

P200E Shuttle & RAPS200E Airpot/Shuttle Brewer Series

Operation and Instruction Manual

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

Water Hook-up

- 1) Water inlet (supply) fitting is located at rear of unit.
- 2) Use 1/4" copper or flexible water line to prevent strain. Do not use low temperature plastic tubing. The connection is 1/4" flare.
- 3) Water line pressure must be from 30 to 70 psi.
- 4) Hot (up to 160F) or cold water may be used. Hot water offers faster recovery between brews, (Use cold water only if in-line water filters are implemented before the brewer).
- 5) Install a shut-off valve near the brewer.
- 6) Installing a filtering system can improve the taste of brewed coffee and extend the life of the brewer. If your water has high calcium (lime), chlorine, or iron content, this is especially important. The filter should be the lime inhibiting type if cold water is used. Contact our Customer Service Department to select the filter for your conditions.



Installation

⚠ WARNING: ELECTRIC SHOCK HAZARD!

INSTALLATION OF THIS APPLIANCE SHOULD BE PERFORMED BY QUALIFIED SERVICE PERSONNEL ONLY. IMPROPER INSTALLATION COULD RESULT IN ELECTROCUTION.

See rough-in drawings in this manual for dimensions and locations of electric and water input.

Set-Up/Position

- 1) Remove the brewer from the packing material and attach its legs.
- 2) Position the brewer on a strong, stable table or counter. Check the level front to back and side to side. Adjust the legs to the correct level.

IMPORTANT:

THE PERSON INSTALLING THIS APPLIANCE IS RESPONSIBLE FOR ENSURING THAT ELECTRIC AND WATER CONNECTIONS MEET THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE, NATIONAL PLUMBING CODE, AND ANY LOCAL ORDINANCES.

Grindmaster Corporation™

4003 Collins Lane
Louisville, KY 40245 USA
(502) 425-4776 (800) 695-4500
(800) 568-5715 (Technical Service Only)
FAX (502) 425-4664
www.grindmaster.com

Installation (con't.)

Electric hook-up

- 1) The electric ratings for your brewer are printed on its nameplate. Typical electric ratings are: 120V, 1.65 kW, 15 Amp, 1 phase.
- 2) The brewer should be connected to its own circuit with a fused disconnect switch or a circuit breaker near the brewer.
- 3) Electrical connection is made with power cord with NEMA 5-15P grounded plug (supplied) to 120V, 15 Amp wall socket. Certain models may be equipped with a NEMA 5-20P cordset and plug.



WARNING ELECTROCUTION HAZARD

NEVER USE THE GROUND CONDUCTOR AS A NEUTRAL. DO NOT USE GROUND ELIMINATING ADAPTORS. UNIT MUST BE PROPERLY GROUNDED.

Start-up

Connect water line and turn water valve on. Check for leaks. Plug in power cord (supplied) to 120, 15 Amp (20 Amp for some models, see rating plate on unit) wall outlet.

Once the brewer is full of water, it will take 15 to 35 minutes to heat. The "READY" LAMP will light when water has reached the set temperature.

After "READY" LAMP is lit, portion volume may now be checked. Insert the brew basket and place Shuttle/Airpot under the brew basket. Brew at least one batch at half and full volume to check for proper volumes. Remember that when brewing coffee, the level will be lower. The water must be hot to check for proper levels.

If adjustments are needed, see the Adjustments section of this manual.



WARNING: HOT LIQUID HAZARD
DO NOT TRANSPORT BREWER WITHOUT DRAINING WATER TANK FIRST.

Operation

CAUTION: HOT LIQUID HAZARD

WATER USED FOR BREWING COFFEE IS VERY HOT. USE CAUTION WHEN BREWING, POURING, OR TRANSPORTING COFFEE. ACCIDENTAL SPILLS MAY RESULT IN SEVERE BURNS.

- 1) Place an empty, warm Shuttle under the brew head. Turn on the warmer once a Shuttle is in place, or place an empty 1.9L to 3.0L airpot under the brewing head. Choose one size airpot to minimize risk of brewing too large of volume in smaller container.
- 2) Remove the brew basket and line it with a paper filter. Paper size is 13 x 5 (Filter # BB1.5WP).
- 3) Place ground coffee in the filter basket. Your coffee supplier can help you select the right amount of coffee and grind. Coffee brewing experts recommend between 6.5 and 8 ounces of coffee per gallon of water for most applications. A full Shuttle is 1.5 gallons.
- 4) Slide the basket into the brewer, making sure the spout lines up with the top of the Shuttle or Airpot.
- 5) Check that the correct batch size is selected. Check the "READY" light. If lit, press START.
- 6) Brew time is about 5 minutes for Shuttles and 4 minutes for 3.0L Airpots. After the brew, allow the coffee to drip for 1 to 2 minutes.

CAUTION: HOT LIQUID HAZARD

COFFEE BASKET CONTAINS VERY HOT WATER UNTIL THE DRIP IS COMPLETED. EARLY REMOVAL OF A DRIPPING BASKET COULD RESULT IN BURNS.

- 7) Dump the grounds from the basket and rinse for the next brew. Coffee is ready to serve.
- 8) The Shuttle may be placed on remote warming stations. Use caution when moving a full Shuttle or Airpot.

Adjustments



WARNING: ELECTRIC SHOCK HAZARD

DANGEROUS ELECTRIC VOLTAGES ARE PRESENT NEAR ADJUSTABLE COMPONENTS. ALL ADJUSTMENTS SHOULD BE PERFORMED BY QUALIFIED SERVICE PERSONNEL ONLY.

All adjustable components are located under the top cover. To access these parts:

- 1) Unplug the brewer.
- 2) Remove the screw fastening the top cover. Remove the top cover.

Brew Volume Adjustment

The brew volume of the P200/RAPS200 brewer is controlled by its timer. The batch size is directly proportional to the timer setting. The timer adjustment is located under the top cover.

There will always be a small variation (+/- 5%) in level from batch to batch.

Before making the timer adjustment, do the following:

- 1) Brew a batch of water to determine where the level falls. Using a stop watch, determine the current brew time. Measure the volume of water.
- 2) To determine the desired time setting, use the following formula:

$$\text{desired brew time} = \frac{\text{desired brew volume}}{\text{current brew volume}} \times \text{current brew time}$$

Timer Adjustment

Two Batch Timer with Knob Adjustment, See Figure A:

- 1) This timer is adjustable from 15 seconds to 5 minutes. Locate the adjustment knobs under the top cover.
- 2) Set this timer by adjusting the knob. The batch selector switch picks the adjustment potentiometer which the timer will see.

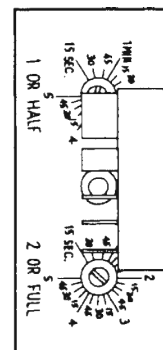


Figure A
Two Batch Timer

Thermostat Adjustment

The thermostat controls the water temperature in the tank. Factory setting is 195 degrees F. This is the ideal temperature for brewing coffee. Water should never boil in the tank. If water is boiling in the tank, adjust the temperature appropriately.

Standard Mechanical Thermostat:

- 1) Shut off power and unplug brewer.
- 2) Open cover, locate thermostat mounted on tank. (Refer to Figure B).
- 3) Turn the shaft counter clockwise to increase temperature, clockwise to decrease temperature.
- 4) If the maximum temperature adjustment needs to be increased, insert a small flat screwdriver into the shaft. Turn the calibration screw counter clockwise to increase the maximum temperature.
- 5) Reinstall top cover with screw then plug unit in, return to use.

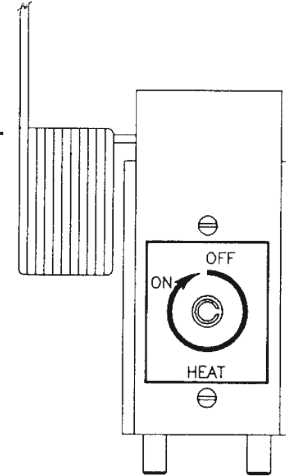


Figure B

Cleaning



WARNING: BURN HAZARD

HOT LIQUIDS AND SURFACES ARE PRESENT IN THIS EQUIPMENT. TO AVOID BURNS, USE CAUTION WHEN CLEANING. RINSE HOT PARTS WITH COLD WATER BEFORE CLEANING. USE GLOVES OR A HEAVY CLOTH WHEN REMOVING HOT PARTS FROM BREWER.

After Each Brew:

- 1) Dispose of grounds and rinse brew basket.
- 2) Rinse Shuttles and Airpots before reuse.

Every Day:

- 1) Wash brew basket with warm soapy water.
- 2) Remove spray head located above brew basket, using gloves or a heavy towel. Wash off coffee oils and clean any plugged holes.
- 3) Clean Shuttles and Airpots with warm soapy water and a brush or towel.
- 4) Wipe exterior of brewer with a damp cloth. Do not use abrasives which will scratch surface.
- 5) If the Shuttle is to be left on the warmer all night, fill it with water to avoid coffee oil burn-in.

Weekly or Bi-Weekly, Depending on Use (P200 Only):

- 1) Fill Shuttle with one gallon of hot water.
- 2) Pour the recommended concentration of urn cleaner into the Shuttle liners (Excessive amounts of cleaner will attack the stainless steel).

Urn cleaners that have been used successfully:

DIP-IT, manufactured by Economics Laboratories, Inc.
4 Corporate Park Drive
White Plains, NY 10604

OXYLITE, manufactured by Avril, Inc., Syndet Division
601 N. Third Street
Reading, PA 19601

- 3) Scrub the liner interior with a plastic bristle brush.
- 4) Remove the knurled nut at the top of the gauge glass and clean the glass with a small bottle brush.
- 5) Pour out the contents of the Shuttle.
- 6) Remove the handle assembly of the Shuttle faucet by unscrewing the plastic bonnet.
- 7) Gently wash the faucet seat cup with a soft cloth and warm soapy water.
- 8) Wash the faucet shank with a bottle brush.
- 9) Clean the warmer and bottom of Shuttle surfaces. These surfaces must be clean for proper heat transfer.
- 10) Polish the exterior of the brewer with stainless steel cleaner. Use the appropriate cleaner for brass, copper, or vinyl if these optional finishes are provided.

Service

The rest of this manual contains information to help the service person who is working on this equipment. This section has information on performing common service tasks.

To Drain The Water Tank

CAUTION: HOT LIQUIDS / BURN HAZARD
WATER IN TANK IS VERY HOT. USE CAUTION WHEN DRAINING TANK.
ACCIDENTAL SPILLS MAY RESULT IN SEVERE BURNS.

- 1) Shut off power to brewer.
- 2) Remove the top panel.
- 3) Remove the warmer shelf.
- 4) Pinch or clamp the tube from fill valve to tank (near tank entry on bottom).
- 5) Disconnect rubber tube from outlet barb on fill valve.
- 6) Pull tube through the brewer body so that it exits at the bottom.
- 7) Place tube over drain and release clamp.

To Remove The Heater

- 1) Disconnect power and remove top cover of brewer.
- 2) Disconnect wire leads to heater.
- 3) Remove tank cover by loosening retaining nuts. Remove heater from cover.
- 4) Replace heater with sealing washers in same configuration. When tightening nuts, hold element so it does not twist.
- 5) Replace tank cover.
- 6) Replace heater wires. Be sure all electrical connections are secure.
- 7) Replace top cover of brewer and connect power cord to outlet.

Troubleshooting: Filling, Heating, and Brewing

Filling Problems			
<p><i>The filling system consists of the following components:</i></p> <ul style="list-style-type: none"> • Liquid Level Control, located behind the brewer front panel. • Liquid Level Probes, located on the tank top, secured by wing nut, under the top cover • Fill Valve, located behind the front panel. 			
Problem	Possible Cause	Service Check	Remedy
Overfilling watertank even when power is off.	Fill valve not sealing properly.	Water entering tank continuously, usually slowly.	Disassemble valve and clean out dirt. Valve may need new plunger if seal is worn.
	Fill valve installed backwards.	Look for direction of arrow on valve body.	If arrow on valve is pointing toward water inlet, remove valve and install correctly.
Overfilling watertank only when power is on.	High electrode coated with lime or faulty.	Jumper HI terminal on level control to metal enclosure stops fill.	Remove electrode assembly and clean both probes. If this does not work, replace assembly.
	Missing or faulty connection of C terminal on level control to metal enclosure.	Jumper from C terminal to metal body stops fill.	Make secure connection of C to metal body.
	Fill valve connected to heat terminal on level control.	Check connections.	Connect black lead for valve to FILL on level control.
	Liquid level control is faulty.	Jumper from HI to C or metal enclosure does not stop fill.	Replace level control.
Tank does not refill.	No power at equipment.	Nothing operates.	Check main switch or circuit breaker, brewer's circuit breaker or power switch if provided.
	No water at equipment.	Crack water inlet fitting.	Make sure all water supply line valves are open.
	Water strainer clogged.	Water pressure before strainer but not after.	Remove and clean or replace strainer's mesh.
	No power to level control.	Check for 120V AC across H and N terminals on level control	If no voltage, check for loose or broken wires.
	Level control faulty.	Disconnect probe wire to HI terminal on level control. Check for 120V at FILL terminal.	If no 120V at FILL terminal, replace level control.
	Electrodes faulty.	Tank fills only when probe wire is disconnected from HI terminal on level control.	Replace electrodes. If no remedy, check for improper wiring or level probe tip touching metal.
	Fill valve faulty.	120V is across FILL and N on level control, but no fill.	Disassemble valve and clean or replace plunger if frozen. If plunger is OK, coil may need replacement.

Troubleshooting: Filling, Heating, and Brewing (con't.)

Heating Problems <i>The heating system consists of the following components:</i> <ul style="list-style-type: none"> • Thermostat, located on the tank or on the front of top control panel under top cover. • Heating Element, located on top of tank under top cover. 			
Problem	Possible Cause	Service Check	Remedy
Tank does not heat.	Thermostat faulty or out of calibration.	Make sure thermostat is turned on.	Recalibrate thermostat. If no remedy or thermostat does not cycle, replace thermostat.
	Heater faulty.	Check resistance across elements with wires disconnected.	If resistance is much different than 7 to 10 ohms, replace heater.
Recovery time is very long.	Heater faulty.	See above.	See above.

If you still need help, call our Service Department at (800) 568-5715, press 2 (Monday through Friday, 8 a.m. - 6 p.m. EST) or an authorized service center in your area. Please have the model and serial numbers ready so that accurate information can be given.

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

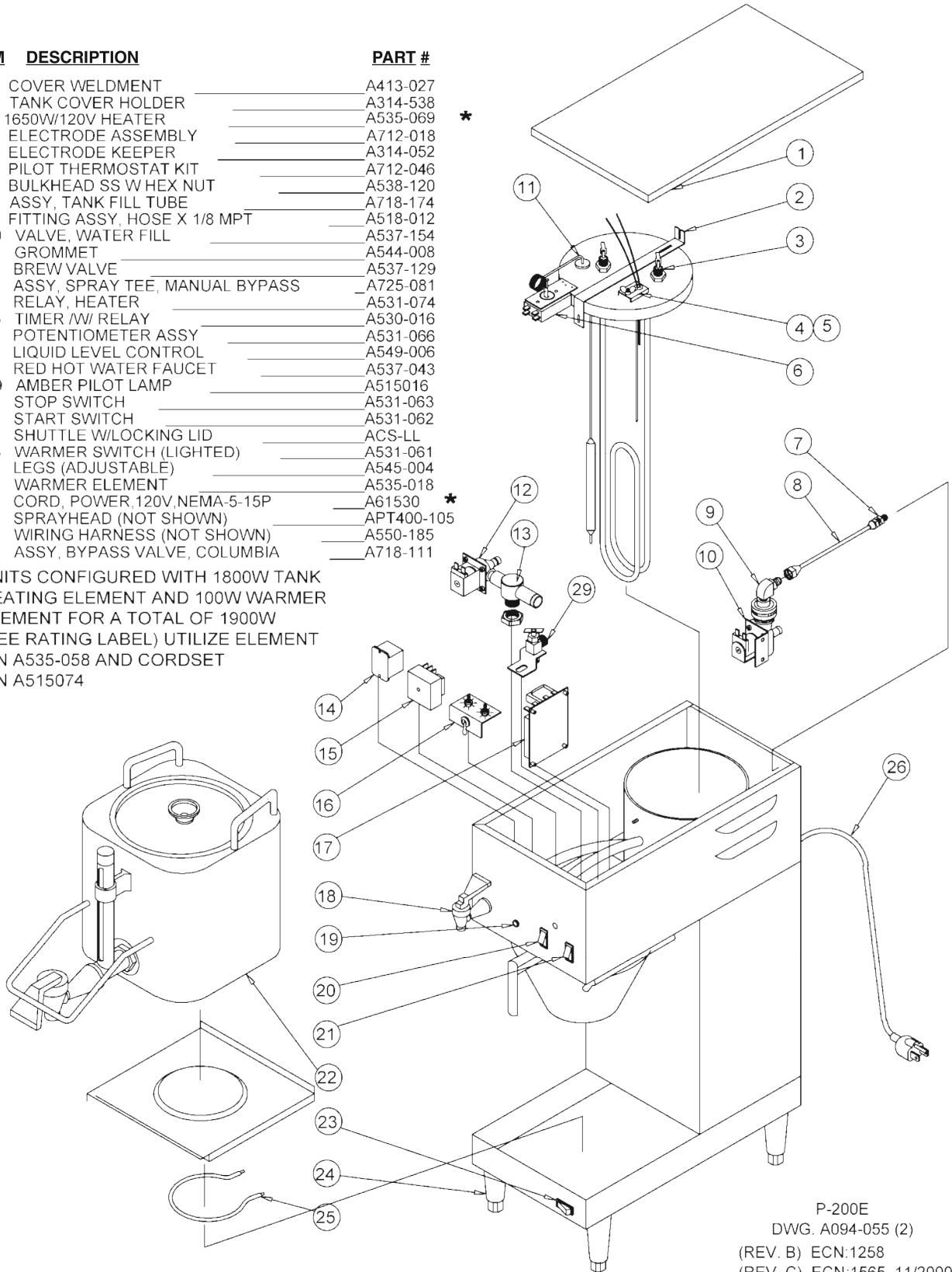
Troubleshooting: Filling, Heating, and Brewing (con't.)

Brewing Problems <i>The brewing system consists of the following components:</i> <ul style="list-style-type: none"> • Start and Stop switches, located on the front control panel. • Brew Timer, located in the top control section under the top cover. 			
Problem	Possible Cause	Service Check	Remedy
Brew volume too large or too small.	Timer out of adjustment.	Compare timer setting to factory setting chart.	Adjust timer.
	Pressure not adequate at brewer.	Check water flow before removing strainer.	Clean or rinse strainer at fill valve.
	Spray head clogged.	Visual	Clean all holes.
	Timer faulty.	Check if brew time matches timer setting and if timer can be adjusted.	Replace timer.
Brew volume erratic. <i>(there is always some small variation from batch to batch)</i>	Timer faulty.	Measure brew time for inconsistencies.	If time is different from batch to batch, replace timer.
	Pressure fluctuations at brewer.	Check pressure at brewer inlet.	Plumb water line so its pressure is not influenced by other appliances.
Brew will not start.	Tripped circuit breaker.	Check to see if circuit breaker tripped or popped out.	Reset or replace breaker.
	Brew valve faulty.	Check 120V across brew valve.	If 120V is across brew valve, but brew valve doesn't open, replace coil or valve.
	Stop switch faulty.	Check for continuity across stop switch when not pressed.	If no continuity, replace switch.
	Start switch faulty.	Check 120V between S.S. and N on timer when start is pressed.	If start switch does not provide 120V start signal, replace switch.
	Timer faulty.	Check 120V between H and N on timer. If OK, check for 120V between BREW and N on timer after pressing start.	If no 120V BREW output from timer, replace timer.
Spray head will not stop dripping water. <i>(spray heads normally drip slightly after brew)</i>	Boiling tank.	If drip is from right side, check for water from overflow outlet at top of tank.	Turn down thermostat. If that doesn't cure, check for faulty thermostat or heater relay.
	Limed up Fill valve.	Visual check of valve.	Clean valve. Valve seal or entire valve may need replacement.

Exploded View for the P200-E

ITEM	DESCRIPTION	PART #
1	COVER WELDMENT	A413-027
2	TANK COVER HOLDER	A314-538
3	1650W/120V HEATER	A535-069 *
4	ELECTRODE ASSEMBLY	A712-018
5	ELECTRODE KEEPER	A314-052
6	PILOT THERMOSTAT KIT	A712-046
7	BULKHEAD SS W HEX NUT	A538-120
8	ASSY, TANK FILL TUBE	A718-174
9	FITTING ASSY, HOSE X 1/8 MPT	A518-012
10	VALVE, WATER FILL	A537-154
11	GROMMET	A544-008
12	BREW VALVE	A537-129
13	ASSY, SPRAY TEE, MANUAL BYPASS	A725-081
14	RELAY, HEATER	A531-074
15	TIMER /W/ RELAY	A530-016
16	POTENTIOMETER ASSY	A531-066
17	LIQUID LEVEL CONTROL	A549-006
18	RED HOT WATER FAUCET	A537-043
19	AMBER PILOT LAMP	A515016
20	STOP SWITCH	A531-063
21	START SWITCH	A531-062
22	SHUTTLE W/LOCKING LID	ACS-LL
23	WARMER SWITCH (LIGHTED)	A531-061
24	LEGS (ADJUSTABLE)	A545-004
25	WARMER ELEMENT	A535-018
26	CORD, POWER, 120V, NEMA-5-15P	A61530 *
27	SPRAYHEAD (NOT SHOWN)	APT400-105
28	WIRING HARNESS (NOT SHOWN)	A550-185
29	ASSY, BYPASS VALVE, COLUMBIA	A718-111

* UNITS CONFIGURED WITH 1800W TANK HEATING ELEMENT AND 100W WARMER ELEMENT FOR A TOTAL OF 1900W (SEE RATING LABEL) UTILIZE ELEMENT P/N A535-058 AND CORDSET P/N A515074



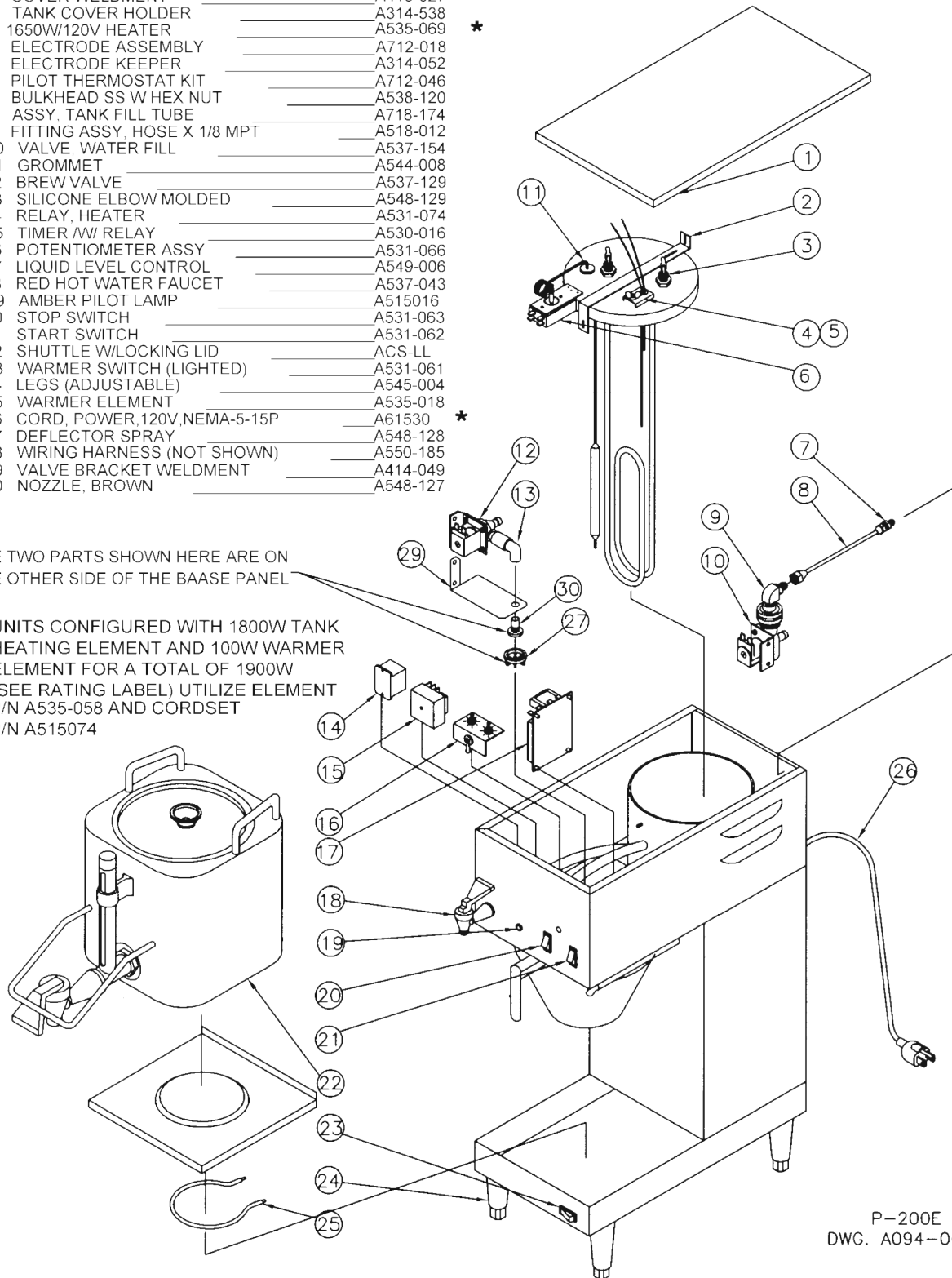
P-200E
 DWG. A094-055 (2)
 (REV. B) ECN:1258
 (REV. C) ECN:1565 11/2000
 (REV. D)

Exploded View for the P200 (G version only)

ITEM	DESCRIPTION	PART #
1	COVER WELDMENT	A413-027
2	TANK COVER HOLDER	A314-538
3	1650W/120V HEATER	A535-069 *
4	ELECTRODE ASSEMBLY	A712-018
5	ELECTRODE KEEPER	A314-052
6	PILOT THERMOSTAT KIT	A712-046
7	BULKHEAD SS W HEX NUT	A538-120
8	ASSY, TANK FILL TUBE	A718-174
9	FITTING ASSY, HOSE X 1/8 MPT	A518-012
10	VALVE, WATER FILL	A537-154
11	GROMMET	A544-008
12	BREW VALVE	A537-129
13	SILICONE ELBOW MOLDED	A548-129
14	RELAY, HEATER	A531-074
15	TIMER /W/ RELAY	A530-016
16	POTENTIOMETER ASSY	A531-066
17	LIQUID LEVEL CONTROL	A549-006
18	RED HOT WATER FAUCET	A537-043
19	AMBER PILOT LAMP	A515016
20	STOP SWITCH	A531-063
21	START SWITCH	A531-062
22	SHUTTLE W/LOCKING LID	ACS-LL
23	WARMER SWITCH (LIGHTED)	A531-061
24	LEGS (ADJUSTABLE)	A545-004
25	WARMER ELEMENT	A535-018
26	CORD, POWER, 120V, NEMA-5-15P	A61530 *
27	DEFLECTOR SPRAY	A548-128
28	WIRING HARNESS (NOT SHOWN)	A550-185
29	VALVE BRACKET WELDMENT	A414-049
30	NOZZLE, BROWN	A548-127

THE TWO PARTS SHOWN HERE ARE ON THE OTHER SIDE OF THE BAASE PANEL

* UNITS CONFIGURED WITH 1800W TANK HEATING ELEMENT AND 100W WARMER ELEMENT FOR A TOTAL OF 1900W (SEE RATING LABEL) UTILIZE ELEMENT P/N A535-058 AND CORDSET P/N A515074

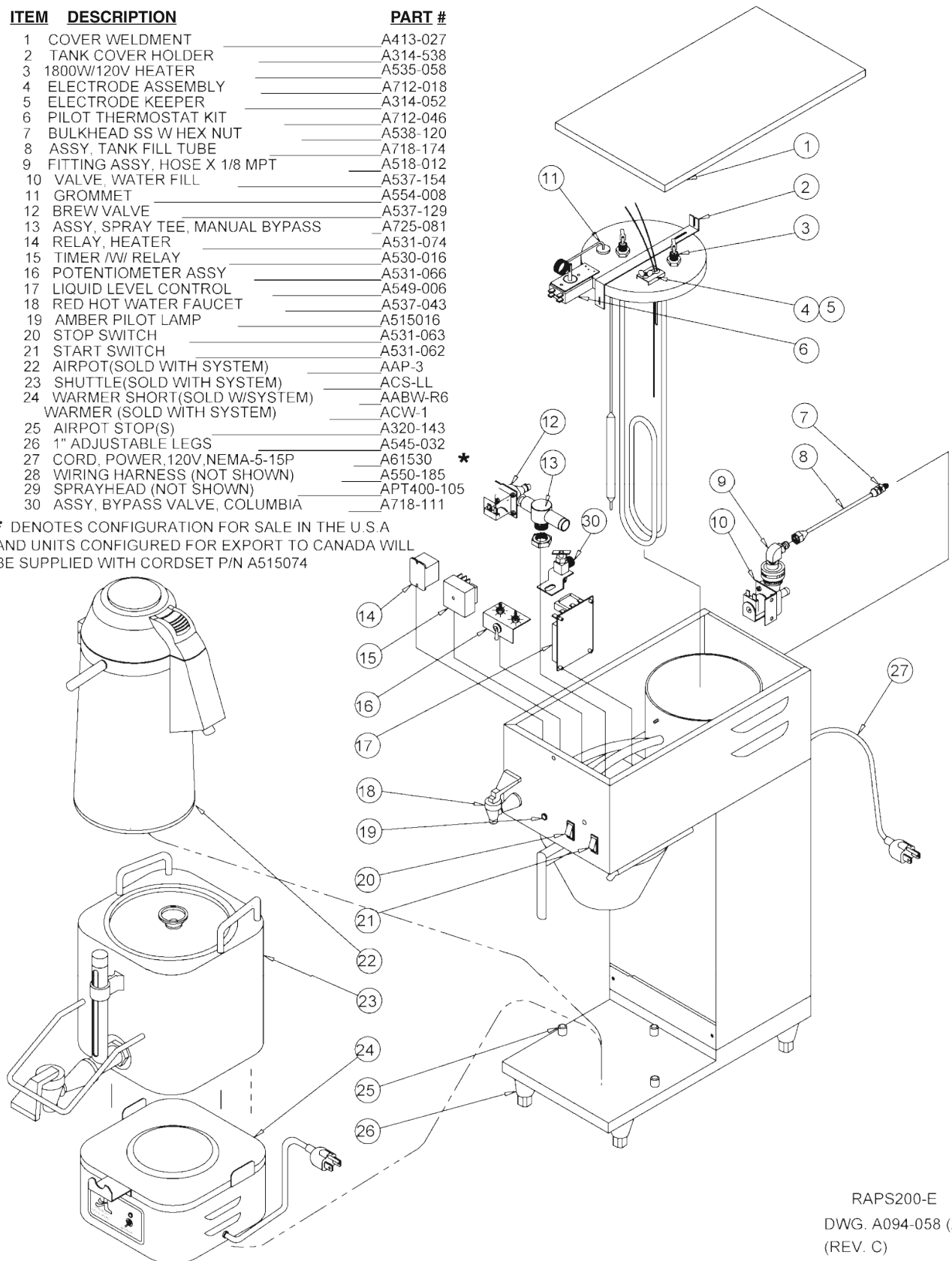


P-200E
DWG. A094-066

Exploded View for the RAPS200-E

ITEM	DESCRIPTION	PART #
1	COVER WELDMENT	A413-027
2	TANK COVER HOLDER	A314-538
3	1800W/120V HEATER	A535-058
4	ELECTRODE ASSEMBLY	A712-018
5	ELECTRODE KEEPER	A314-052
6	PILOT THERMOSTAT KIT	A712-046
7	BULKHEAD SS W HEX NUT	A538-120
8	ASSY, TANK FILL TUBE	A718-174
9	FITTING ASSY, HOSE X 1/8 MPT	A518-012
10	VALVE, WATER FILL	A537-154
11	GROMMET	A554-008
12	BREW VALVE	A537-129
13	ASSY, SPRAY TEE, MANUAL BYPASS	A725-081
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15	TIMER W/ RELAY	A530-016
16	POTENTIOMETER ASSY	A531-066
17	LIQUID LEVEL CONTROL	A549-006
18	RED HOT WATER FAUCET	A537-043
19	AMBER PILOT LAMP	A515016
20	STOP SWITCH	A531-063
21	START SWITCH	A531-062
22	AIRPOT(SOLD WITH SYSTEM)	AAP-3
23	SHUTTLE(SOLD WITH SYSTEM)	ACS-LL
24	WARMER SHORT(SOLD W/SYSTEM)	AABW-R6
	WARMER (SOLD WITH SYSTEM)	ACW-1
25	AIRPOT STOP(S)	A320-143
26	1" ADJUSTABLE LEGS	A545-032
27	CORD, POWER, 120V, NEMA-5-15P	A61530 *
28	WIRING HARNESS (NOT SHOWN)	A550-185
29	SPRAYHEAD (NOT SHOWN)	APT400-105
30	ASSY, BYPASS VALVE, COLUMBIA	A718-111

* DENOTES CONFIGURATION FOR SALE IN THE U.S.A
AND UNITS CONFIGURED FOR EXPORT TO CANADA WILL
BE SUPPLIED WITH CORDSET P/N A515074



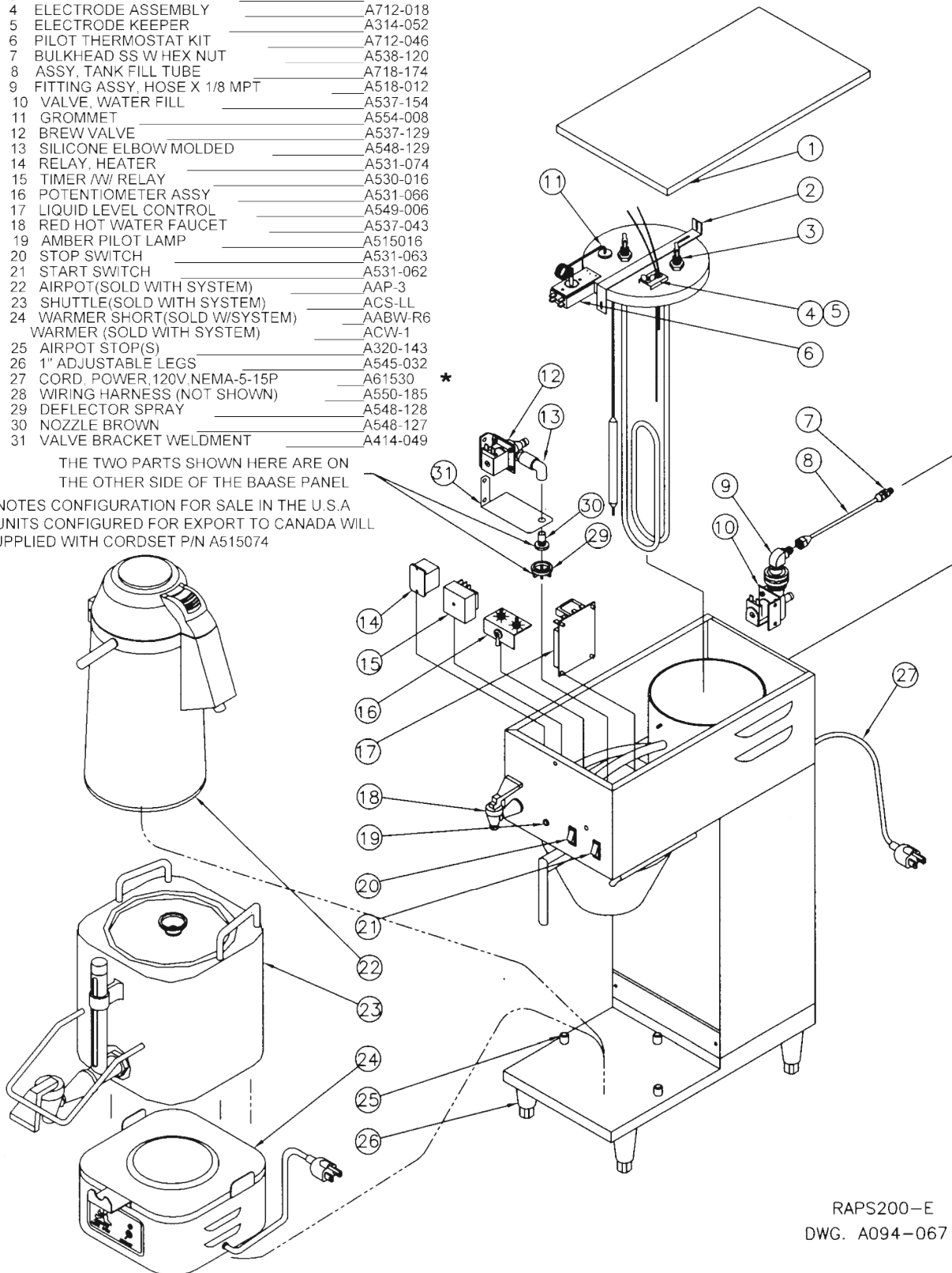
RAPS200-E
DWG. A094-058 (2)
(REV. C)

Exploded View for the RAPS200 (G version only)

ITEM	DESCRIPTION	PART #
1	COVER WELDMENT	A413-027
2	TANK COVER HOLDER	A314-538
3	1800W/120V HEATER	A535-058
4	ELECTRODE ASSEMBLY	A712-018
5	ELECTRODE KEEPER	A314-052
6	PILOT THERMOSTAT KIT	A712-046
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26	1" ADJUSTABLE LEGS	A545-032
27	CORD, POWER, 120V NEMA-5-15P	A61530
28	WIRING HARNESS (NOT SHOWN)	A550-185
29	DEFLECTOR SPRAY	A548-128
30	NOZZLE BROWN	A548-127
31	VALVE BRACKET WELDMENT	A414-049

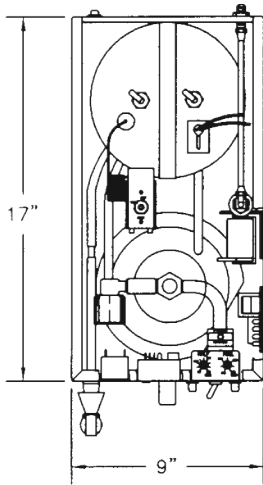
THE TWO PARTS SHOWN HERE ARE ON THE OTHER SIDE OF THE BAASE PANEL

* DENOTES CONFIGURATION FOR SALE IN THE U.S.A AND UNITS CONFIGURED FOR EXPORT TO CANADA WILL BE SUPPLIED WITH CORDSET P/N A515074



RAPS200-E
DWG. A094-067

Rough-In Drawing for the P200-E

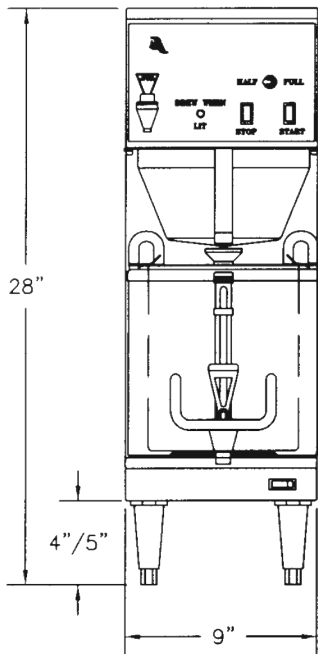


TOP VIEW
(SHOWN WITH TOP PANEL REMOVED)

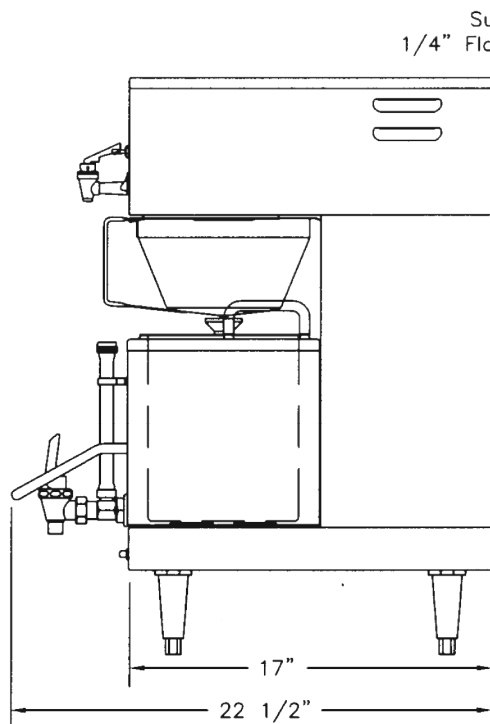
UTILITY DATA

- ELECTRIC - 120V, 1650W, 1ph REQUIRES 15A SERVICE*
- 120V, 1800W, 1ph, REQUIRES 20A SERVICE
- WATTAGES LISTED ARE FOR MAIN HEATER
- THIS UNIT ALSO EMPLOYS A 100W SHUTTLE HEATER
- WATER - 1/4" FLARE FITTING, REAR CONNECTION

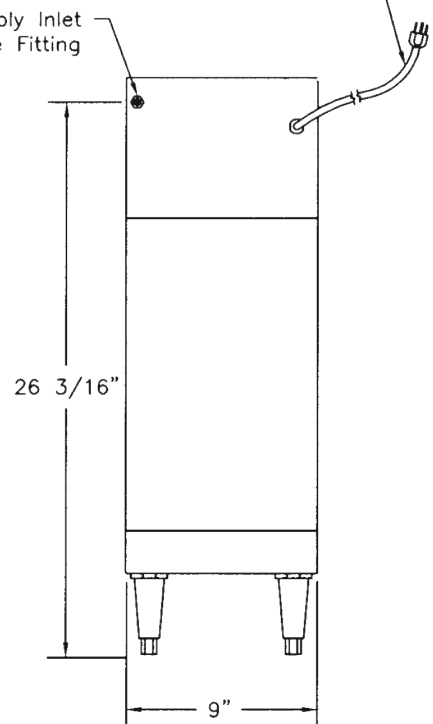
120V, NEMA - 5-20P OR
120V, NEMA-5-15P



FRONT VIEW



SIDE VIEW

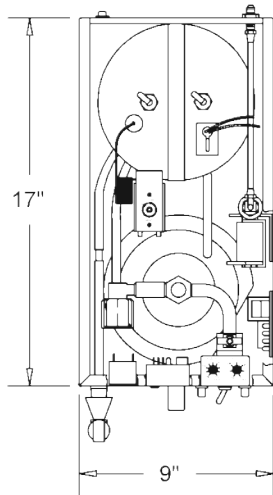


REAR VIEW

*NOTE - ALL MODELS REQUIRE 20A SERVICE IN CANADA

DWG. NO. A094-054
(REV. A)

Rough-In Drawing for the RAPS200-E



TOP VIEW

(SHOWN WITH TOP PANEL REMOVED)

UTILITY DATA

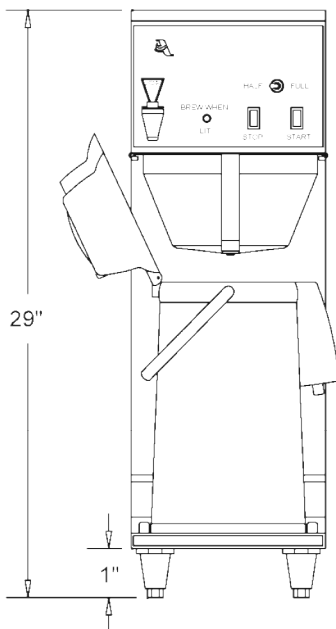
ELECTRIC -120V, 1650W, 1ph REQUIRES 15A SERVICE *
 -120V, 1800W, 1ph, REQUIRES 15A SERVICE
 -WATTAGES LISTED ARE FOR MAIN HEATER

WATER - 1/4" FLARE FITTING, REAR CONNECTION

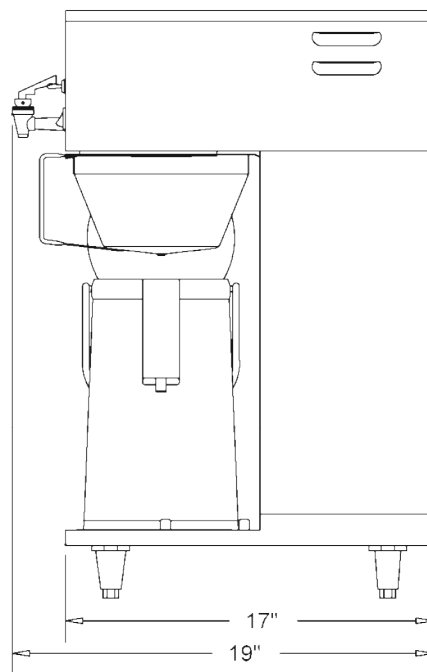
120V, NEMA-5-20P
 120V, NEMA-5-15P

OR

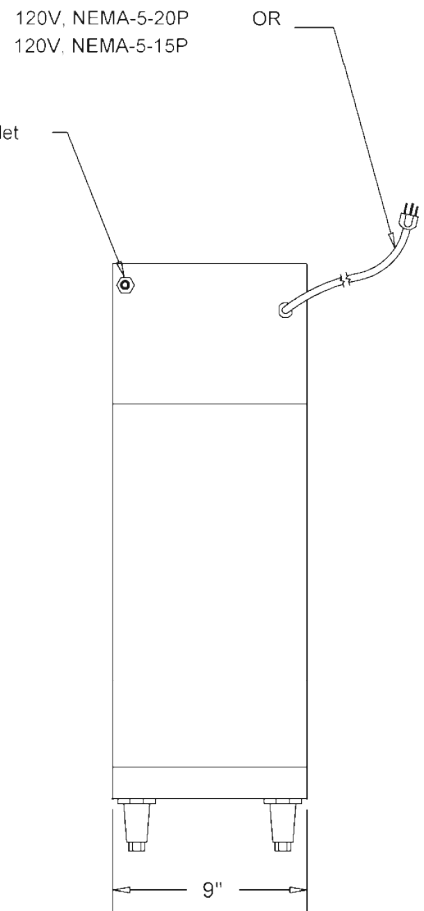
Supply Inlet
 1/4" Flare Fitting



FRONT VIEW



SIDE VIEW

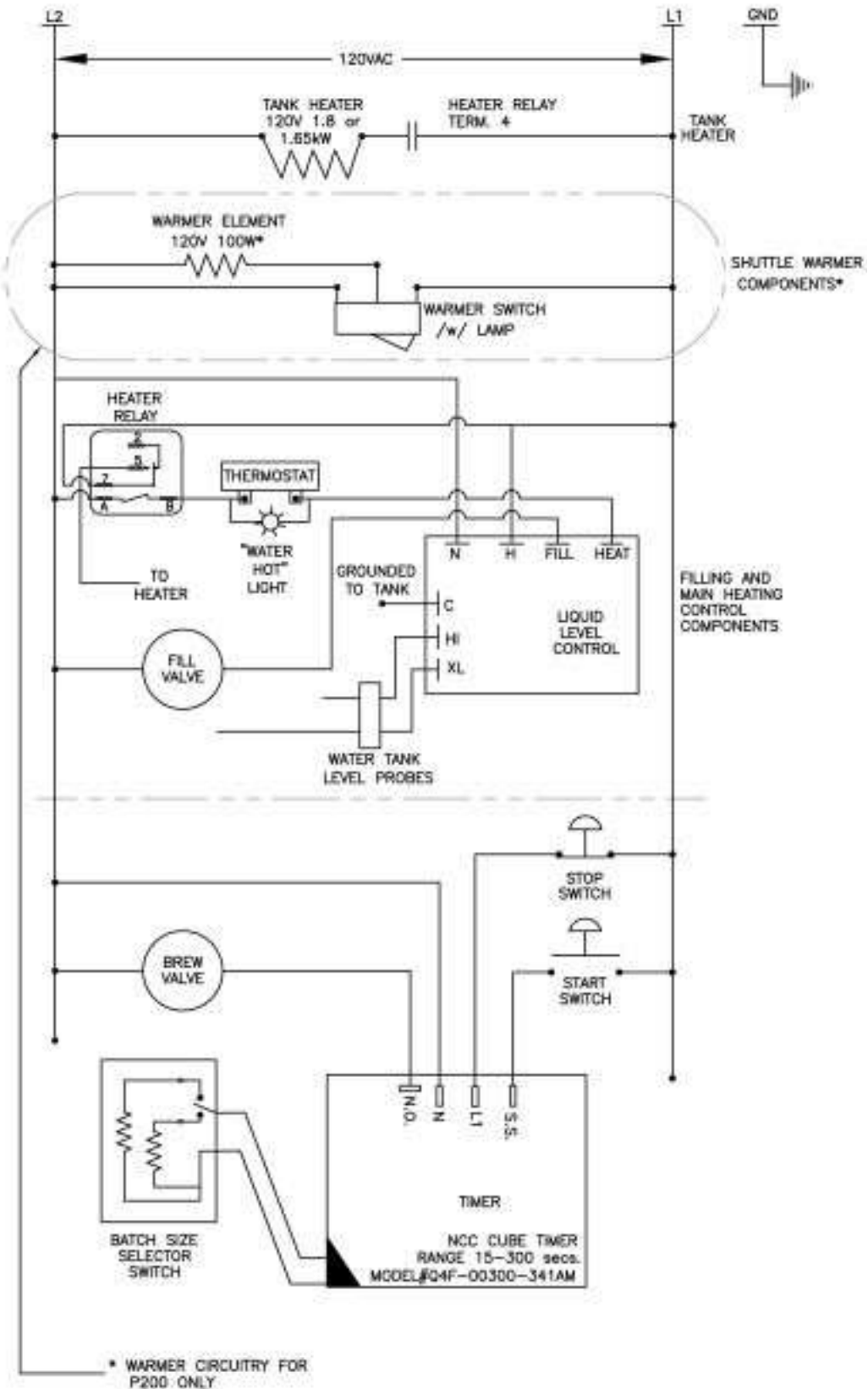


REAR VIEW

* NOTE - ALL MODELS REQUIRE 20A SERVICE IN CANADA

DWG. NO. A094-057
 (REV. B)

Wiring Diagram for P200-E/RAPS200-E



WARRANTY

for P200/RAPS200 Series

EFFECTIVE MARCH 1, 1996

GENERAL WARRANTY INFORMATION

Grindmaster maintains the highest standard of quality control in the manufacturing of American Metal Ware products. We use the finest components and materials, and employ quality engineering standards and tests. The P200E Brewer is warranted for a period of one year from date of shipment. This warranty will include parts and labor but will not cover transportation and shipping charges and will be limited to equipment sold to commercial purchasers and installed in the continental U.S.A., Hawaii, Alaska and Canada.

EXCEPTIONS

Coverage is not included for labor needed or caused by:

- Adjustments of temperature or flow rates or timers. These adjustments are covered in the technical manual provided and subject to user preferences.
- This warranty does not cover maintenance consumable parts such as o-rings, seat cups, washers. These are subject to NORMAL wear or everyday usage and are a responsibility of the user.
- Accident
- Improper installation
- Neglect or abuse
- Excessive lime/mineral content of water used
- Cleaning of any category. Cleaning is a user's responsibility.
- All warranties are null and void if muriatic or any other form of hydrochloric acid is used for cleaning or delimiting our equipment.

NOTE: THIS WARRANTY SUPERSEDES ANY OTHER WARRANTY. ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE HEREBY EXCLUDED AND DISCLAIMED.

HOW TO OBTAIN WARRANTY SERVICES

Call Grindmaster Service Department toll free at 1-800-695-4500 for technical services or write to: Grindmaster Factory Service Center, P.O. Box 35020, Louisville, KY 40232. In order to receive warranty service, you must provide the serial number of the machine requiring service along with a description of the problem. Service will be arranged through one of our authorized local service centers or our factory service center. Transportation is the user's responsibility. Should it become necessary to transport your machine to a service center, make sure it is properly packaged to avoid in-transit damage, which is not covered by this warranty.

No field, outside or service station work is covered by this warranty without prior authorization by Grindmaster's Service Dept.

