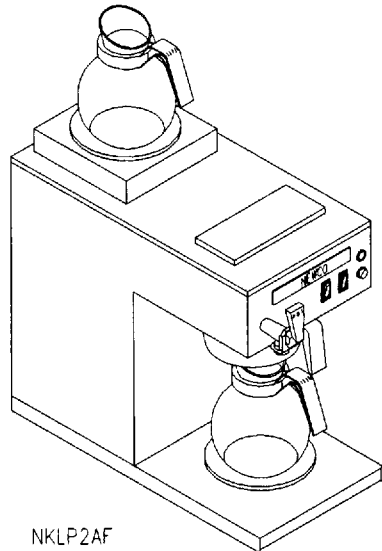
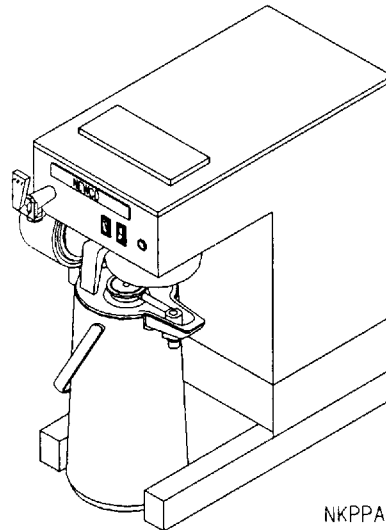


NEWCO ENTERPRISES

INSTALLATION, OPERATION, AND SERVICE MANUAL FOR NK SERIES AUTOMATIC & FAUCET BREWERS

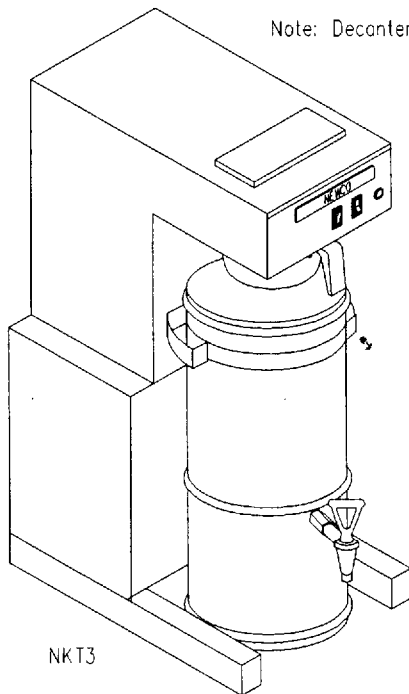


NKLP2AF

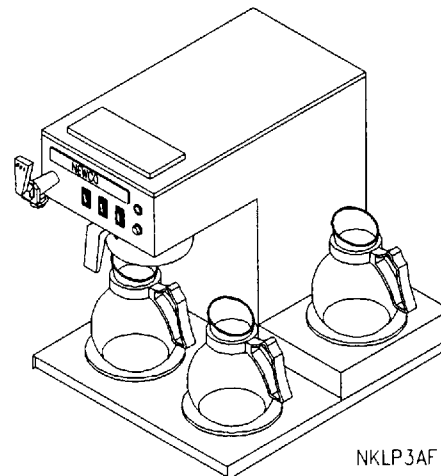


NKPPAF

Note: Decanters not included with brewers.



NKT3



NKLP3AF

Model	Warmers	Width	Length	Height	Weight A / AF	Watts	Amps
NKLP1A-AF	1	9-1/2"	18"	17"	31 / 34	1500	12.5
NKLP2A-AF	2	9-1/2"	18"	18-1/2"	32 / 36	1600	13.3
NKLP3A-AF	3	16-1/2"	18"	17"	39 / 43	1700	14.2
NKL3A-AF	3	9-1/2"	18"	18-1/2"	33 / 36	1700	14.2
NKLP4A-AF	4	9-1/2"	18"	18-1/2"	40 / 44	1800	15
NKLP5A-AF	5	16-1/2"	18"	18-1/2"	45 / 49	1750	14.6
NK LDA-AF	0	9-1/2"	18"	18-1/4"	31 / 35	1400	11.7
NKPPA-AF	0	9-1/2"	18"	22"	32 / 34	1400	11.7
NKPDA-AF	0	11"	18"	26"	34 / 38	1400	11.7
NKT3-3AF	0	13-1/4"	18"	32-1/2"	40 / 44	1400	11.7
NKT5-5AF	0	13-1/4"	18"	36-1/2"	42 / 46	1400	11.7

PLUMBER'S INSTALLATION INSTRUCTIONS

CAUTION: Power to brewer must be OFF before proceeding with plumbing installation.

- 1) Attach flow/strainer assembly to back of brewer. Strainer inlet will point down.
- 2) Flush water line before installing brewer. Brewer should be connected to COLD WATER LINE for best operation.
- 3) Water pressure should be at least 20 lbs. For less than a 25 ft run, use 1/4" copper tubing and connect to 1/2" or larger water line. For longer runs, use 3/8" copper tubing & connect to 1/2" or larger water line and provide an adapter fitting for connection to the brewer.
- 4) If installed with saddle valve, the valve should have a minimum of 1/8" port hole for up to 25 ft run, and 5/16" port hole for over 25 ft runs.
- 5) Connect incoming water line to the strainer on the back of the brewer. Manufacturer recommends connecting to copper tubing.

INSTALLATION INSTRUCTIONS

WARNING: - Read and follow installation instructions before plugging or wiring in machine to electrical circuit. Warranty will be void if machine is connected to any voltage other than that specified on the name plate.

FILL BREWER TANK WITH WATER BEFORE CONNECTING TO POWER SUPPLY !

ALL MODELS EXCEPT TEA BREWERS

- 1) Place the decanter under brew basket, raise top evaporation cover and pour three decanters of water through the top pour-in screen. Water should come through the brew basket as the third decanter of water drains out of the pour in basin. If brewer does not have a pour in opening remove top cover and pour water directly into receiving pan.
- 2) Adjust timer to deliver desired amount of water (Timer is located behind front access panel). To brew into a regular 60 oz. decanter little adjustment should be needed. For brewing with the airpot brewer into a 72 oz. airpot the time should be increased. Turn timer dial clockwise to increase volume of water, and counter clockwise to decrease volume.
- 3) Brewer is shipped with thermostat turned on, (full clockwise position). Plug or wire in machine to appropriate voltage circuit as noted on the brewers serial tag. Serial tag is located behind brewbasket.
- 4) Allow 10 to 15 minutes for water in tank to heat to brewing temperature. (Additional water may drip from brew basket on initial expansion of water in the tank). This will not occur thereafter.
- 5) After water has reached brewing temperature (thermostat will click off, heating noise will stop and green ready light will be on.) turn lower warmer switch (warmer models), or lighted rocker switch (airpot brewers) to the on position. Depress brew start switch and run a cycle of water to remove expanded water from tank. (Brew cycle may be canceled by turning the rocker switch back to the OFF position.)
- 6) Run one cycle to check for the proper temperature setting with an accurate thermometer. Take the temperature of this water at a point below the brew basket opening, at the start of the brew cycle and when the decanter is half full. Recommended temperature of the water is approximately 195 F.
- 7) In higher altitude locations (5000 feet above sea level) the thermostat may have to be adjusted lower to prevent boiling.
- 8) **CAUTION:** On faucet models the water faucet will dispense hot water when the handle is depressed. The faucet system is independent of the brewing system and can be operated during brew cycle. Once brewer is pressurized operate faucet until water flows smoothly.

TEA BREWERS

- 1) Remove front access panel from brewer.
- 2) Place tea urn under brewer and fill tank as described in step 1 above.
- 3) Plug in brewer. Close needle valve by turning clockwise.

Tea Brewer Installation continued...

- 4) Set timer to 180 seconds (3 minutes). Start brew cycle by turning lighted rocker switch on and pressing brew start switch.
- 5) Tea urn should fill with one brew cycle. If not, adjust timer until desired level in tea urn is achieved (3 gallons).
- 6) Open needle valve by turning counter clockwise 3 to 4 full revolutions. This will give 75 oz of hot water for concentrate through the sprayhead and the balance of the 3 gallons as cold water through the dilution tube.
- 7) Replace front access panel.
- 8) CAUTION: On faucet models the water faucet will dispense hot water when the handle is depressed. The faucet system is independent of the brewing system and can be operated during brew cycle. Once brewer is pressurized operate faucet until water flows smoothly.

COFFEE PREPARATION PROCEDURES

- 1) Place filter into brew basket.
- 2) Put the proper amount of coffee into the filter.
- 3) Slide the brew basket into holder.
- 4) Place empty decanter on warmer located directly under the brew basket and turn corresponding warmer switch to ON position. NOTE: For airpots, open airpot lid, remove pump stem from airpot, and place airpot under brew basket.
- 5) Pour decanter of water through pour-in screen into pour in basin.
- 6) Hot water will be delivered through the sprayhead. This distributes the hot water evenly over the coffee bed within the brew basket. The coffee brew will drain from the brew basket into the decanter below.
- 7) The resultant coffee brew should be crystal clear and have the desired properties attainable through excellent extraction.
- 8) TURN OFF WARMER WHEN NOT IN USE. (All except airpot brewer. Red light indicates warmer is on.)
- 9) To clean brew basket simply remove from brew rails and dump filter into waste basket. The brewing process, as described above, can now be started again.

LIMING

To prevent liming problems in tank fittings remove sprayhead and insert deliming spring all the way into the tank. When inserted into tank properly, no more than ten inches of the spring should be visible at the sprayhead fitting. Saw back and forth five or six times. This will keep fittings open and clear of lime. In hard water areas this should be done everyday. This process takes approximately one minute. In all areas the sprayhead should be cleaned at least once a week. Where bad liming has already occurred, a new complete tank assembly may be installed. The tank may be changed in approximately 5 minutes time.

WARRANTY

Newco coffee brewers are warranted against defects in workmanship or materials, under normal use, for 90 days from the date of purchase. Brewer parts are warranted against defect for 12 months from date of purchase.

Liability in all events is limited to the purchase price paid and liability under the aforesaid warranty is limited to replacing or repairing any part or parts which are defective in material or workmanship, and returned to our factory, shipping cost prepaid. No warranty expressed or implied, other than the aforesaid is made or authorized by Newco Enterprises, Inc.

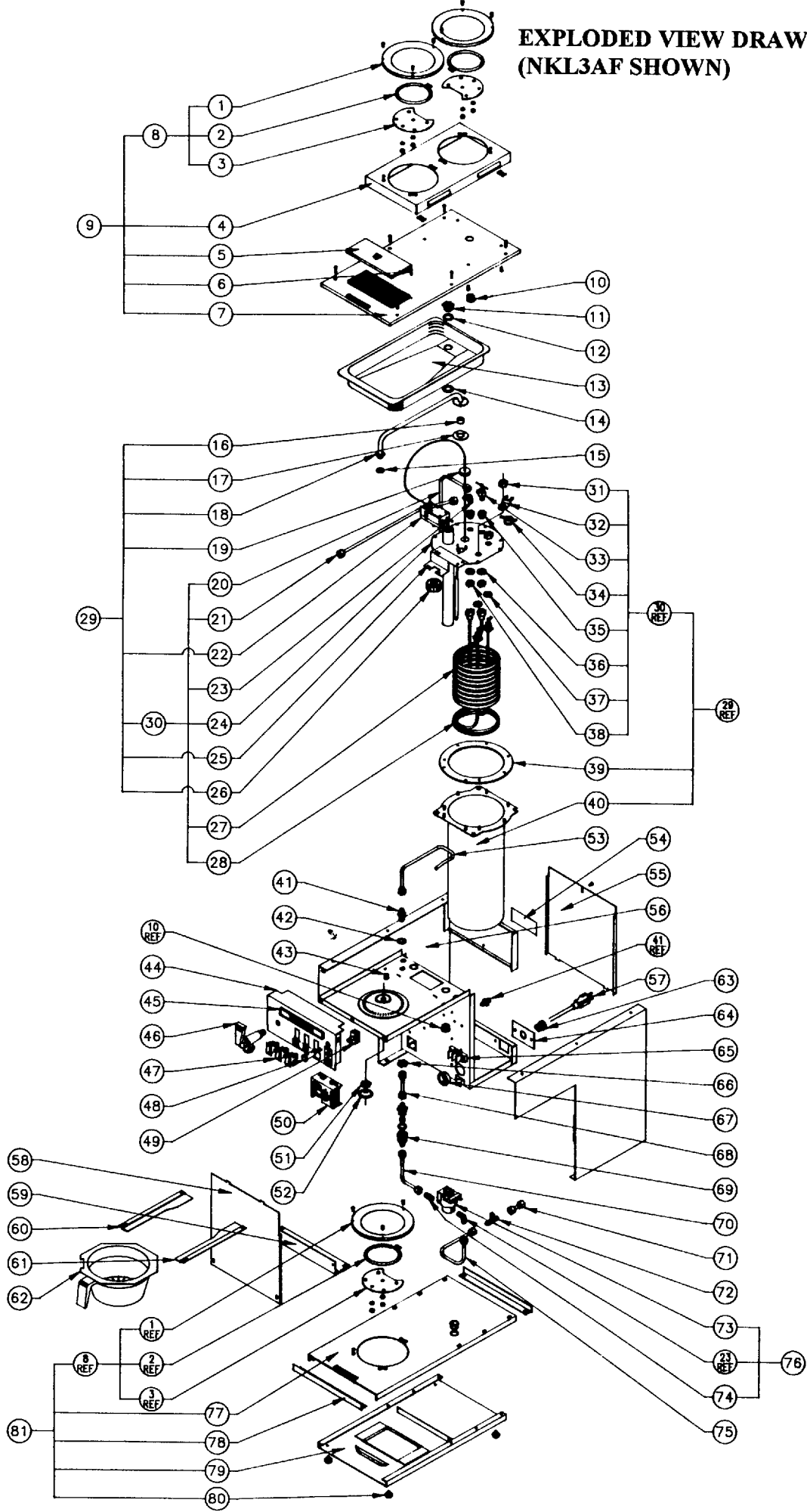
Prompt disposition will be made if item proves to be defective, within warranty. Before returning any item, write or call Newco, or the dealer from whom the product was purchased, giving model number, serial number, and date of purchase, and describe the nature of the defect. If damage was incurred during transit to you, file claim with the carrier.

NK AUTOMATIC & FAUCET BREWERS - PARTS LIST

Index	Part No	Description	Index	Part No	Description
1	100008	Plate, black porcelain	40	704119	Tank only
1	100020	Plate, brown porcelain	41	100176	Connector, male, 1/4F-1/4F
2	100642	Warming element, 220 V 100 W	42	511046	Washer, 7/16" int tooth S/S
2	100187	Warming element, 120 V 100 W	43	100281	Plug, 3/8", plastic
3	100086	Support plate, warming element	44	705203*	Switch plate, NKLP1, -LP2, -PP, -PD, -LD, -T3
4	705371	NK stove top, 1 station cover	44	705201*	Switch plate, NKLP3, -4, -5
4	705370	NK stove top, 2 station cover	45	100058	Nameplate, NEWCO
5	700198	Dust cover, front pour in	46	100145-10	Faucet, Tomlinson with flare
6	700186	Wire for dust cover	47	100085	Rocker switch, ON/OFF, lighted
7	705413	NK 1 station cover, welded	48	100343	Start switch, round
7	705419	NK 2 station cover, welded	48	201985	Start switch, rectangular
8	100010	Warming plate assembly, black, 100W 120V	49	705383	Ready light assembly, green
8	100032	Warming plate assembly, brown, 100W 120V	50	101365	Timer only
8	101072	Warming plate assembly, black, 100W 220V	51	201173	Nut, sprayhead
8	101073	Warming plate assembly, brown, 100W 220V	52	100024	Sprayhead, 5 hole
9	705414*	NK 1 station cover ass'y w/ pour in	52	201163	Sprayhead, 6 hole
9	705420*	NK 2 station cover ass'y w/ pour in	53	705379	Tube, 13" discharge, S/S
9	705229	NK plain cover ass'y w/ pour in	54	100253	Label, caution, red
10	100003	Snap bushing, 3/4, plastic	55	705208	Rear panel
11	701200	Slotted hex nut, 3/4-16, brass	56	705197	Cabinet shell ass'y, S/S
12	700015	Washer, 1" OD x 3/4, S/S	57	100022	Power cord, 14/3, 120V 15A
13	700060	Basin, pour in	57	102126	Power cord, 12/3, 120V 20A
14	700016	Gasket, 1.062 OD X .578, silicone	57	100072	Power cord, 10/4, 240V 30A
15	100025	Gasket, sprayhead	58	705210	NK front access panel
16	704223	Bushing, siphon cup	59	705224	Brace, access panel
17	704222	Gasket, delivery tube, 3 hole	60	781031	Rail, L.H.
18	700069	Sprayhead tube assembly	61	781030	Rail, R.H.
19	100175	Grommet, thermostat, silicone	62	700117	Brew basket assembly, brown
20	705595	Copper tube 1/4" OD x 11.38"	62	700118	Brew basket assembly, black
21	705381	Tube, 1/4" OD x 4.0" x 10.75", copper	63	101035	Strain relief, 120V 15A
22	102299	Main thermostat, knob type	63	100547	Strain relief, 120V 20A
23	100177	Elbow, male 1/4F x 1/8	63	511054	Strain relief, 240V
24	705214	NK automatic tank lid, welded	64	511005	Cord plate, 120V 15A
24	705218	NK faucet tank lid, welded	64	102126	Cord plate, 120V 20A
25	705198	Bracket, main thermostat	64	511007	Cord plate, 240V
26	100043	Thermostat knob	65	100163	Terminal block, 120 V
27	771031	Coil assembly	65	511053	Terminal block, 240 V
28	701170	Main Element, 1400W 120V	66	511023	Nut, 7/16-20, 11/16 hex, brass
28	704155	Main Element, 1700W 120V	67	705228	Snap bushing, 1-1/8", plastic
28	704144	Main Element, 2500W 240V	68	705337	Tube, 1/4" OD x 1.437", S/S
29	705221	NK automatic tank ass'y 1400W 120V	69	511063	Flow control assembly
29	705220	NK faucet tank ass'y, 1400W 120V	70	705338	Tube, 1/4" OD x 1.21" x 1.50", S/S
29	705401	NK automatic tank ass'y, 1700W 120V	71	100161	Tube, 1/4" OD x .88", copper
29	705402	NK faucet tank ass'y 1700W 120V	72	201132	Tee, 1/4" flare
29	705408	NK automatic tank ass'y 2500W 240V	73	100250	Valve, solenoid
29	705410	NK faucet tank ass'y, 2500W 240V	74	100154	Connector, male, 1/4"F x 1/8"
30	705215	NK automatic tank lid ass'y 1400W 120V	75	705596	Tube, solenoid supply, copper
30	705219	NK faucet tank lid, ass'y 1400W 120V	76	705390	Solenoid assembly
30	705398	NK automatic tank lid ass'y 1700W 120V	77	700758	Base top, 1-station
30	705400	NK faucet tank lid ass'y 1700W 120V	77	704115	Base top, 3 station
30	705405	NK automatic lid ass'y 2500W 240V	78	700759*	Base trim plate, S/S
30	705407	NK faucet tank lid ass'y 2500W 240V	79	700760	Base bottom, 1 station, welded
31	100190	Jam nut, 1/2-20, brass	79	704121	Base bottom, 3 station, welded
32	100143	Bracket, hi-limit thermostat	80	100078	Bumper foot w/ screw
33	767110	Valve, needle, angle, 1/4 flare	81	705382*	Base ass'y, 1 station, NKLP1, -2, NKLP3
34	100174	Hi-limit thermostat	81	705209*	Base ass'y, 3 station, NKLP3, -4
35	101720	Connector, 3/8C x 1/8Pfemal	81	705345*	Base ass'y, NKLP5
36	100030	Gasket, .566"ID x .811"OD, brass	81	781010	Base ass'y, NKPP
37	100409	Gasket, .515"ID x .811"OD, brass	81	781245	Base ass'y, NKPD
38	100431	Nut, 9/16-24, brass	81	781115	Base ass'y, NKT3
39	704221	Gasket, tank, silicone		152111	Leg, R.H. NKLD
				152112	Leg, L.H. NKLD

*When ordering these parts please specify if replacement parts are for a black or wood grain finish brewer.

EXPLODED VIEW DRAWING (NKL3AF SHOWN)



TROUBLE SHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	WHAT TO CHECK	REMEDY
CAN'T START BREW CYCLE	<ol style="list-style-type: none"> 1. No water. 2. No power. 3. ON/OFF switch. 4. Brew start switch. 5. Timer or timer harness. 6. Solenoid valve. 	<ol style="list-style-type: none"> 1. Incoming water lines & water shut off valve. 2. Fuse or circuit breaker. Power cord and plug connections. 3. Switch continuity. (Normally open.) 4. Switch continuity. (Normally closed.) 5. Wire leads to solenoid and black 3-pin connector. 6. (A) Voltage at solenoid valve terminals. Start a brew cycle and check for 120 volts AC. (B) If voltage is present at terminals, check for water at line pressure on the inlet side of solenoid valve. 	<ol style="list-style-type: none"> 1. Be sure water shut off is open. 2. Replace or reset circuit protector 3. If ON/OFF switch does not make and break contact, replace ON/OFF switch. 4. If brew start switch does not make and break contact, replace brew start switch. 5. Make sure these connections are tight. If so, and all else checks out OK, replace timer. 6. (A) If voltage is not present at terminals, refer to steps 2 through 5. (B) If voltage is present at terminals and water at line pressure is present on the inlet side of the solenoid, but not present on the outgoing side, replace solenoid.
NO HOT WATER	<ol style="list-style-type: none"> 1. Tank heater. 2. Hi-limit thermostat or main thermostat. 	<ol style="list-style-type: none"> 1. Check the voltage at the tank heater terminals. Voltage should be 120 volts AC. 2. Check the voltage between the white wire on the tank and the incoming terminal (blue wire) on the hi-limit thermostat, then the outgoing terminal (black wire) on the hi-limit thermostat. 	<ol style="list-style-type: none"> 1. (A) If correct voltage is present at the tank heater terminals and water in tank is not being heated, replace the tank heater. (B) If voltage is not present at the tank heater terminals refer, to step 2. (C) If incorrect voltage is present at the tank heater terminals, check voltage at outlet. 2. (A) If voltage is present on the incoming terminal of the hi-limit thermostat, but not on the outgoing terminal, replace the hi-limit thermostat. (B) Check voltage between black and white wire on the receptacle. If voltage is not present check outlet or circuit breaker. (C) If voltage is not present on the incoming terminal of the hi-limit thermostat, replace the main thermostat.
DRIPPING Faucet models only	<ol style="list-style-type: none"> 1. Not siphoning properly. 2. Solenoid valve not seating properly. 3. Faucet coil is leaking. 	<ol style="list-style-type: none"> 1. Water should flow freely from the sprayhead. 2. Solenoid valve assembly. 3. Hot water coil. 	<ol style="list-style-type: none"> 1. (A) Clean sprayhead holes. (B) Check tightness of sprayhead tube. (C) See "LIMING", Page 2. 2. Be sure spring is in place and any particles are cleaned from valve seat. If valve seat is worn or mutilated, replace solenoid valve. 3. Tighten fittings or replace coil.
STEAMING OR SPITTING AROUND FUNNEL	<ol style="list-style-type: none"> 1. Main thermostat. 2. High altitude. 	<ol style="list-style-type: none"> 1. Thermostat points stuck or out of calibration. 2. Located above 5,000 feet. 	<ol style="list-style-type: none"> 1. (A) Adjust thermostat. (B) Thermostat should be calibrated or replaced. 2. See "INSTALLATION INSTRUCTIONS", Page 2.
FAUCET DRIPPING	<ol style="list-style-type: none"> 1. Clogged valve seat. 	<ol style="list-style-type: none"> 1. Valve seat. 	<ol style="list-style-type: none"> 1. Disassemble and clean or replace as required.
WATER KEEPS RUNNING	<ol style="list-style-type: none"> 1. Solenoid valve. 2. Start switch. 3. Timer 	<ol style="list-style-type: none"> 1. Refer to "DRIPPING", Step 1. 2. Remove wires from switch and check continuity. 3. Solid state timers are not repairable. If timer will not shut off, replace timer. 	<ol style="list-style-type: none"> 1. Refer to "DRIPPING", Step 1. 2. If start switch does not make and break contact, switch should be replaced. 3. Replace timer.

TROUBLE SHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	WHAT TO CHECK	REMEDY
<p>IRREGULAR YIELD</p> <p>Faucet models only</p> <p>Faucet models only</p>	<ol style="list-style-type: none"> 1. Not siphoning properly. 2. Timer. 3. Fluctuating water pressure. 4. Solenoid valve. 5. Flow washer. 6. Flow control screen. 7. Faucet coil is leaking. 8. Strainer. 	<ol style="list-style-type: none"> 1. Refer to "DRIPPING", Step 1. 2. Timer consistency. Time several brew cycles. 3. Water pressure. 4. Refer to "DRIPPING", Step 2. 5. Possible lime build up in flow control. 6. Screen built into flow control. 7. Refer to "DRIPPING", Step 3. 8. Water pressure at output. 	<ol style="list-style-type: none"> 1. Refer to "DRIPPING", Step 1. 2. If times are irregular, replace timer. 3. If pressure fluctuates 10-20 PSI during operation of brew cycle, add a pressure regulator to inlet side of brewer, set to lowest pressure level registered. Adjust timer to yield correct water level. 4. Refer to "DRIPPING", Step 2. 5. Replace flow washer and clean lime from flow control. 6. Replace or clean screen. Clean lime from flow control. 7. Refer to "DRIPPING", Step 3. 8. If pressure is low, clean or replace strainer.
<p>DRY COFFEE REMAINING IN BREW BASKET AFTER BREWING</p>	<ol style="list-style-type: none"> 1. Filters. 2. Not siphoning properly. 3. Improper loading of the brew basket. 	<ol style="list-style-type: none"> 1. Are correct filters being used. 2. Refer to "DRIPPING", Step 1. 3. Filter and coffee in brew basket. 	<ol style="list-style-type: none"> 1. Insert correct filter. 2. Refer to "DRIPPING", Step 1. 3. Filter should be centered in the brew basket and coffee bed should be level.
<p>WEAK COFFEE</p>	<ol style="list-style-type: none"> 1. Filters. 2. Not siphoning properly. 3. Improper loading of brew basket. 	<ol style="list-style-type: none"> 1. Are correct filters being used. 2. Refer to "DRIPPING", Step 1. 3. Filter and coffee in brew basket. 	<ol style="list-style-type: none"> 1. Insert correct filter. 2. Refer to "DRIPPING", Step 1. 3. Filter should be centered in brew basket and coffee bed should be level.
<p>SOLENOID CHATTER OR HOWLING</p>	<ol style="list-style-type: none"> 1. Brewer connected to hot water line. 2. Vibration. 3. High water pressure. 4. Water hammer. 5. 60 cycle vibration. 	<ol style="list-style-type: none"> 1. Incoming water line. 2. If brewer is on a metal stand or counter, neither the bottom pan nor copper tubing to the brewer should touch the counter. 3. Water pressure on incoming line. 4. Incoming plumbing. 5. Nut on top of solenoid 	<ol style="list-style-type: none"> 1. Brewer should be connected to cold water line. 2. Adjust as necessary. 3. If water pressure is over 90 PSI install a pressure regulator and adjust to 50 PSI. 4. This not the fault of the brewer and can usually be corrected by rearranging some plumbing or adding an air chamber to the incoming water line. 5. Nut should be tight. Tighten as required.
<p>COLD WARMER STATION (Models with warmers)</p>	<ol style="list-style-type: none"> 1. Warmer - defective. 2. Warmer ON/OFF Switch. 3. Bad harness. 	<ol style="list-style-type: none"> 1. Voltage at warmer terminals should be 120 volts AC. 2. If voltage is not present on warmer terminals, check continuity of switch. 3. Check connections between harness and switch, and between switch and warmer. 	<ol style="list-style-type: none"> 1. If voltage is present on terminals, but warmer will not heat, replace warmer. 2. If switch does not make and break continuity when turned off, replace switch. 3. All connections should be tight.
<p>FAUCET WATER FLOW TOO FAST OR TOO SLOW</p>	<ol style="list-style-type: none"> 1. No water. 2. Flow too slow or too fast. 	<ol style="list-style-type: none"> 1. (A) Incoming water line shut off valve. (B) Faucet clogging. (C) Needle valve. 2. Needle valve. 	<ol style="list-style-type: none"> 1. (A) Water shut off valve should be open. (B) Clean or rebuild faucet. (C) Needle valve should be open. 2. Increase flow by turning needle valve counter clockwise, decrease flow by turning clockwise.

TROUBLE SHOOTING GUIDE CONTINUED

SYMPTOM	POSSIBLE CAUSE	WHAT TO CHECK	REMEDY
CONDENSATION ON INSIDE OF CABINET	<ol style="list-style-type: none"> 1. Tank lid gasket. 2. Sprayhead tube ass'y. 3. Thermostat grommet. 4. Receiving pan nut. 5. Main thermostat set above 210 degrees. 	<ol style="list-style-type: none"> 1. Nicks or cuts in the gasket. 2. Tightness of ass'y to lid. 3. Tight fit. Nicks or cuts. 4. Receiving pan nut loose. 5. Check thermostat calibration. 	<ol style="list-style-type: none"> 1. Replace gasket. 2. Tighten sprayhead tube ass'y to tank lid. 3. Adjust or replace grommet. 4. Tighten nut. 5. Calibrate or replace thermostat.

COMPONENT REPLACEMENT INSTRUCTIONS

CAUTION: DISCONNECT BREWER CORD FROM ELECTRICAL OUTLET BEFORE REMOVAL OF ANY PANEL OR REPLACEMENT OF ANY COMPONENT!

NOTE: IN CANADA REPAIRS ARE TO BE DONE BY CERTIFIED ELECTRICIAN OR BREWER MUST BE RE INSPECTED TO MAINTAIN APPLICABLE CERTIFICATION

These steps apply to replacement of tank, tank heater, faucet coil, and hi-limit or main thermostat.

1. Remove sprayhead and sprayhead nut by unscrewing in counter clockwise direction.
2. Remove brewer lid. Disconnect electrical connectors from upper warmer plate if applicable.
3. Remove receiving pan by raising the front of the pan while simultaneously pulling forward to clear the inlet tube.
4. Disconnect electrical terminals connected to tank element. Disconnect black lead from main thermostat.
5. Disconnect the inlet to coil and coil to faucet tubes from attached fittings.
6. Lift tank completely out of brewer.

TANK ASSEMBLY, AUTOMATIC AND FAUCET

7. To install new tank ass'y, reverse steps 6 through 1 above.

THERMOSTAT, HI-LIMIT

1. Disconnect wires to hi-limit thermostat.
2. Lift retaining spring slightly to remove old hi-limit thermostat.
3. Check continuity of the new hi-limit thermostat before installing.
4. Slide new hi-limit thermostat into place under the retaining spring. Reconnect wire leads.
5. Ensure that hi-limit thermostat is securely mounted & all electrical connections are tight and isolated.

THERMOSTAT, MAIN

1. Remove two screws which secure thermostat to bracket.
2. Remove grommet from top of tank lid by pressing up with thumb. Pull capillary bulb out through hole.
3. Disconnect thermostat wires.
4. Installation is reverse of removal.

ELEMENT, TANK HEATING

1. Remove the 8 tank lid retaining nuts. Lift tank lid assembly out of tank.
2. Disconnect wire leads from the tank element.
3. Remove the 2 brass nuts, on top side of tank lid, from tank element. Remove element.
4. Install the new tank heating element, washers, and nuts. Tighten securely to insure proper sealing.
5. Inspect tank lid gasket and replace if necessary.
6. Assemble by reversing steps 2 through 1.

WARMER ELEMENT

1. Remove retaining screws from warmer plate.
2. Lift plate and disconnect leads.
3. Remove nuts and washers holding retaining plate and warmer element to plate.
4. Installation is reverse of removal.

HOT WATER COIL

1. Remove the 8 tank lid retaining nuts. Lift tank lid assembly out of tank.
2. Remove the 2 compression nuts from top of hot water coil and remove old coil.
3. Installation is reverse of removal.

FAUCET ASSEMBLY

1. Follow steps 1-3 above for removing receiving pan.
2. Disconnect tank to faucet water line from faucet fitting.
3. Remove brass nut and washer from faucet fitting.
4. Pull out faucet ass'y from front of brewer. Reverse steps for installation of new faucet.

TIMER ASSEMBLY

1. Disconnect timer plug from timer.
2. Remove retaining screws from timer.
3. Remove timer.
4. Installation is reverse of removal.

SOLENOID

1. Disconnect wire leads from solenoid coil.
2. Disconnect brass fitting from inlet side of solenoid assembly.
3. Disconnect brass fitting from outlet side of solenoid assembly.
4. Remove solenoid.
5. Install solenoid insuring arrow points toward left side of brewer.
5. Installation is reverse of removal.

FLOW CONTROL

1. Disconnect lower brass fitting on flow body.
2. Disconnect upper brass fitting on flow body.
3. Remove flow body.
4. Install flow body insuring arrow points towards the top of the brewer.
6. Installation is reverse of removal.

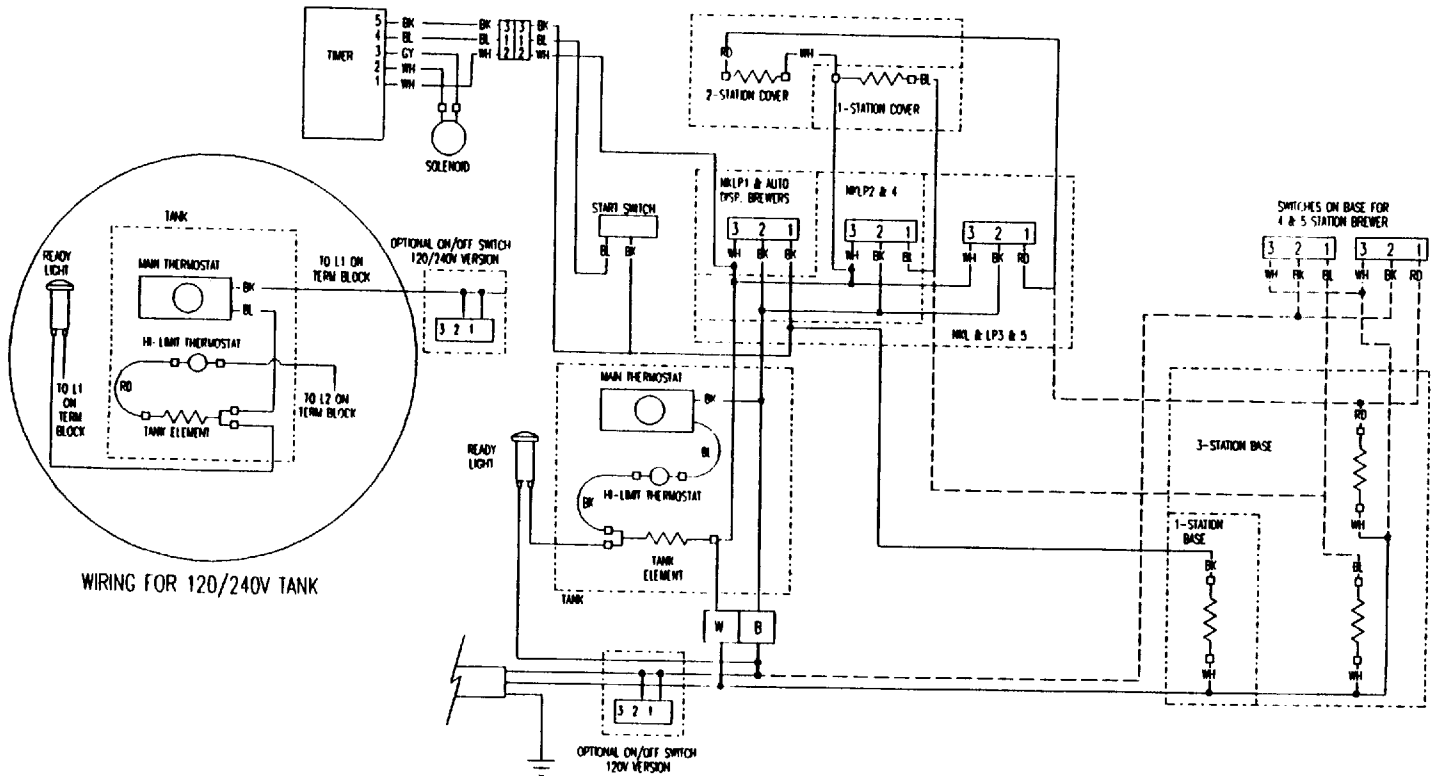
BREW START AND WARMER SWITCHES

1. Remove wire leads from terminals on switch.
2. For rectangular switches: Remove switch by pressing tabs in while pushing switch out towards front of brewer.
3. For round start switch: Remove stainless steel nut on front of brewer and remove switch from inside of brewer.
4. Installation is reverse of removal.

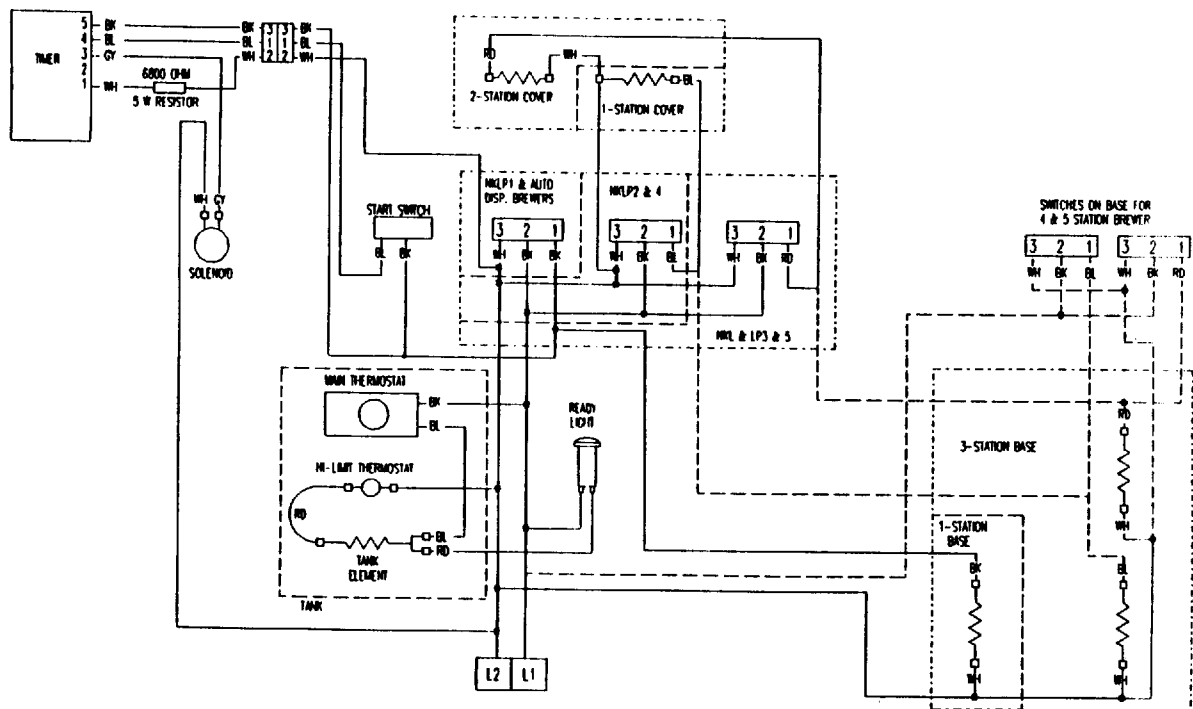
READY LIGHT

1. Disconnect ready light lead from tank element terminal.
2. Disconnect ready light lead from terminal block.
3. Remove ready light by pressing tabs in while pushing light out towards front of brewer.
4. Installation is reverse of removal.

WIRING DIAGRAMS



NK Automatic/Automatic With Faucet - 120 or 120/240 V; 208 V



NK Automatic/Automatic With Faucet - 240 or 208 V

Newco Enterprises, Inc. * 1735 South River Rd. * P.O. Box 852 * St. Charles, MO 63302

PDS Flow Valve - Supplemental Information Sheet

Congratulations! Your brewer has been equipped with Newco's revolutionary PDS flow control system. The PDS flow control system is the result of many years of engineering effort to create a flow control valve that would be accurate over a wide range of water pressures as well as maintain its volume setting for many years within the harsh water environment that coffee brewing equipment must operate.

Depending on the model brewer you have ordered your equipment may have either the low flow or high flow model, or possibly both, built into the plumbing system of your equipment. The low flow model is fully adjustable within the flow rate range of .15 GPM to .35 GPM while the high flow model covers a range of approximately .56 to 1.25 GPM. For easy identification of the model in your application, the low flow model will have a white bonnet and the high flow model will have a red bonnet. See Fig 1 item 14.

Other features designed in to the valve include an internal water strainer, a non regulated water supply for connecting to independent faucets, double O ring swivel fittings to eliminate leaks due to equipment being moved and to aid in providing quick service, and most importantly a porcelain sleeve and piston assembly that is self cleaning and can not be affected by chemicals within the water supply. The system has been designed to operate over a wide pressure range, from 10 PSI to 100 PSI, with an accuracy of +/- 1%.

The time setting of the timer in the brewer in conjunction with the flow rate set on the PDS valve will determine the volume of water delivered for the brew cycle. If the valve is set at a rate of .25 GPM and the timer is set for 2 minutes the volume delivered will be .25 x 2 or .5 gallons (64 oz). Refer to table 1 for other flow rates, timer settings and volumes. Flow rate accuracy is critical as the timer setting will not change.

Caution: Pressure Faucet Caution

When this valve is installed on equipment with pressurized coil hot water faucets check to see if a back flow preventer is incorporated in the water line. If so it may be necessary to install a pressure relief valve. If you have any questions please call Newco technical support at 1-800-556-3926.

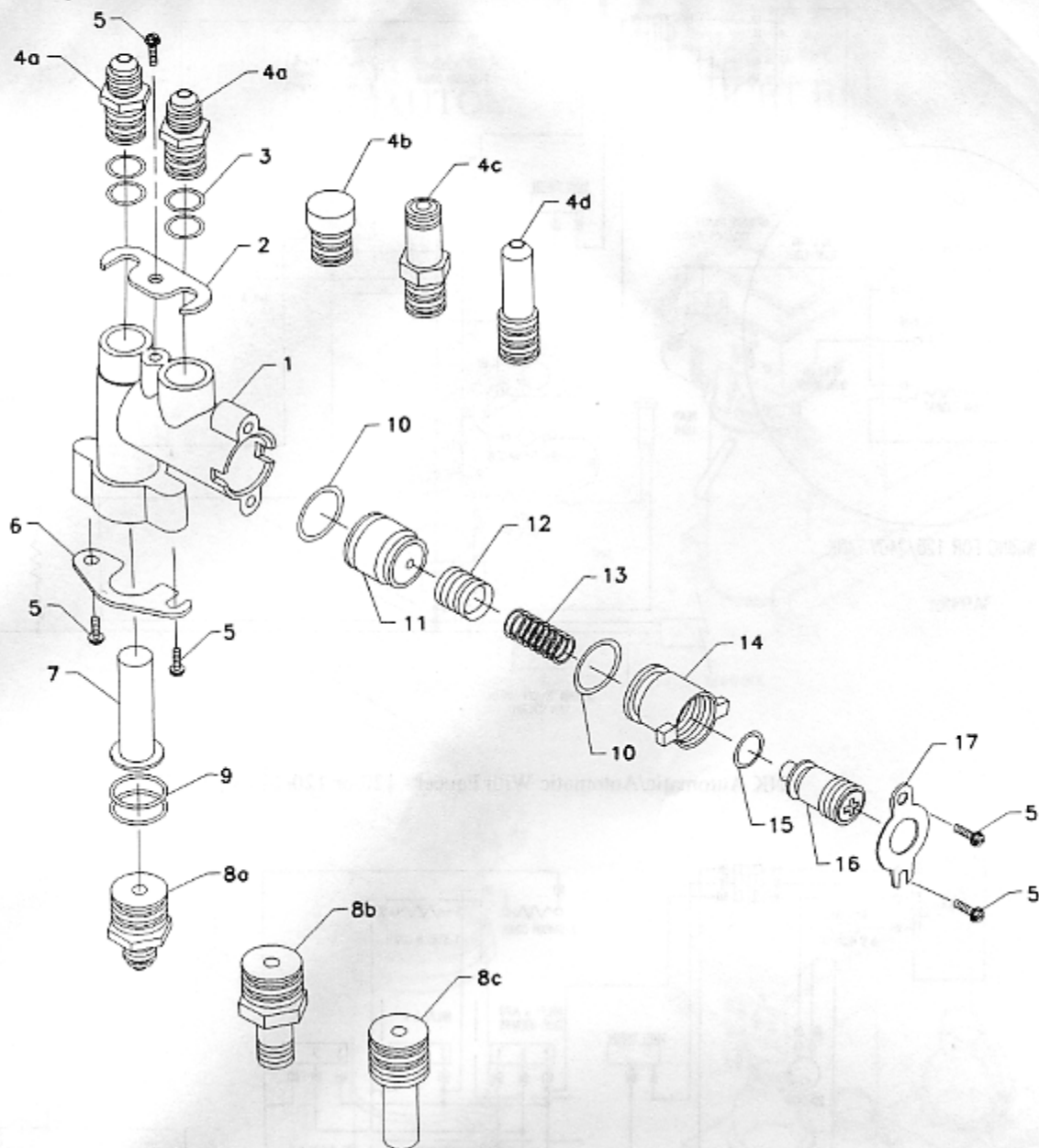
Table 1

Timer Setting Required To Obtain Desired Volume
Time Is Shown In Seconds

Desired Volume	Flow Rate - In Gallons Per Minute								
	0.175	0.200	0.220	0.250	0.300	0.350	0.500	0.750	1.000
1 liter	91	79	72	63	53	45	32	21	16
64 oz	171	150	136	120	100	86	60	40	30
72 oz	193	169	153	135	113	96	68	45	34
2.2 liters	199	174	159	139	116	100	70	46	35
2.5 liters	226	198	180	159	132	113	79	53	40
3 gallons	1029	900	818	720	600	514	360	240	180

Brew Time Shown is in Seconds

FIG 1 - Exploded View Drawing and Parts List for Newco PDS Flow Control Valve



Item	Part No	Description	Item	Part No	Description
1	110217	PDS Flow Valve Body	8c	110112	Adaptor, 3/8 Stem x .750 O-Ring
2	110580	Retainer, Outlet Fittings	9	110219	O-Ring, .625 ID x .750 OD
3	110218	O-Ring, .375 ID x .500 OD	10	110213	O-Ring, .562 ID x .750 OD
4a	110220	Adaptor, 1/4 FL x .500 O-Ring	11	110117	Sleeve, Ceramic
4b	110108	Plug, .500 O-Ring	12	110116	Piston, Ceramic
4c	110212	Adaptor, 1/8 NPT x .500 O-Ring	13a	110101	Spring, Low Flow Valve
4d	110111	Adaptor, 3/8 Stem x .500 O-Ring	13b	110226	Spring, High Flow Valve
5	110223	Screw, #8 x .500 S/S Hex Head	14a	110216	Bonnet, Low Flow Valve
6	110109	Retainer, Inlet Fitting	14b	110227	Bonnet, High Flow Valve
7	110114	Filter Screen, S/S	15	110214	O-Ring, .312 ID x .500 OD
8a	110221	Adaptor, 1/4 FL x .750 O-Ring	16	110222	Plug, Flow Adjustment
8b	110211	Adaptor, 1/8 NPT x .750 O-Ring	17	110098	Retainer, Flow Adjustment