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**HOSHIZAKI
ICE/BEVERAGE DISPENSERS**

MODEL

DM-180A

DM-180A6

DM-180A8

DM-180AX

SERVICE MANUAL

FOREWORD

IMPORTANT

Only qualified service technicians should attempt to service or maintain the ice/beverage dispenser. No such service or maintenance should be undertaken until the technician has thoroughly read this Service Manual.

HOSHIZAKI provides this manual primarily to assist qualified service technicians in the service and maintenance of the ice/beverage dispenser.

Should the reader have any questions or concerns which have not been satisfactorily addressed, please call or write to the HOSHIZAKI Care Department for assistance.

HOSHIZAKI AMERICA, INC.
618 Highway 74 South
Peachtree City, GA 30269

Attn: HOSHIZAKI Care Department

Phone: 1-800-233-1940 Technical Service
(770) 487-2331
Fax: (770) 487-3360

NOTE: To expedite assistance, all correspondence/communication **MUST** include the following information:

- Model Number
- Serial Number
- Complete and detailed explanation of the problem

Please review this manual. It should be read carefully before the ice/beverage dispenser is serviced or maintenance operations are performed. Only qualified service technicians should service and maintain the ice/beverage dispenser. This manual should be made available to the technician prior to service or maintenance.

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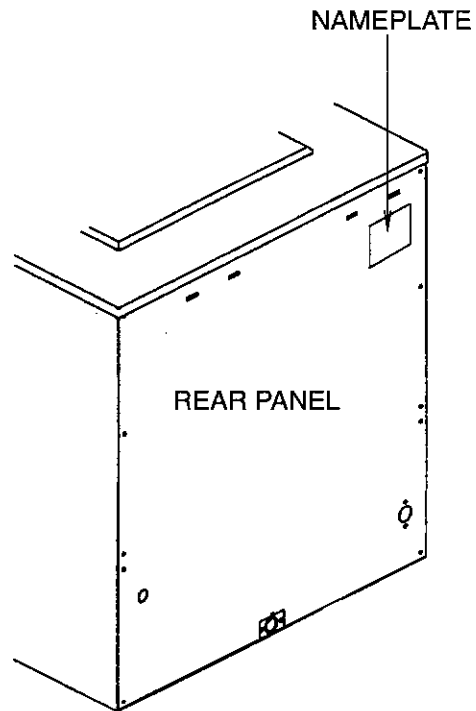
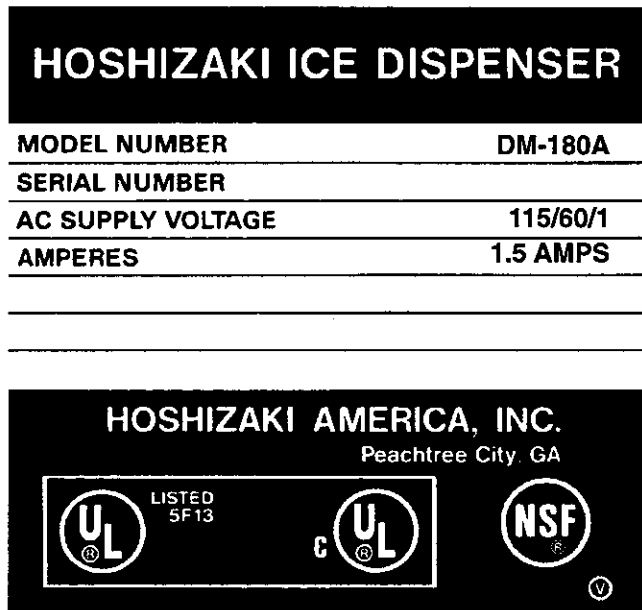
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I. SPECIFICATIONS

1. NAMEPLATE RATING

[a] DM-180A

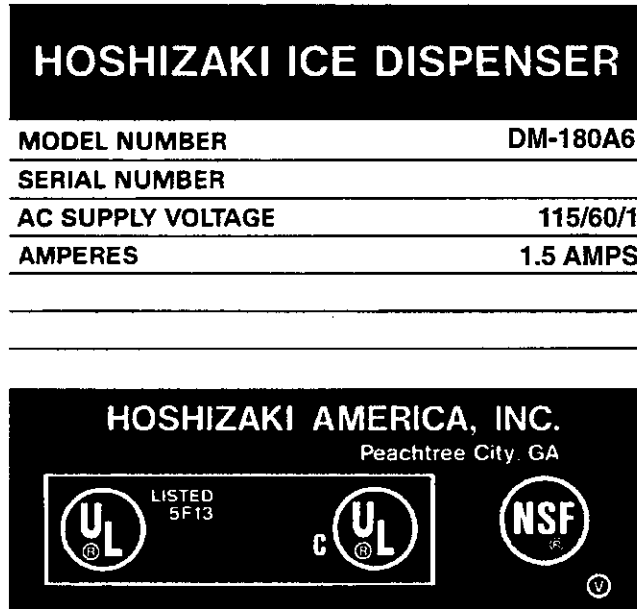


Refer to the NAMEPLATE for electrical specifications. **A Nameplate is located on the upper RIGHT side of the dispenser's Rear Panel.** It cannot be read when the back of the dispenser is against a wall or is otherwise inaccessible.

Therefore, the necessary electrical information is also on an additional label, which can be easily seen by removing only the Front Panel of the dispenser.

We reserve the right to make specification and design changes without prior notice.

[b] DM-180A6

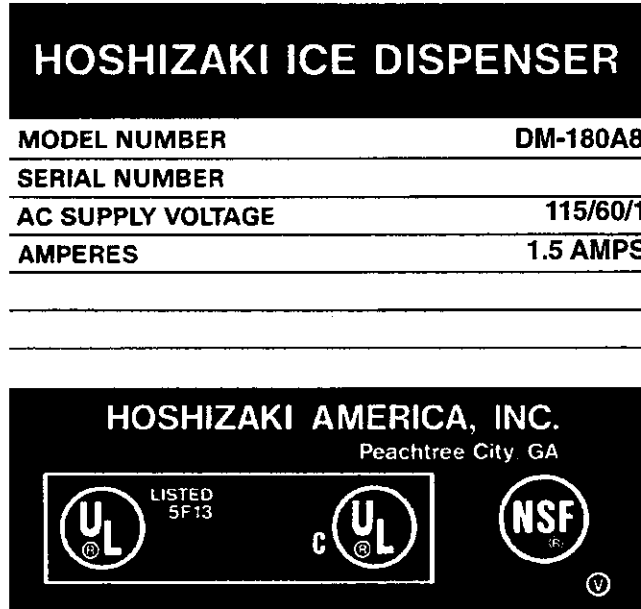


Refer to the NAMEPLATE for electrical specifications. A Nameplate is located on the upper RIGHT side of the dispenser's Rear Panel. It cannot be read when the back of the dispenser is against a wall or is otherwise inaccessible.

Therefore, the necessary electrical information is also on an additional label, which can be easily seen by removing only the Front Panel of the dispenser.

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[c] DM-180A8

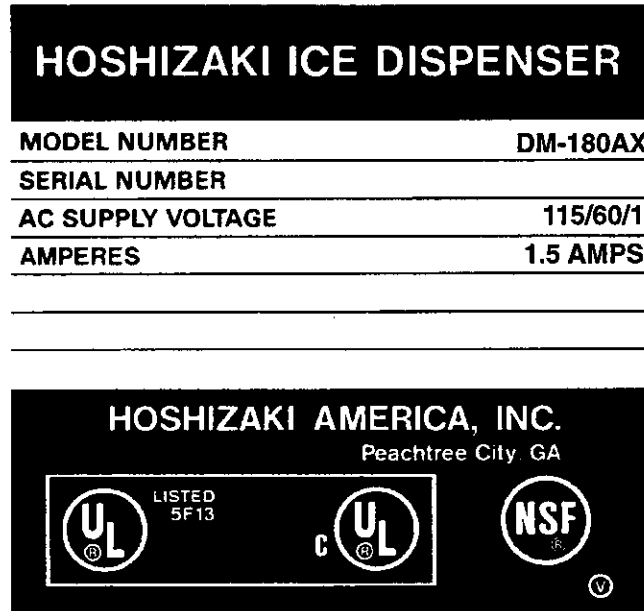


Refer to the NAMEPLATE for electrical specifications. A Nameplate is located on the upper RIGHT side of the dispenser's Rear Panel. It cannot be read when the back of the dispenser is against a wall or is otherwise inaccessible.

Therefore, the necessary electrical information is also on an additional label, which can be easily seen by removing only the Front Panel of the dispenser.

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[d] DM-180AX

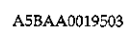


Refer to the NAMEPLATE for electrical specifications. A Nameplate is located on the upper RIGHT side of the dispenser's Rear Panel. It cannot be read when the back of the dispenser is against a wall or is otherwise inaccessible.

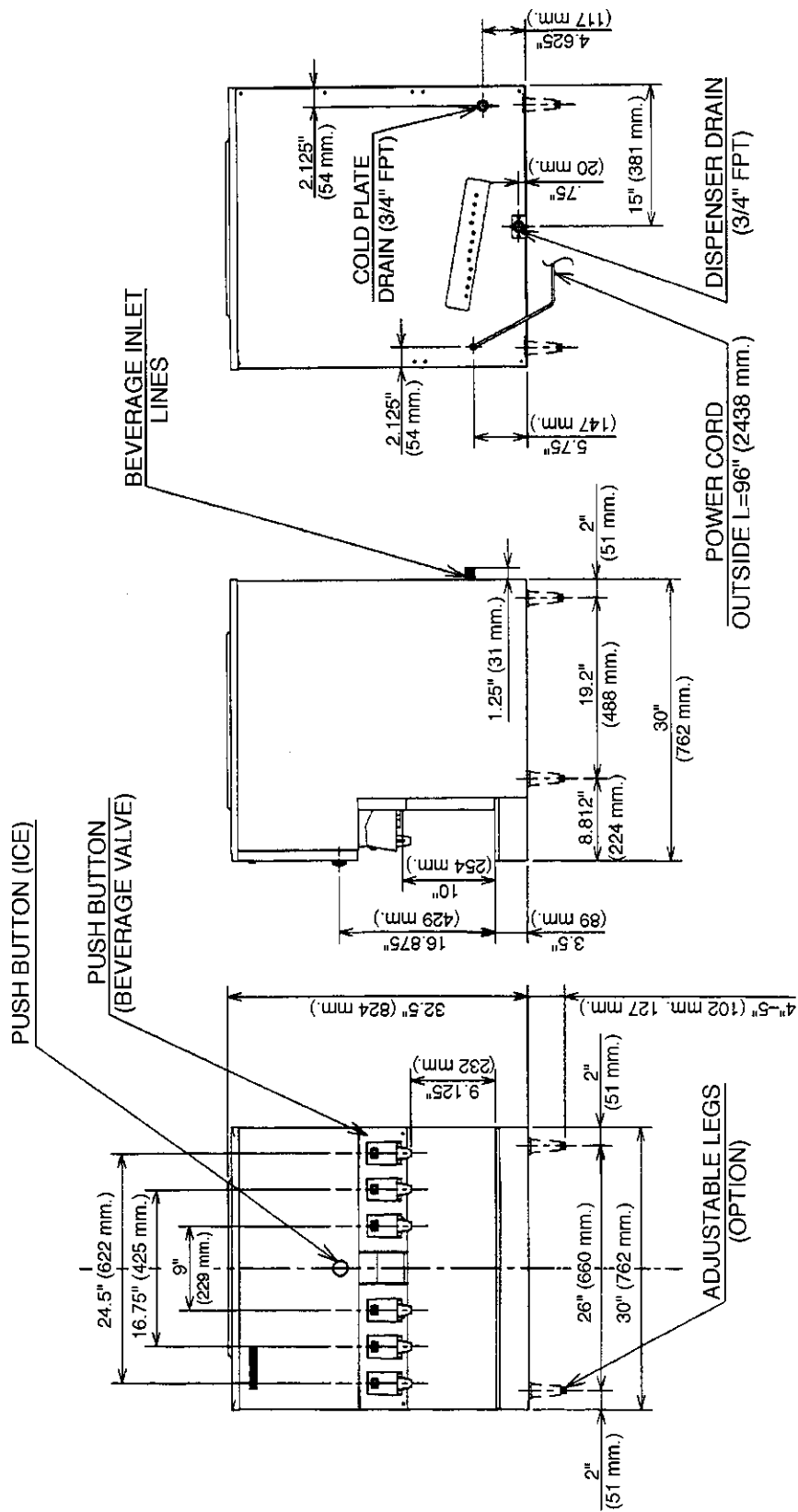
Therefore, the necessary electrical information is also on an additional label, which can be easily seen by removing only the Front Panel of the dispenser.

We reserve the right to make specification and design changes without prior notice.

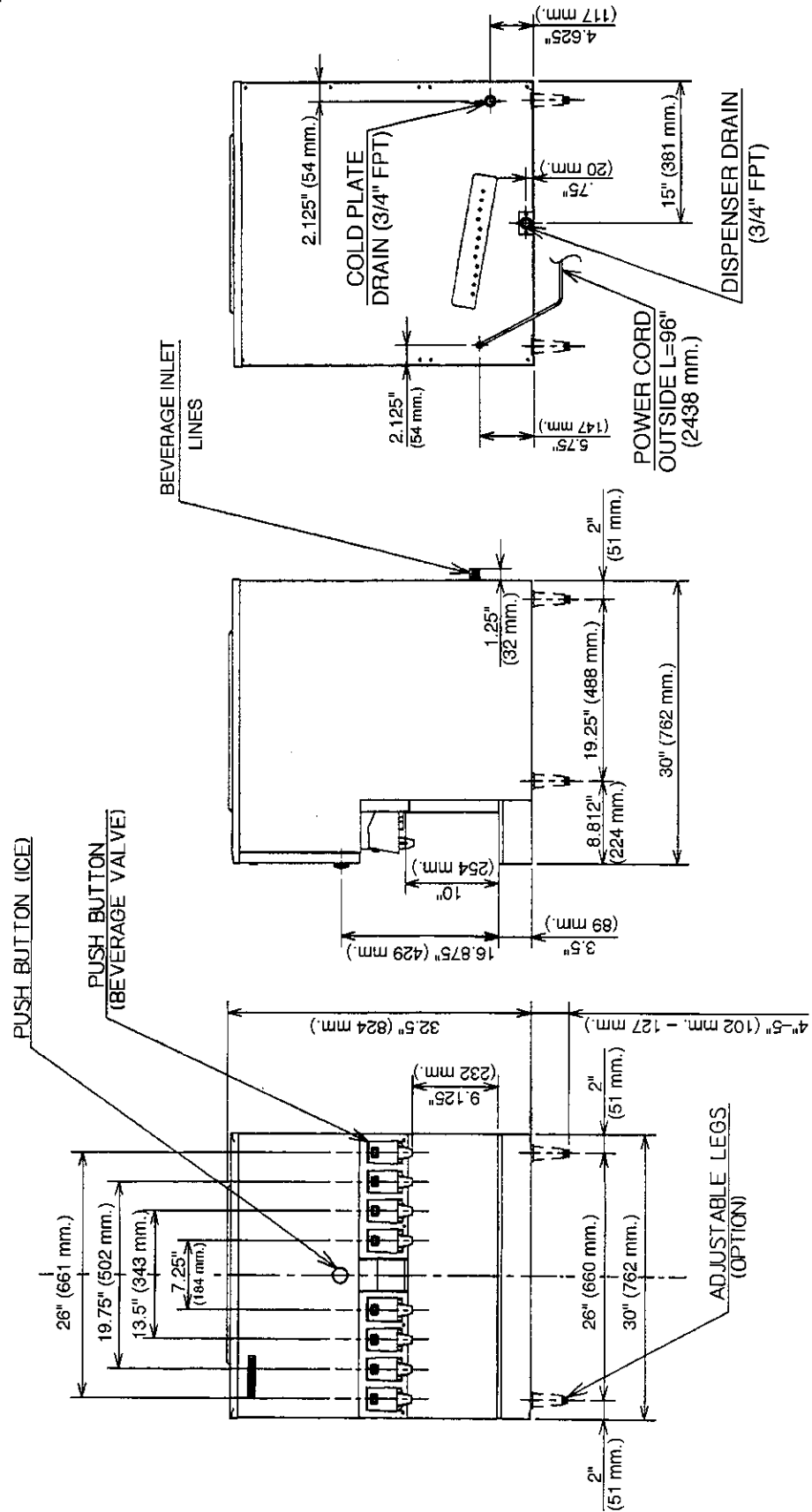
[a] DM-180A



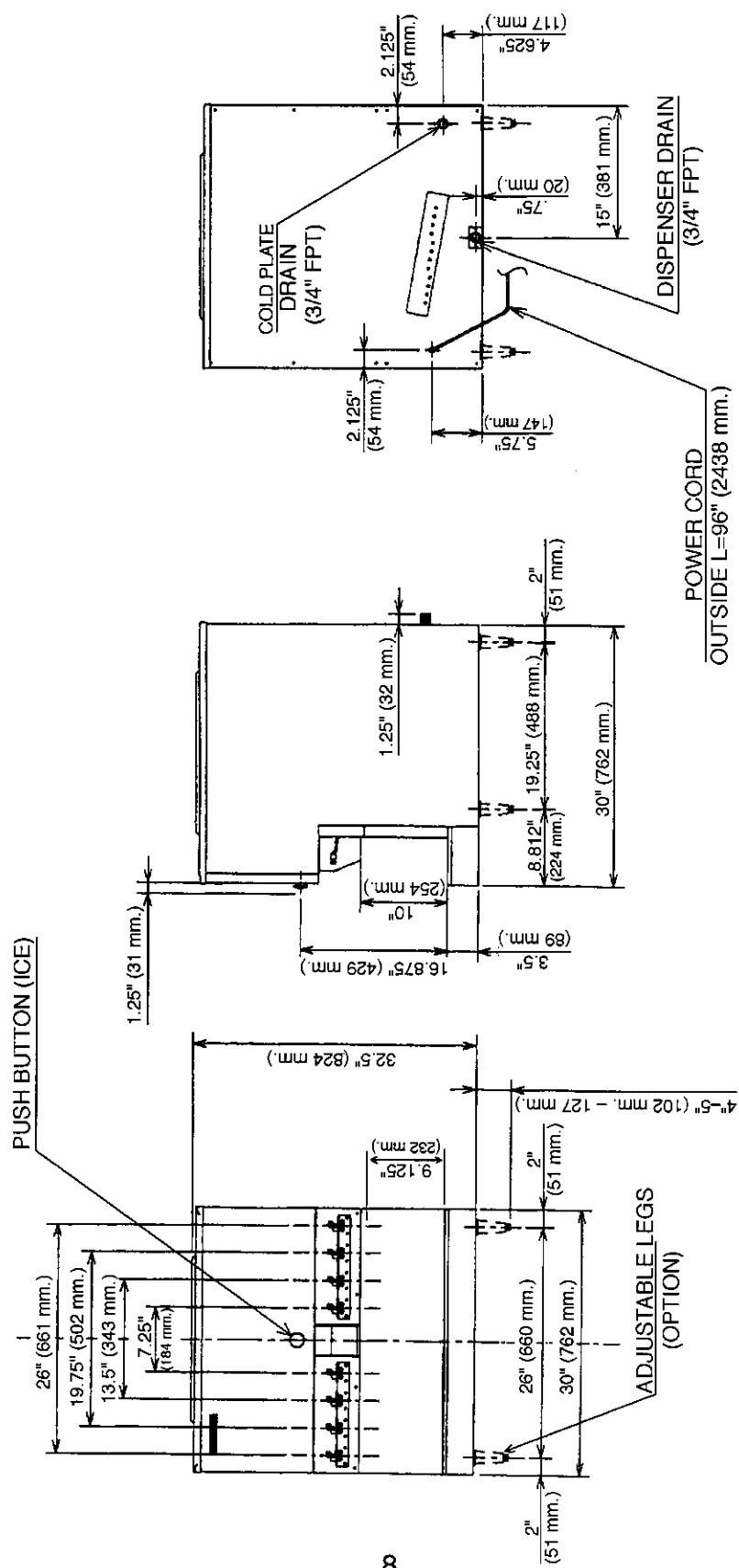
[b] DM-180A6



[c] DM-180A8



[d] DM-180AX



3. SPECIFICATIONS

[a] DM-180A

ITEM: HOSHIZAKI ICE DISPENSER
MODEL: DM-180A

BEGINNING SERIAL NO. D10001E
ENDING SERIAL NO.

AC SUPPLY VOLTAGE	115/60/1
AMPERAGE	1.5A
MINIMUM CIRCUIT AMPACITY	15A
MAXIMUM FUSE SIZE	15A
APPROXIMATE ELECTRIC CONSUMPTION	190W
APPROXIMATE STORAGE CAPACITY	170lbs. (77kg)
EXTERIOR DIMENSIONS (WxDxH)	30"x30"x36.5" (762x762x927mm) (including 4"leg)
INTERIOR DIMENSIONS (WxDxH)	23.3"x22.4"x22.5" (592x569.5x571mm)
EXTERIOR FINISH	Stainless Steel, Galvanized Steel (Rear)
INTERIOR FINISH	Polyethylene 1pc. Mold
INSULATION	Polyurethane Foam
WEIGHT	Net 205lbs. (93kg), Shipping 240lbs. (109kg)
CONNECTION -ELECTRIC	Power Cord
-DRAIN	3/4"FPT
GEAR MOTOR AGITATOR	60W Stainless Steel Round Bar 14.5"dia.
GEAR MOTOR PROTECTION	Thermal Protector (Internal)
ACCESSORIES - OPTIONAL	4" Leg -4pcs.
OPERATING CONDITIONS	VOLTAGE RANGE 104-127V AMBIENT TEMP. 45-100°F
DRAWING NO. (DIMENSIONS)	3A0306

RECOMMENDED ICE MAKER INSTALLED KM-500/630SERIES
ON UNIT WITH TOP KIT (OPTION)

We reserve the right to make changes in specifications and design without prior notice.

[b] DM-180A6

ITEM: HOSHIZAKI ICE DISPENSER
MODEL: DM-180A6

BEGINNING SERIAL NO. D10001E
ENDING SERIAL NO.

AC SUPPLY VOLTAGE	115/60/1
AMPERAGE	1.5A
MINIMUM CIRCUIT AMPACITY	15A
MAXIMUM FUSE SIZE	15A
APPROXIMATE ELECTRIC CONSUMPTION	190W
APPROXIMATE STORAGE CAPACITY	180lbs. (82kg)
EXTERIOR DIMENSIONS (WxDxH)	30"x30"x36.5" (762x762x927mm) (including 4"leg)
INTERIOR DIMENSIONS (WxDxH)	23.3"x22.4"x22.5" (592x569.5x571mm)
EXTERIOR FINISH	Stainless Steel, Galvanized Steel (Rear)
INTERIOR FINISH	Polyethylene 1pc. Mold
INSULATION	Polyurethane Foam
WEIGHT	Net 300lbs. (136kg), Shipping 335lbs. (157kg)
CONNECTION -ELECTRIC	Power Cord
-DRAIN	3/4" FPT (2 pls.)
-SYRUP	6 Inlets (1/4" O.D.)
-CARBONATED WATER	3 Inlets (3/8" O.D.) 1circuit non-carbonated water available
GEAR MOTOR AGITATOR	60W Stainless Steel Round Bar 14.5"dia.
GEAR MOTOR PROTECTION	Thermal Protector (Internal)
LOW VOLTAGE CIRCUIT PROTECTION	3 & 3.5A CIRCUIT BREAKER
ACCESSORIES - OPTIONAL	4" Leg -4 pcs.
OPERATING CONDITIONS	VOLTAGE RANGE 104-127V AMBIENT TEMP. 45-100°F
DRAWING NO. (DIMENSIONS)	3A0305

RECOMMENDED ICE MAKER INSTALLED KM-500/630SERIES
ON UNIT WITH TOP KIT (OPTION)

We reserve the right to make changes in specifications and design without prior notice.

[c] DM-180A8

ITEM: HOSHIZAKI ICE DISPENSER
MODEL: DM-180A8

BEGINNING SERIAL NO. D10001E
ENDING SERIAL NO.

AC SUPPLY VOLTAGE	115/60/1
AMPERAGE	1.5A
MINIMUM CIRCUIT AMPACITY	15A
MAXIMUM FUSE SIZE	15A
APPROXIMATE ELECTRIC CONSUMPTION	190W
APPROXIMATE STORAGE CAPACITY	180lbs. (82kg)
EXTERIOR DIMENSIONS (WxDxH)	30"x30"x36.5" (762x762x927mm) (including 4"leg)
INTERIOR DIMENSIONS (WxDxH)	23.3"x22.4"x22.5" (592x569.5x571mm)
EXTERIOR FINISH	Stainless Steel, Galvanized Steel (Rear)
INTERIOR FINISH	Polyethylene 1pc. Mold
INSULATION	Polyurethane Foam
WEIGHT	Net 300lbs. (136kg), Shipping 335lbs. (152kg)
CONNECTION -ELECTRIC	Power Cord
-DRAIN	3/4" FPT (2 pls.)
-SYRUP	8 Inlets (1/4" O.D.)
-CARBONATED WATER	3 Inlets (3/8" O.D.) 1circuit non-carbonated water available
GEAR MOTOR AGITATOR	60W Stainless Steel Round Bar 14.5"dia.
GEAR MOTOR PROTECTION	Thermal Protector (Internal)
LOW VOLTAGE CIRCUIT PROTECTION	3 & 3.5A CIRCUIT BREAKER
ACCESSORIES-OPTIONAL	4" Leg -4 pcs.
OPERATING CONDITIONS	VOLTAGE RANGE 104-127V AMBIENT TEMP. 45-100°F
DRAWING NO. (DIMENSIONS)	3A0305

RECOMMENDED ICE MAKER INSTALLED KM-500/630SERIES
ON UNIT WITH TOP KIT (OPTION)

We reserve the right to make changes in specifications and design without prior notice.

[d] DM-180AX

ITEM: HOSHIZAKI ICE DISPENSER
MODEL: DM-180AX

BEGINNING SERIAL NO. E20001G
ENDING SERIAL NO.

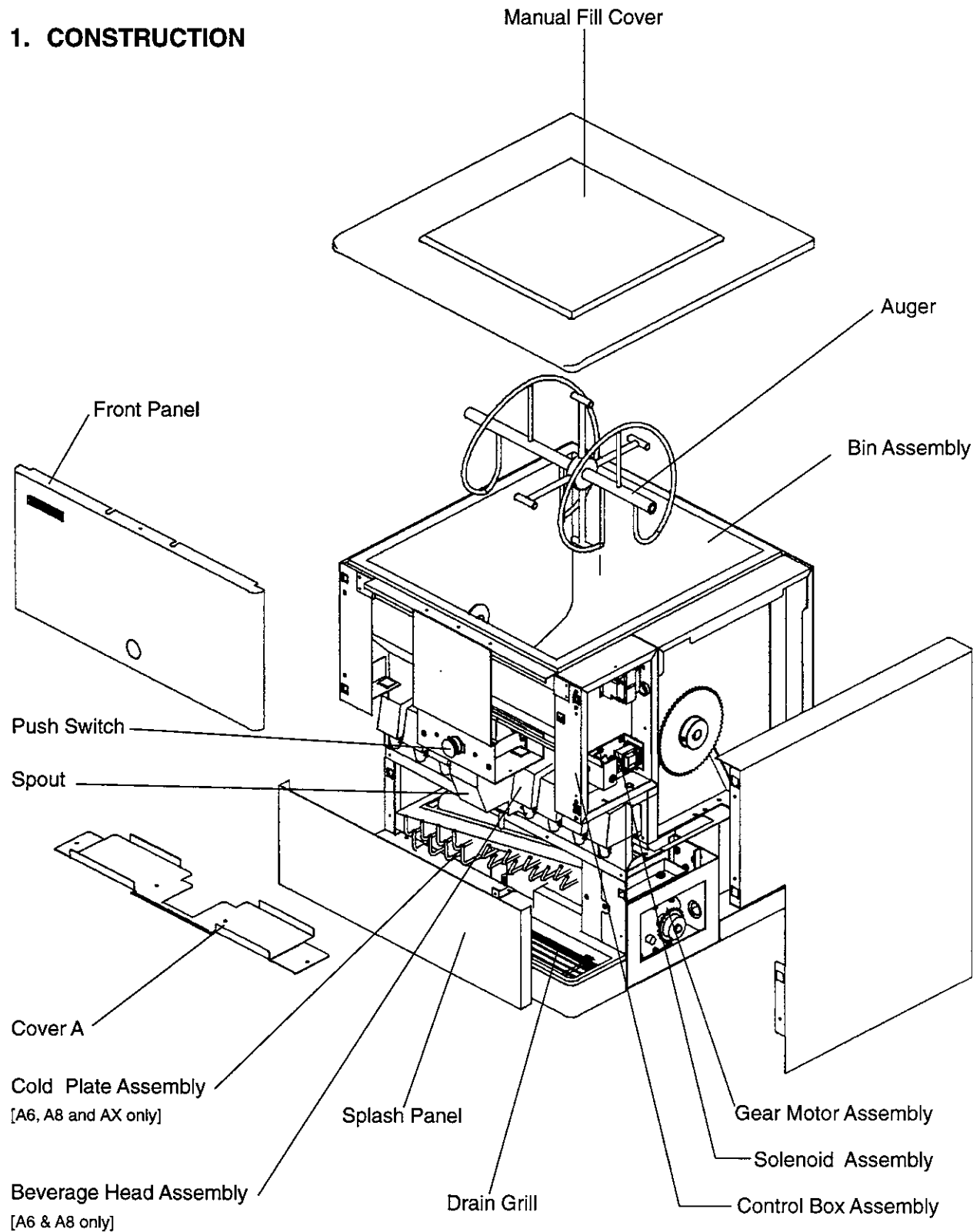
AC SUPPLY VOLTAGE	115/60/1
AMPERAGE	1.5A
MINIMUM CIRCUIT AMPACITY	15A
MAXIMUM FUSE SIZE	15A
APPROXIMATE ELECTRIC CONSUMPTION	190W
APPROXIMATE STORAGE CAPACITY	180lbs. (82kg)
EXTERIOR DIMENSIONS (WxDxH)	30"x30"x36.5" (762x762x927mm) (including 4"leg)
INTERIOR DIMENSIONS (WxDxH)	23.3"x22.4"x22.5" (592x569.5x571mm)
EXTERIOR FINISH	Stainless Steel, Galvanized Steel (Rear)
INTERIOR FINISH	Polyethylene 1pc. Mold
INSULATION	Polyurethane Foam
WEIGHT	Net 300lbs. (136kg), Shipping 335lbs. (152kg)
CONNECTION -ELECTRIC	Power Cord
-DRAIN	3/4" FPT (2 pls.)
-SYRUP	8 Inlets (1/4" O.D.)
-CARBONATED WATER	3 Inlets (3/8" O.D.) 1circuit non-carbonated water available
GEAR MOTOR AGITATOR	60W Stainless Steel Round Bar 14.5"dia.
GEAR MOTOR PROTECTION	Thermal Protector (Internal)
LOW VOLTAGE CIRCUIT PROTECTION	3 & 3.5A CIRCUIT BREAKER
ACCESSORIES-OPTIONAL	4" Leg -4 pcs.
OPERATING CONDITIONS	VOLTAGE RANGE 104-127V AMBIENT TEMP. 45-100°F
DRAWING NO. (DIMENSIONS)	3A0305

RECOMMENDED ICE MAKER INSTALLED KM-500/630SERIES
ON UNIT WITH TOP KIT (OPTION)

We reserve the right to make changes in specifications and design without prior notice.

II. GENERAL INFORMATION

1. CONSTRUCTION



III. PROPER INSTALLATION PROCEDURES

IMPORTANT

Only qualified service technicians should attempt to install, service or maintain the ice/beverage dispenser. No service or maintenance should be undertaken until the technician has thoroughly read this Service Manual.

1. PROPER INSTALLATION CHECKS

- All tape, packing material, and shipping cartons should be removed from the machine and properly discarded.
- The protective films on the side panels should be removed before the unit is placed in operation.
- The voltage supply should correspond with the voltage requirements specified on the NAMEPLATE (located on the upper RIGHT side of the Rear Panel).

2. LOCATION

IMPORTANT

This ice dispenser is not intended for outdoor installation. The air temperature should be within a 45° F to 100° F range. Extended periods of operation at temperatures exceeding these limitations may cause unsatisfactory results.

- The machine should be on a flat, solid (firm) location.
- The air temperature range at the location should be between 45° F and 100° F.
- Keep the unit away from ovens, grills or other high heat producing equipment.
- It is recommended that the dispenser be located near a drain, and in a location where water can not collect on the floor.
- The installation site should be where dripping is allowed.
- There should be a minimum clearance of 24 inches (60 cm.) above the ice dispenser for easy filling with ice.
- A minimum of 6 inches (15 cm.) clearance on the right side of permanently installed ice dispensers should be allowed - for access to service the drive mechanism.

IMPORTANT

It is extremely important that the ice dispensing bin be leveled in both the left-to-right, and the front-to-rear directions. If it is not level, unsatisfactory performance in beverage cooling and/or a reduced rate of ice flow may result.

3. ELECTRICAL CONNECTION

This ice dispenser requires a proper electrical ground that meets the national and local electrical code requirements. ONLY plug it into a 115 volt, 15 amp outlet with a grounding connection (115V / 15Amp / 60Hz). Refer to the NAMEPLATE for the proper electrical specifications.

CAUTION

The GREEN grounding wire in the factory installed power cord is attached to a screw on the frame. If it becomes necessary to remove or replace the power cord, be sure to attach the ground wire of the cord to this screw on the frame.

4. DRAIN CONNECTION (Refer to Fig. 1)

- 1) The 3/4" female pipe thread drain outlet is located at the rear of the ice dispenser.
- 2) All horizontal runs of drain pipe must have a 1/4 inch drop per foot to promote good drainage. See the Drain Connection diagram (Fig. 1).
- 3) Drains should not be piped directly to a sewer system. An air gap of a minimum of 2 vertical inches should be between the end of the drain pipe from the ice dispenser and the floor drain.
- 4) The plumbing from the ice dispenser drain must be separate from the plumbing of other drains.

Separate plumbing to approved drain is required.
Horizontal runs must have 1/4" drop per foot.

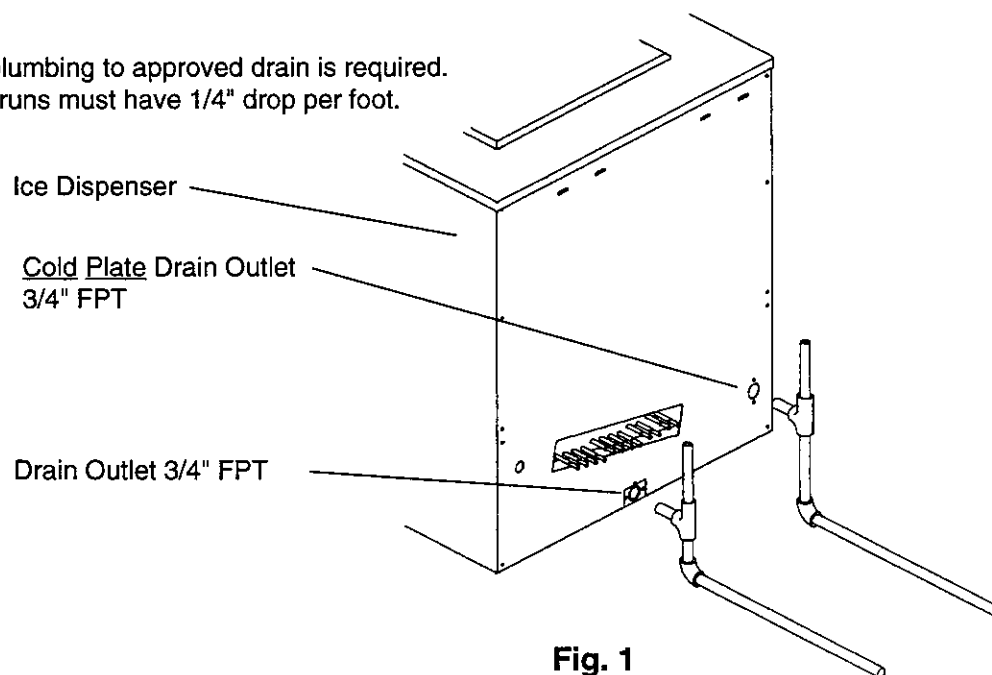


Fig. 1

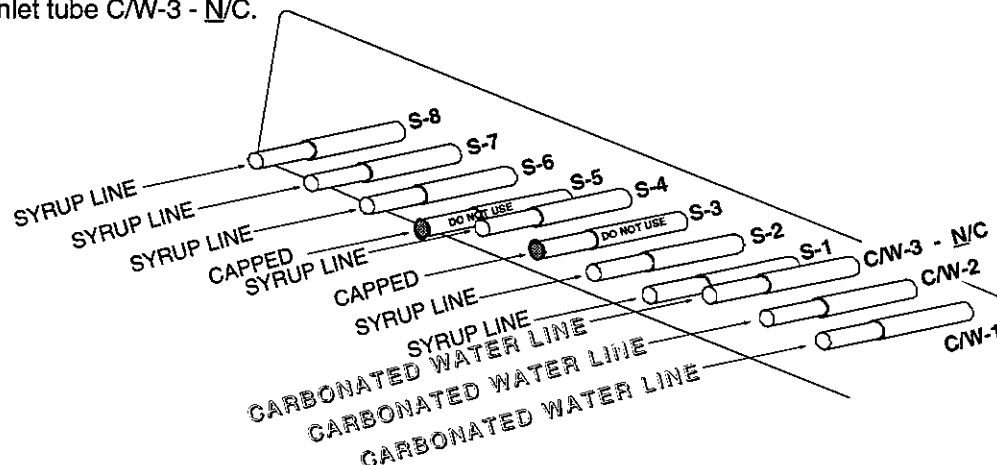
5. BEVERAGE LINE CONNECTION

[a] DM-180A6

Follow instructions **A** (and illustration) when preparing the DM-180A6 to dispense carbonated beverages from the 6 dispensing valves. Follow instructions **B** (and illustration) when preparing the unit to dispense 5 carbonated beverages and 1 non-carbonated beverage.

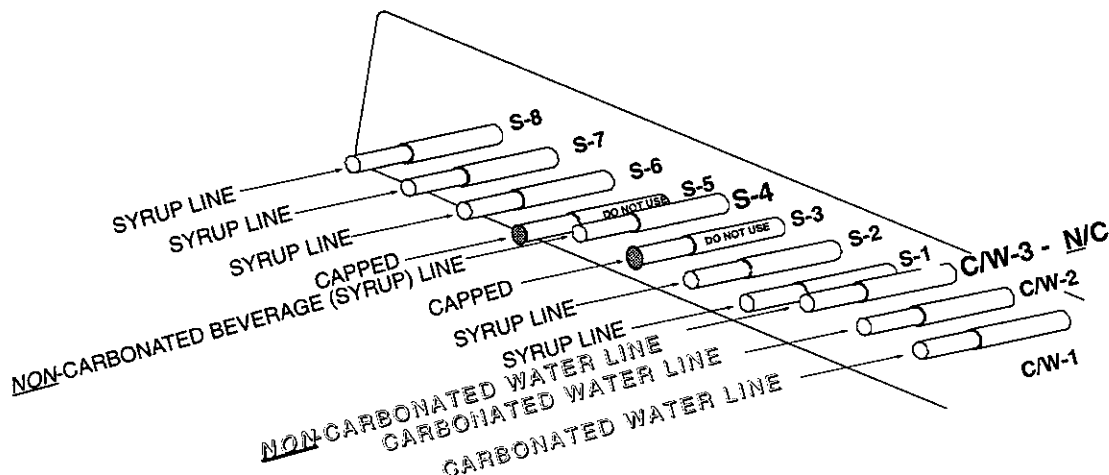
A. Dispense 6 carbonated beverages.

1. Connect a syrup line to each of the following inlet tubes: S-1, S-2, S-4, S-6, S-7, and S-8. **DO NOT** uncap inlet tube S-3 or S-5.
2. Connect one carbonated water line to inlet tube C/W-1, the second to inlet tube C/W-2, and the third to inlet tube C/W-3 - N/C.



B. Dispense 5 carbonated beverages and 1 non-carbonated beverage.

1. Connect a syrup line to each of the following inlet tubes: S-1, S-2, S-6, S-7, and S-8. **DO NOT** uncap syrup inlet tube S-3 or S-5.
2. Connect the non-carbonated beverage (syrup) line to inlet tube S-4. **NOTE:** The non-carbonated beverage (syrup) line **MUST BE** connected to S-4.
3. Connect one carbonated water line to inlet tube C/W-1 and the second to inlet tube C/W-2. Connect the non-carbonated water line to inlet tube C/W-3 - N/C.

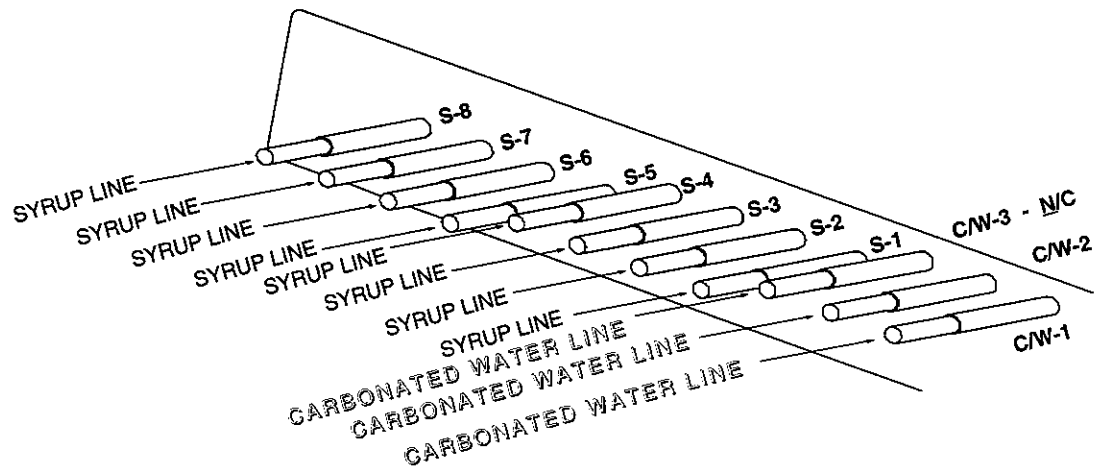


[b] DM-180A8, AX

Follow instructions **A** (and illustration) when preparing the DM-180A8 to dispense carbonated beverages from the 8 dispensing valves. Follow instructions **B** (and illustration) when preparing the unit to dispense 7 carbonated beverages and 1 non-carbonated beverage.

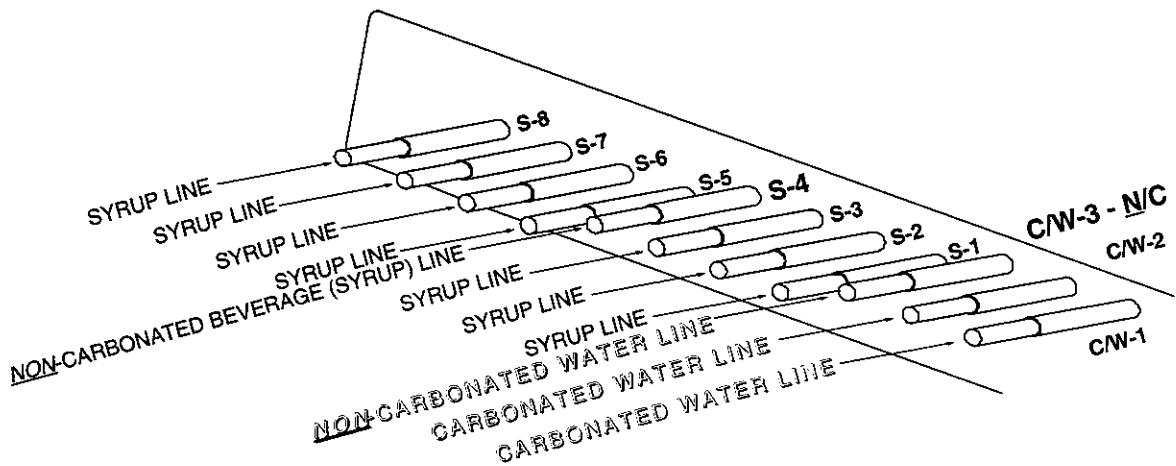
A. Dispense 8 carbonated beverages.

1. Connect a syrup line to each of the following inlet tubes: S-1, S-2, S-3, S-4, S-5, S-6, S-7 and S-8.
2. Connect one carbonated water line to inlet tube C/W-1, a second to inlet tube C/W-2 and a third to inlet tube C/W-3 - N/C.



B. Dispense 7 carbonated beverages and 1 non-carbonated beverage.

1. Connect a syrup line to each of the following inlet tubes: S-1, S-2, S-3, S-4, S-5, S-6, S-7, and S-8.
2. Connect the non-carbonated beverage (syrup) line to inlet tube S-4. **NOTE:** The non-carbonated beverage (syrup) line **MUST BE** connected to S-4.
3. Connect one carbonated water line to inlet tube C/W-1 and the second line to C/W-2. Connect the non-carbonated water line to inlet tube C/W-3 - N/C.

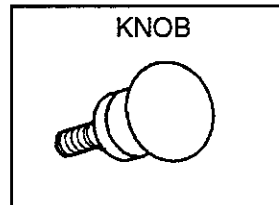
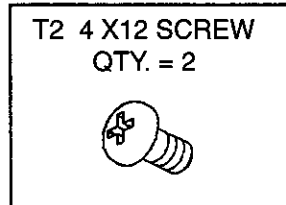


6. TOP KIT INSTALLATION

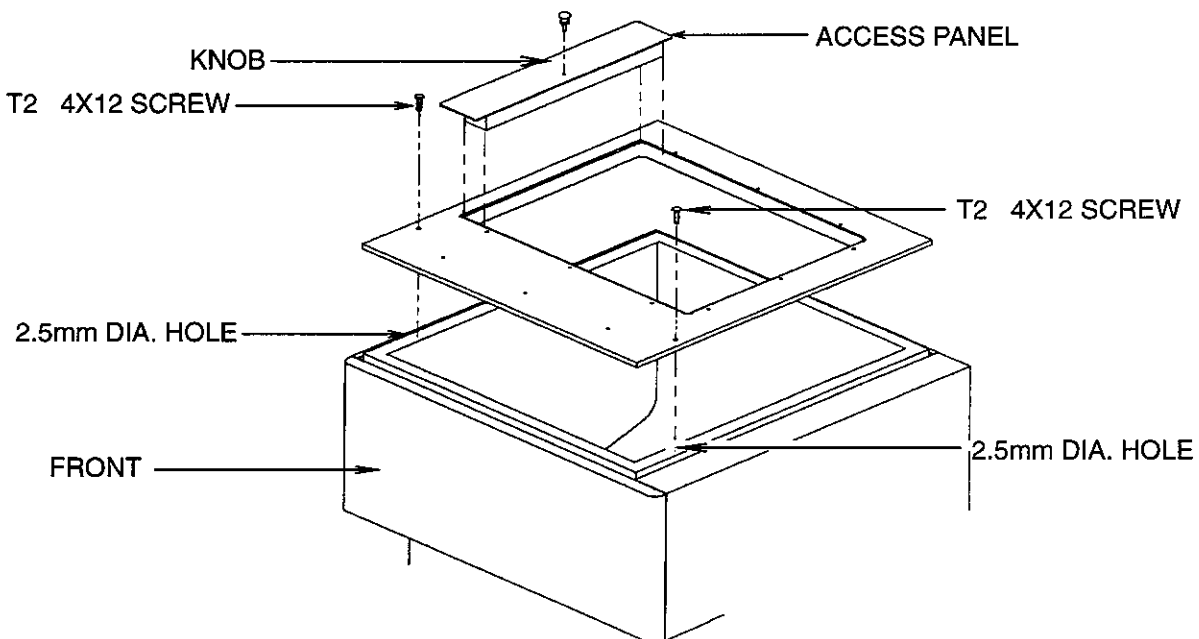
IMPORTANT

When installing a KM model ice machine, a TOP KIT is required.

- 1) Check to make sure that all mounting accessories are in the carton.



- 2) Place the TOP KIT on the dispenser bin top. Position it on the bin so that the two mounting holes are near the front of the bin as illustrated.
- 3) Mark and drill two (2) 2.5mm (3/32") diameter holes in bin flange.



- 4) Secure the TOP KIT to the bin with the two furnished screws.
- 5) Attach KNOB to the access panel (by screwing it into the threaded hole).
- 6) Install the ACCESS PANEL.
- 7) Center and secure the ice machine on the TOP KIT. This kit is only compatible with the KM-500M and KM-630M ice machines. The back of the icemaker should be even with the back of the DM-180A.
- 8) Secure the KM icemaker to the DM-180A using the two brackets and the screws supplied with the KM icemaker.

7. FINAL CHECK LIST

- 1) Is the ice dispenser level?
- 2) Is the ice dispenser located in a site where the ambient temperature will be within the 45° F to 100° F range - year round?
- 3) Is there at least 24 inch (60 cm.) clearance above the ice dispenser for easy filling with ice? If the unit has been permanently installed, has at least 6 inches (15 cm.) clearance been made available at the right side for servicing the drive mechanism?
- 4) Have all shipping cartons, tapes, and packing materials been removed from the ice dispenser?
- 5) Have all electrical and piping connections been properly made?
- 6) Has the power supply voltage been checked or tested against the nameplate rating?
Has the ice dispenser been plugged into an outlet with a grounded connection?
- 7) Has the ice dispenser been cleaned properly?
- 8) Has the instruction manual been left with the machine?
- 9) Has the owner/manager been given the name and telephone number of Hoshizaki Service Representative?
- 10) Has the Warranty Registration Card been filled out and forwarded to the factory for warranty registration?
- 11) Has each of items above been accomplished?

8. START UP

- 1) Sanitize the ice dispenser and beverage system before START UP. Refer to SANITIZING PROCEDURE in Section IV.
- 2) Remove the top and use a clean sanitary container for filling the ice dispenser with ice. Reinstall the top.
- 3) Verify proper operation by pushing the button and observing ice cubes being dispensed.
- 4) Allow approximately 15 minutes "cool down" time for the Cold Plate to chill.
- 5) Perform the Ratio Control and Brix on each Flomatic 404 valve (On DM-180A6 and DM-180A8 models only) on units having 6 or 8 dispensing heads. Make the two required adjustments on each valve. A syrup separator (standard 5:1 ratio brix cup) and 5/32" Allen (hex) wrench are necessary for making the adjustments.

NOTE: Refer to the dispensing valve manufacturer's instructions for more detail (A6 and A8 models only) .

NOTE: The DM-180AX model has no factory-installed valves. Adjust the valves installed on this model according to the valve manufacturer's recommendations.

- a) To adjust each valve, remove its Syrup Nozzle and place the syrup separator over the syrup tube.
- b) After setting the soda flow rate, set the syrup ratio (5:1) in exactly the same manner.
- c) For fast flow, adjust the screw CLOCKWISE until 7 1/2 ozs. of soda is dispensed in 3 seconds.
- d) Should additional valve adjustment become necessary in the future, use the Allen wrench to turn an adjustment screw either CLOCKWISE (increase flow) or COUNTER CLOCKWISE (decrease flow) - NEVER completely remove the screw while the system is under pressure!

9. PREPARING THE ICE DISPENSER FOR LONG STORAGE

IMPORTANT

When preparing the ice dispenser for storage, remove all ice, and thoroughly flush each beverage dispensing valve on units so equipped, to remove any syrup residue. The dispenser should be cleaned and wiped dry prior to sanitizing.

- 1) Turn the power supply switch off after removing all ice. Unplug the ice dispenser's plug from the power source receptacle.
- 2) Thoroughly flush the beverage system, on units so equipped, to remove any syrup residue. The ice dispensing bin should be properly cleaned and wiped dry.

IV. MAINTENANCE INSTRUCTIONS

IMPORTANT

Ensure all components, fasteners and thumbscrews are securely in place after any maintenance or cleaning is done to the equipment.

1. CLEANING INSTRUCTIONS

CAUTION

1. HOSHIZAKI recommends cleaning the ice dispenser, and also the beverage system (when so equipped) at least once a year. More frequent cleaning may be required, depending on existing water conditions.
2. To promote safety, always shut off the electricity to the machine BEFORE any cleaning and maintenance procedures are started. To prevent possible personal injury, damage to the ice dispenser, and/or beverage system, DO NOT use ammonia based cleaning solutions.
3. Cleaning and sanitizing solutions are potentially toxic materials—handle them with care. DO NOT let any cleaning or sanitizing chemicals or mixed solutions touch skin surfaces, get into eyes, or be ingested.
4. When handling cleaning and sanitizing solutions, always wear liquid-proof gloves. This safety precaution will minimize cleaning or sanitizing solution contact with hands, which could result in possible skin irritation.
5. Remove all ice cubes from the bin prior to cleaning and sanitizing. DO NOT let ice cubes come into contact with the solutions, as contamination can occur. Any ice cubes which are suspected of being contaminated should be discarded.

[a] CLEANING PROCEDURE

- 1) Clean and sanitize the ice dispensing bin (Refer to the "MAINTENANCE LABEL" instructions on the ice dispenser) as conditions require.
- 2) Remove all ice from the bin.
- 3) Disconnect electrical power to the dispensing bin.

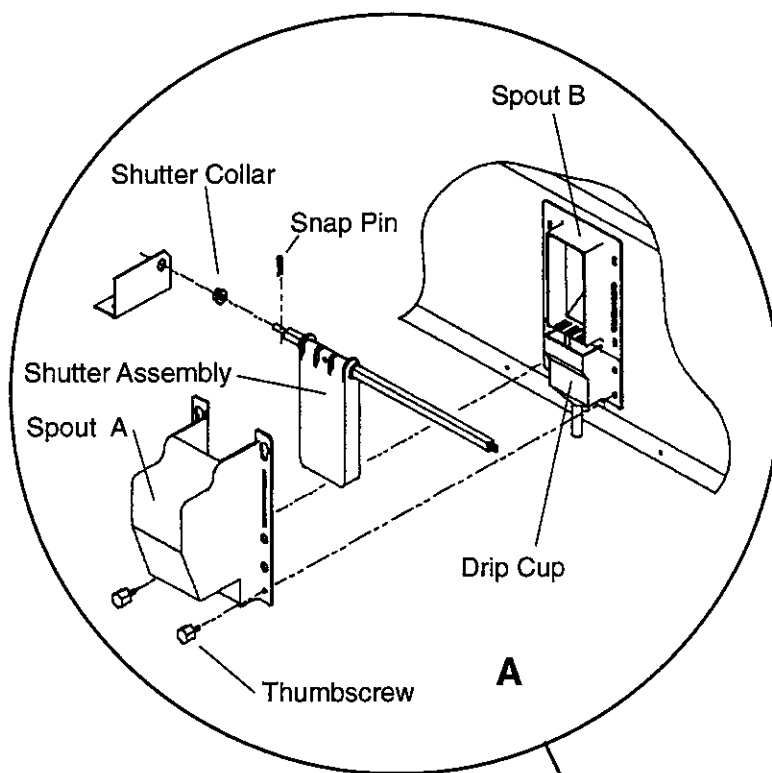
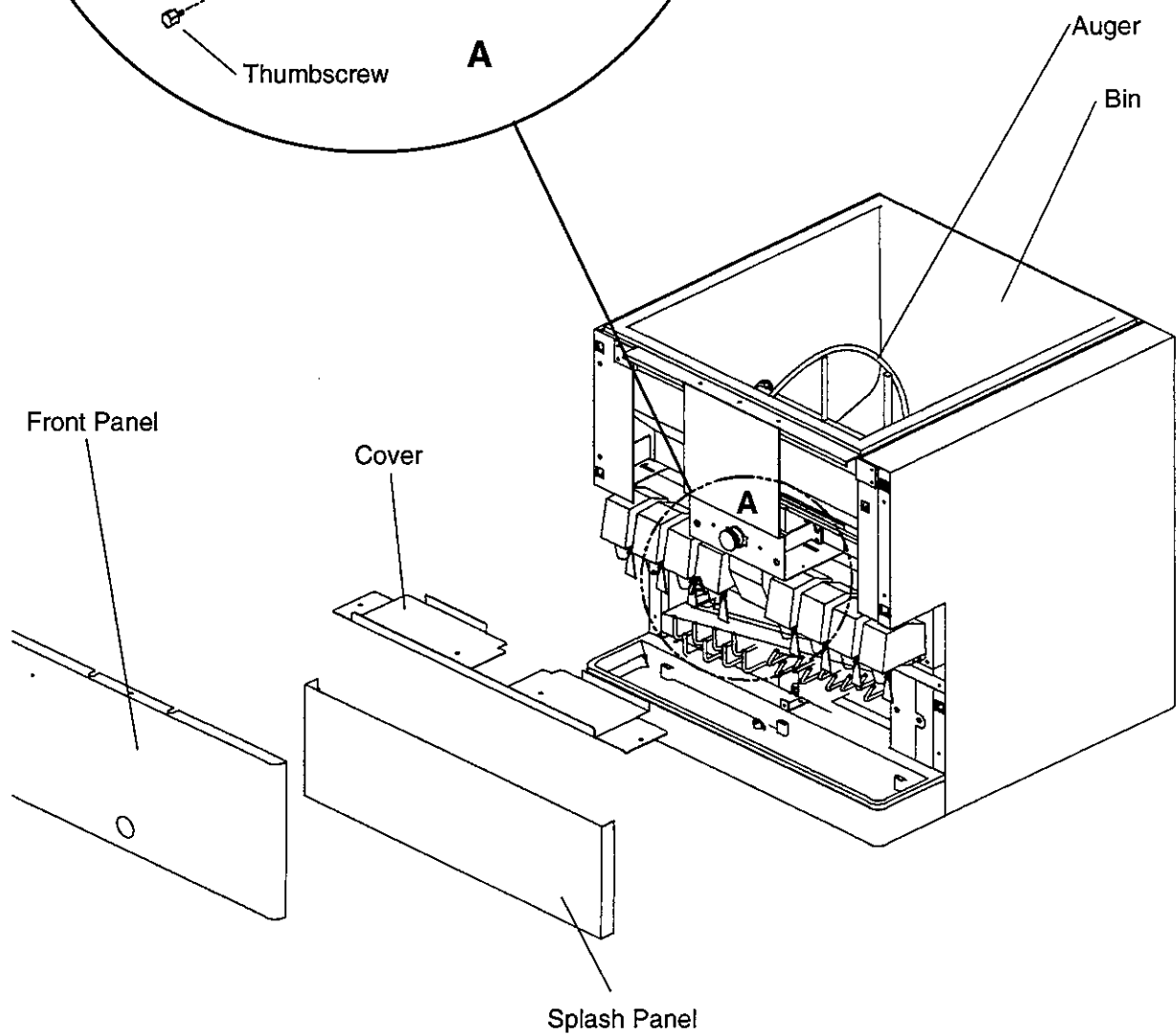


Fig. 2



- 4) Remove the Splash Panel to allow access to the Spout assembly for cleaning (See Fig. 2).
- 5) Remove both Thumbscrews and then remove the Spout.
- 6) Remove the Snap Pin and slide the Shutter Shaft to the LEFT. Remove the Shutter from the dispenser bin.
- 7) Use a nylon scouring pad, brushes, and cleaning solution to scrub the Bin, Auger, Shutter assembly, and Spout. Make the cleaning solution by diluting approximately 5 oz. of Economic Laboratories Inc.'s Lime-A-Way concentrate (recommended cleaning solution), in one gallon of clean water.
- 8) Rinse all parts thoroughly with clean water BEFORE they are sanitized and reinstalled.

[b] SANITIZING PROCEDURE - Following Cleaning Procedure

- 1) Use a 5.25% sodium hypochlorite solution at a ratio of 1/2 oz. to 1 gallon of clean water to sanitize all parts described in item 7.
- 2) Rinse all parts thoroughly with clear water.
- 3) Reassemble the parts in the reverse order of removal.
- 4) Reconnect the electrical power. See Section 3 - "ELECTRICAL CONNECTION".
- 5) Check for proper operation.

[c] MAINTENANCE - Exterior Panels

- 1) To prevent corrosion from developing on exterior surfaces, occasionally wipe the surfaces with a clean, soft cloth. Use a damp cloth containing a neutral cleaning solution to wipe off any oil or dirt buildup.

2. BEVERAGE SYSTEM - MAINTENANCE AND CLEANING INSTRUCTIONS

NOTE

Beverage systems on HOSHIZAKI Ice Dispensers should be cleaned, rinsed and sanitized at least once a year.

Procedures below cover the cleaning, rinsing and sanitizing of the beverage system components that HOSHIZAKI provided, including Cold Plate lines, beverage tubing and dispensing valves.

Please consult the suppliers and/or manufacturers of all other beverage system components. Refer to their literature for information and recommendations covering the proper care, maintenance and cleaning procedures (including cleaning solution compatibility) for the components they supply.

[a] CLEANING PROCEDURE

- 1) A pressure of 60 psi should be used for the cleaning and sanitizing procedures.
- 2) Mild detergent should be dissolved in 1 to 3 gallons of 120° F to 140° F clean water. Prepare this cleaning solution in a clean, empty, container.
- 3) Fill a clean 5 gallon rinse water container with cold tap water.
- 4) Disconnect one syrup line from the syrup supply. Connect the line to the cleaning solution container.
- 5) Dispense the cleaning solution through the line and through the beverage valve for a duration of 2 to 5 minutes.
- 6) Allow the cleaning solution to remain in the line and valve for 5 minutes. Disconnect the syrup line from the cleaning solution container, and connect it to the rinse water container. Rinse the line for 2 to 5 minutes.
- 7) A6 and A8 models:

Carefully remove and disassemble the dispensing valve according to the instructions in the Flomatic Valve Cleaning Guide. Sanitize the valve as described in daily and weekly cleaning by using the sanitizing solution in place of hot water.

AX model:

Refer to the manufacturer's cleaning instructions for the valve that is installed in the AX model.

- 8) Repeat steps 1 through 7 for each syrup line and valve. The lines should not be reconnected to the syrup supply until they have been sanitized.

[b] SANITIZING PROCEDURE - Following Cleaning Procedure

- 1) Dilute 2.5 fl. oz. of 5.25% sodium hypochlorite in 5 gallons of clean water (200 PPM). Prepare the sanitizing solution in a clean, empty, container. Prepare enough sanitizer to flush all syrup circuits used on your unit. Five to seven gallons of solution is recommended for sanitizing six to eight syrup circuits. The water temperature should be between 120° F and 140° F.
- 2) Connect one syrup line to the sanitizing solution container. Dispense sanitizing solution through the line and beverage valve for a duration of 2 to 5 minutes.
- 3) Allow the sanitizing solution to remain in the line and valve for 5 minutes. Disconnect the line from the sanitizing solution container, and reconnect it to the syrup supply.
- 4) Repeat steps 1 through 3 for each syrup line and valve.
- 5) Dispense product through each dispensing valve until the taste of the sanitizing solution is gone.

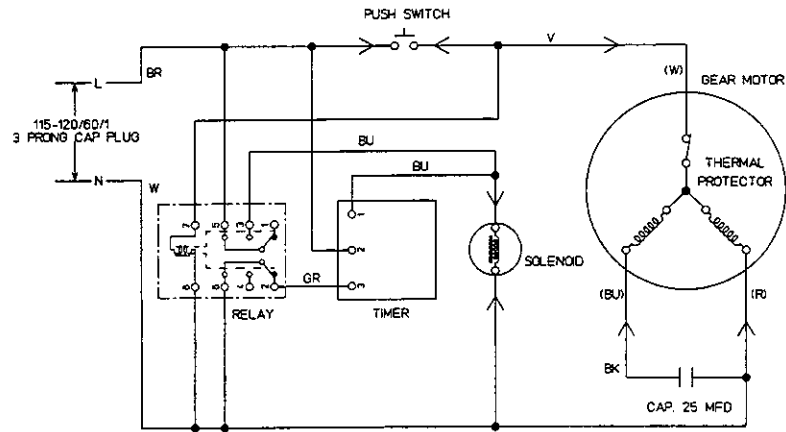
V. TECHNICAL INFORMATION

1. WIRING DIAGRAMS

DM-180A

WIRE COLOR CODE

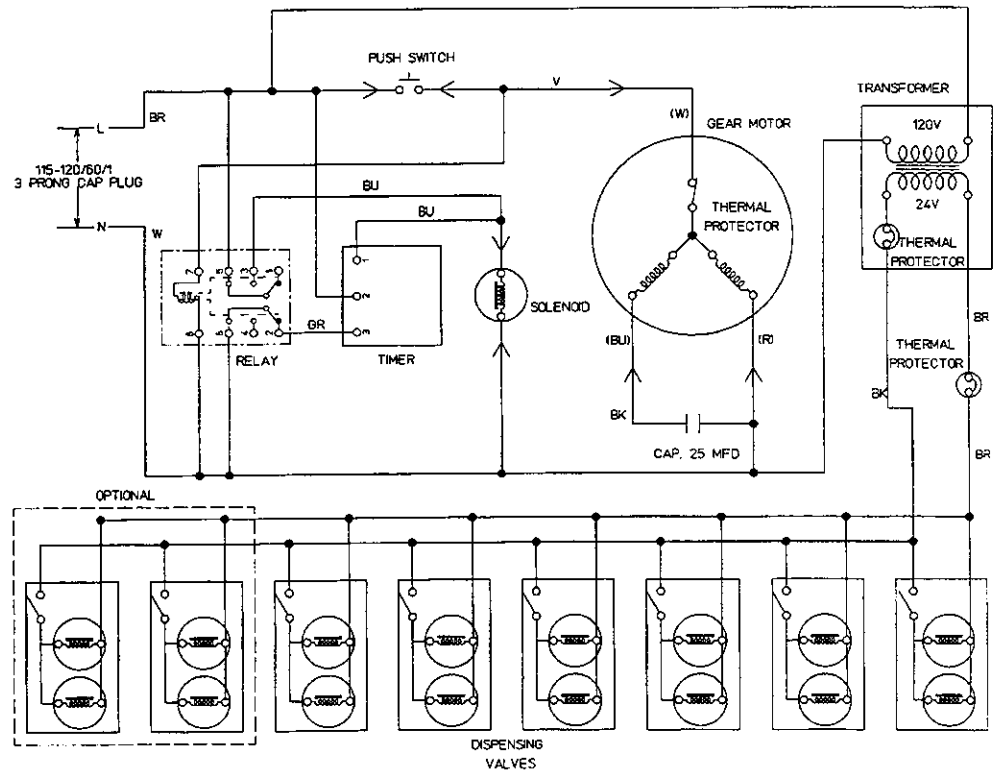
BR	BROWN
BK	BLACK
BU	BLUE
W	WHITE
V	VIOLET
R	RED
GR	GRAY



DM-180A6, DM-180A8, DM180AX

WIRE COLOR CODE

BR	BROWN
BK	BLACK
BU	BLUE
W	WHITE
V	VIOLET
R	RED
GR	GRAY



VI. SERVICE DIAGNOSIS

PROBLEM	POSSIBLE CAUSE		REMEDY
[1] No ice dispensed	a) Power Source	1. In "OFF" position (Disconnected)	1. Move to "ON" position (Connect)
		2. Loose connection	2. Tighten
		3. Bad contacts	3. Check for continuity, and replace
	b) Gear Motor	1. Thermal protection operated	1. Check for Voltage and Ambient Temperature
		2. Open Gear Motor	2. Replace Gear Motor winding
		3. Bearing worn out	3. Replace Gear Motor
		4. Wiring to Gear Motor	4. Check for loose connection or open circuit and replace wiring as needed
		5. Defective capacitor	5. Replace
		6. Agitator rotates in reverse direction	6. Check leads and reverse connections
	c) Solenoid	1. Open Solenoid wiring	1. Replace
		2. Wiring to Solenoid	2. Check for loose connection or open circuit and replace wiring as needed
		3. Overload caused by loose screws	3. Tighten screws and coat parts with screw locking compound
	d) Mechanism	1. Chain loose or out of position	1. Tighten or reposition and then tighten
		2. Corrosion	2. Apply oil
		3. Sprocket key isn't in proper position	3. Reposition sprocket key
		4. Sprocket out of alignment	4. Realign sprocket
		5. Agitator interrupted by foreign matter	5. Remove the foreign matter
	e) Ice Storage	1. Small quantity, or no ice in storage bin	1. Fill bin with ice

PROBLEM	POSSIBLE CAUSE		REMEDY
[2] Abnormal noises	a) Gear Motor or Gear Head	1. Bearing worn out	1. Replace Gear Motor
		2. Grease leaks	2. Replace Gear Motor
	b) Mechanism	1. Sprocket out of alignment	1. Realign and secure sprocket
		2. Agitator interrupted by foreign matter	2. Remove the foreign matter
	c) Solenoid	1. Overload (noise) caused by loose screws	1. Tighten screws and coat parts with screw locking compound
[3] Ice supply in storage bin often melts	a) Bin Drain	1. Clogged drain	1. Unclog the drain
[4] No beverage dispensed	a) Power Source	1. In "OFF" position (Circuit Protector)	1. Move to "ON" position (Circuit Protector)
		2. Loose connection	2. Tighten
	b) Circuit Protector	1. Circuit protector tripped	1. Reset circuit protector
		2. Circuit protector at transformer tripped	2. Reset circuit protector
	c) Beverage source	1. CO2 empty	1. Replace CO2
		2. Syrup empty	2. Replace syrup
		3. No pressure	3. Check CO2 and carbonater pressure

VII. REMOVAL AND REPLACEMENT

1. GEAR MOTOR AND CHAIN

- [a] Disconnect the power source.
- [b] Remove the Front Panel, Splash Panel and Right Side Panel.
- [c] Loosen the four (4) bolts holding the Gear Motor Bracket Assembly and the Adjusting Bolt.
- [d] Disconnect electrical circuit.
- [e] Remove the Chain.
- [f] Remove the Gear Motor Assembly.
- [g] Loosen the Sprocket Set Screw and use a gear puller to remove the Sprocket.
- [h] Remove the four (4) bolts holding the Gear Motor.
- [i] Install a new Gear Motor by reversing disassembly procedures.
- [j] Reassemble components by reversing disassembly procedures.
 - 1) After the chain has been reinstalled, it should be checked for proper looseness. Add a (2.2 lb.) weight at the chain's center. The chain must have from 0.31 to 0.51 inches of looseness at the center.
 - 2) Use a cloth to deposit the (Class SAE 20) lubricant on the chain.
- [k] Reconnect the power source.

2. SOLENOID

- [a] Discount the power source.
- [b] Remove the Front Panel, Splash Panel and Right Side Panel.
- [c] Disconnect the connectors from the Solenoid Leads, and remove the Solenoid Assembly.
- [d] Remove the Solenoid, and reverse disassembly procedures to install a new Solenoid. Locking torque is 13 to 17.3 in-lbs.
- [e] Reassemble components by reversing disassembly procedures.
- [f] Reinstall the Panels.
- [g] Reconnect the power source.

3. TRANSFORMER

- [a] Disconnect the power source.
- [b] Remove the Front Panel, Splash Panel and Right Side Panel.
- [c] Disconnect the connectors from the Transformer Leads, and remove the Transformer.
- [d] Remove the Solenoid, and reverse disassembly procedures to install a new Transformer. Locking torque is 13 to 17.3 in-lbs.
- [e] Reassemble components by reversing disassembly procedures.
- [f] Reinstall the Panels.
- [g] Reconnect the power source.

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