

Operation Manual



IBD 25



IBD 30



IBD 22



IBD 44



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TABLE OF CONTENTS

ABOUT THIS MANUAL

This manual is an integral and essential part of the product and should be handed over to the operator after the installation to keep as a reference. Please read carefully the guidelines and warnings contained herein as they are intended to provide the user with essential information for the continued safe use and maintenance of the product. In addition, it provides ***GUIDANCE ONLY*** to the user on the correct services and site location of the unit.

The installation or relocation of this product must be carried out by qualified personnel with up-to-date safety and hygiene knowledge and practical experience, in accordance with current regulations.

BEFORE GETTING STARTED

Each unit is tested under operating conditions and is thoroughly inspected before shipment. At the time of shipment, the carrier accepts responsibility for the unit. Upon receiving the unit, carefully inspect the carton for visible damage. If damage exists, have the carrier note the damage on the freight bill and file a claim the with carrier. Responsibility for damage to the dispenser lies with the carrier.

IMPORTANT SAFETY INSTRUCTIONS.....3-6

Intended Use.....	4
Electrical Warning	4
CO ₂ Warning.....	5
CO ₂ Safe Handling and Storage	5
Water Notice.....	5-6
Automatic Agitation Warning.....	6

SPECIFICATIONS AND FEATURES.....7-11

IBD Series 4500 22”	7
IBD Series 4500 25”	8
IBD Series 4500 30”	9
IBD Series 4500 44”	10
General Systems Overview-Remote Syrup Pumps ..	11

PRE-INSTALLATION CHECKLIST..... 11

INSTALLATION..... 12-21

Unpacking the Dispenser	12
Selecting/Preparing a Counter Location.....	12-13
Drain Spider	14
Dispenser Installation.....	15
Installing Remote Syrup Pumps-Bag-In-Box (BIB)..	16
Installing CO ₂ Supply	17
Dispenser Setup	18
Installing an Ice Maker (Optional)	19
Water Flow Rate & Syrup/Water Ratio Adjustments ..	20
Volumetric Valve Adjustment	21

SERVICE OPERATION.....22-26

Ice Dispensing.....	22
Removal and Installation of Flow Controls.....	22
Ice Delivery System	23
Ice Board and Ice Agitation Control Settings	23-24
Agitator Motor Removal	25
LEV Dispensing Valve Replacement	26

CLEANING AND SANITIZING.....27-30

General Information	27
Cleaning and Sanitizing Solutions	28
Scheduled Maintenance/Cleaning	28
Cleaning and Sanitizing Nozzles	29
Cleaning and Sanitizing Syrup Lines-Bag-In-Box (BIB).	29
Ice Chute Cleaning.....	30
Ice Bin Cleaning	30

TROUBLESHOOTING.....31-35

Valve, Syrup/Flavor Line	31-33
Ice Bin/Ice Chute/Carbonator Pump.....	33
Remote Syrup Pump	33-34
LED Warnings.....	34
Automatic Agitation.....	35

ILLUSTRATIONS AND PART LISTINGS36-47

Main Unit Assembly (IBD 22, IBD 25, IBD 30)	36-37
Subassemblies (IBD 22, IBD 25, IBD 30).....	38
Main Unit Assembly (IBD 44)	39-40
Subassemblies (IBD 44).....	41-42
Wiring Diagram - 115 Volt, 60 Hz (IBD 22, IBD 25, IBD 30).....	43
Wiring Diagram - 230 Volt, 50/60 Hz (IBD 22, IBD 25, IBD 30).....	44
Wiring Diagram - 115 Volt/ 230 Volt (IBD 44).....	45
Ice Agitation Controls	46
Plumbing Diagrams.....	46-47
Counter Cutout - IBD 22	48
Counter Cutout - IBD 25	49
Counter Cutout - IBD 30	50
Counter Cutout - IBD 44.....	51

IMPORTANT SAFETY INSTRUCTIONS

READ ALL SAFETY INSTRUCTIONS BEFORE USING THIS UNIT.

This manual contains important safety information, and all applicable safety precautions must be observed. To reduce the risk of fire, electric shock, damage to the equipment, or personal injury when using this unit all instructions/warnings on the product being used must be followed. Be sure to read all Warning, Caution, Attention, and Note statements before proceeding with the installation.

WARNING

Text following the Warning signal indicates a hazardous situation, which if not avoided, will result in death or serious injury.

AVERTISSEMENT

Le texte suivant le signal d'avertissement indique une situation dangereuse qui, si elle n'est pas évitée, entraînera la mort ou des blessures graves.

CAUTION

Text following the Caution signal indicates a hazardous situation, which if not avoided, could result in minor or moderate injury.

MISE EN GARDE

Le texte suivant le signal d'avertissement indique une situation dangereuse qui, si elle n'est pas évitée, pourrait entraîner des blessures mineures ou modérées.

ATTENTION

Text following the Attention signal addresses a situation that if not followed could potentially damage the equipment.

ATTENTION

Le texte suivant le signal Attention fait référence à une situation qui, si elle n'est pas respectée, pourrait potentiellement endommager l'équipement.

NOTE

Text following the Note signal provides you with information that may help you more effectively perform the installation procedures within this manual. Disregarding information will not cause damage or injury, however it may limit the performance of the dispenser.

REMARQUE

Le texte suivant la remarque fournit des informations qui peuvent vous aider à réaliser plus efficacement les procédures d'installation décrites dans ce manuel. Le non-respect de ces informations n'entraînera aucun dommage ni blessure, mais pourrait limiter les performances du distributeur.

Intended Use

The dispenser is for indoor use only. This unit is not a toy. Children should be supervised so as not to play with the appliance. It should not be used by children or infirm persons without supervision. This appliance can be used by children aged 8 years and above and persons with reduced physical, sensory, or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning the use of the appliance in a safe way and understand the hazards involved. The dispenser should only be installed in a location where it can be overseen by trained personnel, and it should never be installed in an area where a waterjet can be used. Cleaning and user maintenance shall not be performed by children without supervision. The min/max ambient operating temperature for the dispenser is 40°F to 105°F (4°C to 41°C) at a max altitude of 16,400 ft (5,000 m) with a maximum tilt of 5° for safe operation. Do not operate the unit outside these conditions. If freezing occurs, cease operation of the unit and contact the authorized service technician. The dispenser must be installed and serviced by a professional. During installation, old hose sets should not be reused to connect the unit to the water mains; new hose sets should always be used. Service, cleaning, and sanitizing should be accomplished only by trained personnel. Applicable safety precautions must be observed. Instruction warnings on the product being used must be followed.

Utilisation prévue

Ce distributeur de boissons est destiné à un usage intérieur uniquement. Cet appareil n'est pas un jouet. Les enfants doivent être surveillés afin qu'ils ne jouent pas avec. Il ne doit pas être utilisé par des enfants ou des personnes handicapées sans surveillance. Cet appareil peut être utilisé par des enfants de 8 ans et plus et des personnes ayant des capacités physiques, sensorielles ou mentales réduites, ou manquant d'expérience et de connaissances, à condition d'être supervisés ou d'avoir reçu des instructions concernant son utilisation en toute sécurité et d'en comprendre les dangers. Le distributeur de boissons doit être installé uniquement dans un endroit où il peut être surveillé par du personnel qualifié et jamais dans une zone où un jet d'eau peut être utilisé. Le nettoyage et l'entretien ne doivent pas être effectués par des enfants sans surveillance. La température ambiante minimale/maximale de fonctionnement du distributeur est de 4 °C à 41 °C (40 °F à 105 °F) à une altitude maximale de 5 000 m (16 400 pi) avec une inclinaison maximale de 5° pour un fonctionnement en toute sécurité. N'utilisez pas l'appareil en dehors de ces conditions. En cas de gel, cessez l'utilisation de l'appareil et contactez un technicien agréé. Le distributeur de boissons doit être installé et entretenu par un professionnel. Lors de l'installation, ne réutilisez pas les anciens tuyaux pour raccorder l'appareil au réseau d'eau ; utilisez toujours des tuyaux neufs. L'entretien, le nettoyage et la désinfection doivent être effectués uniquement par du personnel qualifié. Les précautions de sécurité en vigueur doivent être respectées. Les avertissements figurant sur le produit utilisé doivent également être respectés.

Electrical Warning

Check the dispenser nameplate label, located behind the splash plate, for the correct electrical requirements of the unit. Do not plug into a wall electrical outlet unless the current shown on the serial number plate agrees with the local current available. Follow all local electrical codes when making connections. Each dispenser must have a separate electrical circuit. Do not use extension cords with this unit. Do not gang together with other electrical devices on the same outlet. Do not locate multiple portable socket-outlets or portable power supplies at the rear of the appliance. The key switch does not disable the line voltage to the transformer primary. Always disconnect electrical power to the unit to prevent personal injury before attempting any internal maintenance. The resettable breaker switch should not be used as a substitute for unplugging the dispenser from the power source to service the unit. Only qualified personnel should service internal components of the electrical control housing. Make sure that all water lines are tight and units are dry before making any electrical connections. If the dispenser is installed in an area that is susceptible to a $\pm 10\%$ variation of the nominal line voltage, consider installing a surge protector or similar protection device.

Avertissement - Électricité

Reportez-vous à l'étiquette d'identification de la distributrice située derrière la plaque antiéclaboussures pour connaître les caractéristiques électriques de l'appareil. Ne branchez pas l'appareil dans une prise électrique murale à moins que le courant disponible corresponde à l'intensité nominale indiquée sur l'étiquette portant le numéro de série. Les raccordements électriques doivent être conformes au code électrique local. Chaque distributrice doit être branchée dans un circuit électrique dédié. Ne raccordez pas cet appareil à l'aide d'une rallonge électrique. Ne branchez pas cet appareil dans une prise électrique multiple partagée par d'autres appareils. Ne placez pas plusieurs prises d'alimentation multiples portables ou alimentations électriques portables à l'arrière de l'appareil. L'interrupteur verrouillable ne désactive pas la tension de ligne au primaire du transformateur. Débranchez toujours l'alimentation électrique de l'appareil avant une intervention d'entretien afin de prévenir des blessures. L'ouverture du disjoncteur à réarmement ne remplace pas le débranchement de la distributrice au moment de procéder à une intervention d'entretien. Seul le personnel qualifié est autorisé à faire l'entretien et la réparation des composants électriques logés dans le boîtier du module de commande. Veillez à ce que les conduites d'eau soient étanches et que l'appareil soit sec avant de procéder à des raccordements électriques. Si le distributeur est installé dans une zone susceptible de subir une variation de $\pm 10\%$ de la tension nominale de la ligne, pensez à installer un parasurtenseur ou un dispositif de protection similaire.

Carbon Dioxide (CO₂) Warning

- Carbon Dioxide (CO₂) is a colorless, noncombustible gas with a light pungent odor. High percentages of CO₂ may displace oxygen in the blood.
- Prolonged exposure to CO₂ can be harmful. Personnel exposed to high concentrations of CO₂ gas will experience tremors which are followed by a loss of consciousness and suffocation.
- If a CO₂ gas leak is suspected, immediately ventilate the contaminated area before attempting to repair the leak.
- Strict attention must be observed in the prevention of CO₂ gas leaks in the entire CO₂ and soft drink system.

Avertissement de dioxyde de carbone (CO₂)

- Le dioxyde de carbone (CO₂) est un gaz incolore et non combustible qui a une odeur âcre. Un pourcentage élevé de CO₂ réduit la quantité d'oxygène dans le sang.
- L'exposition prolongée au CO₂ est dangereuse pour la santé. Le personnel exposé à un taux élevé de CO₂ souffre de tremblements qui sont suivis par une perte de conscience et la suffocation.
- Si vous suspectez une fuite de CO₂, aérez immédiatement la zone contaminée avant de procéder à la réparation de la fuite.
- Il est impératif de prévenir toute fuite de CO₂ dans le système de distribution de CO₂ et de breuvage.

CO₂ Safe Handling and Storage

CO₂ cylinders should only be handled by trained personnel who are aware of the hazards associated with CO₂ gas. CO₂ cylinders should be handled with care. Never drag or drop a CO₂ cylinder. Never attempt to handle a leaking CO₂ cylinder. The valve should always be closed when handling a cylinder. If the cylinder is fitted with a valve cap, always verify the cap is secure before handling. Always store CO₂ cylinders in an upright position, properly chained, and in a well-ventilated area. Never store CO₂ cylinders near anything that emits high heat, and keep out of direct sunlight. Enclosed areas in which CO₂ is being stored should be equipped with a CO₂ monitoring system.

Manipulation et stockage sûrs du CO₂

Les bouteilles de dioxyde de carbone ne doivent être manipulées que par du personnel formé et conscient des dangers associés au gaz carbonique. Les bouteilles de dioxyde de carbone doivent être manipulées avec précaution. Ne jamais faire glisser ou laisser tomber une bouteille de dioxyde de carbone. N'essayez jamais de manipuler une bouteille de dioxyde de carbone qui fuit. La vanne doit toujours être fermée lors de la manipulation d'une bouteille. Si la bouteille est équipée d'un bouchon de valve, vérifiez toujours que le bouchon est bien fixé avant de manipuler la bouteille. Stockez toujours les bouteilles de dioxyde de carbone en position verticale et dans un endroit bien aéré. Ne rangez jamais les bouteilles de dioxyde de carbone à proximité de tout ce qui dégage beaucoup de chaleur et gardez-les à l'abri de la lumière directe du soleil. Les zones fermées dans lesquelles le dioxyde de carbone est stocké doivent être équipées d'un système de surveillance du dioxyde de carbone.

Water Notice

Provide an adequate potable water supply. Water pipe connections and fixtures directly connected to a potable water supply must be sized, installed, and maintained according to federal, state, and local laws.

- The water supply to the unit and to the remote carbonator pump deck must be at least a 3/8 inch (9.525 mm) pipe with a minimum of 50 psi (0.345 MPa) line pressure, but not exceeding a maximum of 145 psi (1.00 MPa). For best results, the water supply should have a static pressure between 80 psi (0.552 MPa) and 100 psi (0.689 MPa).
- Water pressure exceeding 145 psi (1.00 MPa) must be reduced to 145 psi (1.00 MPa) or below with a pressure regulator.
- Install a water line filter to prevent equipment damage and ensure beverage quality. Inspect and replace the filter periodically according to local water conditions.
- The water supply must be protected by means of an air gap, a backflow prevention device or another approved method to comply with NSF standards. A leaking inlet water check valve will allow carbonated water to flow back through the pump when it is shut off and contaminate the water supply. Ensure the backflow prevention device complies with ASSE and local standards. It is the responsibility of the installer to ensure compliance.

Remarque relative à l'eau

Assurez-vous que l'alimentation en eau potable est suffisante. Les branchements et les raccords de tuyauterie d'eau directement reliés à l'alimentation en eau potable doivent avoir la taille appropriée et être installés et entretenus conformément aux codes provincial et local.

- La conduite d'alimentation en eau doit avoir un diamètre minimum de 3/8 po (9,525 mm) et une pression minimale de 50 psi (0,345 MPa) sans toutefois excéder 145 psi (1,000 Mpa). Pour de meilleurs résultats, l'alimentation en eau doit avoir une pression statique comprise entre 80 psi (0,552 MPa) et 100 psi (0,689 MPa).
- Si la pression d'eau excède 145 psi (0,862 Mpa), réglez le régulateur de pression à 145 psi (1,000 Mpa).
- Installez un filtre dans la conduite d'eau pour protéger l'appareil et éliminer tout arrière-goût. Inspectez le filtre à eau régulièrement, selon les conditions du réseau local.
- Le circuit d'alimentation en eau doit être protégé au moyen d'un clapet antiretour, ou d'un dispositif antirefoulement ou d'une autre méthode conforme aux normes de la NSF. Dans le cas d'une fuite du clapet antiretour de la conduite d'alimentation, l'eau gazéifiée refoule à travers la pompe (lorsqu'elle n'est pas en service) et contamine ainsi l'alimentation en eau. Assurez-vous que le dispositif antirefoulement est conforme aux normes de l'ASSE et aux codes en vigueur localement. Cette tâche est de la responsabilité de l'installateur.

Automatic Agitation Warning

- Units are equipped with an automatic agitation system and will activate unexpectedly.
- Do not place hands or foreign objects in the ice bin tank. Unplug the dispenser during servicing, cleaning, and sanitizing.
- To avoid personal injury, do not attempt to lift the dispenser without assistance. For heavier dispensers, use a mechanical lift.

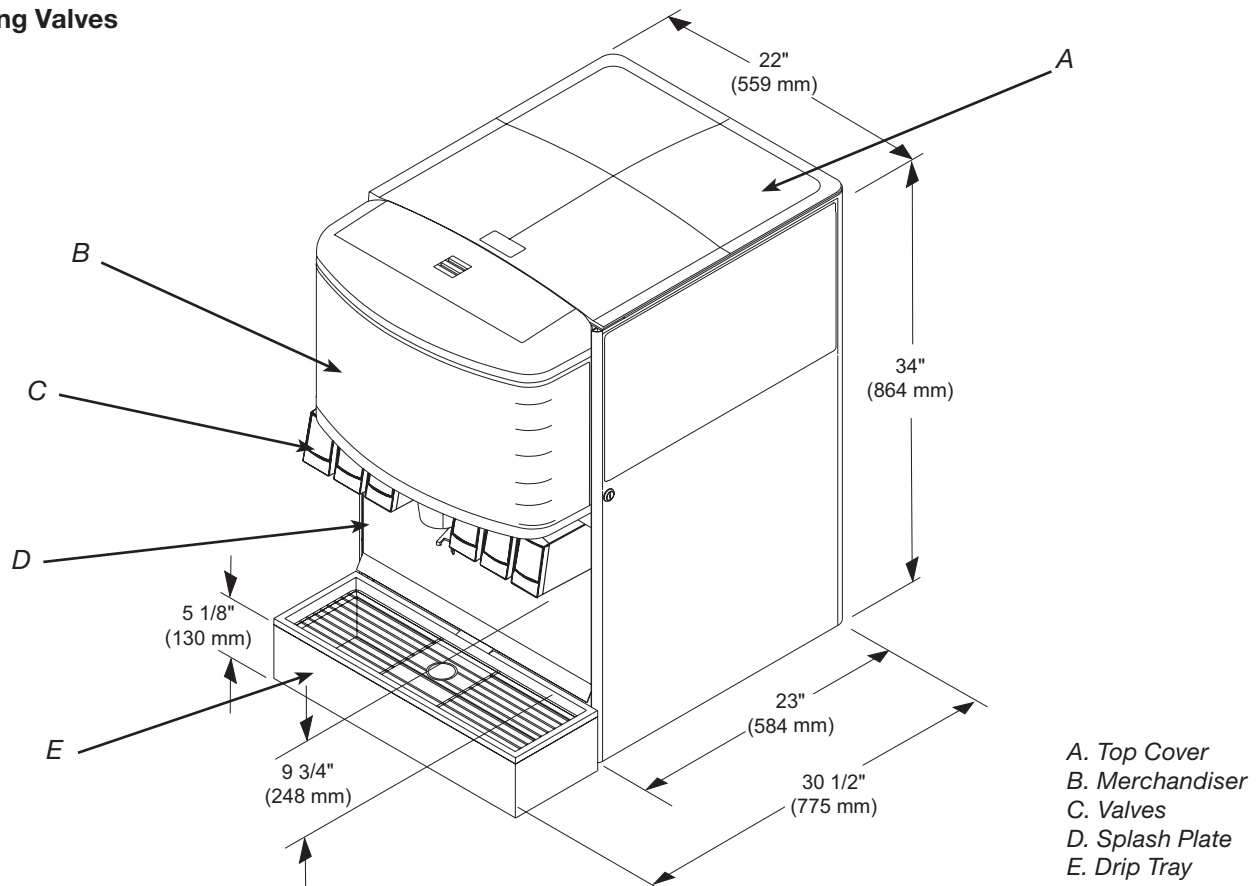
Avertissement d'agitation automatique

- Les distributeurs de boissons sont équipés d'un système d'agitation automatique et s'activeront de manière inattendue.
- Ne placez pas les mains ou des objets étrangers dans le réservoir de glace. Débranchez le distributeur de boissons pendant l'entretien, le nettoyage et l'assainissement.
- Pour éviter des blessures corporelles, n'essayez pas de soulever le distributeur de boissons sans assistance. Pour les distributeurs de boissons plus lourds, utilisez un élévateur mécanique.

SPECIFICATIONS AND FEATURES

IBD Series 4500 22"

6 Dispensing Valves



DIMENSIONS

Width: 22.0 inches (559 mm)

Depth: 30.5 inches (775 mm)

Height: 34 inches (864 mm)

WEIGHT

Shipping: 255 lbs (116 kg)

Empty (without Ice): 225 lbs (102 kg)

Ice Capacity: 180 lbs (82 kg)

ELECTRICAL

115 VAC • 60 Hz • 3.0 Amps

220-240 VAC • 50/60 Hz • 1.5 Amps

WATER SUPPLY

Recommended Operating Static
Pressure: 80-100 psi (0.552-0.689 MPa)

Max Static Pressure: 145 psi (1.00 MPa)

Min Static Pressure: 50 psi (0.345 MPa)

CARBON DIOXIDE (CO₂) SUPPLY

Min Pressure: 90 psi (0.621 MPa)

Max Pressure: 120 psi (0.827 MPa)

FITTINGS

Water Inlet: 3/8 inch barb (9.5 mm)

Carbonated Water (Soda) Inlets:
3/8 inch (9.5 mm)

Syrup Inlets: 3/8 inch barb (9.5 mm)

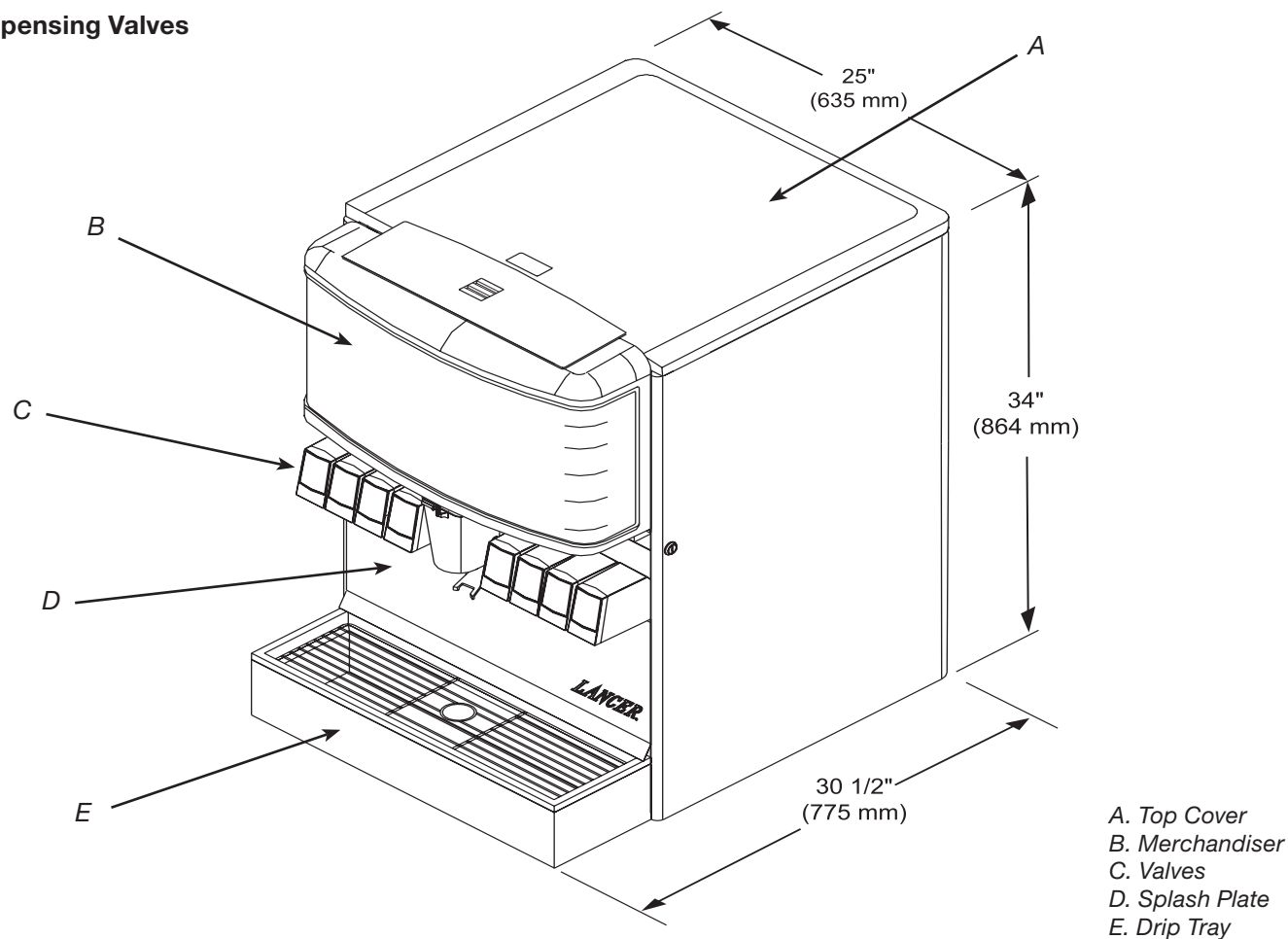
Pneumatic Inlet: 1/4 inch barb (6.4 mm)

Max Altitude: 16,400 ft (5,000 m)

This unit emits a sound pressure level below 70 dB

IBD Series 4500 25"

8 Dispensing Valves



DIMENSIONS

Width: 25.0 inches (635 mm)

Depth: 30.5 inches (775 mm)

Height: 34.0 inches (864 mm)

WEIGHT

Shipping: 285 lbs (129 kg)

Empty (without Ice): 250 lbs (113 kg)

Ice Capacity: 210 lbs (95 kg)

ELECTRICAL

115 VAC • 60 Hz • 3.0 Amps

220-240 VAC • 50/60 Hz • 1.5 Amps

PLAIN WATER SUPPLY

Recommended Operating Static

Pressure: 80-100 psi (0.552-0.689 MPa)

Max Static Pressure: 145 psi (1.00 MPa)

Min Static Pressure: 50 psi (0.345 MPa)

CARBON DIOXIDE (CO₂) SUPPLY

Min Pressure: 90 psi (0.621 MPa)

Max Pressure: 120 psi (0.827 MPa)

FITTINGS

Water Inlet: 3/8 inch barb (9.5 mm)

Carbonated Water (Soda) Inlets:

3/8 inch (9.5 mm)

Syrup Inlets: 3/8 inch barb (9.5 mm)

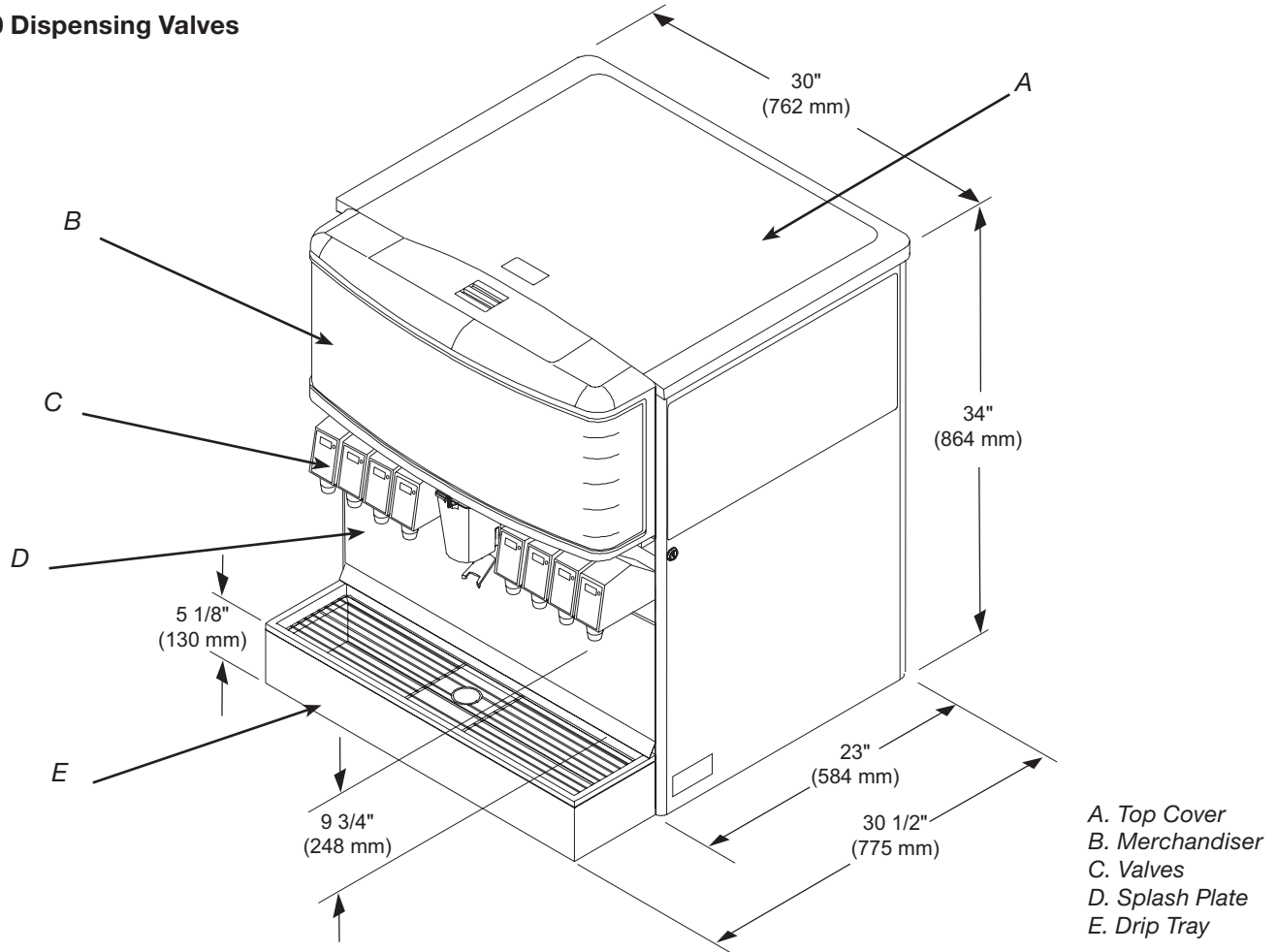
Pneumatic Inlet: 1/4 inch barb (6.4 mm)

Max Altitude: 16,400 ft (5,000 m)

This unit emits a sound pressure level below 70 dB

IBD Series 4500 30"

8 or 10 Dispensing Valves



DIMENSIONS

Width: 30.0 inches (762 mm)
Depth: 30.5 inches (775 mm)
Height: 34.0 inches (864 mm)

WEIGHT

Shipping: 305 lbs (139 kg)
Empty (without Ice): 275 lbs (125 kg)
Ice Capacity: 250 lbs (113 kg)

ELECTRICAL

115 VAC • 60 Hz • 3.0 Amps
220-240 VAC • 50/60 Hz • 1.5 Amps

PLAIN WATER SUPPLY

Recommended Operating Static
Pressure: 80-100 psi (0.552-0.689 MPa)

Max Static Pressure: 145 psi (1.00 MPa)

Min Static Pressure: 50 psi (0.345 MPa)

CARBON DIOXIDE (CO₂) SUPPLY

Min Pressure: 90 psi (0.621 MPa)

Max Pressure: 120 psi (0.827 MPa)

FITTINGS

Water Inlet: 3/8 inch barb (9.5 mm)

Carbonated Water (Soda) Inlets:
3/8 inch (9.5 mm)

Syrup Inlets: 3/8 inch barb (9.5 mm)

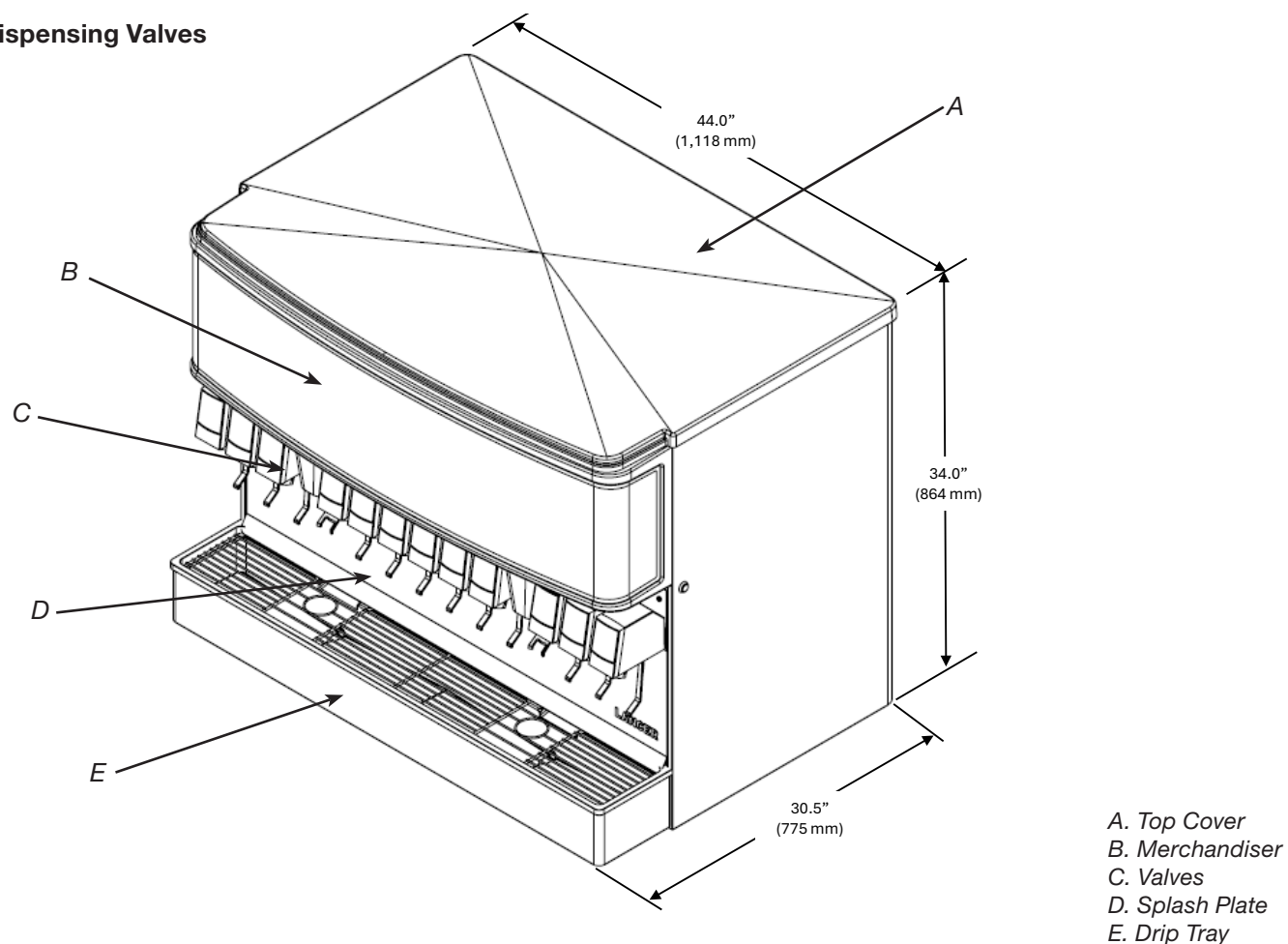
Pneumatic Inlet: 1/4 inch barb (6.4 mm)

Max Altitude: 16,400 ft (5,000 m)

This unit emits a sound pressure level below 70 dB

IBD Series 4500 44"

12 Dispensing Valves



DIMENSIONS

Width: 44.0 inches (1,118 mm)

Depth: 30.5 inches (775 mm)

Height: 34.0 inches (864 mm)

WEIGHT

Shipping: 460 lbs (209 kg)

Empty (without Ice): 400 lbs (181 kg)

Ice Capacity: 360 lbs (163 kg)

ELECTRICAL

115 VAC • 60 Hz • 6.0 Amps

220-240 VAC • 50/60 Hz • 3.0 Amps

PLAIN WATER SUPPLY

Recommended Operating Static

Pressure: 80-100 psi (0.552-0.689 MPa)

Max Static Pressure: 145 psi (1.00 MPa)

Min Static Pressure: 50 psi (0.345 MPa)

CARBON DIOXIDE (CO₂) SUPPLY

Min Pressure: 90 psi (0.621 MPa)

Max Pressure: 120 psi (0.827 MPa)

FITTINGS

Water Inlet: 3/8 inch barb (9.5 mm)

Carbonated Water (Soda) Inlets:

3/8 inch (9.5 mm)

Syrup Inlets: 3/8 inch barb (9.5 mm)

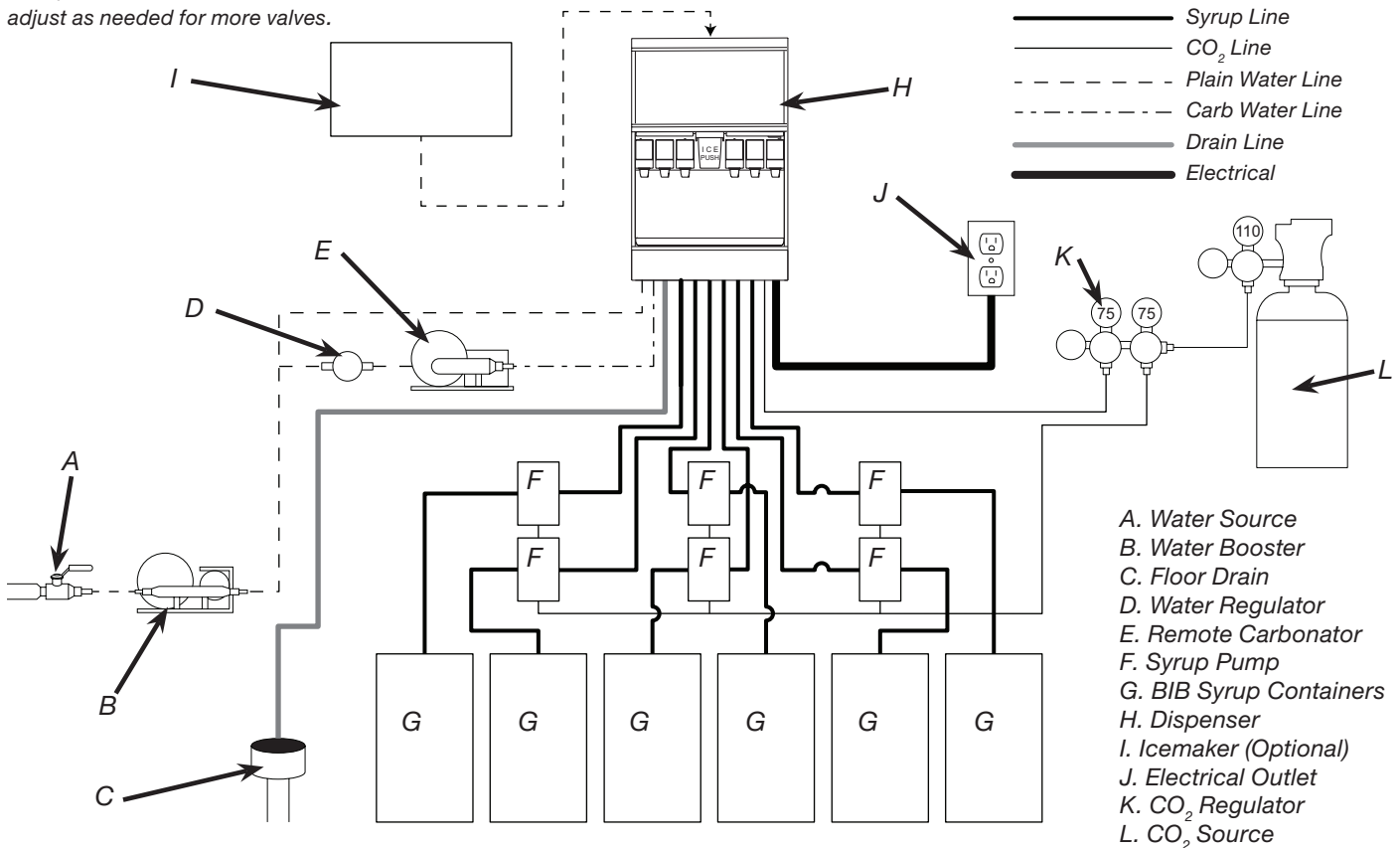
Pneumatic Inlet: 1/4 inch barb (6.4 mm)

Max Altitude: 16,400 ft (5,000 m)

This unit emits a sound pressure level below 70 dB

General System Overview - Remote Syrup Pumps

Set up shown is for 6 valves,
adjust as needed for more valves.



PRE-INSTALLATION CHECKLIST

TOOLS REQUIRED:

- ☐ Oetiker Pliers
- ☐ Tubing Cutters
- ☐ Wrench
- ☐ Slotted Screwdriver
- ☐ Phillips Screwdriver
- ☐ Drill

BAG-IN-BOX (BIB) SYSTEM:

- ☐ BIB Rack
- ☐ BIB Syrup Boxes
- ☐ BIB Regulator Set
- ☐ BIB Connectors

POST MIX ACCESSORIES:

- ☐ High Pressure CO₂ Regulator
- ☐ Low Pressure CO₂ Regulator Manifold
- ☐ CO₂ Supply
- ☐ Chain for CO₂ Tank
- ☐ Beverage Dispenser
- ☐ Beverage Tubing
- ☐ Oetiker Clamp Fittings
- ☐ Water Booster (Lancer PN: MC-163172)
- ☐ Water Regulator
- ☐ Pump Deck (Lancer PN: 82-4208/01)

CONSIDER THE FOLLOWING BEFORE INSTALLATION:

- ☐ Location of Water Supply Lines
- ☐ Location of Drain
- ☐ Location of Electrical Outlet
- ☐ Location of Heating and Air Conditioning Ducts
- ☐ Do you have enough space to install the dispenser?
- ☐ Is countertop level?
- ☐ Can the countertop support the weight of the dispenser (include the weight of an ice machine plus weight of ice, if necessary)?
- ☐ Is dispenser located away from direct sunlight or overhead lighting?

Read This Manual

This manual has been developed by Lancer Worldwide as a reference guide for owners, operators, and installers of this dispenser. Read the manual carefully before installation or operation.

For service assistance, refer to the Troubleshooting section. If the issue cannot be resolved, contact your Service Agent or Lancer Customer Service. Always provide the model and serial number of the unit when calling for support.

INSTALLATION

Unpacking the Dispenser

1. Set shipping carton upright on the floor, then cut package banding straps and remove.
2. Open top of carton and remove interior packaging.
3. Remove carton from unit.
4. Remove 4 bolts and washers securing unit to pallet.
5. Remove accessory kit and loose parts from ice compartment.
6. Clean ice chute and ice bin using cleaning solution as specified in the Cleaning and Sanitizing Section.

NOTE

Inspect unit for concealed damage. If evident, notify delivering carrier and file a claim against the same.

REMARQUE

Inspectez l'appareil pour déceler des dommages cachés. Si l'appareil est endommagé, avisez le transporteur et soumettez-lui une réclamation.

⚠ WARNING

Never energize the machine if there is any trace of damage. Contact Lancer Customer Service for assistance.

⚠ AVERTISSEMENT

N'alimentez jamais la machine s'il y a une trace quelconque de dommage. Contactez le service à la clientèle de Lancer pour obtenir de l'aide.

NOTE

If unit is to be transported, it is advisable to leave the unit secured to the pallet.

REMARQUE

Si l'appareil doit être transporté, il est conseillé de le laisser fixé sur la base d'expédition en contreplaqué.

⚠ ATTENTION

DO NOT lay the unit on its side or back.

⚠ ATTENTION

NE PAS poser l'appareil sur le côté ou sur le dos.

Selecting/Preparing a Counter Location

NOTE

The dispenser should only be installed in a location where it can be overseen by trained personnel, and it should never be installed in an area where a waterjet can be used.

REMARQUE

Le distributeur de boissons ne doit être installé qu'à un endroit où il peut être surveillé par du personnel qualifié et ne doit jamais être installé dans une zone où un jet d'eau peut être utilisé.

1. Select a leveled, well-ventilated location that is in close proximity to a properly grounded electrical outlet, within five (5) feet (1.5 m) of a drain, a water supply that meets the requirements shown in the Specifications section of this manual, a location away from direct sunlight or overhead lighting, and has sufficient clearance for air circulation.
2. If no ice maker is installed, provide sufficient clearance to allow filling the ice compartment with a five-gallon bucket. A minimum clearance of 16 inches (40.6 cm) is recommended.

- The selected location should be able to support the weight of the dispenser, ice and possibly an icemaker being installed after a counter cutout is made. Total weight (with icemaker) for this unit could exceed 800 pounds (363 kg).

NOTE

Lancer does **NOT** recommend the use of shaved or flake ice in the dispenser as it poses a substantial risk of causing damage to internal components and consequently, voiding the warranty.

For hard ice configuration, any hard ice types are suitable. For cubelet configuration, only Hoshizaki Cubelet ice makers are acceptable. Failure to follow this will cause ice dispenser to not work. Contact Customer Service for any further questions.

REMARQUE

Lancer ne recommande **PAS** l'utilisation de glace pilée ou en flocons dans le distributeur de boissons, car cela présente un risque important d'endommager les composants internes et, par conséquent, d'annuler la garantie.

Pour la configuration avec glace dure, tous les types de glace dure sont adaptés. Pour la configuration avec glace en cubelet, seuls les fabricants de glace Hoshizaki Cubelet sont acceptables. Le non-respect de cette consigne entraînera un dysfonctionnement du distributeur de glace. Contactez le service client pour toute question complémentaire.

- The dispenser is designed to be installed either permanently on a counter or placed on a counter using the provided legs. If installed directly on the counter, the dispenser base must be sealed to the countertop with a bead of clear silicone caulk or sealant, which provides a smooth and easily cleanable bond to the counter. Once sealed in accordance with these procedures, the result is intended to prevent liquid spillage on adjacent surfaces of the floor or countertop from passing under inaccessible portions of the equipment.

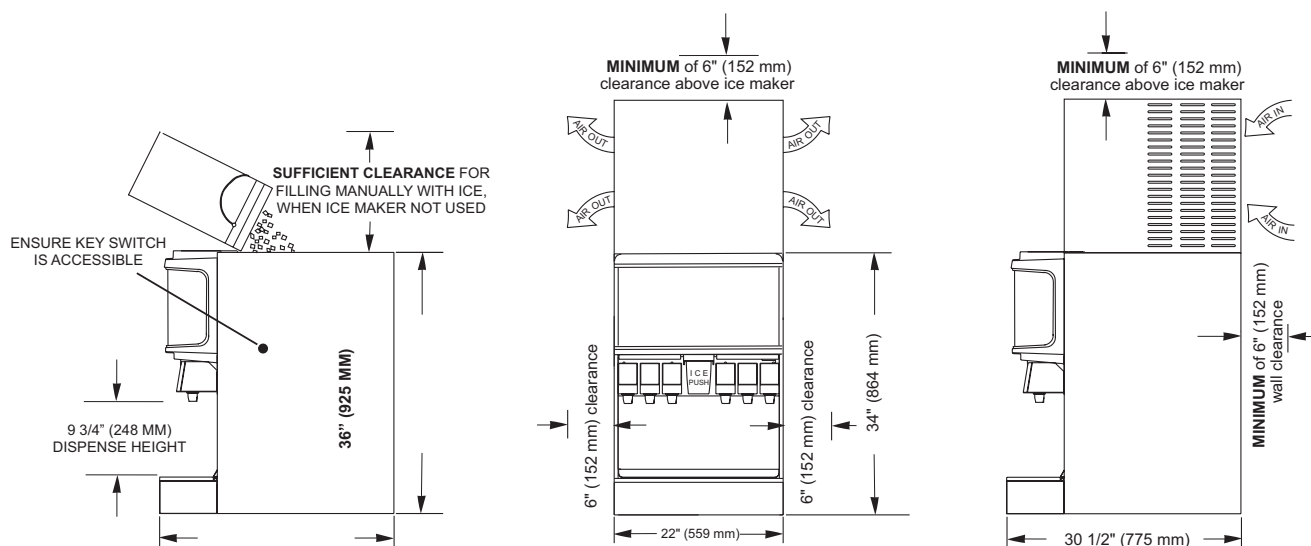
NOTE

Units must be sealed to the counter per NSF requirements unless provided legs are used.

REMARQUE

Les unités répertoriées NSF doivent être scellées au comptoir ou utiliser les pieds fournis.

- Select a location for the remote pump deck, syrup pumps, CO₂ tank, syrup containers, and water filter (recommended). Please see the General System Overview section for reference.
- Cut the necessary holes for the water, syrup, and CO₂ lines in the designated countertop location for the dispenser.



Leveling the Dispenser

In order to facilitate proper dispenser drainage, ensure that the dispenser is level, front to back and side to side. Place a level on the top of the rear edge of the dispenser. The bubble must settle between the level lines. Repeat this procedure for the remaining three sides. Adjust as necessary. For optimum performance, place the unit at a 0° tilt. The maximum tilt is 5°.

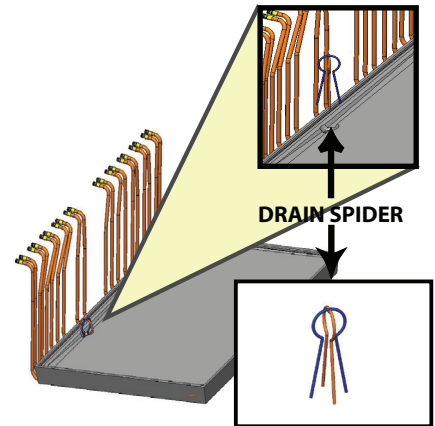
Mise à niveau de la distributrice

Afin de faciliter une vidange complète, assurez-vous que le distributeur de boissons est de niveau sur les axes avant-arrière et gauche-droit. Placez un niveau sur le bord arrière de la distributrice. La bulle doit se situer entre les deux lignes. Répétez la procédure sur les trois autres côtés. Ajustez le niveau de l'appareil si nécessaire. Pour un résultat maximal, réglez l'inclinaison à 0°. L'inclinaison maximale est de 5°.

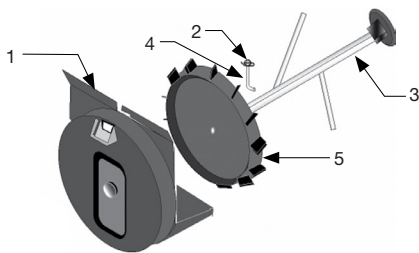
Drain Spider

The drain spider is located directly in the center of the bin under the ice shroud. The cold plate has a cavity designed to hold the drain spider. During shipment or installation, the drain spider may become dislodged from its original position.

Prior to installing the dispenser, ensure the drain spider is in the correct position. This will prevent drain clog issues. Inspect the lower bin area and reach under the shroud to ensure the drain spider is secure in the cold plate cutout. If the spider is not in place, it will need to be secured as shown below on the type of ice configuration.



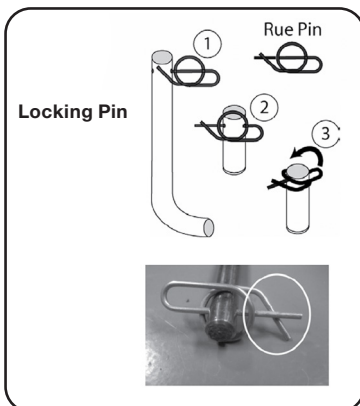
Hard Ice Configuration



1. Remove locking pin (4) and rue pin (2) from agitator bar (3).



2. Remove agitator bar from paddle wheel (5).
3. Remove paddle wheel.
4. Remove ice shroud (1) by lifting back then out of the bin.
5. Locate the drain spider and reinstall in the cold plate cavity where the drain line exits (see figure above).
6. Reinstall all components. Ensure locking pin is locked with rue pin.



Cubelet Ice Configuration

1. Remove shield (6).



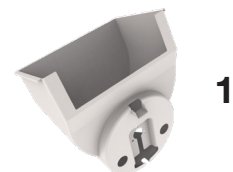
2. Remove locking pin (4) and rue pin (2) from agitator bar (3).



3. Remove agitator bar from paddle wheel (5).



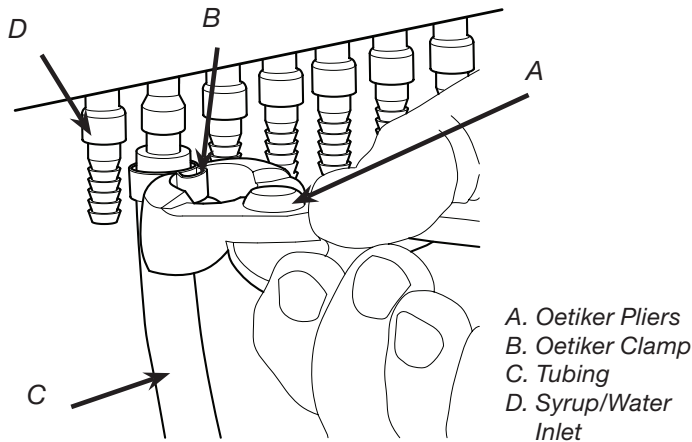
4. Remove paddle wheel.
5. Remove gasket at top of ice bin (not shown).



6. Remove shroud.
7. Locate the drain spider and reinstall in the cold plate cavity where the drain lines exits (see figure above).
8. Reinstall all components. Ensure locking pin is locked.

Dispenser Installation

1. Remove the cup rest, drip tray, splash plate, merchandiser, and top cover from the unit.
2. Route appropriate tubing from the water source to the plain water inlet at the front of the unit and connect tubing to inlet using the Oetiker pliers and fittings (see Plumbing Diagram on the front of the unit or on back of the manual for reference).



NOTE

If the unit is not installed on legs, all connections to the inlets on the cold plate will need to have 3/8" 90° splices as the beverage tubing will kink if you try to run the tubing directly into the fittings on the cold plate.

REMARQUE

Si l'unité n'est pas installée sur des pieds, toutes les connexions aux entrées de la plaque froide devront être équipées de raccords coudés à 90° de 3/8", car le tube de boisson se pliera si vous essayez de le connecter directement aux raccords de la plaque froide.

3. Connect tubing to water source then flush water lines to check for leaks.
4. Route appropriate tubing from the remote carbonator to the carbonated water inlet at the unit and connect tubing to the inlet.
5. Route appropriate tubing from the syrup pumps to the syrup inlets and connect tubing to all syrup inlets.
6. Install remote carbonator per manufacturer's instructions.
7. Route appropriate tubing from the CO₂ source location to the CO₂ inlet at the remote carbonator.
8. Route the power supply cord to a grounded electrical outlet of the proper voltage and amperage rating.

⚠ WARNING

DO NOT PLUG UNIT INTO GROUNDED ELECTRICAL OUTLET AT THIS TIME. Make sure that all water lines are tight and unit is dry before making any electrical connections.

⚠ AVERTISSEMENT

NE PAS BRANCHER L'APPAREIL DANS UNE PRISE ÉLECTRIQUE MISE À LA TERRE POUR LE MOMENT. Assurez-vous que toutes les conduites d'eau sont étanches et que l'unité est sèche avant d'effectuer des connexions électriques.

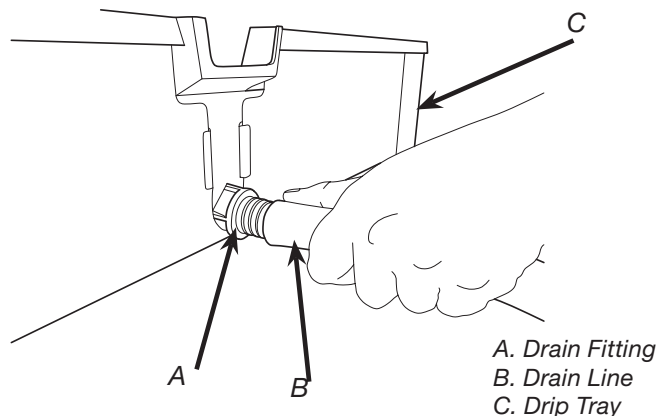
9. Route drain hose from designated open type drain to fitting on drip tray and connect hose to fitting.

⚠ CAUTION

Drain line must be insulated with a closed cell insulation. Insulation must cover the entire length of the drain hose, including fittings. The drain should be installed in such a manner that water does not collect in sags or other low points as condensation will form.

⚠ MISE EN GARDE

La conduite d'évacuation doit être isolée avec une isolation à cellules fermées. L'isolation doit couvrir toute la longueur du tuyau de vidange, y compris les raccords. Le drain doit être installé de manière à ce que l'eau ne s'accumule pas dans les affaissements ou autres points bas, car de la condensation se formerait.



⚠ ATTENTION

Pouring hot water into drain may cause the drain tube to collapse. Allow only lukewarm or cold water to enter drain tube. Pouring coffee, tea and similar substances into drain may cause the drain tube to become clogged with coffee or tea grounds, or other solid particles.

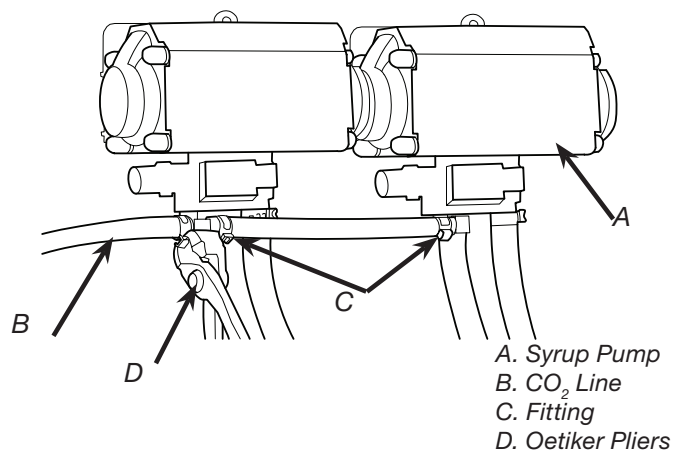
⚠ ATTENTION

Verser de l'eau chaude dans le drain peut provoquer l'effondrement du tube de drainage. Ne laissez entrer que de l'eau tiède ou froide dans le tube de vidange. Le fait de verser du café, du thé et des substances similaires dans le drain peut obstruer le tube de drainage avec du marc de café ou de thé, ou d'autres particules solides.

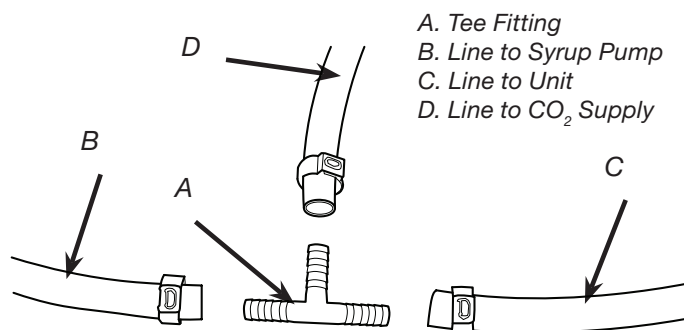
10. Reattach drip tray to unit and reinstall cup rest.

Installing Remote Syrup Pumps - Bag-In-Box (BIB)

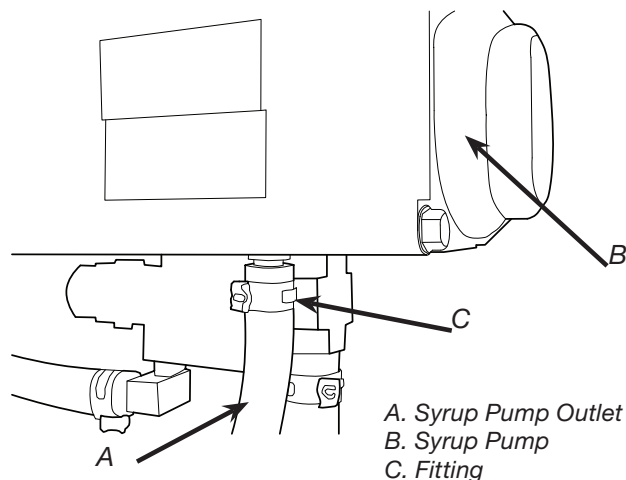
1. Install BIB rack and remote pumps according to manufacturers' instructions.
2. Once pumps and BIB rack are installed, measure and cut tubing to length between the pump CO₂ inlets. Then, connect tubing to all pumps.



3. Using tubing cutters, cut any pump CO₂ supply line and install tee fitting. Then, route appropriate tubing from the CO₂ supply to the tee fitting at syrup pumps.



4. Connect tubing from dispenser syrup inlet to the syrup pump outlet fitting. Repeat for each syrup line/pump and each flavor injector line/pump.



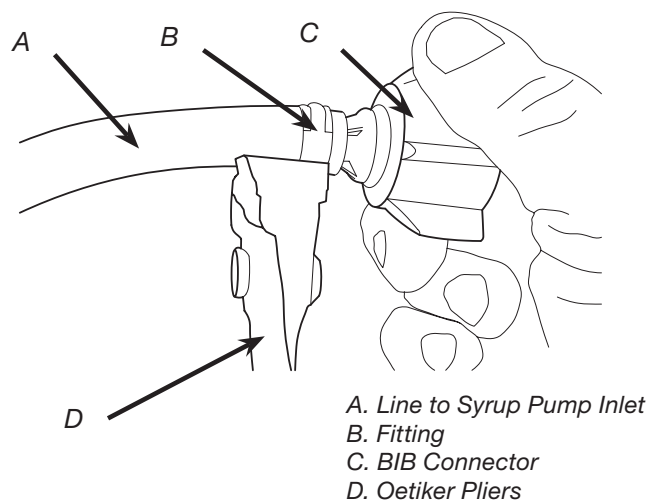
5. Install BIB connectors onto the syrup pump inlet tubing.

⚠ ATTENTION

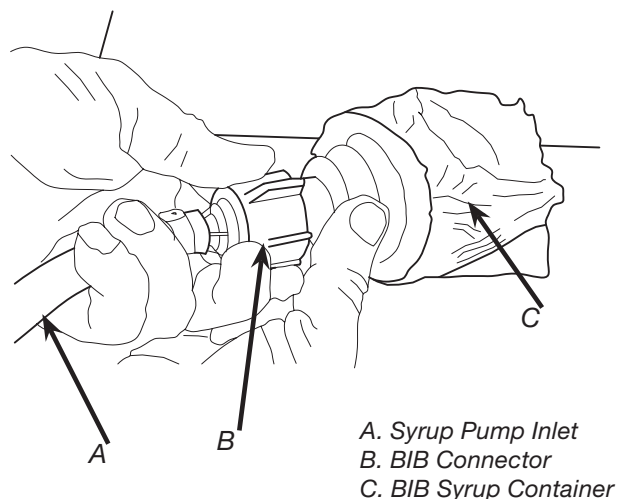
Use proper connector for syrup manufacturer.

⚠ ATTENTION

Utilisez le connecteur approprié spécifique au fabricant de sirop.



6. Connect syrup BIBs to connectors. Repeat for each syrup line/pump and each flavor injector line/pump.



Installing CO₂ Supply

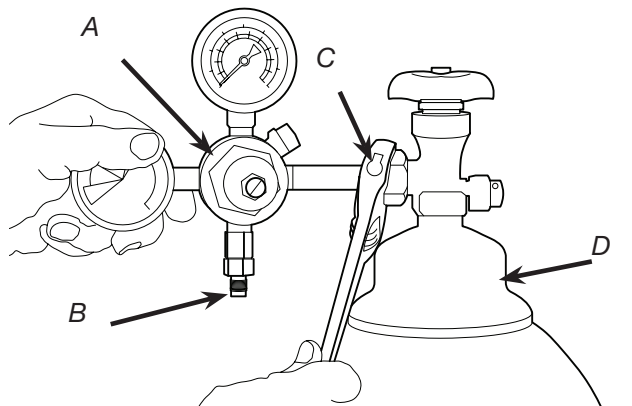
1. Connect high pressure CO₂ regulator assembly to CO₂ cylinder or bulk system.

⚠ ATTENTION

Before installing regulator, assure that a seal (washer or O-ring) is present in regulator attachment nut.

⚠ ATTENTION

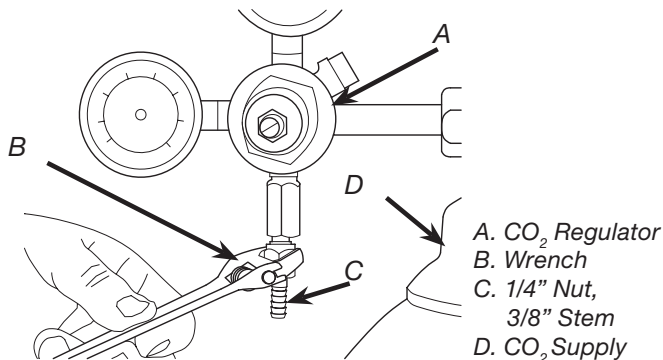
Avant d'installer le régulateur, assurez-vous qu'un joint torique ou une rondelle est en place dans l'écrou d'accouplement du régulateur.



- Thread regulator nut onto tank, then, tighten nut with wrench.

A. CO₂ Regulator
B. Outlet
C. Wrench
D. CO₂ Supply

2. Connect a 1/4" nut, 3/8" stem and seal to the CO₂ regulator outlet.



A. CO₂ Regulator
B. Wrench
C. 1/4" Nut,
3/8" Stem
D. CO₂ Supply

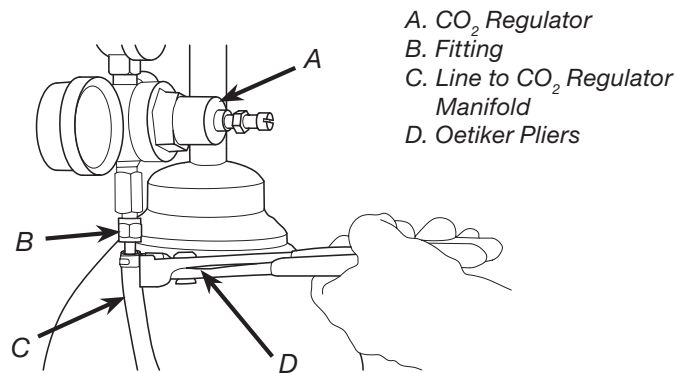
⚠ ATTENTION

A dedicated CO₂ regulator is required to supply the CO₂ inlet at the unit as well as to all remote syrup pumps.

⚠ ATTENTION

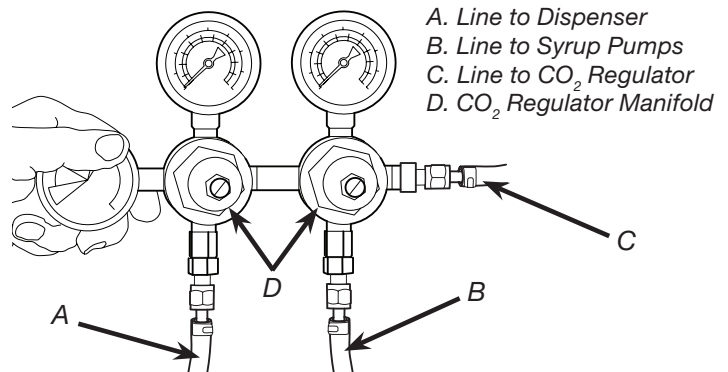
Un régulateur de CO₂ spécifique est obligatoire pour alimenter l'arrivée de CO₂ à l'appareil ainsi que toutes les pompes à sirop à distance.

3. Route appropriate tubing from the low pressure CO₂ regulator manifold location to the 1/4" nut, 3/8" stem on the high pressure CO₂ regulator attached to the source and connect the tubing.



A. CO₂ Regulator
B. Fitting
C. Line to CO₂ Regulator Manifold
D. Oetiker Pliers

4. Connect tubing routed from the CO₂ inlet at the unit to one of the low pressure CO₂ regulator manifold outlets.
5. Connect tubing routed from the syrup pump location to the second outlet of the low pressure CO₂ regulator manifold.



A. Line to Dispenser
B. Line to Syrup Pumps
C. Line to CO₂ Regulator
D. CO₂ Regulator Manifold

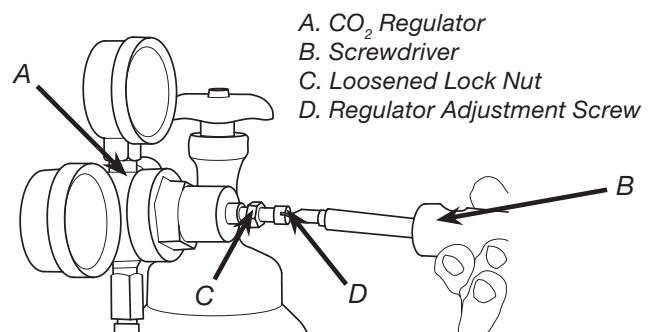
6. Using a wrench, loosen lock nut on the regulator adjustment screw of the high pressure CO₂ regulator connected to the source, then using a screwdriver back out lock nut screw all the way.

⚠ WARNING

DO NOT TURN ON CO₂ SUPPLY AT THIS TIME.

⚠ AVERTISSEMENT

N'OUVREZ PAS L'APPROVISIONNEMENT EN CO₂ MAINTENANT.



A. CO₂ Regulator
B. Screwdriver
C. Loosened Lock Nut
D. Regulator Adjustment Screw

7. Repeat Step 6 for both low pressure CO₂ regulators on the regulator manifold routed to the unit and the syrup pumps.

Dispenser Setup

1. Turn on water source.
2. Open the pressure relief valve located on the remote carbonator by flipping up the valve cap lever. Hold open until water flows from the relief valve then close (flip down) the relief valve.
3. Verify all BIBs contain syrup and check all connections for leaks.
4. Place enough ice in the ice bin to fill approximately half of the bin before connecting the unit.
5. Connect unit power cord to grounded electrical outlet.

⚠ WARNING

Never energize the machine if there is any trace of damage. Contact Lancer Customer Service for assistance.

The dispenser must be properly electrically grounded to avoid serious injury or fatal electrical shock. The power cord has a three-prong grounded plug. If a three-hole grounded electrical outlet is not available, use an approved method to ground the unit. Follow all local electrical codes when making connections. Each dispenser must have a separate electrical circuit. Do not use extension cords. Do not connect multiple electrical devices on the same outlet.

⚠ AVERTISSEMENT

N'alimentez jamais la machine s'il y a une trace quel conque de dommage. Contactez le service à la clientèle de Lancer pour obtenir de l'aide. Assurez-vous que le distributeur de boissons est reliée à la terre pour éviter des blessures graves ou des décharges électriques. Le cordon d'alimentation comporte une fiche de terre à trois broches. Si une prise électrique à trois trous n'est pas disponible, utilisez une méthode approuvée pour assurer la mise à la terre de l'appareil. Les raccordements électriques doivent être conformes au code électrique local. Chaque distributeur de boissons doit être branchée dans un circuit électrique dédié. N'utilisez pas de rallonge électrique. Ne branchez pas plusieurs appareils sur la même prise de courant.

6. Test the motor operation by pushing the ice chute lever until agitator motor begins to turn.
7. Activate each valve to ensure a good flow of water is achieved.
8. Ensure carbonator is turned OFF before turning on CO₂.

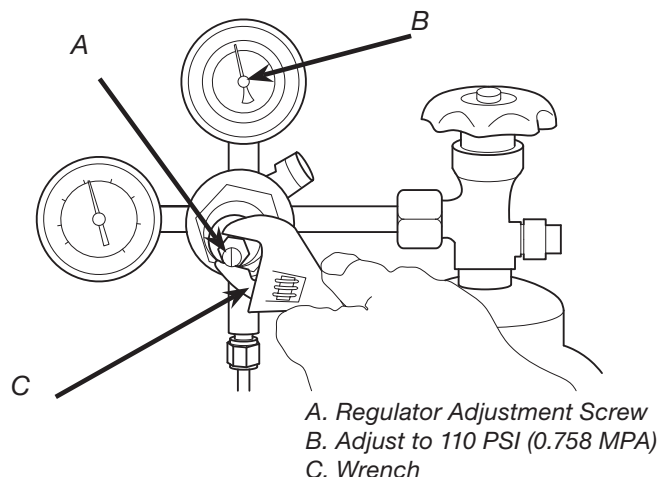
⚠ ATTENTION

Failure to disconnect the motor power supply will damage the carbonator motor, the pump and void the warranty.

⚠ ATTENTION

Le fait de ne pas débrancher l'alimentation électrique du moteur endommagera le moteur du carbonateur, la pompe et annulera la garantie.

9. Turn on CO₂ at the source then, using a screwdriver, adjust the high pressure regulator at the source to 110 PSI (0.758 MPA) then tighten locknut with wrench.



10. Activate each valve to purge (gas-out).
11. Plug in the remote carbonator pump deck, if not already done so, and turn the switch to the ON position.
12. Activate each valve until the carbonator pump comes on. Release the button, allow carbonator to fill and stop. Repeat this process until a steady flow of carbonated water is achieved.

NOTE

The carbonator has a 3 minute timeout feature. If the timeout occurs, turn the carbonator OFF then ON by flipping the switch on the control box.

REMARQUE

La plateforme du carbonateur est dotée d'une fonction de temporisation de 3 minutes. Si la temporisation se produit, éteignez puis rallumez la plateforme du carbonateur en actionnant l'interrupteur du boîtier de commande.

NOTE

To check for CO₂ leaks, close the valve on the CO₂ cylinder and observe if the pressure to the system drops with the cylinder valve closed for five minutes. Open the cylinder valve after check.

REMARQUE

Pour détecter d'éventuelles fuites de CO₂, fermez la valve de la bouteille de CO₂ et observez si la pression du système baisse pendant cinq minutes. Ouvrez la valve de la bouteille après vérification.

13. Activate each valve to purge air from the syrup lines.

Installing an Ice Maker (Optional)

⚠ ATTENTION

When installing an ice maker on the dispenser, use a bin thermostat to control the ice level (see images below). This will prevent damage to the dispensing mechanism. The bracket for mounting a thermostat is located in the ice bin. During the automatic agitation cycle and while dispensing ice, ensure there is adequate space between the top of the ice level and the bottom of the ice maker so the ice can move without obstruction. Contact your ice maker manufacturer for information on a suitable bin thermostat.

⚠ ATTENTION

Lorsque vous installez une machine à glaçons sur le distributeur de boissons, utilisez un thermostat de bac pour contrôler le niveau de glace (voir ci-dessous). Cela permettra d'éviter d'endommager le mécanisme de distribution. Le support pour le montage d'un thermostat est situé dans le bac à glace. Pendant le cycle d'agitation automatique et lors de la distribution de la glace, assurez-vous qu'il y a suffisamment d'espace entre le haut du niveau de glace et le bas de la machine à glaçons pour que la glace puisse se déplacer sans obstruction. Contactez le fabricant de votre machine à glaçons pour obtenir des informations sur un thermostat de bac adapté.

1. Install the ice maker per the manufacturer's specifications. Points of consideration include drainage, ventilation, and drop zones.
2. An ice maker adapter plate is needed when mounting on top of the dispenser. For information on ice maker adapters contact your Sales Representative or Lancer Customer Service.
3. A bin thermostat is required in order to control the level of ice in the dispenser (refer to ATTENTION note above). Contact your ice maker manufacturer to obtain the correct bin thermostat.
4. The bin thermostat should be set so that the maximum height of ice is at the base of the manual fill. For hard ice only, the preferred location of the mechanical bin thermostat is on the left side, 4" from the rear wall.

⚠ ATTENTION

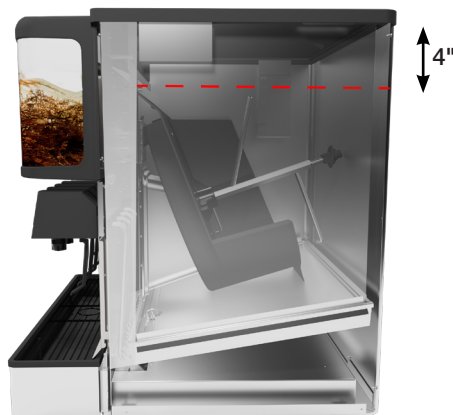
Failure to use an ice bin thermostat will not only void your IBD's warranty but will result in the inability to control the level of ice in the ice bin which can cause damage to your dispenser.

⚠ ATTENTION

Le fait de ne pas utiliser un thermostat de bac à glace annulera non seulement la garantie de votre IBD, mais entraînera l'incapacité de contrôler le niveau de glace dans le bac à glace, ce qui peut endommager votre distributeur de boissons.

5. Ensure the ice maker is installed properly to allow for removal of the front cover.
6. Ensure manual fill is accessible.
7. Clean and maintain ice maker per manufacturer's instructions.

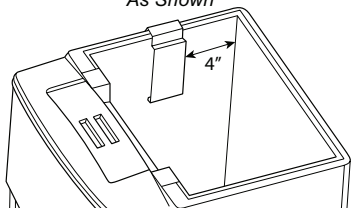
Hard Ice Configuration



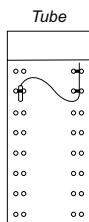
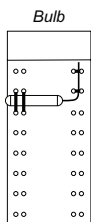
Hoshizaki Cubelet Ice Configuration



For Hard Ice,
Attach Bin Thermostat Bracket
As Shown



Recommended Thermostat Attachment



Water Flow Rate & Syrup/Water Ratio Adjustments

NOTE

Ensure there is ice on the cold plate and the lines are cold before attempting to set the flow rates on the valves. The drink temperature should be no higher than 40°F (4.4°C) when flow rates are set.

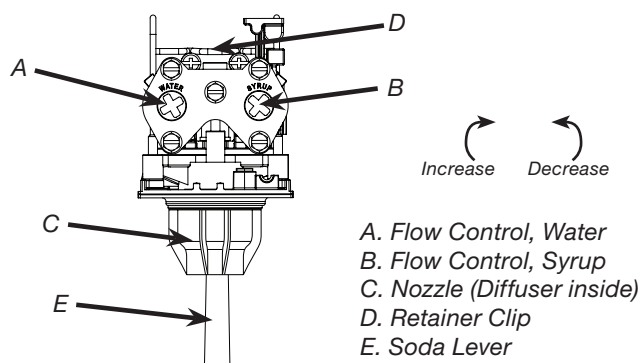
REMARQUE

Assurez-vous qu'il y a de la glace sur la plaque froide et que les conduites sont froides avant de tenter de régler les débits sur les vannes. La température de la boisson ne doit pas dépasser 40 ° F (4,4 ° C) lorsque les débits sont réglés.

1. Remove valve cover from first valve.



2. Close syrup shut off at mounting block for first valve.
3. Using a Lancer ratio cup, verify water flow rate. Use a screwdriver to adjust if needed.



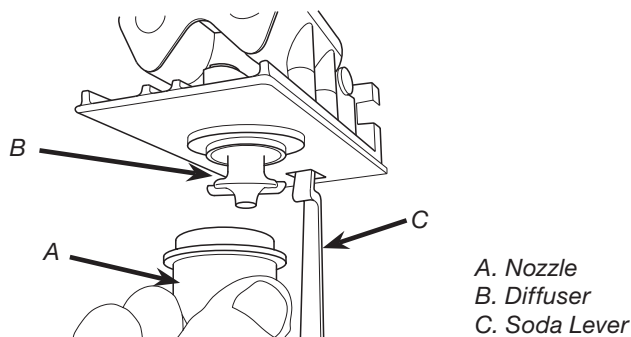
The water flow rate for the model 100 dispensing valve may be adjusted from 1.25 oz/sec (37 ml/sec) to 2.50 oz/sec (74 ml/sec).

The water flow rate for the model 145 dispensing valve may be adjusted from 2.80 oz/sec (82.8 ml/sec) to 4.0 oz/sec (118.2 ml/sec).

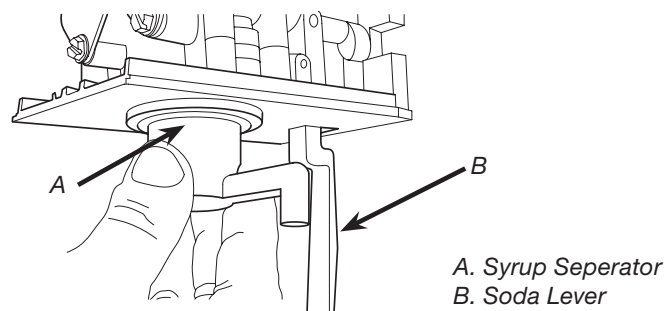
The restricted flow adjustment plug (model 100) adjusts to a maximum flow of 2.0 oz/sec (59.2 ml/sec).

The restricted flow adjustment plug (model 145) adjusts to a maximum flow of 3.3 oz/sec (97.7 ml/sec).

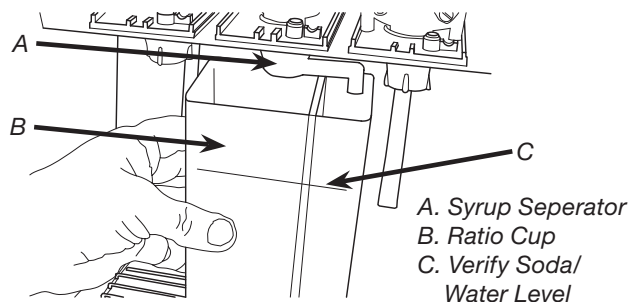
4. Remove nozzle by twisting counter clockwise and pulling down, then, remove diffuser by pulling down.



5. Install Lancer syrup separator with yellow gasket (PN 54-0031) for model 100 valves, or syrup separator with red gasket (PN 54-0201) for model 145 valves in place of the nozzle.



6. Reopen syrup shut off at mounting block.
7. Activate valve to purge syrup until steady flow is achieved.
8. Using a Lancer brix cup, activate the valve and capture a sample. Verify that the syrup level is even with the water level. Use a screwdriver to adjust if needed.



The syrup flow rate for the model 100 dispensing valve may be adjusted from 0.25 oz/sec (7.4 ml/sec) to 0.50 oz/sec (14.8 ml/sec).

The syrup flow rate for the model 145 dispensing valve may be adjusted from 0.50 oz/sec (14.8 ml/sec) to 0.90 oz/sec (26.6 ml/sec).

9. Remove the syrup separator and reinstall the diffuser and nozzle. Replace the valve cover.
10. Repeat steps 1-9 for each valve.
11. Reinstall the merchandiser, splash plate, and top cover.

Volumetric Valve Adjustment

NOTE

The volumetric valve is an optional valve for the 4500 dispenser.

REMARQUE

La vanne volumétrique est une vanne optionnelle pour le distributeur de boissons 4500.

VALVE SPECIFICATIONS

Finished Drink Flow Rates	3.0 oz/sec (88.7 ml/sec)	
	2.25 oz/sec (66.6 ml/sec)	
	1.5 oz/sec (44.4 ml /sec)	
Flowing Pressure Requirements	MINIMUM	MAXIMUM
Water	40 psi (0.276 MPa)	110 psi (0.758 MPa)
Syrup	20 psi (0.138 MPa)	70 psi (0.483 MPa)
Electrical Requirements	24 VAC, 50/60 Hz	

1. Remove the ID panel from the front of the first valve.
2. Insert the programmer's 10-pin connector into the ID panel plug located on the front of the circuit board.
3. When properly connected, the programmer will run a self diagnostic test. The display will show all "8's" with the decimal points lighted. After about three (3) seconds, the display indicates the setting of the dip switches.
7. Press the "enter" button to program the valve with the setting on the display.
8. Verify ratio by pressing "read mem".
9. Disconnect the programmer.
10. Repeat steps 4-9 for each valve.

NOTE

If the programmer does not run its diagnostic test properly, disconnect it and try plugging it in again. If the programmer still fails, replace the programmer.

REMARQUE

Si le programmeur n'exécute pas correctement son test de diagnostic, débranchez-le et essayez de le rebrancher. Si le programmeur échoue encore, remplacez-le.

4. After the programmer is connected, press the "read mem" button.
5. Press the "Ratio +" or the "Ratio -" key until the desired ratio is displayed.
6. Verify the drink type by pressing "carb toggle" to select "C" for carbonated or "n" for non-carbonated.



- Handheld Programmer
Volumetric Valve

SERVICE OPERATION

Ice Dispensing

Ice is stored in the ice hopper. An agitator (turned by a motor) stirs the ice periodically. In addition, the agitator pushes ice to the cold plate and also to the dispense chute where it is directed into drinks.

Types of Ice to Avoid

1. Pellets, Crushed and Chewable Ice: Melts too quickly.
2. Freezer Ice: Can freeze both water and diet syrups. Can damage the agitator and motor as well.
3. Hoshizaki Cubelet can be used with correct soft ice setup. Contact Lancer Worldwide for more information.

NOTE

For hard ice configuration, any hard ice types are suitable. For cubelet configuration, only Hoshizaki Cubelet ice makers are acceptable. Failure to not follow this will cause ice dispenser to not work. Contact Customer Service for any further questions.

REMARQUE

Pour la configuration avec glace dure, tous les types de glace dure sont adaptés. Pour la configuration avec glace en cubelet, seuls les fabricants de glace Hoshizaki Cubelet sont acceptables. Le non-respect de cette consigne entraînera un dysfonctionnement du distributeur de glace. Contactez le service client pour toute question complémentaire.

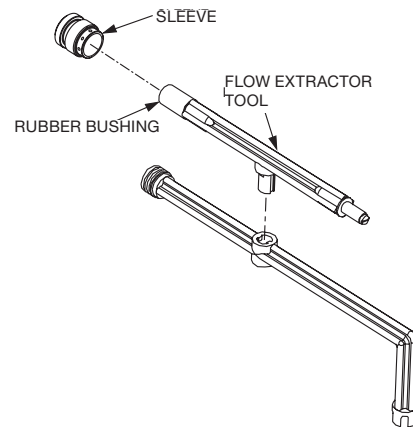
NOTE

If piston is going to be reused, use caution when handling.

REMARQUE

Si le piston doit être réutilisé, manipulez-le avec précaution.

9. Replace valve onto mounting block and push wire retainer down. This will provide a stable working condition.
10. To remove sleeve, use flow control extractor tool.
 - Ensure rubber bushing is loose on handle.
 - Push rubber bushing into sleeve.
 - Turn clockwise to tighten bushing inside sleeve. This will allow sleeve to be removed or installed.
 - Turn counterclockwise to loosen bushing inside sleeve. This will allow tool to be removed from sleeve.

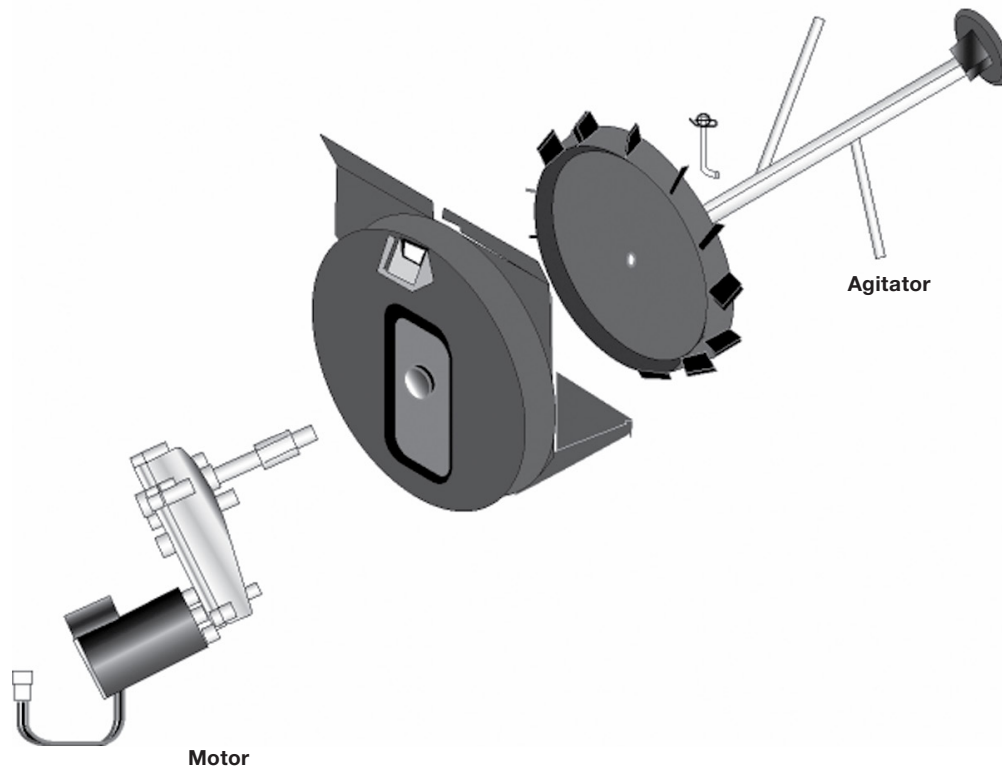


Removal and Installation of Flow Controls

1. Slide valve cover up to expose cover mounting screw.
2. Loosen cover mounting screw (DO NOT REMOVE) and remove cover.
3. Close stems on mounting block.
4. Operate valve to check for complete shutoff of water and syrup.
5. Remove top screw and loosen bottom screw. Remove retainer.
6. Remove plug adjustment assembly by threading extractor tool (PN 52-1950) into the bonnet and pulling it out. This will expose the flow control.
7. Lift up wire retainer and carefully remove valve from mounting block. If electric, disconnect wire harness.
8. Tilt valve forward to remove spring and piston.
9. Replace valve onto mounting block and push wire retainer down. This will provide a stable working condition.
10. To remove sleeve, use flow control extractor tool.
 - Ensure rubber bushing is loose on handle.
 - Push rubber bushing into sleeve.
 - Turn clockwise to tighten bushing inside sleeve. This will allow sleeve to be removed or installed.
 - Turn counterclockwise to loosen bushing inside sleeve. This will allow tool to be removed from sleeve.
11. To replace sleeve, place sleeve on flow control extractor tool and insert in upper body.
12. Lubricate O-ring with water (or any NSF approved lubricant) and push sleeve to bottom.
13. Reassemble spool, spring, plug adjustment assembly, retainer and screws.
14. Turn both shutoffs on mounting block to the OPEN position.
15. Adjust water flow to correct flow rate.
16. Adjust ratio to correct setting.
17. Replace cover and tighten mounting screw.
18. Slide down I.D. panel.

Ice Delivery System

The unit comes equipped with the standard ice handling mechanism. Agitator/wheel assembly breaks up ice bridging and delivers ice to chute assembly.



Ice Board and Ice Agitation Control Settings

Each ice beverage dispenser is equipped with an ice board that provides automatic agitation for the ice bin. The ice board can be set to operate the agitator motor up to four seconds agitation time with intervals from ten minutes up to every 150 minutes. For hard and soft ice configurations, the unit comes preset from the factory with one-two second rotation (two seconds ON) every 60 minutes. Changing the automatic agitation timing can impact dispensing performance and therefore is strongly recommended to not adjust from default setting.

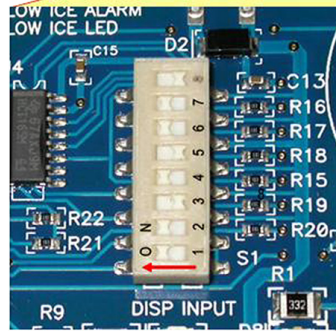
⚠ Automatic Agitation Warning

- Units are equipped with an automatic agitation system and will activate unexpectedly.
- Do not place hands or foreign objects in the ice bin tank. Unplug the dispenser during servicing, cleaning, and sanitizing.

⚠ Avertissement d'agitation automatique

- Les unités sont équipées d'un système d'agitation automatique qui peut se déclencher de manière inattendue.
- Ne placez pas vos mains ou des objets étrangers dans le réservoir de glace. Débranchez le distributeur de boissons lors de l'entretien, du nettoyage ou de la désinfection.

Switch 3-4:
Agitation "ON" Time
Switch 5-8:
Agitation "OFF" Time

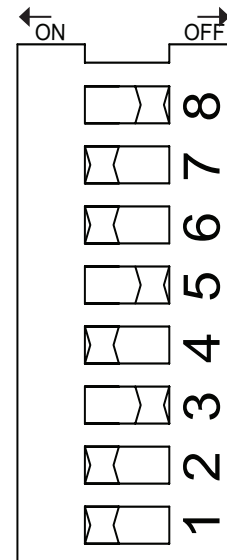


Slide switch to the left to turn on



Default Setting

Agitation ON Time = 2 seconds
OFF Time = 60 minutes



NOTE

Switches illustrated are factory preset.

REMARQUE

Les interrupteurs illustrés sont pré-réglés en usine.

ON Time

DIP switches #3 and #4 control the ON time for automatic agitation. Using these switches, ON times can be set from one second up to four seconds (in one-second increments). Refer to Agitation ON Times table for all options.

EXAMPLE: For three seconds, switch 3 should be on the ON position, and switch 4 should be in the OFF position.

Switch 1: Not used.

Switch 2: Not used.

Switch 3-4: Agitation Times

(Shown at one-second intervals)

Switch 5-8: Agitation Frequency

(Shown at ten-minute intervals)

Switch #		Agitation ON Times
3	4	
OFF	OFF	1 Second
OFF	ON	2 Seconds
ON	OFF	3 Seconds
ON	ON	4 Seconds

OFF Time

DIP switches #5 through #8 control the OFF time for automatic agitation. Using these switches, OFF times can be set from ten minutes up to 150 minutes (in ten-minute increments). The unit comes preset from the factory with 60 minutes OFF time. Refer to the Agitation OFF Times table for all options. To turn the agitation completely off, set all switches 5 through 8 to OFF.

EXAMPLE: For 40 minutes OFF time, the following settings should be used:

- Switch 5, 7 and 8 should be in the OFF position.
- Switch 6 should be in the ON position.

Switch Number				Agitation OFF Times
5	6	7	8	
OFF	OFF	OFF	OFF	No Agitation
OFF	OFF	OFF	ON	10 Minutes
OFF	OFF	ON	OFF	20 Minutes
OFF	OFF	ON	ON	30 Minutes
OFF	ON	OFF	OFF	40 Minutes
OFF	ON	OFF	ON	50 Minutes
OFF	ON	ON	OFF	60 Minutes
OFF	ON	ON	ON	70 Minutes
ON	OFF	OFF	OFF	80 Minutes
ON	OFF	OFF	ON	90 Minutes
ON	OFF	ON	OFF	100 Minutes
ON	OFF	ON	ON	110 Minutes
ON	ON	OFF	OFF	120 Minutes
ON	ON	OFF	ON	130 Minutes
ON	ON	ON	OFF	140 Minutes
ON	ON	ON	ON	150 Minutes

Agitator Motor Removal

The agitator motor/gearbox can be removed the traditional way by disconnecting the agitator from the motor as follows:

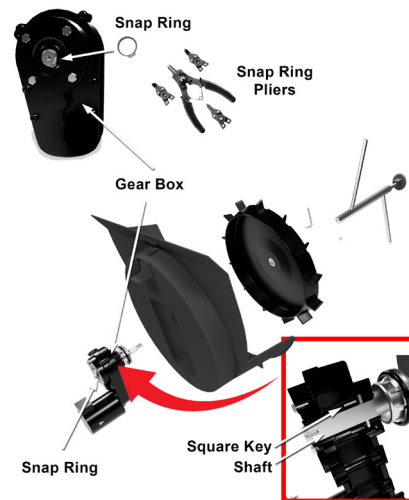
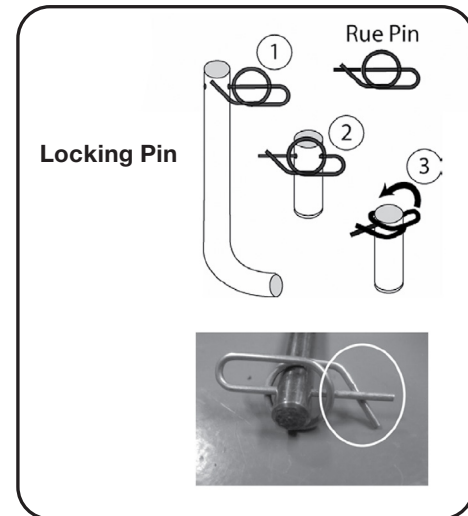
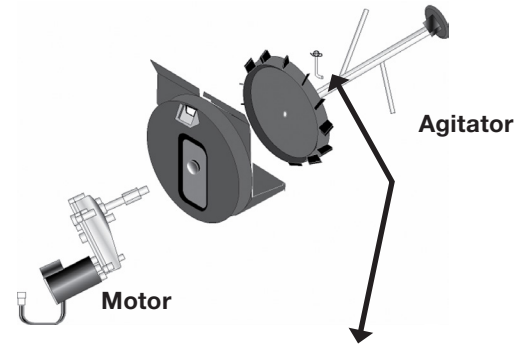
1. Unplug the dispenser.
2. Remove the rue pin from the locking pin and pull the locking pin out of the agitator.
3. Remove the splash panel.
4. Remove the ice portioning panel.
5. Remove the ice chute, then disconnect the harness and tubing.
6. Disconnect the wire harness from the agitator motor.
7. Remove the retaining bracket for the agitator motor (four screws).
8. Pull out the motor/gearbox.
9. Replace with new motor and reinstall components in reverse order.

NOTE

When reinstalling the motor, be sure to lock the rue pin (as shown in diagram), and ensure that the shaft seal is in place. Lock by moving bent end to opposite side of straight end. When locked, clip will appear as shown at right.

REMARQUE

Lors de la réinstallation du moteur, assurez-vous de verrouiller la goupille (comme illustré) et de bien positionner le joint d'arbre. Verrouillez en déplaçant l'extrémité courbée vers le côté opposé de l'extrémité droite. Une fois verrouillé, le clip apparaîtra comme indiqué sur l'image à droite.



Replacing the Agitator Motor Via the Snap Ring

If agitator shaft has a hole for a screw (to hold shaft in place), the agitator motor can be removed without removing ice and components from the ice bin. The motor can be replaced as follows:

1. Unplug the dispenser.
2. Remove the splash panel.
3. Remove the ice chute, then disconnect harness and tubing.
4. Unplug the wiring harness for the agitator motor.
5. Remove the bolts from the retaining bracket for the agitator motor.
6. Remove the snap ring securing the motor to the agitator shaft using snap ring pliers.
7. Pull motor out.
8. Insert new agitator motor and install new snap ring using snap ring pliers.
9. Reinstall components in reverse order.

NOTE

Square key is loose on the motor shaft and can fall out when removing the shaft from the gear box.

REMARQUE

La clavette carrée est desserrée sur l'arbre du moteur et peut tomber lors du retrait de l'arbre du réducteur.

LEV Dispensing Valve Replacement

⚠ WARNING

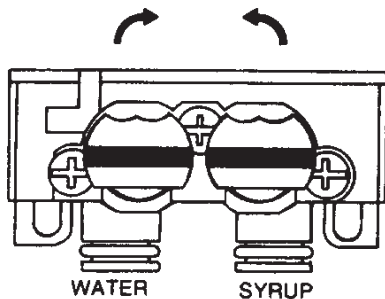
If the dispenser is connected to electrical power, the unit must be properly grounded to avoid possible fatal electrical shock or serious bodily injury.

⚠ AVERTISSEMENT

Si le distributeur de boissons est connecté à l'alimentation électrique, l'unité doit être correctement mise à la terre pour éviter tout risque d'électrocution ou de blessure grave.

Removal of Existing Valve

1. Slide the I.D. panel up to expose the cover mounting screw.
2. Disconnect the I.D. panel harness from the connector on the valve.
3. Loosen the cover mounting screw (do not remove) and remove the cover.
4. Turn both stems on the mounting block to the CLOSED position.

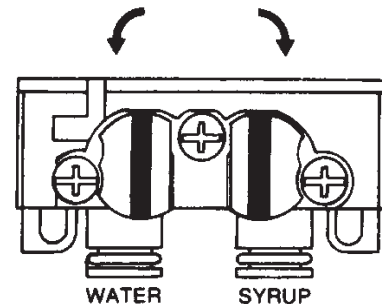


Closed Position

5. Lift up the wire retainer and remove the valve from the mounting block.

Installation of New LEV Valve

1. Begin by lubricating the O-rings on the fittings and the mounting block with water or an NSF-approved lubricant.
2. Install the new valve onto the mounting block. Push the wire retainer down. This will lock the valve to the mounting block (white stems must be in closed position).
3. Turn both white stems on the mounting block to the OPEN position. Top of stem will lock wire retainer in position.



Open Position

4. Reconnect the I.D. panel harness to the new valve connector.
5. Operate the valve momentarily to ensure flow of carbonated water and syrup.

NOTE

Model 100 valves are factory preset for a flow rate of 3.0 ounces per second, and model 145 valves are factory preset for a flow rate of 4.5 ounces per second; an adjustment may be required.

REMARQUE

Les vannes modèle 100 sont pré réglées en usine pour un débit de 3,0 onces par seconde, et les vannes modèle 145 sont pré réglées pour un débit de 4,5 onces par seconde; un ajustement peut également être nécessaire.

6. Adjust water flow to the correct flow rate (refer to the Water Flow Rate & Syrup/Water Ratio Adjustments section of this manual).
7. Adjust ratio of syrup to the correct setting (refer to the Water Flow Rate & Syrup/Water Ratio Adjustments section of this manual).
8. Install the cover onto the valve and tighten the cover mounting screw.
9. Slide down the I.D. panel.

CLEANING AND SANITIZING

General Information

GENERAL INFORMATION

Lancer equipment is shipped from the factory after being cleaned and sanitized in accordance with NSF guidelines. The operator of the equipment must provide continuous maintenance as required by this manual and/or state and local health department guidelines to ensure proper operation and sanitation requirements are maintained.

The cleaning procedures provided herein pertain to the Lancer equipment identified by this manual. If other equipment is being cleaned, follow the guidelines established by the manufacturer for that equipment.

Cleaning should be accomplished only by trained personnel. Sanitary gloves are to be used during cleaning operations. Applicable safety precautions must be observed. Instruction warnings on the product being used must be followed.

INFORMATIONS GÉNÉRALES

Les équipements Lancer sont expédiés depuis l'usine après avoir été nettoyés et aseptisés conformément aux lignes directrices de la NSF. Pour assurer le bon fonctionnement de cet équipement et maintenir les exigences sanitaires requises par le ministère de la santé local, l'exploitant doit effectuer l'entretien continu tel que décrit dans ce manuel.

Les procédures de nettoyage fournies ici concernent l'équipement Lancer identifié dans ce manuel. Si vous nettoyez un autre appareil, veuillez suivre les lignes directrices établies par le fabricant de cet équipement.

Le personnel assigné au nettoyage de l'appareil doit avoir reçu une formation à cet effet. L'utilisation de gants sanitaires est obligatoire pendant les interventions de nettoyage. Les mesures de sécurité en vigueur doivent être suivies. Observez toutes les étiquettes de sécurité apposées sur l'appareil.

⚠ ATTENTION

- Use sanitary gloves when cleaning the unit and observe all applicable safety precautions.
- **DO NOT** use a waterjet to clean or sanitize the unit.
- **DO NOT** disconnect water lines when cleaning and sanitizing syrup lines to avoid contamination.
- **DO NOT** use strong bleaches or detergents; these can discolor and corrode various materials.
- **DO NOT** use metal scrapers, sharp objects, steel wool, scouring pads, abrasives, or solvents on the dispenser.
- **DO NOT** use hot water above 140° F (60° C). This can damage the dispenser.
- **DO NOT** spill sanitizing solution on any circuit boards. Ensure all sanitizing solution is removed from the system.

⚠ ATTENTION

- Portez des gants sanitaires pendant le nettoyage de l'appareil et observez toutes les précautions de sécurité applicables.
- **N'UTILISEZ PAS** un nettoyeur à jet d'eau pour nettoyer ou désinfecter l'appareil.
- *Afin d'éviter la contamination, NE DÉBRANCHEZ PAS* les conduites d'eau pendant le nettoyage et la désinfection des conduites de sirop.
- **N'UTILISEZ PAS** d'agents de blanchiment ou des détergents industriels, ils peuvent décolorer et corroder divers matériaux.
- **NE NETTOYEZ PAS** l'appareil avec un objet tranchant, un racleur métallique, de la laine d'acier, un tampon à récurer, un produit abrasif ou du solvant.
- **N'UTILISEZ PAS** d'eau chaude à plus de 60 °C (140 °F). Cela pourrait endommager le distributeur de boissons.
- **NE RENVERSEZ PAS** de solution désinfectante sur les circuits intégrés. Assurez-vous d'enlever toute trace de solution désinfectante des organes de l'appareil.

Cleaning and Sanitizing Solutions

Cleaning Solution

Mix a mild, non-abrasive detergent (e.g. Sodium Laureth Sulfate, dish soap) with clean, potable water at a temperature of 90°F to 110°F (32°C to 43°C). The mixture ratio is one ounce of cleaner to two gallons of water. Prepare a minimum of five gallons of cleaning solution. Do not use abrasive cleaners or solvents because they can cause permanent damage to the unit. Ensure rinsing is thorough, using clean, potable water at a temperature of 90°F to 110°F (32°C to 43°C). Extended lengths of product lines may require additional cleaning solution.

Sanitizing Solution

Prepare the sanitizing solution in accordance with the manufacturer's written recommendations and safety guidelines. The type and concentration of sanitizing agent recommended in the instructions by the manufacturer shall comply with 40 CFR §180.940. The solution must provide 200 parts per million (PPM) chlorine (e.g. Sodium Hypochlorite or bleach) and a minimum of five gallons of sanitizing solution should be prepared.

Nozzle Sanitizing Solution

Prepare a chlorine solution (less than pH 7.0) containing 50 PPM chlorine with clean, potable water at a temperature of 90°F – 110°F (32°C - 43°C). Any sanitizing solution may be used as long as it is prepared according to manufacturer's recommendations and safety guidelines, and provides 50 PPM chlorine.

Integrity of Component Finish

While caring for your unit, please note that there may be some cleaners that may compromise the integrity of powder coated finishes, when used. The recommended method for cleaning the powder coated surface is to use warm water and a mild soap such as Windex, Dawn, 409, etc. Certain chemical cleaners such as Acetone, Mineral Spirits, or Lacquer thinners could cause aesthetic damage. Thoroughly rinse with water after cleaning the surface.

Other Supplies Needed:

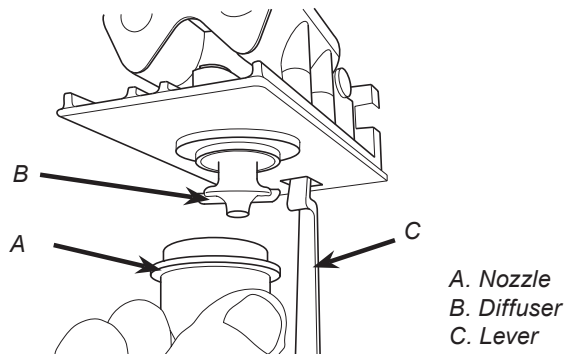
1. Clean cloth towels
2. Bucket
3. Extra nozzle
4. Sanitary gloves
5. Small brush (PN 22-0017)

Scheduled Maintenance/Cleaning

As Needed	• Keep exterior surfaces of unit clean using a clean, damp cloth.
Daily	• Using the cleaning solution, clean top cover and all exterior stainless steel surfaces. • Clean exterior of dispensing valves and ice chute. Clean interior of ice chute. • Remove cup rest then clean the drip tray and cup rest. Replace cup rest when finished. • Wipe clean all splash areas using a damp cloth soaked in cleaning solution. • Clean beverage nozzles as specified by the section "Cleaning and Sanitizing Nozzles".
Monthly	• Clean the ice bin, agitator, and ice chute assembly.
Every Six Months	• Clean the syrup lines as specified by the section "Cleaning and Sanitizing Syrup Lines - Bag-In-Box (BIB)". • Pull out unit (if applicable) and clean behind and underneath. Check for any loose components or strange noises.

Cleaning and Sanitizing Nozzles

1. Disconnect power so as not to activate valves while cleaning.
2. Remove the front cover to reveal valves.
3. Remove nozzle by twisting counterclockwise and pulling down.
4. Remove the diffuser by pulling it down.
5. Rinse nozzle and diffuser with warm water.



⚠ ATTENTION

DO NOT attempt to activate any valves while the outer nozzle is removed.

⚠ ATTENTION

N'ESSAYEZ PAS d'activer une quelconque vanne lorsque la buse extérieure est retirée.

6. Wash nozzle and diffuser with cleaning solution then immerse in sanitizing solution and let sit for fifteen (15) minutes.
7. Set nozzle and diffuser aside and let air dry. **DO NOT** rinse with water after sanitizing.
8. Reinstall the diffuser and nozzle.
9. Connect power.
10. Taste the drink to verify that there is no off-taste. If off-taste is found, flush syrup system again.

⚠ CAUTION

Residual sanitizing solution left in the system creates a health hazard. To comply with NSF requirements, following sanitization, do not use a fresh water rinse, instead, rinse with end-use product until there is no aftertaste.

⚠ MISE EN GARDE

Les résidus du produit désinfectant présentent un risque pour la santé. Pour se conformer aux exigences de la NSF, après avoir désinfecté l'appareil, n'utilisez pas d'eau de rinçage, plutôt rincer avec le produit final jusqu'à ce qu'il ne subsiste aucun mauvais goût.

Cleaning and Sanitizing Syrup Lines - Bag-In-Box (BIB)

1. Disconnect the flavor injector and syrup lines from BIB's.
2. Place lines with BIB connectors in a bucket of warm water.
3. Activate each valve to fill the lines with warm water and flush out syrup remaining in the lines.
4. Prepare the cleaning solution described in the "Cleaning and Sanitizing Solutions" section.
5. Place lines with BIB connectors into the cleaning solution.
6. Activate each valve until lines are filled with cleaning solution, then let stand for ten (10) minutes.
7. Flush out cleaning solution from the lines using clean, warm water.
8. Prepare the sanitizing solution described in the "Cleaning and Sanitizing Solutions" section.
9. Place lines into sanitizing solution and activate each valve to fill lines with sanitizer. Let sit for ten (10) minutes.

10. Reconnect lines to BIB's and draw drinks to flush solution from the dispenser.
11. Taste the drink to verify that there is no off-taste. If off-taste is found, flush the flavor injector or the syrup system again.

⚠ CAUTION

Residual sanitizing solution left in the system creates a health hazard. To comply with NSF requirements, following sanitization, do not use a fresh water rinse, instead, rinse with end-use product until there is no aftertaste.

⚠ MISE EN GARDE

Les résidus du produit désinfectant présentent un risque pour la santé. Pour se conformer aux exigences de la NSF, après avoir désinfecté l'appareil, n'utilisez pas d'eau de rinçage, plutôt rincer avec le produit final jusqu'à ce qu'il ne subsiste aucun mauvais goût.

Ice Chute Cleaning

NOTE

It is recommended to perform this procedure monthly or more often if desired. Use the cleaning solution described in Step 5. An alternate solution of one part water to one part vinegar may be used to remove water spots and calcium deposits.

REMARQUE

Il est recommandé d'effectuer cette procédure chaque mois, ou plus fréquemment si souhaité. Utilisez la solution de nettoyage décrite à l'étape 5. Une solution alternative composée d'une part d'eau et d'une part de vinaigre peut être utilisée pour éliminer les taches d'eau et les dépôts de calcium.

1. Turn off power to the dispenser.
2. Remove merchandiser.
3. Remove ice chute lever, then remove splash plate assembly by lifting it up and out from the dispenser face.

NOTE

Always remove the ice chute lever before removing the splash plate.

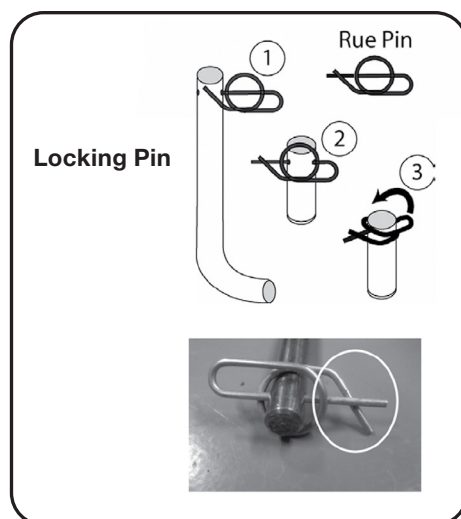
REMARQUE

Retirez toujours le levier de la goulotte à glaçons avant de retirer la plaque anti-éclaboussures.

4. Remove the ice chute assembly base by removing the four (4) screws that attach it to the unit.
5. Prepare the cleaning solution described in the "Cleaning and Sanitizing Solutions" section.
6. Soak the ice chute assembly in the solution.
7. Rinse and dry the ice chute assembly thoroughly.
8. Reinstall the ice chute assembly.
9. Reinstall the merchandiser and splash plate.
10. Reconnect power to the dispenser.

Ice Bin Cleaning

1. Disconnect the dispenser from the power source.
2. Remove the top cover.
3. Melt out any remaining ice from the bin.
4. Remove locking pin from agitator bar (see photo below). Slide the agitator bar rearward out of the motor shaft and pull out of rear bearing to remove.
5. Remove dispensing wheel from motor shaft by sliding rearward.
6. For Hard Ice: Remove the ice shroud.
For Soft Ice: Leave the ice shroud in place.
7. Prepare the Cleaning Solution described in the "Cleaning and Sanitizing Solutions" section.
8. Using the cleaning solution and a clean cloth or soft brush, clean all removable parts, sides of ice bin, ice chute, and surface of aluminum casting (for hard ice only).
9. Repeat Step 8 for all exterior surfaces of the dispenser.
10. Using hot water, thoroughly rinse away the cleaning solution.
11. Prepare the sanitizing solution described in the "Cleaning and Sanitizing Solutions" section.
12. Wearing sanitary gloves, soak a clean cloth towel in sanitizing solution and wash all surfaces of removable parts, sides of ice bin, ice chute, and surface of aluminum casting.
13. Using hot water, thoroughly rinse away the sanitizing solution.
14. Repeat Step 12 for all metal and plastic surfaces (but not labels) of the dispenser exterior.
15. Wearing sanitary gloves, reassemble all removable parts. Ensure the locking pin is locked.
16. Fill the unit with ice and replace the top cover.
17. Reconnect the dispenser to the power source.



TROUBLESHOOTING

Valve, Syrup/Flavor Line Troubleshooting

TROUBLE	CAUSE	REMEDY
No product when switch is activated (switch panel not lit).	1. Malfunctioning switch assembly. 2. No power to dispenser. 3. Malfunctioning power supply. 4. Malfunctioning PCB board.	1. Replace switch assembly. 2. Check internal breaker and incoming power. 3. Check voltage to power supply. Check fuses. 4. Replace PCB board.
No product when switch is activated (switch panel lit).	1. Keyswitch is off or keyswitch harness is disconnected. 2. Malfunctioning switch assembly. 3. Malfunctioning VersaPour valve.	1. Turn keyswitch on and/or reconnect keyswitch harness. 2. Replace switch assembly. 3. Replace module.
Water in ice bin.	1. Cold plate drain is obstructed.	1. Remove splash plate and drip tray to obtain access to drain tubes and clear accordingly.
Water leakage around nozzle.	1. Damaged or improperly installed o-ring on nozzle.	1. If damaged, replace. If improperly installed, adjust.
Miscellaneous leakage.	1. Gap between parts. 2. Damaged or improperly installed O-rings.	1. Tighten appropriate retaining screws. 2. Replace or adjust appropriate O-rings.
Insufficient soda flow (carbonated drinks).	1. Insufficient CO₂ supply pressure. 2. Shutoff on mounting block is not fully open. 3. Foreign debris in soda flow control.	1. Verify incoming CO₂ pressure is between 90 PSIG (0.621 MPA) and 120 PSIG (0.827 MPA) 2. Open shutoff fully. 3. Remove soda flow control from valve and clean out any foreign material to ensure smooth spool movement.
Insufficient water flow (plain water drinks).	1. Insufficient incoming supply pressure. 2. Shutoff on mounting block not fully open. 3. Foreign debris in water flow control. 4. Water filtration problem.	1. Verify incoming supply water pressure to plain water inlet is a minimum of 50 PSI (0.345 MPA) and a maximum of 145 PSI (1.00 MPA). Reduce the incoming supply water pressure to plain water inlet to the recommended operating pressure range of 80-100 PSI (0.552-0.689 MPA). 2. Open shutoff fully. 3. Remove water flow control from valve and clean out any foreign material to ensure smooth spool movement. 4. Service water system as required.
Insufficient syrup flow.	1. Insufficient CO₂ pressure to BIB pumps. 2. Shutoff on mounting block not fully open. 3. Foreign debris in syrup flow control. 4. Defective BIB pump.	1. Adjust CO₂ pressure to BIB pumps to 80 PSI (0.552 MPA) [min. 70 PSI (0.483 MPA)]. Do not exceed manufacturer's recommendations. 2. Open shutoff fully. 3. Remove syrup flow control from valve and clean out any foreign material to ensure smooth spool movement. 4. Replace pump.

TROUBLE	CAUSE	REMEDY
Erratic ratio.	1. Incoming water and/or syrup supply not at minimum flowing pressure. 2. Foreign debris in water and/or syrup flow control. 3. CO₂ regulator malfunction.	1. Check pressure and adjust. 2. Remove flow control from suspected valve and clean out any foreign material to ensure smooth spool movement. 3. Repair or replace CO₂ regulator.
Valve will not shut off.	1. Debris in paddle arms. 2. Solenoid plunger sticking.	1. Activate valve a few times to free debris. Clean out any foreign material. 2. Replace solenoid coil.
Water continually leaking at connections.	1. Loose water connections. 2. Flare seal washer leaks.	1. Tighten water connections. 2. Replace flare seal washer.
Water only dispensed (no syrup), or syrup only dispensed (no water).	1. Syrup BIB empty. 2. Water or syrup shutoff on mounting block not fully open. 3. Improper or inadequate water or syrup supply. 4. CO₂ pressure to syrup pump too low. 5. Stalled or inoperative BIB pump. 6. Kinked line. 7. CO₂ regulator malfunction.	1. Replace syrup BIB as required. 2. Open shutoff completely. 3. Remove valve from mounting block & open shutoffs slightly. Check water & syrup supply. If no supply, check unit for other problems. Ensure BIB connection is engaged. 4. Check the CO₂ pressure to the pump to ensure it is between 90-120 PSI (0.621-0.827 MPA). 5. Check CO₂ pressure and/or replace pump. 6. Remove kink or replace line. 7. Repair or replace CO₂ regulator as required.
Syrup only dispensed (no water), but CO ₂ gas dispensed with syrup.	1. Improper water flow to dispenser. 2. Carbonator pump motor has timed out. 3. Liquid level probe not connected properly to PCB. 4. Defective PCB assembly. 5. Defective liquid level probe. 6. Weak or defective carbonator pump.	1. Check for water flow to dispenser. 2. Reset by turning the unit OFF, then ON by using the circuit breaker on the power supply or momentarily unplugging unit. 3. Check connections of liquid level probe to PCB assembly. 4. Replace PCB assembly. 5. Replace liquid level probe. 6. Replace pump.
Excessive foaming.	1. No ice in bin. 2. Incoming water or syrup temperature too high. 3. CO₂ pressure too high. 4. Water flow rate too high. 5. Nozzle and diffuser not clean. 6. Air in BIB lines.	1. Fill bin with ice and allow cold plate to restabilize. 2. Correct temperature prior to reaching dispenser. 3. Adjust CO₂ pressure downward, but not less than 90 PSI (0.621 MPA). 4. Adjust and reset ratio. 5. Remove and clean. 6. Bleed air from BIB lines.

TROUBLE	CAUSE	REMEDY
Low or no carbonation.	1. Low or no CO₂. 2. Low water pressure. 3. Worn or defective carbonator pump. 4. Backflow preventer not allowing water to flow. 5. Probe malfunctioning. 6. PCB malfunctioning.	1. Check CO₂ supply. Adjust CO₂ pressure to 90-120 PSI (0.621-0.827 MPA). 2. Need water booster kit. 3. Replace carbonator pump. 4. Replace backflow preventer, noting the flow direction arrow from pump to cold plate. 5. Replace probe. 6. Replace PCB.

Ice Bin/Ice Chute/Carbonator Pump Troubleshooting

TROUBLE	CAUSE	REMEDY
Push ice chute; no response.	1. Dispenser not connected to power source. 2. Wiring harness not plugged in. 3. PC board defective. 4. Malfunctioning power supply.	1. Connect dispenser to power source. 2. Plug in wiring harness. 3. Replace PC board. 4. Check voltage to power supply. Check fuses.
Push ice chute, ice door opens but motor does not run.	1. Wiring harness not plugged in. 2. PC board defective. 3. Motor defective.	1. Plug in wiring harness. 2. Replace PC board. 3. Replace motor.
Push ice chute, motor runs but ice door does not open.	1. Solenoid not connected to PC board. 2. Solenoid defective. 3. PC board defective.	1. Connect solenoid to PC board. 2. Replace solenoid. 3. Replace PC board.
Push ice chute, ice door opens, motor runs, but ice does not dispense, or ice is of poor quality.	1. Dispenser is out of ice. 2. Agitator pin is missing or damaged. 3. Poor ice quality. 4. Key not installed on agitation shaft.	1. Fill dispenser with ice. 2. Replace agitator pin. 3. Service ice machine. 4. Install key on agitation shaft.
Noisy/cavitating carbonator pump.	1. Insufficient incoming water supply pressure.	1. Verify incoming supply water pressure to carbonator pump is min. of 25 PSI (0.172 MPA) or maximum of 50 PSI (0.345 MPA).

Remote Syrup Pump Troubleshooting

TROUBLE	CAUSE	REMEDY
BIB pump does not operate when dispensing valve is opened.	1. Out of CO₂, CO₂ not turned on, or low CO₂ pressure. 2. Out of syrup. 3. BIB connector not tight. 4. Kinks in syrup or gas lines.	1. Replace CO₂ supply, turn on CO₂ supply, or adjust CO₂ pressure to 90-120 PSI (0.621-0.827 MPA). 2. Replace syrup supply. 3. Fasten connector tightly. 4. Straighten or replace lines.
BIB pump operating, but no flow.	1. Leak in syrup inlet or outlet line. 2. Defective BIB pump.	1. Replace line. 2. Replace BIB pump.

TROUBLE	CAUSE	REMEDY
BIB pump continues to operate when bag is empty.	1. Leak in suction line. 2. Leaking O-ring on pump inlet fitting. 3. Defective syrup BIB pump.	1. Check BIB connector, if still leaking then replace line. 2. Replace O-ring. 3. Replace defective pump.
BIB pump fails to restart after bag replacement.	1. BIB connector not on tightly. 2. BIB connector is stopped up. 3. Kinks in syrup line.	1. Tighten BIB connector. 2. Clean out or replace BIB connector. 3. Straighten or replace line.
BIB pump fails to stop when dispensing valve is closed.	1. Leak in discharge line or fittings. 2. Empty BIB. 3. Air leak on inlet line or bag connector.	1. Repair or replace discharge line. 2. Replace BIB. 3. Repair or replace.

LED Warnings

LED	DESCRIPTION
D3	This light is on when the ice dispense switch is activated. If the ice chute is depressed and the light does not turn on, check to see if the wire harness is connected or if the dispense switch is defective.
D4	This light is used on units with lid interlock switches. On the 4500 series ice-beverage dispenser, this light should always be lit. If it is not, check the lid interlock jumper (black wire with 4-pin white connector).
D5	This light is on when +5VDC is present at the circuit board. It should be lit whenever the unit is connected to a power source. If the light is off, check to see if the internal circuit breaker on the transformer has tripped. If it has tripped, it can be reset by depressing the switch on the top of the transformer.
D6	This light is on when +32VDC is present at the circuit board. It should be lit whenever the unit is connected to a power source. If the light is off, check to see if the internal circuit breaker on the transformer has tripped. If it has tripped, it can be reset by depressing the switch on the top of the transformer.
D7	This light flashes when there is no ice between the sensors in the ice bin. If the bin is empty and the light is not flashing, check all wiring harnesses.
D8	This light is on when the solenoid is activated. When the ice chute is depressed, this light should turn on. If it does not, check to see if the solenoid leads are connected to the PC board or damaged. Check continuity of solenoid. Replace if defective.
D9	This light is on when the motor is activated. When the ice chute is depressed, this light should turn on. If it does not, check to see if the motor harness is connected to the PC board or damaged. Check continuity of motor harness and motor. Replace if defective.

Automatic Agitation

NOTE

Refer to Automatic Agitation Warning at beginning of manual.

REMARQUE

Se référer à l'avertissement d'agitation automatique au début du manuel.

Each model 4500 ice beverage dispenser is equipped with automatic agitation for the ice bin. The unit is shipped with timing set at two (2) seconds ON every 60 minutes. Referring to the tables on the wiring diagram included in this manual (also affixed to the electrical box cover) or the Ice Board and Ice Agitation Control Settings section of this manual, the automatic agitation timing can be changed as follows:

A set of DIP switches is provided to control the timing.

Dispensers using pellet ice must have the automatic agitation settings adjusted to four (4) seconds ON every 150 minutes.

DIP#	DESCRIPTION
DIP#3 and DIP#4	These switches control the ON time for automatic agitation. By referring to the table and setting the switches as shown, ON times from one (1) second to four (4) seconds [in one (1) second increments] can be obtained. EXAMPLE: For three (3) seconds ON time, switch 3 should be in the ON position, and switch 4 should be in the OFF position. The unit is shipped with two (2) seconds ON time.
DIP#5 - #8	- These switches control the OFF time for automatic agitation. By referring to the table and setting the switches as shown, OFF times from 10 minutes to 150 minutes (in 10 minute increments) can be obtained. EXAMPLE: For 40 minute OFF time, switch 5 should be in the OFF position, switch 6 should be in the ON position, switch 7 should be in the OFF position, and switch 8 should be in the OFF position. The unit is shipped with 60 minute OFF time. - To turn the agitation completely off, set switches 5 through 8 all OFF.

Switch 1: Not used.

Switch 2: Not used.

Switch 3-4: Agitation Times

(Shown at one-second intervals)

Switch 5-8: Agitation Frequency

(Shown at ten-minute intervals)

Switch #		Agitation ON Times
3	4	
OFF	OFF	1 Second
OFF	ON	2 Seconds
ON	OFF	3 Seconds
ON	ON	4 Seconds

Switch Number				Agitation OFF Times
5	6	7	8	
OFF	OFF	OFF	OFF	No Agitation
OFF	OFF	OFF	ON	10 Minutes
OFF	OFF	ON	OFF	20 Minutes
OFF	OFF	ON	ON	30 Minutes
OFF	ON	OFF	OFF	40 Minutes
OFF	ON	OFF	ON	50 Minutes
OFF	ON	ON	OFF	60 Minutes
OFF	ON	ON	ON	70 Minutes
ON	OFF	OFF	OFF	80 Minutes
ON	OFF	OFF	ON	90 Minutes
ON	OFF	ON	OFF	100 Minutes
ON	OFF	ON	ON	110 Minutes
ON	ON	OFF	OFF	120 Minutes
ON	ON	OFF	ON	130 Minutes
ON	ON	ON	OFF	140 Minutes
ON	ON	ON	ON	150 Minutes

Dispenser Disposal

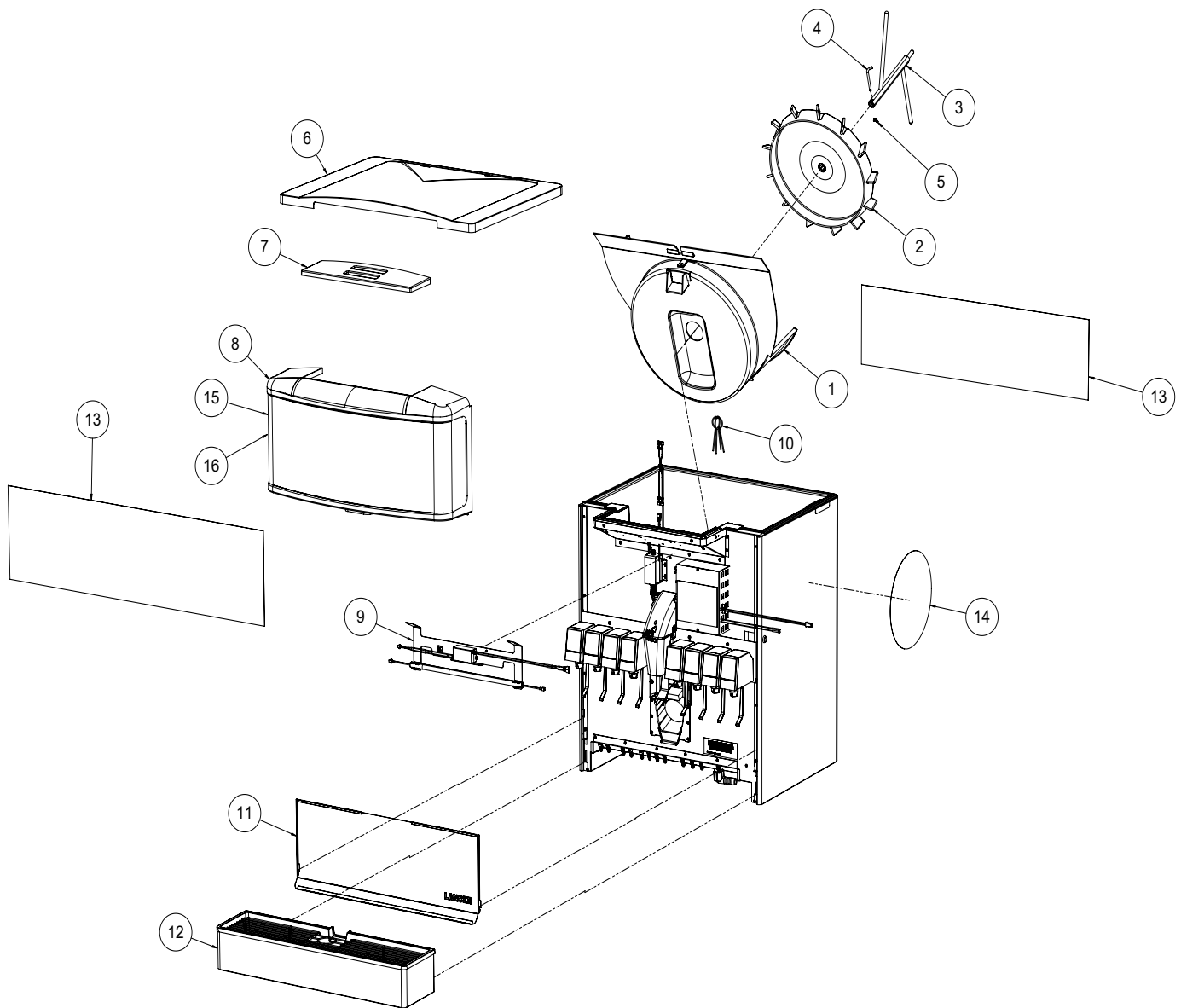


To prevent possible harm to the environment from improper disposal, recycle the unit by locating an authorized recycler or contact the retailer where the product was purchased. Comply with local regulations regarding disposal of insulation.

ILLUSTRATIONS AND PART LISTINGS

Main Unit Assembly (IBD 22, IBD 25, IBD30)

Illustration shows IBD 30 unit but is representative of IBD 22 and IBD 25 units.



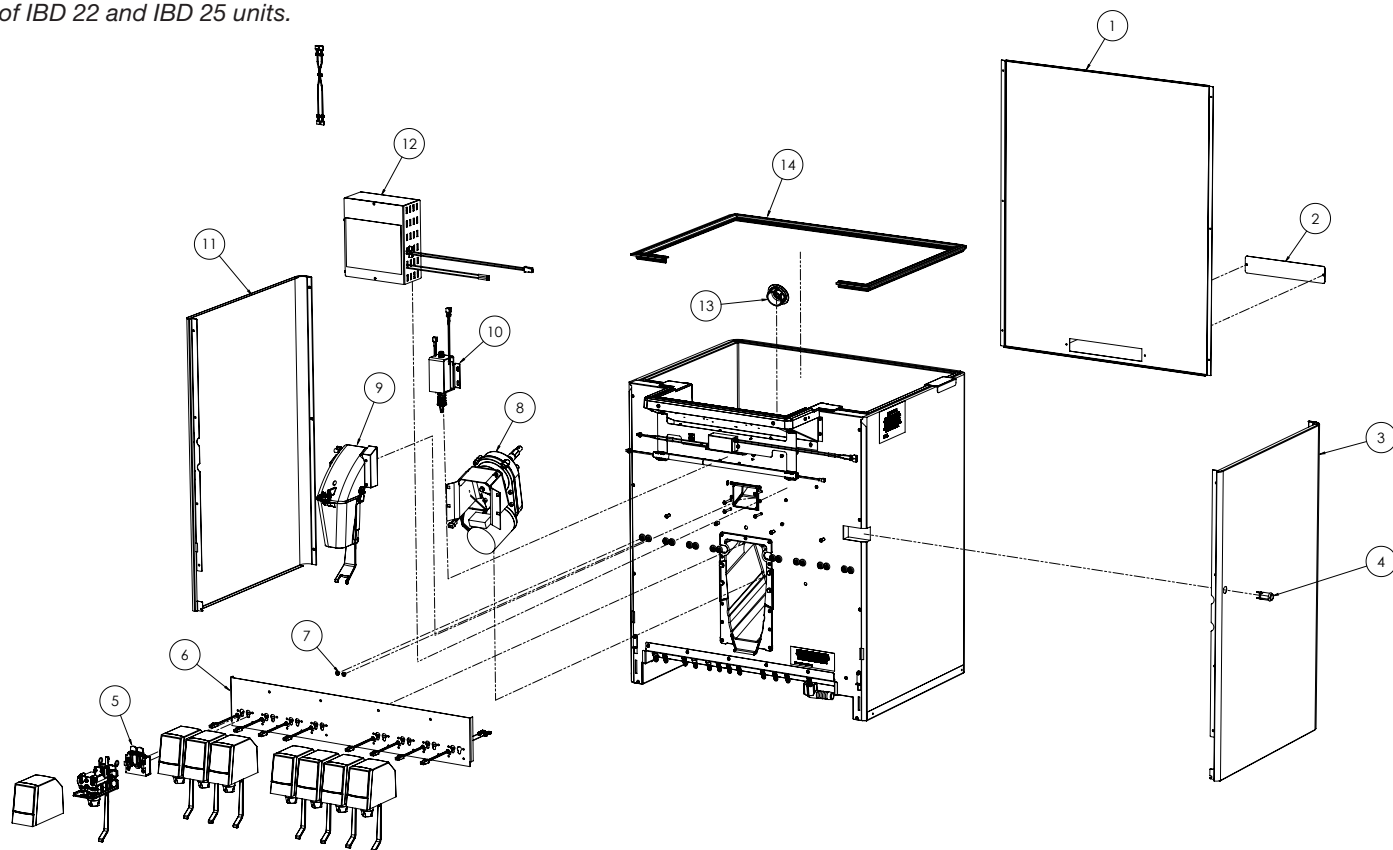
Main Unit Assembly (IBD 22, IBD 25, IBD 30) Continued

Item	Part No.	Description
1	05-2753/01	Wheel Shroud, IBD22
-	05-1658/02	Wheel Shroud, IBD25
-	05-1310/02	Wheel Shroud, IBD30
2	82-3556-01	Dispensing Wheel Assy
3	23-1373	Agitator Assy
4	10-0762	Agitator Pin
5	03-0368	Agitator Retainer Pin
6	05-1467/01	Back Lid, IBD22
-	05-1659	Back Lid, IBD25
-	05-1606	Back Lid, IBD30
7	05-1476/02	Front Lid
8	82-2630	Merchandiser Assy, IBD 22
-	82-2706/02	Merchandiser Assy, IBD 25
-	82-2641/01	Merchandiser Assy, IBD 30
9	82-5169	LED Light Assy
10	23-1038/01	Drain Spider
11	30-8466	Splash Plate, IBD 22
-	30-9073	Splash Plate, Extended, IBD 22
-	30-8625	Splash Plate, IBD 25
-	30-9372	Splash Plate, Extended, IBD 25
-	30-10141	Splash Plate, IBD 30
-	30-8565/01	Splash Plate, Extended, IBD 30
12	82-4042/02	Drip Tray Assy, IBD 22
-	82-3186/02	Drip Tray Assy, IBD 25
-	82-4153/03	Drip Tray Assy, IBD 30
13	06-2165 *	Graphic Panel, Generic, IBD 22
-	06-2166 *	Graphic Panel, Generic, IBD 25
-	06-2167 *	Graphic Panel, Generic, IBD 30
14	06-2058/02	Wrapper Decal, Round, Side, CC, IBD
15	27-0063	Merchandiser Lens, IBD 22
-	27-0068	Merchandiser Lens, IBD 25
-	27-0064	Merchandiser Lens, IBD 30
16	27-0069/01	Diffuser Lens, IBD 22
-	27-0071/01	Diffuser Lens, IBD 25
-	27-0070/01	Diffuser Lens, IBD 30

** Please contact Customer Service for other brand panel graphic options.*

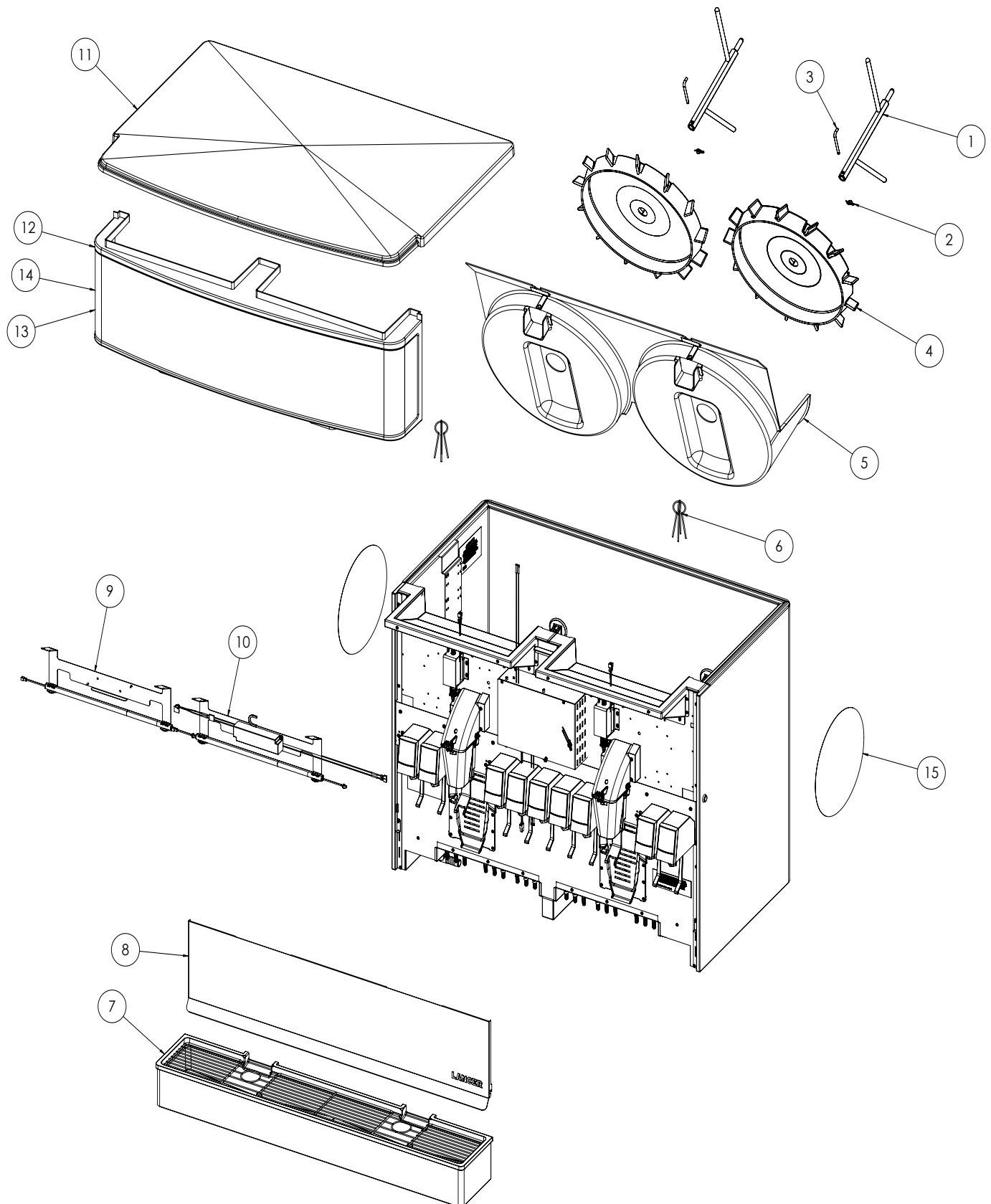
Subassemblies (IBD 22, IBD 25, IBD30)

Illustration shows IBD 30 unit but is representative of IBD 22 and IBD 25 units.



Item	Part No.	Description
1	30-10350	Back Wrapper, IBD 22
-	30-10877	Back Wrapper, IBD 25
-	30-10878	Back Wrapper, IBD 30
2	30-6149	Cut Out Cover, Wrapper, IBD 22
-	30-7113	Cut Out Cover, Wrapper, IBD 25 & IBD 30
3	30-10348/01	Right Wrapper
4	12-0097	Key Lock Switch
5	82-0274	Mounting Block Assy
6	82-1559	Faucet Plate Assy, 6V, IBD 22
-	82-2703	Faucet Plate Assy, 8V, IBD 25
-	82-1631	Faucet Plate Assy, 8V, IBD 30
-	82-1938	Faucet Plate Assy, 10V, IBD 30
7	02-0005/01	O-Ring, 2-010
8	82-3688/02	Drive Assy, Motor, 115V
-	82-3834/01	Drive Assy, Motor, 230V
9	82-3987	Ice Chute Assy
10	82-4226	Solenoid Assy
11	30-10349	Left Wrapper
12	82-6007	Electrical Box Assy, 115V, IBD
-	82-2017/03	Electrical Box Assy, 230V, IBD
13	02-1066/01	Motor Shaft Seal
14	82-1551/02	Trim Assy, IBD 22
-	82-2704	Trim Assy, IBD 25
-	82-1618/02	Trim Assy, IBD 30

Main Unit Assembly (IBD 44)



Main Unit Assembly (IBD 44) Continued

Item	Part No.	Description
1	23-1373	Agitator Assy
2	03-0368	Agitator Retainer Pin
3	10-0762	Agitator Pin
4	82-3650	Dispensing Wheel Assy
5	05-1311/01	Wheel Shroud, IBD 44
6	23-1038/01	Drain Spider
7	82-3187/03	Drip Tray Assy, IBD 44
8	30-8635/01	Splash Plate, IBD 44
-	30-8794	Splash Plate, Extended, IBD 44
9	82-6027	LED Light Assy, No Driver, IBD 44
10	82-5264	LED Light Assy, IBD 44
11	05-1392	One Piece Lid, IBD 44
12	82-1980/04	Merchandiser Assy, IBD 44
13	06-2168 *	Graphic Panel, Generic, IBD 44
14	27-0056	Merchandiser Lens, IBD 44
15	06-2058/02	Wrapper Decal, Round, Side, CC, IBD

** Please contact Customer Service for other brand panel graphic options.*

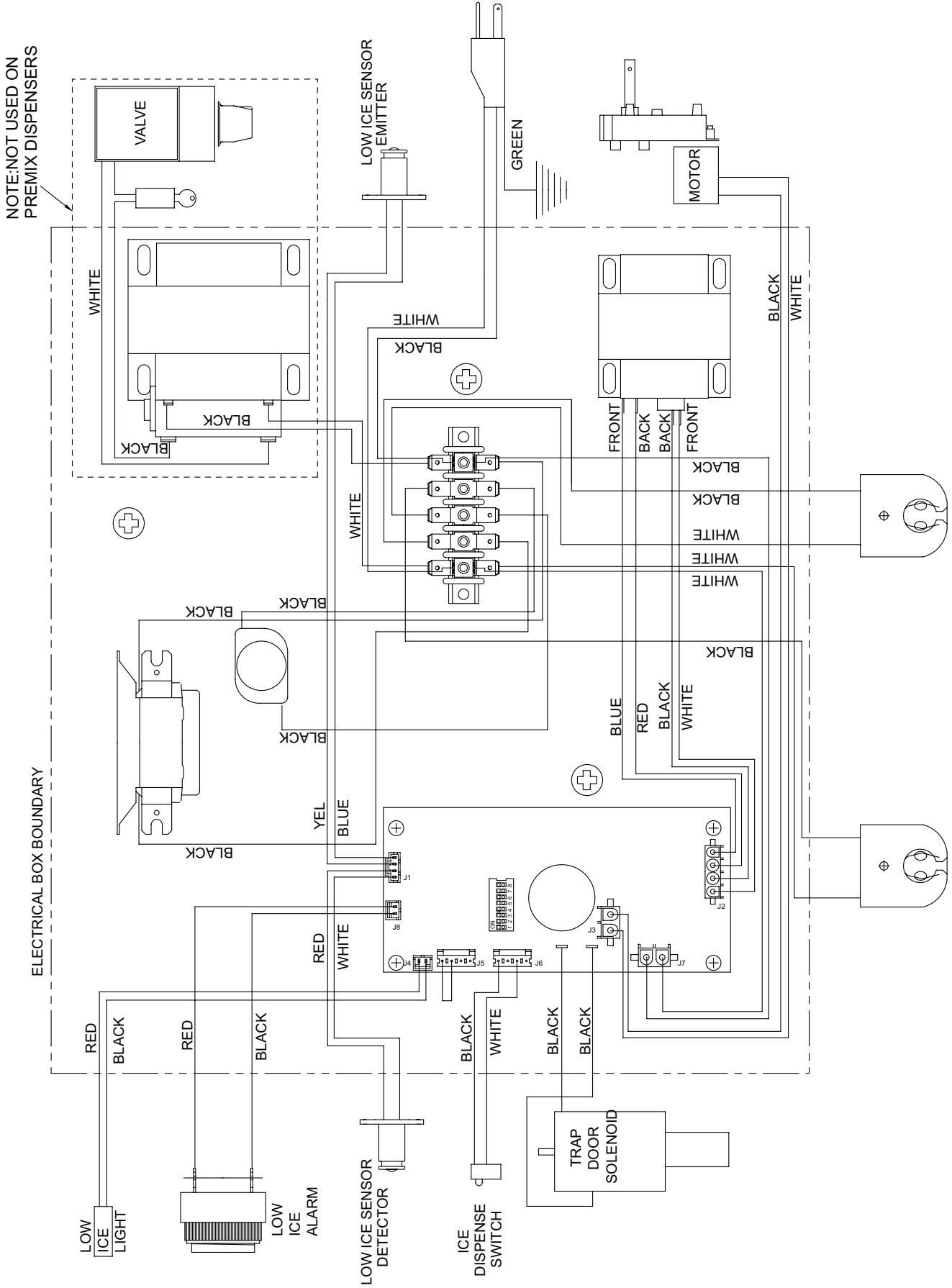
This exploded view diagram illustrates the assembly of a 100A 3P+N+PE distribution cabinet. The components are numbered as follows:

- 1**: Top cover plate.
- 2**: Left door panel.
- 3**: Right door panel.
- 4**: Door hinge pin.
- 5**: Door latch.
- 6**: Lock pin.
- 7**: Main terminal block.
- 8**: Terminal block cover.
- 9**: Main terminal block mounting rail.
- 10**: Cable gland.
- 11**: Cable gland mounting plate.
- 12**: Cable gland mounting pin.
- 13**: Cable gland mounting bracket.
- 14**: Cable gland mounting bracket.
- 15**: Cable gland mounting bracket.
- 16**: Cable gland mounting bracket.

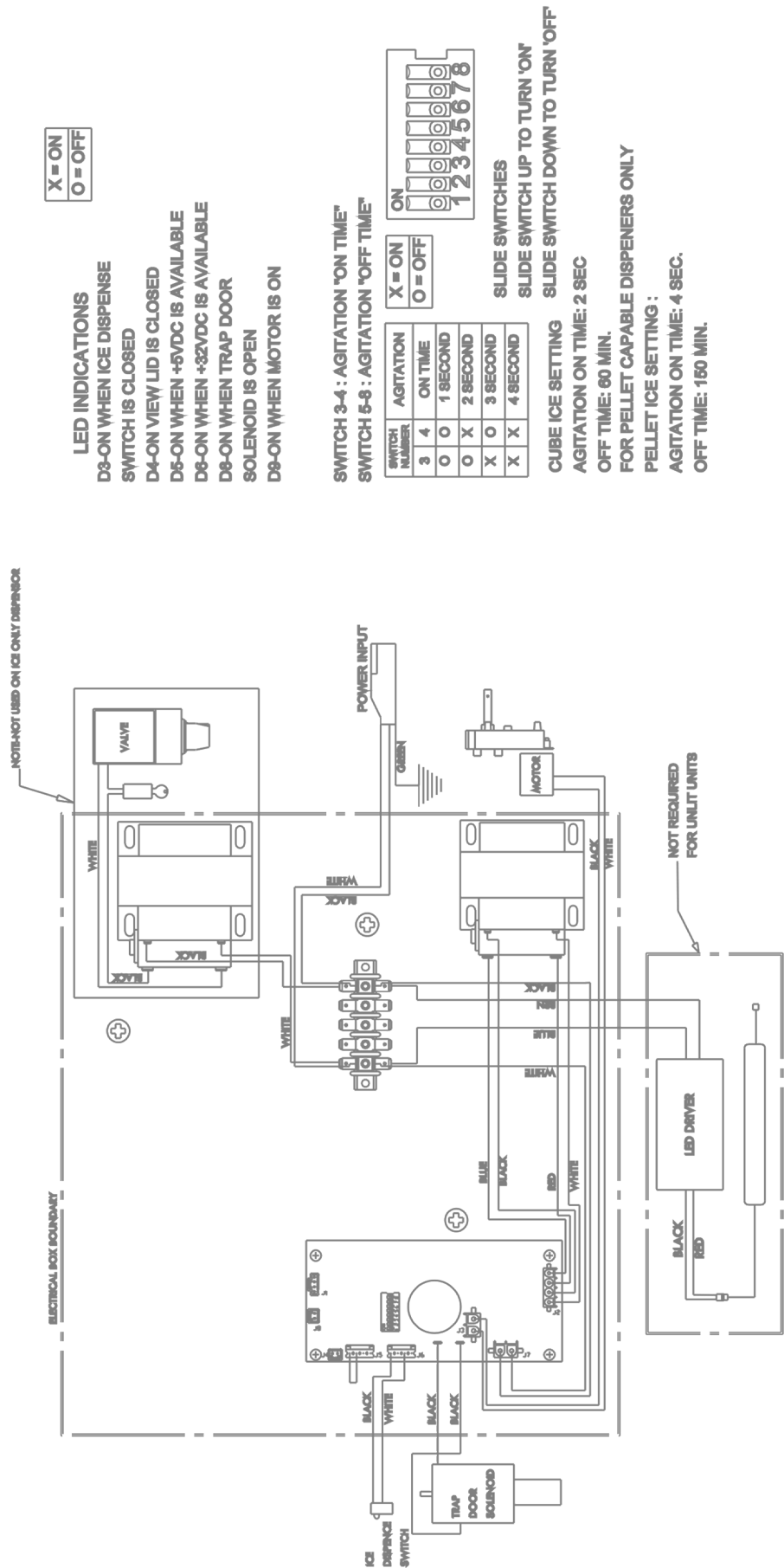
Subassemblies (IBD 44) Continued

Item	Part No.	Description
1	82-1899	Trim Assy, IBD 44
2	30-8637	Left Wrapper, IBD 44
3	30-8636	Back Wrapper, IBD 44
4	30-8638	Right Wrapper, IBD 44
5	30-6149	Cut Out Cover, Wrapper, IBD
6	12-0097	Key Lock Switch
7	82-3688/02	Drive Assy, Motor, Left, 115V
-	82-3689/01	Drive Assy, Motor, Right, 115V
-	82-3834/01	Drive Assy, Motor, Left, 230V
-	82-3941/01	Drive Assy, Motor, Right, 230V
8	30-6147	Motor Cover, IBD
9	82-2260	Faucet Plate Assy, 12V, IBD 44
10	30-6679	Merchandiser Bracket
11	82-2404	Electrical Box Assy, 115V, IBD 44
-	82-3811	Electrical Box Assy, 230V, IBD 44
12	02-1066/01	Motor Shaft Seal
13	82-4226	Solenoid Assy
14	82-3987	Ice Chute Assy
15	82-0274	Mounting Block Assy
16	02-0005/01	O-Ring, 2-010

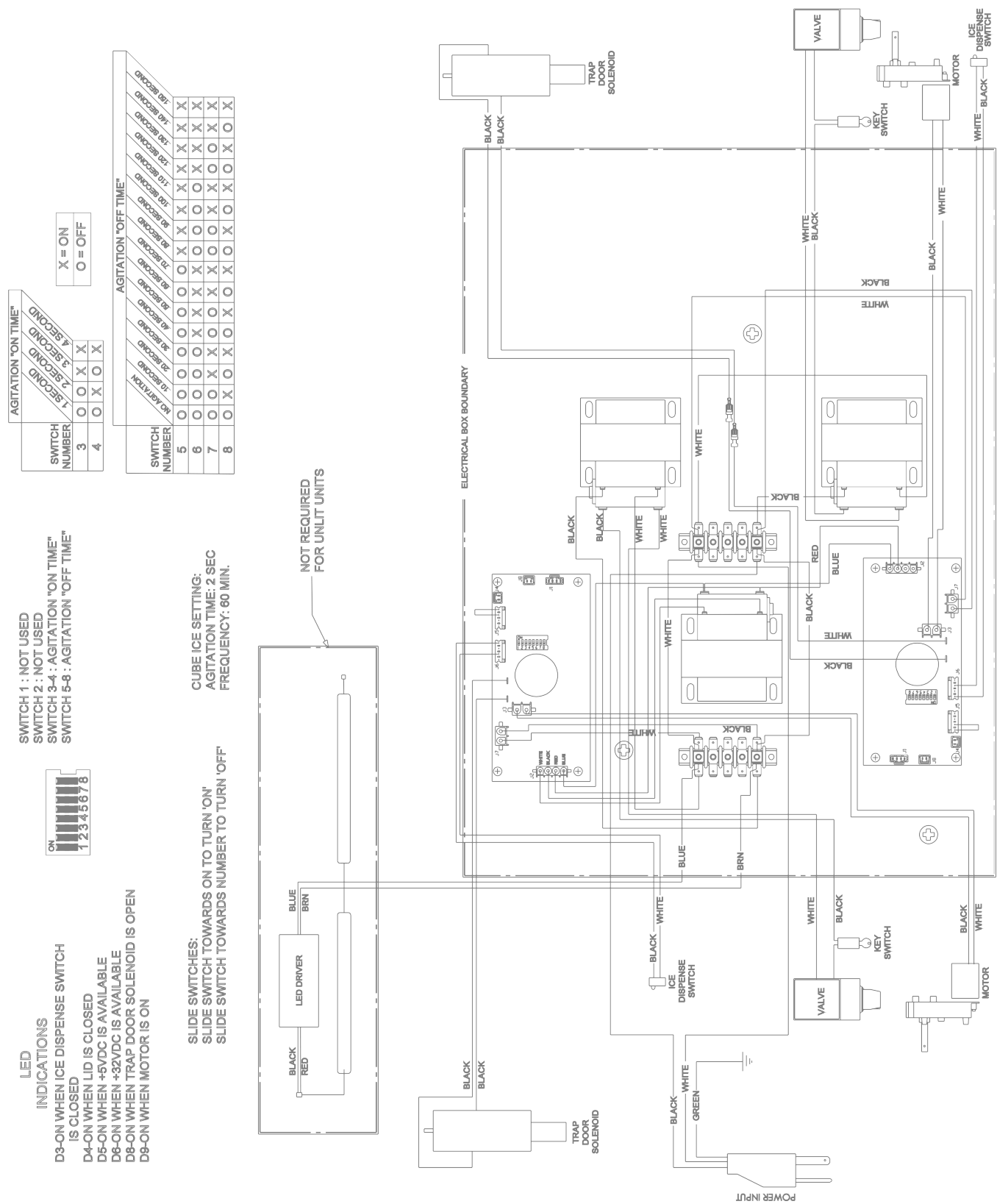
Wiring Diagram - 115 Volt, 60 Hz (IBD 22, IBD 25, IBD 30)



Wiring Diagram - 230 Volt, 50/60 Hz (IBD 22, IBD 25, IBD 30)



Wiring Diagram - 115 Volt/230 Volt (IBD 44)



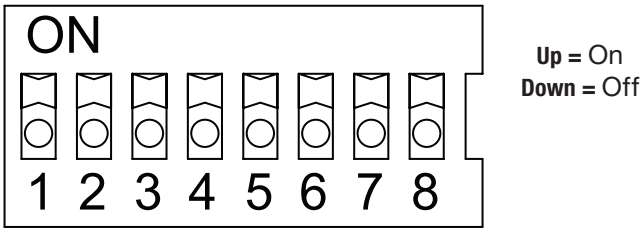
Ice Agitation Controls

Switch Number				Agitation Off Time
5	6	7	8	
O	O	O	O	No Agitation
O	O	O	X	10 Minutes
O	O	X	O	20 Minutes
O	O	X	X	30 Minutes
O	X	O	O	40 Minutes
O	X	O	X	50 Minutes
O	X	X	O	60 Minutes
O	X	X	X	70 Minutes
X	O	O	O	80 Minutes
X	O	O	X	90 Minutes
X	O	X	O	100 Minutes
X	O	X	X	110 Minutes
X	X	O	O	120 Minutes
X	X	O	X	130 Minutes
X	X	X	O	140 Minutes
X	X	X	X	150 Minutes

Switch #		Agitation On Time
3	4	
O	O	1 Second
O	X	2 Seconds
X	O	3 Seconds
X	X	4 Seconds

Key
X = On
O = Off

Switch 1: “Low Ice” LED Indicator
 Switch 2: “Low Ice” Alarm
 Switch 3-4: Agitation On Time
 Switch 5-8: Agitation Off Time



Cube Ice Setting:

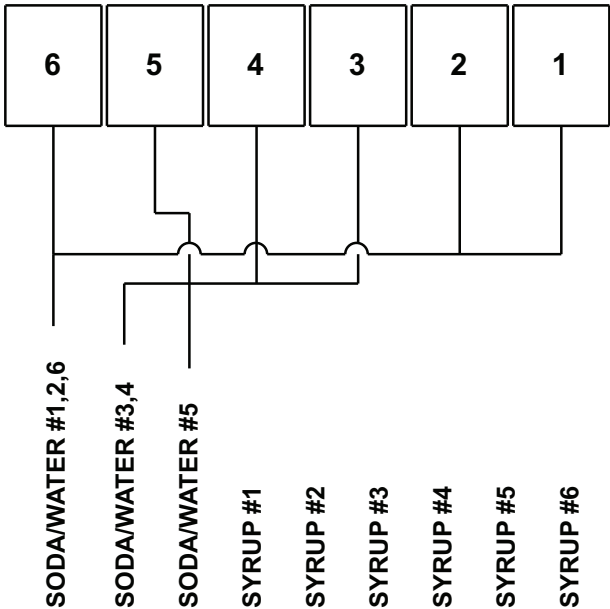
Agitation On Time: 2 Seconds
 Agitation Off Time: 60 Minutes

Pellet Ice Setting:

Agitation On Time: 4 Seconds
 Agitation Off Time: 150 Minutes

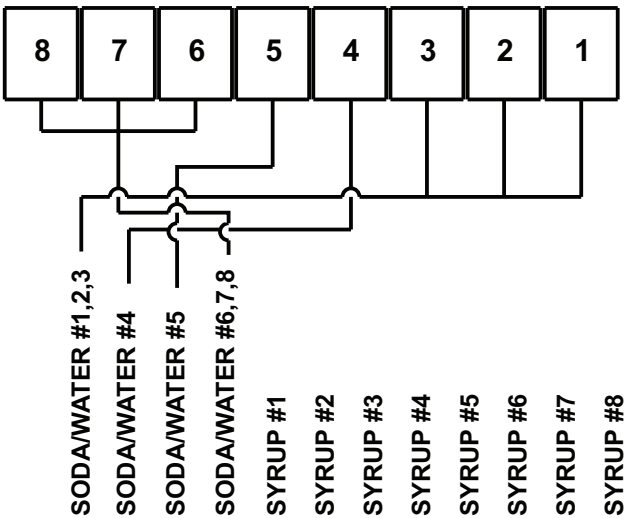
Plumbing Diagrams

6 Dispensing Valves



SYRUP LINES NOT SHOWN
 3-2-1 CONFIGURATION
 FOR ASSISTANCE CALL 1-800-729-1500
 06-1181/02

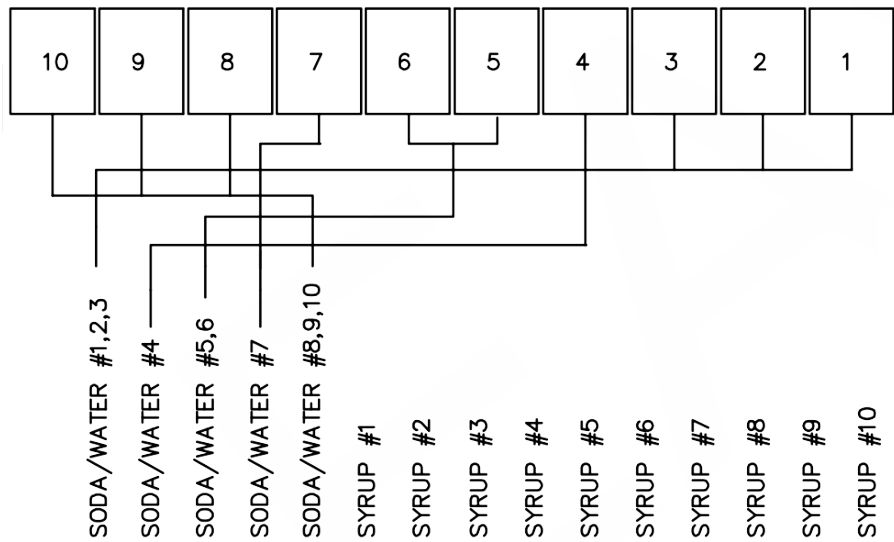
8 Dispensing Valves



SYRUP LINES NOT SHOWN
 3-1-1-3 CONFIGURATION
 FOR ASSISTANCE CALL 1-800-729-1500
 06-2226

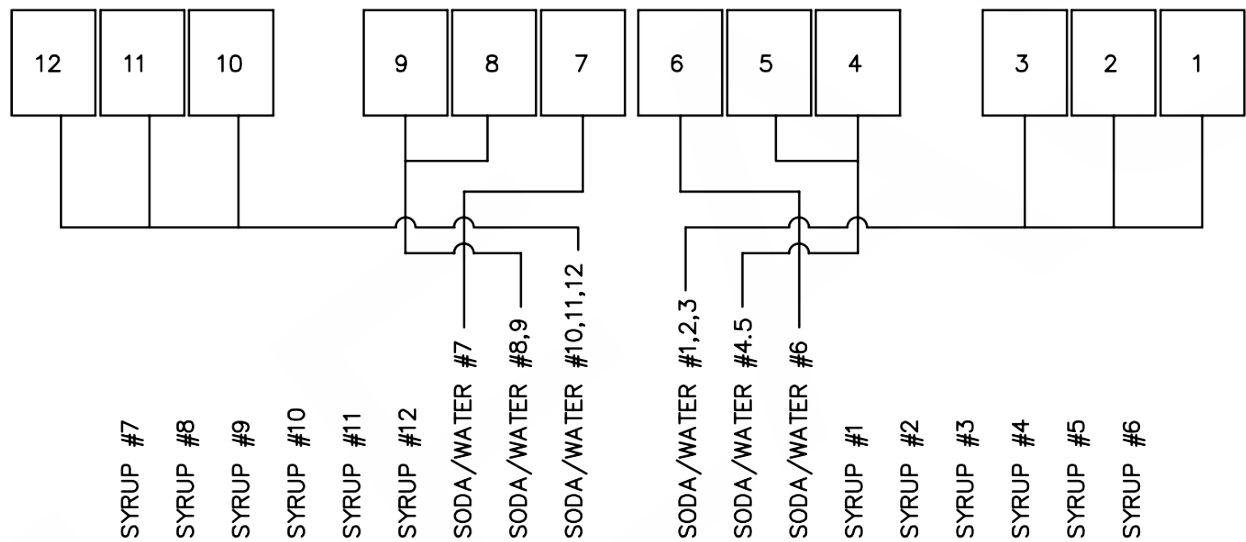
Plumbing Diagrams Continued

10 Dispensing Valves



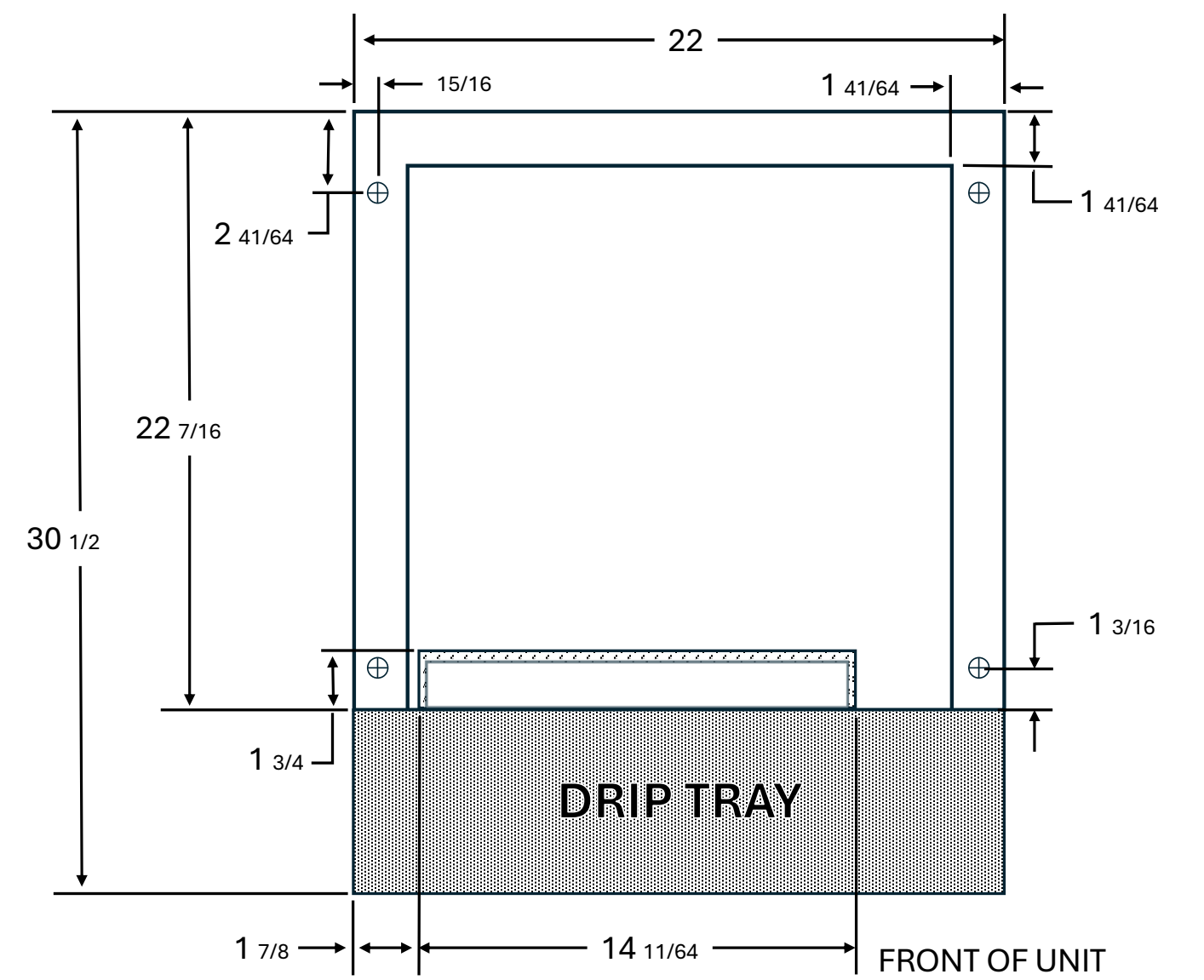
SYRUP LINES NOT SHOWN
3-1-2-1-3 CONFIGURATION
FOR ASSISTANCE CALL 1-800-729-1500
PART NO: 06-1376

12 Dispensing Valves

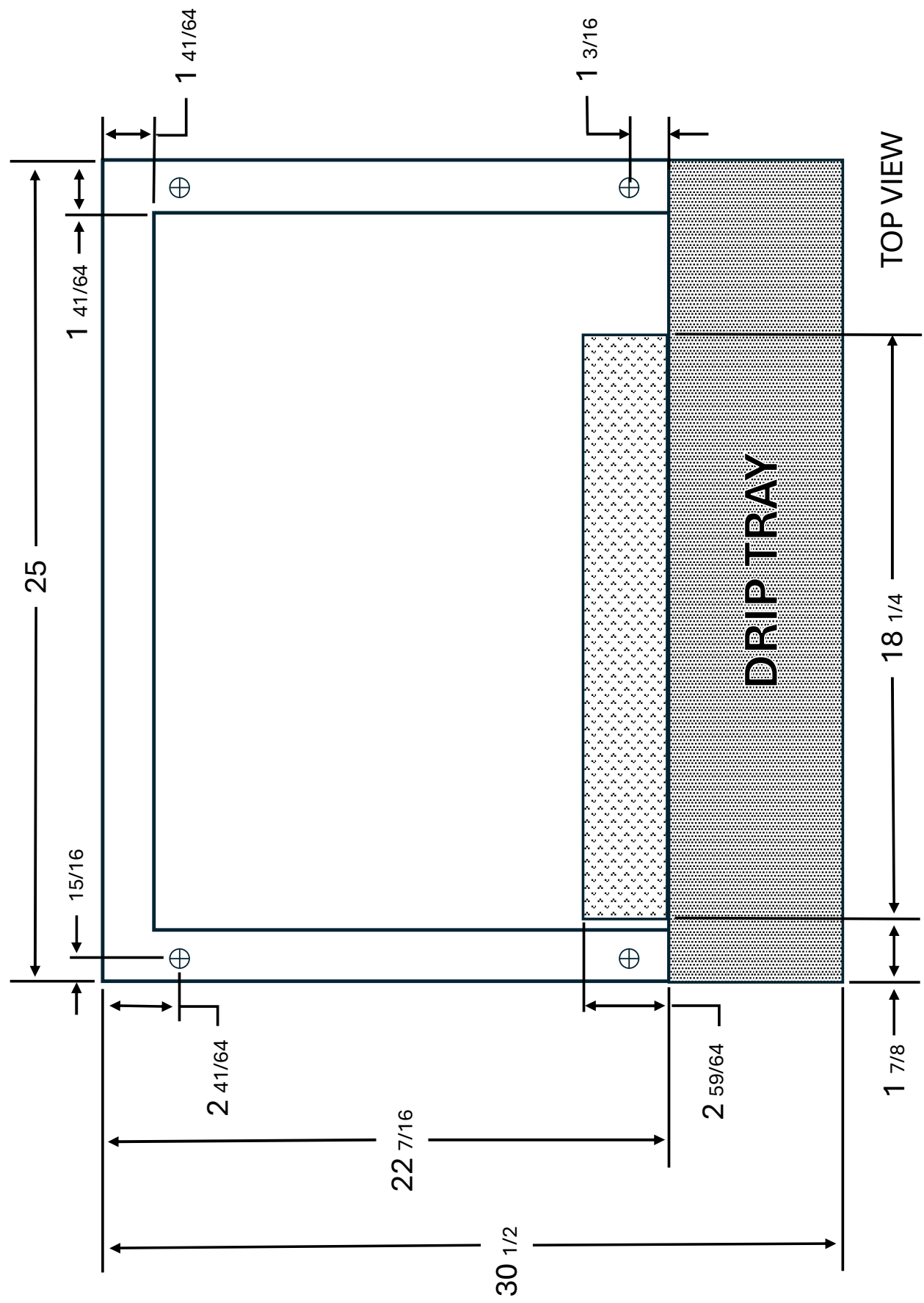


SYRUP LINES NOT SHOWN
3-2-1-1-2-3 CONFIGURATION
FOR ASSISTANCE CALL 1-800-729-1565
06-2098/02

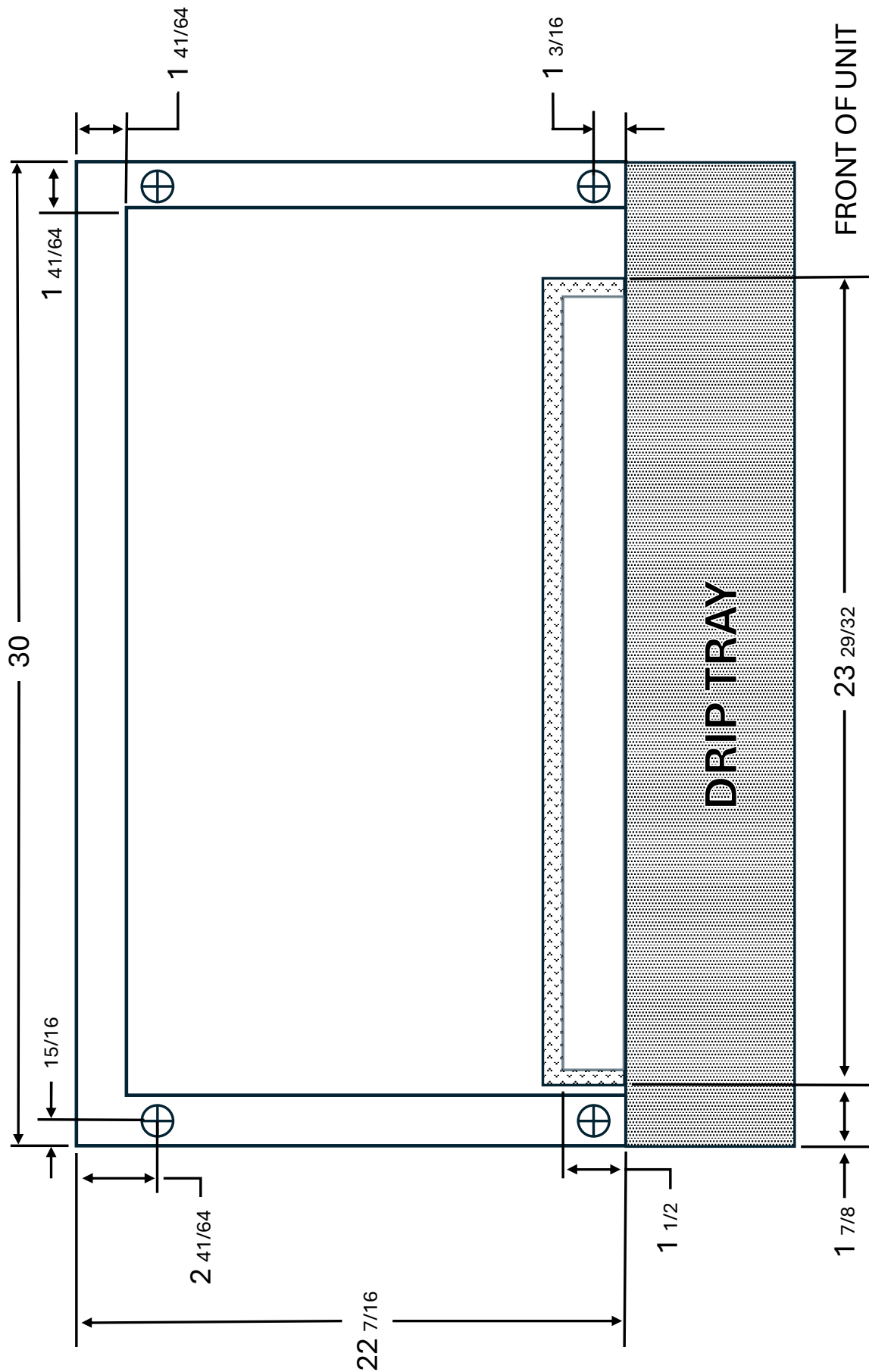
Counter Cutout - IBD 22



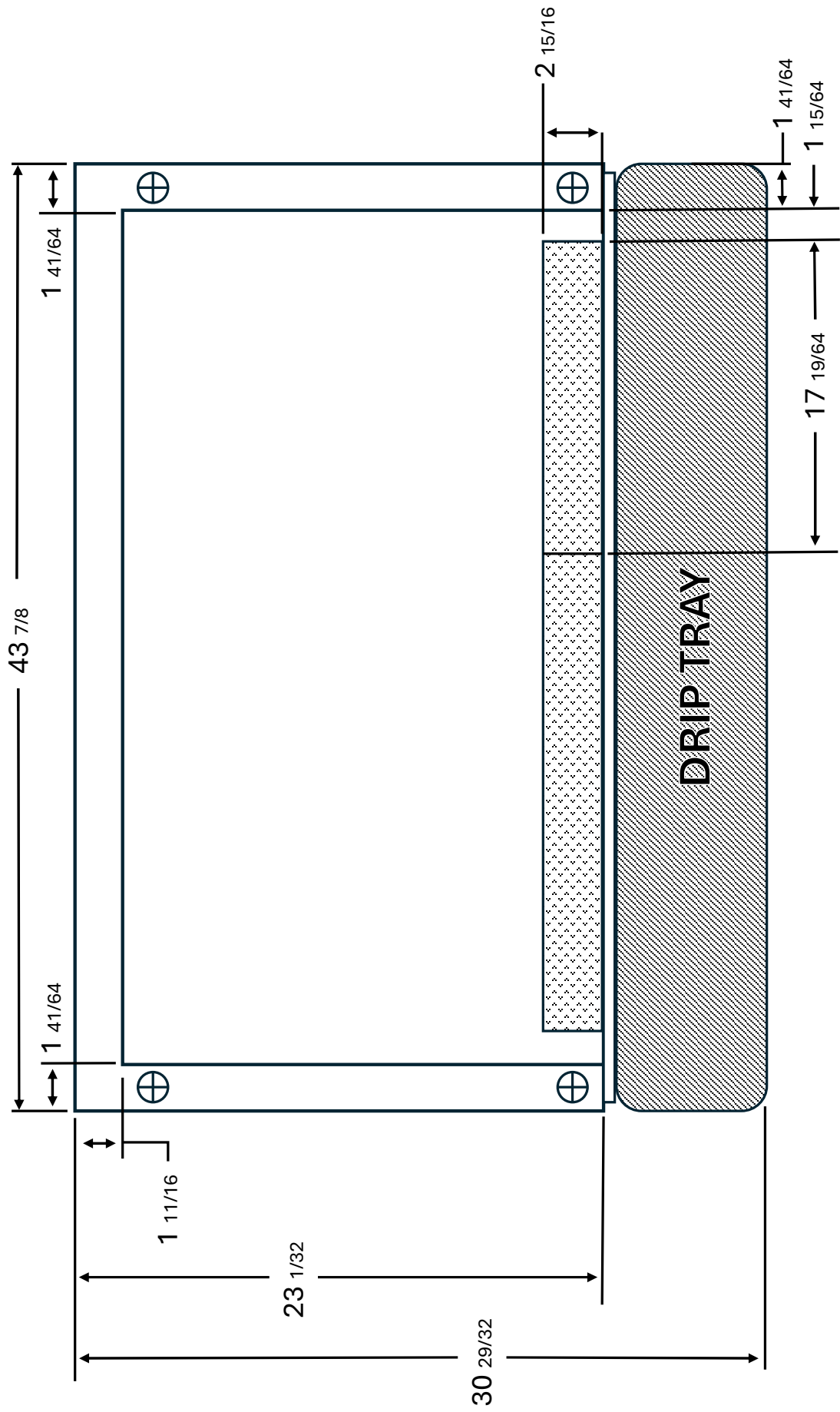
Counter Cutout - IBD 25



Counter Cutout - IBD 30



Counter Cutout - IBD 44





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