# **Crathco® Powdered Beverage Dispensers**

# **Service Manual**

for

PIC 1, 2, 3, 4, 5, 6 PSD 1, 2, 3, 4, 5, 6

PIC 23A, PIC33A, PIC43A, PIC5W

#### TABLE OF CONTENTS Installation...... 4 Start up Procedures...... 4 How To Dispense Cappuccino......5 Adjustments...... 5 Service Light Bulbs......12 Draining the Tank ......12 Shipment Preparation ......12 Whipper Motors ......13 Dump Valves ...... 14 Grommets ...... 14 Water Tank ...... 14 Thermistor ...... 17 Auger Motors ...... 18 Blower Motor ...... 18 Heater Relay ...... 18

Prior authorization must be obtained from Grindmaster Corporation™ for all warranty claims.







PIC 1

PIC 2

**PIC 33A** 





PIC 5

PIC 6

# GRINDMASTER<sup>™</sup> CORPORATION

## **Grindmaster Corporation™**

4003 Collins Lane Louisville, Kentucky 40245 USA (502) 425-4776 (800) 695-4500 (USA and Canada only) (800) 568-5715 (Technical Service only) FAX: (502) 425-4664 www.grindmaster.com

# **Warning Labels**

The following warning labels were on your dispenser when it was shipped from the factory. They should remain on your dispenser in good, readable condition at all times. If one of your labels is missing or damaged, order a replacement label immediately.

Part #62981 (PIC 5-6) - Located on the upper splash panel on the front of the dispenser



#### Part #61321 (PIC 1-4) - Located behind the drip pan on the front of the dispenser

WARNING: Risk of electric shock. Disconnect from power before servicing. Hot parts and surfaces inside and outside machine may cause burns. Tank drain hose inside machine dispenses very hot water. Will cause burns and/or personal injury. Must have five gallon heat resistant container to catch hot water. Hot water may splash. Do not attempt to stop hot water once it begins flowing. Replace plug and clamp prior to refilling tank.

#### Part #100268 (PIC 5-6) - Located behind the drip pan on the front of the dispenser

<b>▲</b> WARNING:	Risk of electric shock. Disconnect from power before servicing.
ADVERTENCIA:	Riesgo de shock eléctrico. Desconecte antes de hacer el servicio.
<b>AVERTISSEMENT:</b>	Risque de décharge électrique. Débrancher la machine avant tout entretien.
<b>▲</b> WARNUNG:	Elektroschlag Gefahr! Vor Handhabung des Gerätes bitte vom Stromnetz trennen.
<b>ATTENZIONE</b> :	Rischio di shock elettrico. Togliere la tensione prima di intervenire.

# Warning Labels (cont.)

#### Part #61319, Located on the outside on the back of the dispenser

MARNING:	ADVERTENCIA:	AVERTISSEMENT:
RISK OF ELECTRIC SHOCK. DISCONNECT FROM POWER BEFORE SERVICING. HOT PARTS AND SURFACES INSIDE MACHINE MAY CAUSE BURNS.	RIESGO DE CHOQUE ELECTRICO. DESCONECTE LA MAQUINA DE LA CORRIENTE ANTES DE ARREGLARA. PIEZAS Y SUPERFICIES CALIENTES DENTRO DE LA MAQUINA PUEDEN CAUSAR QUEMADURAS.	DANGER DE CHOC ELECTRIQUE. METTRE L'APPAREIL HORS TENSION AVANT DE L'ENTRETENIR. DES ELEMENTS ET SURFACES CHAUDS PEUVENT PROVOQUER DES BRULURES. MANIPULER AVEC SOIN.
IMPORTANT CONNECT TO A WATER SUPPLY BEFORE PLUGGING IN.	IMPORTANTE CONECTE LA MAQUINA A UNA VIA DE AGUA ANTES DE ENCHUFARLA.	IMPORTANT RACCORDER L'APPAREIL A LA DISTRIBUTION D'EAU AVANT DE METTRE SOUS TENSION. 61319

#### Part #61326, Located on the outside on the left of the dispenser

<b>⚠</b> WARNING:	ADVERTENCIA:	AVERTISSEMENT:
HOT PARTS AND SURFACES MAY CAUSE BURNS.	PIEZAS Y SUPERFICIES CALIENTES DENTRO DE LA MAQUINA PUEDEN	DES ELEMENTS ET SURFACES CHAUDS A L'INTERIEUR DE L'APPAREIL PEUVENT
ADJUSTMENT INSTRUCTIONS ON	CAUSAR QUEMADURAS. INSTRUCCIONES DE	PROVOQUER DES BRULURES.  CONSIGNES DE REGLAGE AU
THE BACK OF THE ACCESS PANEL.	AJUSTE DENTRO DEL PANEL DE ACCESO.	VERSO DE LA PLAQUE D'ACCES. 61326

#### Part #61325, Located on the drain hose inside the dispenser

WARNING VERY HOT WATER MAY CAUSE BURNS IMPORTANT YOU MUST HAVE A 6 GALLON HEAR RESISTANT CONTAINER TO CATCH HOT WATER. TO EMPTY HOT WATER FROM TANK REMOVE CLAMP, PINCH THE TUBE AND UIPPLUE HOSE DO NOT ATTEMPT TO STOP WATER ONCE IT BEGINS FLOWING. REPLACE PLUG AND CLAMP PRIOR TO REFILLING TANK.	ADVENTENCIA AGUA MUY CALIENTE PUEDE CAUSAR QUEMADURAS IMPORTANTE UD DEES TEMER UN RECIPIENTE RESISTENTE AL CALOR DE 6 GALONES PARA GUARDAR AGUA CALIENTE PARA VACIAR EL AGUA CALIENTE PARA PACIFA EL AGUA CALIENTE PARA PACIFA EL AGUA CALIENTE PARA PACIFA EL AGUA CALIENTE PARA PETE EL TIBO Y DESCONECTE LA MANGUERA NO TRATE DE DETENERE EL AGUA UNA VEZ QUE EMPIRECE A FULIFI. REGIMITAGE EL TAPON U SULETE EL TURBO ANTES DE RELLEMAR EL DEPOSITO.	AVERTISSEMENT L'EAU TRES CHAUDE PEUT PROVOQUER DES BRULURES BRULURES IL FAUT UN RECIPIENT RESISTANT AL LA CHAULEN D'UNE CAPACITE DE 6 GALLONS (2:2U TRES) POUR RESERVOIR, ENLEVER LE RESERVOIR, ENLEVER LE ET RETIRER LE TUYAU. NE PAS ARRETER LECOULEMENT D'EAU. AVANT DE REMPEIR A MOIUTEAU LE RESERVOIR, REPLACER LA FICHER IL E SERNE JOINT.	WARMUNG SEHR HEISSES WASSER KANN ZU VERBRENNUNGEN FÜHREN. WICHTTB: WASSER MUSS IN EINEM 23L HITZBESTÄUNGEN GEFÄSS AUFGERAGEN WERDEN. ZUR ENTIEERUNG DES HEISSEN WASSER SEIN AUT. SEIN AUT. ZUSAMMENDRÜKEN UND HERALISZIEHEN. LAUFENDES HINDERN. STÖRSEL UND KLAMMEY VOR DEM AUFÜLLEN WIEDER AMBRINGEN.	AVVERTENZA ACQUA BOLLENTE: RISCHIO DI USTIONI  MINORITATIVI È MECESSARIO DISPORE DI UN COMTENTORE DA. 23. LITRI ADATTO A PACCOGLERE L'ACQUA BOLLENTE. PER VUOTANE IL SERBATIOO, RIMIJOVER RI. IL TUBO. È PERICOLOSO CERCANE DI BLOCCANE L'ACQUA BOLLEITE GUIANDO COMMICO AD ULISCIRE. RIMIONITARE LA PRESA E IL MORSETTO PRIMA DI RIEMPIRE NUOVAMENTE IL SERBATIONO.	WAARSCHUUMMG: KOKEND-HEET WATER KAM BRAHOWONDEN VEROORZAKEN BELANDRUILLI MEH MOET EELSZ-JITER HITTE- WEREID VAT HERBEN OM HET HETE WATER IN OP TE WANGEN. OM HET HETE WATER UIT DE BAND INOLINPEN EN DE SLANG UITHEBEREN. AS HET WATER BEGINT TE LOPEN, MIET MEER OUDERRIECEN. HERFLANTS STOP EN ILEM JAUOREIS DE TANK OPMIEUW TE VULLEN.
--	--	--	--	--	---

#### Installation

#### **Water Inlet Connection**

The following is required for water hook-up:

- 1. A quick disconnect water connection or enough coiled tubing so the machine can be moved for cleaning underneath. (*required for NSF approved water hook-up*)
- 2. A 1/4" male flare adapter is provided (packed inside the drain tray) to be attached by the installer to the back of the machine for hook-up to water supply.
- 3. Installation to a water filter system is required to prevent lime and scale build up in the machine.
- 4. Water pipe connections and fixtures directly connected to potable water supply shall be sized, installed, and maintained in accordance with Federal, State, and Local codes. (required for NSF approved water hook-up)
- 5. Equipment is to be installed with adequate backflow protection to comply with applicable Federal, State, and local codes. (*required for NSF approved water hook-up*)

#### **Start-up Procedure for Standard Units**

**NOTE:** NSF requires installation of 4" legs for PIC 2,3,4,5,6.

- 1. Install drip tray in front of machine.
- 2. Connect the 1/4" male flare fitting to the inlet valve on the back of the machine.
- 3. Flush the water line to purge any debris from the supply line.
- 4. Connect a 1/4" water line to the 1/4" male flare connection and turn the water supply on.
  - a. Minimum water pressure to the machine: 20 psi
  - b. Maximum water pressure to the machine: 100 psi
- 5. Plug the power cord into a proper electrical outlet.
- 6. Turn the power switch to the "ON" position and allow the water tank to fill. The machine will make a subtle hissing sound when this occurs. Allow 3-4 minutes (5 minutes for PIC 5 or PIC 6) for fill time depending on inlet water pressure.

**NOTE:** If water supply is allowed to run dry, watchdog timer circuit may disable fill circuit. If this occurs, ensure adequate water supply for machine, then reset machine by turning power switch "OFF" for 1 second and then turning the power switch back "ON".

**NOTE:** Watchdog timer might engage on initial fill on PIC 5 and PIC 6.

- 7. After the water tank has filled, allow 15-45 minutes (45-60 minutes for PIC 5/6) for the water to reach operating temperature. (Green ready light will illuminate when tank is up to preset temperature.)
- 8. Remove the powder hoppers, rotate the dispense elbow to the "up" position, and fill with desired powder product. IMPORTANT: Check to make sure that the auger inside the hopper is correctly installed prior to filling. Reinstall powder hoppers. Turn dispense elbow down toward the mixing funnel.
- 9. Peel protective film off photo merchandiser cover. (Install graphic if needed)
- 10. Install flavor decals as needed. (Place one on each hopper, and place the corresponding decal on the dispense section of the front door of the unit)

#### **POWER CORD TABLE**

Models	Volts	Watts	Phase	Supply Cord	Attachment Plug	Agency
Chandand	120V	1400W		14-3	5-15	UL, CUL, NSF
Standard Models	120V	1650W	Single Phase	14-3	5-15	UL, NSF
	120V	1650W		12-3	5-20	UL, CUL, NSF
Q	120/208-240	2500W	60Hz	12-4	L14-20	UL, CUL, NSF
Z*	208-240	2500W		12-4	L14-20	UL, CUL, NSF

<sup>\*</sup> For Z model neutral is not required.

#### Start-Up Procedures for Pump Units (PIC 2P & PIC 3P only)

**NOTE:** Pump units are not designed to be plumbed to pressurized water source.

- 1. Place a five gallon water container within 3 feet vertically and 2 feet horizontally of the machine.
- 2. Drop the hose at the rear of the machine into the water container (The hose should extend to approximately 1" from the bottom of the water container.)

## **Installation** (cont.)

#### Start-Up Procedures for Pump Units (PIC 2P & PIC 3P only) (cont.)

**NOTE:** Do not let the end of the hose touch the bottom of the container. Shorten the hose if necessary. If you need a longer hose, remove the back access panel, unclamp existing hose, replace with longer hose and replace clamp.

3. Proceed with fifth step under Start Up for Standard Units.

# How to Dispense a Cup of Cappuccino

On models with manual dispense switches (Refer to serial tag to verify model number of your machine)

- 1. Place cup under the selected drink dispense nozzle.
- 2. Push and hold the appropriate switch on the touchpad until cup is 2/3 full and then release switch.

On models with portion control (single portion or 3 portion per head): (optional on PIC 2, 3, & 4 only)

- 1. Place cup under the selected drink dispense nozzle.
- 2. Push appropriate switch on the touch pad, then release to dispense one preset serving. (see **Portion Control Adjustment** to set portion size)

**NOTE:** Portion may be cancelled by push and release of the switch during dispensing.



**CAUTION:** Cup must rest flat on tray with a 1/4" (6 mm) clearance between cup and spout. Contents can cause severe burns if handled improperly.

# **Adjustments**

#### **Portion Adjustment**

If machine is a manual dispense, there are no portion control adjustments to be made. (Please refer to serial tag to reference model number.)

#### **SETTING SINGLE PORTION CONTROL**

- 1. Place a cup under the selected drink dispense nozzle.
- 2. Press and hold the dispense switch.
- 3. After a 10 second time delay, the machine is triggered into program mode and will begin dispensing.
- 4. Continue pressing the button until cup is approximately 2/3 full, then release the switch to prevent overfill. The elapsed portion dispense time is saved to memory and will remain until the dispense switch is reprogrammed.
- 5. Check the portion size by placing an empty cup under the desired dispense nozzle, then press and release the dispense switch. The machine will dispense the preprogrammed portion size.
- 6. If the portion size is incorrect, repeat above steps until the desired portion size is achieved. Each dispense switch needs to be set separately.

#### SETTING THREE PORTION SIZES PER HEAD (optional on PIC 2/3/4 only)

- 1. Place a cup under the selected drink dispense nozzle.
- 2. Press and hold the size button on the touch pad that you wish to program or set. (Hold button throughout entire procedure.)
- 3. Press and release the manual (top-off) button. After releasing the manual (top-off) button, the 10-second delay is activated.
- 4. Continue pressing the size button until cup is approximately 2/3 full, then release the switch to prevent overfill. The elapsed portion dispense time is saved to memory and will remain until the dispense switch is reprogrammed.
- 5. Check the portion size by placing an empty cup under the desired dispense nozzle, then press and release the dispense switch. The machine will dispense the preprogrammed portion size.
- 6. If the portion size is incorrect, repeat above steps until the desired portion size is achieved. Each portion size for each head needs to be set separately.

#### **Thermostat Adjustment**

**NOTE:** The thermostat range is approximately 160°F to 200°F. The tank temperature is factory set at 180°F, making the beverage temperature slightly lower than 180°F.

- 1. Unplug machine.
- 2. Remove the drip tray.
- 3. Remove the upper splash panel on the front of the machine by removing the four Phillips head screws.
- 4. Locate the thermostat adjustment dial on the control board(s).
- 5. To adjust the temperature of the water being dispensed, turn the adjustment dial on the large\* control board. (Turn clockwise to increase the water temperature or counterclockwise to decrease the water temperature)

NOTE: It will take time for the water tank temperature to reach its adjusted temperature setpoint.

⚠ CAUTION: Do not force the adjustment dial beyond its 270° of rotation or damage to the control board may occur.

\*NOTE: PIC 4, 5, and 6 have a second controller. The temperature dial on the right hand board is not active on this board.

#### **Drink Strength Adjustment**

(Refer to Figure A and B)

Tools Required: #2 Phillips Screwdriver

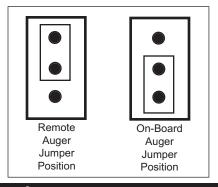
Warning: Risk of Electric Shock! Always turn off power to machine while servicing or making internal adjustments to machine.

- 1. Dispense a drink to determine if drink is too strong or too weak.
- 2. Turn off power to machine at power switch.
- 3. Remove upper front splash cover below dispense heads in front of machine.
- 4. Using a flat head screwdriver, adjust individual dispense heads by rotating appropriate adjustment knob. Turn on power to machine and dispense a drink to determine if drink strength is acceptable. If drink is not acceptable, turn off power to machine and repeat adjustment steps until

**Note:** Clockwise rotation will result in a stronger drink and counterclockwise will result in a weaker drink.

desired drink strength is achieved.

**Note:** Water flow rate is factory preset at approximately 0.80 ounces per second.



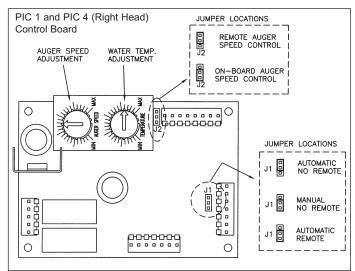


Figure A Operates PIC and right head on PIC4.
Thermostat dial on this board is not used on PIC4.

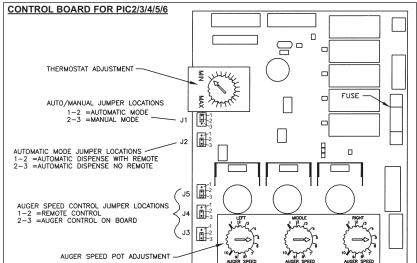


Figure B One controller used for PIC2, PIC3.
One (Fig A) controller and one (Fig B) controller used for PIC4.
Two controllers used for PIC43, PIC5, PIC6.
Thermostat dial is not used on PIC43, PIC5, PIC6 right controller.
On Right Controller: Left dial operates #4 head, middle dial operates #5 head, and right dial operates #6 head.

#### <u>Drink Strength Adjustment for Model PIC3E or PIC33AE</u>

when equipped with remote adjust knobs behind drip tray (Refer to Figure C)

- 1. Dispense a drink to determine if drink is too strong or too weak.
- 2. Remove drip tray.
- Using a flat head screwdriver, adjust individual dispense heads by rotating appropriate adjustment knob. Clockwise rotation will result in a stronger drink and counterclockwise rotation will result in a weaker drink.
- Dispense a drink to determine if drink strength is acceptable, repeat adjustment steps until desired drink strength is achieved.

**NOTE:** Water flow rate is factory preset at approximately 24mL (0.80 ounces) per second.

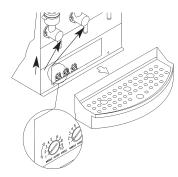


Figure C

#### <u>Drink Strength Adjustment for Model PIC2J & PIC3J</u> (Refer to Figure D)

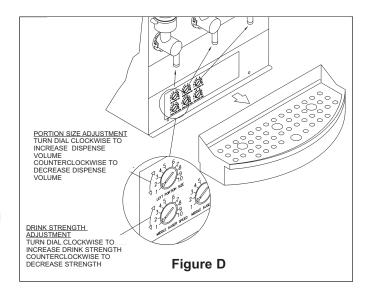
Tool required: #2 Flat Head screwdriver

- 1. Dispense a drink to determine if drink is too strong, weak or if portion size is correct.
- 2. Turn off power to machine at power switch.
- 3. Drink strength and portion size controls will be found behind the drain tray. (Refer to Figure D) For portion size adjustment, turn dial clockwise to increase dispense volume. To decrease volume turn dial counterclockwise. For drink strength adjustment turn dial clockwise to increase drink strength. To decrease strength turn dial counterclockwise. Turn on power to machine and dispense a drink to determine if drink strength or portion is acceptable. If drink strength or portion is not acceptable, turn off power to machine and repeat adjustment steps until desired drink strength or portion is achieved.

**Note:** Clockwise rotation will result in a stronger drink and counterclockwise will result in a weaker drink.

**Note:** Water flow rate is factory preset at approximately 0.80 ounces per second.

\* To adjust flow rate, remove left side upper panel. Use flat head screwdriver and turn knob on respective dump valve.



WARNING: Do not adjust flow rate above the factory setting to prevent funnel overflow.

# **Cleaning**

CAUTION: When cleaning the unit, do not use cleansers, liquid bleach, powders or any other substance that contains chlorine. These products promote corrosion of stainless steel and plastic parts. Use of these products will void the warranty.

#### **DAILY**

- Empty the drip pan as needed and wash daily in a solution of dish detergent.
- 2. Rinse out the whipper chambers by placing the rinse switch (located on the right of the dispensing valves when the door is open) in the "ON" position. Dispense one to two cups until the water is clean. Short bursts of dispensing may also help clean the chambers more effectively. When completed, return the rinse switch to the "OFF" position.
- 3. Remove the hoppers and refill with product.

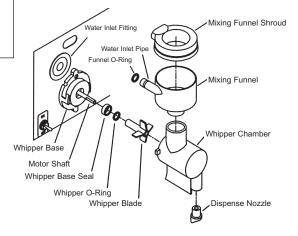


Figure E

#### **WEEKLY**

#### **Removing and Cleaning the Chambers**

- 1. Open the door and remove the mixing funnel shroud by pulling forward while turning 1/4 turn to the right. Lift off and remove.
- 2. Remove the mixing funnel by lifting the neck of the funnel out of the whipper chamber, then tilt counterclockwise. With one hand on the water inlet fitting on the back panel, pull the funnel out of the white ring.
- 3. Remove the whipper chamber by rotating it 1/8 of a turn clockwise, then pull to remove.
- 4. Remove dispense nozzle from whipper chamber by pulling it apart.
- 5. Remove the whipper blade by grasping the whipper blade with two fingers and firmly pulling to remove.
- 6. Remove the o-ring on the whipper shaft near the whipper and wipe the motor shaft with a clean towel.
- 7. All parts in contact with food must be washed, rinsed, sanitized and air-dried.

**↑** CAUTION: Do not wash parts in dishwasher. Dishwashers will cause damage to parts.

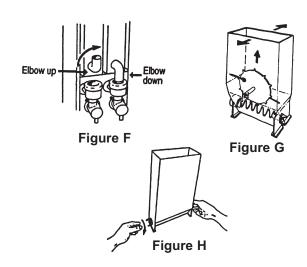
#### To Reassemble

- 1. Replace the o-ring onto the whipper shaft.
- 2. Replace the whipper blade by aligning the flat side inside the blade with the flat side of the motor shaft. Push blade firmly onto shaft.
- 3. Press dispense nozzle into whipper chamber.
- 4. Replace the whipper chamber by positioning the medium sized opening up and tilting 1/8 of a turn clockwise. Put the whipper chamber over the whipper blade and turn counterclockwise until it locks into place.
- 5. Replace the mixing funnel by positioning the large opening up and tilting it slightly counterclockwise. Lubricate the o-ring on the water inlet pipe with a film of food grade lubricant. Insert the water inlet pipe into the water inlet fitting on the back panel, then rotate the funnel to the right until the neck of the funnel seats inside the whipper chamber opening.
- 6. Replace the shroud by placing it on the mixing funnel with the opening to the right. Turn the shroud to the left until the opening in the shroud rests inside the opening in the back panel.
- 7. If shroud doesn't rest inside the opening on the front panel, push in or lift up on the funnel.

#### Disassembling & Cleaning the Hoppers (PIC 1/2/3/5/6)

**IMPORTANT:** Do not wash hopper without first disassembling.

- 1. Open the door and rotate the dispense elbow on the hopper to the "UP" position to prevent spillage. (Figure F)
- 2. Remove the hopper from the cabinet.
- 3. Remove the hopper cover and empty hopper contents.
- 4. Pull off the elbow.
- 5. Remove the auger pinwheel by pulling it forward while stretching out the sides of the hopper. (Figure G)
- Remove the drivelink and washer at the rear of the hopper by holding the auger spring with one hand at the front of the hopper while turning the drivelink clockwise with the other hand. (Figure H)
- 7. Remove the auger spring and auger spring drive shaft by pulling them out through the lower front opening of the hopper.
- 8. Remove the palnut at the rear of the hopper by turning it counterclockwise, then remove the drive shaft bearing from the inside of the hopper.
- 9. All parts in contact with food must be washed, rinsed, sanitized and air-dried.

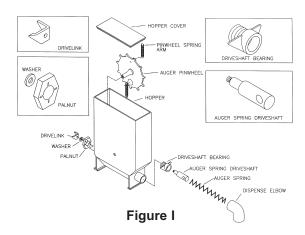


#### WEEKLY (cont.)

# Reassembling the Hoppers (PIC 1/2/3/5/6) (Refer to Figure I)

**IMPORTANT:** All components must be completely dry prior to reassembly.

- 1. Place the drive shaft bearing inside the hopper with the threads going through the hole in the rear of the hopper.
- 2. Secure the bearing by attaching the palnut to the bearing at the outside rear hopper opening. Tighten using only your fingers. Use one hand inside the hopper to push the bearing outward while turning the palnut clockwise.
- 3. Install the auger spring drive shaft and the auger spring by inserting the flat end of the spring into the hole in the auger drive shaft.
- 4. Insert assembly into the lower front hopper opening, making sure the threaded end of the auger spring drive shaft completely inserts into the drive shaft bearing in the rear of the hopper. The drive shaft bearing threads should be accessible from the outside rear of the hopper.



- 5. Place the washer over the drive shaft bearing threads followed by securing the drivelink onto the drive shaft bearing by turning counterclockwise. Secure the auger spring with one hand while attaching the drivelink with the other.
- 6. Replace the auger pinwheel making sure the pins are securely positioned inside the locator holes in the hopper.
- 7. Replace the dispense elbow in the "UP" position.
- 8. Fill the hopper with product and replace the cover.
- 9. Reinstall the hopper into the machine; making sure it is properly positioned inside the notches under the hopper.
- 10. Turn the elbow down toward the mixing funnel, keeping it lined up over the funnel opening.

#### Disassembling & Cleaning the Hoppers (PIC 4)

**IMPORTANT:** Do not wash hopper without first disassembling.

- 1. Open the door and rotate the dispense elbow on the hopper to the "UP" position to prevent spillage.
- 2. Remove the hopper from the cabinet.
- 3. Remove the hopper cover and empty hopper contents.
- 4. Pull off the elbow.
- 5. Pull off hopper base.
- 6. Remove the auger pinwheel by pulling it forward while stretching out the sides of the hopper (thin hopper only).

  \*See below for wide hopper.
- 7. Remove the coupling at the rear of the hopper by holding the auger spring with one hand at the front of the hopper while turning the coupling clockwise with the other hand.
- 8. Remove the auger with o-ring by pulling them out through the lower front opening of the hopper.
- 9. Remove the nuts at the front and rear of the hopper by turning counterclockwise, then remove the bearings from the inside of the hopper.
- 10. All parts in contact with food must be washed, rinsed, sanitized and air dried.
- \* For wide hoppers: Remove wing nut and flat washer on outside of hopper and remove pinwheel assembly (gear with spring and pinwheel with 2 springs)

#### Weekly Cleaning (cont.)

#### Reassembling the Hoppers (PIC 4)

**IMPORTANT:** All components must be completely dry prior to reassembly.

- 1. Place the bearings inside the hopper in proper position.
- 2. Secure the bearings by attaching the nuts to the bearings at the outside rear hopper opening. Tighten using only your fingers.
- 3. Insert auger into the lower front hopper opening, making sure the threaded end of the auger spring drive shaft completely inserts into the rear bearing in the rear of the hopper. The auger threads should be accessible from the outside rear of the hopper.
- 4. Secure the coupling onto the auger by turning counterclockwise. Secure the auger with one hand while attaching the coupling with the other.
- 5. Replace the auger pinwheel making sure the pins are securely positioned inside the locator holes in the hopper (this hopper only). \* See below for wide hopper. For either hopper, turn coupling and make sure pinwheel in properly installed and turns freely.
- 6. Replace the dispense elbow in the "UP" position.
- 7. Fill the hopper with product and replace the cover.
- 8. Reinstall the hopper into the machine; making sure it is properly aligned.
- 9. Turn the elbow down toward the mixing funnel, keeping it lined up over the funnel opening.
- \* For wide hopper: Replace pinwheel assembly by inserting gear through the pinwheel and inserting threads through the hopper wall. Insert flat washer on outside and finger-tighten wing nut securely.

#### Cleaning the Steam Plenum Tray (PIC 2/3/4/5/6 only) (Refer to Figure L)

**CAUTION**: Do not pour liquid into tray. Failure to comply will damage the dispenser and void the warranty.

- 1. Rotate dispense elbows on the hoppers to the "up" position and remove hoppers from machine.
- 2. Remove cover plate inside machine cabinet, located below hoppers.
- 3. Using a damp towel, wipe powder build up from inside steam plenum trav.
- 4. Replace cover plate.
- 5. Replace hoppers and turn elbows down to the dispense position.

#### **Quarterly Cleaning**

#### **Cleaning the Steam Recovery Plenum Tray**

★ WARNING: Risk of electric shock; Disconnect from power before servicing!

- 1. Remove the side access panel (Refer to figure K)
- 2. Disconnect the flexible vent tube attached to the recovery tray.
- Remove the two screws which fasten the recovery tray to the sheetmetal enclosure and remove the recovery tray through the side access hole.
- 4. Remove the back access plate (refer to figure L). Disconnect and remove the flexible vent tube from the blower housing. Carefully remove the flexible vent tube from the machine's cabinet.
- 5. Wash, rinse, sanitize, and air dry the recovery tray and hose. Note: A long soft bristle brush or small cloth towel may be used to clean the internal passage of the flexible vent tube by pushing it through the tube. Rinse, sanitize and air dry the tube.
- 6. Reassemble the parts in reverse order.

**NOTE:** PIC 5 and PIC 6 contain two ports on the plenum, three flexible tubes and a barbed tee.

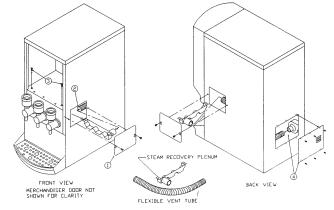


Figure J

Figure K

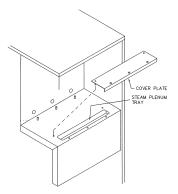


Figure L

## PIC Preventative Maintenance Checklist (Every 6 to 12 months)

A preventative maintenance visit should be performed every 6 to 12 months, depending on usage. The following procedures should be performed during a preventative maintenance visit.

Parts Required: One PM parts kit (PIC1 - Qty1 - 62707, PIC2 - Qty2 - 62707 or Qty1 - 60933, PIC3 - Qty1 - 60933, PIC4 - Qty1 - 60933 and Qty1 - 62707, PIC5 - Qty2 - 60933, PIC6 - Qty2 - 60933).

Tools Required: 11/32 nut driver, needle nose pliers, phillips head screwdriver, food grade lubricant.

The following procedures should be performed by a qualified service technician.



WARNING - Risk of electric shock and burns. Disconnect power before servicing. Use care in handling hot liquids.

- 1. Document model and serial number of equipment above.
- 2. Disconnect unit from power supply and turn power off. Then remove all access panels.
- 3. Shut off the water supply valve to the machine.
- 4. Open front door of unit and remove product hoppers. Clean hoppers following procedures on the decal on panel behind hoppers or as stated in instruction manual.
- 5. Remove the plenum chamber access panel, if so equipped (located below hoppers on newer units). Wipe out exposed plenum.
- 6. Locate the tank drain hose. It is located behind the bottom access panel. It is a white silicone tubing that has a 3/8" stainless steel barb plug and a black 5/8" hose clamp on it.
- 7. PIC 1, 2, 3, and 4: Using a 5 gallon, heat resistant container, route the drain hose into the container.

  PIC 5 and 6 contain over 5 gallons of hot water and require a minimum 6 gallon heat resistant container.

  Remove the clamp, pinch the tube and remove the plug. Drain all of the water out of the tank into the container (about 3.5 gallons). Warning: the water from the tank is very hot (180°F plus). May cause burns and/or personal injury. Hot water may splash. Do not attempt to stop flow of hot water once it begins flowing through drain hose. Replace the drain hose plug and secure the clamp back onto the drain hose. Place the drain hose back inside the machine, to its original location. Carefully empty the drain bucket. Do not refill the unit at this time. Delime tank if needed.
- 8. Remove the mixing funnel shroud and mixing funnel from each chamber. Remove and discard the o-ring on the mixing funnel. Set the shroud and funnel aside.
- 9. Remove each whipper chamber and whipper blade. Check for wear and replace if necessary. Then remove and discard the small whipper shaft o-rings from each dispense head.
- 10. Remove the two screws from each whipper base and save the screws. Discard the old whipper base and slinger washer, and replace with the new parts in the PM kit.
- 11. Clean the whipper motor shaft and clean all dried product in this area under where the whipper base was located.
- 12. Install the new slinger washer onto the whipper motor shaft, and up to hopper mounting bracket.
- 13. Lubricate inside of whipper base with a food grade lubricant. Then install whipper base over the whipper motor shaft and check alignment of holes. If alignment is off, rotate base 180° to make sure holes line up. Hold base securely, and carefully tighten mounting screws.
- 14. Check whipper motor shaft to ensure it can turn freely using fingers. If shaft is hard to turn, remove screws, rotate base 180°, and re-tighten.
- 15. Install the new, red, small o-rings, along with the whipper blades, and whipper chambers. Clean the funnel shrouds and funnels. Install each new funnel o-ring and lubricate. Then install funnel and shroud. When complete, put the plenum chamber access panel back in place, if so equipped.
- 16. Remove plenum through side access hole and remove the plenum hose(s) from the blower to the plenum chamber. Clean the plenum and either clean or replace the hose(s) (part# 61123, not in kit). Re-install clean parts.
- 17. Remove the dump valves located behind side access panels, by loosening the dump valve bracket nuts with the 11/32 nut driver and lifting bracket up. Then pull dump valve from grommet and then remove the grommets from the tank with needle nose pliers and discard. Then remove the o-rings from the dump valves and discard. Replace with new tank grommets and new o-rings for each valve. Re-install the dump valves and secure back onto the tank. Tighten nuts on dump valve bracket.
- 18. Locate power supply and verify proper electrical supply to unit.
- 19. Find the water supply line. Turn on water supply, and verify adequate water flow.
- 20. Turn power supply back on. Then turn main power switch to "on".
- 21. Verify water tank in unit is filling. After the tank is full, verify that the heating cycle has started.
- 22. Allow unit to fill and shut off. Check around dump valves and any tubing for signs of water leaks.
- 23. Replace all access panels and reinstall hoppers inside the unit. Verify nut on back of hopper is secure.
- 24. Verify each dispense head is operating properly and that the settings are correct. Adjust if necessary.
- 25. Check for proper product temperature and check mix ration for proper setting, and adjust if necessary.
- 26. Review proper care, cleaning and maintenance procedures with store personnel.

#### Service

#### Changing the Lightbulb on Models With a Backlit Merchandiser (PIC 1/2/3/4/5/6)

(Refer to Figure M) (Refer to serial tag to verify model number of your machine)

**WARNING:** Disconnect machine from branch electrical supply before changing the lightbulb.

NOTE: PIC2/3/4 uses a F8T5 12" 8 watt replacement bulb. PIC5/6 uses a 22W circular bulb.

- 1. All: Remove the front merchandiser photo and cover by grasping the edges of the merchandiser.
- PIC1: Lift bulb out of socket vertically.
  - PIC 2/3/4: Remove the old lightbulb by gently turning the lightbulb 1/4 turn to the left and pulling the bulb from the socket.
  - PIC5/6: Disconnect cable from bulb and pull bulb from holder.
- 3. PIC2/3/4: Install the new bulb by lining up the pins on either end of the bulb parallel with the socket opening.
- 4. PIC2/3/4: Gently insert both ends of the bulb into the socket and turn the bulb 1/4 turn to the right until the bulb locks into place.
- 5. All: Replace the merchandiser photo and cover.





00 00

#### To Prepare for Shipment

Important: Always completely empty water tank and POWDER HOPPERS prior to shipping unit. (See draining the tank and cleaning the hoppers sections)

NEVER SHIP UNIT WITH POWDER IN HOPPER - THIS WILL CAUSE IRREPARABLE DAMAGE.

#### **Draining the Tank** (PIC 2/3/4)

Always empty the tank before shipping.

**NOTE:** PIC 1 contains 2 gallons of hot water.

PIC 2, PIC 3 and PIC 4 contain 3-1/2 gallons of hot water.

PIC 5 and PIC 6 contain 5-1/2 gallons of hot water.

MARNING: Draining of tank should be performed by a qualified service technician. The tank contains very hot water. May cause severe burns.

- 1. Prepare a heat resistant container to drain the tank water into.
- 2. Unplug the machine.
- 3. Remove the drain tray and front access panel. (Figure N)
- 4. Locate the silicone drain hose on the left side wall. Put the end of the drain hose into the container. Secure the end of the drain hose (i.e. with tape) into the container. (Figure O)
- 5. Remove the hose clamp and plug. (Figure P)
- 6. Allow the tank to drain completely.

NOTE: It may be necessary to pinch the hose and stop the water before container is full. Carefully re-install plug, then empty container. Repeat steps 4-6 to completely drain tank.



Figure N



Figure O





Figure P

#### **<u>Draining the Tank</u>** (PIC 2/3/4) (cont.)

- 7. Once the tank is empty, securely replace the plug and clamp on the end of the hose. Reposition the drain hose inside the hose clip on the left side wall.
- 8. Reassemble the front access panel and drain tray.

#### Purging Machine of All Water for Shipment in Cold Areas

**WARNING:** This procedure should be performed by a qualified service technician.

- 1. Turn the power switch to the "OFF" position.
- 2. Drain the water tank (refer to instructions on page 12). Do not replace the drain hose plug and clamp until further instructed.
- 3. Turn the power switch to the "ON" position. The ready light should turn itself "ON" within 12 seconds. The 12 second delay signals that the heating element has been disabled due to the lack of water in the tank after it is drained.

**IMPORTANT:** If the ready light does not turn itself "ON" within 12 seconds, turn the power "OFF" to avoid burning out the heating element.

- 4. Listen for the inlet valve to energize. To purge the inlet valve and water inlet tube, apply 10-20 psi compressed air to the inlet valve connection for 10 to 20 seconds while the inlet valve is energized.
- NOTE: Do not energize the inlet valve for more than 5 minutes at a time. Otherwise, the watchdog timer will disable the inlet valve. If this occurs, reset the machine by flipping the power switch "OFF" then "ON".
- 5. After the inlet valve and water inlet tube are purged, purge the dump valves and dispense lines. While applying 10-20 psi compressed air to the inlet valve connection, press and hold each dispense button for 1-2 seconds.
- 6. Turn the power switch to the "OFF" position. Replace the drain hose plug and clamp. Reposition the drain hose inside the hose clip on the left side wall.
- 7. Reassemble the front access panel and drain tray.

#### Replacing Whipper Motors on Machines Manufactured Prior to Fall 1998:

- 1. Left motor may be changed with 61116-01 (round motor) if you install a single pole switch (part # 61847) in place of the existing power switch.
- 2. Middle motor may be changed with 61116-01 directly.
- 3. Right motor can only be changed with 61116R (Oval (double-D) shaped motor).

#### Replacing Whipper Motors on Machines Manufactured After Fall 1998:

- 1. Place motor in mounting location, install lock washers and loosely tighten acorn nuts on motor mounting studs. Hold motor while shaft is centered inside hole then tighten nuts securely.
- 2. Install white slinger washer over the motor shaft and up to hopper mounting bracket.
- 3. Lubricate inside of whipper base then install over the motor shaft and check alignment of holes. If alignment is off, rotate base 180° to make sure holes line up. Hold base securely, and carefully tighten mounting screws.
- 4. Check the motor shaft to ensure it can turn freely with fingers. If shaft is still hard to turn, reposition motor and repeat.

#### 120V Whipper Motor Replacement Kit # 62528

Quantity	Part #	Description
1	61523	Whipper Base Assembly
1	61116-01 or 61867	Motor, Whipper, 120V
1	62529	Instruction Sheet

#### 230V Whipper Motor Replacement Kit # 62530

Quantity	Part #	Description
1	61523	Whipper Base Assembly
1	61117-01	Motor, Whipper, 230V
1	62529	Instruction Sheet

#### Removal of Whipper Motor(s):

- 1. Disconnect power.
- 2. Remove front and side access panels.
- 3. Remove chamber.
- 4. Remove whipper base. (Figure Q)
- 5. Remove motor nuts and pull motor out of slot. (Figure R, S)
- 6. Disconnect wire connection. (Figure T)
- 7. Replace motor as needed.



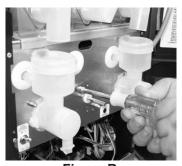






Figure Q

Figure R

Figure S

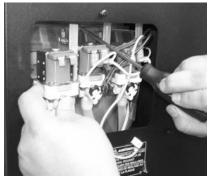
Figure T

#### Replacing Dump Valves, Dump Valve O-rings, and/or Tank Grommets

- Remove the dump valves located behind side access panels, by loosening the dump valve bracket nuts with 11/32 nut driver and lifting bracket up. (Figure U, V)
- 2. Pull dump valve from grommet and then remove the grommets from the tank with needle nose pliers and discard. (Figure W)
- 3. Remove the o-rings from the dump valves and discard. Replace with new tank grommets and new o-rings for each valve. (Figure X)
- 4. Re-install the dump valves and secure back onto the tank.
- 5. Tighten nuts on dump valve bracket.



Figure U





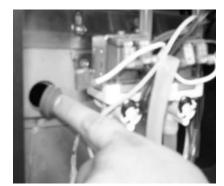


Figure W



Figure X

# Replacing Water Tank on Machines with Serial # 339304 and Lower: (Refer to Figures Y, Z, AA)

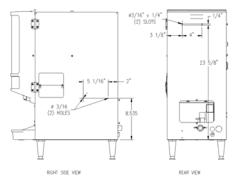
- 1. Switch off and unplug unit, disconnect from water supply, and drain tank completely.
- 2. Remove top of cabinet, left side and rear access panels.
- 3. Disconnect tank ground, heating element, thermal probe, water probe and hi-level thermostat wires and vent tubing in top of unit.

#### Replacing Water Tank on Machines with Serial # 339304 and Lower: (cont.)

- 4. Disconnect dump valve wiring and tubing in left access opening and remove valves.
- 5. Disconnect tank fill tubing from inlet valve in rear of unit.
- Remove screws holding water tank and mounting bracket. Remove tank, bracket and old tubing (NOTE: Do not discard dump valve tubing).
- Remove heating element, thermal probe, water probe, vent fittings, and valve retaining clip from old tank.
   Examine to determine if these items need to be replaced. Remove and discard old hi-level thermostat and mounting bracket.
- Drill holes in cabinet per sketch below and deburr. (Figure Y)
- Install (3) #8-32 x 3/8" machine screws (07026-07) in new holes in sides of casing. Lower new tank retaining bracket (61845) from the top of the unit until it rests on the machine screws. Add locknuts (71261) and tighten.

**NOTE:** Instructions above are for units with a stainless steel casing, for units with a black powder coat casing, use black screws (61303).

- 10. Install new dump-valve grommets (61243) and plugs (61229) (for PIC2 only) in side of new tank (61841).
- 11. Install new probe grommets (71147), heating element with new hi-level thermostat (62305), mounting bracket (62238) and (2) #8-32 x 1/4" SS screws (61353), thermal probe, water probe, and vent fittings in new tank cover (61842) as shown in sketch below.
- 12. Place tank gasket (61844) over top of new tank (61841), aligning holes with studs, and lower new tank cover (61842) over studs. Bolt tightly with (10) #8-32 locknuts (71261).
- 13. Lower tank onto retaining bracket, feeding fill fitting in tank bottom through the hole in the bracket. Bolt tank to the back of casing with (2) lock washers (61186) and (2) #8-32 x 3/8" machine screws (07026-07) for stainless casings, or #8-32 x 3/8" black screws for black powder coat units.
- 14. Install new o-rings (61365) on dump valves and insert them into side of tank from the access panel in the side of the casing. Secure with valve retaining clip, reconnect all wires and dump valve tubing.
- 15. Measure and cut new 29" vent tubing (05826), connect one end to the vent fitting in the top of tank and run the other end down the side of the tank to the bottom of the unit. Reconnect all wires to tank ground, heating element, thermal probe, water probe, and hi-level thermostat.



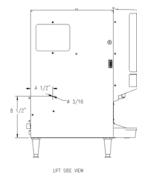


Figure Y

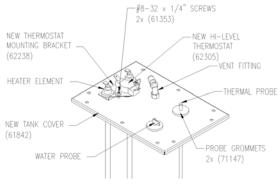


Figure Z

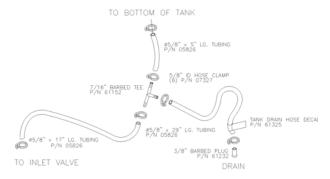


Figure AA

16. Cut and install new tubing (05826) from inlet valve to tank fill fitting and drain per sketch.

**NOTE:** Apply tank drain hose decal (61325) to drain hose after installing and feeding drain hose through hole in control mounting bracket in bottom of the unit.

17. Replace all panels and reconnect to water and electrical supply.

#### Removal of Water Tank on Machines with Serial # 339305UK and Higher:

- 1. Disconnect power.
- 2. Drain tank. (see page 12)
- 3. Remove machine lid, rear access panel and dump valve access panel. (Figure BB)
- 4. Disconnect wires from tank lid components and dump valves. (Figure CC)
- 5. Disconnect hoses from dump valves.
- 6. Remove mounting screws from rear of tank. (Figure DD)
- 7. Disconnect drain hose from bottom of tank. (Figure EE)
- 8. Lift out tank and replace as needed. (Figure FF)



Figure BB



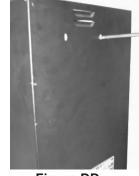






Figure CC

Figure DD

Figure EE

Figure FF

#### Removal of Inlet Valve

- 1. Disconnect power.
- 2. Drain tank. (see page 12)
- 3. Remove rear access panel.
- 4. Disconnect black hose from fan.
- 5. Remove two screws and lock nuts. (Figure GG)
- 6. Remove valve. (Figure HH)
- 7. Disconnect wire connection, hose clamp and hose. (Figure II)
- 8. Replace valve as needed.











Figure II

#### **Removal of Thermistor**

- 1. Disconnect power.
- 2. Remove machine lid. (Figure JJ)
- 3. Disconnect thermistor wires. (Figure KK)
- 4. Lift out thermistor and replace as needed. (Figure LL)
- 5. To replace with thermistor, add food grade lubricant. (Figure MM)









Figure JJ

Figure KK

Figure LL

Figure MM

THERMISTOR CURVE								
°C	°F	RESISTANCE (OHMS)	°C	°F	RESISTANCE (OHMS)			
0	32	16325	60	140	1244			
5	41	12697	65	149	1041			
10	50	9951	70	158	875			
15	59	7856	75	167	740			
20	68	6246	80	176	628			
25	77	5000	85	185	535			
30	86	4028	90	194	458			
35	95	3266	95	203	393			
40	104	2663	100	212	339			
45	113	2185	105	221	294			
50	122	1802	110	230	255			
55	131	1493						

#### Removal of Auger Motor(s)

- 1. Disconnect power.
- 2. Remove front and side access panels.
- 3. Remove hoppers.
- Remove three screws and lock washers. (Figure NN)
- 5. Pull motor out of slot. (Figure OO)
- 6. Disconnect wire connection.
- 7. Replace motor as needed.



Figure NN



Figure 00

#### **Removal of Blower Motor**

- 1. Disconnect power.
- 2. Drain tank. (see page 12)
- 3. Remove rear access panel.
- 4. Disconnect black hose from fan.
- 5. Disconnect hose from inlet valve if needed.
- 6. Remove two screws from side.
- 7. Remove fan. (Figure PP)
- 8. Disconnect wires.
- 9. Replace motor as needed.

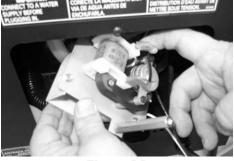


Figure PP

#### **Removal of Controller**

- 1. Disconnect power.
- 2. Remove front access panels.
- 3. Carefully remove connectors from controller. (Do not pull on wires.)
- Carefully press black clips back and pull out controller. (Do not pull on controller components pull only on green board.)
- Carefully remove controller. (Figure QQ)
   (Handle controller only on edges of green board.)
- 6. Replace controller as needed.

# Ballast p/n 61196 P/n 61481 P/n 61131 Controller

#### Removal of Heater Relay

- 1. Disconnect power.
- 2. Remove front access panels.
- 3. Remove wires from relay. (Note locations of wires before removing.)
- 4. Remove screws and lift out relay. (Figure QQ)
- 5. Replace relay as needed.

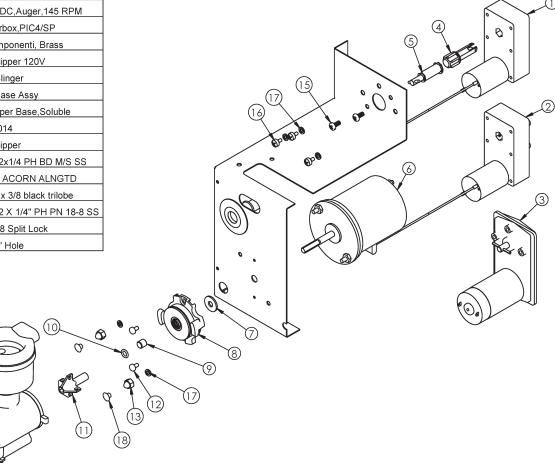
Figure QQ

#### **Removal of Transformer**

- 1. Disconnect power.
- 2. Remove front access panels.
- 3. Remove wires from transformer. (Note locations of wires before removing.)
- 4. Remove screws and lift out transformer. (Figure QQ)
- 5. Replace transformer as needed.

ITEM	PART NO.	DESCRIPTION
1	65063	Motor, 24VDC,30 RPM,Sol
2	100088	Motor,24VDC,145RPM,PIC4/SP
3	61618	Motor,24VDC,Auger,145 RPM
4	100089	Shaft,Gearbox,PIC4/SP
5	65047	Shaft, Componenti, Brass
6	61116-01-1	Motor, Whipper 120V
7	61334	Washer, Slinger
8	61523	Whipper Base Assy
9	63072	Plug,Whipper Base,Soluble
10	60741	O-Ring,2-014
11	61458	Blade, Whipper
12	07023-04	Screw,6-32x1/4 PH BD M/S SS
13	61339	NUT, 8-32 ACORN ALNGTD
15	61303	Screw, #8 x 3/8 black trilobe
16	61353	Screw,8-32 X 1/4" PH PN 18-8 SS
17	61250	Washer, #8 Split Lock
18	61264	Plug, 3/16" Hole

#### **Conversion Procedure for PIC** Soluble Coffee to Cappuccino and Vice-Versa



#63081, PIC2, 3, 5, 6 Conversion Procedure from Soluble Coffee to Cappuccino:

- 1. Remove Whipper Base #8, Base Plug #9 & Hole Plugs #18.
- 2. Install new Whipper Motor #6 with Acorn Nuts #13 and Lock Washers #17.
- 3. Install new Slinger Washer #7, Whipper Base #8, O-Ring #10, and Whipper Blade #11.
- 4. Remove Auger Motor #1.
  5. Install New Auger Motor #3 (145rpm) and fasten with new Screws #16 and Lock Washers #17.
- 6. Make sure all wires are connected and secured.

#63083, PIC4 Conversion Procedure from Soluble Coffee to Cappuccino:

- 1. Remove Whipper Base #8, Base Plug #10 & Hole Plugs #18
- 2. Install new Whipper Motor #6 with Acorn
- Nuts #13 and Lock Washers #17.

  3. Install new Slinger Washer #7, Whipper Base #8, O-Ring #10, and Whipper Blade #11.
  4. Remove Auger Motor #1 (30rpm).
  5. Install New Auger Motor #2 (145rpm) with
- plastic Shaft #4 and fasten with 2 Screws #15.
- 6. Make sure all wires are connected and secured.

#63082, PIC2, 3, 5, 6 Conversion Procedure from Cappuccino to Soluble Coffee:

- 1. Remove and discard Whipper Motor #6, Whipper Base #8, Slinger Washer #7, O-Ring #10, and Whipper Blade #11.
- 2. Install new Hole Plugs #18 into whipper motor mounting holes.
- 3. Install new Whipper Base #8 with new Plug #9.
- 4. Remove Auger Motor #3.
- 5. Install New Auger Motor #1 (30rpm) with metal Shaft #5 and fasten with new Screws #15.
- 6. Make sure all wires are connected and secured... cap motor wire connector with electrical tape.

#63084, PIC4 Conversion Procedure from Cappuccino to Soluble Coffee:

- 1. Remove and discard Whipper Motor #6, Whipper Base #8, Slinger Washer #7, O-Ring #10, and Whipper Blade #11.
- 2. Install new Hole Plugs #18 into whipper motor mounting holes.
- 3. Install new Whipper Base #8 with new Plug #9. 4. Remove Auger Motor #2 (145rpm).
- 5. Install New Auger Motor #1 (30rpm) with plastic Shaft #4 and fasten with 2 Screws #15.
- 6. Make sure all wires are connected and secured... cap motor wire connector with electrical tape.

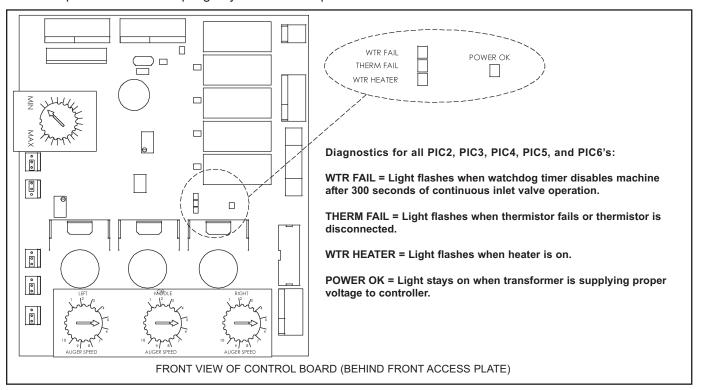
# **Troubleshooting Guide**

Only a qualified service technician should perform Electrical and mechanical adjustments or repairs. Always disconnect power before attempting any maintenance procedures.

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION		
No powder dispensed into mixing funnel	Rinse switch turned to "RINSE ON" position Powder hopper dispense outlet clogged No or low powder level in hopper Hopper drivelink not engaged with motor  Hopper elbow is not directed into the mixing funnel	<ul> <li>Flip rinse switch to "RINSE OFF" position</li> <li>Refer to Cleaning of Hoppers section</li> <li>Refill hopper</li> <li>Remove and reinstall hopper and ensure engagement with motor</li> <li>Turn down dispense elbow; line it up with mixing funnel</li> </ul>		
Machine will not dispense any product (water or powder)	<ul> <li>Power turned "OFF" to machine</li> <li>Dispense cycle watchdog timer has tripped</li> <li>Faulty transformer</li> <li>Faulty control board</li> </ul>	Ensure power switch is in "ON" position, machine is plugged in and water is turned on     Reset machine by flipping power switch "OFF" then "ON" once (the maximum run time per head is limited to 40 seconds before watchdog timer disables the dispense heads)     Contact factory for assistance     Contact factory for assistance		
Product not whipping	Whipper blade broken or missing	Verify blade is in place. Replace if broken or missing		
Water overflows mixing funnel	Water flow too fast     Whipper chamber outlet restricted     Whipper blade broken or missing	Contact factory for assistance     Dump valves to be adjusted     Remove obstruction     Verify blade is in place. Replace if broken or missing		
Drink is too weak or strong		Refer to Drink Strength Adjustment section (page 6)		
Drink is too hot or cold		Refer to Thermostat Adjustment section (page 6)		
No hot water from dispense head	Check for flashing lights on controller Water level in tank is below water probe  Thermostat not adjusted Faulty heater relay Dump tube from water tank is kinked Water shorting out probe connections	<ul> <li>Refer to Controller Diagnostics section (page 20)</li> <li>Ensure that water supply to machine is "ON" and reset power to machine</li> <li>See Thermostat Adjustment section (page 6)</li> <li>Replace heater relay (page 18)</li> <li>Check tubing for obstructions</li> <li>Dry connections on tank</li> </ul>		
Water tank boils water	Check for flashing lights on controller Thermostat adjustment set too high Faulty heater relay	Refer to Controller Diagnostics section (page 20)     Refer to Thermostat Adjustment section (page 6)     Replace heater relay (page 18)		
No water dispensed from dispense nozzle	Water supply to machine turned "OFF"     Check for flashing lights on controller     Faulty dump valve	Turn "ON" water supply to machine Refer to Controller Diagnostics section (page 20) Replace dump valve (page 14)		
Water overflows from water tank	Leaky inlet water valve Faulty level probe connection Faulty level probe due to mineral build-up Inlet water pressure too high (greater than 120 psi)	Replace inlet water valve     Check level probe connections     Replace probe     Install pressure regulator to water inlet		
Machine inadvertently dispenses from dispense heads	Wet wiring connections on harness or controller	Allow connections to dry		
Drink is cold and ready light is on	Check for flashing lights on controller	Refer to Controller Diagnostics section (page 20)		

#### **Troubleshooting Guide (cont.)**

Only a qualified service technician should perform Electrical and mechanical adjustments or repairs. Always disconnect power before attempting any maintenance procedures.



#### If WTR FAIL light is flashing:

Ensure water supply to machine is turned "on".

Reset machine power "off" then "on".

#### If THERM FAIL light is flashing:

Reset machine power "OFF" then "ON". If green ready light does not turn off after 10 seconds then:

Check thermistor connections.

If connected properly, replace faulty thermistor. (Mineral build-up may be the cause.)

#### WTR HEATER light will flash on and off when the water tank is being heated:

Note: When green "ready" light on front of machine is "Off" WATER HEATER light should flash.

If light works properly and machine is not heating, replace faulty heater. (Mineral build-up may be the cause.)

#### If POWER OK light is off:

Make sure power switch is on and machine is plugged in.

If switch is on, and light is off, call factory for assistance.

**Note:** PIC 4/5/6 - If water gets cut off to machine for 5 minutes during operation, tank water will not replenish, heater circuit will be disabled, and heads #1-3 will be disabled. Other heads will still operate. Left controller will read "WATER FAIL". What could happen is that other heads will dispense low or no water (possibly cold) and full amounts of powder.

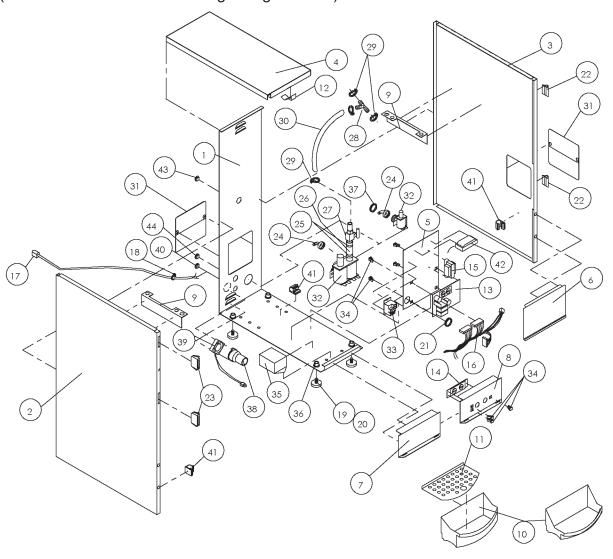
**Note:** PIC 4/5/6 - "Thermistor Fail" - When the thermistor reads out of range or is disconnected, the machine shuts down the dispensing and heating. Only heads #1-3 are disabled, other heads can still operate. This can cause cold drinks to be dispensed out of the right head(s).

If you still need help, call our service department at (800) 695-4500 (USA and Canada only) or (502) 425-4776 (Monday through Friday, 8 am - 6 pm EST) or an authorized service center in your area. Please have the model and serial numbers ready so that accurate information may be given.

Prior authorization must be obtained from Grindmaster Corporation's Technical Services Department for all warranty claims.

# **PIC 1 Chassis Parts**

(units with serial numbers beginning with "L")



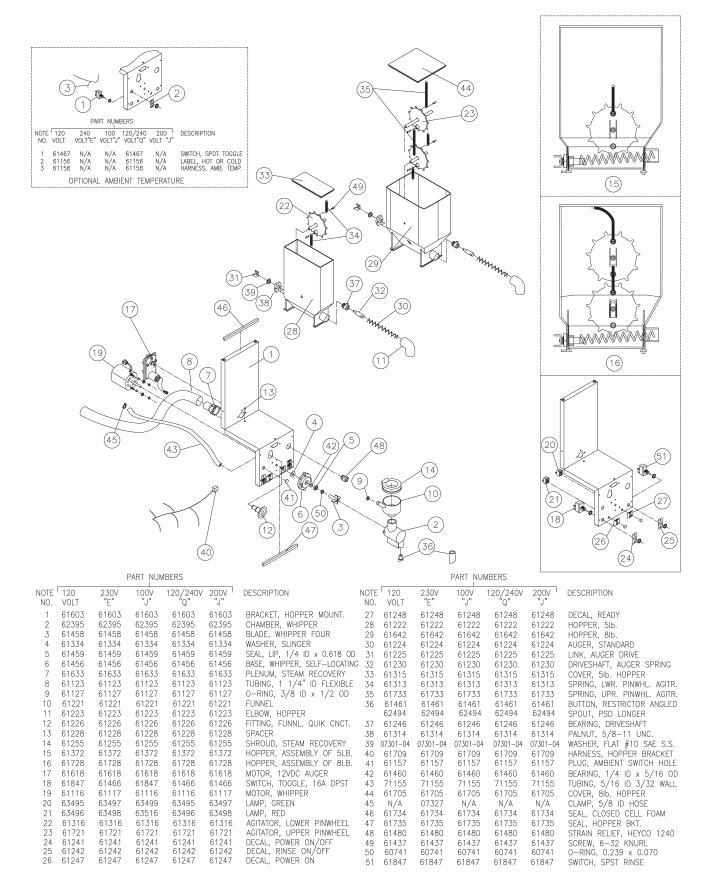
			PART NUMBE	RS			PART NUMBERS						
NOTE NO.	120 VOLT	230V "E"	100V "J"	240V "Q"	200V "J"	DESCRIPTION	NOTE NO.	120 VOLT	230V "E"	100V "J"	240V "Q"	200V "J"	1 DESCRIPTION
1	61601	61601	61601	61601	61601	BOTTOM/BACK, POWDER COATED	21	60394	60394	60394	60394	60394	BUSHING, 7/8 O.D. x3/4 LD.
2	61624	61624	61624	61624	61624	PANEL, LEFT SIDE, POWDER COATED	22	61400	61400	61400	61400	61400	HINGE, BLACK STAINLESS 4-LEAF
3	61625	61625	61625	61625	61625	PANEL, RIGHT SIDE, POWDER COATED	23	61235	61235	61235	61235	61235	CATCH, MAGNETIC SNAP-IN
4	61607	61607	61607	61607	61607	COVER, TOP, POWDER COATED	24	61237	61237	61237	61237	61237	FITTING, HOSE TO 1/4 FLARE
5	61610	61610	61610	61610	61610	BRACKET, CONTROL MOUNTING	25	60550	N/A	N/A	60550	N/A	CLAMP, 11/16 STEPLESS EAR (*)
6	61604	61604	61604	61604	61604	PANEL, UPPER SPLASH	26	61153	N/A	N/A	61153	N/A	TUBING, INNER BRAIDED, PVC (*)
7	61613	N/A	N/A	61613	N/A	PANEL, LWR. SPLASH, STANDARD	27	61150	N/A	N/A	61150	N/A	VALVE, AMBIENT FLOW CTRL. (*)
8	N/A	61704	61704	N/A	61704	PANEL, LWR. SPLASH, REMOTE	28	61152	N/A	N/A	61152	N/A	TEE, 7/16 x 7/16 x 7/16 (*)
9	61602	61602	61602	61602	61602	BRACKET, TANK MOUNTING	29	07327	N/A	N/A	07327	N/A	CLAMP, 5/8 I.D. HOSE (*)
10	61706	61706	61706	61706	61706	TRAY, DRAIN, PLASTIC	30	71155	N/A	N/A	71155	N/A	TUBING, 5/16 LD. SILICONE (*)
	62335	62335	62335	62335	62335	TRAY, DRAIN PLASTIC LOW	31	61438	61438	61438	61438	61438	PANEL, PLENUM ACCESS
11	61617	61617	61617	61617	61617	GRID, DRAIN, PLASTIC	32	<b>63493</b> 71650	61105 71650	<b>63493</b> 71650	<b>63493</b> 71650	61105 71650	VALVE, INLET 1.2 GPM REBUILD KIT, INLET VALVE
12	61217	61217	61217	61217	61217	SPRING, HOPPER RETAINING							
13	61632	(61632)	(61632)	61632	(61632)	CONTROLLER, PIC1 (MANUAL) (OPT. OVERSEAS)		61149	N/A	N/A	61149	N/A	VALVE, INLET W/DUAL OUT. (*)
	N/A	61737	61737	N/A	61737	CONTROLLER, PIC1 (AUTO/ANALOG)	33	61131	61131	61131	61131	61131	RELAY, HEATER
	(61739)	N/A	N/A	(61739)	N/A	CONTROLLER, PIC1 (AUTO/DIGITAL; OPT.)	34	61266	61266	61266	61266	61266	STANDOFF, PCB MOUNT
14	N/A	61643	61643	N/A	61643	CTRL. BOARD, REMOTE (ANALOG OPT.)	35	N/A	61170	N/A	N/A	N/A	FILTER, EMI, 230V
15	61481	61470	61482	61481	61482	TRANSFORMER, CONTROL BOARD	36	60380	60380	60380	60380	60380	RIVNUT, 3/8-16
16	61708	61712	61708	61708	61708	HARNESS, CONTROL BOARD	37	N/A	61514	N/A	N/A	N/A	O-RING, 0.906 I.D. x .210
17	61530	61453	02880	60200	61736	POWER CORD	38	61633	61633	61633	61633	61633	PLENUM/FAN MOUNT
18	61479	86071	86071	N/A	86071	STRAIN RELIEF, HEYCO	39	61635	61635	61635	61635	61635	FAN, 24VDC, 40mm
	N/A	N/A	N/A	07920	N/A	STRAIN RELIEF, METAL ROMEX	40	71138	N/A	N/A	71138	N/A	PLUG, STR. RELIEF, 5/8"
19	61344	61344	61344	61344	61344	PAD, LEVELLER FOOT	41	71160	71160	71160	71160	71160	CLIP, HOSE W/ADHESIVE
20	61343	61343	61343	61343	61343	BOLT, LEVELLER FOOT	42	61196	61468	61166	61196	61169	BALLAST (LIT MERCH, OPTION)
							43	61743	61743	61743	61743	61743	PLUG, HOLE, 3/4" HEYCO
							44	N/A	61751	61751	61751	61751	PLUG, STR. RELIEF, 3/4"

(\*) = USED W. AMBIENT TEMP. OPTION

Page 22

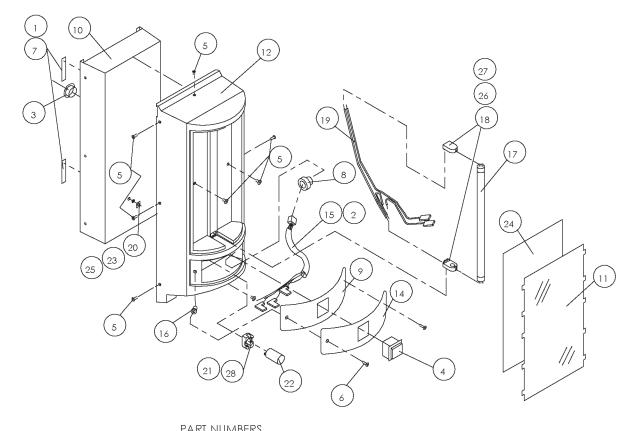
# **PIC 1 Hopper Bracket**

(units with serial numbers beginning with "L")



# **PIC 1 Door Assembly**

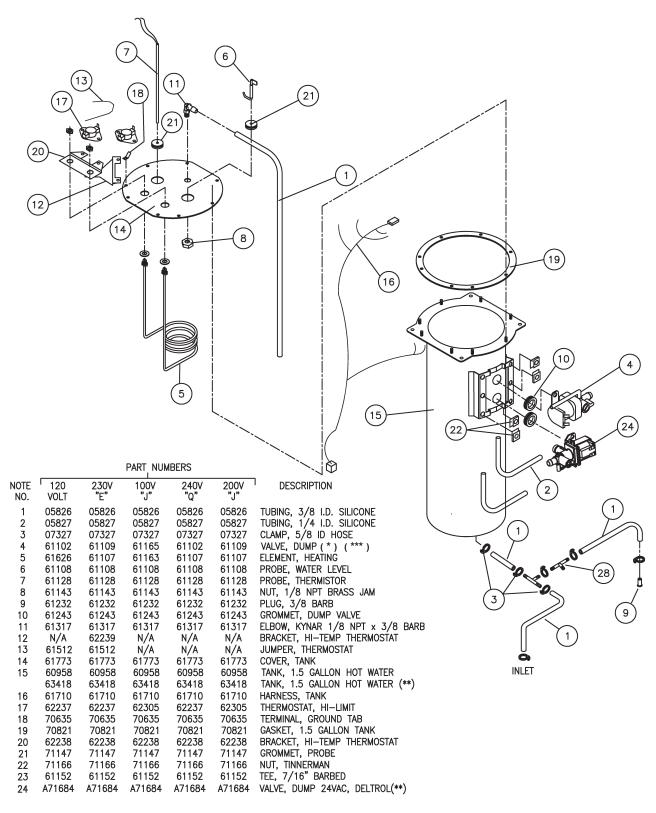
(units with serial numbers beginning with "L")



		PA				
NOTE	120	240	100	120/240	200	<sup>7</sup> description
NO.	VOLT	VOLT "E"	VOLT "J"	VOLT "Q"	VOLT "J"	
1	07348-01	07348-01	07348-01	07348-01	07348-01	RIVET, POP
2	60080	60080	60080	60080	60080	CLAMP, 5/8 NYLON
3	60394	60394	60394	60394	60394	BUSHING, SNAP, 7/8"
4	61725	61725	61725	61725	61725	SWITCH, BREW DISPENSE
5	61303	61303	61303	61303	61303	SCREW, #8 x 3/8 TAPTITE
6	61304	61304	61304	61304	61304	SCREW, 6-32 x 1/2
7	61424	61424	61424	61424	61424	PLATE, STRIKER
8	61479	61479	61479	61479	61479	STRAIN RELIEF 3/4"
9	61609	61609	61609	61609	61609	PANEL, DISPENSE SWITCH
10	61616	61616	61616	61616	61616	BRACKET, MERCH. REINF.
11	61619	61619	61619	61619	61619	COVER, GRAPHICS
12	61622	61622	61622	61622	61622	MERCHANDISER, PLASTIC
14	61707	61745	61745	61707	61745	DECAL, SWITCHPANEL
15	61711	61711	61711	61711	61711	HARNESS, DOOR INTERCONNECT
16	60381	60381	60381	60381	60381	RIVNUT, 6-32 AVK
17	61118	61118	61118	61118	61118	LAMP, FLUORESCENT
18	61513	61513	61513	61513	61513	SOCKET, FLUOR., MINI BI-PIN
19	61136	61136	61136	61136	61136	HARNESS, LAMP
20	61187	61187	61187	61187	61187	WASHER, #8 LOCK
21	62522	62522	62522	62522	62522	SCREW, 4-36 x 3/8
22	61194	61194	61194	61194	61194	STARTER
23	61272	61272	61272	61272	61272	SCREW, #8 x 3/8 GREEN
24	61777	61777	61777	61777	61777	GRAPHIC, BACK-LIT, MERCH.
25	70635	70635	70635	70635	70635	TERMINAL, 1/4 MTAB
26	07023-04	07023-04	07023-04	07023-04	07023-04	SCREW, 6-32 x 1/4
27	07206-06	07206-06	07206-06	07206-06	07206-06	NUT, 6-32
28	62521	62521	62521	62521	62521	BASE, STARTER

# **PIC 1 Tank Assembly**

(units with serial numbers beginning with "L" or "T")



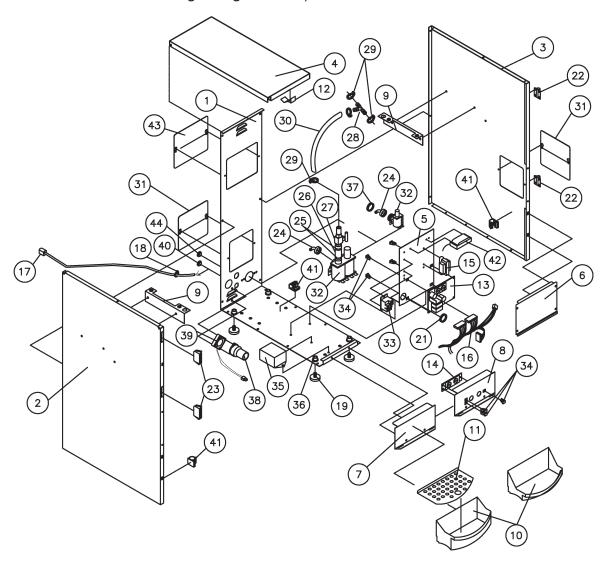
<sup>(\*) = 71610</sup> REPAIR KIT FOR DUMP VALVE

<sup>(\*\*) =</sup> USED WITH PIC1KW MODELS ONLY

<sup>(\*\*\*) = 61365</sup> DUMP VALVE O-RING

# **PIC 1 Chassis Parts**

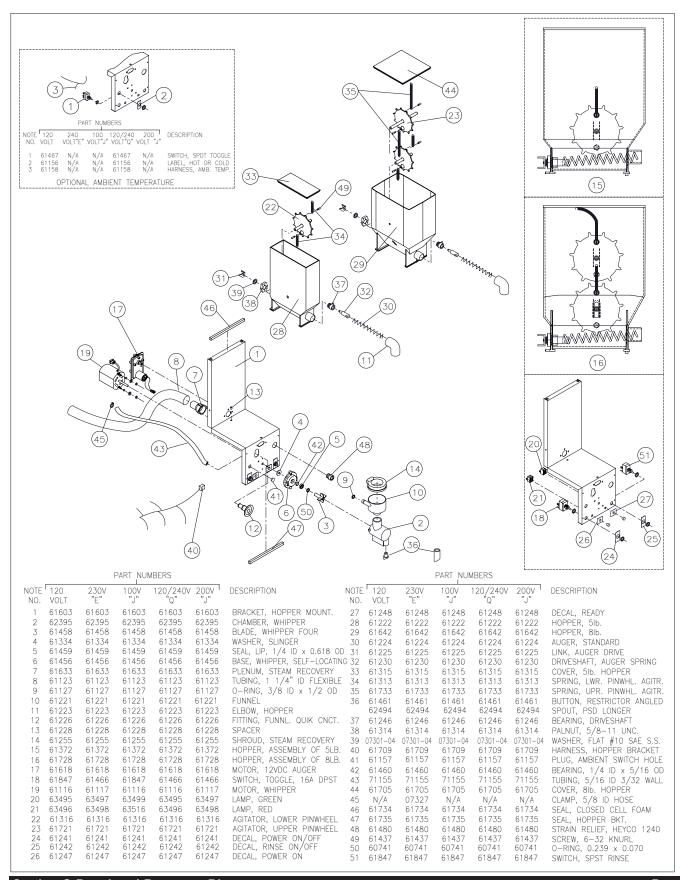
(units with serial numbers beginning with "T")



			PART NU	MBERS						PART NU	IMBERS		
NOTE NO.	120 VOLT	230V "E"	100V	240V "Q"	200V l	DESCRIPTION	NOTE NO.	120 VOLT	230V "E"	100V	240V "Q"	200V	DESCRIPTION
1		60946 60946L	60946 60946L	60946 60946L	60946 60946L	BOTTOM/BACK, POWDER COATED BOTTOM/BACK, POWDER COATED, BLUE(*)	21 22	60394 61792	60394 61792	60394 61792	60394 61792	60394 61792	BUSHING, 7/8 O.D. x 3/4 I.D. HINGE, BLACK STAINLESS 2-LEAF
2	60954 60954L	60954 60954L	60954 60954L	60954 60954L	60954 60954L	PANEL, LEFT SIDE, POWDER COATED PANEL, LEFT SIDE, POWDER COATED, BLUE(*)	23	61792L 61235	61792L 61235	61792L 61235	61792L 61235	61792L 61235	HINGE, BLACK STAINLESS 2-LEAF, BLUE (*) CATCH, MAGNETIC SNAP-IN
3	60955	60955 60955L	60955 60955L	60955 60955L	60955 60955L	PANEL, RIGHT SIDE, POWDER COATED PANEL, RIGHT SIDE, POWDER COATED, BLUE(*)	24	61237	61237	61237	61237	61237	FITTING, HOSE TO 1/4 FLARE
4	61607	61607	61607	61607	61607	COVER, TOP, POWDER COATED	25 26	60550 61153	60550 61153	N/A N/A	60550 61153	N/A N/A	CLAMP, 11/16 STEPLESS EAR (*) TUBING, INNER BRAIDED, PVC (*)
_	61607L	61607L	61607L	61607L	61607L	COVER, TOP, POWDER COATED, BLUE(*)	27	61150	61150	N/A	61150	N/A	VALVE, AMBIENT FLOW CTRL. (*)
6	61610 6160 <del>4</del>	BRACKET, CONTROL MOUNTING PANEL, UPPER SPLASH	28 29	61152 07327	61152 N/A	N/A N/A	61152 07327	N/A N/A	TEE, 7/16 x 7/16 x 7/16 (*) CLAMP, 5/8 I.D. HOSE (*)				
_	61604L		61604L	61604L	61604L	PANEL, UPPER SPLASH, BLUE(*)	30 31	71155 61438	N/A 61438	N/A 61438	71155 61438	N/A 61438	TUBING, 5/16 I.D. SILICONE (*) PANEL, PLENUM ACCESS
/	61613 61613L	N/A 61613L	N/A 61613L	61613 61613L	N/A 61613L	PANEL, LWR. SPLASH, STANDARD PANEL, LWR. SPLASH, STANDARD, BLUE(*)	31	61438L	61438L	61438L	61438L	61438L	PANEL, PLENUM ACCESS, BLUE (*)
8	N/A	61704	61704	N/A	61704	PANEL, LWR. SPLASH, REMOTE	32	63493 <b>61149</b>	61105 61631	63493 N/A	63493 <b>61149</b>	61105 N/A	VALVE, INLET VALVE, INLET W/DUAL OUT. (*)
9 10	60947 61706	60947 61706	60947 61706	60947 61706	60947 61706	BRACKET, TANK MOUNTING TRAY, DRAIN, PLASTIC	33	61131	61131	61131	61131	61131	RELAY, HEATER
		61706L	61706L	61706L	61706L	TRAY, DRAIN, PLASTIC, BLUE(*)	34 35	61266 N/A	61266 61170	61266 N/A	61266 N/A	61266 N/A	STANDOFF, PCB MOUNT FILTER, EMI, 230V
11	62335 61617	62335 61617	62335 61617	62335 61617	62335 61617	TRAY, DRAIN PLASTIC LOW GRID, DRAIN, PLASTIC	36	60380L	60380L	60380L	60380L	60380L	RIVNUT, 3/8-16
40	61617L 61217	61617L 61217	61617L 61217	61617L 61217	61617L 61217	GRID, DRAIN, PLASTIC, BLUE(*) SPRING, HOPPER RETAINING	37 38	N/A 61633	61514 61633	N/A 61633	N/A 61633	N/A 61633	O-RING, 0.906 I.D. x .210 PLENUM/FAN MOUNT
12 13		(61632)	(61632)	61632	(61632)	CONTROLLER, PICT (MANUAL)(OPT. OVERSEAS)	39 40	61635 71138	61635 N/A	61635 N/A	61635 71138	61635 N/A	FAN, 24VDC, 40mm PLUG, STR. RELIEF, 5/8"
	N/A (61739)	61737 N/A	61737 N/A	N/A (61739)	61737 N/A	CONTROLLER, PIC1 (AUTO/ANALOG) CONTROLLER, PIC1 (AUTO/DIGITAL; OPT.)	41	71160	71160	71160	71160	71160	CLIP, HOSE W/ADHESIVE
14	N/A	61643	61643	`N/A´	61643	CTRL. BOARD, REMOTE (ANALOG OPT.)	42 43	61196 63431	61468 63431	61166 63431	61196 63431	61169 63431	BALLAST (LIT MERCH. OPTION) PANEL ACCESS PIC1KW TOP REAR
15 16	61481 61708	61470 61712	61482 61708	61481 61708	61482 61708	TRANSFORMER, CONTROL BOARD HARNESS, CONTROL BOARD	44	N/A	61751	61751	61751	61751	PLUG, STR. RELIEF, 3/4"
	63193	63193	N/A	N/A	N/A	HARNESS, CONTROL BOARD, AMBIENT(*)							
17	63413 61530	63413 61453	N/A 02880	N/A 60200	N/A 61736	HARNESS, CONTROL BOARD, PIC1K W(**) POWER CORD							
18	61479	86071	86071	N/A	86071	STRAIN RELIEF, HEYCO							- USED WITH CAP1 MODELS ONLY
19	N/A 61343L	N/A 61343L	N/A 61343L	07920 61343L	N/A 61343L	STRAIN RELIEF, METAL ROMEX BOLT, LEVELLER FOOT						(**)	= USED WITH PIC1KW MODELS ONLY

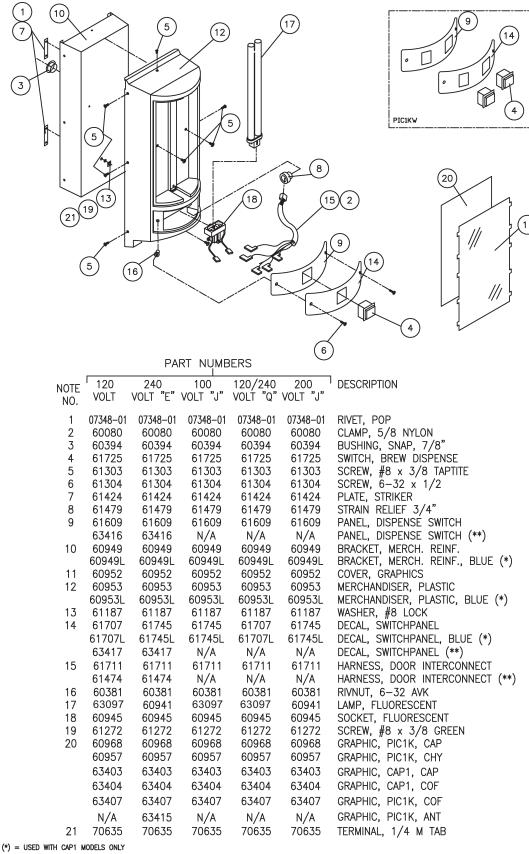
# **PIC 1 Hopper Bracket**

(units with serial numbers beginning with "T")



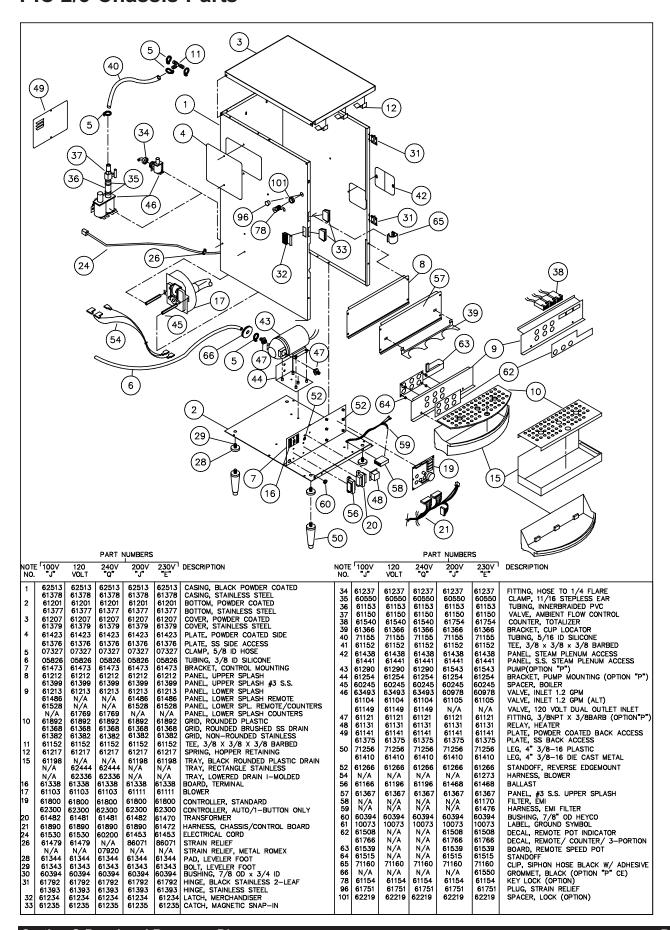
# **PIC 1 Door Assembly**

(units with serial numbers beginning with "T")

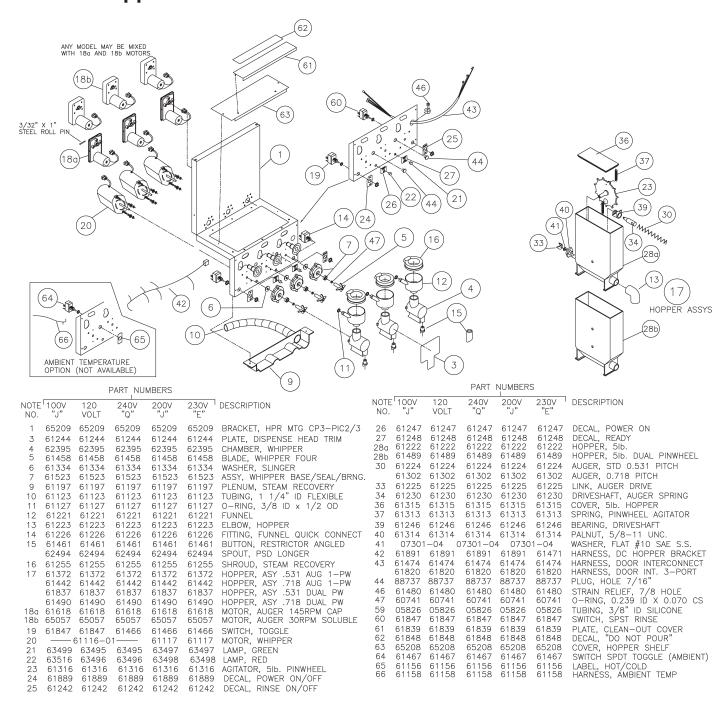


<sup>(\*\*) =</sup> USED WITH PIC1KW MODELS ONLY

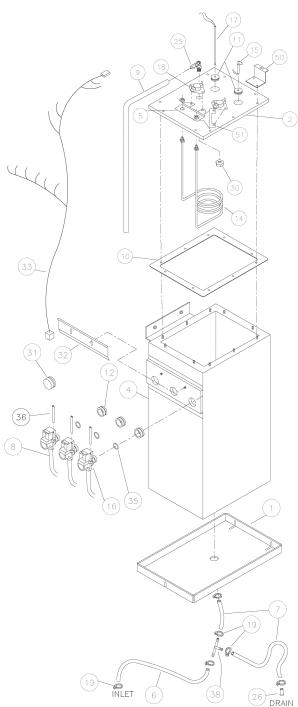
#### PIC 2/3 Chassis Parts



## PIC 2/3 Hopper Bracket



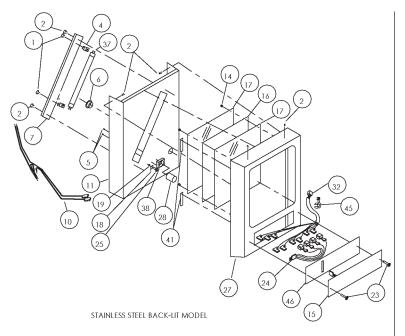
# PIC 2/3 Tank Assembly

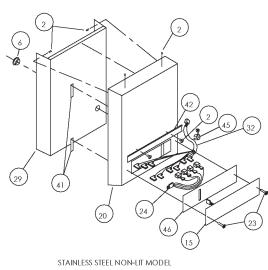


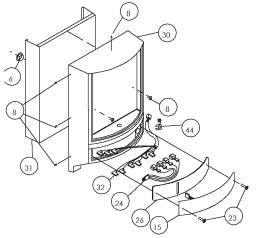
PART NUMBERS

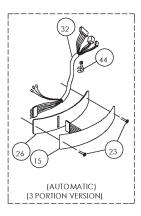
NOTE   100V   120							
1         61845         61845         61845         61845         61845         61842         61842         61842         61842         61842         61842         61842         61842         61842         600VER, TANK           4         61841         61841         61841         61841         61841         61841         7140         7141         7141         71417         71417         71417         71417         71417         71417         71417         71417         71417         71417	NOTE	100V	120	240V	200V	230V	
2         61842         61842         61842         61842         61842         61842         COVER, TANK           4         61841         61841         61841         61841         61841         61841         61841         61841         61841         61841         61841         740K, 3,5 GALLON WELDED           5         62238         62238         62238         62238         62238         62238         BRACKET, HI-TEMP THERMOSTAT           6         05826         05826         05826         05826         05826         TUBING, INLET VALVE           7         05826         05826         05826         05826         05826         05826         TUBING, INLET VALVE           8         71155         71155         71155         71155         71155         TUBING, INLET VALVE           9         05826         05826         05826         05826         TUBING, INLET VALVE           10         61844         61844         61844         61844         61844           11         71147         71147         71147         71147         71147         71147         71147         71147         71147         71147         71147         71147         71147         71147         71147 <td></td> <td>-</td> <td></td> <td></td> <td>_</td> <td></td> <td></td>		-			_		
4         61841         61841         61841         61841         61841         61841         61841         61841         61841         61841         TANK, 3.5 GALLON WELDED           5         62238         62238         62238         62238         62238         BRACKET, HI-TEMP THERMOSTAT           6         05826         05826         05826         05826         05826         05826           7         05826         05826         05826         05826         05826         TUBING, TANK DRAIN           8         71155         71155         71155         71155         TUBING, DUMP VALVE (PIC)           9         05826         05826         05826         05826         05826         UBING, TANK DRAIN           10         61844         61847         61443         61243         61243         61243         61243							· '
5         62238         62238         62238         62238         62238         62238         62238         62238         62238         62238         BRACKET, HI-TEMP THERMOSTAT           6         05826         05826         05826         05826         05826         05826         05826         TUBING, INLET VALVE           7         05826         05826         05826         05826         05826         05826         DTUBING, DUMP VALVE (PIC)           9         05826         05826         05826         05826         05826         05826         DTUBING, DUMP VALVE (PIC)           10         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61846         61848         61243         6124							· ·
6         05826         058							
7         05826         058	5	62238	62238	62238	62238	62238	BRACKET, HI-TEMP THERMOSTAT
8         71155         71155         71155         71155         71155         71155         71155         TUBING, DUMP VALVE (PIC)           9         05826         05826         05826         05826         05826         05826         TUBING, VENT           10         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61847         61847         61847         61843         61243         61243         61243         61243         61243         61243         61243         61243         61243         61243         61243         61243         61243         61107         61107         61107         61107         61107         61107         61108         61108         61108         61108         61108         61109         61109         PROBE, WATER LEVEL           16         61165         63477         63477         61109         61109         VALVE, DUMP         VALVE, DUMP           71610         71610         71610         71610         YALVE, ALTERNATE DUMP VALVE         17         61128         61128         61128         61128         61128         1128         61128         61128<	6	05826	05826	05826	05826	05826	TUBING, INLET VALVE
9         05826         05826         05826         05826         05826         05826         05826         TUBING, VENT           10         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61844         61847         71109         61108         611	7	05826	05826	05826	05826	05826	TUBING, TANK DRAIN
10	8	71155	71155	71155	71155	71155	TUBING, DUMP VALVE (PIC)
11	9	05826	05826	05826	05826	05826	TUBING, VENT
12	10	61844	61844	61844	61844	61844	GASKET, 3.5 GALLON TANK
14	11	71147	71147	71147	71147	71147	GROMMET, PROBE
15	12	61243	61243	61243	61243	61243	GROMMET, DUMP VALVE
16	14	61626	61626	61107	61107	61107	ELEMENT, HEATING
	15	61108	61108	61108	61108	61108	PROBE, WATER LEVEL
71610 63486 63486 71610 71610 KIT REPAIR, DUMP VALVE 71610 71610 KIT REPAIR, DUMP VALVE 17 61128 61128 61128 61128 61128 PROBE, THERMISTOR 18 62305 62305 62305 62305 THERMOSTAT, HI-LMIT 19 07327 07327 07327 07327 07327 07327 01327 25 61317 61317 61317 61317 61317 61317 ELBOW, KYNAR 1/8NPTx3/8BBARB 61417 61417 61417 61417 61417 ELBOW, KYNAR 1/8NPTx3/8BBARB 26 61232 61232 61232 61232 61232 PLUG, 3/8 BARB 30 61143 61143 61143 61143 61143 NUT, 1/8 NPT BRASS JAM 31 61229 61229 61229 61229 61229 GROMMET, PLUG 32 61137 61137 61137 61137 61137 CLIP, VALVE RETAINING 33 61890 61890 61890 61890 61268 HARNESS, TANK PIC, PSD 35 61365 61365 61365 61365 61365 0	16	61165	63477	63477	61109	61109	VALVE, DUMP
			61102	61102			VALVE, ALTERNATE DUMP
17         61128         61128         61128         61128         61128         61128         PROBE, THERMISTOR           18         62305         62305         62305         62305         62305         THERMOSTAT, HI-LIMIT           19         07327         07427         07427         ELBOW, KYNAR 1/8NPTX3/8BBARB         04187         04147         61417         61417         61417         61417         61417		71610	63486	63486	71610	71610	KIT REPAIR, DUMP VALVE
18         62305         62305         62305         62305         62305         62305         THERMOSTAT, HI-LIMIT           19         07327         07327         07327         07327         07327         07327         DLAMP, 5/8 ID HOSE           25         61317         61317         61317         61317         61317         61317         61317         61317         61317         61317         61417         61417         61417         61417         61417         61417         61417         61417         61417         61417         81417			71610	71610			KIT REPAIR, ALTERNATE DUMP VALVE
19	17	61128	61128	61128	61128	61128	PROBE, THERMISTOR
25         61317         61317         61317         61317         61317         61317         61317         61317         61317         61317         61317         61317         61417         61417         61417         61417         61417         61417         61417         61417         61417         61417         61417         61417         61422         61232         61232         61232         61232         61232         61232         61232         61232         61232         61232         61232         61232         61233         61143         61143         61143         61143         61143         61143         61143         61144         61143         61127         61229         61229         61229         61229         61229         61229         G1229         61229         61229         G1229         61229         61230         61307         61137         61137         61137         61137         61137         61137         61137         61137         61137         61137         61268         HARNESS, TANK PIC, PSD           35         61365         61365         61365         61365         61365         61365         05872         05872         05872         05872         05872         05872	18	62305	62305	62305	62305	62305	THERMOSTAT, HI-LIMIT
61417 61417 61417 61417 61417 61417 ELBOW, KYNAR 1/8NPTx3/8BBARB 26 61232 61232 61232 61232 61232 PLUG, 3/8 BARB 30 61143 61143 61143 61143 61143 NUT, 1/8 NPT BRASS JAM 31 61229 61229 61229 61229 61229 GROMMET, PLUG 32 61137 61137 61137 61137 61137 61137 CLIP, VALVE RETAINING 33 61890 61890 61890 61890 61268 HARNESS, TANK PIC, PSD 35 61365 61365 61365 61365 61365 ORING, DUMP VALVE 36 6152 05872 05872 05872 05872 TUBING, 1/4" SILICONE 37 61306 62306 62306 62306 62306 62306 BRACKET, TANK PIC2/3	19	07327	07327	07327	07327	07327	CLAMP, 5/8 ID HOSE
26         61232         61232         61232         61232         61232         PLUG, 3/8 BARB           30         61143         61143         61143         61143         NIT, 1/8 NPT BRASS JAM           31         61229         61229         61229         61229         GROMMET, PLUG           32         61137         61137         61137         61137         61137         CLIP, VALVE RETAINING           33         61890         61890         61890         61268         HARNESS, TANK PIC, PSD           35         61365         61365         61365         61365         61365         ORING, DUMP VALVE           36         05872         05872         05872         05872         05872         USBNZ           38         61152         61152         61152         61152         61152         TEE, 7/16" BARBED           50         62306         62306         62306         62306         62306         62306         BRACKET, TANK PIC2/3	25	61317	61317	61317	61317	61317	ELBOW, KYNAR 1/8NPTx3/8BBARB
30         61143         61143         61143         61143         61143         NUT, 1/8 NPT BRASS JAM           31         61229         61229         61229         61229         GROMMET, PLUG           32         61137         61137         61137         61137         CLIP, VALVE RETAINING           33         61890         61890         61890         61890         61890         FRANKER           35         61365         61365         61365         61365         ORAGE         ORAGE           36         05872         05872         05872         05872         ORAGE         TUBING, 1/4" SILICONE           38         61152         61152         61152         61152         61152         TEE, 7/16" BARBED           50         62306         62306         62306         62306         62306         62306         62306		61417	61417	61417	61417	61417	ELBOW, KYNAR 1/8NPTx3/8BBARB
31         61229         61229         61229         61229         61229         GROMMET, PLUG           32         61137         61137         61137         61137         CLIP, VALVE RETAINING           33         61890         61890         61890         61890         61890         HARNESS, TANK PIC, PSD           35         61365         61365         61365         61365         61365         OFRING, DUMP VALVE           36         05872         05872         05872         05872         TUBING, 1/4" SILICONE           38         61152         61152         61152         61152         61152         TEE, 7/16" BARBED           50         62306         62306         62306         62306         62306         BRACKET, TANK PIC2/3	26	61232	61232	61232	61232	61232	PLUG, 3/8 BARB
32         61137         61137         61137         61137         61137         CLIP, VALVE RETAINING           33         61890         61890         61890         61890         61890         HARNESS, TANK PIC, PSD           35         61365         61365         61365         61365         61365         O-RING, DUMP VALVE           36         05872         05872         05872         05872         TUBING, 1/4" SILICONE           38         61152         61152         61152         61152         61152         FTE, 7/16" BARBED           50         62306         62306         62306         62306         62306         62306         62306	30	61143	61143	61143	61143	61143	NUT, 1/8 NPT BRASS JAM
33         61890         61890         61890         61890         61268         HARNESS, TANK PIC, PSD           35         61365         61365         61365         61365         61365         O-RING, DUMP VALVE           36         05872         05872         05872         05872         05872         INTERPRITED TO THE PROPRIED TO T	31	61229	61229	61229	61229	61229	GROMMET, PLUG
35         61365         61365         61365         61365         61365         0 O-RING, DUMP V A LV E           36         05872         05872         05872         05872         05872         TUBING, 1/4" SILICONE           38         61152         61152         61152         61152         61152         TEE, 7/16" BARBED           50         62306         62306         62306         62306         62306         BRACKET, TANK PIC2/3	32	61137	61137	61137	61137	61137	CLIP, VALVE RETAINING
36         05872         05872         05872         05872         05872         TUBING, 1/4" SILICONE           38         61152         61152         61152         61152         61152         TEE, 7/16" BARBED           50         62306         62306         62306         62306         62306         BRACKET, TANK PIC2/3	33	61890	61890	61890	61890	61268	HARNESS, TANK PIC, PSD
38 61152 61152 61152 61152 61152 TEE, 7/16" BARBED 50 62306 62306 62306 62306 62306 BRACKET, TANK PIC2/3	35	61365	61365	61365	61365	61365	O-RING, DUMP VALVE
50 62306 62306 62306 62306 62306 BRACKET, TANK PIC2/3	36	05872	05872	05872	05872	05872	TUBING, 1/4" SILICONE
	38	61152	61152	61152	61152	61152	TEE, 7/16" BARBED
51 62239 BRACKET, HI-TEMP T-STAT CE	50	62306	62306	62306	62306	62306	BRACKET, TANK PIC2/3
	51					62239	BRACKET, HI-TEMP T-STAT CE

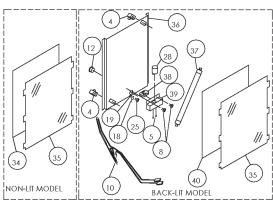
# PIC 2/3 Door Assembly







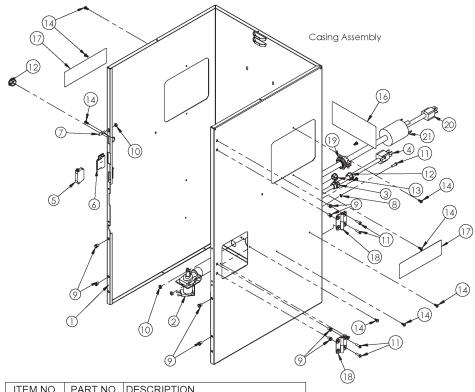




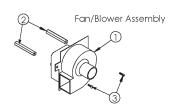
BLACK ROUNDED MERCHANDISER MODELS

	PART NUMBERS					P	ART NUMBERS		
	100V "J"	<u> </u>	200V "J"			100V "J"		200V "J"	
NOTE NO.	120	240V "Q"	230V "E"	DESCRIPTION	NOTE NO.	120 VOLT	240V "Q"	230V "E"	DESCRIPTION
2 ( 4 5 5 6 7 7 8 8 10 111 12 12 14 15 16 17 18 19 20 23 24	07023-04 07026-07 61513 62522 60394 61358 61303 61136 61266 86086 62301 61840 6302 61826 61784 61359 70635 61186 61384 61384 61384	07023-04 07026-07 61513 62522 60394 61358 61303 61136 61356 61266 86086 62301 61840 62302 61826 61784 61359 70635 61186 61384 61359	07023-04 07026-07 61513 62522 60394 61358 61303 61136 61266 86086 62301 61840 62302 61784 61784 61359 70635 61186 61384 61384 61384 61384 61384 61384 61384 61384 61384 61384 61384 61384 61384	SCREW, 6-32 X 1/4 SCREW, 8-32 X 3/8 HOLDER, MINI BPINI SCREW, 4-40 X 3/8 BUSHING, 7/8 OD X 3/8 ID BRACKET, LAMP HOLDER SCREW, #8 X 3/8 BLACK SS HARNESS, LAMP COVER, SS MERCHANDISER BACK BUSHING NUT, 8-32 NNLON TOUCHPAD, PIC2 MANUAL TOUCHPAD, PIC3 MANUAL TOUCHPAD, PIC3 A PORTION W/O HOT WATER TOUCHPAD, PIC3 3 PORTION W/O HOT WATER GRAPHIC, SS BACKLIT CAPPUCCINO MEDALLION, SS MECHANDISER FRONT TERMINAL LUG WASHER, 84 INITERNAL STAR SKIN, SS NON-BACKLIT MERCHANDISER SCREW, 8-32 X 5/8 BLACK HARNESS, PIG TAIL 1-PAD MANUAL	26 27 28 29 30 31 32 34 35 36 37 38 39 40 41 42 44 44 45	61824 61397 61194 61385 611199 62514 61474 61820 61783 61219 61118 62521 61134 61776 61826 61424 61425 61479 61480 62012	61824 61397 61194 61385 61199 62514 61183 61219 611120 611134 61776 61806 61424 61425 61427 61480 62012	61824 61397 61194 61385 61199 62514 61420 61783 61120 61120 61121 61214 61251 61424 61425 61429 61429 61429 61429 61429 61429	PANEL, SWITCH TOUCH PAD CURVED SKIN, BACK LIT SS MERCHANDISER STAFTER COVER, SS MERCHANDISER BACK DOOR, PLASTIC MERCHANDISER BRACKET, MERCH, REINFORCING HARNESS, MERCHANDISER TO CHASIS HARNESS, DOOR INT, 3-PORTION GRAPHIC, NON-LIT CAPPUCCINO COVER, PLASTIC GRAPHICS BRACKET, LAMP MOUNTING LAMP, F0TS BASE, 4-36 STARTER SHELD, IGNITOR GRAPHIC, BACK-LIT CAPPUCCINO GRAPHIC, BACK-LIT CAPPUCCINO GRAPHIC, BACK-LIT COPFEE PLATE, STRIKER CHANNEL FLAVOR STRIP (OPTIONAL) STRAIN RELIEF, 3/4 HOLE STRAIN RELIEF, 3/4 HOLE PANEL, SWITCH TOUCH PAD FLAT
17 18 19 20 23	61784 61359 70635 61186 61384 61305	61784 61359 70635 61186 61384 61305	61784 61359 70635 61186 61384 61305	Graphic, SS Backlit Cappuccino Medallion, SS Merchandiser front Terminal Lug Washer, #3 internal star Skin, SS Non-Backlit Merchandiser Screw, 8-32 x 5/8 Black	41 42 44 45	61806 61424 61425 61479 61480	61806 61424 61425 61479 61480	61806 61424 61425 61479 61480	GRAPHIC, BACK-LIT COFFEE PLATE, STRIKER CHANNEL, FLAVOR STRIP (OPTIONAL) STRAIN RELIEF, 3/4 HOLE STRAIN RELIEF, 7/8 HOLE

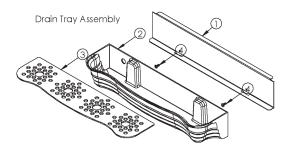
# **PIC 4 Chassis Parts**



ITEM NO.	PART NO.	DESCRIPTION
1	62543	Casing, PIC4
2	63493	Valve, 120 V Inlet 1.2 Gpm
3	61479	STRAIN RELIEF,HEYCO
4	61530	Cord, Power Supply 14-3 SJO
5	61235	Latch, Magnetic Snap-In
6	61234	Latch, Snap-In
7	61270	Enter Title
8	61186	Washer, #8 Int Lock
9	82096	RIVNUT, 8-32 AKS4-832-80
10	71129	NUT, 8-32 KEPS SS
11	61305	Screw, 8-32 x 5/8 black
12	61751	Plug, Hole, .75x.625 DD
13	71138	Plug, Hole, .625x563 DD
14	61303	Screw, #8 x 3/8 black trilobe
15	61341	Decal,1/4 Flr Wtr Connection
16	61319	Decal, Caution
17	61326	Decal, Caution Side PIC
18	61792	HINGE, PWDR COATED SS 2 LEAF
19	07920	Connector, 3/4 Conduit Metal Romex
20	60106	Cord,Power 12-3 SJO 5-20
21	60200	Cord,Power 12-4 SJO L14-20

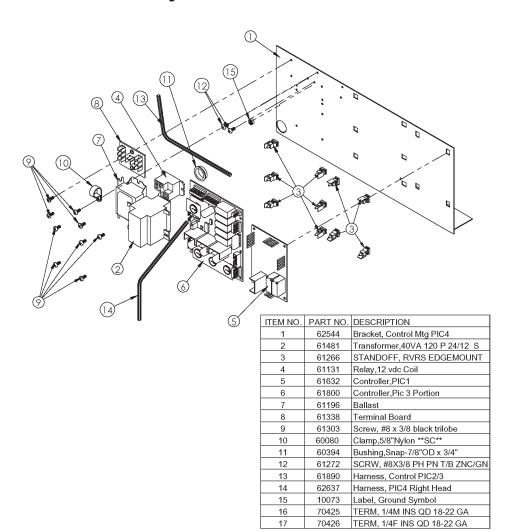


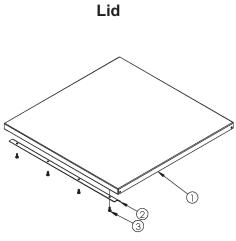
ITE	EM NO.	PART NO.	DESCRIPTION
	1	61103	Fan, Blower 120V
	2	60245	Spacer, Boiler
	3	61304	Screw,6-32 x 1/2 PPH,SS



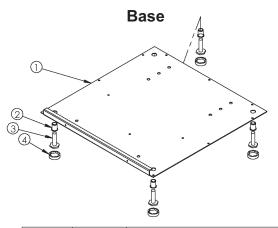
ITEM NO	D. PART NO.	DESCRIPTION
1	62541	Panel, Lower Splash PIC4
2	62662	Tray, Drain PIC4 (ref 62546)
3	62545	Grid, Drain PIC4
4	61303	Screw, #8 x 3/8 black trilobe

# **PIC 4 Control Bracket Assembly**



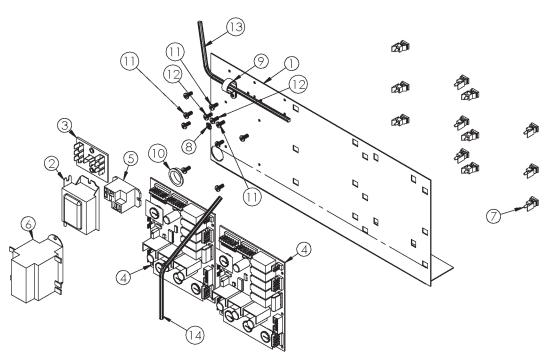


ITEM NO.	PART NO.	DESCRIPTION
1	62536	Panel, Lid PIC4
2	62704	Brace, Hopper Support PIC4
3	61303	Screw, #8 x 3/8 black trilobe



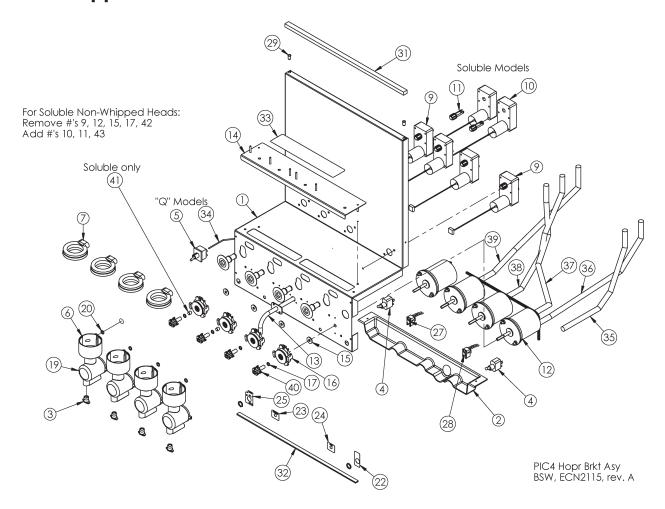
ITEM NO.	PART NO.	DESCRIPTION
1	62537	Panel, Base PIC4
2	60380	Rivnut, 3/8 - 16
3	61343	Leveler,Leg 3/8"-16 x 1.500"
4	61344	Pad,Leg 7/8"-1582-SOC-G

# **PIC43A Control Bracket Assembly**



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	62737	Bracket, Control Mtg PIC43
2	1	61196	Ballast
3	1	61338	Terminal Board
4	2	61800	Controller,Pic 3 Portion
5	1	61131	Relay,12 vdc Coil
6	1	61481	Transformer,40VA 120 P 24/12 S
7	12	61266	STANDOFF, RVRS EDGEMOUNT
8	1	10073	Label, Ground Symbol
9	1	60080	Clamp,5/8"Nylon **SC**
10	1	60394	Bushing,Snap-7/8"OD x 3/4"
11	9	61303	Screw, #8 x 3/8 black trilobe
12	2	61272	SCRW, #8X3/8 PH PN T/B ZNC/GN
13	1	61890	Harness, Control PIC2/3
14	1	62738	Harness, PIC43 Right Head

# **PIC 4 Hopper Bracket**

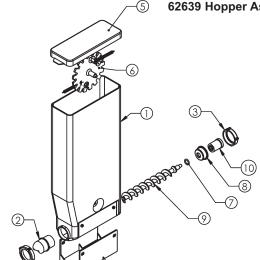


TEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	62533	Bracket, Hopper PIC4	23	61247	Label, Power On Light PIC
2	62754	Plenum, Steam PIC4	24	61248	Label, Ready Light PIC
3	61461	Button, Restrictor	25	61889	Label, PWR ON/OFF PIC
4	61847	Switch,Toggle-Spst	26	61303	Screw, #8 x 3/8 black trilobe
5	61466	Switch,Toggle 16 Amp Dpst	27	63496	Lamp Red w/ Leads
6	61221	Funnel Whipper	28	63495	Lamp Green w/ Leads
7	61255	Shroud	29	60381	Rivnut, 6-32 ALS4-632-80
8	61226	FTG, FUNNEL DISCONNECT	30	61891	Harness, Hopper Brkt PIC2/3/4
9	100090	Gearbox Assy,24VDC,145RPM	31	61159-16-5	Seal, Closed Cell Foam 16.5"
10	65063	Motor, 24VDC,30 RPM,Sol	32	61352-16-5	Seal,Hopper Brkt - 16.5"
11	100089	Shaft,Gearbox,Componenti	33	61848	Decal, Do Not Pour
12	61116-01-1	Motor, Whipper 120V	34	61312	Wire, Jumper
13	61809	Spout, Water LCD/PIC4	35	71155-13-PIC4-R	Tubing, Silicone 5/16x1/2
14	62535	Plate, Cover Clean-Out Assy	36	71155-16-PIC4-W	Tubing, Silicone PIC4 Water
15	61334	Washer, Slinger	37	71155-16-PIC4-3	Tubing, Silicone 5/16x1/2
16	61523	Whipper Base Assy	38	71155-16-PIC4-2	Tubing, Silicone, 5/16x1/2
17	60741	O-Ring,2-014	39	71155-16-PIC4-L	Tubing, Silicone 5/16x1/2
18	07023-04	Screw,6-32x1/4 PH BD M/S SS	40	61458	Blade, Whipper
19	62395	Chamber, Whipper	41	63072	Plug, Whipper Base, Soluble
20	61127	O-RING,.335 ID X .079 CS			·
21	61847-1	Nut, Switch, for 61847			
	5.517	1.10.7, 0.1.1.0.1, 1.0.1 0.10 17			

61242

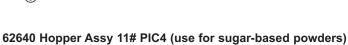
Label, Flush On/Off

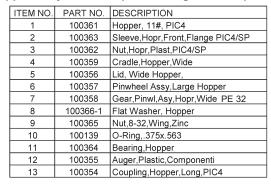
#### **PIC 4 Hopper**

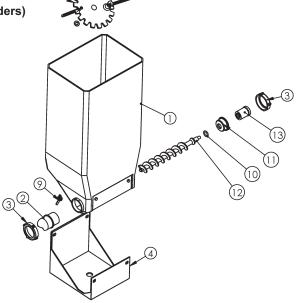


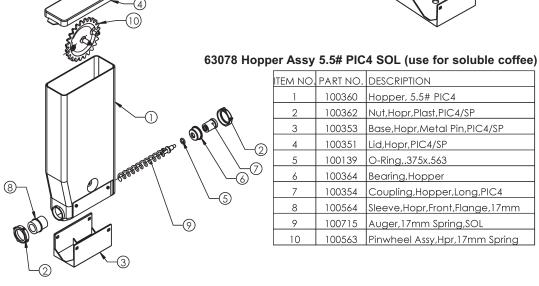
#### 62639 Hopper Assy 5.5# PIC4 (use for sugar-based powders)

ITEM NO.	PART NO.	DESCRIPTION	
1	100360	Hopper, 5.5# PIC4	
2	100363	Sleeve, Hopr, Front, Flange PIC4/SP	
3	100362	Nut,Hopr,Plast,PIC4/SP	
4	100353	Base,Hopr,Metal Pin,PIC4/SP	
5	100351	Lid,Hopr,PIC4/SP	
6	100352	Pinwheel, Asy, Hopr, Compo, Thin	
7	100139	O-Ring,.375x.563	
8	100364	Bearing,Hopper	
9	100355	Auger,Plastic,Componenti	
10	100354	Coupling, Hopper, Long, PIC4	



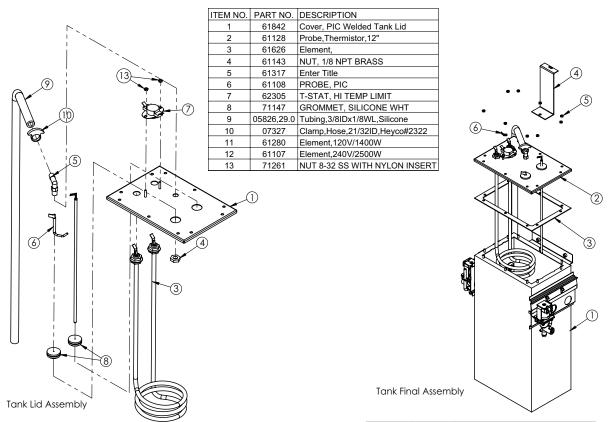




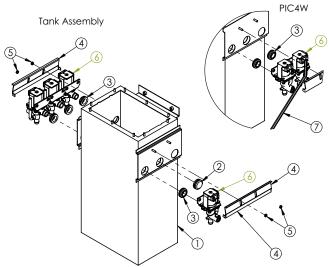


		· · · · · · · · · · · · · · · · · · ·
ITEM NO.	PART NO.	DESCRIPTION
1	100360	Hopper, 5.5# PIC4
2	100362	Nut,Hopr,Plast,PIC4/SP
3	100353	Base,Hopr,Metal Pin,PIC4/SP
4	100351	Lid,Hopr,PIC4/SP
5	100139	O-Ring,.375x.563
6	100364	Bearing, Hopper
7	100354	Coupling,Hopper,Long,PIC4
8	100564	Sleeve,Hopr,Front,Flange,17mm
9	100715	Auger,17mm Spring,SOL
10	100563	Pinwheel Assy,Hpr,17mm Spring

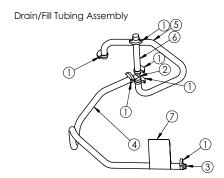
#### **PIC 4 Tank Assembly**



ITEM NO.	PART NO.	DESCRIPTION
1	62645	Tank Assy, PIC4
2	62646	Tank Lid Assy 120V, 1650W
3	61844	Gasket, PIC3 Welded Tank
4	62634	Bracket, Tank Brace Top PIC4
5	71261	NUT 8-32 SS WITH NYLON INSERT
6	70635	TERMINAL, 1/4-032 X 45DEG TAB

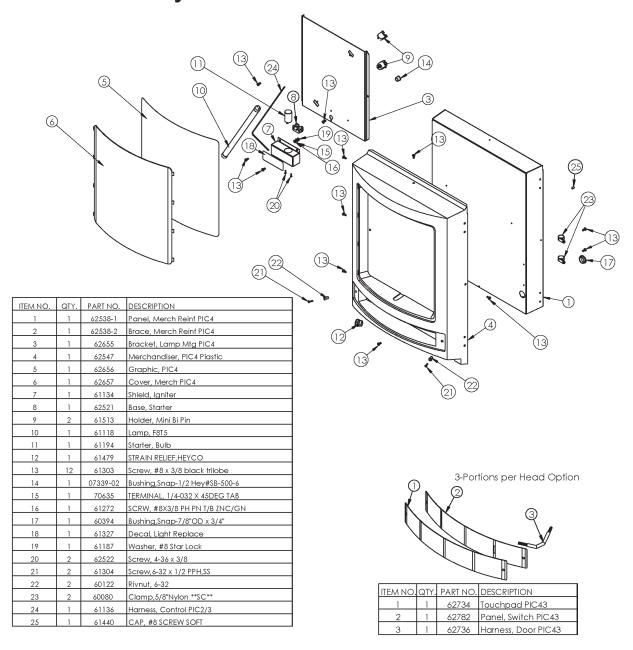


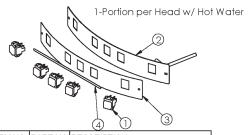
ITEM NO.	PART NO.	DESCRIPTION
1	62636	Tank, Water PIC4
2	61229	Grommet, Plug PIC units
3	61243	Grommet, Dump Valve
4	61137	Bracket, Dump Valve Brace
5	71261	NUT 8-32 SS WITH NYLON INSERT
6	63477	VALVE, DUMP 120V 60H DELTROL
7	62635	Harness, PIC4W Option



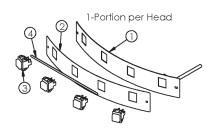
ITEM NO.	PART NO. DESCRIPTION	
1	07327	Clamp,Hose,21/32ID,Heyco#2322
2	61152	
3	61232	Plug,3/8 Barb
4	05826,29.00 Tubing,3/8IDx1/8WL,Silicone	
5	05826,17.0	Tubing,3/8IDx1/8WL,Silicone
6	05826,5.0	Tubing,3/8IDx1/8WL,Silicone
7	61325	Decal, Tank Drain Hose

#### **PIC 4 Door Assembly**



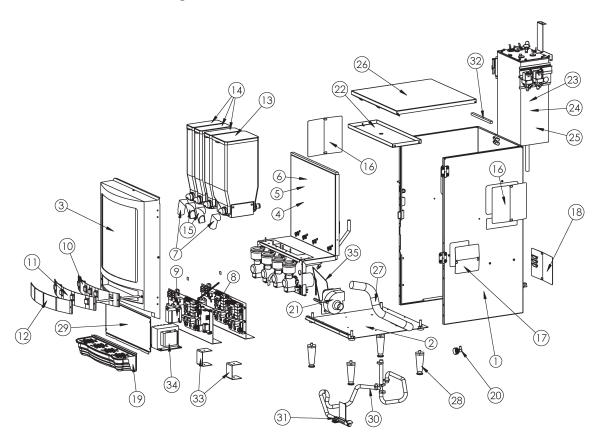


ITEM NO.	PART NO.	DESCRIPTION
1	61725	Switch,Dispensing
2	62660	Panel, Switch PIC4W
3	62661	Decal, Switch PIC4HW
4	61496	Decal, Auto Sw.panel Translation
5	62632	Harness, PIC4 Door



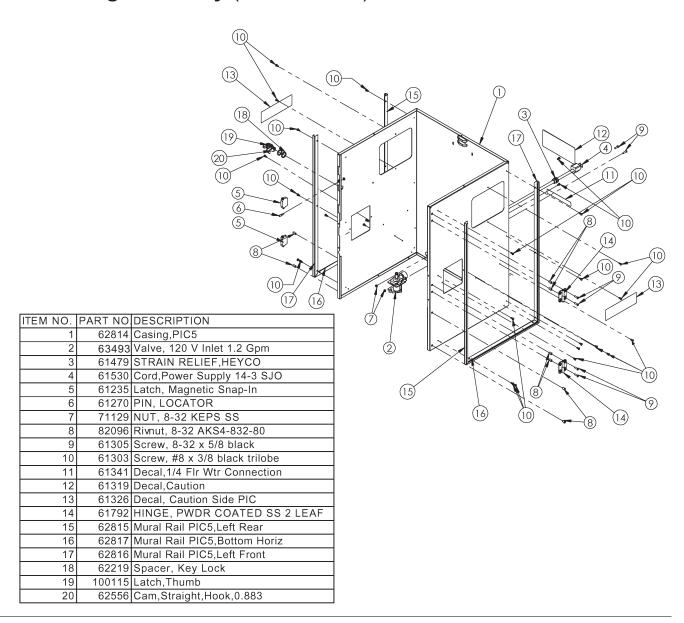
ITEM NO.	PART NO.	DESCRIPTION
1	62550	Panel, Switch PIC4
2	62551	Decal, Switch PIC4
3	61725	Switch,Dispensing
4	61496	Decal, Auto Sw.panel Translation
5	62632	Harness, PIC4 Door

# **PIC 4 Final Assembly**



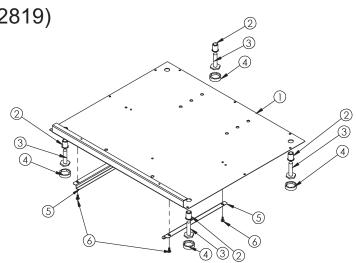
ITEM NO.	PART NO.	DESCRIPTION	WHERE USED
1	62708	Casing Assy,PIC4	
2	62647	Base Assy PIC4	
3	62643	Door Merch Assy,PIC4	
4	62644	Hopper Brkt Assy PIC4	PIC4
5	62720	Hopper Brkt Assy PIC4	PIC4W, Q, Z & SOL
6	62787	Hopper Brkt Assy PIC4	PIC4 Q & Z
7	100549	Elbow, Dispense, 300 deg	
8	62786	Control Brkt Assy PIC43	PIC 43
9	62650	Control Brkt Assy PIC4	PIC4
10	62659	Dispense Panel Assy	PIC 4W
11	62658	Dispense Panel Assy	PIC4
12	62790	Touchpad Asy PIC43A	PIC43A
13	62640	Hopper,11# Componenti	
14	62639	Hopper Assy,5.5#,PIC4,	
15	100548	Elbow, Dispense, 240 deg	
16	61423	Panel, Side Access DV	
17	61438	Panel,Steam Plenum-Black *IH*	
18	61141	Plate,Back Access	
19	62654	Drain Tray/Lower Splash Assy	
20	61237	Fitting, Assy, 1/4 fL X 3/4 Hs, Brs	
21	62649	Blower Assembly 120V	
22	62633	Bracket, Tank Retaining PIC4	
23	62702	Tank Final Assy	PIC4 1650W
24	62789	Tank Final Assy	PIC4 Q & Z 25000W
25	62719	Tank Final Assy	PIC4W 1400W
26	62648	Lid Assy PIC4	
27	61123,24.0	TUBING, 1-1/4X24 LONG FLEX	
28	71256	Leg, 4" Adj 3/8"-16 Threads	
29	62534	Panel, Upper Splash PIC4	
30	62705	Tubing Assy, Drain, PIC2/3/4	
31	71160	Clip,Syphon Hose w/Blk Adhsv	
32	61159-7	Seal, Closed Cell Foam 7"	
33	63422	Bracket control support PIC4Z	PIC4 Z
34	63373	Transformer StepD 200VA 200/230/460-120	PIC4 Z
35	63430	Harness PIC 4 Z	PIC4 Z

#### PIC 5 Casing Assembly (Part # 62813)



# PIC 5 Base Assembly (Part # 62819)

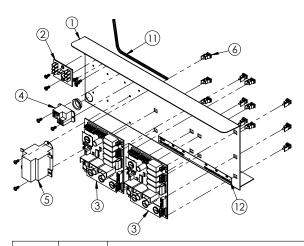
ITEM NO.	PART NO.	NO. DESCRIPTION	
1 62820 Panel, Base,		Panel, Base,	
2	60380	Rivnut, 3/8 - 16	
3	8 61343 Leveler,Leg 3/8"-16 x 1.500		
4 61344 Pad,Leg 7/8"-1582-SOC-G		Pad,Leg 7/8"-1582-SOC-G	
5	63119	Rail, Drain Tray PIC5/6	
6	61303	Screw, #8 x 3/8 black trilobe	



# PIC 5 Control Bracket Assembly (Part # 62974)

# PIC 5 Lid Assembly

(Part # 62810)



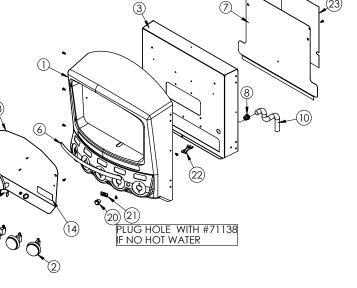
	4
3	
<u>\$</u>	

ITEM NO.	PART NO.	DESCRIPTION
1	62849	Bracket, Control Mtg PIC5 No Display
2	61338	Terminal Board
3	61800	Controller,Pic 3 Portion
4	61131	Relay,12 vdc Coil
5	61481	Transformer,40VA 24/12S
6	61266	STANDOFF, RVRS EDGEMOUNT
7	10073	Label, Ground Symbol
8	60394	Bushing,Snap-7/8"OD x 3/4"
9	61303	Screw, #8 x 3/8 black trilobe
10	61272	SCRW, #8X3/8 PH PN T/B ZNC/GN
11	62890	Harness, Chassis PIC5/6
12	62928	DECAL, CONTROLLER PIC5/6

ITEM NO.	PART NO.	DESCRIPTION	
1	62811	Panel, Lid,	
2	61303	Screw, #8 x 3/8 black trilobe	
3	61217	61217 Spring, Hopper Retaining	
4	62812	Flashing Top PIC5	
5	86877	SCRW. #8X1/2 PH TR HD T/AB ZNC	

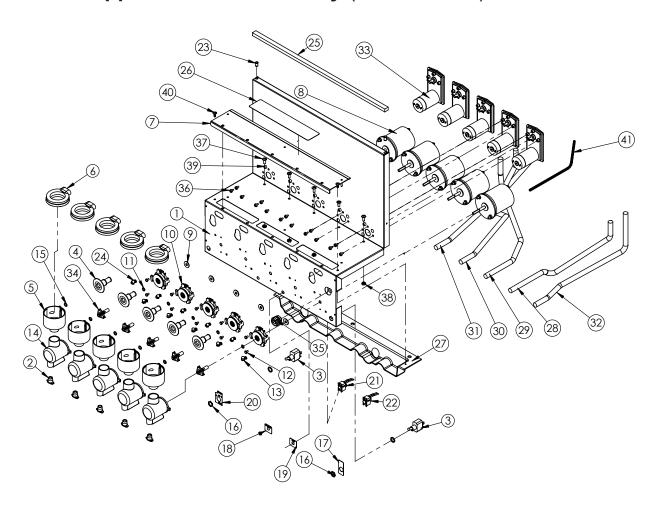
PIC 5 Door Assembly

(Part # 63060)

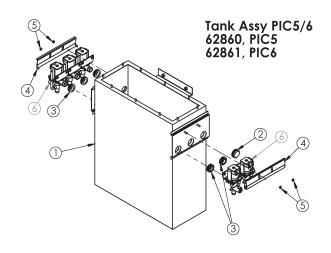


ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	63482	Door Plastic PIC5W w hole	13	63061	Bracket, Circle Lamp
2	62915	Switch, Dispns PIC5/6 No Wafer	14	61327	Decal, Light Replace
3	62884	Door Brkt Wldmt,	15	71129	NUT, 8-32 KEPS SS
4	62904	Cover,PIC5 Graphic	16	60394	Bushing,Snap-7/8"OD x 3/4"
5	62905	Graphic,PIC5	17	61272	SCRW, #8X3/8 PH PN T/B ZNC/GN
6	62856	Decal, 2/3 Full PIC5/6	18	61187	Washer, #8 Star Lock
7	62847	Panel, Dispense Switch Cvr,	19	70635	TERMINAL, 1/4-032 X 45DEG TAB
8	61479	STRAIN RELIEF, HEYCO	20	63479	Switch Hot Water PIC5W
9	61303	Screw, #8 x 3/8 black trilobe	21	63481	Label "Hot Water" PIC5W
10	62889	Harness, Door PIC5/6	22	63480	Harness PIC5W Jumper
11	62937	Fixture,Circle Fluor w Lamp 22W	23	61451	Decal, Door Inner PIC
12	62973	Bulb Circle 22W			

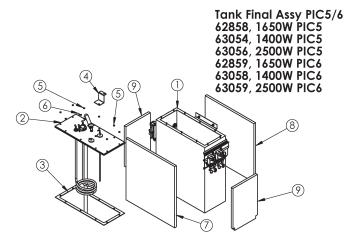
# PIC 5 Hopper Bracket Assembly (Part # 62850)



ITEM NO	PART NO.	DESCRIPTION	ITEM NO	PART NO.	DESCRIPTION
	62851	Bracket, Hopper PIC5		60381	Rivnut, 6-32 ALS4-632-80
	61461	Button, Restrictor		61250	Washer, #8 Split Lock
	61847	Switch,Toggle-Spst			Seal, Closed Cell Foam 16.5"
	61226	Funnel, Disconnect		61848	Decal, Do Not Pour
	61221	Funnel Whipper		62825	Plenum, Steam PIC5
	61255	SHROUD			Tubing, Silicone 5/16x1/2
7	62823	Plate, Cover Plenum,			Tubing, Silicone 5/16x1/2
	61116-01-1	Motor, Whipper 120V			Tubing, Silicone, 5/16x1/2
	61334	Washer, Slinger			Tubing, Silicone 5/16x1/2
10	61523	Whipper Base Assy	32	71155-15-a	Tubing, Silicone 5/16x1/2
11	60741	O-Ring,2-014		61618	Motor,24VDC,Auger,145 RPM
12	07023-04	Screw,6-32x1/4 PH BD M/S SS	34	61458	Blade, Whipper
13	61339	8-32 UNF S.S. ACORN NUT	35	61480	STRAIN RELIEF,HEYCO
14	62395	Chamber, Whipper	36	61353	Screw,8-32 X 1/4" PH PN 18-8 SS
15	61127	O-RING,.335 ID X .079 CS	37	61236	SCRW, 10-32X1/2 PH TR SS
16	61847-1	Nut, Switch, for 61847	38	63068	NUT, 10-32 ESNA SS
17	61242	Label, Flush On/Off	39	61228	Spacer, NYL HEY #334 SPU98
18	61247	Label, Power On Light PIC	40	86877	SCRW, #8X1/2 PH TR HD T/AB ZNC
19	61248	Label, Ready Light PIC	41	62891	Harness, Hopper Brkt PIC5/6
20	61889	Label, PWR ON/OFF PIC	43	61264	Plug, 3/16" Hole
21	63496	Lamp Red w/ Leads			
22	63495	Lamp Green w/ Leads			



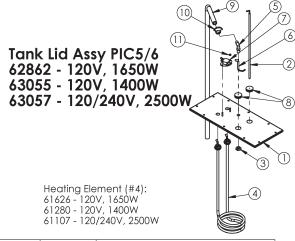
ITEM NO.	PART NO.	DESCRIPTION	
1	62853	Tank, Water PIC5/6, 5 GAL	
2	61229	Grommet, Plug PIC units	
3	61243	Grommet, Dump Valve	
4	61137	Bracket, Dump Valve Brace	
5	71261	NUT 8-32 SS WITH NYLON INSERT	
6	63477	VALVE, DUMP 120V 60H DELTROL	



ITEM NO.	PART NO.	DESCRIPTION
1	62860	Tank Assy, PIC
2	62862	Tank Lid Asy PIC5/6
3	62855	Gasket, PIC5/6 Welded Tank
4	62829	Bracket, Tank Brace Top PIC5
5	71261	NUT 8-32 SS WITH NYLON INSERT
6	70635	TERMINAL, 1/4-032 X 45DEG TAB
7	62842	Insulation, Tank Front PIC5
8	62844	Insulation, Tank Rear PIC5
9	62843	Insulation, Tank Side PIC5

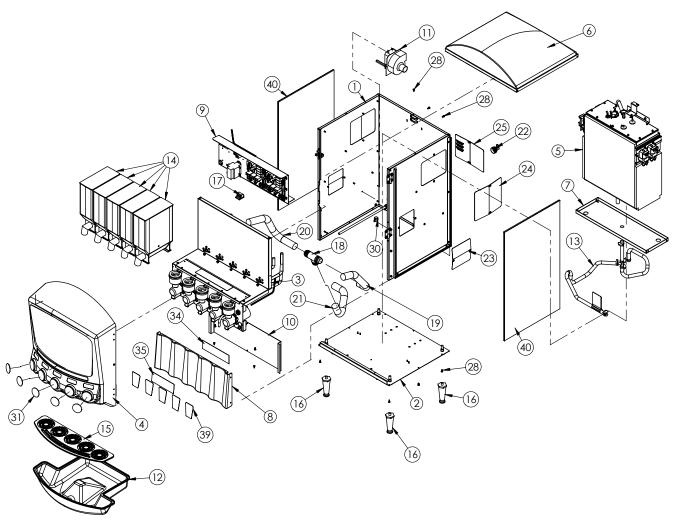
# 62836 - Tubing Asy, Drain, PIC5 /6

ITEM NO.	PART NO.	DESCRIPTION
1	07327	Clamp,Hose,21/32ID,Heyco#2322
2	61152	Tee, 7/16" Barbed
3	61232	Plug,3/8 Barb
4	05826,17.0 PIC5	Tubing,3/8IDx1/8WL,Silicone
5	05826,5.0	Tubing,3/8IDx1/8WL,Silicone
6	61325	Decal,Tank Drain Hose



ITEM NO.	PART NO.	DESCRIPTION
1	62854	Cover, Tank Lid PIC5/6
2	61128	Probe,Thermistor,12"
3	61143	NUT, 1/8 NPT BRASS
4	61626	Element,
5	61317	Enter Title
6	61108	PROBE, PIC
7	62305	T-STAT, HI TEMP LIMIT
8	71147	GROMMET, SILICONE WHT
9	05826,29.0	Tubing,3/8IDx1/8WL,Silicone
10	07327	Clamp,Hose,21/32ID,Heyco#2322
11	71261	NUT 8-32 SS WITH NYLON INSERT

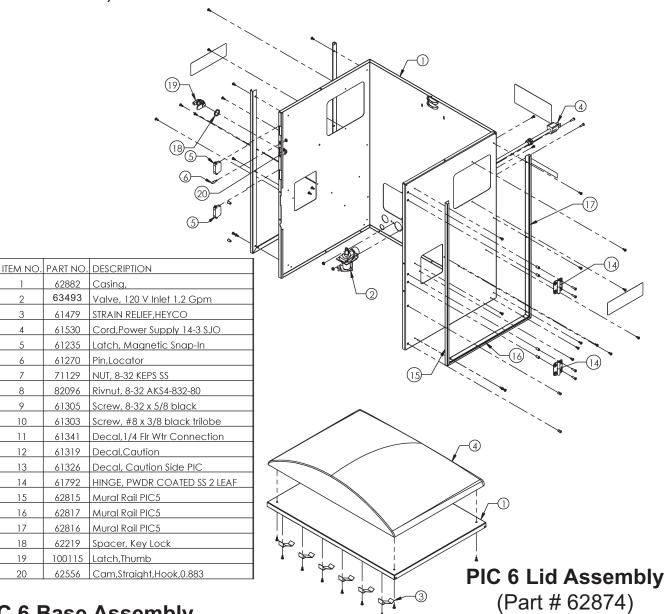
# **PIC 5 Final Assembly**



ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	62813	Casing Assy,PIC	22	61237	Fitting, Assy, 1/4 fL X 3/4 Hs, Brs
2	62819	Base Assy PIC6	23	61438	Panel,Steam Plenum-Black *IH*
3	63485	Hopper Brkt Asy PIC5	24	61423	Panel, Side Access DV
4	63060	Door Asy PIC5	25	61141	Plate,Back Access
5	62858	Tank Final Assy	26	61305	Screw, 8-32 x 5/8 black
6	62810	Lid Assy PIC6	27	71129	NUT, 8-32 KEPS SS
7	62830	Bracket, Tank Retaining,	28	61303	Screw, #8 x 3/8 black trilobe
8	62832	Splash Panel Plastic PIC	29	61304	Screw,6-32 x 1/2 PPH,SS
9	62974	Control Brkt Assy PIC6	30	60080	Clamp,5/8"Nylon **\$C**
10	62831	Splash Panel,	31	62914	Button, Swch PIC5/6 w/ Art
11	62802	Blower Assembly 120V	32	61440	CAP, #8 SCREW SOFT
12	62833	Tray, Drain PIC5	33	61834	Decal, FLVR Strip PIC
13	62836	Tubing Asy, Drain, PIC5	34	100268	Decal,Caution,Behind Drip Tray
14	61372	Hopper Asy PIC Single Pinw	35	62981	Decal, Front Warning PIC
15	62921	Grid Drain PIC5	36	61146	Instr, Manual PIC Domestic
16	71256	Leg, 4" Plastic	37	00800	Label,Serial Number,Name Plate
17	71160	Clip,Syphon Hose w/Blk Adhsv	38	61463	Tag, Instalation
18	62835	Tee, 1.25"	39	62929	Decal, Cup PIC5/6
19	62845-2	TUBING, 1-1/4X14 LONG FLEX	40	62992	Mural Assy Side PIC5-6
20	62845-1	TUBING, 1-1/4X14 LONG FLEX			
21	62845-3	TUBING, 1-1/4X14 LONG FLEX			

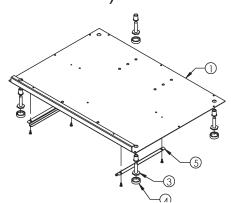
#### **PIC 6 Casing Assembly**

(Part # 62872)



PIC 6 Base Assembly

(Part # 62876)

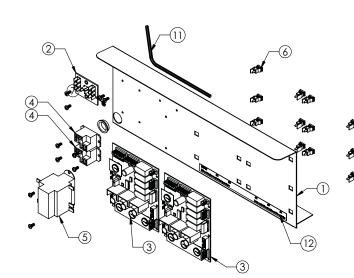


ITEM NO.	PART NO.	DESCRIPTION
1	62878	Panel, Lid,
2	61303	Screw, #8 x 3/8 black trilobe
3	61217	Spring, Hopper Retaining
4	4 62869 Flashing Top PIC6	
5	86877	SCRW, #8X3/8 PH PN T/B ZNC/GN

ITEM NO. PART NO.		DESCRIPTION	
1 62877 Panel, Base		Panel, Base,	
2	2 60380 Rivnut, 3/8 - 16		
3	61343	Leveler,Leg 3/8"-16 x 1.500"	
4 61344		Pad,Leg 7/8"-1582-SOC-G	
5 63119		Rail, Drain Tray PIC5/6	
		Screw, #8 x 3/8 black trilobe	

# PIC 5/6 Control Bracket Assembly

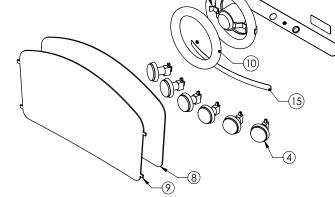
(Part # 62848)



ITEM NO.	PART NO.	DESCRIPTION
1	62849	Bracket, Control Mtg PIC5 No Display
2	61338	Terminal Board
3	61800	Controller,Pic 3 Portion
4	61131	Relay,12 vdc Coil
5	61481	Transformer,40VA 24/12S
6	61266	STANDOFF, RVRS EDGEMOUNT
7	10073	Label, Ground Symbol
8	60394	Bushing,Snap-7/8"OD x 3/4"
9	61303	Screw, #8 x 3/8 black trilobe
10	61272	SCRW, #8X3/8 PH PN T/B ZNC/GN
11	62890	Harness, Chassis PIC5/6
12	62928	DECAL, CONTROLLER PIC5/6



(Part # 62875)

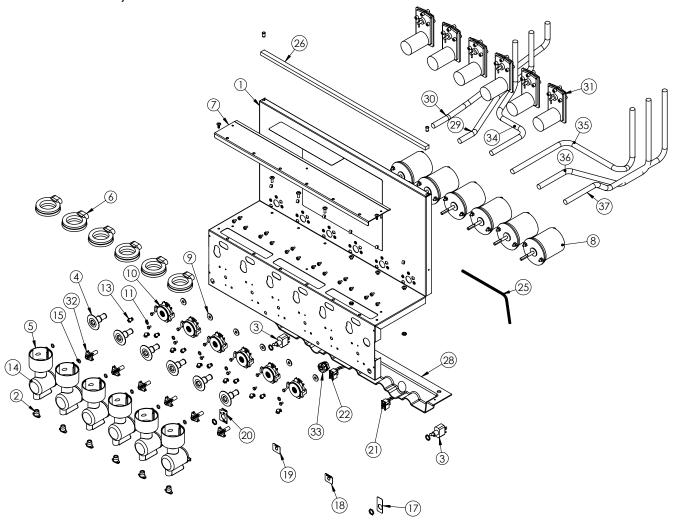


(19)

ITEM NO.	PART NO.	DESCRIPTION	CONFIG DESCR
1	62888	Door Brkt Wldmt,	PIC 6
2	62916	Panel, Rear Door Cvr,	PIC6
3	61479	STRAIN RELIEF, HEYCO	
4	62915	Switch, Dispns PIC5/6 No Wafer	
5	61303	Screw, #8 x 3/8 black trilobe	
6	62910	Merchandiser PIC6 Plastic	
7	62889	Harness, Door PIC5/6	
8	62919	Graphic PIC6	
9	62920	Graphic PIC6	Cover
10	62973	Bulb Circle 22W	
11	62936	Bracket, Circle Lamp	PIC6
12	61272	SCRW, #8X3/8 PH PN T/B ZNC/GN	
13	61187	Washer, #8 Star Lock	
14	70635	TERMINAL, 1/4-032 X 45DEG TAB	
15	62856	Decal, 2/3 Full PIC5/6	
16	60394	Bushing,Snap-7/8"OD x 3/4"	
17	71129	NUT, 8-32 KEPS SS	
18	70426	TERM, 1/4F INS QD 18-22 GA	
19	62937	Fixture, Circle Fluor w Lamp 22W	
20	61327	Decal, Light Replace	

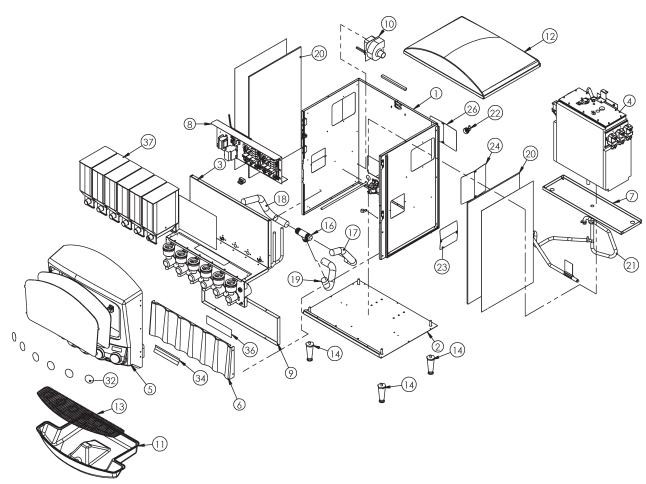
# **PIC 6 Hopper Bracket Assembly**

(Part # 62863)



ITEM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	62864	Bracket, Hopper PIC6	24	61250	Washer, #8 Split Lock
2	61461	Button, Restrictor	25	62891	Harness, Hopper Brkt PIC5/6
3	61847	Switch,Toggle-Spst	26	61159-23.5	Seal, Closed Cell Foam 16.5"
4	61226	FTG, FUNNEL DISCONNECT	27	61848	Decal, Do Not Pour
5	61221	Funnel Whipper	28	62865	Plenum, Steam PIC6
6	61255	SHROUD	29	71155-16-PIC6-2	Tubing, Silicone, 5/16x1/2
7	62879	Plate, Cover Plenum,	30	71155-16-PIC6-L	Tubing, Silicone 5/16x1/2
8	61116-01-1	Motor, Whipper 120V	31	61618	MOTOR,24VDC, 145RPM
9	61334	Washer, Slinger	32	61458	Blade, Whipper
10	61523	Whipper Base Assy	33	61480	STRAIN RELIEF,HEYCO
11	60741	O-Ring,2-014	34	71155-16-PIC6-3	Tubing, Silicone, 5/16x1/2
12	07023-04	Screw,6-32x1/4 PH BD M/S SS	35	71155-16-PIC6-4	Tubing, Silicone, 5/16x1/2
13	61339	8-32 UNF S.S. ACORN NUT	36	71155-16-PIC6-5	Tubing, Silicone, 5/16x1/2
14	62395	Chamber, Whipper	37	71155-16-PIC6-6	Tubing, Silicone, 5/16x1/2
15	61127	O-RING,.335 ID X .079 CS	38	86877	SCRW, #8X3/8 PH PN T/B ZNC/GN
16	61847-1	Nut, Switch, for 61847	39	61353	Screw,8-32 X 1/4" PH PN 18-8 SS
17	61242	Label, Flush On/Off	40	61228	Spacer, NYL HEY #334 SPU98
18	61247	Label, Power On Light PIC	41	61236	SCRW, 10-32X1/2 PH TR SS
19	61248	Label, Ready Light PIC	42	63068	NUT, 10-32 ESNA SS
20	61889	Label, PWR ON/OFF PIC	43	61847-2	Nut Round for Switch
21	63496	Lamp Red w/ Leads	44	61452	Decal, Cleaning Instr 5# HPR
22	63495	Lamp Green w/ Leads	45	61264	PLUG, 3/16 HOLE FAS
23	60381	Rivnut, 6-32 ALS4-632-80			

# **PIC 6 Final Assembly**

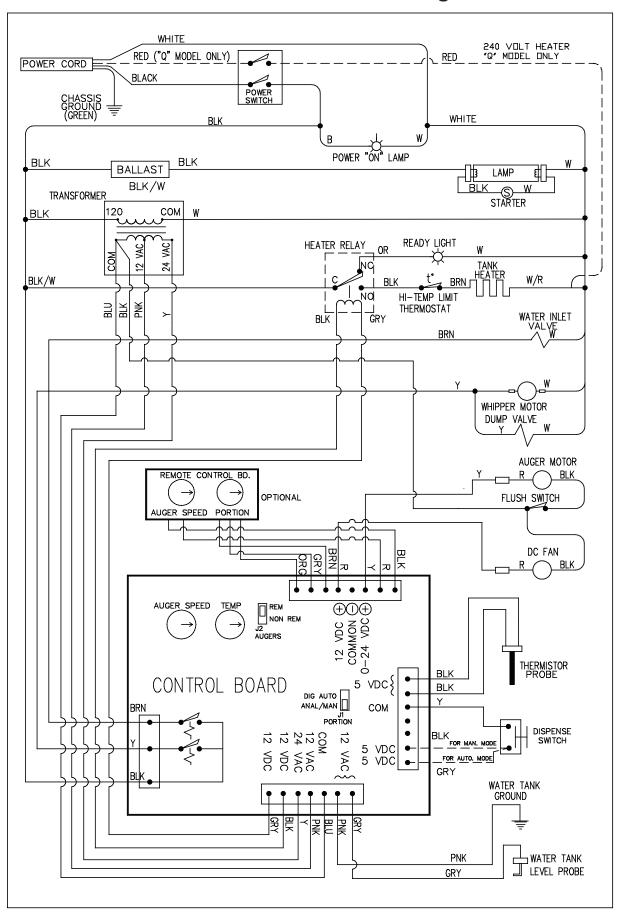


EM NO.	PART NO.	DESCRIPTION	ITEM NO.	PART NO.	DESCRIPTION
1	62872	Casing Assy,PIC6	23	61438	Panel,Steam Plenum-Black *IH*
2	62819	Base Assy PIC5	24	61423	Panel, Side Access DV
3	62863	Hopper Brkt Assy PIC6	25	61159-7	Seal, Closed Cell Foam 7"
4	62859	Tank Final Assy	26	61141	Plate,Back Access
5	62875	Door Asy PIC5	27	61305	Screw, 8-32 x 5/8 black
6	62870	Splash Panel Plastic PIC	28	71129	NUT, 8-32 KEPS SS
7	62830	Bracket, Tank Retaining,	29	61303	Screw, #8 x 3/8 black trilobe
8	62917	Control Brkt Assy PIC6	30	61304	Screw, 6-32 x 1/2 PPH, SS
9	62831	Splash Panel,	31	60080	Clamp,5/8"Nylon **\$C**
10	62802	Blower Assembly 120V	32	62914	Decal, Switch Button PIC5/6
11	62866	Tray, Drain PIC6	33	61440	CAP, #8 SCREW SOFT
12	62874	Lid Assy PIC6	34	62981	Decal, Caution, Splash
13	62922	Drain Grid PIC6	35	61452	Decal, Cleaning Instr 5# HPR
14	71256	Leg, 4" Plastic	36	100268	Decal,Caution,Behind Drip Tray
15	71160	Clip,Syphon Hose w/Blk Adhsv	37	61372	Hopper Asy PIC Single Pinw
16	62835	Tee, 1.25"	38	61834	Decal, FLVR Strip
17	62845-2	TUBING, 1-1/4X14 LONG FLEX	39	61146	Instr, Manual PIC Domestic
18	62845-1	TUBING, 1-1/4X14 LONG FLEX	40	00800	SERIAL PLATE
19	62845-3	TUBING, 1-1/4X14 LONG FLEX	41	61463	Tag, Instalation
20	62992	Mural, Panel PIC5/6			
21	62836	Tubing Asy, Drain, PIC5			

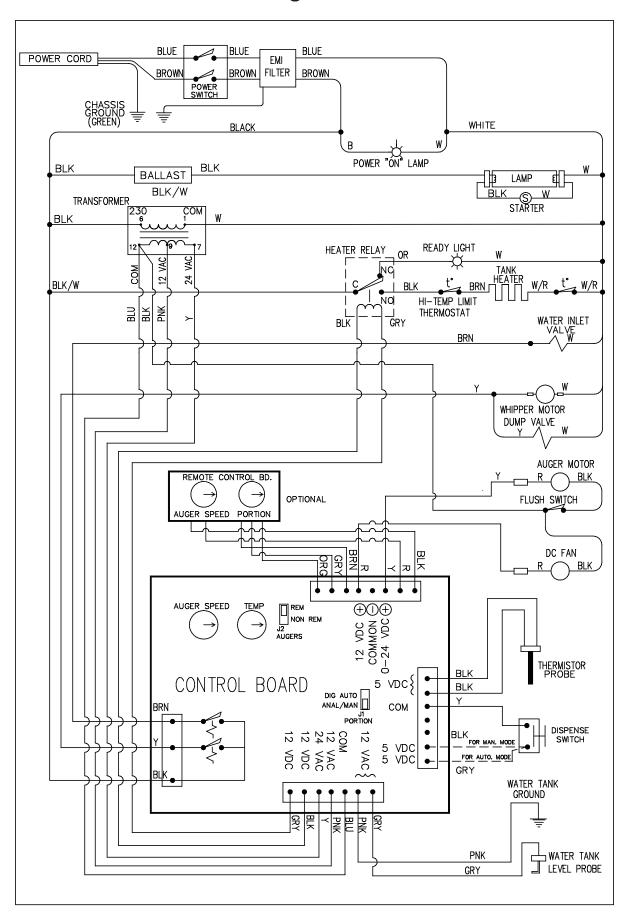
Fitting, Assy, 1/4 fL X 3/4 Hs, Brs

61237

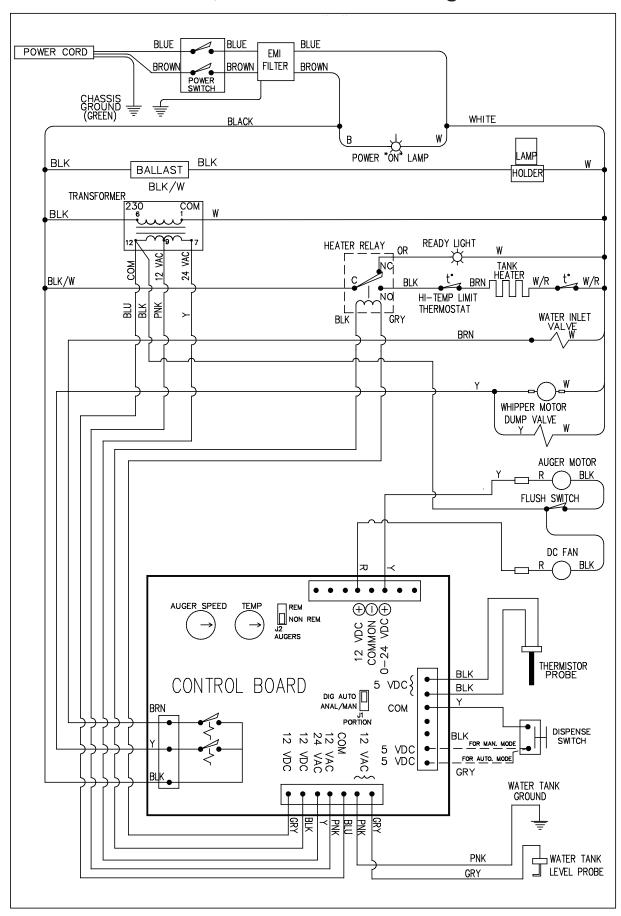
#### PIC 1 120V and 120/240V "Q" Model Wiring



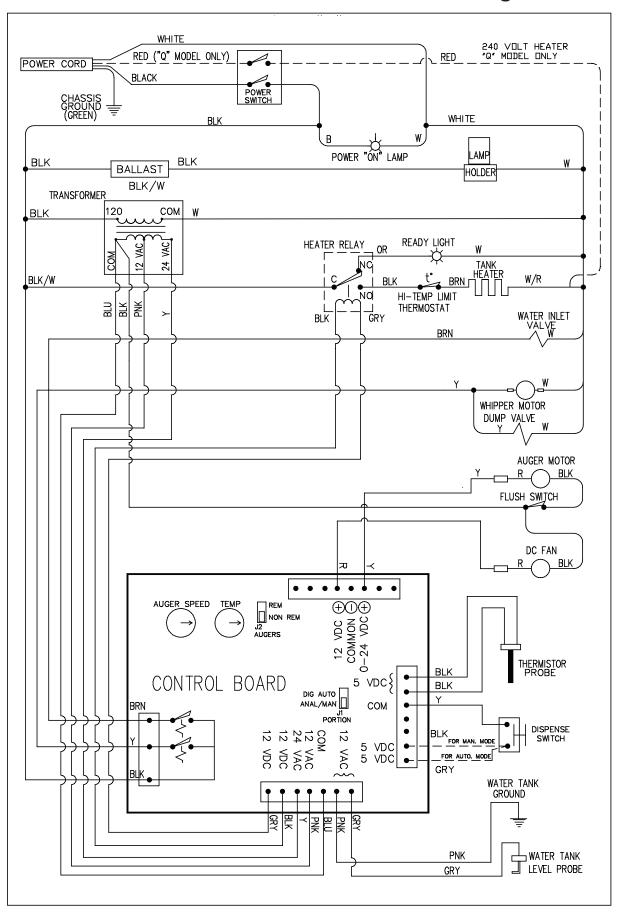
#### PIC 1 230V "E" Model Wiring



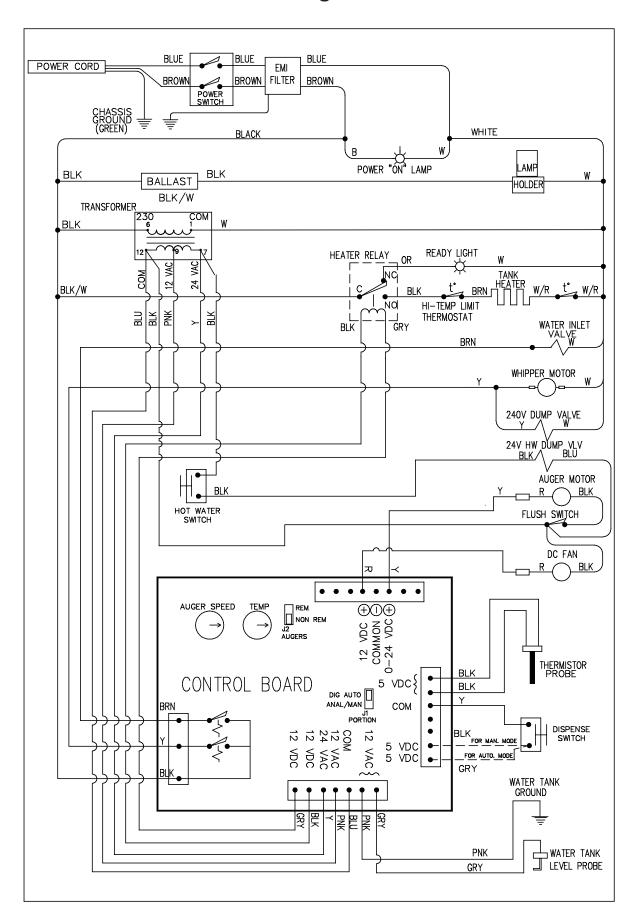
#### PIC1KE or PIC1KAE, 230V "E" Model Wiring



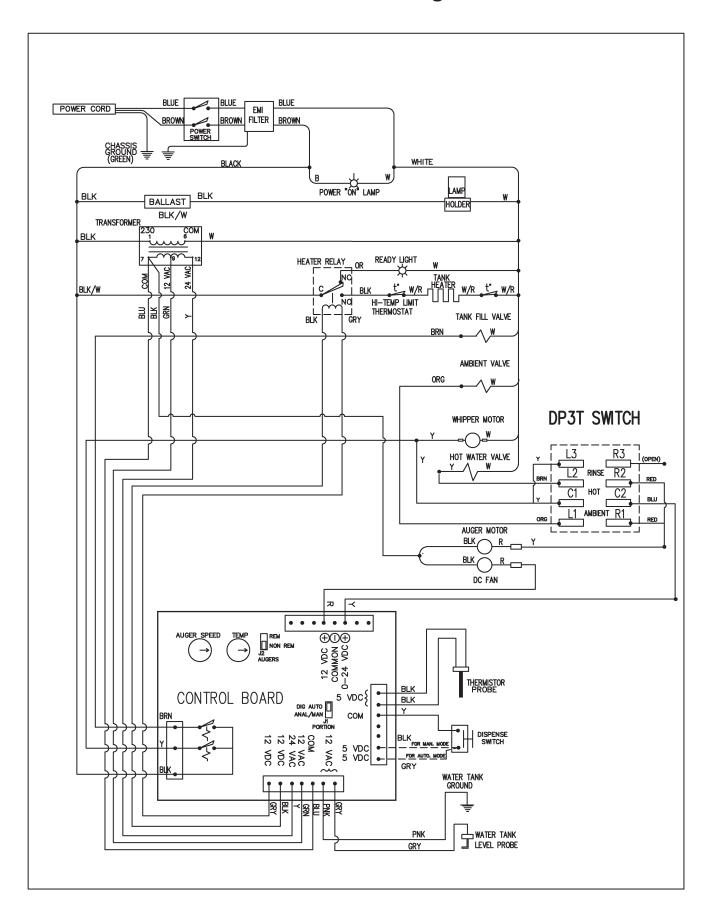
#### PIC1K or PIC1KA 120 & 120/240 "Q" Model Wiring



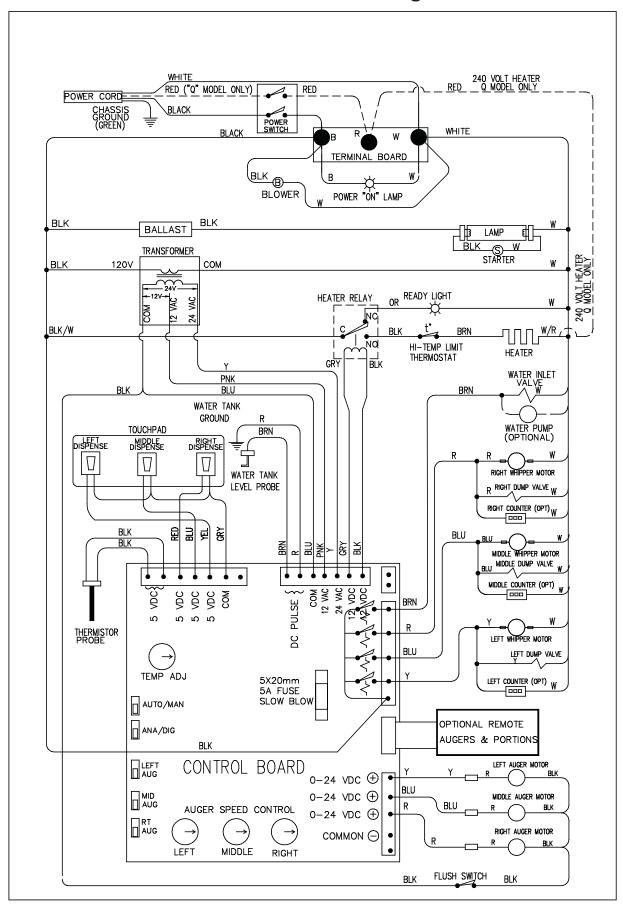
#### PIC1KAEW or PIC1KEW Wiring

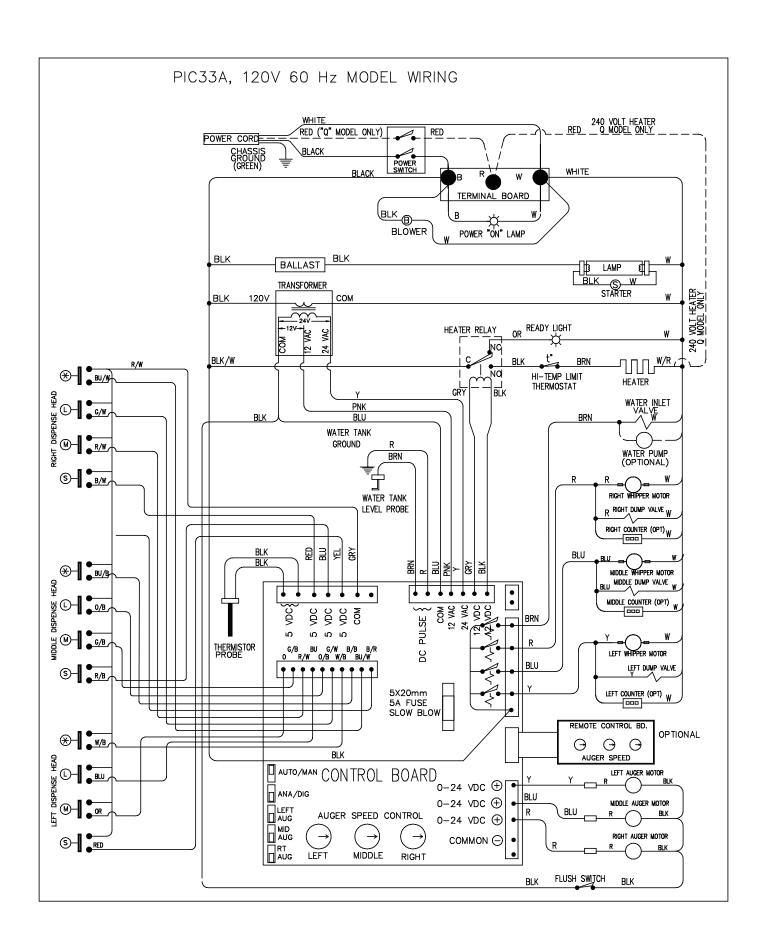


#### CAP1AE or CAP1E 230V "E" Model Wiring

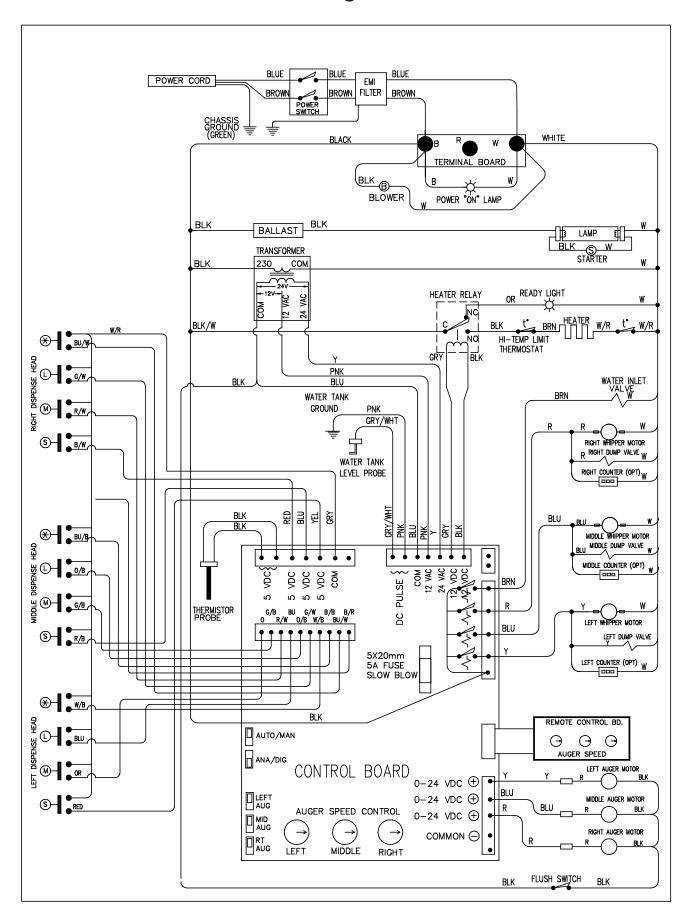


#### PIC 2/3 120 & 120/240V "Q" Model Wiring

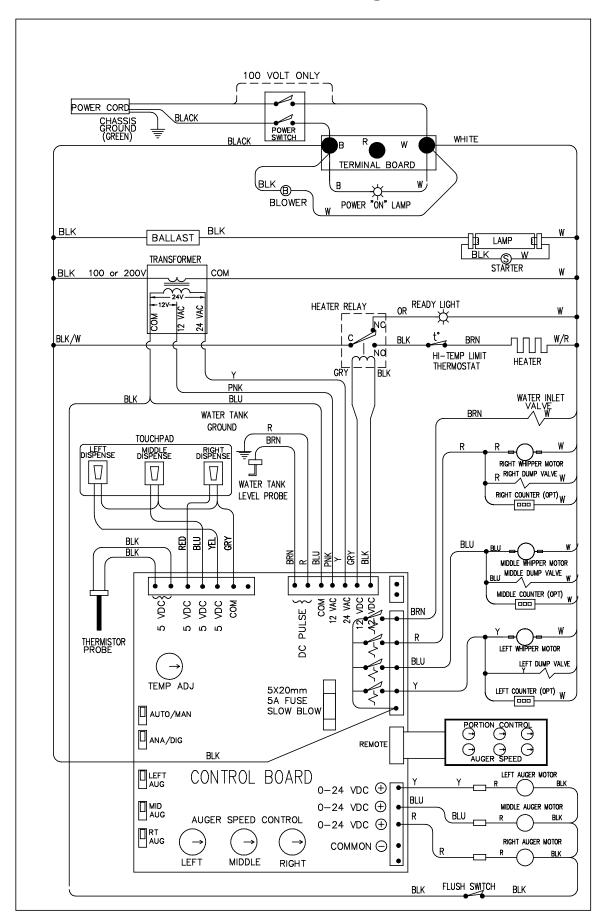




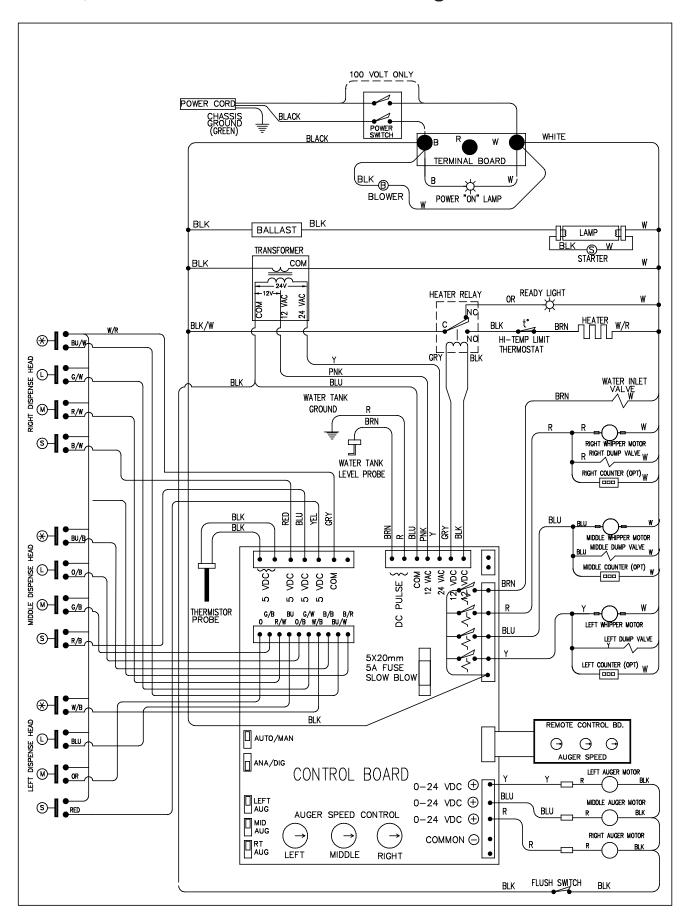
#### PIC33AE 230V "CE" Model Wiring with 3-Portion Touch Pads



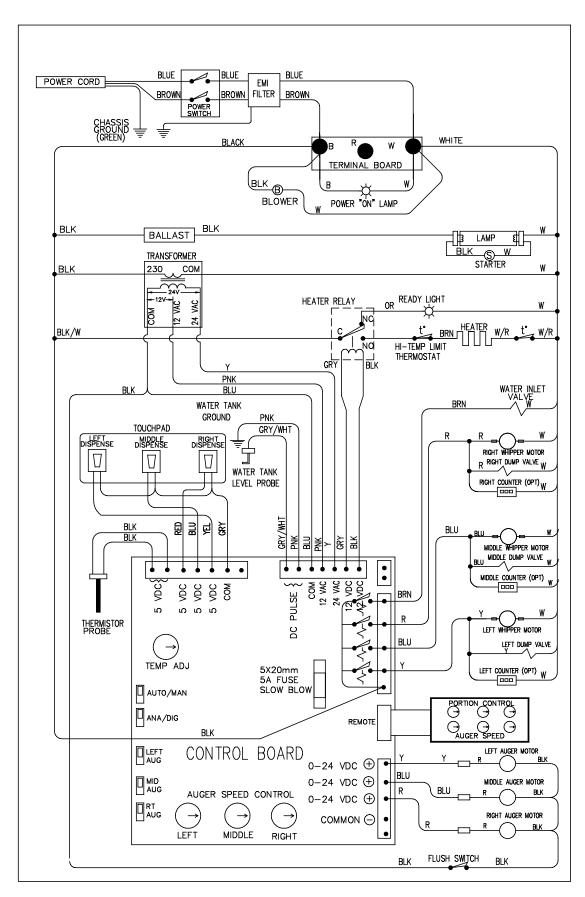
#### PIC 2/3 100 & 200V "J" Model Wiring



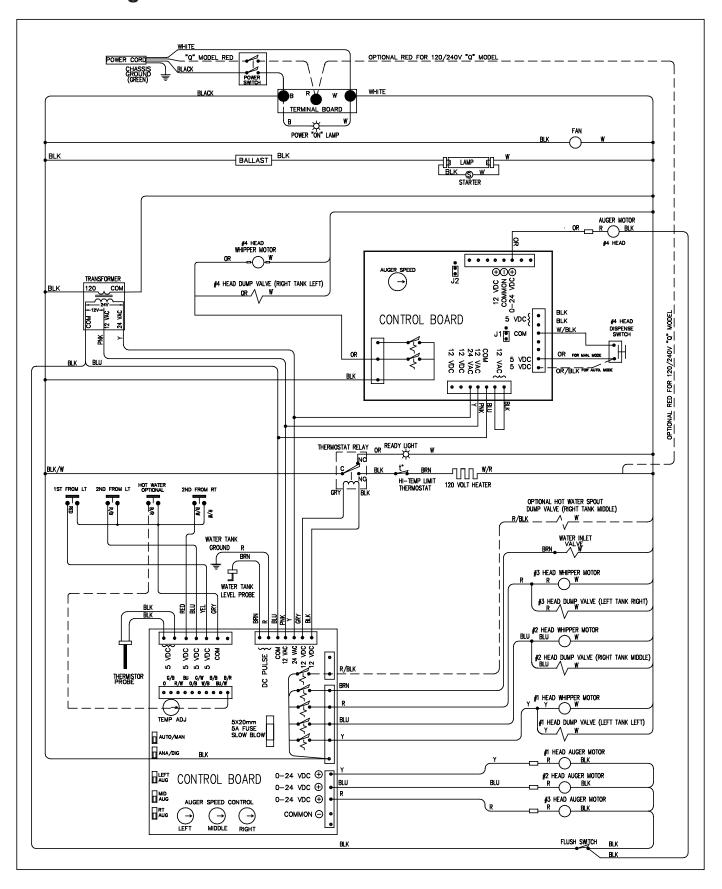
# PIC23A, PIC33A 100 & 200V "J" Model Wiring with 3-Portion Touch Pads



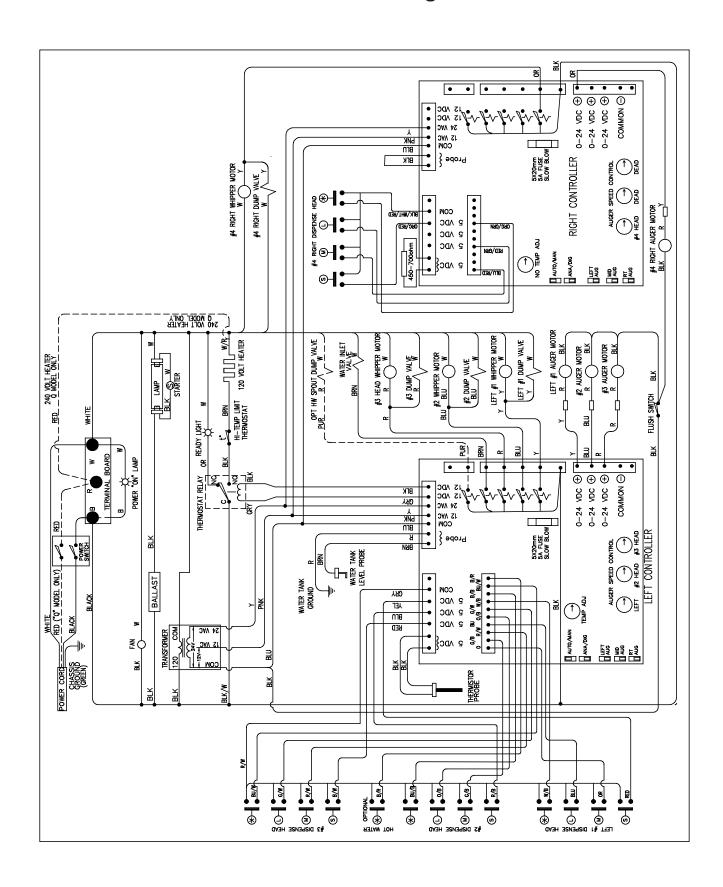
# PIC3E or PIC3AE, 230/240VAC 50/60Hz Model Wiring with Remote Portion Control



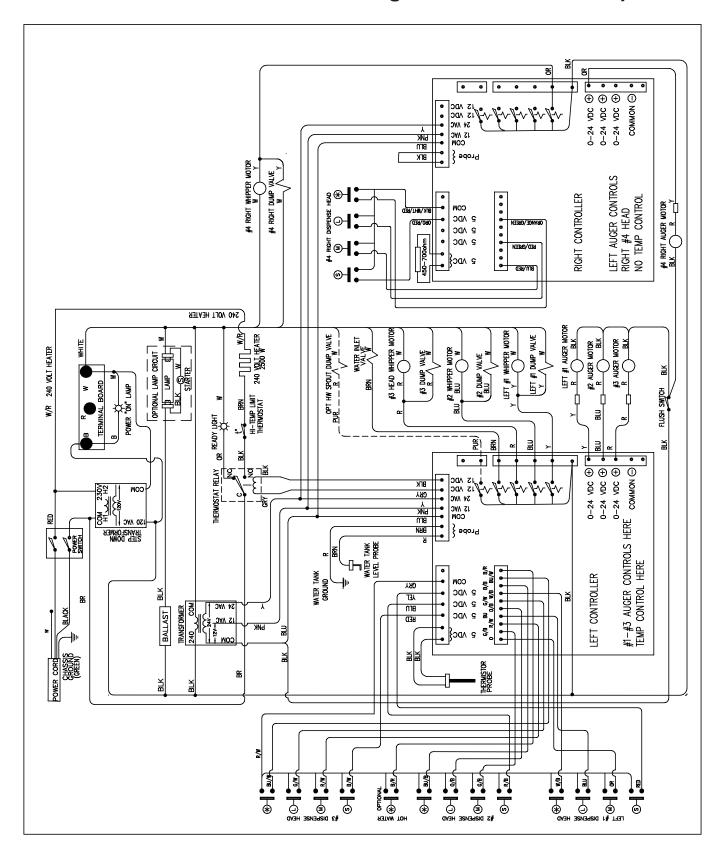
#### **PIC 4 Wiring**



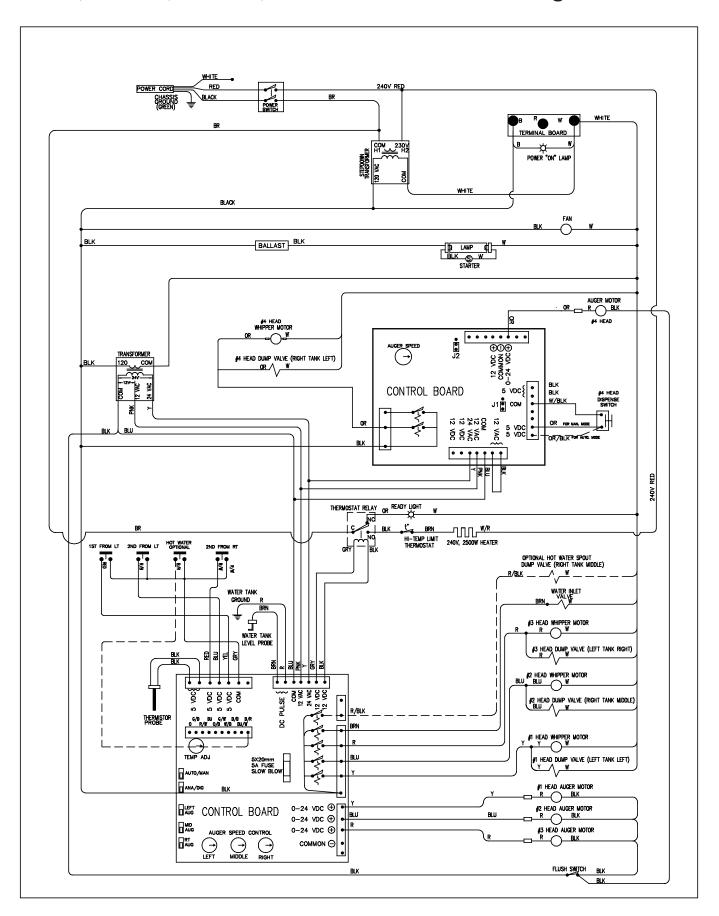
#### PIC43A 120V & PIC43AQ 120/240V Wiring



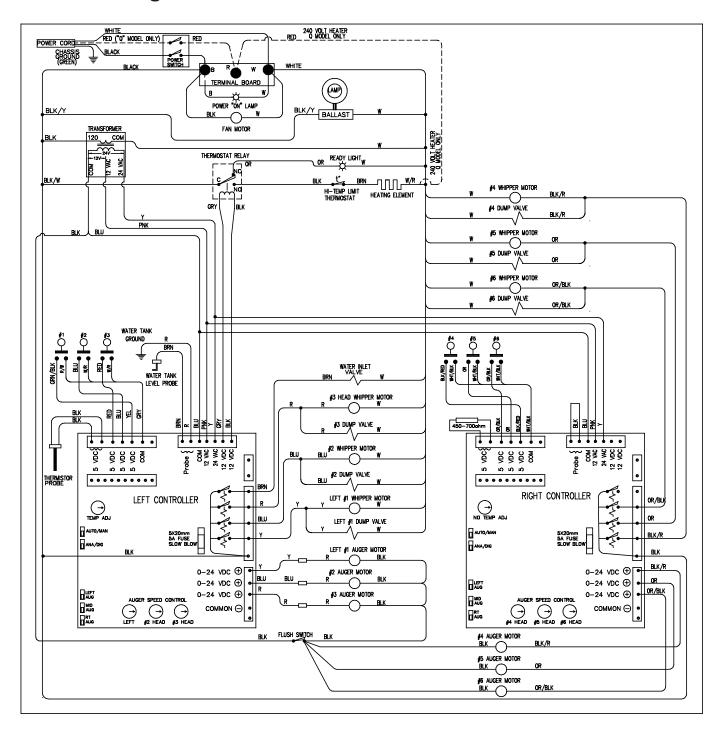
#### PIC43AZ and PIC43AWZ Model Wiring with 3-Portion Touchpad



#### PIC4Z, PIC4AZ, PIC4WZ, PIC4AWZ 240V Model Wiring



#### PIC 5/6 Wiring





CORPORATION

Grindmaster® Coffee Grinders and Brewers • PrecisionBrew™ Brewing Systems • Espressimo® Espresso Machines Crathco® Hot Beverage Dispensers • Crathco® Cold and Frozen Beverage Dispensers • AMW Coffee and Tea Systems Tel (502) 425-4776 • Fax (502) 425-4664 • 1-800-695-4500 (USA & Canada only)

P.O. Box 35020 • Louisville, KY 40232 • USA