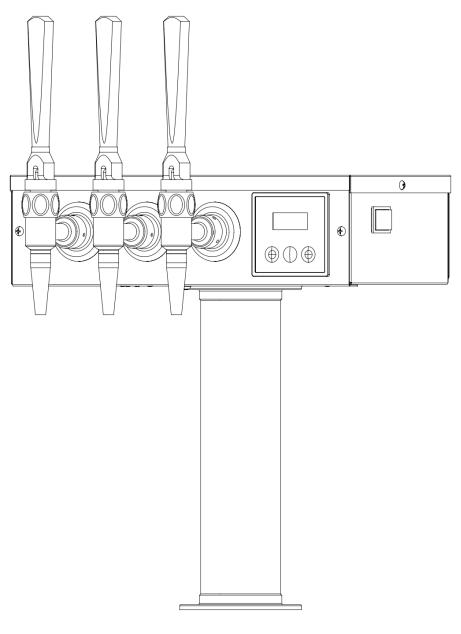


Model: KC HDT301



## TABLE OF CONTENTS

TABLE OF CONTENTS	2
SAFETY WARNING	
IMPORTANT SAFETY INFORMATION	4
ABOUT	
PARTS DIAGRAM	
BEFORE INSTALLATION OF YOUR HOT DRAFT® TOWER	
ASSEMBLE THE HOT DRAFT® TOWER DISPENSE SYSTEM	10
Attaching the Tower	
Attaching the Faucets	14
Gas Connection	15
Coupler Connection	16
Setting Pressure	19
Setting Kegerator Temperature	
ELECTRICAL CONFIGURATION	20
Electrical specifications	20
Electrical Plug Installation	20
Voltage Setting Configuration	21
Floatrical Diagram	22

### SAFETY WARNING

When installing or using any high voltage electrical appliance, basic safety precautions should always be followed. Under no circumstance should you attempt to clean, install, inspect, repair, disassemble or otherwise service this product, without first shutting off all power to the unit and uncoupling the keg so that pressure is eliminated during the cleaning / inspection.

THIS PRODUCT SHOULD BE INSTALLED BY A <u>LICENSED ELECTRICIAN</u> AND A <u>QUALIFIED PLUMBER</u> IN ACCORDANCE WITH ALL NATIONAL, STATE, PROVINCIAL AND LOCAL ELECTRICAL & PLUMBING CODES.

PLEASE READ THESE INSTRUCTIONS THOROUGHLY AND COMPLETELY PRIOR TO INSTALLATION & USE. FAILURE TO DO SO COULD CAUSE PROPERTY DAMAGE, SERIOUS INJURY, OR DEATH.



Hot water can be dangerous, especially for infants or children, the elderly, or infirm. There is hot water scald potential if the thermostat is set too high.

Water temperatures over 125° F (51° C) can cause severe burns or scalding resulting in death.

Hot water can cause first degree burns with exposure for as little as:

3 seconds at 140° F (60° C)

20 seconds at 130° F (54° C)

8 minutes at 120° F (48° C)

Test the temperature of the water before placing a child in the bath or shower.

Do not leave a child or an infirm person in the bath unsupervised.

#### SERIOUS BODILY INJURY OR DEATH COULD OCCUR IF YOU IGNORE THIS WARNING.

#### **⚠WARNING**

"Hot liquids under pressure can be dangerous and even fatal if installed improperly installed and maintained."



### **IMPORTANT SAFETY INFORMATION**

- You must read and follow all instructions.
   Serious bodily injury or death could occur if you ignore this warning.
- 2. All circuit breakers and/or disconnect switches servicing the HOT DRAFT® Tower must be turned off when installing, uninstalling, or repairing this unit.
- 3. The Tower must be installed by a licensed electrician.
- 4. The Tower must be wired in accordance with the current version of the National Electrical Code (US) or Canadian Electric Code (Canada).
- 5. This installation must comply with all national, state, and local plumbing and electrical codes.
- 6. When the Tower is not within sight of the electrical circuit breakers, an additional local means of disconnection of all ungrounded conductors must be provided that is within sight of the appliance or a circuit breaker lockout must be used. (Ref. NEC 422.31)
- 7. If the Tower is installed in a location where liquid damage could occur in the event of a

- leak, it is recommended that a drip pan be installed and connected to a suitable drain.
- 8. This is a closed system meaning that the product is coming from a container under pressure or from a vacuum system of delivery. Adhere to the labeling requirements on the containers regarding allowable pressure and/ or delivery recommendations so that system is not compromised.
- 9. Product containers such as kegs, bag-in-box, or other types of product packaging each come with guidelines as to maximum pressure allowed or recommended delivery instructions required for safe handling. It is imperative that operator follow these guidelines at all times!
- 10. This Tower must be installed in a location where it is not subject to freezing temperatures unless supplied with factory installed freeze protection.
- 11. This Tower is not rated for outdoor use. This Tower must be installed indoors to function as intended.

**Beverage Factory** 

Phone: 1-(800) - 710-9939





### **ABOUT**

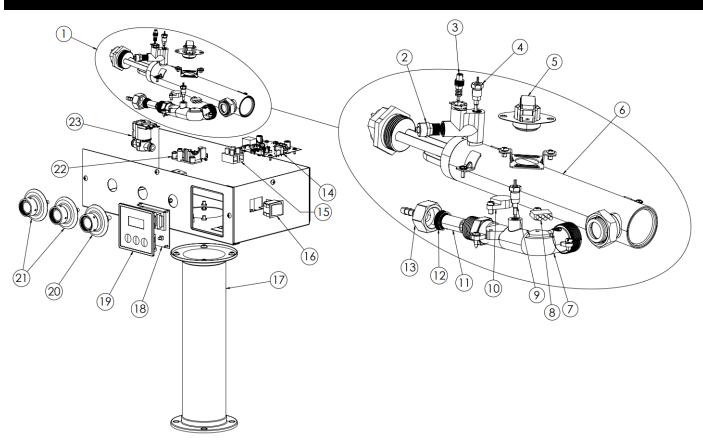
Congratulations on the purchase of your new **Kegco HOT DRAFT®** Tower! This U.S. patented product (<a href="https://kegco.com/pages/patents">https://kegco.com/pages/patents</a>) is the property of Ryan Bros. Coffee and is the World's First Draft System that allows you to enjoy both cold and hot products at the point of dispense without the burning effects of holding tanks or the lessening of flavor from oxidation. Utilizing a tankless method of just-in-time heating, the structure and flavor integrity of the beverage is at its original maximum quality without the degradation of heretofore constant reheating. What does this mean? The **HOT DRAFT®** Tower delivers *constant freshness* with *zero waste*! Inside the keg, nitrogen is displacing oxygen, keeping the beverage 100% fresh while infusing the beverage with a creamy finish. The finished product is as good as when it was originally crafted—every ounce and all the time! With the **HOT DRAFT®** Tower, *you are serving products at their very best, highlighting peak freshness and flavor, and the last ounce is as good as the first!* We hope you enjoy having chosen our innovative solution and for helping us solve the many flavor pitfalls and waste traditional brewing yields. As you will soon discover yourself—The **HOT DRAFT®** Tower is "Not Your Same Old Drip!" ®







### **PARTS DIAGRAM**



- 1. Heater Assembly
- 2. Compression Fitting for Hot Draft® Tubing
- **3.** Flow Restriction Spindle
- 4. Outlet Thermistor
- **5.** ECO (Electrical Cutoff)

- 6. Heating Chamber
- 7. Inlet Manifold
- 8. Triac
- 9. Inlet Thermistor
- 10. Hall Effect Sensor
- 11. Flow Meter
- 12. Inlet Screen

- **13.** Inlet Barbed Nipple for 3/16" ID Tubing
- 14. Power Board
- 15. Terminal Block
- **16.** Power Switch (On/Off)
- 17. Tower Column
- 18. Control Board

- 19. Control Panel
- 20. 90° Elbow Shank
- 21. Straight Shanks
- **22.** Inlet Manifold & Beverage Line Mount
- 23. Solenoid Valve





### BEFORE INSTALLATION OF YOUR HOT DRAFT® TOWER

READ THESE INSTRUCTIONS THOROUGHLY AND COMPLETELY PRIOR TO INSTALLATION & USE. FAILURE TO FOLLOW INSTRUCTIONS COULD CAUSE PROPERTY DAMAGE, SERIOUS PERSONAL INJURY, OR DEATH.

By installing this product, you acknowledge the terms of the manufacturer's warranty. Once the Tower is installed, do not return product to the place of purchase. If you have any questions regarding the warranty or product return policies, please contact **Beverage Factory at 1-(888) 980-4810**.

Before installation, inspect all components. Along with any add-ons purchased with your Hot Draft® Tower, the package includes:

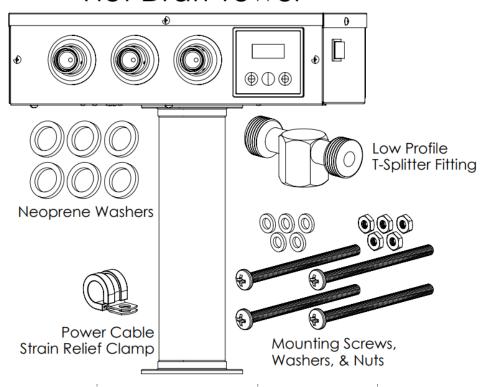
- (1x) HOT DRAFT® Tower
- (4x) Mounting Screws, (5x) Washers, and (5x) Nuts
- (1x) Power Cable Strain Relief Clamp
- (1x) Low Profile T-Splitter Fitting
- (6x) Neoprene Washers for Beer Lines and Fittings

Contact a licensed electrician to configure the electrical system.

Recommended tools for installation:

- Philips Head Screwdriver
- Flat Head Screwdriver
- Appropriately Sized Wrenches
- Faucet Wrench

### Hot Draft Tower





8510 Miralani Dr. San Diego, CA 92126

(888) 980 - 4810

support@kegco.com



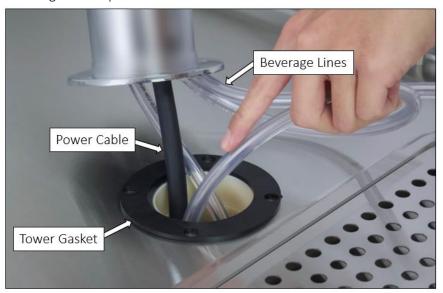
### ASSEMBLE THE HOT DRAFT® TOWER DISPENSE SYSTEM

#### Safety Instructions:

- 1. Pressurized Nitrogen can be dangerous. Handle with care.
- 2. Never exceed 60 PSI.
- 3. Always connect Nitrogen tank to regulator. Never connect the tank directly to keg.
- 4. Keep the Nitrogen tank in an upright position.
- 5. Ventilate area after Nitrogen leak.
- 6. The regulator may break if the tank falls on it. Secure the Nitrogen tank.
- 7. If it becomes difficult to breathe and your head starts to ache, high levels of Nitrogen may be present. LEAVE THE ROOM IMMEDIATELY.
- 8. Pressures above 50 PSI will release the coupler's built-in pressure relief valve.
- 9. This Tower is not rated for outdoor installation. Install this Tower indoors to ensure proper function.

#### Attaching the Tower

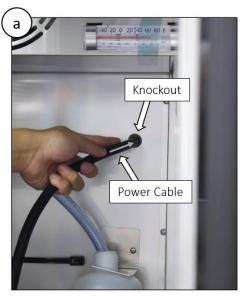
1. Start by guiding beverage lines and power cable through the hole on the kegerator top. For more than one beverage line, put the first line through and press the second nut into the hole next to the first tube. Then pull the first tube from inside the kegerator and it will bring the second nut through the hole. Ensure there is a rubber tower gasket between the tower and the kegerator top.

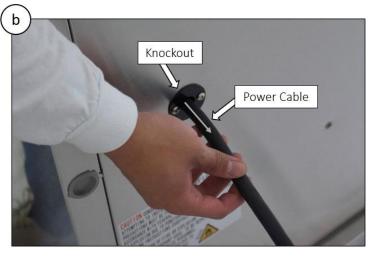






2. Once the power cable is inside the kegerator cabinet, (a) guide the cable through the knockout in the back wall and (b) out the other side.





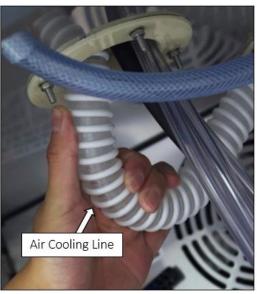
3. (a) Align the tower flange with the holes on top of the kegerator. Insert the provided Tower Screws into the holes. (b) Use a Philips Head Screwdriver and appropriate wrench to tighten the screws with provided nuts and washers.







4. Feed the air-cooling line up into the tower.



5. Install the Power Cable Strain Relief Clamp. (a) Slip the Clamp around the power cable. (b) Pinch the ends of the Strain Relief Clamp close together. (c) Align the holes with the <u>back right</u> Tower Screw. (d) Use the provided nut and washer to tighten the clamp. (e) Use an appropriate wrench to further tighten the nut and washer until the clamp is shut, shown in (f).









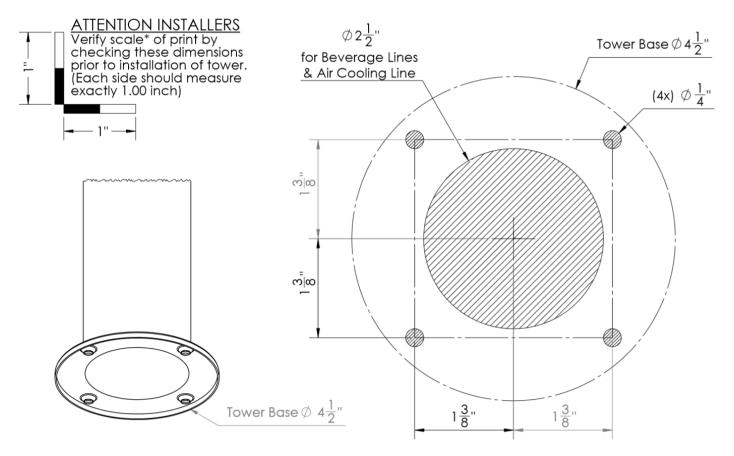








If you are installing the tower on a surface other than the kegerator top, you must use the necessary hardware to drill holes for screws and beverage lines. Follow the tower flange dimensions outlined below to match the screw positions on your surface. Visit <a href="https://www.kegco.com">www.kegco.com</a> or call (888) 980-4810 for a printable template.



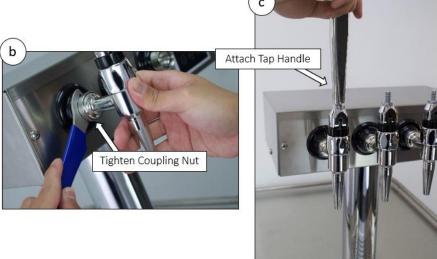
If installing the kegerator under a countertop, ensure you have the proper amount of air circulation around the kegerator with no obstructions. If the top of the kegerator touches the bottom of the countertop, seal the gap with caulk or silicone. If there is a gap between the top of the kegerator and the bottom of the countertop, you can create a spacer using PVC pipe and seal around that. Drop the line beverage line and power cable through the countertop and spacer and attach the tower to the countertop.



#### **Attaching the Faucets**

When attaching the faucet to the tower, (a) line up the teeth on the inside of the faucet with the teeth inside the shank. (b) Screw the coupling nut onto the faucet and tighten with the faucet wrench. (c) Screw the tap handle onto the faucet lever. The lever is an industry standard thread size to allow for aftermarket tap handles.







#### **Gas Connection**

The Nitrogen tank will arrive empty, and you will need to have it filled locally. The best way to find a place to fill the tank is to search for a welding supply store in your zip code. We recommend the use of **Industrial Grade Nitrogen** for the best result. Be sure to position the tank in an upright manner.

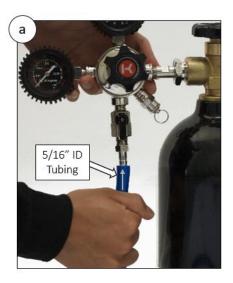
1. Attach the regulator to the Nitrogen tank. If there is a washer built on to the end of your regulator, you do not need to use any additional washer. (a) Hand tighten the coupling nut. (b) Use a 1 1/8" wrench to tighten an extra quarter to half turn. Overtightening the coupling nut may cause a leak.





2. (a) Attach 5/16" I.D. Gas Line Tubing to regulator nipple. The tubing can be made more pliable by heating the end in hot water. (b) Pinch white plastic clamp into place. (c) Use a pair of pliers to further tighten the clamp.

Note: Ensure the clamp is very tight as this system requires higher pressure than typical beverage systems.









8510 Miralani Dr. San Diego, CA 92126

(888) 980 - 4810

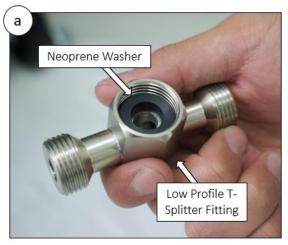
support@kegco.com



#### **Coupler Connection**

Commercial keg couplers attach to both the beverage and gas lines. With this unit, you can use one keg to dispense both cold and hot beverage by using the provided Low Profile T-Splitter Fitting.

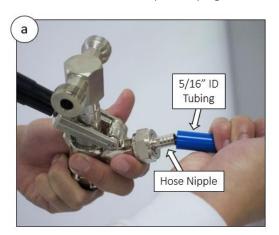
1. (a) Place a neoprene washer between the T-Splitter and the top of the coupler. (b) Attach the T-Splitter to the top of the coupler. Do not overtighten the T-Splitter as this will cause a leak.

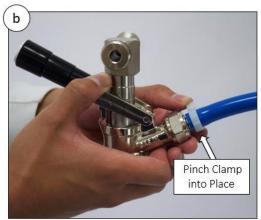




2. (a) Connect the 5/16" ID Gas Line Tubing to a hose nipple on the side of the coupler. (b) Clamp the into place. Use a pair of pliers to further tighten the clamp.

Note: Ensure the clamp is very tight as this system requires higher pressure than typical beverage systems.



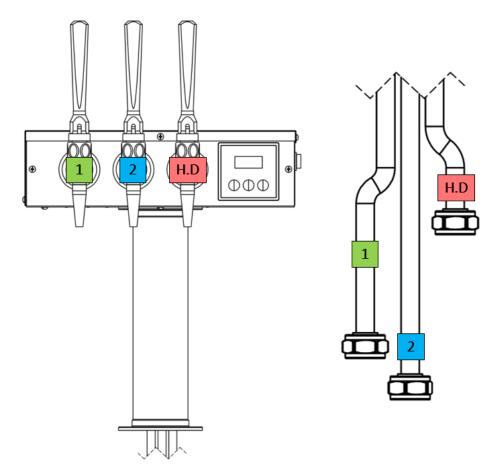






3. Identify the color coded beverage lines. Follow the guide pictured below to identify the lines and corresponding faucet.

Note: The H.D Hot Draft® faucet will dispense hot beverage. Faucet and Faucet will dispense cold beverage.







4. The beverage lines come with Beer Nuts at the end that attach to the T-splitter. (a) Be sure to insert a neoprene washer into the Beer Nut before attaching to the T-splitter. (b) Attach the H.D Hot Draft® Beverage Line to one end of the T-splitter. (c) Attach Beverage Line 1 or Beverage Line 2 to the other end of the T-splitter.







5. The keg coupler attaches to the top of a keg. Slide the coupler into the keg's Coupler Receiver. Twist to lock the coupler to the keg. This keg can now be dispensed as either a hot or cold beverage.







8510 Miralani Dr. San Diego, CA 92126

(888) 980 - 4810

support@kegco.com



#### **Setting Pressure**

When dispensing coffee, the pressure should be set to about 30-40 PSI. Set the pressure by turning the dial on the front of the regulator counterclockwise until it is all the way out. This will turn the regulator off. Turn the valve on the bottom of the regulator to the side to ensure no Nitrogen will pass through the regulator. Pull the pin on the side of the coupler to release built up pressure from the keg. Open the cold draft faucet. Nothing should come out initially as there is no pressure to the keg. Put a container under the faucet and open the valve at the bottom of the regulator. Turn the dial clockwise with the faucet open and beverage will start to pour. Stop turning when you get the best flow rate. This should be about 30-40 PSI. This method should prevent your regulator from creeping.

If you are dispensing at altitude, the output pressure will need to be adjusted to compensate. As a general rule of thumb, you will need to increase your output pressure by one pound for every 2,000 feet of elevation above sea level. Your application may vary, for more information please contact Kegco Sales Department at (888) 980-4810.

#### **Setting Kegerator Temperature**

Refer to your kegerator's manual to change your kegerator temperature. We recommend coffee to be kept at 37 degrees. Do not store coffee above 40 degrees. We recommend beer to be kept at 35-37 degrees.

The air temperature inside the kegerator can fluctuate greatly as you open and close the door. Check the liquid temperature by putting a thermometer in a glass of water inside the kegerator. Let the glass cool for 24 hours with the door shut for the most accurate reading.





### **ELECTRICAL CONFIGURATION**

Beverage Factory recommends that this product be installed by a **licensed and qualified electrician** in accordance with all applicable national, state, provincial, and local electrical codes. As with all electrical appliances, under no circumstances should you attempt to install, repair, or disassemble this water heater without first shutting off all power to the unit directly at the fuse or breaker box. Make sure to shut off all breakers. **SERIOUS BODILY INJURY OR DEATH COULD OCCUR IF YOU IGNORE THIS WARNING.** 

All wiring (wire gauge) and circuit protection (breakers) must comply with the U.S. National Electrical Code (NEC) in the USA, or the Canadian Electrical Code (CEC) in Canada. Failure to do so could result in property damage and/or personal injury and void your warranty.

### **Electrical specifications**

MODEL	VOLTAGE/PHASE	KW	TOTAL AMPS	RECOMMENDED WIRE SIZE (CU) 90° C	RECOMMENDED MINIMUM BREAKER SIZE (PER NEC – INTERMITTENT DUTY)
	240 1Φ Δ	4.8	20	14	20
KC HDT301	230 1Φ Δ	4.4	20	14	20
	208 1Φ Δ	3.6	18	14	20

### **Electrical Plug Installation**

The HOT DRAFT® Tower will arrive without an electrical plug installed at the end of the power cable. We recommend a plug to be installed by a **licensed and qualified electrician**. Ensure the plug matches the power outlets found in your installation location.

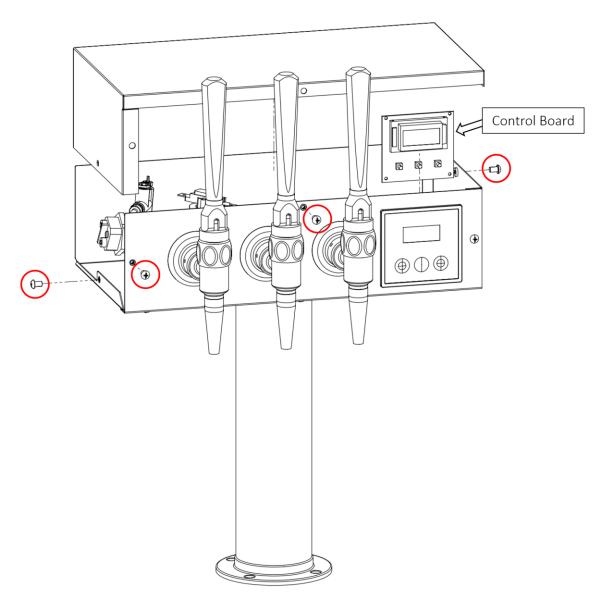




#### **Voltage Setting Configuration**

The HOT DRAFT® Tower will be operable on either 208V, 230V, or 240V electrical systems. Contact a **licensed and qualified electrician** to confirm your installation location's voltage supply. The unit must be configured for your specific voltage supply. Configure the unit by setting a DIP Switch located inside the unit, behind the Control Panel. The lid must be removed to access the DIP Switches. **DO NOT ATTEMPT TO INSTALL, REPAIR, OR DISASSEMBLE THIS WATER HEATER WITHOUT FIRST SHUTTING OFF ALL POWER TO THE UNIT DIRECTLY AT THE FUSE OR BREAKER BOX.** 

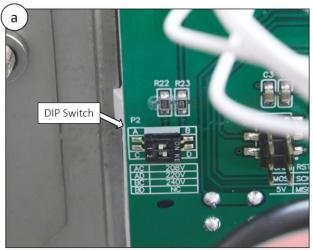
1. Remove the lid by removing 4 screws, circled in red below. Lift the lid to open the HOT DRAFT® Tower. The Control Board will now be accessible. It is located behind the Control Panel, as shown below.

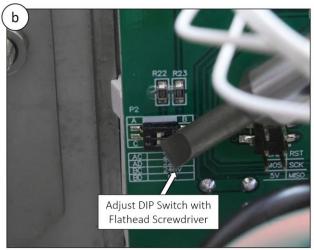




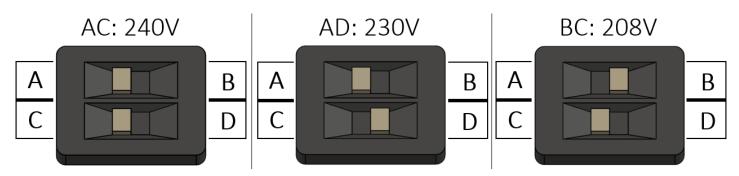


2. (a) The DIP Switch will be located on the left edge of the backside of the Control Board. (b) Use a Flathead Screwdriver, or suitable tool, to adjust the DIP Switch.





3. Configure the DIP Switch for your electrical supply according to the guide below. This information is also printed on the Control Board directly underneath the DIP Switch.



4. Reattach the lid. The lid must be closed and securely shut before the unit can be safely operated.





### **Electrical Diagram**

