



Made By: Pighetti's Espresso Equipment Inc.



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*Espresso Brewer  
Operating, Service and Parts Manual*

**PIGHETTI'S ESPRESSO EQUIPMENT INC.**

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5/10/05  
Part #31402



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**GENERAL**

- General
- User Notices
- Site Requirements
- Installation
- Drink Adjustments
- Operation
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**INTRODUCTION**

This, easy-to-operate espresso equipment produces consistently fine espresso and related beverages with the push of a button. The brewers come with one or two group heads (depending on model), each programmable to deliver one of three different amounts of beverage. They (depending on model) have one or two milk steam wands and a hot water wand. All of the critical functions of the brewer are electrically controlled.

**WARRANTY POLICY**

Pighetti's Espresso Eq. Inc. Represents that the equipment, which it manufactures, is commercially free from defects in material and workmanship at the time of manufacture. It warrants this equipment against such material and workmanship defects for a period of one (1) year for PARTS, and ninety (90) days for LABOR, from the date the machine is originally placed in a customer location. All warranty work and billing must be submitted by an approved Authorized Service Agent.

This warranty does not apply to any equipment, component or part that was not manufactured by Pighetti's Espresso Eq. Inc. Nor that, in Pighetti's Espresso Eq. Inc judgment, has been affected by misuse, neglect, alteration, improper installation or operation, improper maintenance, cleaning or repair, damage from shipping, casualty, improper machine / coffee adjustments or non-use of water softener provided or the build up of deposits due to minerals (or other foreign materials) attributed to the water supply.

**THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR EITHER MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

The Representatives, Agents, Dealers or Employees of Pighetti's Espresso Eq. Inc Are not authorized to make modifications to this warranty, nor to make additional warranties that are binding on Pighetti's Espresso Eq. Inc statements by such individuals, whether oral or written, do not constitute warranties and should not be relied upon. If Pighetti's Espresso Eq. Inc. determines that repair is not feasible, Pighetti's Espresso Eq. Inc, shall, at its sole option, replace the equipment.

**THE BUYER'S REMEDY AGAINST PIGHETTI'S ESPRESSO EQ. INC. FOR THE BREACH OF ANY OBLIGAION ARISING OUT OF THE SALE OF THIS EQUIPMENT, WHETHER DERIVED FROM WARRANTY OR OTHERWISE, SHALL BE LIMITED, AS SPECIFIED HEREIN, TO REPAIR OR, AT PIGHETTI'S ESPRESSO EQ. INC. OPTION, REPLACEMENT.**

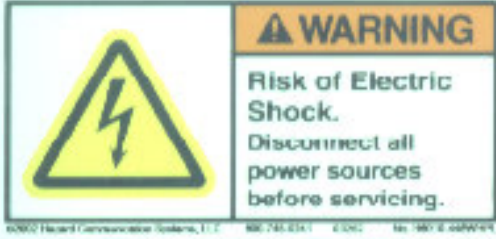
Pighetti's Espresso Eq. Inc. shall not be liable for any other damage or loss, including, but not limited to, lost profits, lost sales, loss of use of equipment, claims of Buyer's customers, cost of capital, cost of down time, cost of substitute equipment, facilities or services, or any other special, incidental or consequential damages.



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**USER NOTICES**

The notices on this brewer should be kept in good condition. **Replace unreadable or damaged labels.**  
Standard Decals



Part #31411



Part #31056



Part #31410



Part #31057

**SITE REQUIREMENTS**

**PHYSICAL**

- ❖ The brewer is for indoor use only on a sturdy counter. The operating maximum weight of any of the three brewers is approximately 174 pounds.

**PLUMBING**

- ❖ The plumbing requirement to the water softener is a 3/8” female flare fitting.
- ❖ This equipment is to be installed to comply with the Basic Plumbing Code of the Building Officials and Code Administrators International Inc. (BOCA) and the Food Service Sanitation Manual of the Food and Drug Administrations (FDA)
- ❖ NOTE-Pighetti’s Espresso Eq. Inc recommends 3/8” copper tubing for no more than 25 feet from the 1/2” water supply line. Pighetti’s Espresso Eq. Inc does not recommend the use of a saddle valve to install the brewer. The size and shape of the hole made in the supply line by this type of device may restrict water flow.
- ❖ The brewer must be connected to a Cold water source with operating pressure between 20 and 70 PSI from a 1/2” or larger supply line. Install a shut off valve in the water line before the brewer. Install a regulator before the brewer, when pressure is greater than 70 psi to reduce it to 45-60 psi.
- ❖ The enclosed water softener must be installed before the brewer, at the time of installation.  
**IF NOT, THE WARRANTY WILL BE VOID.**
- ❖ NOTE-Only softened or demineralized water should ever be used in this espresso brewer to reduce the service problems caused by naturally occurring elements in your local water supply. A polyphosphate feeder is not recommended because it does not remove minerals.



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## Electrical

- ❖ The brewer must be disconnected from the power source until specified. Improper electrical installation will damage electronic components.
  1. Using a voltmeter, check the voltage and color of each conductor at the electrical source.
  2. When instructed to proceed, connect the brewer to the power source.
- ❖ The brewer must be properly grounded. A plumbing line will not provide an adequate ground.

The 120 Volt equipment is equipped with an attached cord set and requires a 2-wire, grounded mating receptacle rated 120 volts ac, 20 amp, single phase, 60 Hz. An electrician must properly install a NEMA 5-20, 20amp, 125-volt receptacle to the appropriate service on an individual branch circuit to install this brewer.

The 220 Volt equipment is equipped with an attached cord set and requires a 3-wire, grounded service rated 120/208 or 120/240 Volts ac, 20 amp, single phase, 60 Hz. An electrician must properly install a NEMA= L14-20 receptacle to the appropriate service on an individual branch circuit to install this brewer.

## INSTALLATION

1. Connect main water supply to top 3/8" flare connect of the supplied water softener (Please note Warranty is void if water softener is not used.)
2. Place the attached flush line into a floor drain or drain receptacle.
3. Place top lever of softener inline with incoming water line.
4. Place bottom lever of softener inline with drain hose.
5. Turn on incoming water to the softener allow 10 minutes to completely flush softener.
6. Attach outgoing side of the water softener to the water inlet hose of the espresso brewer.
7. Turn the bottom valve of the water softener to the inlet hose position (Check all fittings at softener for leaks.)
8. Please note the water pressure on left gauge. The pressure should be between 20-70 PSI
9. Plug in Espresso Machine
10. Turn the power switch to the ON position. Allow 4 minutes for the machine to fill.
11. Place filter holder in the group heads.
12. Place the drink selector switch on large espresso and press the start button, on a 2-group model, repeat this process on the other side. Repeat this process until water flows smoothly through filter holder.
13. Remove the right side panel and turn the heater power switch to the on position. Allow Approx. 20 minutes to heat up.

**NOTE:** Service is to be performed only by authorized personnel.



## GRINDER / BURR ADJUSTMENTS

### CRITICAL NOTES:

- ❖ For coffees of 1 ½ & 2 Oz., the proper brew time should be 18-30 seconds.
  - ❖ If the times vary considerably from the above, adjust the Grinder Burr Adjustment (4)(Notched dial). (Clockwise for slower; counter clockwise for faster)
  - ❖ Each notch / number on the Grinder Burr Adjustment equals approximately 4 seconds.
  - ❖ Once the brew time has been reached, mark the adjustment.
1. Fill the Coffee Bean Hopper.
  2. Press ON/OFF switch (1) to grind a small amount of coffee.
  3. Pull doser lever (2) once to fill the single filter holder
  4. Tamp the coffee with the Tamper (3) on the grinder.
  5. Check the Pressure Gauge of the machine. (Right side, Green Zone)
  6. Select the small Espresso and press start.
  7. Once the single is adjusted, the double will require two pulls and should be the proper amount.



- 1 ON/OFF switch
- 2 Lever
- 3 Tamper
- 4 Grinder Burr Adjustment
- 5 Doser Adjustment Screw
- 6 Coffee Doser

## GRINDER / DOSER ADJUSTMENTS

1. Adjust grinder doser plate to the 8 gr. Mark on the front of the doser.
- ❖ Doser Adjustment Screw (5) Clockwise for less ~ counter clockwise for more.
2. Once the brew time has been reached. Press the power switch ON to fill the coffee doser (6).
3. Place the Single filter holder under the doser and pull one time.
4. Lightly tamp and place into group head.
5. Place size switch on small (1 cup) and press start.
6. Remove filter holder and visually inspect spent coffee grounds.
  - A. Muddy = Not enough coffee used.
  - B. Hard puck = Too much coffee.
  - C. Perfect = When knocked into knock box the puck breaks into 3 to 5 pieces.



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**\*DAILY\* CLEANING INSTRUCTIONS**

**Model A1 ~ A2 or Right group head on 2 group models**

1. Using the 1 cup filter handle, remove basket (caution hot) and replace with the cleaning cup (no hole basket). Add 1 espresso cleaning tablet and lock into right group head.
2. Turn drink switch to Espresso and process start, allow to run 15 seconds and then turn off power switch. Repeat 5 times.
3. Remove the filter handle and take out cleaning cup (caution hot) and put back in the 1 cup filter basket, and replace the filter handle back into group head.
4. Repeat Step 2 until completely rinsed.



**Cleaning Supplies**

1	Frother Cleaner	1207
2	Cleaning Tablets	1208
3	Cleaning Brush	1211

**Preventive Maintenance**

**Water Softener Maintenance**

Every 3 Months

**Recharge**

1. Do Not Dump softener out. Place Drain Hose in floor drain or 5 gallon bucket.
2. Turn incoming/top valve to position 1
3. Turn bottom valve to the 1 position a little water may start running.
4. Remove top and add 1lbs of water softener salt and reinstall top.
5. Turn top valve back to the 2 position softener will start to refill and bottom valve will start flushing let water run for 15 minutes and taste water for salt taste if it still has a salt taste let run until salt taste is gone.
6. When salt taste is gone turn bottom valve back to the 2 position this will send water back up to espresso machine.

**Group Head Gaskets**

Every Six Months

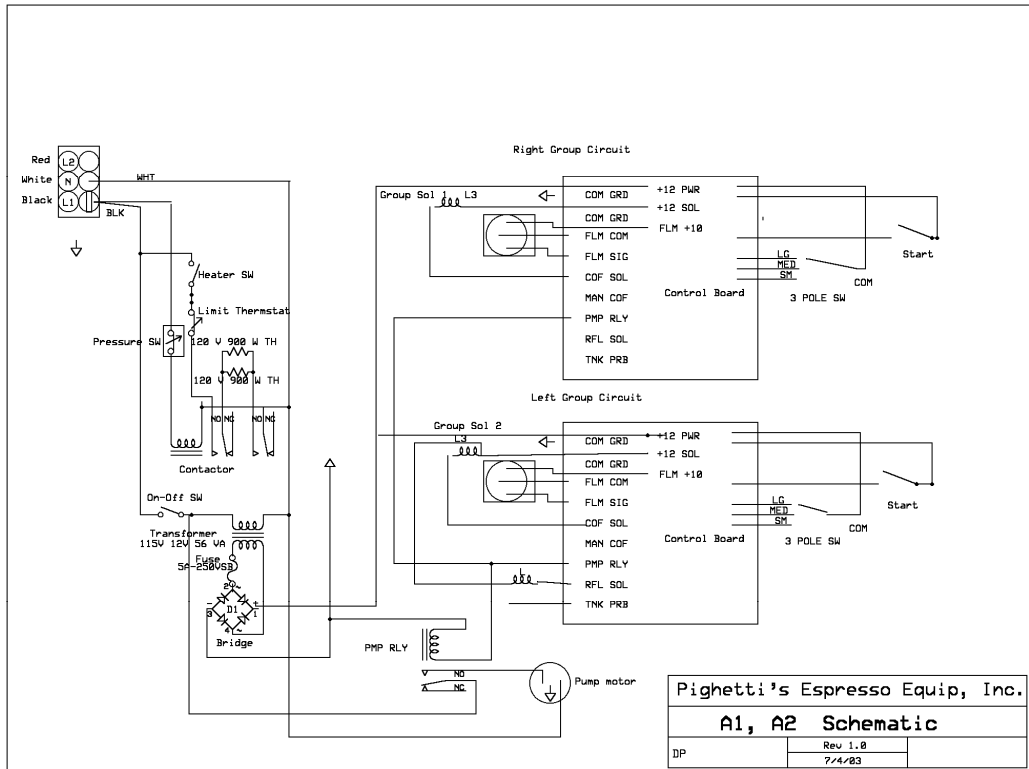
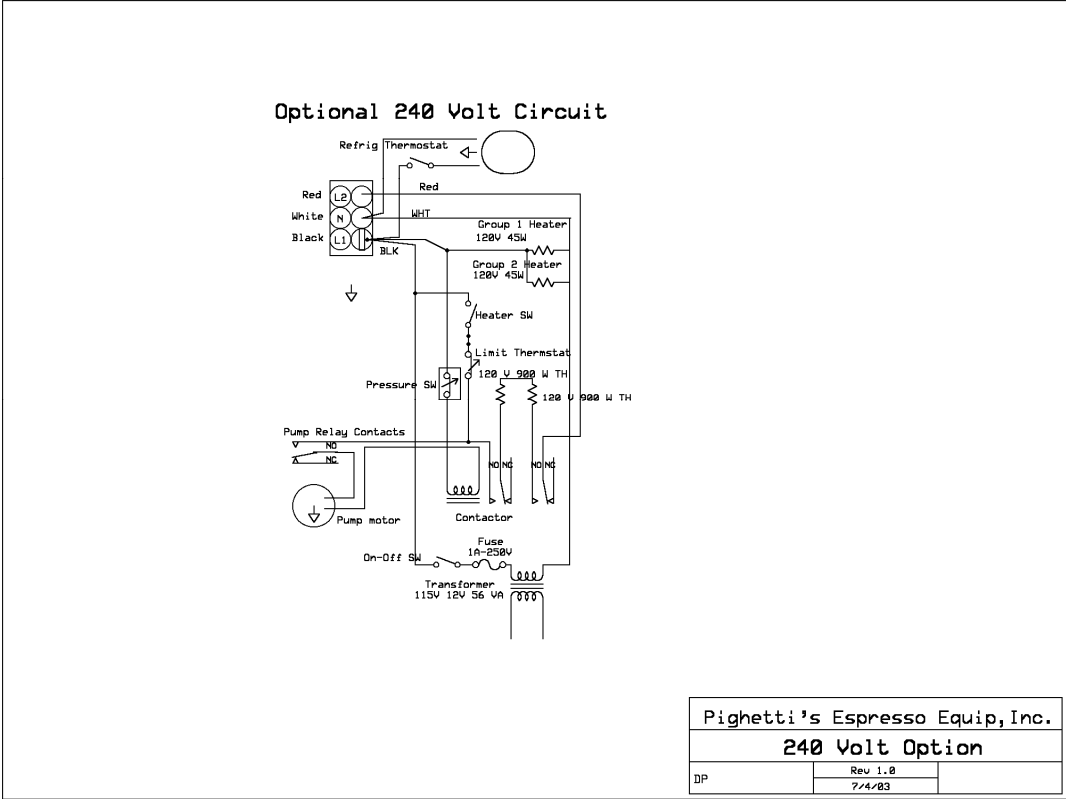
Part #31397

1. Using a straight blade screwdriver, gently pry down on the side of the group head filter screen.
2. Remove gasket from screen.
3. Thoroughly clean the group head screen and replace gasket-beveled side up.
4. Remove the basket from one of the filter holders and place this assembly in the filter holder.
5. Lock the filter holder in place to reseal the new gasket with screen.



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**ELECTRICAL**





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### GLOSSARY

**Americano-** One shot of espresso with water.

**Cafe Mocha-** Coat the bottom and sides of the cup or mug with approximately ¼ to ¾ ounce of chocolate syrup. Add shot of espresso, and then fill with steamed milk. Add whipped cream if desired. OR 1/3 hot chocolate and 1/3 frothed milk.

**Cappuccino-** an equal combination of 1/3 espresso, 1/3 hot steamed milk, and 1/3 frother milk.

**Crema-** The pale brown froth covering the surface of a well-brewed cup of espresso. Italians tend to diagnose espresso by the look of the cream. If the crema is too brown, the espresso has been packed too finely in the filter basket; if too pale the espresso has been ground too coarsely or packed too loosely, and so on.

**Demitasse-** Small cup that holds approximately 3 ounces of liquid.

**Doser-** A spring-loaded device on some specialized espresso grinders that dispenses one serving of ground coffee per pull.

**Doser Grinder-** Machine that grinds coffee to a determined particle size. Stores and can manually dispense the ground coffee into the filter.

**Espresso Macchiato-** A shot of espresso “marked” with a tablespoon of frothed milk.

**Espresso Ristretto-** The flow of espresso is cut short leaving less than one ounce in the cup.

**Filter holder or Porta-filter-** The metal device with plastic handle that holds the coffee filter, and clamps onto the group.

**Filter or filter basket-**The perforated stainless-steel receptacle that holds the ground coffee during the brewing operations. It fits inside the filter holder or porta-filter, which in turn clamps onto the group. Larger machines usually provide two filter baskets, one for brewing a single serving and one for brewing a double serving.

**Frothing-** Process of creating hot, foamed milk with the steam wand of your espresso machine.

**Group or Delivery Group (from Italian gruppo, or unit)-** The fixture protruding from the front of most espresso machines into which the filter holder clamps.

**Knock Box-** A small box designed to facilitate the disposal of spent grounds during the brewing of multiple cups of espresso.

**Latte-**A shot of espresso with hot milk.

**Steam Wand, Nozzle-** both names for the little pipe that protrudes from the side of most espresso machines, and provides live steam for the milk-frothing operation.

**Steamer-** Steamed milk (135-140°) with one ounce of flavored syrup added.

**Tamper-** A little device usually made of black plastic that is used to distribute and compress the coffee inside the filter basket before beginning the brewing operation. Some tampers are little hand-held accessories, and others are attached permanently to the front of larger espresso grinders. These attached tampers enable you to handle the tamping operation with one-handed flair.

**Tamping-** Compacting and packing of the grounds in the filter.



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**TROUBLESHOOTING**

Symptom	Possible Cause	Remedy
No water from group head	<ol style="list-style-type: none"> <li>1. Water to unit shut off</li> <li>2. Coffee Ground too fine</li> <li>3. Dirty group head screen.</li> <li>4. Blown Fuse</li> <li>5. Group head solenoid.</li> <li>6. Transformer</li> </ol>	<ol style="list-style-type: none"> <li>1A. Water shut off valve = Be sure its open.</li> <li>1B. Water Softener = be sure that both valves are inline with their water lines.</li> <li>2. Coarsen coffee ground.</li> <li>3. Remove and clean.</li> <li>4. Replace fuse.</li> <li>5. Check voltage at group head solenoid coil, should be 12Vac. If voltage is present, replace solenoid.</li> <li>6. If voltage is not present, check voltage of secondary of transformer, should be 12+Vac. If voltage is not present replace transformer.</li> </ol>
No Steam / No Heating	<ol style="list-style-type: none"> <li>1. Heater Switch</li> <li>2. Tank Heater</li> <li>3. Limit Thermostat</li> <li>4. Pressure Switch</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove the right side panel and be sure the heater switch is turned on the ON position.</li> <li>2. Check voltages at tank heater, if voltage is present, but no heat, replace tank heater.</li> <li>3. Unplug unit, remove wires and check continuity. If open reset and adjust pressure switch.</li> <li>4. Unplug unit, check continuity, and should be normally closed.</li> </ol>
Tank Overfilled	<ol style="list-style-type: none"> <li>1. Limed probe</li> <li>2. Water Inlet Valve Leaking</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove and clean probe</li> <li>2. Remove and Rebuild water inlet valve</li> </ol>
Coffee Leaking around group filter.	<ol style="list-style-type: none"> <li>1. Filter holder gasket</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace filter holder gasket.</li> </ol>
No Steam from Steam wand	<ol style="list-style-type: none"> <li>1. Clogged holes in steam tip.</li> <li>2. Manual steam solenoid</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove and clean.</li> <li>2. Check voltage at steam solenoid coil. Should be 12Vac, if not replace manual steam switch. If 12Vac is present replace solenoid.</li> </ol>
Long Life of Machine	<ol style="list-style-type: none"> <li>1. Do the preventative maintenance.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to page 10</li> </ol>

	Description	Part #
1	Group Head Heater	31155
2	Tank Heater	31149
3	Terminal Block 220V	31157
4	Bridge	31386
5	Steam Arm	31014
6	Group Head Screen	31398
7	Group Head Gasket	31397
8	Cleaning Cup	31401
9	Double Cup	31399
10	Single Cup	31400
11	Double Filter Handle	31328
12	Single Filter Handle	31329
13	Steam Tip	31008
14	Steam Arm Clip	31018
15	Transformer	31177
16	Tank Heater Gasket	31168
17	Limit Thermostat	31309
18	Pressure Switch	31296
19	Steam Pressure Gauge	31089
20	Water Pressure Gauge	31090
21	Heating Switch Toggle	31314
22	3 Pull Size Switch	31390
23	4 Pull Drink Selector Switch	31391
24	Pop Off Valve	31129
25	Compensation Valve Assembly	31084
26	Knob	31291
27	Manual Toggle Switch	31303
28	Start Switch	31304
29	Power On/Off Switch	31302
30	Wire Probe Union	31187
31	Probe Wire	31184
32	Probe Assembly	31180
33	Relay	31142
34	Contactors	31144
35	Repair Kit 2 Way Solenoid	31095
36	Repair Kit 3 Way Solenoid	31094
37	3 Way Solenoid Coil	31096
38	3 Way Solenoid	31091
39	2 Way Solenoid Coil	31095
40	2 Way Solenoid	31092
41	Flow Meter Assembly	90006
42	Vane Pump	31136
43	Pump Motor	31137
44	Control Board	31173
45	Control Board with Timer	31172

