the front panel of the ice machine. Refer to the drawing below.

Several SerVend dispensers have a manual fill area in the front of the dispenser. This manual fill area is not covered by the ice machine. Order and obtain a manual fill lid from your local SerVend Distributor. Be sure to have the model and serial number of the dispenser available when ordering this or any part.

SerVend manufactures dispensers in 22 inch, 30 inch, 36 inch, and 42 inch widths. At times a customer wishes to install a narrower ice machine than the width of the dispenser. In those instances, a strip lid kit is necessary to fill the excess bin opening of the dispenser. This strip lid kit must be ordered from your local SerVend distributor. You will need the model and serial number of your dispenser and the model of the SerVend ice machine to order the correct strip lid. Instructions for installation are included in each style of strip lid.





BEVERAGE SYSTEM

Installation and maintenance of the beverage system is not covered in this manual. The SerVend M series dispenser is an ice only dispenser. In some applications, The dispenser provides a mounting location for optional beverage valves. Please contact your SerVend Service Company for installation and maintenance of your beverage system.

CLEANING AND SANITIZING

1. If a SerVend ice machine is mounted on top of the dispenser, remove the front panel of the ice maker.

2. Turn the ice maker off.

3. Empty all ice from the dispenser.

4. **Unplug the dispenser from the electric receptacle.**

5. Mix a cleaning solution consisting of a mild non abrasive detergent with water according to the package directions.

6. Using the cleaning solution and a soft bristle brush or cloth, wash the following dispenser parts: (With a top mounted ice maker, accessibility is through the front opening of the ice maker.) Paddle wheel pin (removed from the dispenser) Agitator (removed from the dispenser) Paddle wheel (removed from the dispenser) Entire bin area Ice chute Rear agitator bushing Drive shaft assembly inside bin

7. Mix a solution of 1.5 cl (1/2 oz.) household bleach to 7.5 L (2 gal) of clean water. To achieve 5.25% Cl Na O concentration per gallon of water, the mixture should supply 100 PPM (parts per million) of available chlorine. Or mix a solution of any NSF approved sanitizer, following the directions for mixing and applying that sanitizer.

8. Using the sanitizing solution and a soft bristle brush or cloth, clean each of the dispenser parts listed above.

9. Do not rinse the parts after they have been sanitized. Replace all parts back to the dispenser.

10. Pour in fresh clean ice into the dispenser bin. Or turn the ice maker back on.

11. Plug the dispenser into the receptacle.

12. Check for proper ice dispensing.

TROUBLESHOOTING

CONDITION	INVESTIGATION:	CHECK / HOW TO CHECK:	CORRECTION:
Dispenser does not dispense ice.	There is no power to the dispenser.	Is the dispenser plugged in?	Plug the dispenser in.
		The dispenser is plugged in with power to the receptacle. With a meter, check to see if power is getting to the white and black cord wires inside the electric box.	If no power is present, check the cord and plug of the dispenser. Replace if broken wire or connection is detected.
	There is power to the dispenser, however nothing runs.	Is power going through the microswitch? With the dispenser plugged in, meter probes on the “C” and “NC” terminals of the microswitch, energize the microswitch. If the meter starts out registering voltage, then does not register voltage when the switch is pushed, the switch is good.	If no power is going through the microswitch, replace the switch or locate the broken connection.
		If the gear motor attempts to start but fails to do so, check the capacitor. To completely check the capacitor, you must use a capacitor checker according to the instructions supplied.	If capacitor does not test correctly, replace the capacitor.
	The gear motor runs but the dispensing paddle wheel does not turn.	If gear motor fails to attempt to start, check the gear motor. To check the gear motor, disconnect power from the dispenser. Disconnect the gear motor wires in the junction box. Check for continuity through the gear motor.	If gear motor does not test correctly, replace the gear motor.
		Remove the paddle wheel pin in the bin area. Is this pin broken or missing?	If the paddle wheel pin is broken or missing, replace the pin.

TROUBLESHOOTING

CONDITION	INVESTIGATION	CHECK / HOW TO CHECK	CORRECTION
Dispenser does not dispense ice.	Gear motor runs but the dispensing paddle wheel does not turn.	Remove the agitator and paddle wheel. Are you able to turn the shaft from the gear motor without turning the motor armature itself?	Lower ice bin level. Adjust or replace timer if necessary. See page 23.
	Dispenser runs but does not dispense ice.	Is there at least one half bin of ice? Is the ice in the bin of the proper size and type of ice?	Adjust door to minimum or larger opening. Microswitch may be sticking. Check the microswitch and linkage to the microswitch. Clean linkage and microswitch. Replace microswitch if necessary.
	Dispenser runs, ice does not dispense but does congeal ice into a large ball.	The agitation timer should be checked. See page 23 for proper check out procedure. If there is an ice maker mounted on top of the dispenser, is an ice deflection baffle installed? Is excess water running into the dispenser from the top mounted ice maker? Is the bin drain clean and open?	Check the agitation timer. Adjust the timer to two seconds on time and four hours off time. Also check timer for being shorted.
Dispenser crushes ice as it dispenses.	Is the ice in the bin of the proper size and type of ice?	See page 5 for acceptable ice. Is the ice being used a full size piece of ice? i.e. cubes full, not shallow, etc.	
	Is there an ice maker on top of the dispenser?	If the dispenser has an ice maker on top, is there an ice deflection baffle installed between the dispenser and the ice maker?	

TROUBLESHOOTING

CONDITION	INVESTIGATION	CHECK / HOW TO CHECK	CORRECTION
Dispenser crushes ice as it dispenses.	Is there an ice maker on top of the dispenser?	Is there at least 7.5 cm (3 in) between the top of the ice and the top of the dispenser bin?	Remove the gear motor. Some models contain a shaft extension held on with a roll pin. If the roll pin is broken, replace. If the roll pin is good, replace the gear motor.
Ice continuous to dispense or dispenses by itself.	Is the agitation timer (if equipped) set properly?	Timer should agitate for two seconds every four hours.	If not sufficient ice, add additional ice to bin.
	Is the ice door opening fully when the dispenser operates?	The ice door should open a minimum of 3.8 cm (1.5in).	If the ice does not meet the dispensing parameters as described on page 5 replace the ice.
	Does ice continue to dispense after the cup has been pulled away?	Does the gear motor continue to run during this time?	Adjust or replace the agitation timer as required.
	Does the ice dispense by itself without anyone around the dispenser?	Does the dispenser do this at regular intervals?	The ice deflection baffle is to be installed between the dispenser and the ice maker. Install deflector if missing.
			Repair top mounted ice maker to reduce amount of water entering the dispenser.
			Clean the bin drain.
			Replace ice with acceptable type.
			Adjust ice machine to make a good, complete, not hollow piece of ice.
			Install deflector if missing.

ADJUSTMENTS
AGITATION TIMER

The agitation timer is standard equipment for the dispensers with 90.7 kg. (200 lbs.) and larger bin storage. This timer is available as an option for all other dispensers. The purpose of the timer is to periodically agitate the ice in the bin, preventing the ice from congealing together.

The timer is located in the electrical box of the dispenser. The two dials on the timer should be set to agitate the ice for two seconds every four hours of non ice dispenser use.

To check the agitation timer, turn the off time dial (right dial on the drawing below) counter clockwise until the dial stops. Do not use the dispenser for 15 minutes. Within that time period, the agitator will turn. If the agitator does not turn, replace the timer.

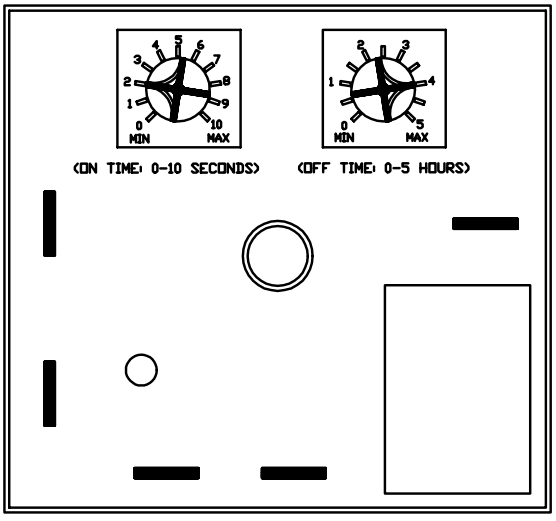
If the solenoid is electrically activated when the agitation timer moves the gear motor, the timer has shorted out internally and must be replaced.

To correctly reset the agitation timer, turn both dials counter clockwise until they stop. Your "points" on the dials will be set at "0".

Turn the ON time (left dial) from the "0" to the "2".

Turn the OFF time (right dial) from the "0" to the "4".

The drawing shows the position of the dials when the timer is set correctly.



ADJUSTMENTS
DOOR

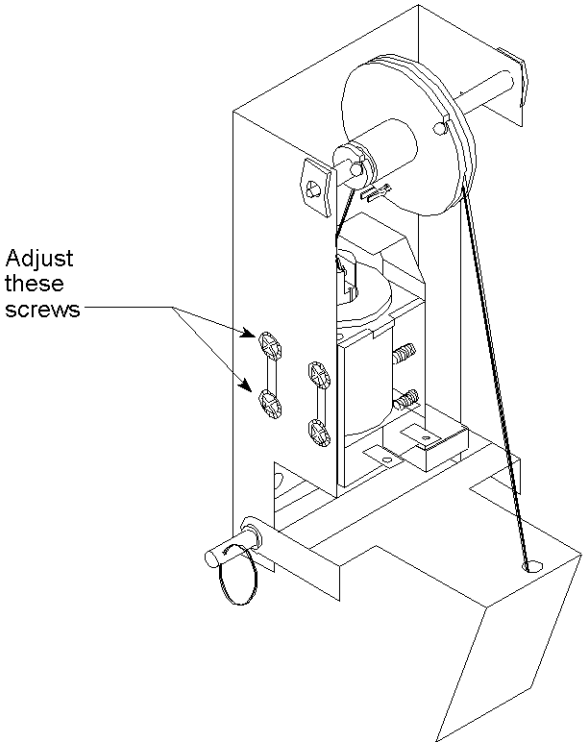
The door is used to stop the flow of ice to the container when the microswitch is released. The door assembly is not used to reduce the flow of ice. See the ice flow reducer on the following page.

When operated, the door should open completely. **This would be a minimum of 3.8 cm (1.5 in) as measured from the bottom of the chute opening to the bottom of the door when energized.**

To adjust the door opening, raise or lower the door solenoid in the opposite direction you wish to effect the door. EXAMPLE: If you wish to open the door wider, lower the door solenoid. This will raise the door wider.

To move the solenoid, loosen the four machine screws on the side of the coil. Slide the solenoid in the direction you wish to move it. Tighten the screws on the solenoid to secure the coil in place.

EXAMPLE OF DOOR ADJUSTMENT SCREW LOCATION



ADJUSTMENTS

ICE FLOW

The delivery of the ice from the dispenser is influenced by several factors. The primary influence is the type of ice being dispensed. If you are dispensing a wet, rounded corner ice, this ice will dispense at a faster rate than an ice with square corners.

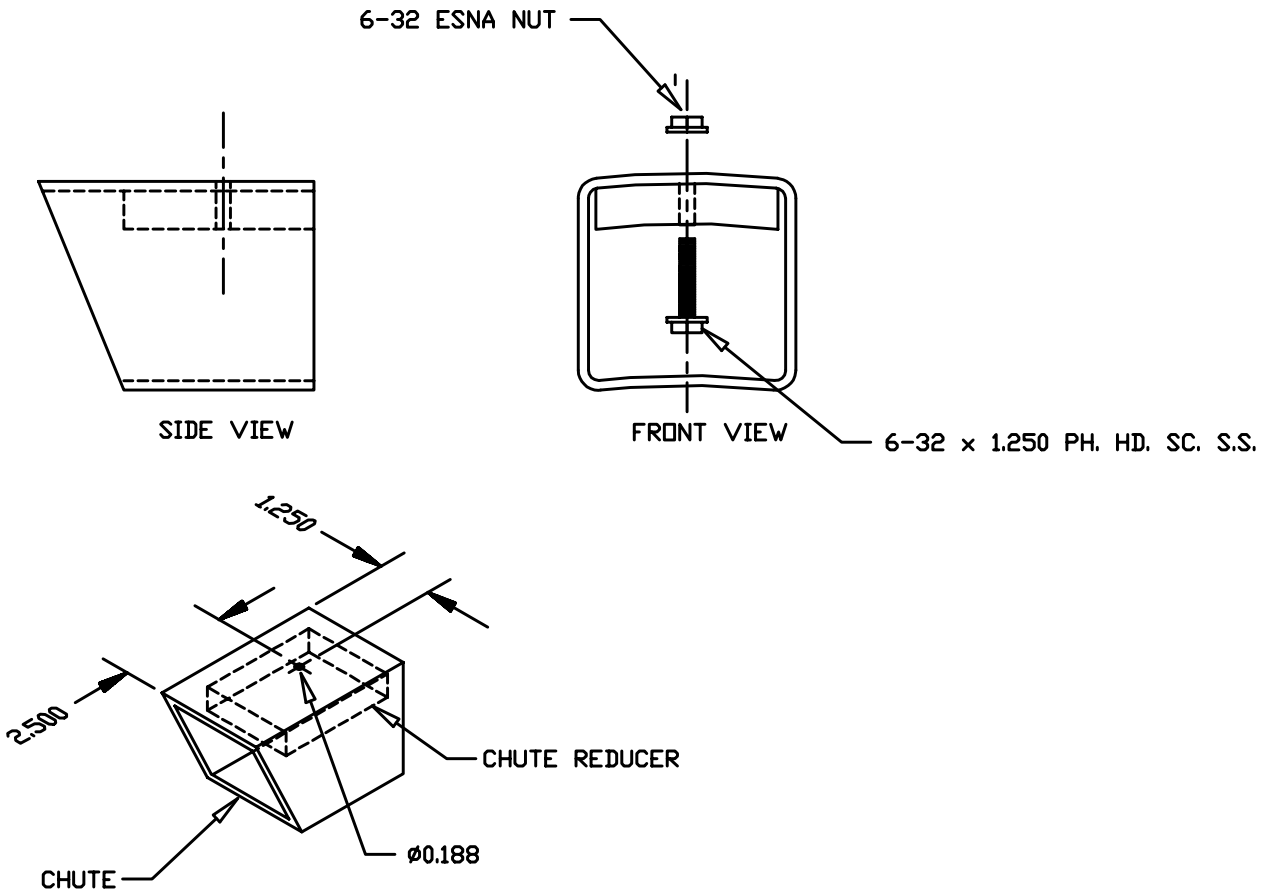
Regardless of the ice you are dispensing, it is possible to reduce the delivery of the ice. However the reduction will depend upon the type of ice. **DO NOT REDUCE THE DOOR OPENING TO REDUCE ICE FLOW.**

A flow restrictor is available as an option for installation in the dispensing chute of the dispenser. This restrictor will prevent a full paddle wheel "cup" of ice from being delivered into the chute. This will then reduce the delivery of ice to the container.

Installation of flow restrictor

To install the ice flow restrictor:

1. Remove the merchandiser.
2. Remove the door assembly.
3. Drill 3/16" hole in top of chute from the bin as shown in the above drawing.
4. Place the restrictor in the chute, holding with the bolt and nut.
5. Tighten nut.
6. Replace door assembly and merchandiser.

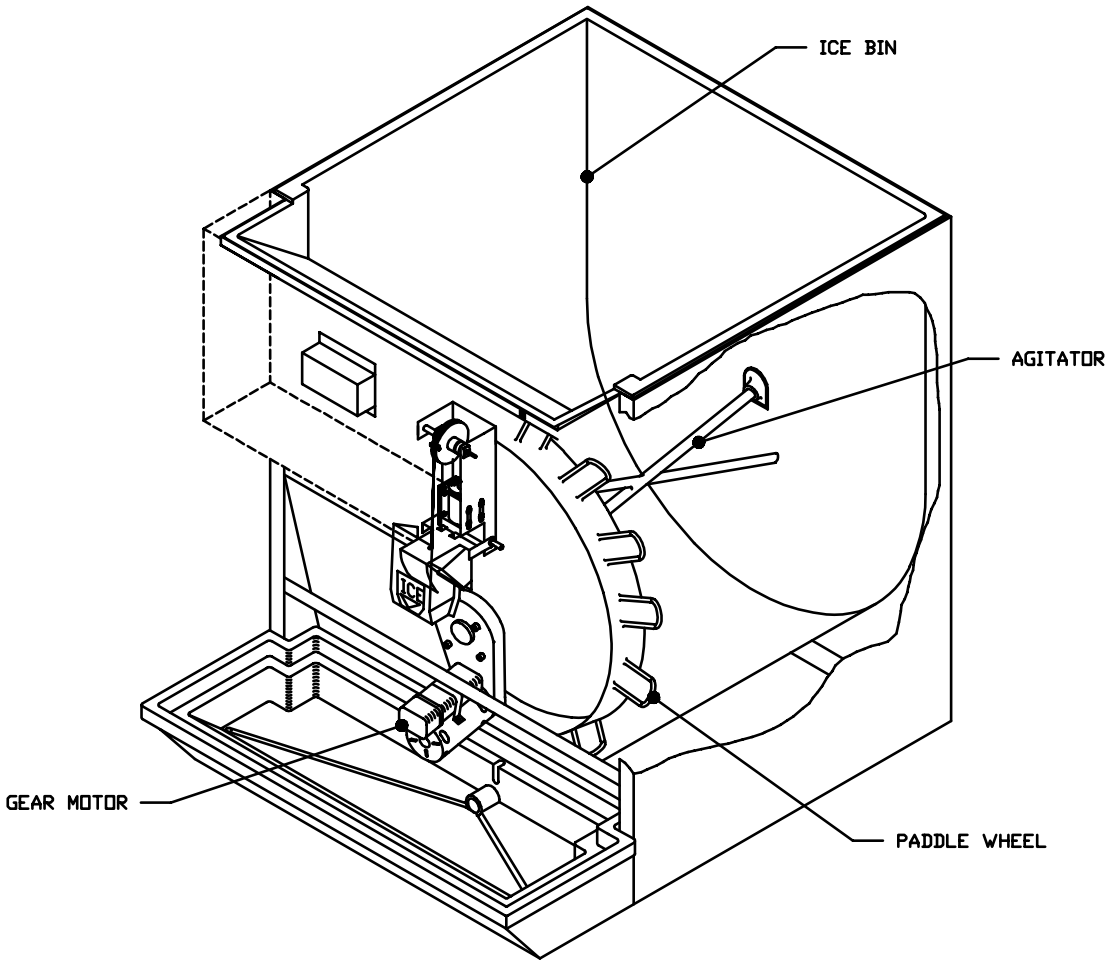


GENERAL INSTRUCTIONS

REMOVAL OF GEAR MOTOR

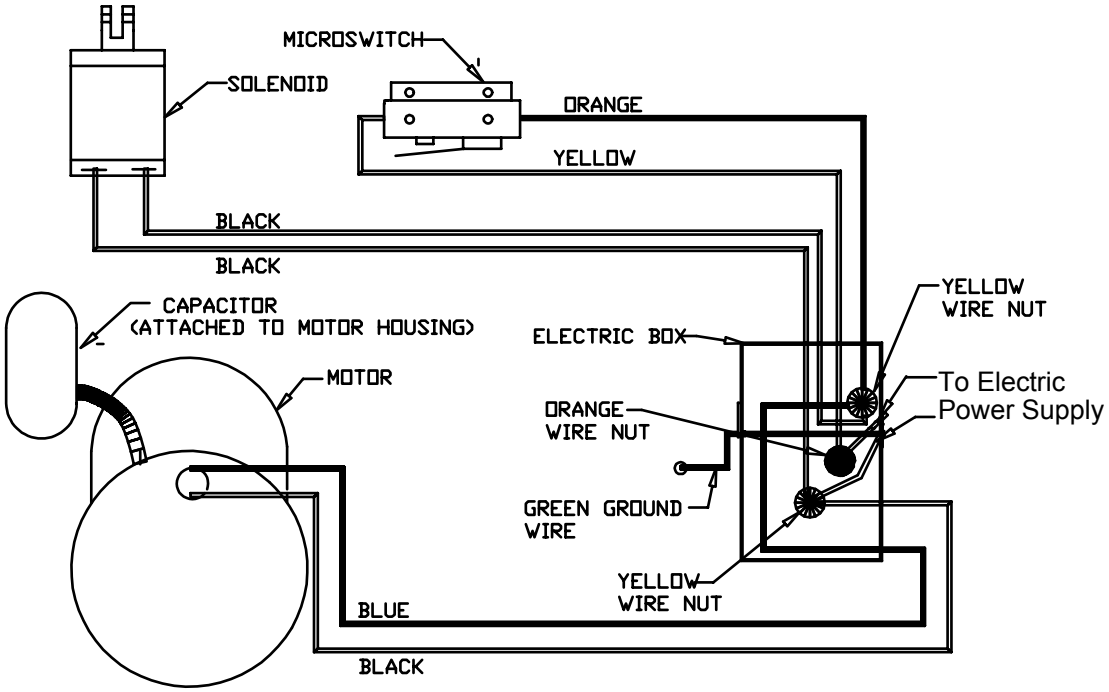
These instructions are provided as a guide for the removal of the gear motor. Depending on the model number of your dispenser, these instructions may vary slightly.

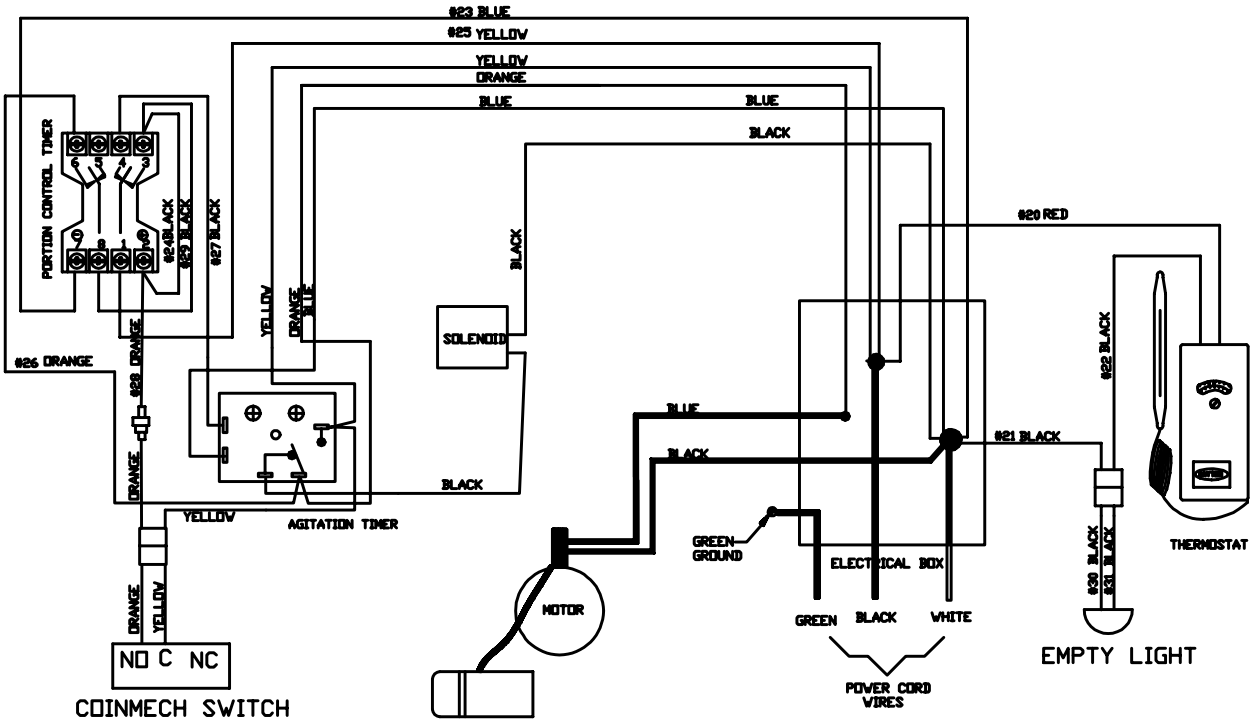
1. Disconnect power from the electric receptacle.
2. Remove all ice from the ice storage bin of the dispenser.
3. Remove the paddle wheel pin from the paddle wheel / agitator assembly inside the dispenser bin.
4. Remove the agitator assembly from the dispenser bin by pushing the agitator to the back of the bin. Angle the front of the agitator to the side. Pull the agitator forward then out of the dispenser.
5. Remove the paddle wheel from the dispenser by pulling the hub of the paddle wheel to the back of the bin and off the gear motor shaft.
6. Remove the four bolts from the front wall of the dispenser. These bolts mount into the gear motor case.
7. Remove the front from the dispenser and expose the gear motor.
8. Disconnect the electric connector from the gear motor wire leads.
9. Remove the strap from around the gear motor.
10. You should be able to remove the gear motor from the dispenser.
11. To install a replacement gear motor, reverse this procedure.



WIRING DIAGRAMS

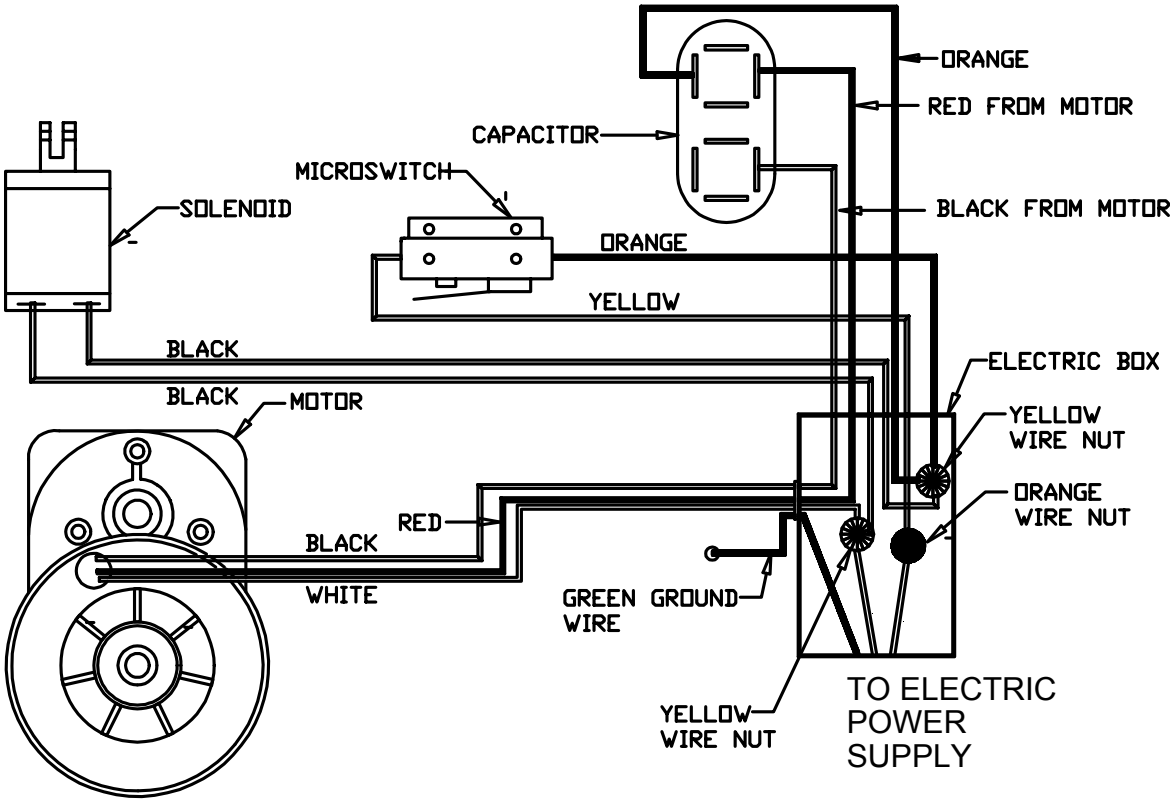
M-150 : H-265 PUSH BUTTON : H-265 WITH KEY SWITCH - ALL VOLTAGES
H-265 WITH COIN MECHANISM - ALL VOLTAGES



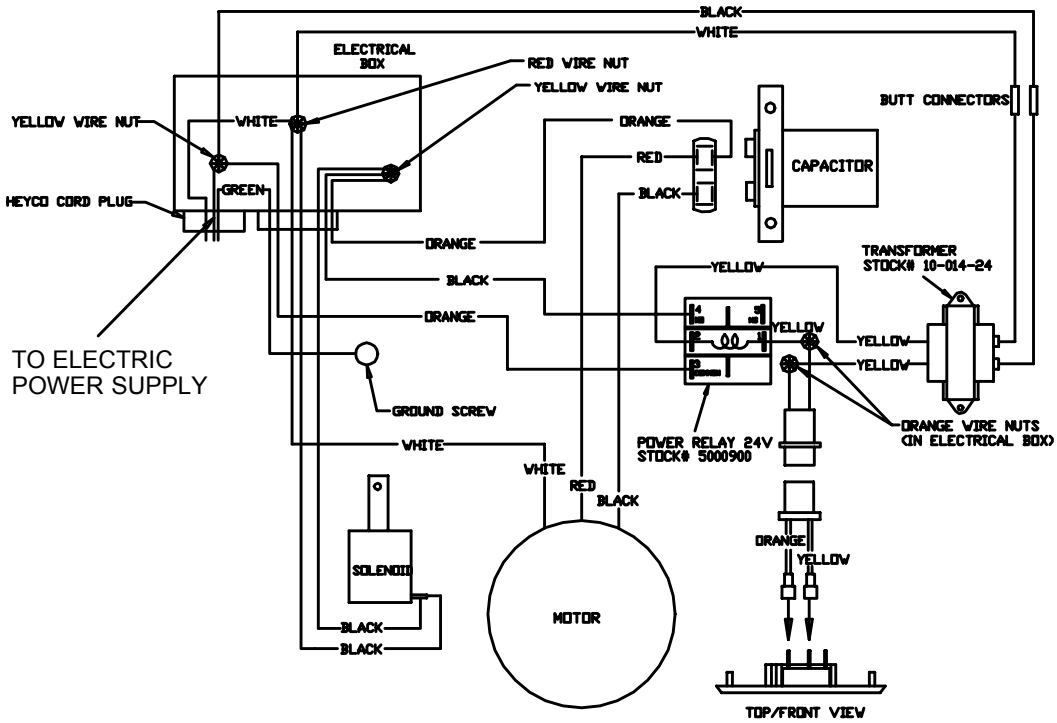


WIRING DIAGRAMS

M-15A : M-15B : M-45 : M-90 : STANDARD CONFIGURATION - ALL VOLTAGES

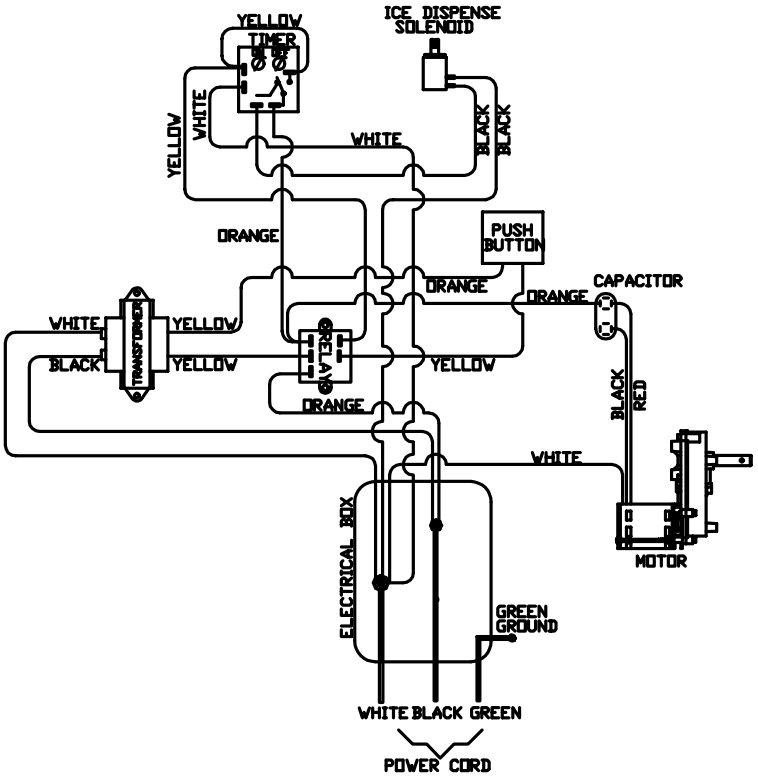


M-15C : STANDARD CONFIGURATION - ALL VOLTAGES

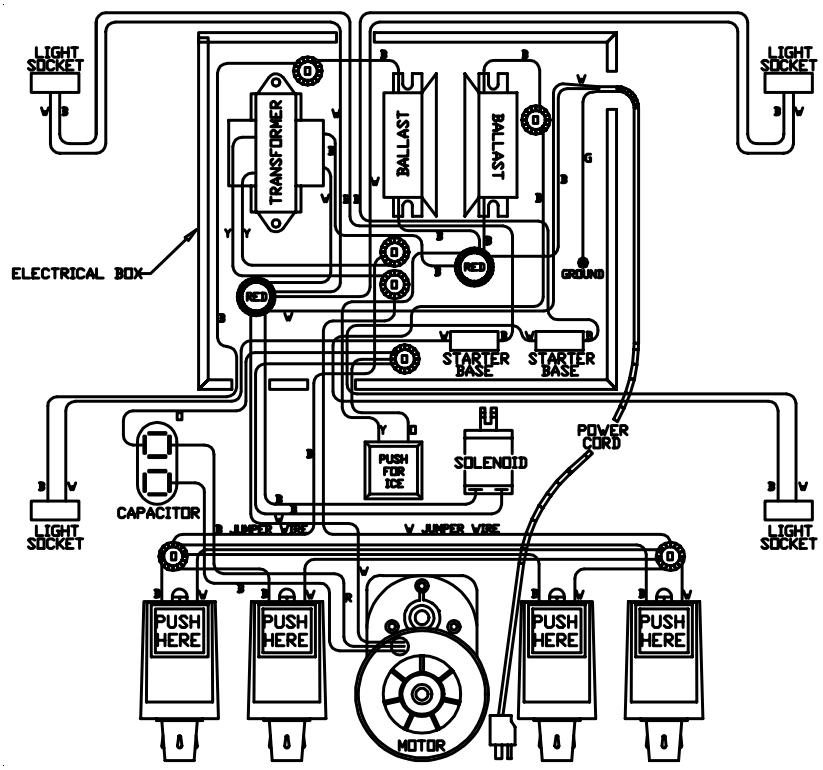


WIRING DIAGRAMS

M-15C WITH AGITATION TIMER

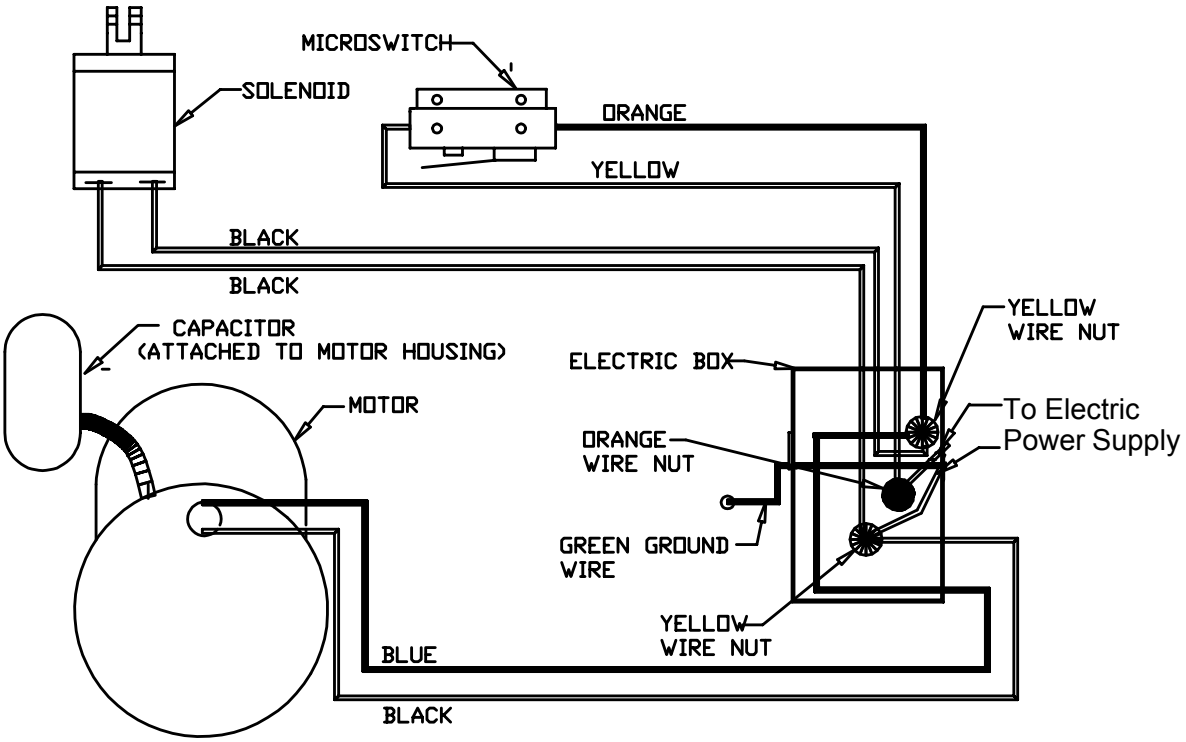


M-90 WITH LIGHTS AND VALVES - ALL VOLTAGES

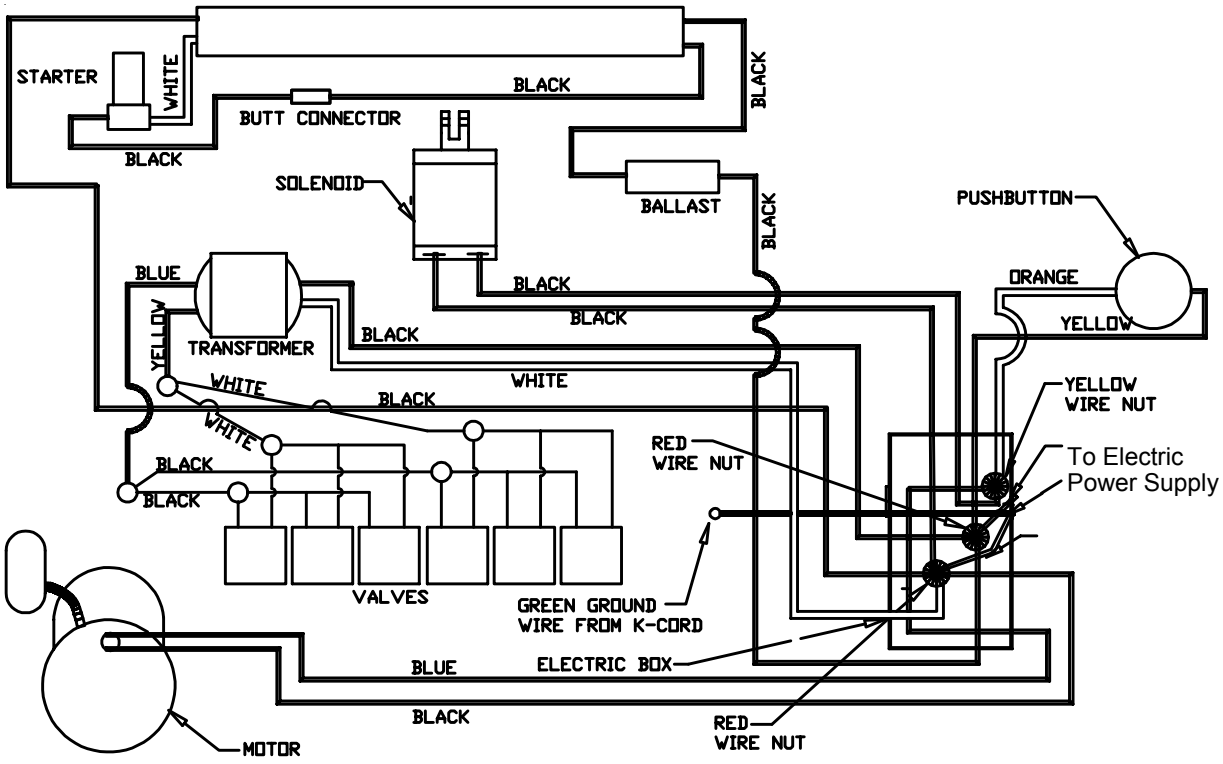


WIRING DIAGRAMS

M-150 : H-265 PUSH BUTTON : H-265 WITH KEY SWITCH - ALL VOLTAGES

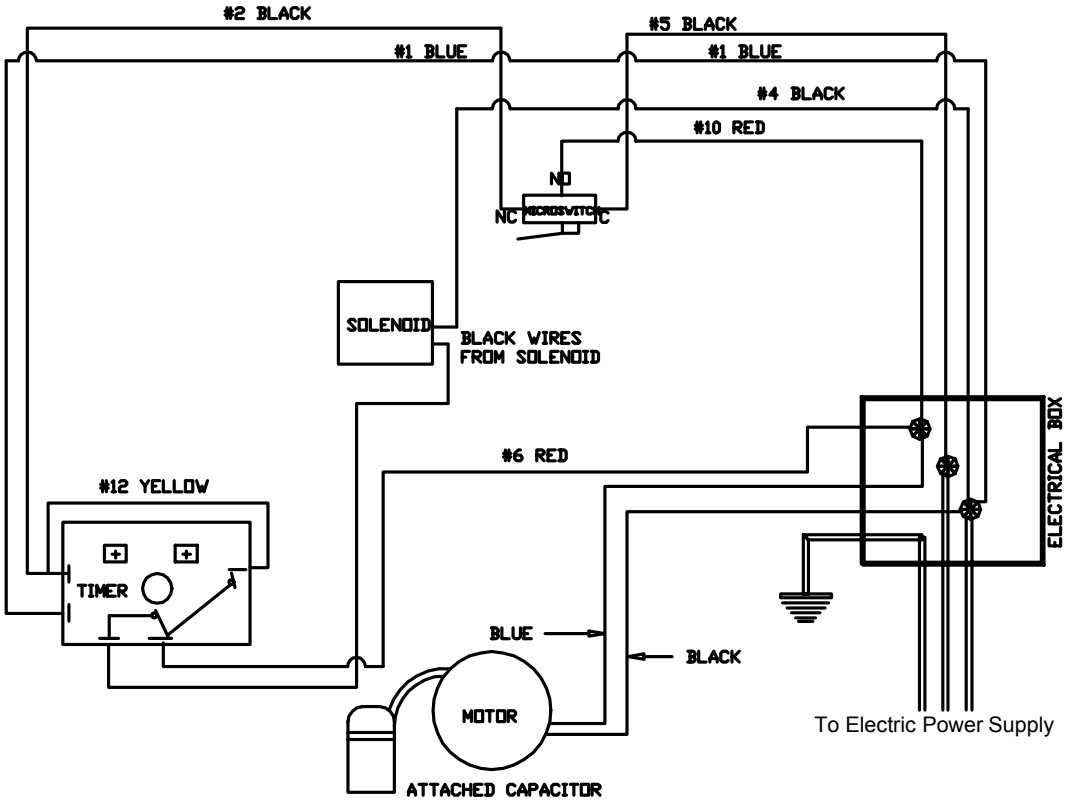


M-150 WITH LIGHT AND VALVES - ALL VOLTAGES

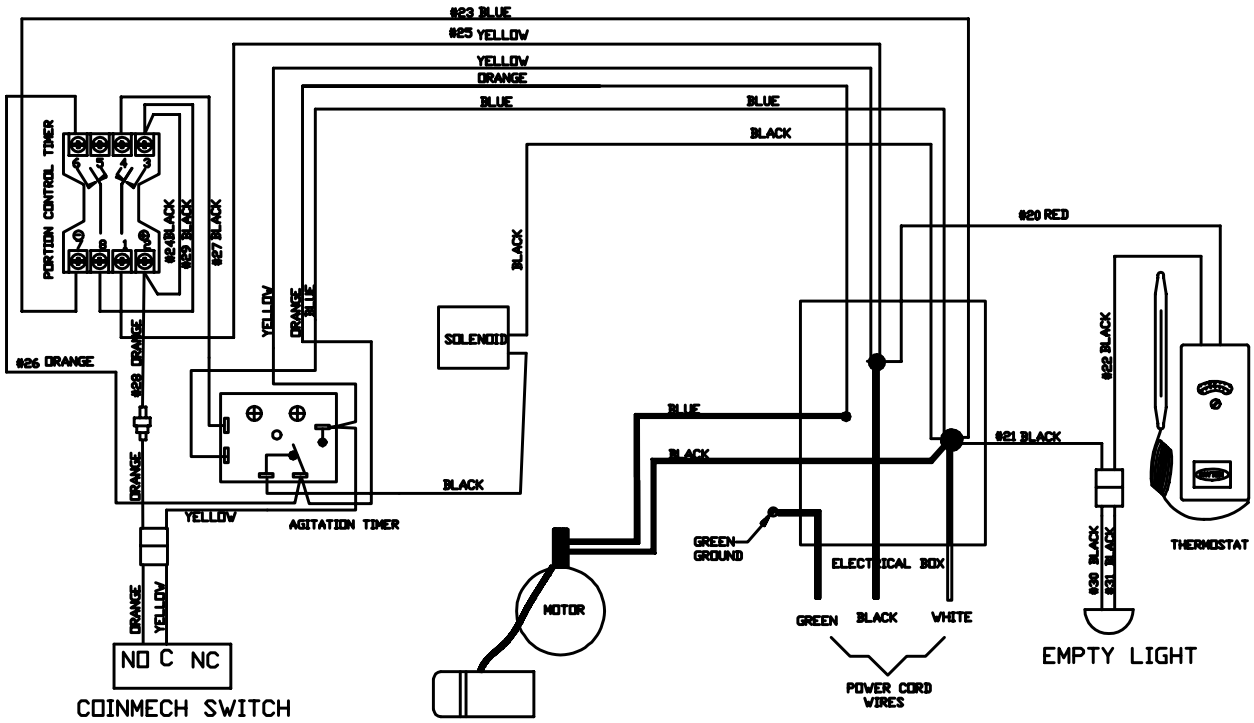


WIRING DIAGRAMS

M-200 : M-250 : M250-36 : STANDARD CONFIGURATION - ALL VOLTAGES



H-265 WITH COIN MECHANISM - ALL VOLTAGES



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