



COLD NITRO BREW DISPENSER

Model: CNB BIB

Installation Manual



Release Date: 9/26/17

Publication Number: 621058723INS

Revision Date: 3/14/18

Revision: Rev. A

Visit web site <http://cornelius-usa.com> and create an account for all your literature needs.

The products, technical information, and instructions contained in this manual are subject to change without notice. These instructions are not intended to cover all details or variations of the equipment, nor to provide for every possible contingency in the installation, operation or maintenance of this equipment. This manual assumes that the person(s) working on the equipment have been trained and are skilled in working with electrical, plumbing, pneumatic, and mechanical equipment. It is assumed that appropriate safety precautions are taken and that all local safety and construction requirements are being met, in addition to the information contained in this manual.

This Product is warranted only as provided in Cornelius' Commercial Warranty applicable to this Product and is subject to all of the restrictions and limitations contained in the Commercial Warranty.

Cornelius will not be responsible for any repair, replacement or other service required by or loss or damage resulting from any of the following occurrences, including but not limited to, (1) other than normal and proper use and normal service conditions with respect to the Product, (2) improper voltage, (3) inadequate wiring, (4) abuse, (5) accident, (6) alteration, (7) misuse, (8) neglect, (9) unauthorized repair or the failure to utilize suitably qualified and trained persons to perform service and/or repair of the Product, (10) improper cleaning, (11) failure to follow installation, operating, cleaning or maintenance instructions, (12) use of "non-authorized" parts (i.e., parts that are not 100% compatible with the Product) which use voids the entire warranty, (13) Product parts in contact with water or the product dispensed which are adversely impacted by changes in liquid scale or chemical composition.

Contact Information:

To inquire about current revisions of this and other documentation or for assistance with any Cornelius product contact:

www.cornelius.com

800-238-3600

Trademarks and Copyrights:

This document contains proprietary information and it may not be reproduced in any way without permission from Cornelius.

This document contains the original instructions for the unit described.

CORNELIUS INC
101 Regency Drive
Glendale Heights, IL
Tel: + 1 800-238-3600

Printed in U.S.A.

Correct Disposal of this Product



RECYCLE

This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

Safety Instructions	1
Read and Follow ALL Safety Instructions	1
Safety Overview	1
Recognition	1
Different Types of Alerts	1
Safety Tips	1
Qualified Service Personnel	2
Safety Precautions	2
Shipping And Storage	2
Unit Location	3
Power Cord	3
Sound Levels	3
Machine Usage	3
Unit Cleaning	4
Grounding Instructions	4
System Overview	5
Overview	5
Features	5
Specifications	6
Installation	7
Delivery Inspection and Unpacking	7
Installation Kit	7
Location	7
Supply Connections	8
Electrical Requirements	8
Line Voltage	8
Power	9
Nitrogen Requirements	9
Nitrogen Connections	9
Initial Nitrogen Pressure Setup	10
Water Requirements	10
Ventilation Requirements	11
Freestanding Unit Installation	11
Under Counter Unit Installation	17
commissioning the Unit	24
Initial Startup	24
Connecting Power	24
Unit Details	24
Cleaning Products	24

Unit Cleaning and Sanitation	25
Changing Coffee Types	30
Unit Foam Head Height Adjustment	31
System Diagrams	33
Electrical Diagram	33
Nitrogen Flow Diagram	34

SAFETY INSTRUCTIONS

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

Safety Overview

- Read and follow **ALL SAFETY INSTRUCTIONS** in this manual and any warning/caution labels on the unit (decals, labels or laminated cards).
- Read and understand ALL applicable OSHA (Occupational Safety and Health Administration) safety regulations and/or national and local codes before operating this unit.

Recognition

Recognize Safety Alerts



This is the safety alert symbol. When you see it in this manual or on the unit, be alert to the potential of personal injury or damage to the unit.

DIFFERENT TYPES OF ALERTS



DANGER:

Indicates an immediate hazardous situation which, if not avoided, **WILL** result in serious injury, death or equipment damage.



DANGER:

Indicates a potentially hazardous situation which, if not avoided, **COULD** result in serious injury, death, or equipment damage.



CAUTION:

Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury or equipment damage.

SAFETY TIPS

- Carefully read and follow all safety messages in this manual and safety signs on the unit.
- Keep safety signs in good condition and replace missing or damaged items.
- Learn how to operate the unit and how to use the controls properly.

- **Do not** let anyone operate the unit without proper training. This appliance is **not** intended for use by very young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance.
- Keep your unit in proper working condition and do not allow unauthorized modifications to the unit.

QUALIFIED SERVICE PERSONNEL

**WARNING:**

Only trained and certified electrical, plumbing and refrigeration technicians should service this unit. **ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES. FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY, DEATH OR EQUIPMENT DAMAGE.**

SAFETY PRECAUTIONS

This unit has been specifically designed to provide protection against personal injury. To ensure continued protection, observe the following:

**WARNING:**

Disconnect Power When Servicing - Disconnect power to the unit before servicing following all lock out/tag out procedures established by the user. Verify all of the power is off to the unit before any work is performed. Failure to disconnect the power could result in serious injury, death or equipment damage.

**WARNING:**

Avoid Clutter - Always be sure to keep area around the unit clean and free of clutter. Failure to keep this area clean may result in injury or equipment damage.

**WARNING:**

Provide Emergency Power Off (EPO) - Connect to a switchable AC outlet (switch within operator's reach) or ensure that the AC receptacle is in a readily-accessible location allowing quick, emergency shutdown by the operator.

SHIPPING AND STORAGE

**WARNING:**

Sanitize and Drain Unit - Before shipping, storing, or relocating the unit sanitize it and drain all sanitizing solution from the system. A freezing ambient environment will cause residual solution, or water remaining inside the unit, to freeze, resulting in damage to internal components.

UNIT LOCATION

**CAUTION:**

The CNB BiB unit is not suitable for installation in an area where a water jet could be used.

**CAUTION:**

The CNB BiB unit must be located in a horizontal position.

**CAUTION:**

This CNB BiB unit is not designed for use in outdoor locations.

POWER CORD

**CAUTION:**

If the power cord is damaged, it must be replaced by a special cord available from the manufacturer or its service agent.

SOUND LEVELS

**CAUTION:**

The A-weighted sound pressure level has been determined to be below 60 dBA.

MACHINE USAGE

**CAUTION:**

This unit is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the unit by a person responsible for their safety.

**CAUTION:**

Children should not be allowed to play with or operate the unit.

**CAUTION:**

This appliance is intended to be used in commercial applications for the dispensing of only non-hazardous product.

UNIT CLEANING

**CAUTION:**

This unit **MUST NOT** be cleaned by using a water jet.

GROUNDING INSTRUCTIONS

**CAUTION:**

This appliance must be grounded. In the event of malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

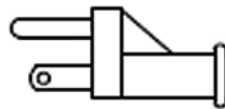
**DANGER:**

Improper connection of the equipment-grounding conductor can result in a risk of electrical shock. The conductor with green insulation with or without yellow stripes is the equipment grounding conductor. If repair or replacement of the cord or plug is necessary, do not connect the equipment grounding conductor to a live terminal. If in doubt whether the appliance is properly grounded, check with a qualified electrician or serviceman. Do not modify the plug provided with the appliance - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

**CAUTION:**

This appliance is for use on electrical circuits, and has a grounding plug that looks like the plug illustrated in Figure 1.

A qualified electrician should be consulted if there is any doubt about the outlet box being properly grounded.



3-Prong Plug *

* Example of grounded North American plug.

Figure 1.



SYSTEM OVERVIEW

OVERVIEW

The Cold Nitro Brew (CNB BiB) Dispenser is a self-contained, on-demand, in-line nitrogen infusion unit. The CNB BiB (Bag-in-Box) unit allows for still and nitro product to be poured from the same post-mixed source through different dispensers.

The CNB BiB unit provides the highest quality drink appearance and consistency, while keeping operation and maintenance simple and straightforward.

FEATURES

-
- Durable, robust design
 - Easy to use – double-dispenser lever interface
 - Easy to Clean – dispense area is easily wiped down
 - Small Footprint – CNB BiB design allows the unit to be installed remotely and under-counter with minimum space requirement.
 - OPTIMIZED DESIGN — Efficient front breathing design allows the unit to be installed under a counter top or stand-alone.
 - SELF-CONTAINED DESIGN — Water, Nitrogen, and electrical connections are all that are needed, a drain is optional. The unit automatically chills water for cold beverages.
 - PROPRIETARY INFUSION — Unique infusion process layers the beverage with an industry leading, long lasting cascade.
 - No Mixing, No Shaking, No Filling. Just connect the BIB and go!
 - Utilizes concentrated BIBs of cold brew, 1:3 - 1:5 ratio automatic mixing.
 - Units are factory set to a 1:5 ratio.
-



SPECIFICATIONS

Table 1.

Food Grade Nitrogen Requirements	80 psi (0.55 MPa) at input
Nitrogen Input Connection	90° ¼" BARB
Water Supply Requirements	Filtered water @ > 0.5 GPM and 90 psi (0.62 MPa) at store
Water Supply Connection	90° 3/8" BARB
Electrical Ratings	120V/60Hz/4.5Amps
Drain Line	3/8" ID Tubing
Cabinet Capacity	(2) 3-gallon BiBs (Approx. box Dimensions: 13 1/2" H x 7 1/2" W x 9 1/2" D)
Cabinet (Door closed, not including tower)	30.1" (76.5 cm) D (includes standoffs) x 20" (50.8 cm) W x 34" (86.4 cm) H
Cabinet (Door closed, including tower)	30.1" (76.5 cm) D (includes standoffs) x 20" (50.8 cm) W x 50.8" (129 cm) H
Shipping Weight	285 lbs. (129.3 kg)
Cup Clearance	7 1/4" (18.4 cm) drip tray to spout nozzle
Recommended pouring size:	At 75°F ambient temperature and 75°F input water temperature, the unit can pour drinks at 16 oz. per minute with a drink temperature of 41°F or lower.
Ambient Operating Temperature	55° F to 100° F (12.8° C to 37.8° C)





INSTALLATION



WARNING:

Only trained and certified electrical, plumbing and refrigeration technicians should service this unit.

ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES. FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY, DEATH OR EQUIPMENT DAMAGE.

DELIVERY INSPECTION AND UNPACKING

NOTE: Cornelius is not responsible for damaged freight. If damage is found, you must save all packaging material and contact the freight carrier. Failure to contact the carrier within 48 hours of receipt may void your claim.

1. Inspect the carton and note any damage, even if it appears minor. If the carton is damaged, note on the consignee copy of the freight invoice "exterior carton damage-concealed damage possible" and contact the freight company immediately.
 2. Remove the strapping from the box, remove the tape and lift the carton off the pallet.
 3. Remove the internal packing materials and installation kit boxes from the unit. Carefully inspect the unit for damage.
 4. Inspect the device to make sure it has no scratches, dents or any other cosmetic defects.
 5. Open the packages of loose parts and inspect all of the parts for damage or missing parts. Check the parts against the packing list to ensure receipt of all parts.
-

INSTALLATION KIT

Included in the shipping carton is an accessories kit that is used to connect the elements of the beverage system together. Verify the contents of the installation kit with the pictorial sheet enclosed in the kit. For a detailed installation procedure, refer to Table 2 on page 11.

LOCATION

Select a location in a convenient area, close to a grounded electrical AC outlet that either includes a power switch or is located such that the operator may easily disconnect the power cord.

SUPPLY CONNECTIONS

**WARNING:**

Only trained and certified electrical, plumbing and refrigeration technicians should service this unit.

ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES. FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY, DEATH OR EQUIPMENT DAMAGE.

All of the electrical and supply connections to the CNB BIB unit are located on the back of the unit, as shown in Figure 2. The unit is filled manually from the front.

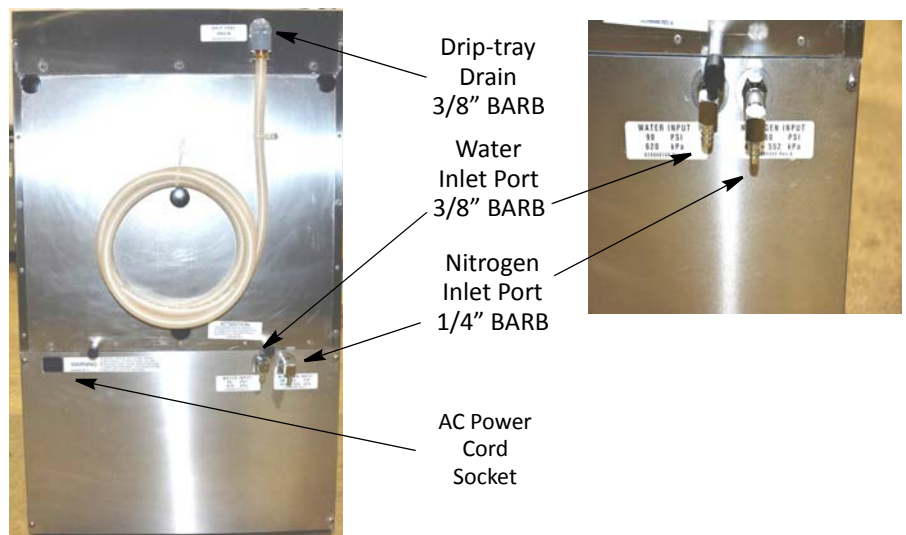


Figure 2.

Electrical Requirements

**WARNING:**

Refer to the nameplate to determine the power requirements before connecting electrical power to the CNB BIB unit. AC Power cords should comply with safety requirements outlined in the EC Standards (EN 60335-1 1 Clause 24.1) in countries where CE compliance is required. All cords must be HD 21 or HD 22.

Line Voltage

The intended line voltage for the unit are 120 VAC +10%/-15%, 60 Hz. Measure the voltage at the wall outlet to verify proper wiring of the outlet before plugging the unit in.

Power

The power supply must have overload protection such as a circuit breaker or fuse that meets local and national electrical codes.

All units are connected to AC power by plugging the electrical plug into the proper wall outlet.

Nitrogen Requirements

**WARNING:**

Failure to install the wall bracket may result in a tipping hazard.

FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY, DEATH OR EQUIPMENT DAMAGE.

NOTE: Nitrogen connections require 1/4" I.D. tubing. All hoses must reach the back of the unit including an adequate amount of extra tubing to allow the unit to be pulled out for servicing.

Use a dedicated secondary regulator adjusted to 80 psi (0.55 MPa) to supply the unit.

Nitrogen Connections

**WARNING:**

Only trained and certified electrical, plumbing and refrigeration technicians should service this unit.

ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES. FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY, DEATH OR EQUIPMENT DAMAGE.

The store regulator should be set for 80 psi (0.55 MPa) at the unit. Run the tubing for the nitrogen from the regulator to the unit and make all appropriate connections. Do not turn on the nitrogen supply to the unit.

The nitrogen connections are located on the back of the CNB BIB unit. Figure 2 shows the nitrogen connections to the unit.

**CAUTION:**

Only Food-Grade Nitrogen gas can be used with the CNB BIB unit, no other gases can be used.

**DANGER:**

CO₂ **must not** be used in this unit, it can create a poisonous formation that can lead to serious injuries or death.

Initial Nitrogen Pressure Setup

During the installation of the nitrogen tanks, technicians will connect and adjust the valves, shown in Figure 3. Primary regulator is to be supplied by the installer.

NOTE: The units are calibrated before delivery and are adjusted at the site by the installation technician.

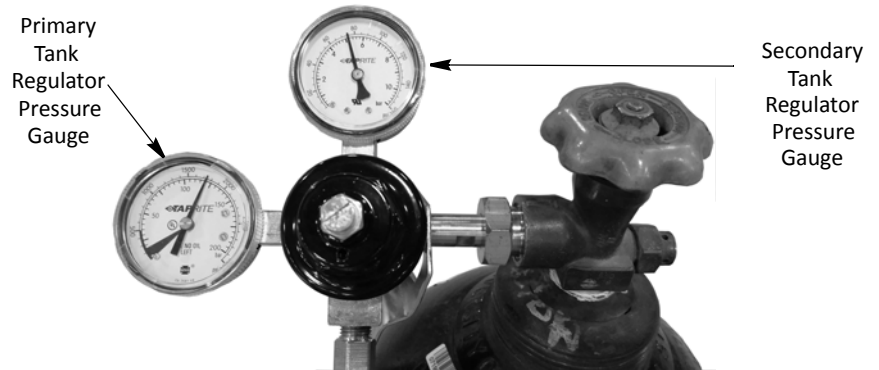


Figure 3.

Water Requirements



WARNING:

It is the responsibility of the installer to ensure that the water supply to the booster pump preceding the dispensing equipment is provided with back flow protection by an air gap as defined in ANSI A 112.1.2-1979; or an approved vacuum breaker or other such method as proved effective by test and must comply with all federal, state and local codes.

In stores with water pressure below 70 PSI a booster pump will be required. Use appropriate materials to connect the water supply to the booster pump. The water input connection from the booster pump is located on the back of the dispenser unit, as shown in Figure 2.

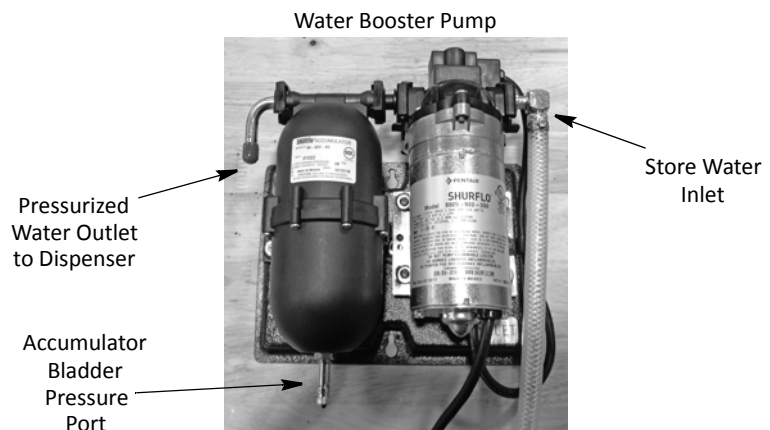


Figure 4

VENTILATION REQUIREMENTS

MINIMUM AIRFLOW CLEARANCE

IMPORTANT: The unit is front-breathing and requires no minimum side or back clearance. Thus it is critical to prevent any blockage of the lower front of the unit.

Air circulates through the bottom section of the cabinet to help cool the ice bank agitator motor and the refrigeration condenser. Failure to maintain front clearance space will reduce the capacity of the unit and cause premature compressor failure.

FREESTANDING UNIT INSTALLATION



WARNING:

Only trained and certified electrical, plumbing and refrigeration technicians should service this unit.

NOTE: Read the entire manual before installing the CNB BIB unit, perform the procedure in Table 2 to install the CNB BIB unit.

Table 2

Step	Action	
1	Remove the staples holding the box to the skid. Unpack the CNB BIB unit, remove the installation kit boxes from the unit and inspect the unit and installation kit.	
2	Select the installation location for the CNB BIB unit. Choose a location in a well ventilated area, close to a grounded electrical outlet. If possible do not place the unit close to hot and/or steaming machines. If using a nitrogen generator, skip step 3 & 4, connect and startup generator per instructions.	

Table 2

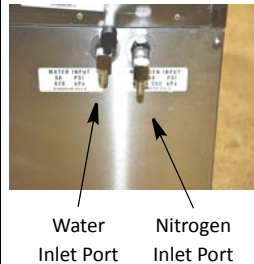
Step	Action	
3	Select the location for the nitrogen tank(s): A. Install the primary regulator onto the nitrogen tank. Tighten the regulator to the tank using a wrench. B. Connect the 1/4" ID Tygon tubing to the primary regulator output.	
4	Secure the nitrogen tank(s) with a suitable wall bracket.	
5	Route the 1/4" ID Tygon tubing from the nitrogen tank to the CNB BIB unit and connect the tubing to the Nitrogen inlet using a hose clamp.	 Water Inlet Port Nitrogen Inlet Port
6	Install the tap units to the dispensing tower couplings. The taps and couplings include radial teeth that mate with one another to lock the tap in position. Be sure to align the tap to true vertical before hand tightening the threaded coupling ring. Fully secure the coupling ring using the wrench provided. Be careful not to over tighten. Only slight pressure is needed on the wrench.	 

Table 2

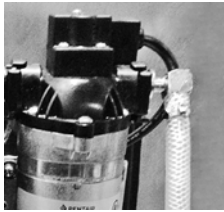
Step	Action	
7	(Optional) If required, install the water booster pump either onto the back of the CNB BIB cabinet (if clearance space is available) or onto the wall by securing its base bracket with appropriate mounting hardware. Two holes are supplied on the back of the unit for mounting the booster pump assembly. Place booster pump less than 10 feet away from the unit. WARNING: Due to a potential hot surface of the pump motor casing, the booster-pump assembly must be installed in a location where it is not accessible by users.	 Water Booster Pump  Booster Pump Mounted
8	Connect the source water line to the cabinet Water inlet (or to the optional booster pump inlet). A. Connect the 3/8" ID tubing to the water source fitting. B. Route the tubing from the water source to the CNB BIB Water inlet as shown in figure 1 (or to the water booster pump inlet, shown at right). C. Connect the tubing using a hose clamp.	
9	(Optional) If the water booster pump is required connect the water line to booster pump outlet. A. Connect the 3/8" ID tubing to the water booster pump outlet using a hose clamp	
10	Connect water line to dispenser Water inlet. A. Route the tubing to back of the CNB BIB cabinet. B. Install it on the cabinet water inlet using a hose clamp.	 Water Inlet Port Nitrogen Inlet Port
11	Connect the drip-tray drain line and elbow. A. Route the 3/8" ID tubing to the selected drain location. ensure there are no restrictions or kinks in the tubing. B. The drain tubing assembly is factory installed. The gray elbow can be removed by twisting and pulling. It is assembled by friction and NOT glued in place. C. Ensure the strain relief is mounted to the rear of the machine.	

Table 2

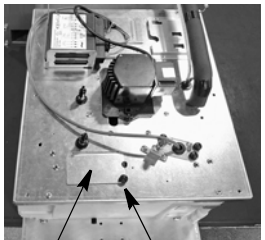
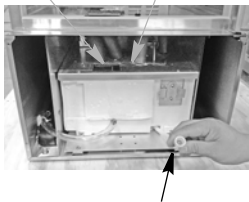
Step	Action	
12	Access the ice bank for water filling. A. Lift grill upwards and pull bottom towards the front to disengage the locking tabs in the bottom frame assembly B. Unfasten cover (remove 2 screws at top of cover). C. Slide filter to the left	 Two Screws  
13	Open the ice-bank water-refill cover. A. Remove the thumbscrew securing the ice-bank refill cover. B. Lift off the cover and set it aside.	 Cover Thumbscrew 

Table 2

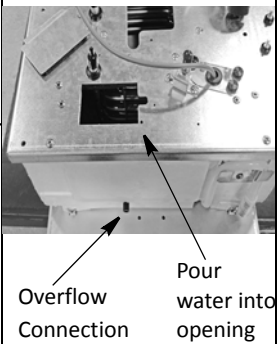
Step	Action	
14	Fill the ice bank with potable water. A. Use a funnel and pour water into refill opening. Capacity is approximately 3.6 gallons (13.6 liters). The reservoir is full when water begins trickling through the clear overflow tubing at the lower-front, center of the ice bank. NOTE: The ice bank may also be filled with chilled water to reduce the time for cool down to 33°F (0°C). (Typical cooling time using room-temperature water is 6 hours.) NOTE: The ice bank typically requires a water refill every month. Observe the water level shown in the fill tube (with red cap). Remove cap for accurate reading.	 Overflow Connection Pour water into opening
15	Replace the air filter / grille A. Replace air filter bracket and mount with the 2 screws removed above B. Replace air filter by sliding to the right C. Insert grille assembly into the top at an angle first D. Push bottom of grille in place and let grille lower into place E. Ensure the tabs in the bottom of the grille are locked into the slots in the frame assembly	
16	Remove the protective film from the drip-tray grate. Place it into the drip tray.	

Table 2

Step	Action	
17	(Optional) If choosing to not plumb the drain line: A. Insert the rubber stopper into the drip tray drain on top of unit. ensure it is a snug fit B. Place Drip tray liner in place C. Place Drip tray grille on top of liner	
18	Connect the CNB BIB unit power cord to the socket on the back of the unit. Move the dispenser unit into the selected location.	 Power Cord Socket
19	Open the nitrogen tank hand valve. A. The left side gauge should read between 500 and 2500 PSI. B. The top gauge should read 80 PSI. Adjust regulator as required.	
20	Turn on the water source.	
21	Perform the Initial Cleaning and Sanitization procedure in the Unit Commissioning section, Table 4 on page 25 before operating the unit.	

UNDER COUNTER UNIT INSTALLATION

CNB BIB units are assembled and shipped as either stand-alone models or under counter models.

To install the CNB BIB unit for an under counter location, perform the procedure in Table 3.



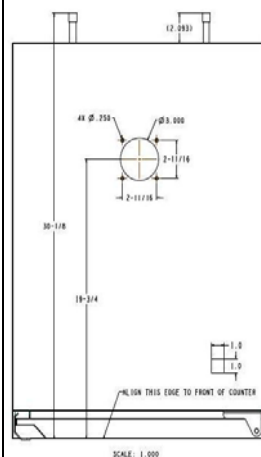
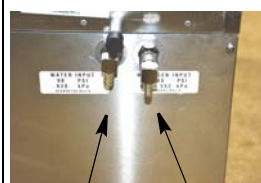
WARNING:

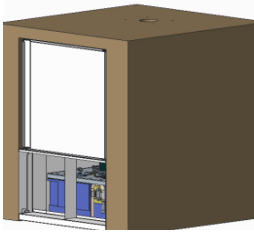
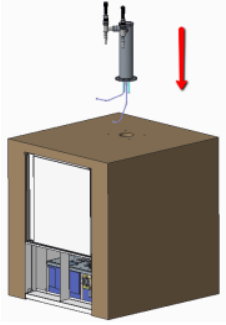
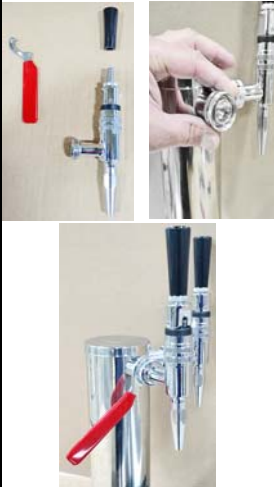
Only trained and certified electrical, plumbing and refrigeration technicians should service this unit.

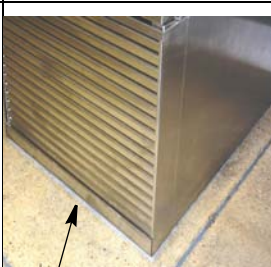
ALL WIRING AND PLUMBING MUST CONFORM TO NATIONAL AND LOCAL CODES. FAILURE TO COMPLY COULD RESULT IN SERIOUS INJURY, DEATH OR EQUIPMENT DAMAGE.

Table 3.

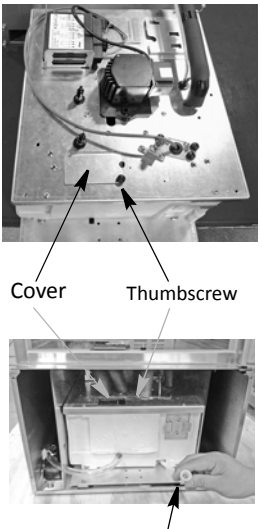
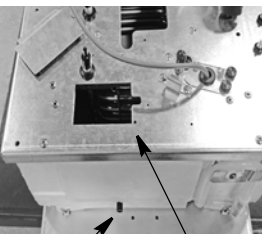
Step	Action	
1	Remove the staples holding the box to the skid. Unpack the CNB BIB unit, remove the installation kit boxes from the unit and inspect the unit and installation kit.	
2	Select the installation location for the CNB BIB unit. Choose a location in a well ventilated area, close to a grounded electrical outlet. If possible do not place the unit close to hot and/or steaming machines. If using a nitrogen generator, skip step 3 & 4, connect and startup generator per instructions.	
3	Select the location for the nitrogen tank(s): A. Install the primary regulator onto the nitrogen tank. Tighten the regulator to the tank using a wrench. B. Connect the 1/4" ID Tygon tubing to the primary regulator output.	

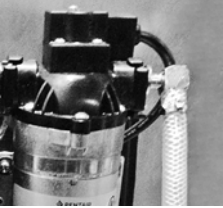
4	Secure the nitrogen tank(s) with a suitable wall bracket.	
5	A. Locate under counter drilling template in the accessories kit B. Align template with front of counter top edge C. Mark 5 center locations to drill holes D. Drill tower clearance hole with 3 inch hole saw E. Drill four 1/4 inch diameter clearance holes for tower mounting hardware	
6	A. Locate Adapter Ring in accessories kit B. Align adapter ring to drilled holes underneath the counter and tape in place	
7	A. Route the 1/4" ID Tygon tubing from the nitrogen tank to the CNB BIB unit and connect the tubing to the Nitrogen inlet using a hose clamp. B. Route the 3/8" ID Tygon tubing from the booster pump to the CNB BIB unit and connect the tubing to the Nitrogen inlet using a hose clamp. C. Route the power cord from the rear of the machine to an easily accessible outlet. D. NOTE: Do NOT plug in the machine yet.	 Water Inlet Nitrogen Inlet  Power Cord Socket

8	A. Roll machine under the counter top B. Align holes in top of machine with counter top holes	
9	A. Measure thickness of counter top and cut pipe insulation to 1 inch longer than this measurement. B. Wrap pipe insulation around tubing at bottom of tower and wrap tightly with tape to hold in place and slightly compress the pipe insulation. C. Install tower to counter top. D. Route product and water lines through counter hole into cabinet opening. E. Locate and use four #10 screws in accessory kit. (select proper screw length for specific counter top installation)	
10	Install the tap units to the dispensing tower couplings. The taps and couplings include radial teeth that mate with one another to lock the tap in position. Be sure to align the tap to true vertical before hand tightening the threaded coupling ring. Fully secure the coupling ring using the wrench provided. NOTE: Be careful not to over tighten. Only slight pressure is needed on the wrench.	
11	A. Remove 6 screws from plumbing cover B. Remove internal cover to gain access to tower lines by sliding to the right.	 Internal Cover

12	A. Hook up tower line 1 to stainless Tee Fitting with small hose clamp in accessory kit B. Hook up tower line 2 to nitrogen infuser assembly with small hose clamp in accessory kit. This connection is located in the top left of the compartment C. Hook up the blue tower cooling line (3) to the 3/8 inch braided line coming from the bottom of the cabinet. Use the large hose clamp supplied in the accessory kit. D. Hook up the red tower cooling line (4) to the 3/8 inch braided line coming from the internal cooling coil. Use the large hose clamp supplied in the accessory kit.	
13	A. Replace plumbing cover by sliding to the left B. Replace the 6 screws for plumbing cover	 Internal Cover
14	A. Seal the unit to the floor using the supplied silicone tube in the accessories kit	 Silicone

15	A. Close the gap between the top of the unit and the counter top. Use the supplied silicone from the accessories kit.	
16	Access the ice bank for water filling. A. Lift grill upwards and pull bottom towards the front to disengage the locking tabs in the bottom frame assembly B. Slide filter to the left C. Unfasten cover (remove 2 screws at top of cover).	 Two Screws  

17	Open the ice-bank water-refill cover. A. Remove the thumbscrew securing the ice-bank refill cover. B. Lift off the cover and set it aside.	 Cover Thumbscrew
18	Fill the ice bank with potable water. A. Use a funnel and pour water into refill opening. Capacity is approximately 3.6 gallons (13.6 liters). The reservoir is full when water begins trickling through the overflow tubing at the lower-front, center of the ice bank. NOTE: The ice bank may also be filled with chilled water to reduce the time for cool down to 33°F (0°C). (Typical cooling time using room-temperature water is 6 hours.) NOTE: The ice bank typically requires a water refill every month. Observe the water level shown in the fill tube (with red cap). Remove cap for accurate reading.	 Overflow Connection Pour water into opening
19	Replace the air filter / grille A. Replace air filter bracket and mount with the 2 screws removed above B. Replace air filter by sliding to the right C. Insert grille assembly into the top at an angle first D. Push bottom of grille in place and let grille lower into place E. Ensure the tabs in the bottom of the grille are locked into the slots in the frame assembly	

20	(Optional) If required, install the water booster pump into the wall by securing its base bracket with appropriate mounting hardware. WARNING: Due to a potential hot surface of the pump motor casing, the booster-pump assembly must be installed in a location where it is not accessible by users.	 Water Booster Pump  Booster Pump Mounted
21	Connect the source water line to the cabinet Water inlet (or to the optional booster pump inlet). A. Connect the 3/8" ID tubing to the water source fitting. B. Route the tubing from the water source to the CNB BIB Water inlet (or to the water booster pump inlet, shown at right). C. Connect the tubing using a large hose clamp supplied in the accessory kit.	
22	(Optional) If the water booster pump is required connect the water line to booster pump outlet. A. Connect the 3/8" ID tubing to the water booster pump outlet using a large hose clamp supplied in the accessory kit.	
23	A. Turn on the gas B. Turn on the water C. Plug in the water booster system if equipped	
24	Place drip tray and drip tray grille in place on counter top	
25	Perform the Initial Cleaning and Sanitization procedure from the Unit Commissioning section (Table 4 on page 25) before operating the unit.	

COMMISSIONING THE UNIT

INITIAL STARTUP

Connecting Power

Verify that the wall outlet is a grounded receptacle and that it is properly grounded. Refer to the section on Power on page 9 for electrical requirements. Plug the power cord into the appropriate AC outlet. The ice bank will begin cooling, as well as the cabinet.

UNIT DETAILS

The CNB BIB unit consists of two taps for dispensing two types of coffee. The left tap dispenses still, cold brew coffee and the right tap dispenses Nitro cold brew coffee.

NOTE: When dispensing, pull the tap handles all the way forward and down.

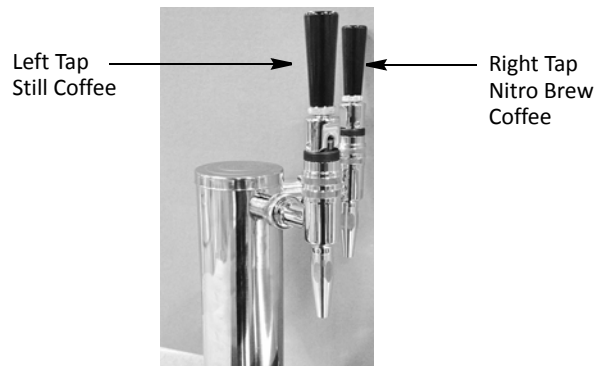


Figure 5

Cleaning Products

KAY-5® Cleaner/Sanitizer

Mix one 1 oz. (29.6 ml) packets of Kay-5® Sanitizer/Cleaner solution (or similar brand) in 0.75 gallons (3 quarts) of tap water to insure 330 PPM of available chlorine.

Urnex Sani-Pure Sanitizer & Cleaner

Mix 3 oz. (88.7 ml) of Urnex Sani-Pure Sanitizer & Cleaner solution (or similar brand), in 1 gallons (4 quarts) of tap water to insure 600 PPM of available chlorine.

IMPORTANT: Use tap water at 75-95°F (23.89-35°C). Water above this range breaks down the chlorine count and minimizes sanitation.

Unit Cleaning and Sanitation

Before using the CNB BIB unit for product dispensing and on an ongoing basis, the product tubing and the tower dispenser must be cleaned and sanitized.

Sanitize the product tubing and tower dispenser thoroughly (internally and exterior surfaces) by using one of the cleaners listed.

For the cleaning process, have the following ready: Two, 1 gallon buckets, one white cleaning adapter and approved Sanitizer.

To clean and sanitize the unit, the product tubing and the tower dispenser, perform the procedure in Table 4.

Table 4.

Step	Action	
1	Open the cabinet door (front door).	
2	A. Disconnect the product output connector from the BIB (Bag in Box product) by turning the BLACK threaded connector counterclockwise and lifting on the outside of the BLACK connector B. Remove the BIB from the unit	 
3	Connect the WHITE screw-in connector to the BLACK product output connector by turning the threaded connector clockwise.	

Table 4.

Step	Action	
4	Using a clean and empty food-grade container: Prepare approximately 0.5 gallons (1.9 liters) of warm water. Place container of water inside the cabinet storage area.	
5	Place the BLACK product output connector with the WHITE cleaning adapter inside the food-grade container so that the connector will stay at the bottom.	
6	Turn the Sanitizing Valve to the "Dispense" position and the Nitrogen valve to the "OFF" position.	
7	A. Open LEFT tower dispenser and dispense 0.25 gallons (1 quart) of water or until the dispense looks clear. B. Close the tap. C. Open RIGHT tower dispenser and dispense 0.25 gallons (1 quart) of water or until the dispense looks clear. D. Close the tap. E. NOTE: DO NOT OPEN BOTH VALVES AT THE SAME TIME AS DISPENSING MAY PULSE OR EVEN STOP.	
8	Remove the bucket of water from the machine and dispose of the remaining water.	

Table 4.

Step	Action	
9	Using a clean and empty food-grade container: Prepare any of the listed sanitizer/cleaner solutions from the page 24. Place the container of sanitizer/cleaner solution inside the cabinet storage area.	
10	Place the BLACK product output connector with the WHITE cleaning adapter inside the food-grade container so that the connector will stay at the bottom.	
11	A. Open LEFT tower dispenser and dispense 0.25 gallons (1 quart) of sanitizer/cleaner solution. B. Close the tap. C. Open RIGHT tower dispenser and dispense 0.25 gallons (1 quart) of sanitizer/cleaner solution. D. Close the tap. E. NOTE: DO NOT OPEN BOTH VALVES AT THE SAME TIME AS DISPENSING MAY PULSE OR EVEN STOP.	
12	Turn the Sanitizing Valve to the "SANITIZE" position.	
13	A. Open LEFT tower dispenser and dispense 0.25 gallons (1 quart) of sanitizer/cleaner solution B. Close the tap C. Open RIGHT tower dispenser and dispense 0.25 gallons (1 quart) of sanitizer/cleaner solution D. Close the tap E. NOTE: DO NOT OPEN BOTH VALVES AT THE SAME TIME AS DISPENSING MAY PULSE OR EVEN STOP.	
14	With the taps straight up (closed), allow sanitizer/cleaner solution to soak in the lines for 20 minutes.	20 Minutes 

Table 4.

Step	Action	
15	A. Open LEFT tower dispenser and dispense 0.25 gallons (1 quart) of sanitizer/cleaner solution B. Close the tap C. Open RIGHT tower dispenser and dispense 0.25 gallons (1 quart) of sanitizer/cleaner solution D. Close the tap E. NOTE: DO NOT OPEN BOTH VALVES AT THE SAME TIME AS DISPENSING MAY PULSE OR EVEN STOP.	
16	Turn the Sanitizing Valve to the “DISPENSE” position and the Nitrogen valve to the ON position.	
17	A. Open LEFT tower dispenser and dispense 0.25 gallons (1 quart) of sanitizer/cleaner solution B. Close the tap C. Open RIGHT tower dispenser and dispense 0.25 gallons (1 quart) of sanitizer/cleaner solution D. Close the tap E. NOTE: DO NOT OPEN BOTH VALVES AT THE SAME TIME AS DISPENSING MAY PULSE OR EVEN STOP.	
18	A. Remove the food-grade container from the cabinet and discard any remaining sanitizer. B. Disconnect the WHITE cleaning adapter from the BLACK product output connector by turning the BLACK connector counterclockwise and lifting on the outside of the BLACK connector.	
19	Reusing a clean and empty plastic food-grade container: A. Prepare a cleaning solution containing 100PPM available chlorine using any of the listed sanitizer/cleaner solutions as described by manufacturer’s instructions. Prepare at least 1 gallon (4 quarts) of solution. B. Bring container of solution to the coffee dispense area.	

Table 4.

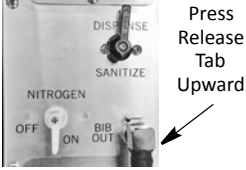
Step	Action	
20	A. Remove the two dispenser nozzles by unscrewing clockwise (as viewed from above). Carefully use a wrench if needed. B. Disassemble the nozzle parts by inserting a straw into the skinny end of the nozzle and pressing gently. Be careful to catch the o-ring, jet disc, and regulation cone. C. Place the two nozzles and their internal parts into the food-grade container with sanitizer/cleaner solution.	 
21	From inside of the cabinet: A. Disconnect the BIB product output line from the dispenser panel connector by pushing up on the release tab on the top of the connector and pulling the hose straight out. B. Place the hose assembly into the container with sanitizer/cleaner solution. C. Close the cabinet door.	 
22	A. Soak the BIB product line and nozzles for 15 minutes. B. While the parts are soaking, wipe the outside, inside, tower, drip tray and valves of the dispenser with a clean, disposable towel. Do not use caustic cleaners inside the unit, use only a damp towel as needed. C. Wash and rinse the drip-tray grate and reinstall.	15 Minutes 
23	A. Wash hands and put on single-use gloves. B. Remove the nozzles and their internal parts from the container of cleaner/sanitizer solution.	
24	A. Perform a visual inspection on each nozzle, o-ring, jet disc, and regulation cone. B. Assemble the nozzle by placing the regulation cone into the nozzle first, point side down. Insert the jet disc next and ensure it sits flat. Lastly, insert the o-ring against the jet disc as shown to the right. C. Screw the two dispenser nozzles onto the spout, tighten only hand tight.	 

Table 4.

Step	Action	
25	A. Remove the BIB product line from the sanitizer/cleaner solution. B. Grasp the hose by the metal connector. C. Push the hose straight into the “BIB OUT” port until it locks in place.	
26	A. Obtain a product BIB. B. Place it in the cabinet, outlet port towards the base of the cabinet, and connect the BLACK product output connector by turning the threaded connector ring clockwise. Be sure the connector is screwed on completely. C. Close the cabinet door.	
27	A. Open LEFT tower until cleaner is displaced and coffee comes out B. Close the tap C. Open RIGHT tower until cleaner is displaced and coffee comes out D. Close the tap E. NOTE: DO NOT OPEN BOTH VALVES AT THE SAME TIME AS DISPENSING MAY PULSE OR EVEN STOP.	
28	Open the door and turn on the nitrogen gas valve	
29	Open the RIGHT tower until nitro coffee is dispensed	

CHANGING COFFEE TYPES

In some cases the type of coffee used in the CNB BIB unit may require an adjustment of the height of the foam head for proper presentation. If this adjustment is required, it should be performed by a manager or technician who is trained in the operation of the CNB BIB unit.

Unit Foam Head Height Adjustment

NOTE: Follow all previous **INSTALLATION** and **CLEANING/SANITATION** section processes before continuing with this section.

Once the equipment has been installed, cleaned, and sanitized, perform the procedure in Table 5 to adjust the foam head height on the CNB BIB unit.

Table 5.

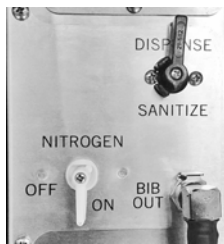
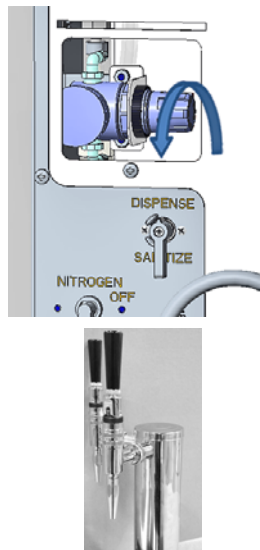
Step	Action	
1	Make sure the Nitrogen tank is open or the nitrogen generator is turned on. The primary side gauge should be between 500 and 2500 PSI and the secondary gauge should be between 60 and 80 PSI.	
2	Open the cabinet door.	
3	Inside the cabinet, ensure that the Nitrogen inlet valve is turned to the "ON" position.	
4	A. Open/remove Nitrogen secondary regulator access cover. B. Locate the secondary Nitrogen regulator. Adjust only the regulator shown.	

Table 5.

Step	Action	
5	REDUCED FOAM HIGHT adjustment: A. Adjust the regulator control knob slightly (approximately 1/8th of a turn) to the LEFT (counter-clockwise). Only very fine adjustments are required. This reduces the amount of Nitrogen injected. B. Open the RIGHT tower dispenser and dispense about 8 oz. of product to drain the line of product at the previous foam setting. Then dispense 12 oz. of product and confirm the foam head height. Repeat and dispense another 12 oz. to confirm setting. C. Repeat step A if a further reduction of foam head height is required.	
6	INCREASED FOAM HIGHT adjustment: A. Adjust the regulator control knob slightly (approximately 1/8th of a turn) to the RIGHT (clockwise). Only very fine adjustments are required. This increases the amount of Nitrogen injected. B. Open the RIGHT tower dispenser and dispense about 8 oz. of product to drain the line of product at the previous foam setting. Then dispense 12 oz. of product and confirm the foam head height. Repeat and dispense another 12 oz. to confirm setting. C. Repeat step A if a further increase of foam head height is required.	
7	Reinstall the regulator access cover.	

SYSTEM DIAGRAMS

ELECTRICAL DIAGRAM

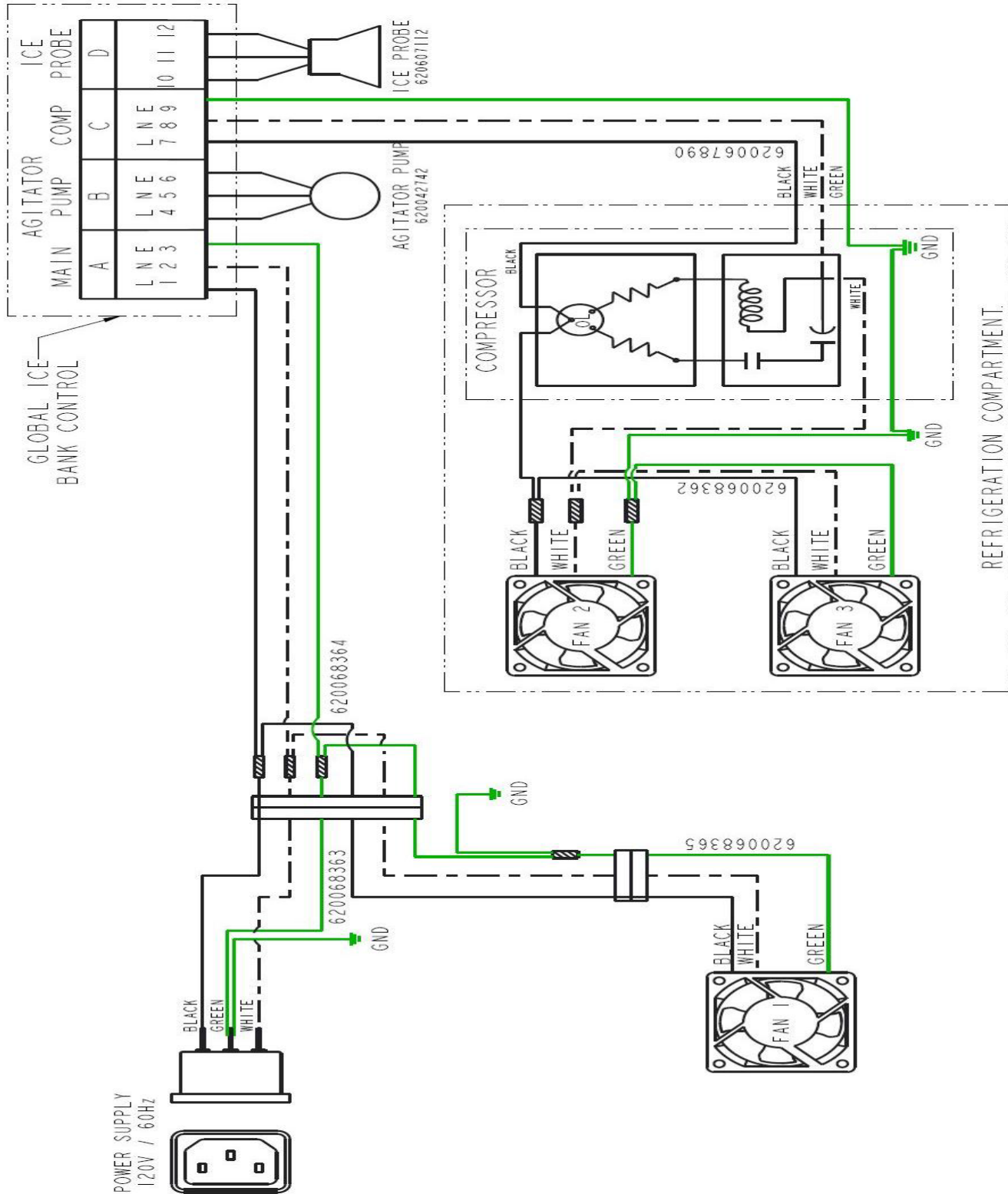


Figure 6.

NITROGEN FLOW DIAGRAM

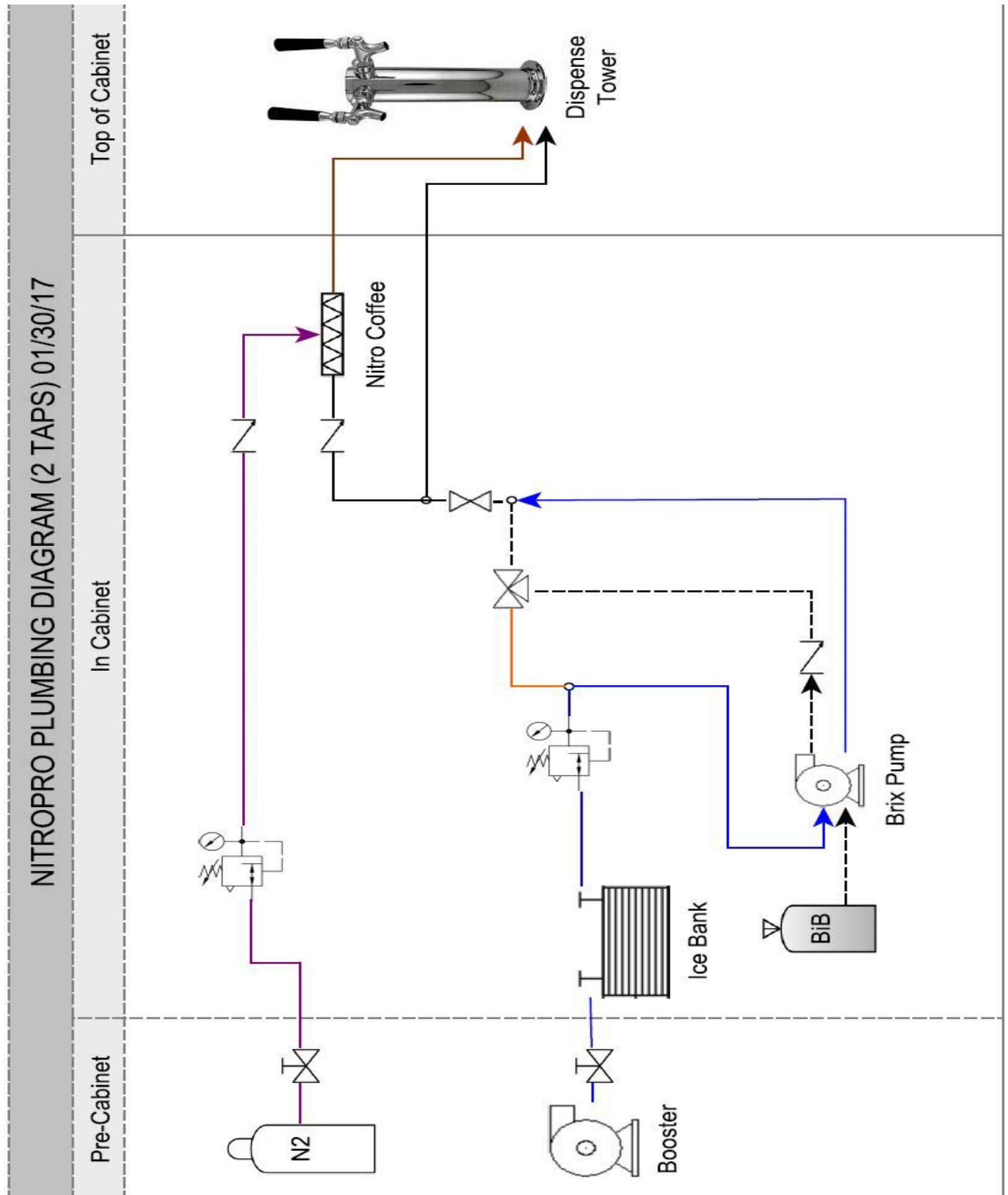


Figure 7



Cornelius Inc.
www.cornelius-usa.com