



**Cecilware®**

# Operator Manual

## Powdered Beverage Dispenser

GB Models 1, 2, 3, 4, 5, & 6



**Model GB3M10-LD**



**Model GB1HC**



**Model GB5M10-LD**



### Table of Contents

Safety Information.....2	Maintenance .....10
Installation.....3	Troubleshooting Guide.....13
Operation .....6	Parts Diagram and List.....15
Cleaning.....8	Wiring Diagrams .....23

Thank you for purchasing this quality powdered beverage dispenser. For your safety and the safety of others, read all warnings and the operator manual before installing or using the product. Properly instruct all operators. Keep training records. For future reference, record serial number here:

#### **Grindmaster-Cecilware**

4003 Collins Lane, Louisville, KY 40245 USA  
Phone: 502.425.4776 Toll Free: 800.695.4500  
Fax: 502.425.4664  
Web: gmcw.com Email: info@gmcw.com

Grindmaster-Cecilware provides the industry's BEST warranty. Visit [gmcw.com](http://gmcw.com) for warranty terms and conditions.



**Grindmaster  
Cecilware**

## Safety Information

### Important Safety Information



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

For your safety and the safety of others, read all warnings and the operator manual before installing or using the product.

**DANGER:** This term warns the user of imminent hazard that will result in serious injury or death.

**WARNING:** This term refers to a potential hazard or unsafe practice, which could result in serious injury or death.

**CAUTION:** This term refers to a potential hazard or unsafe practice, which could result in minor or moderate injury.

**NOTICE:** This term refers to information that needs special attention or must be fully understood.

### **WARNING**

The appliance is not intended for outdoor use.

Do not clean with pressurized water or use in an area where pressurized water may be used.

Cleaning and maintenance shall be made only by properly trained persons with supervision.

### **CAUTION**

Lifting hazard. Single person lift could cause injury. Use assistance when moving or lifting.

For safe and proper operation, the appliance has to be placed in a stable, vertical position.

The appliance is not to be used by persons with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction. Be sure to provide supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children must be supervised to ensure they do not play with the appliance.

The appliance is only to be installed in locations where it can be overseen by trained personnel.

### **NOTICE**

To avoid damaging unit, turn on power and wait for tank to fill with water before turning on heater.

Observe machine voltage configuration. Do not apply improper voltage to machine or damage to machine will occur.

Do not use extension cord.

## Installation

**⚠ CAUTION:** Lifting hazard. Single person lift could cause injury. Use assistance when moving or lifting.

### **Water Inlet Connection:**

**NOTICE:** This equipment is to be installed to comply with the applicable Federal, State, or local plumbing codes having jurisdiction. In addition:

1. A quick disconnect water connection or enough extra coiled tubing (at least 2x the depth of the unit) so that the machine can be moved for cleaning underneath.
2. An approved backflow prevention device, such as a double check valve to be installed between the machine and the water supply.

The GB beverage dispenser is equipped with a 1/4" Flare Water Inlet fitting, which is located on the left side in the back of the base (when looking at the machine from the front).

Water pipe connecting and fixtures directly connected to a potable water supply shall be sized, installed, and maintained in accordance with Federal, State, and Local codes.

#### **HIGHLY RECOMMENDED:**

A WATER SHUT-OFF VALVE and A WATER FILTER, preferably a combination Charcoal/Phosphate Filter, to remove odors and inhibit lime and scale build up in the machine.

**Note:** In areas with extremely hard water, a water softener must be installed in order to prevent mineral deposits that could result in malfunctioning of the equipment and in order not to void the warranty.

### **Unpacking Instructions**

Carefully unpack the GB Machine and inspect immediately for shipping damage. Your GB Machine was shipped in a carton designed to give it maximum protection in normal handling. It was thoroughly inspected before leaving the factory. In case of damage, contact the shipper, not Grindmaster-Cecilware.

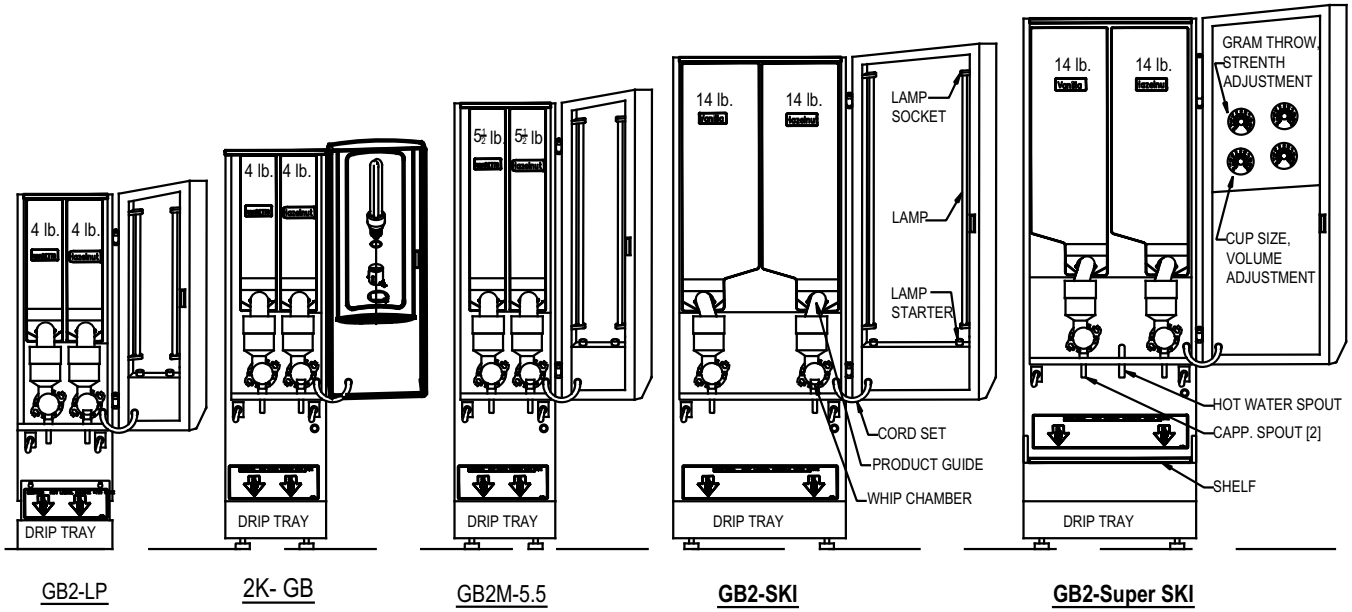
After the machine has been unpacked and placed on a counter, pull out the stainless steel drip tray. It should contain the following:

- 1/4" Flare Water Inlet Fitting.

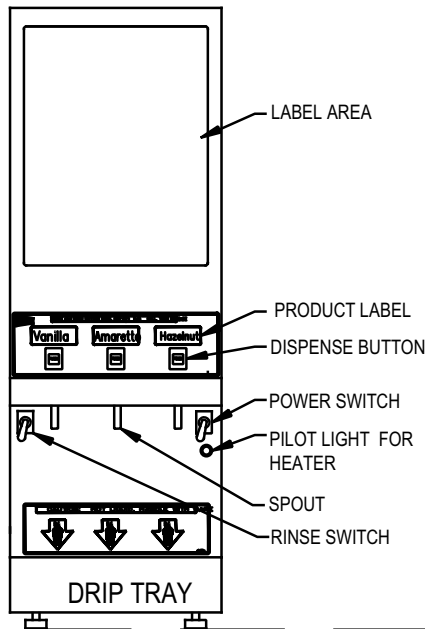
# Installation (continued)

## Description and Location of Components

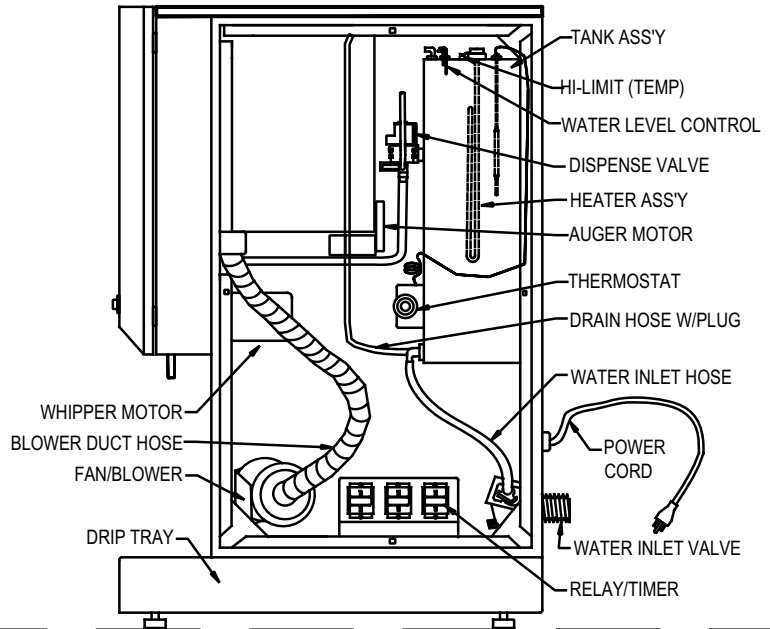
Note: Refer to following illustration for description and location of COMPONENTS and CONTROLS.



FRONT VIEW GB3 SHOWN



RIGHT SIDE VIEW



## Installation (continued)

1. **HOPPERS:** Depress the door latch on the left side of the door and pull door open to access the hoppers.

- The hoppers hold up to 14 lbs. (14 kg) of Cappuccino product and up to 1.5 lbs. (0.7kg) of freeze dried coffee product, depending on model.
- To remove the hoppers swing the top compartment door open and lift out the hoppers.
- To reposition the hoppers in the compartment, slide the hopper base back between the rails until the 1/4" pin at the bottom of the hopper base falls into the 1/4" positioning hole of the compartment base cover.

2. **RINSE SWITCH:** With the door open, the rinse switch is located on the left side of the first Whipper chamber.

- In the RINSE position, it disengages the hopper motors and allows only water to be dispensed.
- It is used for flushing out the Whipper Chambers and to adjust the water dispense valves for proper flow rates.

3. **HEATER SWITCH:** This switch is located inside the cabinet behind the right hopper. Open door and remove right hopper to access it.

- Its primary function is to shut off the heating element during the initial priming, start-up operation of the machine, or whenever the tank is being drained for service.

**Note:** The Power Switch and Heater Switch must be ON in order for the elements to operate.

4. **POWER SWITCH:** This switch is located on the left side of the splash panel below the door. On 120V, 1.8 KW and 120/240 or 240V, 3 KW single element machines the power switch controls all power to the machine including the heater elements.

**Note:** On 120/240V, 6 KW machines, the Power and Heater Switches are independent of each other. Both switches must be OFF in order for the machine to be completely shut down.

5. **WATER LEVEL CONTROLS:** Under normal conditions and operation, the water level in the tank should not drop more than 1/2" (1.3cm) from the probe. If it does, the tank is not refilling fast enough. Check the water line and water filter; they may need cleaning or replacing.

1. Tank Control Board (Export 240V)	Part# 349-00012 Part# L706AL)
2. Water Inlet Valve (Export 240V)	Part# L462AL Part# L426AL)
3. Water Level Sensor	Part# K695QL

### Start-up Procedure

**NOTICE:** Make sure that the **Heater Switch**, located behind right hopper with door opened, is in the **OFF** position.

1. Connect the 1/4" dia. copper waterline to the 1/4" flare water inlet fitting of the valve.

2. Plug the power cord(s) into a proper receptacle.

**Note:** GB8M10 units use two power cords. Each cord must be plugged into a separate receptacle.

3. Activate the Power Switch (Toggle Up). The door display panel, the red power indicator light and the green dispense buttons will light up and the tank will start filling. Allow approximately 4-5 minutes for the tank to fill.

4. Activate the Heater Switch. Allow approximately 10-30 minutes for the water to reach a temperature of 190°F (88°C). The heat up time will depend on the water inlet temperature, the input voltage, and the wattage of the elements in the machine.

5. Place a 8 oz. (240ml) or larger cup under the left dispense nozzle, press and hold the left dispense switch for 6 seconds. The machine will dispense water at the rate of 1 oz. (30ml) per second. Repeat it several times to check for consistent output. Repeat same for the other dispense switches. This procedure checks that the dispense valves are not air-locked.

6. While the tank is heating, remove the hoppers, load them with products, and reposition them back in the machine. When the green ready light comes on, the tank has reached its brew temperature and the machine is ready to dispense the first cup of Cappuccino.

### Filling the Hoppers

1. To remove the hoppers, swing the top compartment door open and lift out the hoppers.

2. Fill each hopper with the correct product.

3. Reposition hoppers in the hopper compartment, making sure the hoppers are properly seated.

If you need help, call Grindmaster-Cecilware Technical Service Department, (502) 425-4776 or (800) 695-4500 (USA & Canada only) 8 AM - 6 PM EST.

Prior authorization must be obtained from Grindmaster-Cecilware for all warranty claims.

## Operation

Your new powdered beverage dispenser is easy to operate and maintain. Before you place it in service, please have all personnel familiarize themselves with these instructions. Keep this manual in a convenient place for ready reference.

### How to Operate

To dispense a cup of Cappuccino or Coffee:

- Place an 8 oz. (240ml) or larger cup under selected drink dispense nozzle.
- For Manual units: Push and hold brew button until cup is 2/3 full, then release button.
- For Automatic units: Press and Release button. Cup will fill up automatically to its preset amount.

### Adjustments

#### Water Flow Rate Adjustment

Adjust water flow rate to correct level in Whipping Chamber.

The Dispense Valves are factory adjusted for a maximum Flow Rate of 1 to 1.3 oz./sec (30-38 ml/sec).

[Approximate settings: 1.3 oz./sec (38 ml/sec) for COFFEE and CAPPUCCINO]

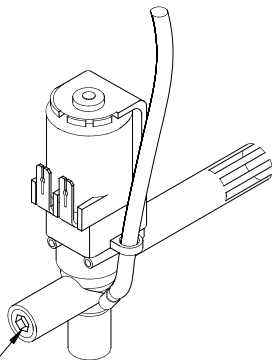
Exceeding this Flow Rate will cause the Mixing Chamber to overflow.

Note: To access the Water Dispense Valves, open door and remove Hoppers.

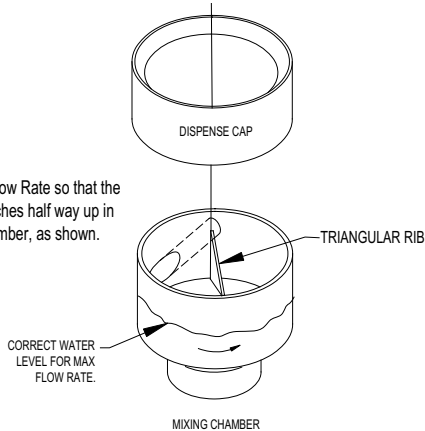
TO ADJUST WATER FLOW RATE:

1. Open door and remove hoppers. Locate Dispense Valve behind hoppers, mounted on tank.
2. Locate adjustment screw on Dispense Valve.
3. Using Allen Key or flat screwdriver rotate, 1/4 turn at a time, **CLOCKWISE** to decrease water flow, or **COUNTERCLOCKWISE** to increase water flow.
4. Check water flow output, after each 1/4 turn.

WATER FLOW ADJUSTMENT  
DISPENSE VALVE

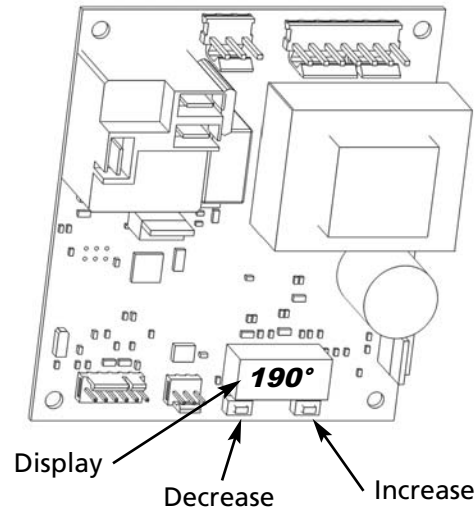


Adjust Water Flow Rate so that the water level reaches half way up in the Mixing Chamber, as shown.



#### Temperature Adjustment (Tank Control Board Type)

1. Locate the Tank Control Board.
2. Press button under right side of display to increase temperature.
3. Press button under left side of display to decrease temperature.
4. Pressing both buttons simultaneously will reset to default 190°F (88°C).



#### Temperature Adjustment (Thermostat Type)

1. Locate Thermostat: Remove the right side panel. Thermostat is mounted on side of tank. The GB beverage dispensers are factory set to deliver hot brewing water at 190°F (88°C) with the thermostat knob turned to full ON position. If adjustments should be necessary to increase or decrease the water TEMPERATURE, proceed as follows:

Note: Set the Rinse Switch to ON. This will disengage the Hopper Motors when dispensing water for Temperature measurements.

2. To **INCREASE** the water temperature - With the Thermostat Knob to its maximum clockwise position, remove the knob and locate the slotted adjustment screw inside the hollow thermostat shaft. Using a narrow-bladed screwdriver, engage slotted adjustment screw and turn it 1/4 turn slowly counter-clockwise.

Allow a few minutes for the temperature to reach set level. The Heater Light will go ON, indicating the heating element is activated, wait for it to go OFF, indicating that the water has reached new set temperature. Take a temperature reading and repeat if necessary.

3. To **DECREASE** the water temperature - simply turn the Thermostat Knob one notch counter-clockwise to the next lower dial setting.

# Operation (continued)

## GB SKI SUPER - VOLUME AND PRODUCT STRENGTH ADJUSTMENTS

### DRINK STRENGTH ADJUSTMENTS - by adjusting the Auger Speed.

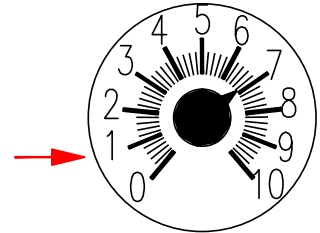
#### I. UNITS WITH FIXED SPEED AUGER MOTORS-AC [CD150] - Fixed Auger Speed [95 RPM] and dispenses powder at a constant fixed rate.

Drink Strength adjustments can be made by adjusting the water flow rate on the Water Dispense Valves.

1. Remove Hoppers to access the Dispense Valve, located behind the hoppers.
2. Locate Flow Adjustment Screw on Dispense Valve.
3. Rotate adjustment screw Counterclockwise to INCREASE Flow Rate, Clockwise to DECREASE Flow Rate.

(Note: the water flow rate should not exceed 1 to 1.3 oz./sec.)

Do not turn Adjustment Key more than 1/4 turn at a time without checking drink strength (ratio of water to powder).



GRAM THROW  
PRODUCT STRENGTH  
ADJUSTMENT

#### II. UNITS WITH VARIABLE SPEED AUGER MOTORS-DC [CD151] - Variable Auger Speed [10 to 130 RPM]

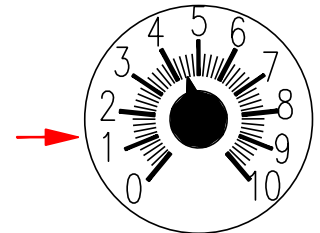
Drink or Product Strength adjustments can be made by adjusting the Auger Motor RPM [knob on inside door panel], which controls the amount of product being dispensed [gram throw]. The gram throw is factory preset at 7. Because the consistency of each product varies, the customer can set the desired gram throw for each hopper.

The water flow rate on the Dispense Valves should remain fixed.

Note: the water flow rate should not exceed 1-1.3 oz./sec to avoid spillage from dispense chamber.

### DRINK SIZE ADJUSTMENTS

- a. **Manual Machines** : Hold down the Dispense Button until desired amount is dispensed.
- b. **Automatic Machines with Timer L493A on Inside Door Panel NOT Programmable] & speed control board L556A**: To increase the volume, turn the dial to the next increment. [0-1 is equivalent to 2 sec.]
- c. **Automatic Machines with Programmable "Teach me" Timers [L576A or L582A]**: These units do not have a cup size adjustment knob inside the door, since the timer is programmable from the dispense button.



CUP SIZE  
VOLUME ADJUSTMENT

### PROGRAMMING FOR AUTOMATIC DISPENSE WITH BUZZER

1. Turn Power Switch ON (toggle switch inside door).
2. PRESS and HOLD [red] STOP Button with one hand.
3. PRESS and HOLD [green] DISPENSE Button with other hand.
4. RELEASE [red] STOP Button ONLY.
5. Continue to HOLD [green] DISPENSE Button until buzzer sounds for (4 SEC. DELAY), then RELEASE.
6. PRESS and RELEASE [green] DISPENSE Button. Product begins dispensing. When it reaches the "DESIRED VOLUME",
7. PRESS and RELEASE [green] DISPENSE Button to SET "DESIRED VOLUME". DISPENSE Button can be "jogged" to top off.
8. PRESS and RELEASE [red] STOP button to LOCK IN "DESIRED VOLUME". Repeat steps 1 to 8 for each Dispense Button.

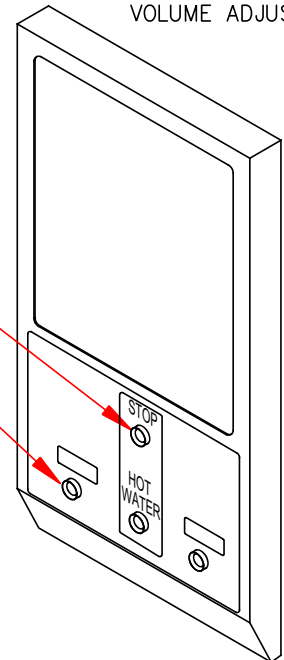
### PROGRAMMING INSTRUCTIONS FOR MANUAL DISPENSE WITH BUZZER

1. PRESS AND HOLD STOP [red] BUTTON WITH ONE HAND.
2. PRESS AND HOLD DISPENSE [green] BUTTON WITH OTHER HAND.
3. RELEASE STOP [red] BUTTON.
4. CONTINUE TO HOLD [green] BUTTON AFTER BUZZER SOUNDS (4 SEC. DELAY).
5. RELEASE DISPENSE [green] BUTTON.
6. PRESS AND RELEASE STOP [red] BUTTON.
7. YOU ARE READY FOR MANUAL DISPENSE.

The Total Time The Water Is Running Is Accumulated And Saved Into Memory. For Normal Operation, Press and Release Dispense Button.

The Timers Have Been Factory Preset for 6 oz. Cups for Coffee; For 8 oz. Cups for Soup and Cappuccino.

To Change To Larger Or Smaller Cup Sizes [Volumes] Repeat Steps 1 To 8 Above.



### TO CHECK VOLUME AND GRAM THROW DISPENSED (ratio):

1. Remove the product guide from the hopper and position a receptacle under the hopper nozzle to catch the gram throw of product. Also place a measuring cup under extension tube to catch the water dispensed.
2. Push the dispense button and check the amount of product dispensed, amount of water dispensed, and time [use stop watch] to dispense that water.
3. The amount of water dispensed in the measuring cup divided by the amount of time to dispense that water is the Water Flow Rate from Dispense Valve.

**FOR CAPPUCCINO:** The machine is factory adjusted to dispense 4-4.5 gr./sec. per OZ. Cup. [32 grams Product per 8 oz. cup]

The recommended throw is 28-32 grams per 8 oz. cup for Cappuccino, with 80% fill.

**FOR COFFEE:** The machine is factory adjusted to dispense 0.3 gr./sec per OZ. Cup. [1.5 grams of coffee product per 5 oz. of liquid (in a 6 oz. cup).

The recommended throw is 1.5 to 1.8 grams per 6 oz. cup of Coffee, with 80% fill.

## Cleaning

**NOTICE:** All sanitizing agents in the food zone must comply with 21 CFR 178.1010.

Sanitize all food dispensing units periodically. All parts to be sanitized must be cleaned first. Cleaning and sanitizing frequency must follow state and local health department regulations.

### Daily maintenance:

1. Rinse whipper chambers
  - Position a container under dispense tubes.
  - Move rinse switch to "rinse".
  - Push and hold each dispense button 3 to 5 sec.
  - Move rinse switch to "serve".

**Note:** On manual dispense machines, push and hold the dispense buttons for 10 seconds.

2. Empty drip tray, wash, rinse, and sanitize.
3. The outside of the machine can be cleaned with warm soapy water and a damp cloth.

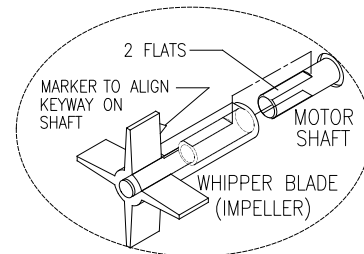
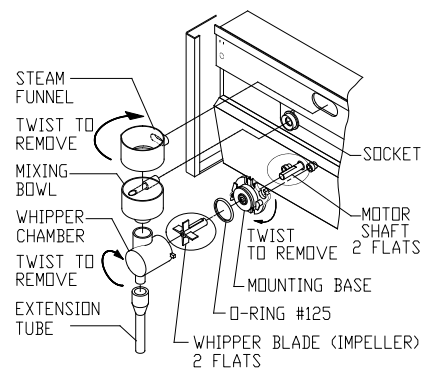
### Weekly maintenance:

1. Product hopper cleaning
  - Rotate product guides up, remove hoppers from machine.
  - Empty powder into pans.
  - Pull off product guides.
  - Remove agitator wheels.
  - Unscrew and remove front and back auger locks.
  - Remove auger.
  - Wash, rinse, sanitize, and air dry all small parts.
  - Wash & scrub hoppers and agitator wheel recesses with bristle brush. Rinse, sanitize, and allow to air dry.
  - Reassemble all hoppers.
  - Pour powder into hoppers.
  - Install all hoppers into unit.

### 2. Whipper chamber cleaning

- Remove dispense caps by turning and lifting.
- Remove mixing bowls by lifting and pulling.
- Remove product tubes by pulling down.
- Twist off whipping chambers clockwise.
- Pull off whipper blades.
- Twist off whipper chamber mounts clockwise.
- Remove O-rings.
- Remove tray by pulling levers down.
- Remove both powder trays by pulling levers out.
- Wash, rinse, and sanitize small parts and interior machine surfaces.
- Reassemble all small parts.

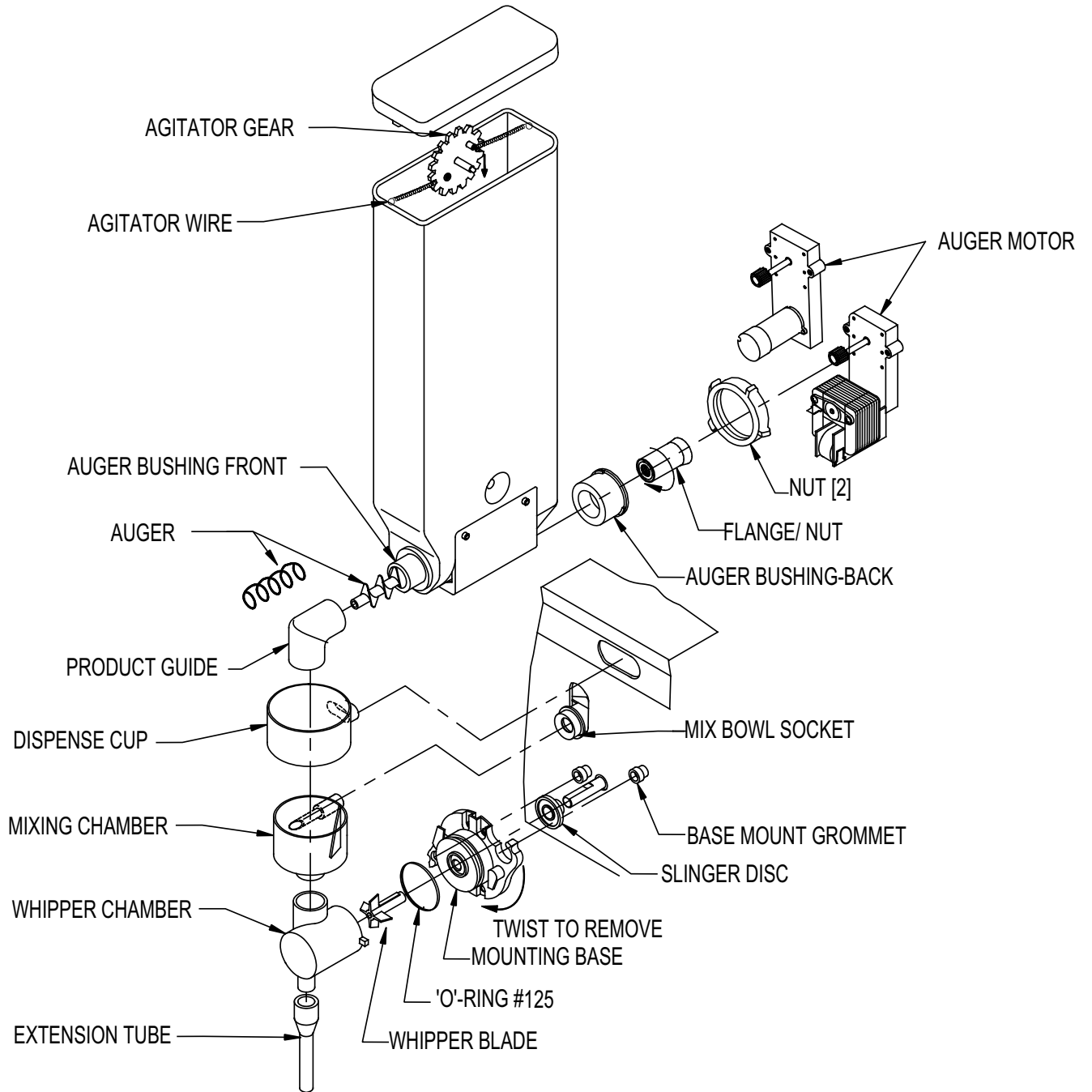
**Note:** When reassembling, align flat keyway inside blade with flat keyway of motor shaft. Push the whipper blade all the way on.



## Sanitizing

1. Prepare a sanitizing solution in accordance with local health department regulations. You may also refer to the US Food and Drug Administration regulation 21 CFR 178.1010 "Sanitizing Solutions" and US Environmental Protection Agency 40 CFR 18.940 "Tolerance exemptions for active and inert ingredients for use in antimicrobial formulations (Food-contact surface sanitizing solutions)".
2. Follow the instructions provided with the sanitizing agent.
3. Let all sanitized parts drain and air dry. **DO NOT WIPE THEM DRY.**

# Cleaning (continued)



## Maintenance

### Lit Display Replacement

**⚠ WARNING** Risk of electrical shock. Turn off power to unit before replacing bulb or starter.

#### **To replace the picture inside metal door:**

Lift up the two end tabs on top of door with a pointed object or flat head screwdriver.

Pull the entire picture frame out. Open up the two clear panels and replace picture.

Tuck clear plastic panel inside bracket at top.

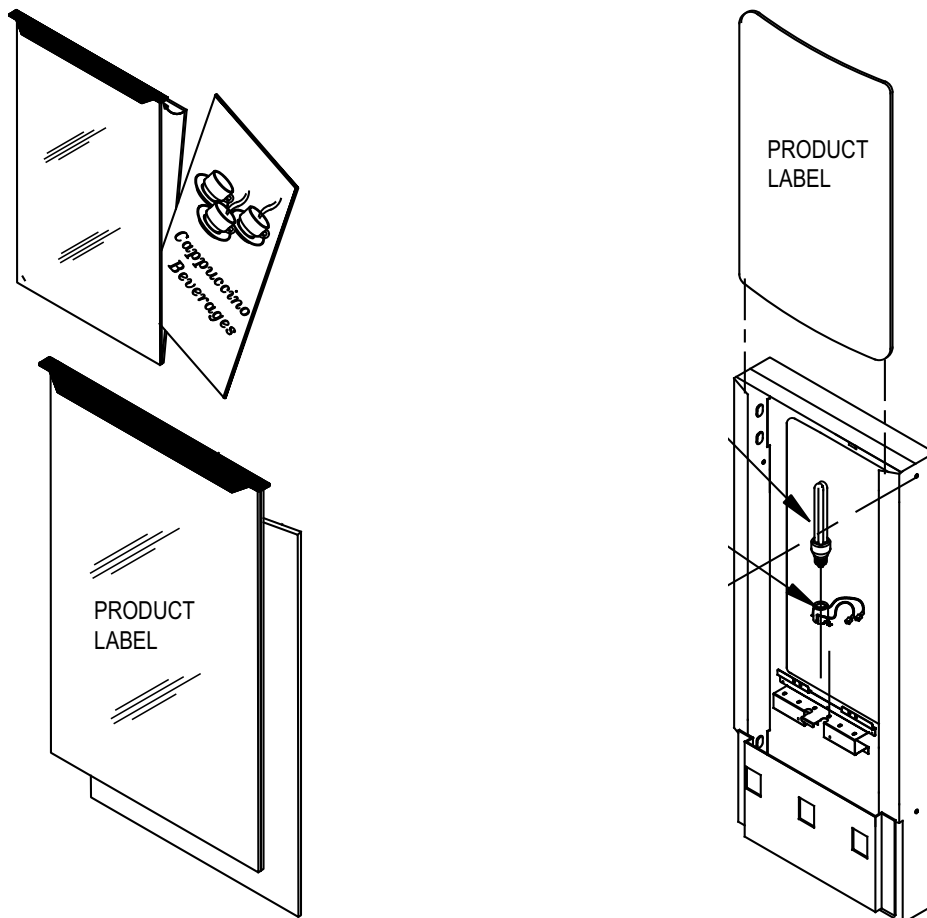
Be sure to tuck clear panel under bracket before sliding frame assembly inside door.

The longer metal tab side goes in the front.

#### **To replace the picture inside molded door:**

Remove molded door front by removing side screws. Slide out clear plastic panel with picture.

Replace picture and slide the plastic panel w/ new picture into the door frame. Then put front molded door back on with screws on the sides.

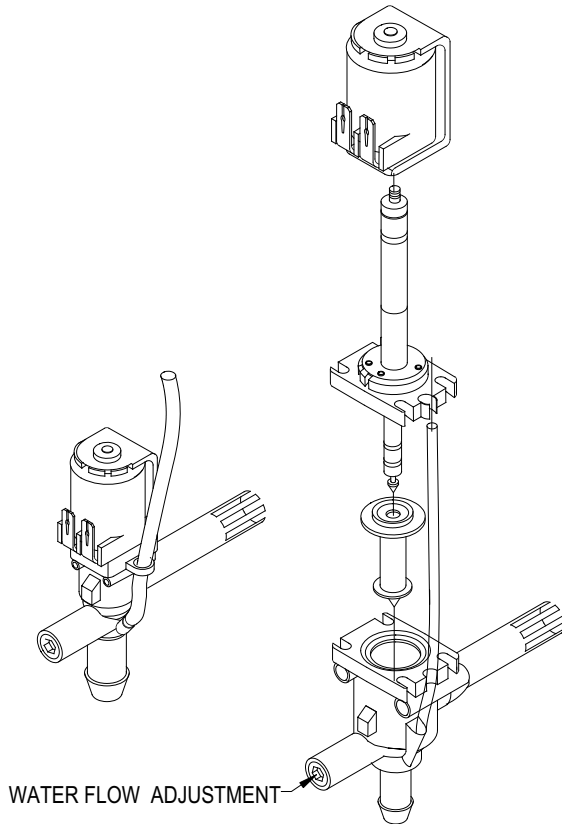


## Maintenance (continued)

### Recommended preventive maintenance

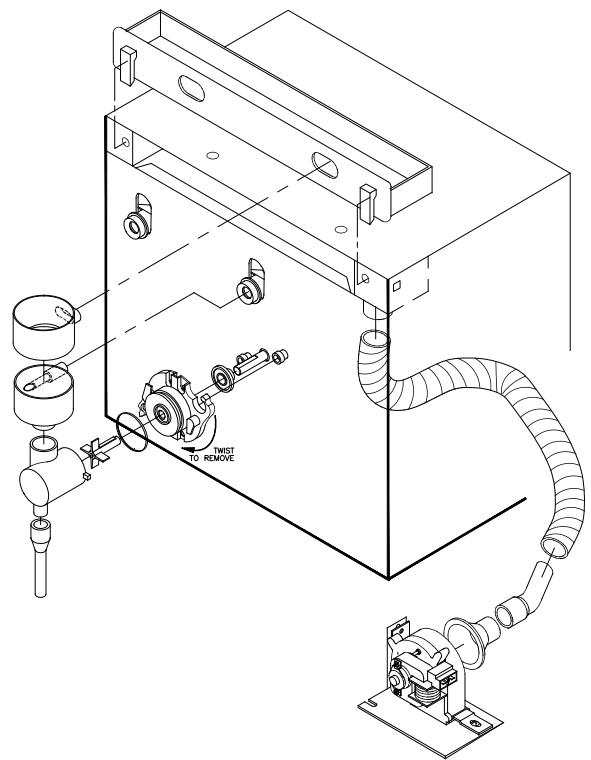
#### 1) Dispense Valves

- Check all dispense valves for lime build-up.
- Drain the water tank to just below the level of the dispense valves.
- Remove the valves and clean. (Take these valves apart by hand as shown).
- Replace the assembly as needed (L467AL -120V or L676AL - 230V import).
- Replace the valve into the tank and refill tank.
- Repair Kit M491QL.



Dispense Valve

- #### 2)
- Check all chamber mounts for signs of wear:
  - Product running down the front of the unit.
  - Product built up on the back of chamber mount.
  - Remove chamber mount.
  - Clean and re-lubricate motor shaft using food grade lubricant only.
  - Replace with new chamber mount.
- #### 3)
- Clean out vent motor, trough, and tubing.
  - Lift up black tabs, remove trough drawer.
  - Clean and replace trough drawer.
  - Remove hose assembly from the motor.
  - Clean out and replace hose.



Chamber Mount

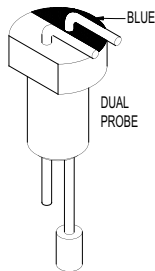
# Maintenance (continued)

## Component Tests

### Dual Probe Test

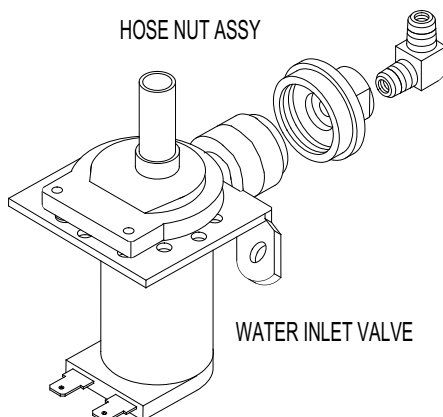
If lack of water persists, check the probe as follows:

1. Turn on the power and water supply.
2. Check inside the tank to make sure the water is below the Probe.
3. Pull the BLUE wire and terminal OFF the Probe rod. If water still does not flow after the wire is disconnected from the Probe, the problem may be in the Tank Control Board.
4. If water starts flowing into the tank, the Probe may be grounded, due to excessive liming. Check with Ohm meter. Clean probe.



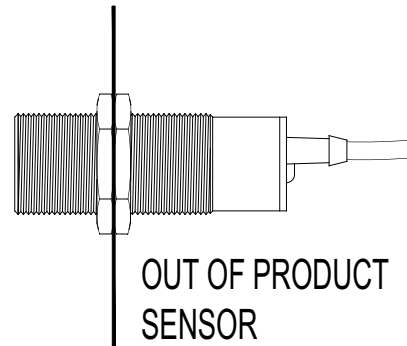
### Water Inlet Valve Test

1. Turn power OFF. If the water level rises inside a partially filled tank, the Water Inlet Valve is leaking.
2. Disconnect wires from the Water Inlet Valve coil and connect a 2 wire line cord to the terminals. Plug it into a 115V outlet. If water flows in and stops when you pull it out, the Valve is working correctly. Repeat this test a few times. The problem may be in the Probe or Water Level Control Board.
3. If the water does not flow in when the cord is plugged into an electrical outlet, the Solenoid coil may be damaged, opened or the valve may have an obstruction preventing the water from flowing in. Clean or replace it.



### Out of Product Sensor Test

1. Remove Hopper from cabinet, place the palm of your hand up against the 1 inch diameter round sensor at the back of the hopper chamber.
2. Listen for relay clicking on and off as you move your hand towards and away from the sensor.
3. If relay clicks, system is operating OK.
4. Replace with a full hopper and listen for the relay click.
5. If all this checks out and the out of product light does not go off, then there must be defective wiring. See wiring diagram.



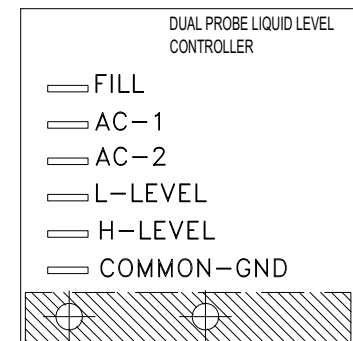
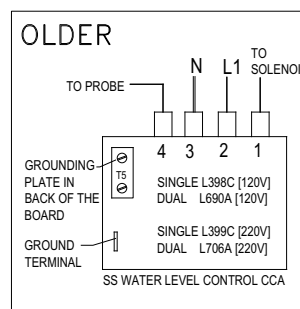
### Dual Probe Liquid Level Controller Test (For models manufactured 2015 and prior)

Check the Controller as follows:

1. Make sure there is power input to the Controller at the terminals AC1 & AC2

Your voltmeter should read 115 Volts. It should read the same at terminals AC1 & FILL when the water level is low. This is the output power to actuate the coil of the Solenoid Valve to open it. The lack of voltage at terminals AC1 & L-LEVEL or H-LEVEL indicates that the Controller is not working properly.

2. Make sure all wire connections are tight, including ground.
3. If after this, the Controller is still failing to open the Water Inlet Valve, replace it.



## Troubleshooting Guide

Before you call for help, please read the following:

**▲ WARNING:** To reduce the risk of electrical shock, unplug the dispenser power cord before repairing or replacing any internal components of the unit. Before any attempt to replace a component, be sure to check all electrical connections for proper contact.

Problem	Possible Cause	Solution
<b>Merchandiser Display not lit. No power.</b>	Dispensing unit unplugged. No power from Terminal Block. Defective light assembly.	Reconnect dispensing unit. Check the Terminal Block for loose wire. Replace LED board.
<b>No water when Rinse Switch is ON.</b>	Water supply OFF. Clogged inlet screen (Water Inlet Valve). Inoperative Water Inlet Valve.  Loose electrical connection.	Turn water ON. Disconnect water line and clean inlet screen. Check connection, if needed replace Valve. Check all electrical connections.
<b>No product when Dispense Button is pressed.</b>	No product in Hopper. Auger not working.  Damaged, loose, or missing Agitator Gear. Inoperative Auger Motor or Relay.  Hopper outlet clogged. Faulty Coupling.	Add product. Engage Hopper/Nut to Motor Gear (See pg 9). Replace Agitator Gear (See pg 9). Check connections of Motor, Relay, and/or Switch; if needed replace components. Clean Hopper and check Cartridge Heater. Replace damaged Coupling components.
<b>Water does not shut off. Water keeps dispensing.</b>	Leaking Water Inlet Valve.  Inoperative Dispense Switch.  Inoperative Rinse Switch.  Clogged/stuck Water Dispense Valve.	Clean/check fittings of Water Inlet Valve. Replace Water Inlet Valve if needed. See <b>Water Inlet Valve Test.</b> Check Switch connections. Replace Dispense Switch if needed. Check Rinse Switch connections. Replace Rinse Switch if inoperative. Clean or unclog Water Dispense Valve. Replace Dispense Valve if inoperative.
<b>No water is going into tank at all.</b>	Water Inlet Valve malfunction.  Water Level Sensor/ Probe malfunction.  Solid State Level Control Board.	Check Solenoid. Replace if necessary. See <b>Water Inlet Valve Test.</b> Check Probe. Replace if necessary. See <b>Dual Probe Test.</b> Check Water Level Controls. Replace if necessary. See <b>Dual Probe Liquid Level Controller Test.</b>
<b>Water will not stop flowing into water tank.</b>	Water Level Probe malfunction.  Solenoid (Water Inlet Valve) malfunction. Solid State Water Level Control malfunction.	Check Probe. Replace if necessary. See <b>Dual Probe Test.</b> Check Solenoid. Replace if necessary. See <b>Water Inlet Valve Test.</b> Check the Water Level Controls. Replace if necessary. See <b>Dual Probe Liquid Level Controller Test.</b>
<b>Water is not heating up in the water tank.</b>	Heater Switch is OFF. Thermostat is OFF. (Only models with separate Thermostat) Loose connection on Thermostat.  Hi-Limit Temperature Switch is defective. Heater is burned out or defective.	Turn Heater Switch ON. Turn Thermostat ON. Turn Knob Clockwise. Make sure all wires and terminals on Thermostat are tight. Replace the Hi-limit. Replace the Heater.

## **Troubleshooting Guide (continued)**

If you still need help, call Grindmaster-Cecilware Technical Service Department, (502) 425-4776 or (800) 695-4500 option 2 (USA & Canada only) (Monday through Friday 8 AM - 6 PM EST). Please have the model and serial number ready so that accurate information can be given.

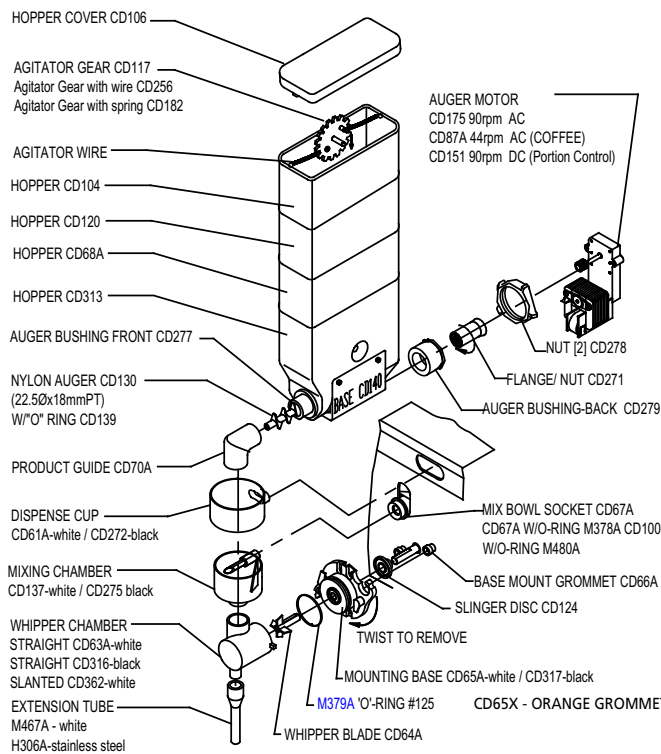
Prior authorization must be obtained from Grindmaster-Cecilware for all warranty claims.

**Grindmaster-Cecilware provides the industry's BEST warranty. Visit our website at [GMCW.com](http://GMCW.com) for warranty terms and conditions.**

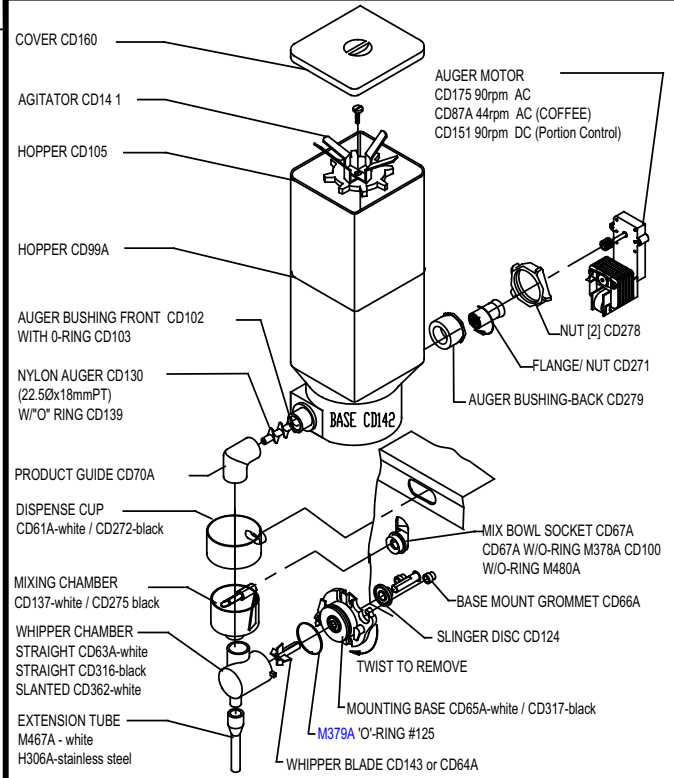
# Parts Diagram and List

## Hopper Illustrations

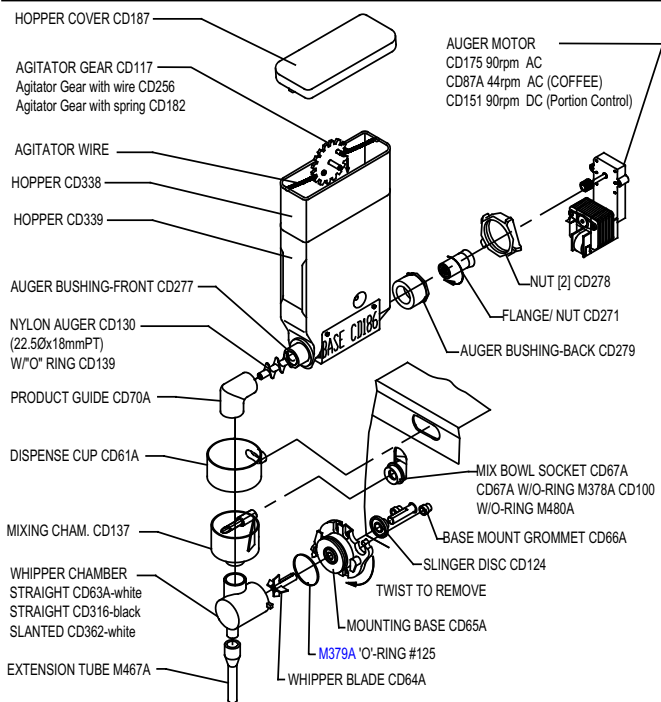
HOPPER ASS'Y CD104, 7 LB, 18" HEIGHT x 3"W, W/NYLON AUGER  
 HOPPER ASS'Y CD120, 5.5 LB, 14" HEIGHT x 3"W, W/NYLON AUGER  
 HOPPER ASS'Y CD68A, 4 LB, 11.5" HEIGHT x 3"W, W/NYLON AUGER  
 HOPPER ASS'Y CD313, 1 LB COFFEE, 7.875" HEIGHT x 3"W, W/NYLON AUGER



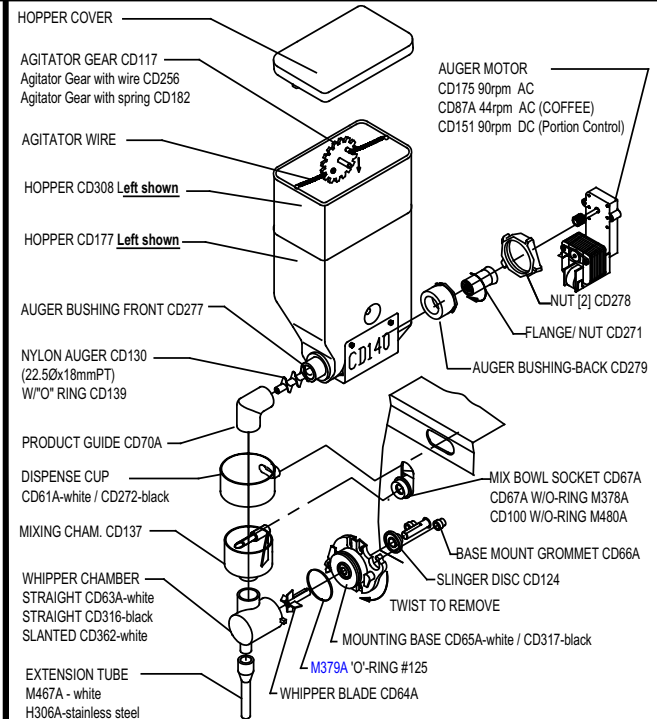
HOPPER ASS'Y CD105 (14 lb; 18" HEIGHT X 6.25"SQ) W/NYLON AUGER  
 HOPPER ASS'Y CD99A (8 lb; 11.5" HEIGHT X 6.25"SQ) W/NYLON AUGER



HOPPER ASS'Y CD338, 5 LB, 14"HEIGHT x 2.5"W, W/NYLON AUGER  
 HOPPER ASS'Y CD339, 4 LB, 12.5"HEIGHT x 2.5"W, W/NYLON AUGER



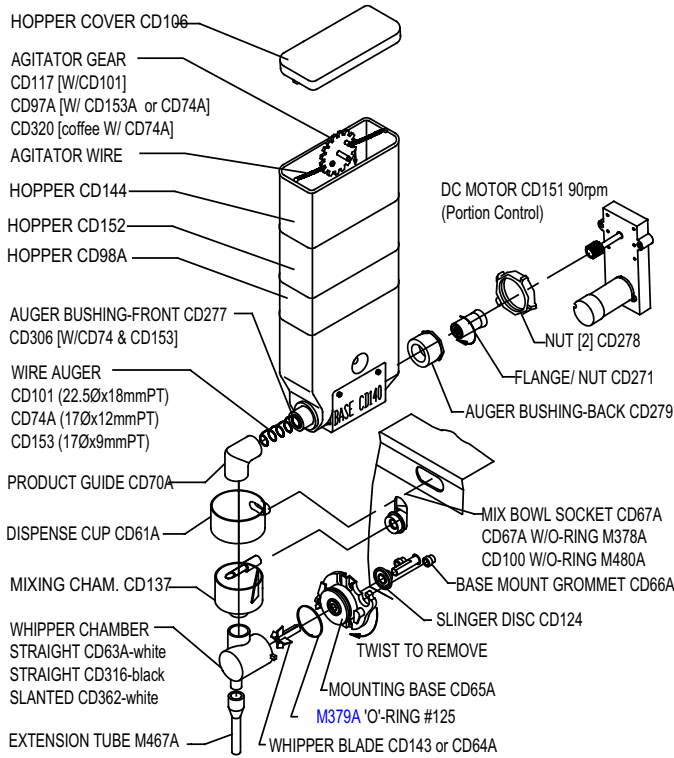
P - HOPPER ASS'Y CD308 LT & CD309 RT 10 LB, 14"H, W/NYLON AUGER  
 P - HOPPER ASS'Y CD177 LT & CD178 RT 8 LB, 11.5"H, W/NYLON AUGER



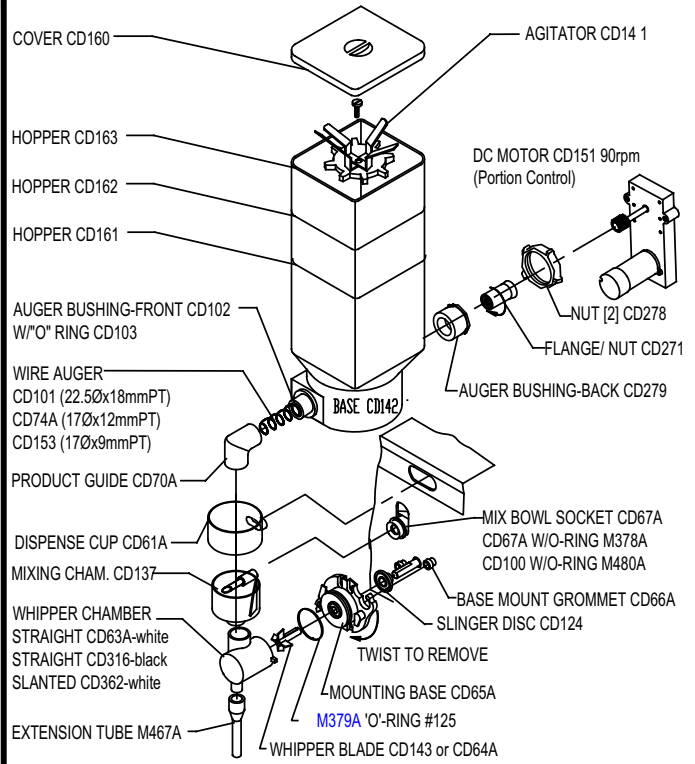
# Parts Diagram and List (continued)

## Hopper Illustrations

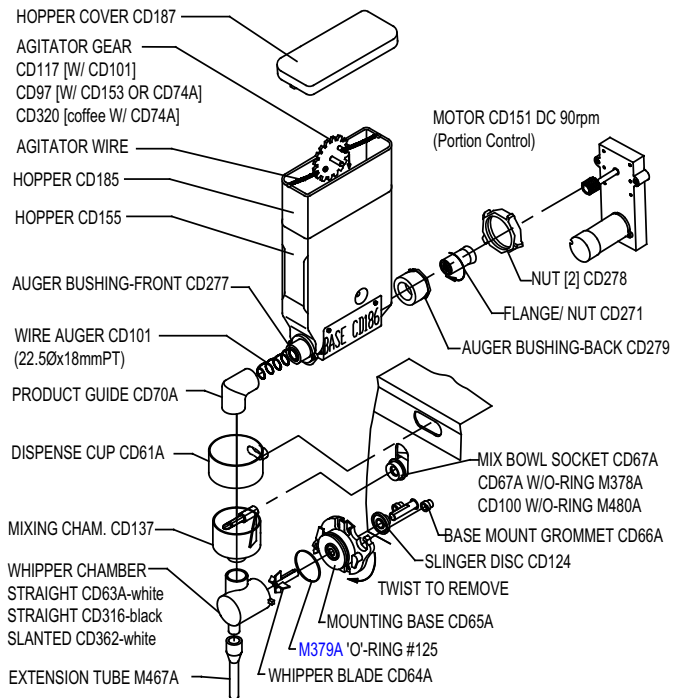
HOPPER ASS'Y CD144, 5.5 LB, 14"Hx 3"W, W/WIRE AUGER CD101  
 HOPPER ASS'Y CD152, 4 LB, 11.5"H x 3"W, W/WIRE AUGER CD101  
 HOPPER ASS'Y CD98A, 4 LB, 11.5"H x 3"W, W/WIRE AUGER CD74A or CD153



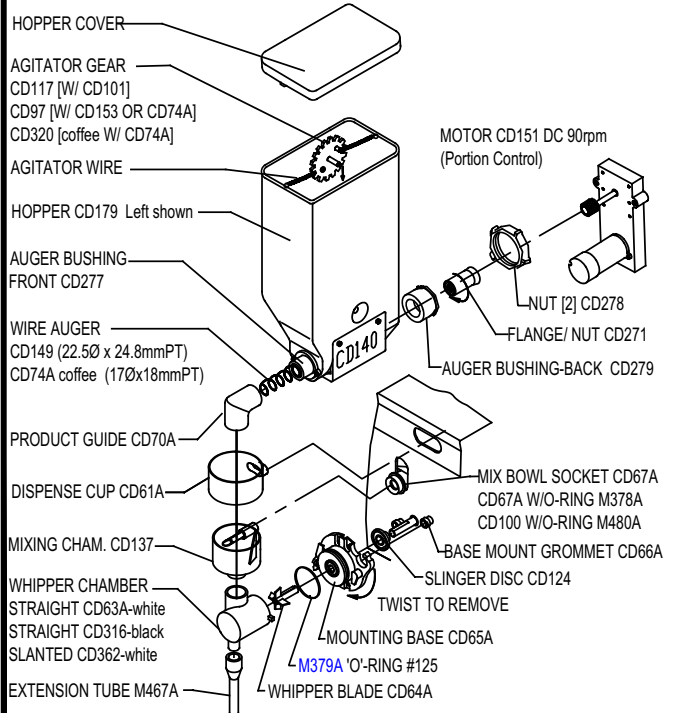
HOPPER ASS'Y CD163 (14 lb; 18" HEIGHT X 6.25"SQ) W/WIRE AUGER  
 HOPPER ASS'Y CD162 (11 lb; 14" HEIGHT X 6.25"SQ) W/WIRE AUGER  
 HOPPER ASS'Y CD161 (8 lb; 11.5" HEIGHT X 6.25"SQ) W/WIRE AUGER



HOPPER ASS'Y CD185, 5 LB, 14"HEIGHT x 2.5"W, W/WIRE AUGER  
 HOPPER ASS'Y CD155, 4 LB, 12.5"HEIGHT x 2.5"W, W/WIRE AUGER

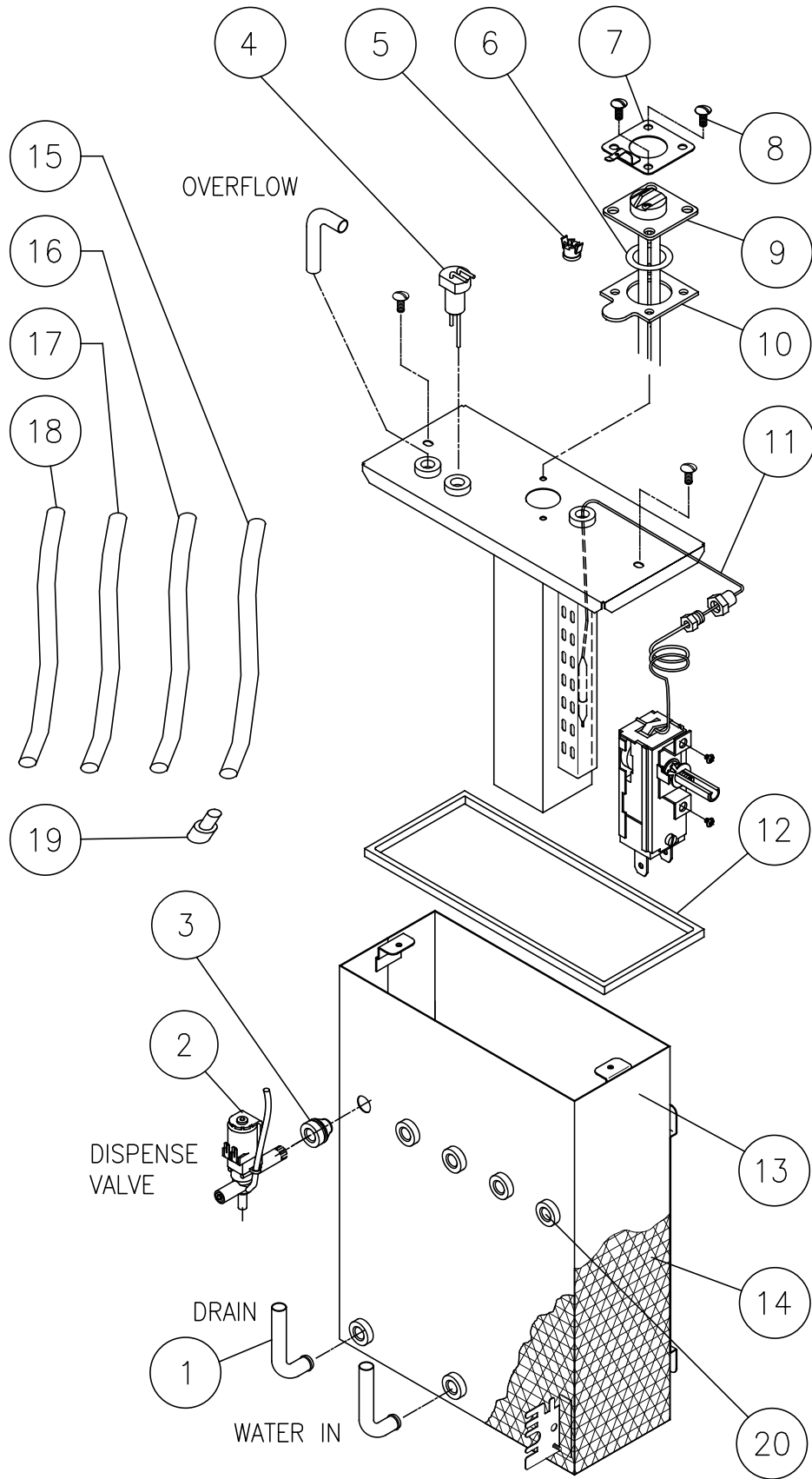


P - HOPPER ASS'Y CD179 (LEFT) CD180 (RIGHT) 10 LB, 14"HEIGHT, W/WIRE AUGER



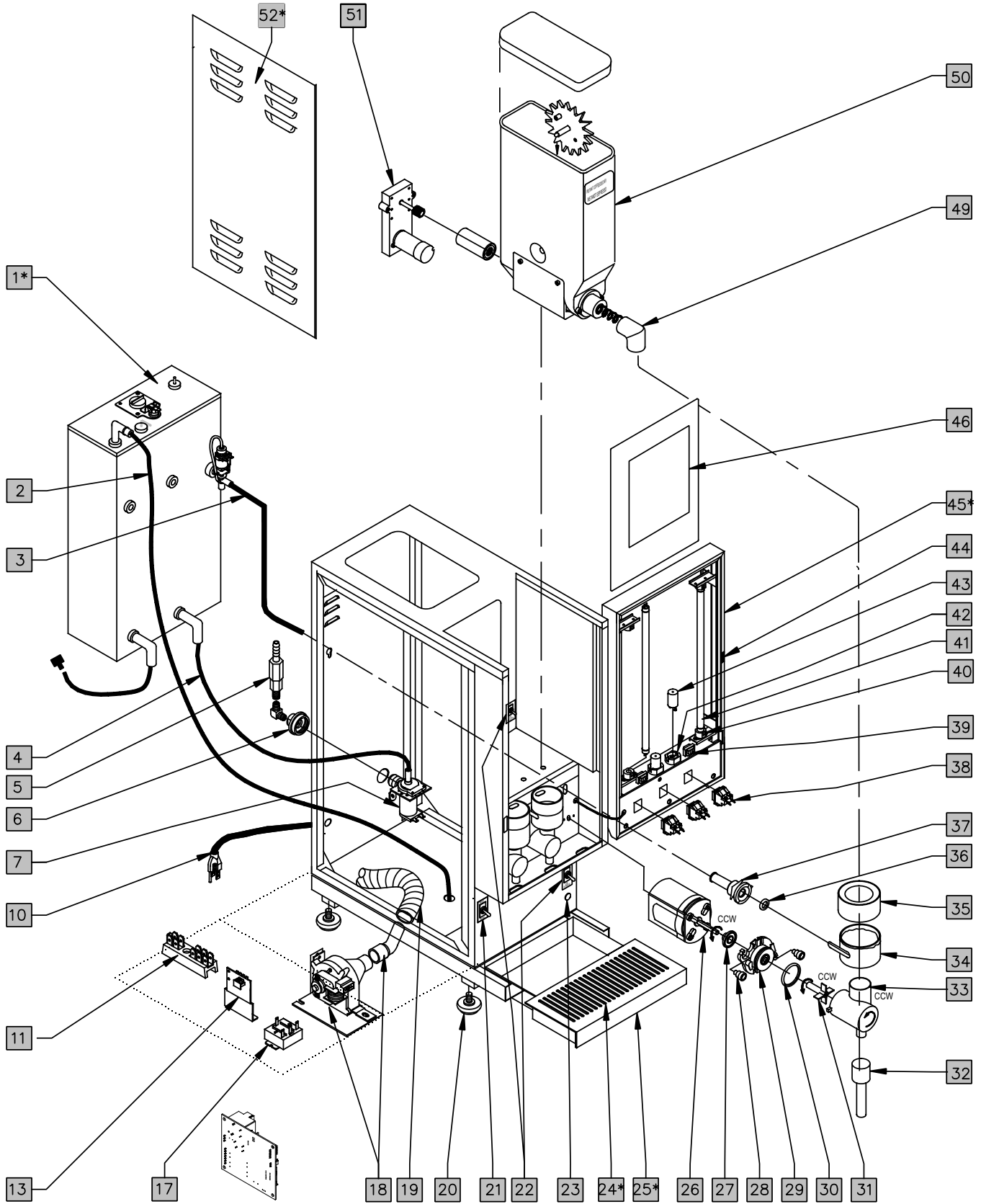
# Parts Diagram and List (continued)

## Tank Assembly



# Parts Diagram and List (continued)

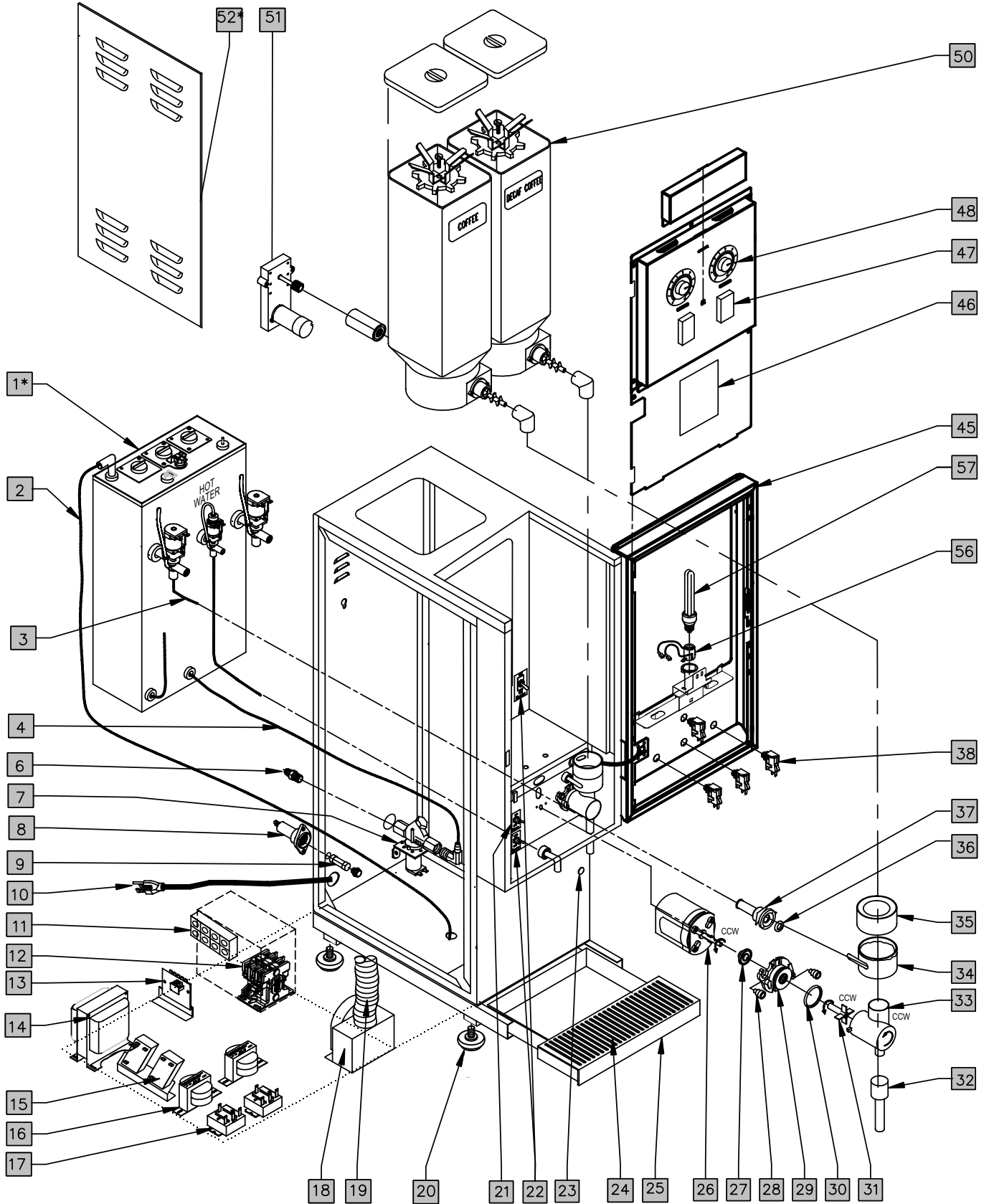
Unit Assembly (GB3M shown)



\*See Metal Parts List

# Parts Diagram and List (continued)

Unit Assembly (GB2 SKI-SUPER shown)



\*See Metal Parts List

# Parts Diagram and List (continued)

## Parts List

ITEM	DESCRIPTION	GB-LP	GBK	GBM GBM-5.5	GB-SKI	GB-SUPER-SKI w/ TEACH-ME TIMERS	GB6
1	TANK ASS'Y/TANK TOP ASS'Y - SEE METAL PARTS LIST - NEXT PAGE	←	←	←	←	←	←
2	SILICONE HOSE [BREATHER FITTING] [.375 I.D. x 32"] M326A	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL
3	SILICONE HOSE [DISPENSE VALVE] [.313 I.D. x 14.5"] M324A	M324AL	M324AL	M324AL	M324AL	M324AL	M324AL
4	SILICONE HOSE [WATER INLET] [.375 I.D. x 13"] M326A	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL
5	CHECK VALVE [PREVENTS BACKFLOW] [suggested – not supplied]	L463AL	L463AL	L463AL	L463AL	L463AL	L463AL
6	HOSE NUT ASS'Y OR FITTING	359-00098	-	-	-	359-00029	-
7	WATER INLET VALVE 120V (230V, 50HZ USE L426AL)	CD257	L462AL	L462AL	L462AL	L022A	L462AL
8	FUSE HOLDER (120/240V ONLY)	-	-	-	-	C396AL	-
9	BUSSMAN SC25 FUSE (GB'S 120/240V ONLY)	-	-	-	-	CE181	-
10	POWER CORD (230V, 50 HZ USE C112AL)	C032SL	C032SL	C032SL	C032SL	C032SL	C032SL
11	TERMINAL BLOCK FOR 120V [WAS B117A] [FOR 240V USE B116A]	60105	-	-	-	B157AL	60112CWL
12	RELAY CONTROL GB5M, 5K, GB6	-	L533AL	L533AL	-	-	L533AL
13	TANK CONTROL BOARD 349-00012 (FOR 230V 50HZ USE L706AL)	←	←	←	←	←	←
13	[PRIOR TO 10/15 - DUAL WATER LEVEL CONTROL BOARD USE L690AL - 120V & L706A - 220V]						
13	[older SINGLE WATER LEVEL CONTROL BOARD L398A - 120V & L399A - 220V]						
14	STEPDOWN TRANSFORMER (240/120V only)	-	-	-	-	CE187L	-
15	SPEED CONTROL BOARD [Controls Auger Speed GRAM THROW]	-	-	-	-	L556AL	-
16	TRANSFORMER [use w/DC motor & Speed Control CCA]	-	-	-	-	CF29AL	-
17	RELAY, OMRON	B129AL	B129AL	B129AL	B129AL	B129AL	B129AL
18	FAN CD56AL & ELBOW INSERT CD108 [USE FOR GB1, 1SKI, 2, 3, 6 ONLY] FAN CD224L w/ RW31Q Fan Housing Ass'y [GB4, 5, 2SKI] FAN CD166L [230V 50HZ]	←	←	←	←	←	←
19	DUCT HOSE [for Exhaust Fan]	CA214L	CA214L	CA214L	CA214L	CA214L	CA214L
20	3/4" FEET (SET OF 4)	M042AL	M042AL	M042AL	M042AL	M042AL	M042AL
21	RINSE SWITCH [GB1, GB5 & GB6-L069AL; GB2-L299AL; GB3-L446AL; GB4 L470AL]	←	←	←	←	←	←
22	POWER SWITCH & HEATER SWITCH (120V) OR [FOR 120/240V USE L299A]	L069AL	L069AL	L069AL	L069AL	L069AL	L069AL
23	HEATER INDICATOR LIGHT (amber C002AL, red C165AL) Use C072AL for GB1MLD	C002AL	C002AL	C002AL	C002AL	C002AL	C165AL
24	GRILL - SEE METAL PARTS LIST - NEXT PAGE	←	←	←	←	←	←
25	DRIP TRAY - SEE METAL PARTS LIST - NEXT PAGE	←	←	←	←	←	←
26	WHIPPER MOTOR-short shaft (ONE PER HOPPER) (240V- CD399L) (old style CD75AL)	CD350L	CD350L	CD350L	CD350L	CD350L	CD350L
27	SLINGER DISC (ONE PER HOPPER)	CD124L	CD124L	CD124L	CD124L	CD124L	CD124L
28	GROMMET CHAMBER MOUNTING (TWO PER HOPPER)	CD66AL	CD66AL	CD66AL	CD66AL	CD66AL	CD66AL
29	CHAMBER MOUNT (ONE PER HOPPER)	CD65AL	CD65AL	CD65AL	CD65AL	CD65AL	CD65AL
30	"O" RING # 125 (used w/ grommet CD66AL)	M379A	-	-	-	M379A	-
31	WHIP BLADE (old style used CD64AL) (ONE PER HOPPER)	CD353L	CD353L	CD353L	CD353L	CD353L	CD353L
32	EXTENSION TUBE PLASTIC (ONE PER HOPPER)	M467AL	M467AL	M467AL	M467AL	M467AL	M467AL
33	WHIP CHAMBER (Straight – CD63AL) OR (Slanted – CD362L) (ONE PER HOPPER)	CD63AL	←	←	CD362L	CD63AL	CD362L
34	MIXING CHAMBER [ALTERNATE CD62AL W/ RECTANGULAR WING] (ONE PER HOPPER)	CD137L	CD137L	CD137L	CD137L	CD137L	CD137L
35	DISPENSE CAP OR SPLASH GUARD (ONE PER HOPPER)	CD61AL	CD61AL	CD61AL	CD61AL	CD61AL	CD61AL
36	"O" RING (#110) (used w/socket CD67A)	M378A	-	-	-	M378A	-
37	MIXING BOWL SOCKET (ONE PER HOPPER)	CD67AL	CD67AL	CD67AL	CD67AL	CD67AL	CD67AL
38	DISPENSE BUTTON (GB L455A) / (GB Ski Super L584A) STOP SWITCH	L455AL	L455AL	L455AL	L455AL	L584AL	L455AL
39-43	REPLACE WITH DOOR LIGHTING ASSEMBLY 234-00131 – LIGHTING ASSEMBLY, DOOR, GB1MLP/2LP 234-00132 – LIGHTING ASSEMBLY, DOOR, GB3LP/OATMEAL 234-00133 – LIGHTING ASSEMBLY, DOOR, GB3M5.5/10 234-00134 – LIGHTING ASSEMBLY, DOOR, GB4M5.5/GB5M10	←	←	←	←	←	←
44	DOOR LATCH	61234	U008AL	M705AL	M705AL	61234	M705AL
45	DOOR ASS'Y - SEE METAL PARTS LIST - NEXT PAGE	←	←	←	←	←	←
46	CLEANING INSTRUCTIONS PROGRAMMING INSTRUCTIONS	N978AL	NQ28AL	N978AL	N978AL	N978AL	N978AL
47	TIMER "TEACH ME" [PROGRAM. dispense Time/Cup Size]-Single [Triple L582A] or TIMER [NOT PROGRAM.] [use w/pot. L577A & dial/cup size labels: NF32A/33A/34A]	-	-	-	-	L576AL	-
48	POTENTIOMETER - USED W/SPEED CONTROL BD [GRAM THROW DIAL] LABEL, GRAM THROW DIAL- [GB2 NF30A; GB3 ND81A; GB4 NF31A]	-	-	-	-	L557AL	-
49	PRODUCT GUIDE (CHUTE) GB1SKI use , GB2SKI use CD234L	CD70AL	CD70AL	CD70AL	←	CD70AL	CD70AL
50	HOPPER ASS'Y WITH COVER [w/NYLON auger] OR HOPPER ASS'Y WITH COVER [w/WIRE auger] (GB1M and GB1HC use CD99AL; GBM5.5 use CD144L; GB3M10 and GB5M10 use CD185L & CD180L)	CD98AL	CD155L	←	CD105L	CD105L	CD180L & CD185L
51	AC AUGER MOTOR (240V use CD167L) DC AUGER MOTOR 90 RPM CD151 [W/Screw P443A] Portion Control - Optional	CD175L	CD175L	CD175L	CD175L	CD175L	CD175L
52	SIDE PANELS - SEE METAL PARTS LIST - NEXT PAGE	←	←	←	←	←	←
56	LAMP HOLDER	B216AL	B216AL	B216AL	B216AL	B216AL	B216AL
57	TWIN TUBE BULB 16W (240V-USE CE80AL TWIN 18W)	CE82AL	CE82AL	CE82AL	CE82AL	CE82AL	CE82AL

# Parts Diagram and List (continued)

## Metal Parts List

MODELS		ITEM 1 TANK ASS'Y	ITEM 23 TANK & TOP Only	ITEM 23 GRILL	ITEM 24 DRIP TRAY	ITEM 45 DOOR ASS'Y	ITEM 53 SIDE PANELS	ITEM 54 WINDOW	ITEM 55 WINDOW ASS'Y
GB1M	SPACE SAVER	SC35CL	SC35QL	RT67AL OR RI23AL	RT61A OR RI11AL	SC01QL (LIT)  TI17QL (NONLIT)	RH91AL	M774AL-CLEAR .125 M775AL-CLEAR .040	M775Q=(2) M775AL + BRACKET
GB2M-5.5		SC36CL	SC36QL	RI19A	RI12A	RH48Q	RG48AL	M673AL-CLEAR .125	M674Q
GB3M-5.5		SC36CL	SC36QL	RI19A	RI12A	RH48Q	RG48AL	M673AL-CLEAR .125	M674Q
GB3M-10		SC36CL	SC36QL	RT72AL	SQ14A	RY89QL	RG48AL	M673AL-CLEAR .125	M674Q-WINDOW/ BRKT DOOR ASSY, CLEAR
GB4M-5.5		RL72QL-TANK & TOP ONLY	RL69CL-TOP & COMPONENTS- NO TANK	RI20AL	RH05AL	RH49Q	RG48AL	M703A-CLEAR	M704Q-WINDOW/ BRKT DOOR ASSY, CLEAR
GB5M-10		SJ61CL	SJ61QL	RR34AL	RR33AL	SD82Q	RG48AL	M703A-CLEAR	M704Q-WINDOW/ BRKT DOOR ASSY, CLEAR
2K-GB	BUDGET W/ MOLDED DOOR	SC35CL	SC35QL	RK44AL	RM21QL	210-00162	RG48A	M464AL-CLEAR	M464M-MILKY
3K-GB		SC35CL	SC35QL	RK47AL	RM23QL	RF79Q	RD46A	M465AL-CLEAR	M465M-MILKY
4K-GB		RL72CL	RL72QL-TANK & TOP	RZ80AL	RZ79AL	RZ07QL	RD46A	M702AL-CLEAR WINDOW	M702ML-MILKY WINDOW
5K-GB		RL72CL	RL72QL-TANK & TOP	RZ80AL	RZ79AL	RZ07QL	RD46A	M702ML-MILKY WINDOW	M702M
GB2-LP	LOW PROFILE	SC35CL	SC35QL	SC25AL	SC26AL	SC01QL	SC33AL	M711AL CLEAR WINDOW	M712QL=M711AL (2), BRACKET, AND EYELETS
GB3-LP		SC36CL	SC36QL	SC30SL	SC31AL	SB30QL	SC33AL	M684AL CLEAR .125	M685AL CLEAR .040
GB4-LP		SC36CL	SC36QL	SC57AL	SC58AL	SC62QL	SC33AL	M703A CLEAR .125	M704Q CLEAR .040
GB1-SKI-LD	SKI		RL54QL TANK & TOP	RT67A	RT61A	RX81CL	RL51AL	M414AL-CLEAR PANEL	-
GB2-SKI-LD		RN21QL	RN21PL	RQ78AL	RQ16QL	TB34QL	RR70BL (LEFT) RR71BL (RIGHT)		
GB2-Super-SKI	Super SKI	RN21CL	RN16CL	RQ78AL	RQ16AL	RN61Q	RN33A	M703A	M704Q
GB6M		SJ61CL	SJ61QL TANK & TOP	SM14AL	SM13AL	TF43CL	SL76AL	M892AL-FRONT CLEAR 0.040 M892ML-BACK MILKY 0.060 M893AL-CLEAR WINDOW 0.125	

# Parts Diagram and List (continued)

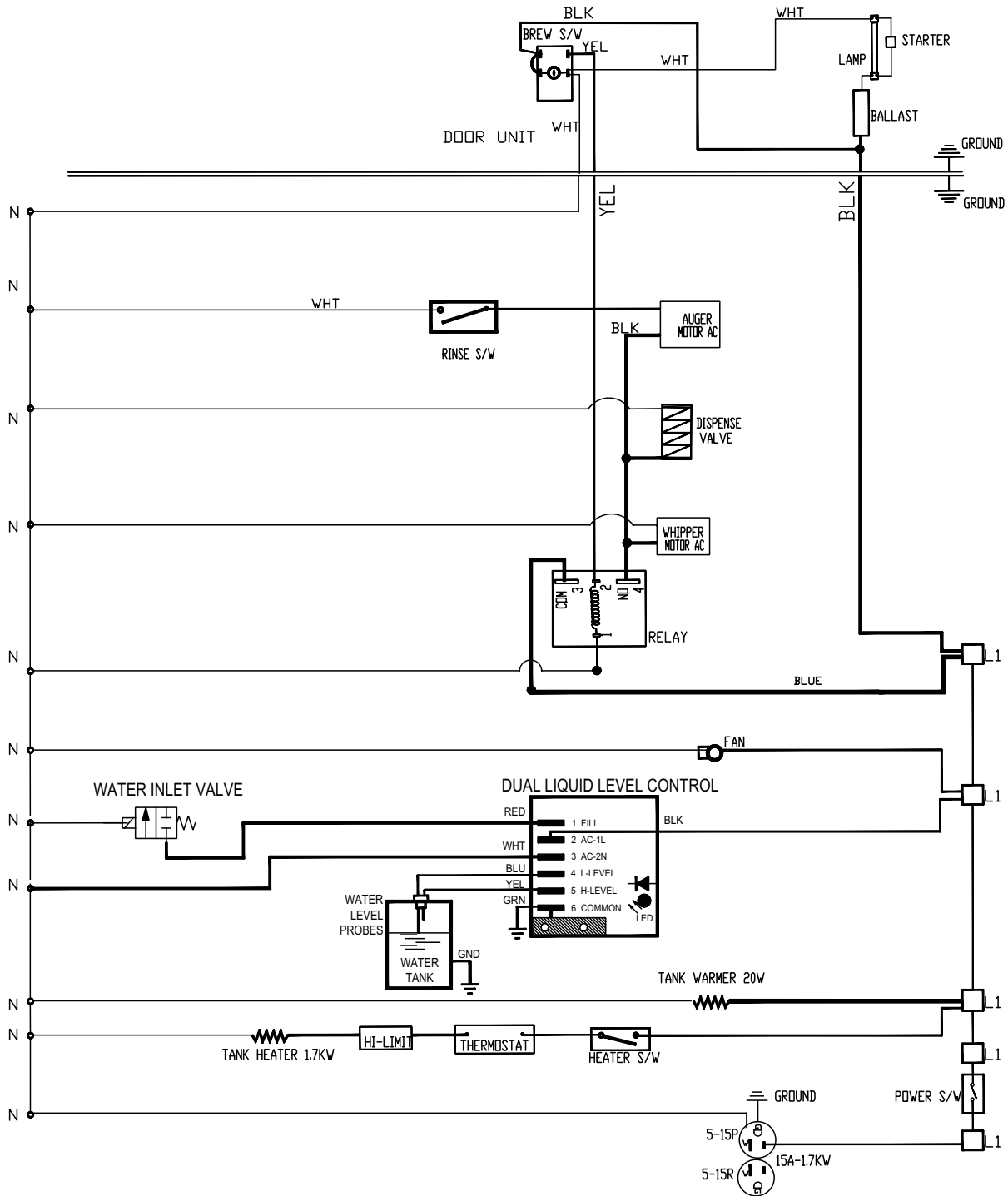
## Tank Parts List

Item	Description	GB1	GB2M-5.5	GB3M-5.5	GB3M-10	GB4M-5.5	GB5M-10	2K-GB	3K-GB	4K-GB
1	ELBOW TUBE	K525AL	K525AL	K525AL	K525AL	K525AL	K525AL	K525AL	K525AL	K525AL
2	DISPENSE VALVE (DUMP)*	L467AL	L467AL	L467AL	L467AL	L467AL	L467AL	L467AL	L467AL	L467AL
3	GROMMET, SILICONE, (0.466 ID)	M461AL	M461AL	M461AL	M461AL	M461AL	M461AL	M461AL	M461AL	M461AL
4	DUAL LEVEL PROBE	K695QL	K695QL	K695QL	K695QL	K695QL	K695QL	K695QL	K695QL	K695QL
5	HI-LIMIT, #500, 200°F CUTOUT	L656AL	L656AL	L656AL	L656AL	L656AL	L656AL	L656AL	L656AL	L656AL
6	O-RING	M773AL	M773AL	M773AL	M773AL	M773AL	M773AL	M773AL	M773AL	M773AL
7	SHIM ASSEMBLY, HEAT SINK W/HI-LIMIT BRACKET	K667QL	K667QL	K667QL	K667QL	K667QL	K667QL	K667QL	K667QL	K667QL
8	SCREW, S.S., 1/4 - 20 x 5/8	-	-	-	-	-	-	-	-	-
9	HEATER, 120V, 1700W*	G267TL	G267TL	G267TL	G267TL	G267TL	G267TL	G267TL	G267TL	G267TL
10	HEATSINK, 1/8" ALU. F/ HI-LIMIT	K661AL	K661AL	K661AL	K661AL	K661AL	K661AL	K661AL	K661AL	K661AL
11	THERMISTOR PROBE (New 2015)	61128	61128	61128	61128	61128	61128	61128	61128	61128
	THERMOSTAT (2015 and prior)	L532AL	L532AL	L532AL	L532AL	L532AL	L532AL	L532AL	L532AL	L532AL
12	SILICONE GASKET	M600AL	-	M601AL	M601AL	M879AL	M879AL	M600AL	M600AL	M500AL
13	TANK WELDMNT ASS'Y (SEE METAL PARTS LIST)	←	←	←	←	←	←	←	←	←
14	TANK INSULATION MATERIAL	-	-	-	-	-	-	-	-	-
15	DRAIN HOSE, SILICONE	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL
16	DRAIN HOSE, SILICONE	-	-	-	-	-	-	-	-	-
17	DRAIN HOSE, SILICONE	M324AL	M324AL	M324AL	M324AL	M324AL	M324AL	M324AL	M324AL	M324AL
18	DRAIN HOSE, SILICONE	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL
19	DRAIN PLUG	M391AL	M391AL	M391AL	M391AL	M391AL	M391AL	M391AL	M391AL	M391AL
20	PLUG, SILICON	M494AL	M494AL	M494AL	M494AL	M494AL	M494AL	M494AL	M494AL	M494AL
Item	Description	5K-GB	GB2-LP	GB3-LP	GB4-LP	GB1-SKI-LD	GB2-SKI-LD	GB2-Super-SKI	GB6M	
1	ELBOW TUBE	K525AL	K525AL	K525AL	K525AL	K525AL	K525AL	K525AL	K525AL	
2	DISPENSE VALVE (DUMP)*	L467AL	L467AL	L467AL	L467AL	L467AL	L467AL	L467AL	L467AL	
3	GROMMET, SILICONE, (0.466 ID)	M461AL	M461AL	M461AL	M461AL	M461AL	M461AL	M461AL	M461AL	
4	DUAL LEVEL PROBE	K695QL	K695QL	K695QL	K695QL	K695QL	K695QL	K695QL	K695QL	
5	HI-LIMIT, #500, 200°F CUTOUT	L656AL	L656AL	L656AL	L656AL	L656AL	L656AL	L656AL	L656AL	
6	O-RING	M773AL	M773AL	M773AL	M773AL	M773AL	M773AL	M773AL	M773AL	
7	SHIM ASSEMBLY, HEAT SINK W/HI-LIMIT BRACKET	K667QL	K667QL	K667QL	K667QL	K667QL	K667QL	K667QL	K667QL	
8	SCREW, S.S., 1/4 - 20 x 5/8	-	-	-	-	-	-	-	-	
9	HEATER, 120V, 1700W*	G267TL	G267TL	G267TL	G267TL	G402AL	G402AL	G402AL	G267TL	
10	HEATSINK, 1/8" ALU. F/ HI-LIMIT	K661AL	K661AL	K661AL	K661AL	K661AL	K661AL	K661AL	K661AL	
11	THERMISTOR PROBE (New 2015)	61128	61128	61128	61128	61128	61128	61128	61128	
	THERMOSTAT (2015 and prior)	L532AL	L532AL	L532AL	L532AL	L532AL	L532AL	L532AL	L532AL	
	THERMOSTAT KNOB (≤2015)	M008AL	M008AL	M008AL	M008AL	M008AL	M008AL	M008AL	M008AL	
12	SILICONE GASKET	M500AL	-	-	-	M601AL	M607AL	-	M879AL	
13	TANK WELDMNT ASS'Y (SEE METAL PARTS LIST)	←	←	←	←	←	←	←	←	
14	TANK INSULATION MATERIAL	-	-	-	-	-	-	-	-	
15	DRAIN HOSE, SILICONE	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL	
16	DRAIN HOSE, SILICONE	-	-	-	-	-	-	-	-	
17	DRAIN HOSE, SILICONE	M324AL	M324AL	M324AL	M324AL	M324AL	M324AL	M324AL	M324AL	
18	DRAIN HOSE, SILICONE	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL	M326AL	
19	DRAIN PLUG	M391AL	M391AL	M391AL	M391AL	M391AL	M391AL	M391AL	M391AL	
20	PLUG, SILICON	M494AL	M494AL	M494AL	M494AL	M494AL	M494AL	M494AL	M494AL	
	<b>* EXPORT MODELS</b>									
2	DISPENSE VALVE - L676AL									
9	HEATER, 240V 3000W - G266AL									

# Wiring Diagrams

## GB1, GB1M, GB1MD

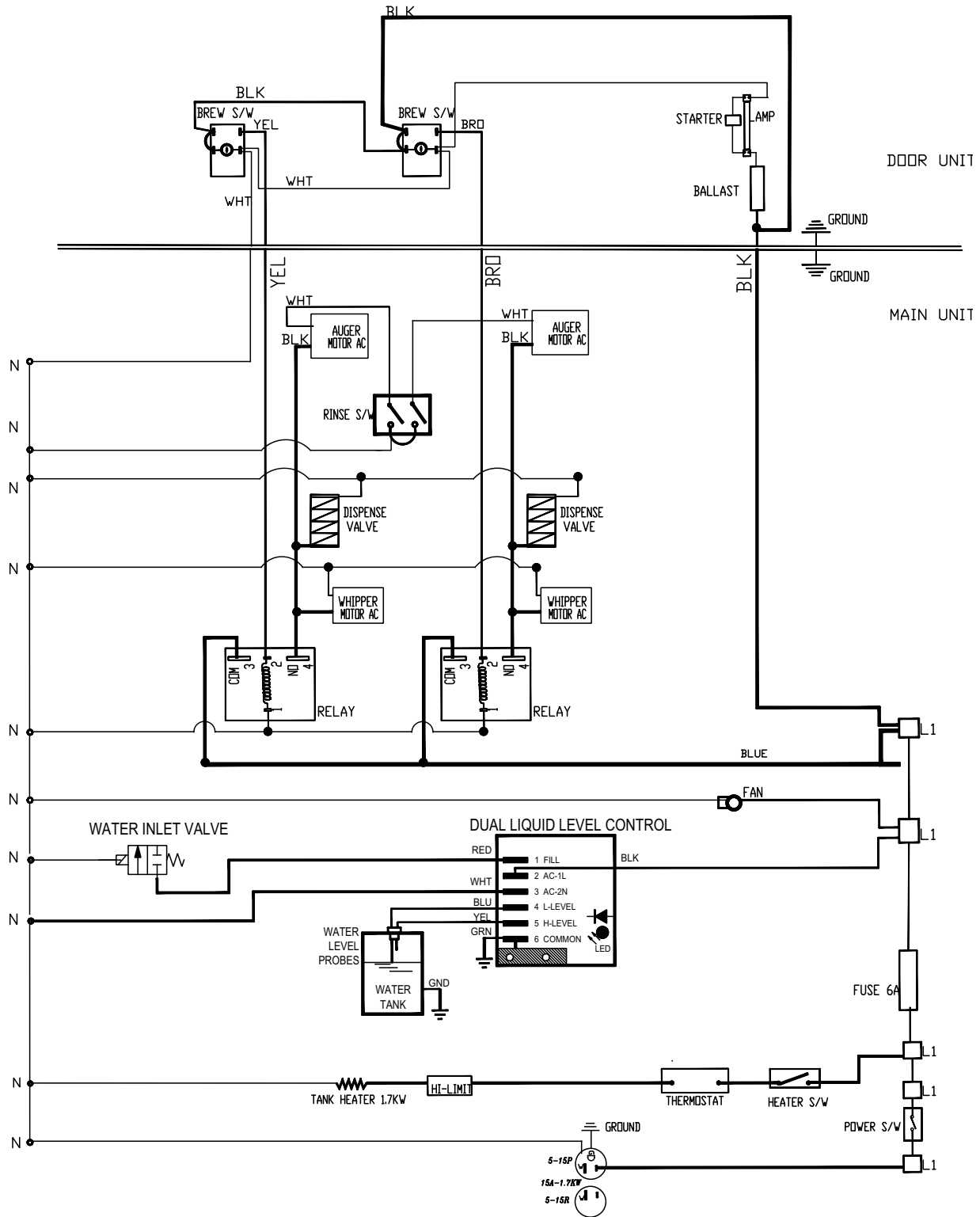
(120V, 1700W, 1 PH, 2 wires + Ground) w/ Relay



# Wiring Diagrams (continued)

## GB2, GB2M, GB2M, 2K

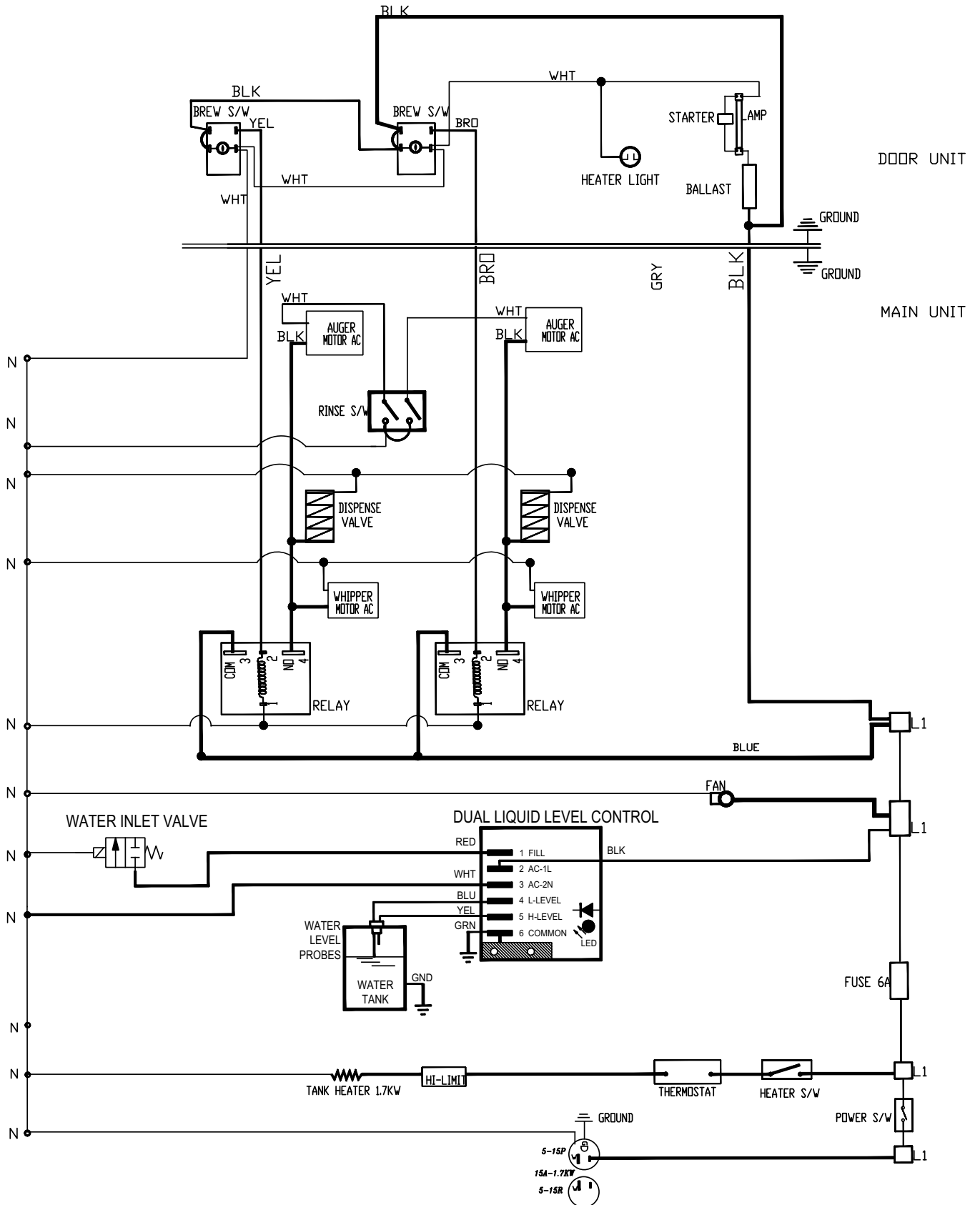
(120V, 1700W, 1 PH, 2 wires + Ground) w/ Relays



# Wiring Diagrams (continued)

## GB2, GB2M, 2K

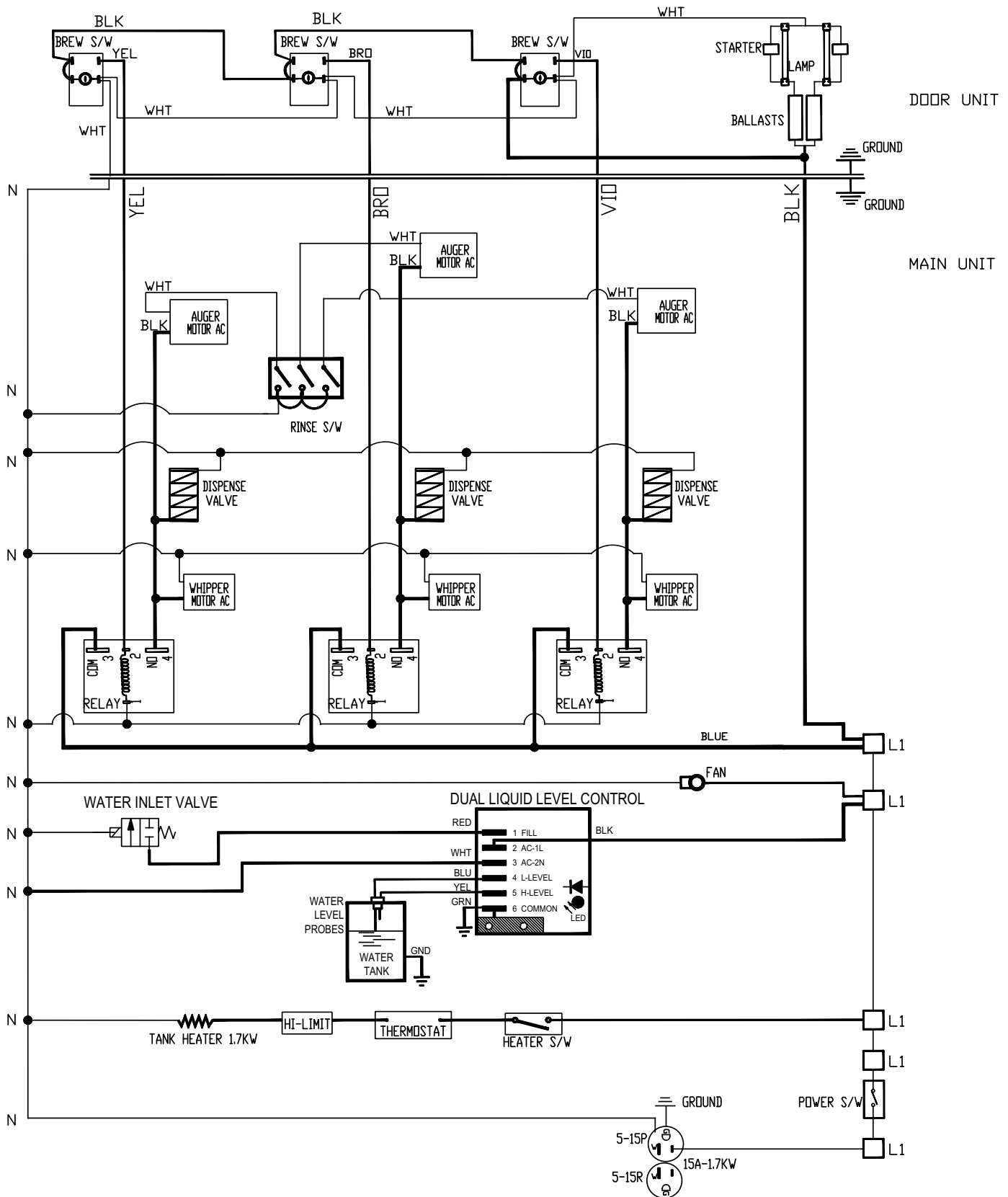
GB2, 2M, 2MD, 2K, [120/240V, 3KW, 1PH, L1, L2, NTL, GND] W/RELAYS



# Wiring Diagrams (continued)

## GB3, GB3M, GB3MD, 3K

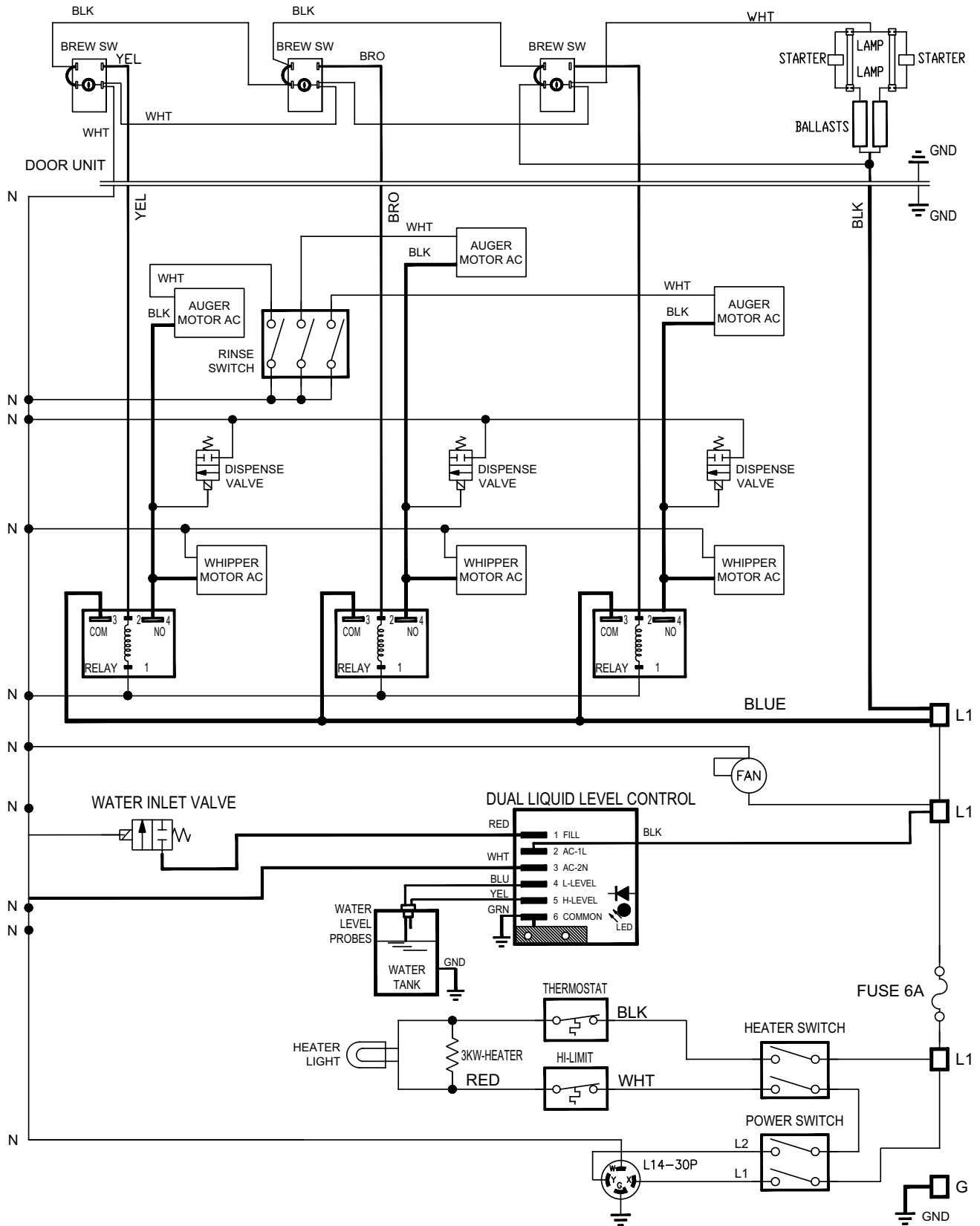
(120V, 1700W, 1 PH, 2 wires + Ground) w/ Relay



# Wiring Diagrams (continued)

## GB3, GB3M

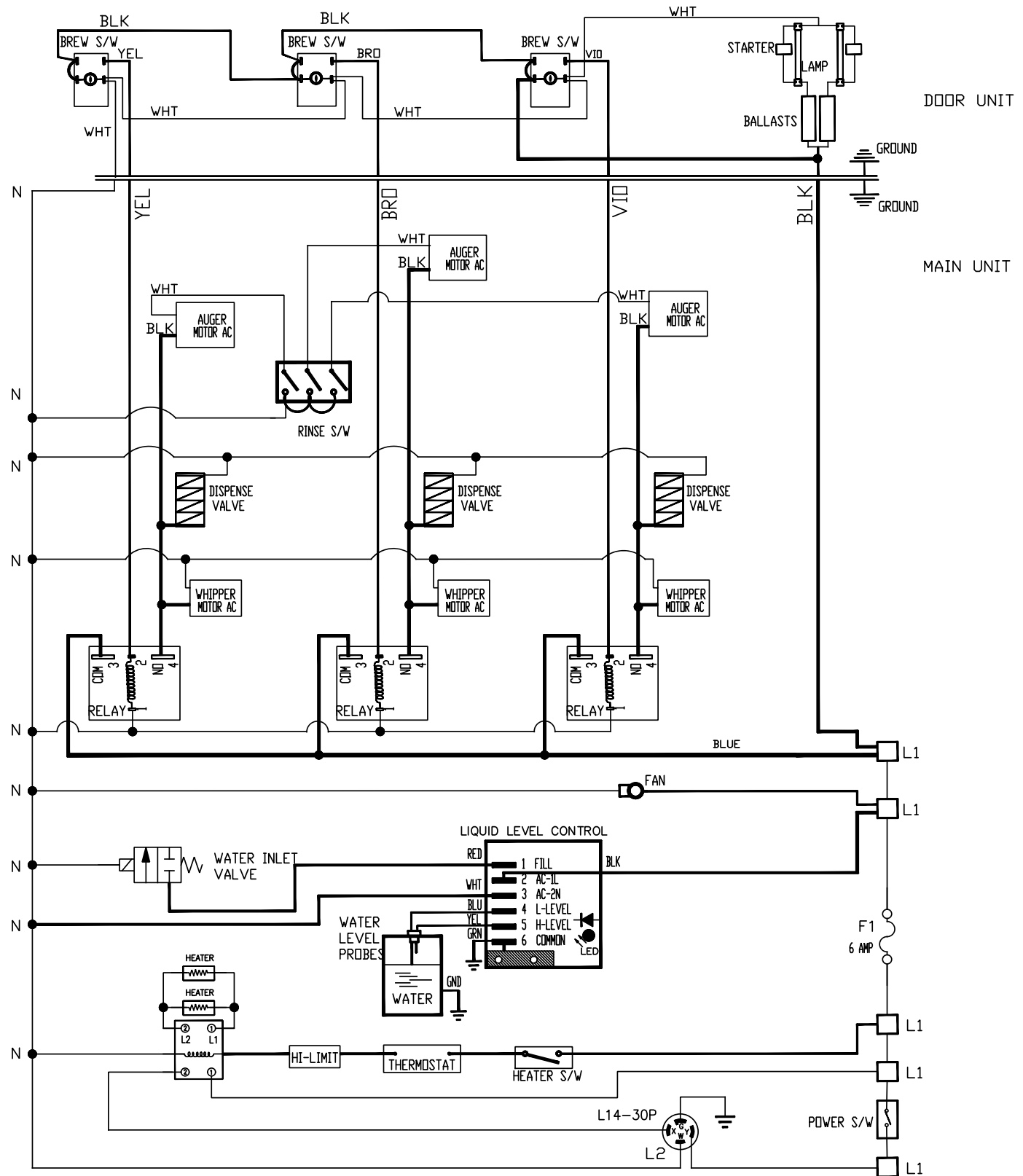
(120V/240, 3kW, 1 PH, L1, L2, +NTL + GND) w/ Relays



# Wiring Diagrams (continued)

## GB3M, 3K

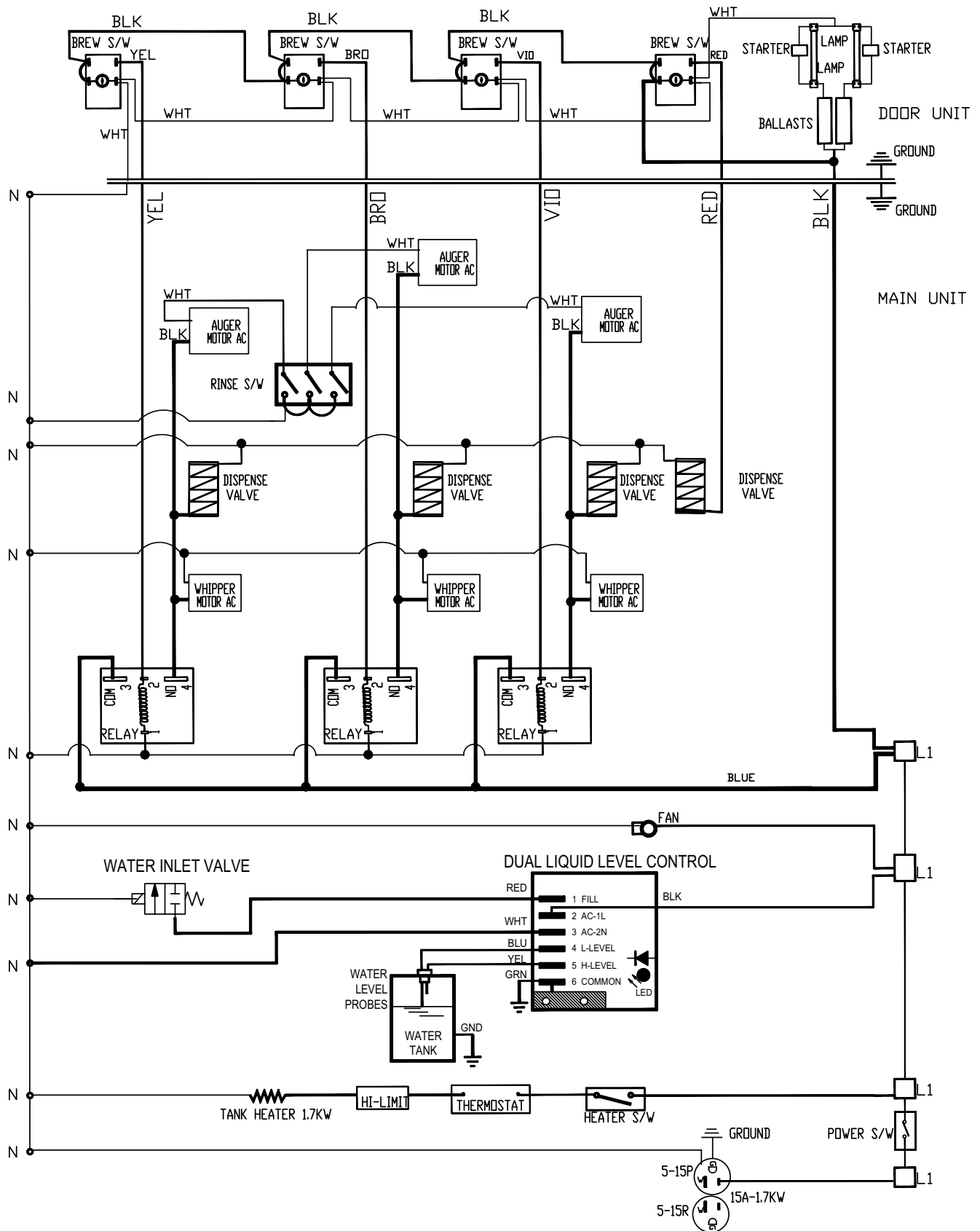
(120V/240, 6kW, 1 PH, L1, L2, +NTL + GND) w/ Relays



# Wiring Diagrams (continued)

## GB3M-W

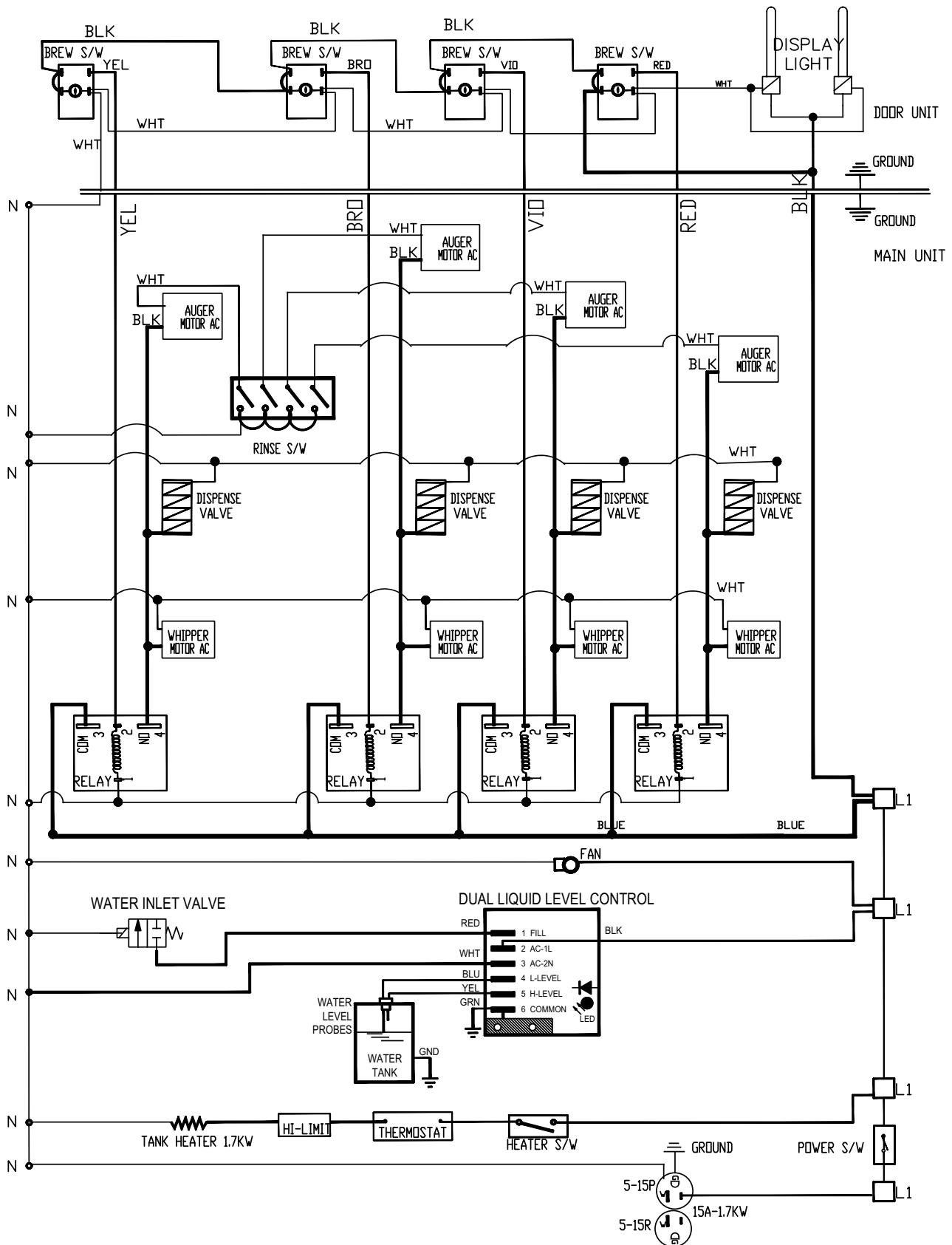
[120V, 1.7KW, 1 PH, 2 WIRES + GROUND] W/ RELAYS



# Wiring Diagrams (continued)

## GB4, GB4M, 4M-8, 4MD

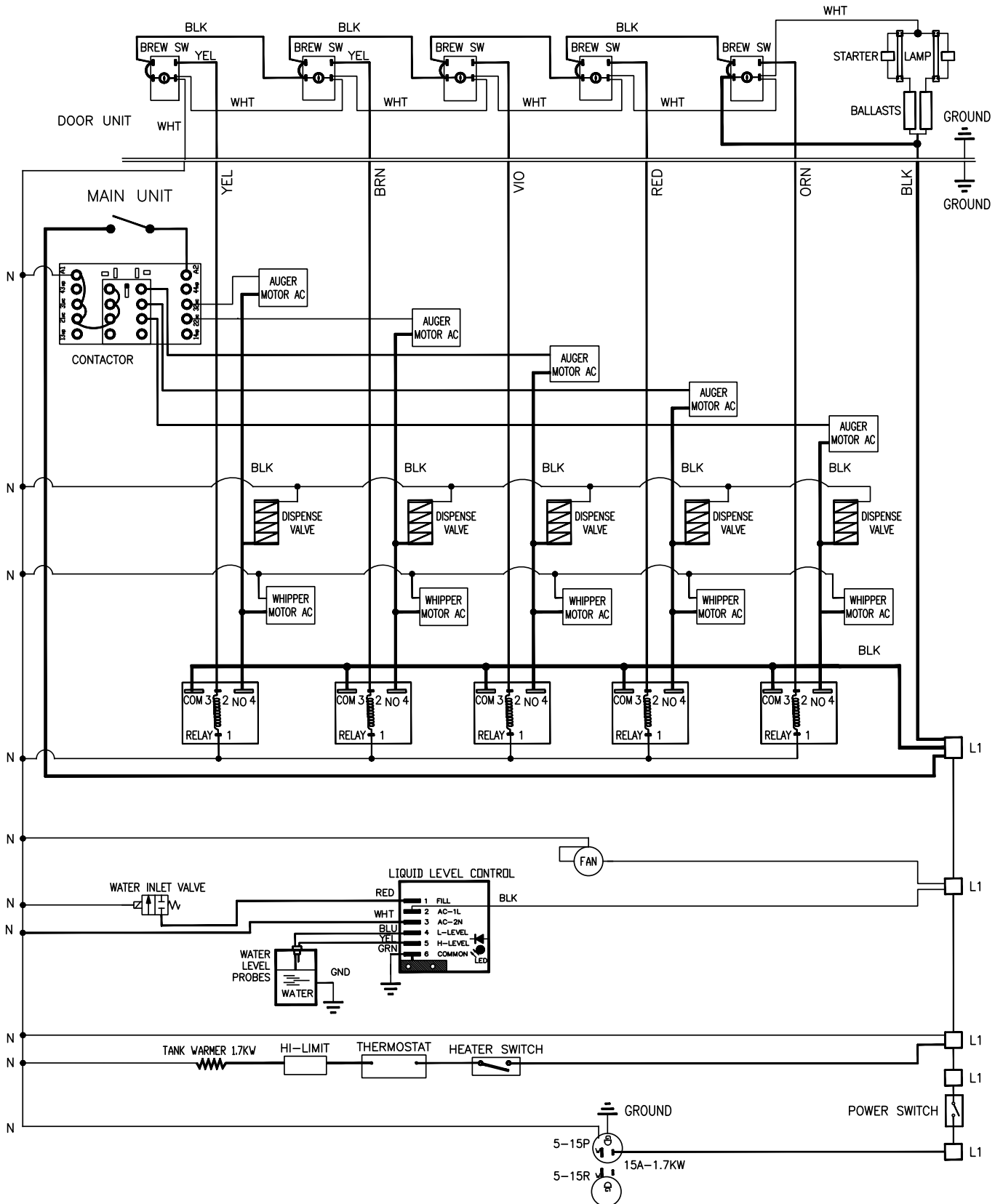
[120V, 1.7KW, 1 PH, 2 WIRES + GROUND] W/ RELAYS



# Wiring Diagrams (continued)

## GB5M

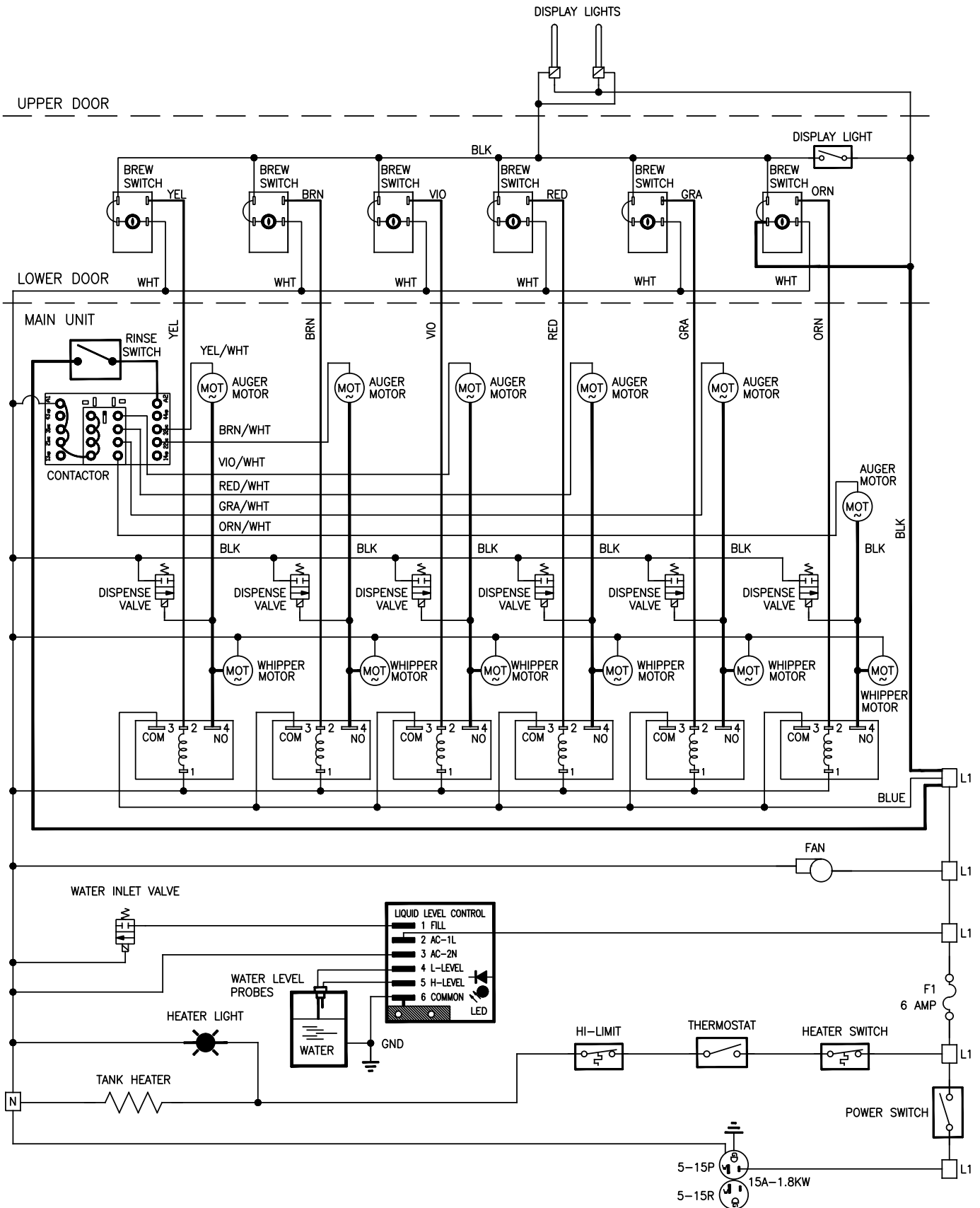
[120V, 1.7KW, 1 PH, 2 WIRES + GROUND] W/ RELAYS



# Wiring Diagrams (continued)

**GB6M**

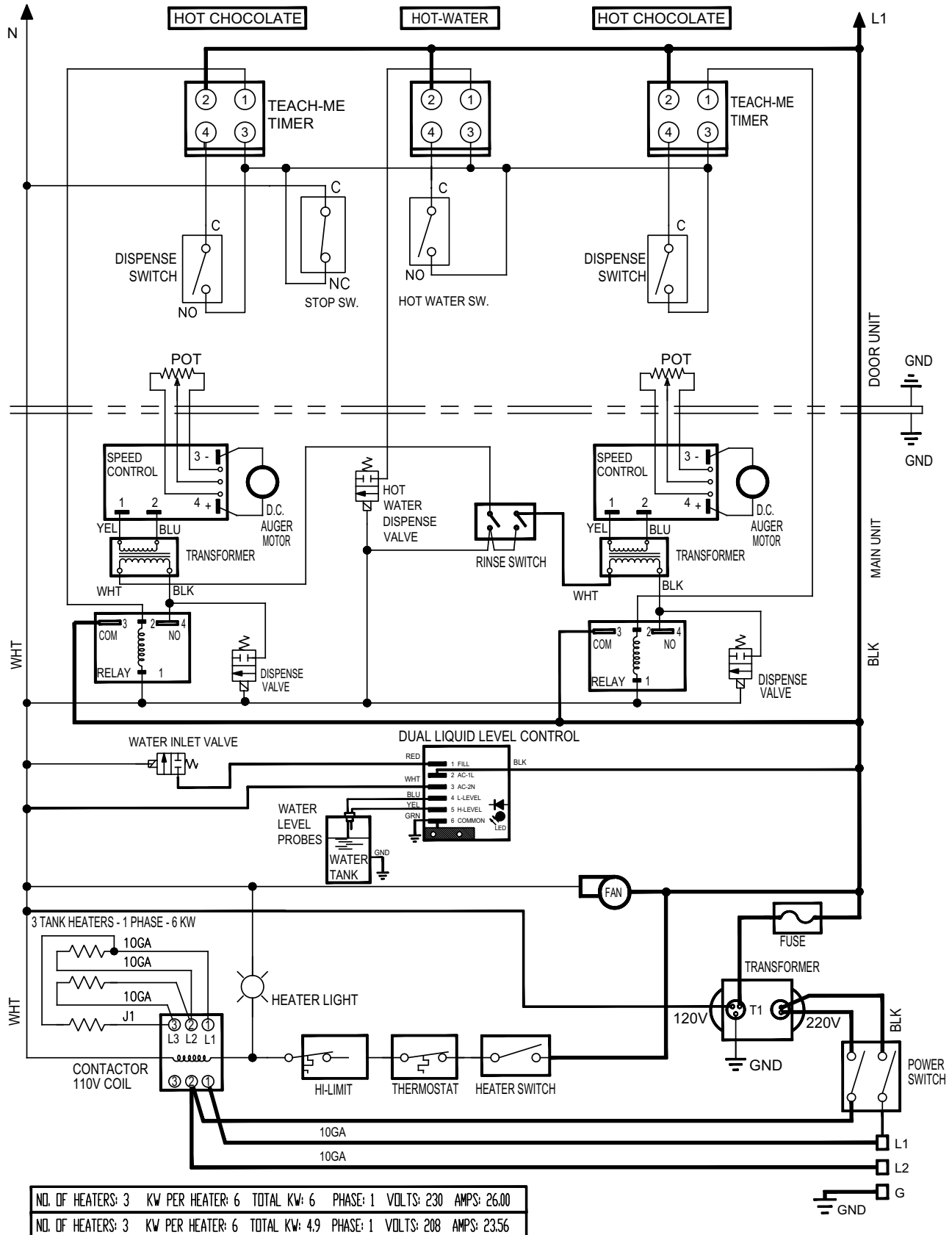
120V



# Wiring Diagrams (continued)

## GB2SKI-SUPER

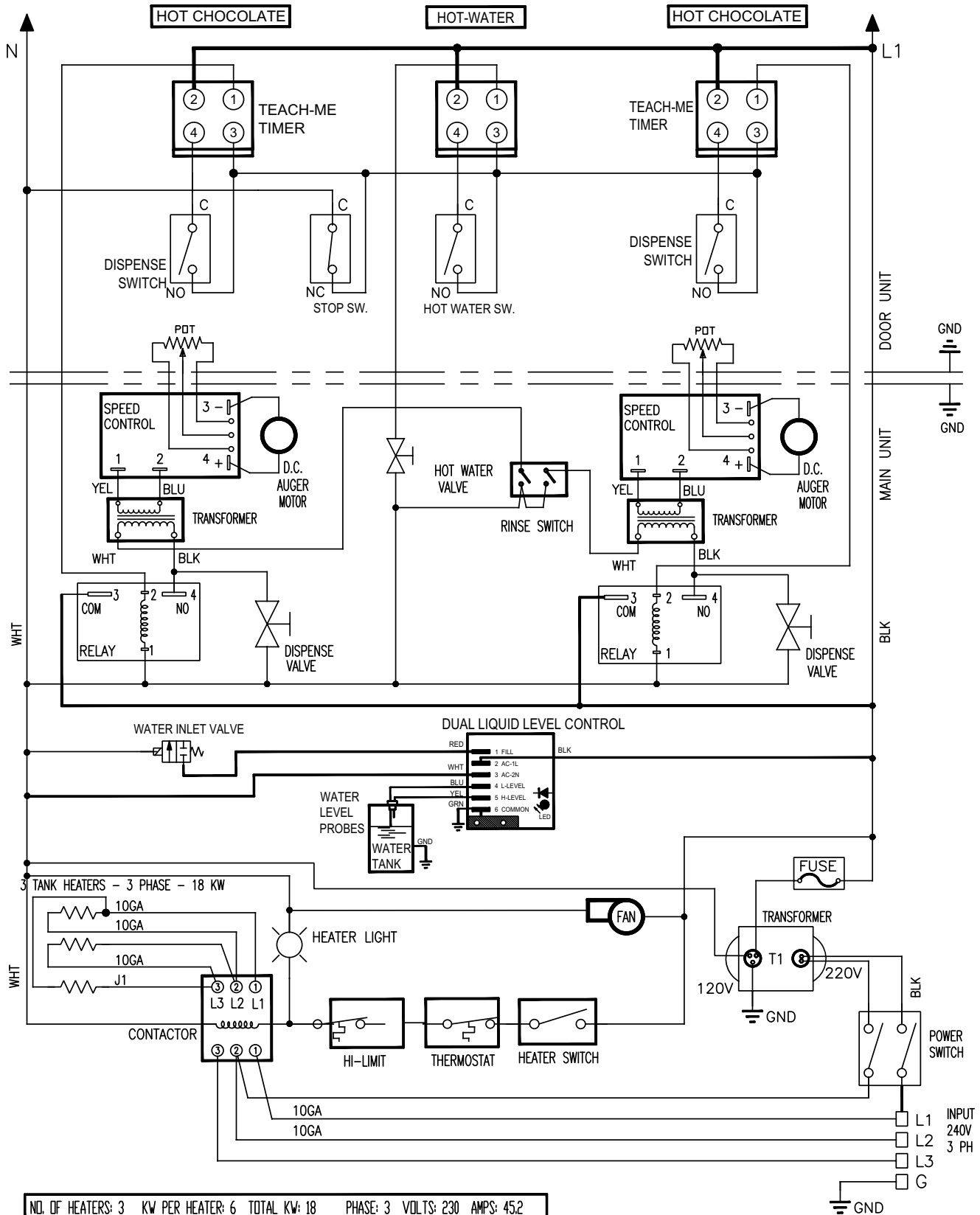
[SINGLE PHASE W/TEACH ME TIMERS] 240 V.AC 6 KW



# Wiring Diagrams (continued)

## GB2SKI-SUPER

3 PHASE, W/TEACH ME TIMERS 240 V.A.C. 18 KW



ND. OF HEATERS: 3	KW PER HEATER: 6	TOTAL KW: 18	PHASE: 3	VOLTS: 230	AMPS: 45.2
ND. OF HEATERS: 3	KW PER HEATER: 6	TOTAL KW: 14.75	PHASE: 3	VOLTS: 208	AMPS: 40.9



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