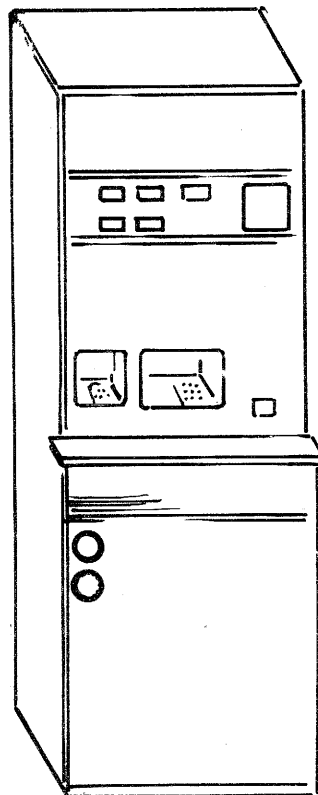


TEMPORARY SERVICE MANUAL

HOT BEVERAGE CENTER



Model No. 3002

Part #20877

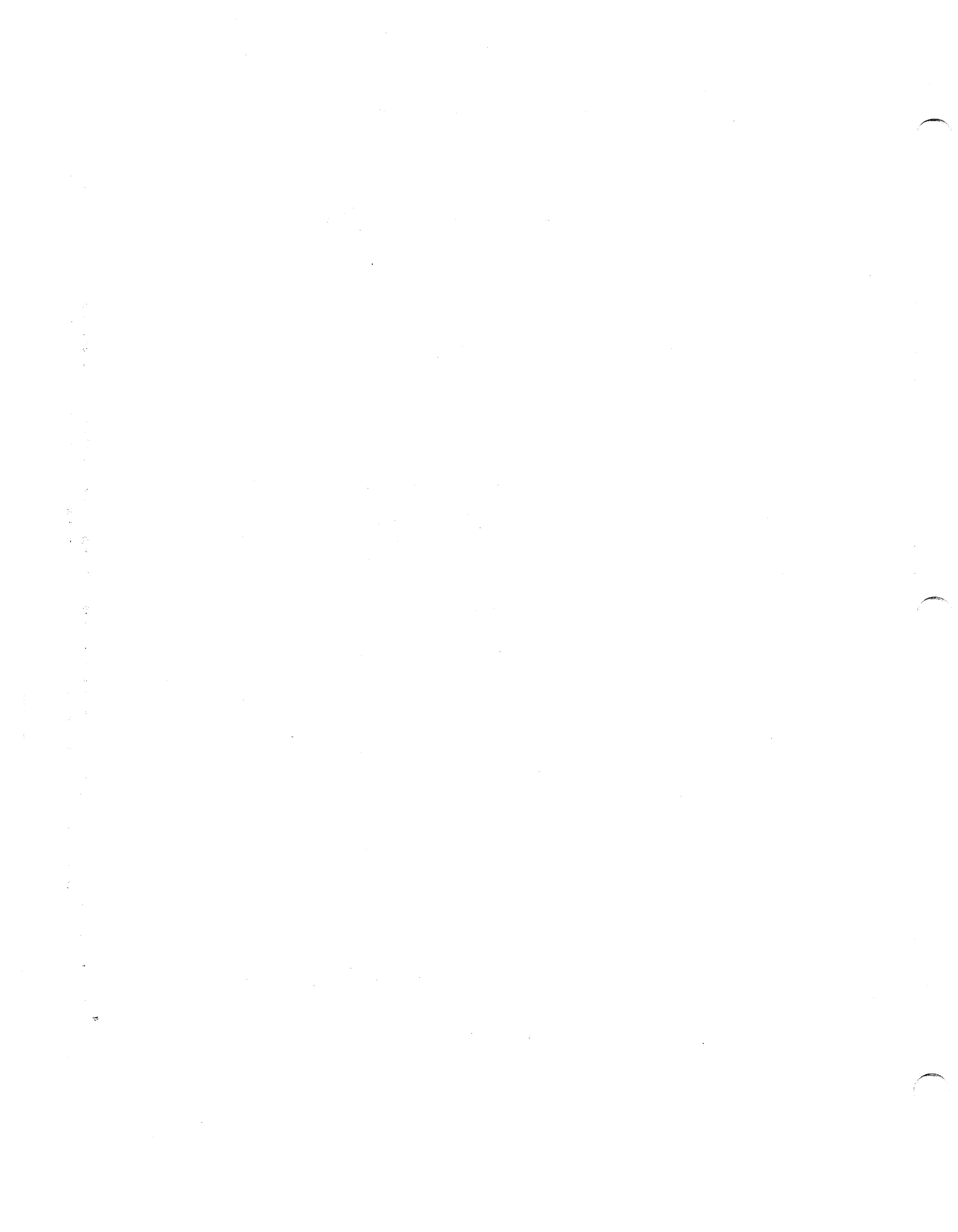


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INTRODUCTION

The Hot Beverage Center Model 3002 is a Fresh Brew, Single Cup Coffee Machine. It is available with two coffee selections, (fresh brew regular, fresh brew decaf,) one soup selection, one hot chocolate selection, and one selection for hot water only.

It is equipped with two seventy-five cup capacity cup holders.

The water tank has a capacity of three gallons and is heated by a twelve hundred fifty watt immersion type water heater.

The cup level for all ingredients is controlled by adjustable water valves and adjustable cams located in the control box.

The brew unit is a re-circulating type fresh brew coffee system. It recycles the water through the coffee grounds to obtain maximum extraction of coffee flavor.

SPECIFICATIONS

DIMENSIONS:

Height 72 1/2"

Width 25"

Depth 31 3/4"

ELECTRICAL:

115 VAC

10 AMP

60 CYCLE

WATER SUPPLY:

125 Lbs. Maximum Pressure

3/8 O.D. Copper

WEIGHTS:

344 Lbs.

CANISTER CAPACITIES:

Coffee Fresh Brew 6 Lbs.

Decaf Coffee Fresh Brew 4 Lbs.

Soup 4 Lbs.

Chocolate 4 Lbs.

CUP STORAGE:

Two Canister

Approximately 75
(7oz.) cups each

WATER FILTER:

Aqua-Pure AP 300

Maximum Temperature 100

Maximum Pressure 125 PSI

COINAGE:

Standard Single Price

Coin Mechanism

INSTALLATION

UNPACKING

This machine was thoroughly inspected before leaving the factory, and the CARRIER has accepted this vendor as their responsibility. Any damage or irregularities should be noted at the time of delivery and immediately reported to the delivering carrier. Request a written inspection report form from the claims inspector to file any freight claim for damage, FILE CLAIM WITH THE CARRIER NOT THE MANUFACTURER, within fifteen (15) days after receipt of the machine.

Remove all packing material in a manner not to damage the finish or exterior of vendor.

Remove the "knock-away" supports by inserting a screw driver and splitting the "knock-away" in two. Turn the leveling screws in as far as possible.

LEVELING

The vendor must be level for proper operation and acceptance of coins through the coin mechanism.

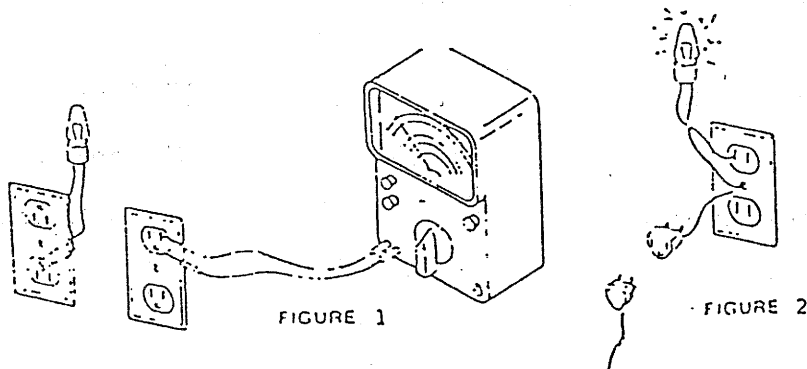
Position the vendor in its place of operation. Leave at least four(4) inches behind vendor for proper air circulation.

Level the vendor from front to back and side to side, make sure all levelers are touching the floor.

MAIN POWER CORD

All electrical equipment must be properly polarized and grounded. This vendor is wired so that it is properly polarized in accordance with the electrical code. If the wall outlet is wired and grounded properly, then the vendor will connect properly.

Shown in figures 1 & 2 are two properly grounded and polarized wall outlets. One is a three wire grounding type wall outlet (see fig. 1) and one is a two wire wall outlet (see fig. 2) with an adaptor in place. To make a polarity check use a volt-ohm meter or a 115 volt neon test light as shown. The hot side of the circuit should always be counter clockwise from the grounded terminal with the grounded terminal at the bottom. If the polarity at the wall outlet shows any other way, than shown in figures 1 or 2, the outlet needs to be rewired.



INSTALLATION

WATER SUPPLY

Located on the rear of the cabinet is a 1/4" tapered pipe male connection used to connect the inlet water supply.

It is always advisable to install a water supply shut-off valve in the external supply line.

LOCKS AND KEYS

The vendors are shipped with locks installed. Keys for locks are taped in the coin return cup.

PRODUCT CANISTERS

All canisters are clearly marked for identification.

The soup, chocolate and decaf canisters are placed so the feet enter the key hole slots and canister slides back into place until the manual latch engages.

The fresh brew coffee canister feet enters the key hole slots, then twist the canister counter clockwise until manual latch engages.

To remove the fresh brew canister you must first remove the ingredient spout, then press the release latch and twist the canister. To remove the fresh brew decaf canister, remove the ingredient spout first then press down on the release latch and slide canister out.

NOTE: Do not strike sides of canister to increase capacity. Avoid overfilling to prevent the ingredients from packing.

CUP HOLDERS

The cup holders are mounted in the lower cabinet in the upper left side. To remove the cup holder for cleaning, open the bottom cabinet door and slide the holder forward. To fill the cup holders, open the bottom cabinet door, place the cups in the holder, push the cups back until the cups depress the spring to the back of the holder.

COMPONENTS AND FUNCTIONS

COIN MECHANISM

This vendor is designed to use any standard single price coin changer.

COMPONENTS AND FUNCTIONS

COIN MECHANISM CONTINUED

The coinage receptacle is wired to receive a signal from the coin mechanism through pins #1 and #3 which energizes the vendor credit relay.

The coin return electro magnet (C.R.E.M. CIRCUIT) in the coin changer is controlled by the vendor through pins #2 and #6. The C.R.E.M.'s will be de-energized to refuse (return) all coins when:

1. Upper and lower door interlock power switches are not activated.
2. Waste container positioning switches not held in place by waste containers or float switches are not hanging in their containers
3. Credit relay energized. (Credit established)

SELECTION SWITCHES

Selection switches are located on the inside of the upper door behind a removable shield. To remove the shield pull out on the retainer plug catches and lifts off shield.

The selection switches, when operated, will provide a "start" pulse to it's selection (coffee, chocolate, soup, etc.) when the credit relay is energized.

PRODUCT LABELS

To install or remove product label, remove shield on inside of upper door covering the selection switches. The Product labels slide into the selection push button from left to right, when facing inside of door.

DOOR SWITCHES - (POWER SWITCHES)

The door power switches are a three (3) position (on, off, on) spring loaded switch. One is located behind the upper door inside the main cabinet, upper left hand corner. The other power switch is located behind the lower door in the lower cabinet, upper left hand corner. These switches are operated by the doors closed or activated to the VEND MODE when the upper or lower doors are closed. Or they may be activated by pulling out on the switch plungers. To operate the vendor with either or both doors opened you must first activate the door switches.

NOTE: With both doors open, both switches must be activated to test machine functions.

COMPONENTS AND FUNCTIONS

FREE VEND SWITCH

The free vend switch is operated by a "KEYED" locking lever located on the outside of the upper door. By setting vendor on free play you are able to make any selection without depositing money into the coin mechanism.

THIS KEY IS TAPED IN CASH BOX.

EXHAUST FAN

Located in the upper cabinet mounted on the back wall, middle of the cabinet. The purpose of the fan is to remove steam, vapor, etc., from the inside of the vendor.

CONDIMENT AREA

Located on the upper door and is recessed to hold cream, sugar, and stirrers. This area is removable for ease of cleaning. To remove, open the upper door and remove two (2) wing nuts holding the recessed area to inside of door. Tilt the box back to clear the stud, life up to remove the box.

WASTE CONTAINERS

There are two waste containers located in the lower cabinet area. The large waste container is for the used coffee grounds and is located on the left side facing the vendor. The smaller container is for coffee waste water and overflow, if any.

In both containers is a float, operating a switch, which is a safety feature to prevent the containers from filling up and running over into the bottom of the vendor and to remove the electrical power to the vendor should either container become full.

The waste containers operate a positioning switch which if not held in place by the container, the electrical power to the vendor will be shut off and the vendor will not operate.

IMPORTANT - Make sure that waste containers are placed into their proper positions in the vendor before the vendor will operate.

WATER TANK

The water tank is an aluminum three (3) gallon capacity tank heated by a 1,250 watt immersion type heater. An overflow is provided to direct excess water to the waste bucket. Water to drinks is supplied by "Gravity Force" through solenoid operated valves.

The tank is secured by metal straps and fastened to the main cabinet. To remove the tank from the cabinet, first disconnect the electrical power from the machine. Shut off the water supply and drain all the water from the tank by using drain hose connected to the bottom of the tank.

COMPONENTS AND FUNCTIONS

WATER TANK (CONTINUED)

Disconnect the main water inlet line and drain tube from bottom of the tank. Remove the tank insulated cover, remove the lid assembly from the top of the tank, by loosening the thumb screw, and removing lid and float assembly. Disconnect all electrical harnesses from the valves, thermostat and heater. Disconnect the water tubes from the product valves on the water tank. Remove the mounting straps and lift the tank out.

WATER HEATER

The 1,250 watt water heater is mounted to the bottom of the tank. The water heater is controlled by the temperature control to heat the water to 200°F plus or minus 4°F.

WATER TEMPERATURE CONTROL (THERMOSTAT)

The water temperature in the tank is maintained at 200°F plus or minus 4° by the temperature control assembly.

The drink temperature in the cup should be at least 155° to 160°F, under casual conditions (30 minutes or more between drinks). Repeated drink temperatures will vary from 155° to 175° as the lines and bowls absorb heat. To change the water temperature, rotate the thermostat adjusting the screw right to raise, or left to lower the temperature.

If it becomes necessary to replace the thermostat, be sure the sensing bulb is inserted correctly. It is also important that no portion of the capillary tube touches the water tank. After changing the thermostat, check the proper water temperature in the tank to insure proper installation of thermostat.

HYDRAULICS (WATER FLOW)

Water enters through the back of the vendor from the external connection to the double inlet water valve. It flows from the inlet water valve to the water filter and through the filter to the bottom of the water tank.

All water valves remove the water from the upper area of the tank. Water from the service nozzle is taken directly from the bottom of the tank.

Water for chocolate, soup and hot water is gravity fed directly to their respective mixing bowls. Coffee water is gravity fed to the brew cylinder and the brewer pump re-circulates the water to brew coffee. The coffee is diverted to the cup by the transfer bowl.

WATER TANK-LID ASSEMBLY

The water level in the tank is controlled by a switch on the lid. This switch controls the operation of the water inlet valve. A float attached to the lid and suspended in the top of the tank operates the water level switch.

The water level must be maintained below the overflow outlet. When water is drawn for the tank, the float "falls" in the tank and operates the water switch. The water switch when operated opens the inlet water valve, which allows water to fill the tank raising the float up to operate the water switch to close inlet water valve.

COMPONENTS AND FUNCTIONS

WATER FILTER

The water filter is located in the lower cabinet in the left hand back corner.

The cartridge reduces lime scale build-up and protects the drink taste by filtering out dirt, rust, impurities and odor from the water.

Each cartridge should filter approximately 1,500 gallons of water, this will vary depending on local water conditions. Fifteen hundred (1500) gallons of water would provide 20,000 to 30,000 drinks per filter, depending on the size of the cup used.

INLET WATER VALVE

The inlet water valve is located in the lower cabinet behind the water filter. The main function of this valve is to fill the water tank, when the tank lid switch is deactivated by the float in the tank.

The purpose of this valve is to provide an external water connection and control the incoming water to the water tank.

WATER VALVES

All the water valves, except the inlet water valve, are the same type. Their main function is to provide and direct water flow for the proper ingredient when energized. These valves have metering type adjusting screw to control the water flow. The volume of water flow is also controlled by switches and adjustable cams located in the control box.

COFFEE WATER VALVE

The coffee water valve is mounted to the water tank and is energized by the coffee water switch located on the timer assembly. This valve provides water for the coffee selections.

HOT WATER VALVE

The hot water valve is mounted on a manifold connected to the water tank. The hot water valve is energized by the hot water selection switch located on the upper door. The hot water selection can be operated without depositing money into the vendor.

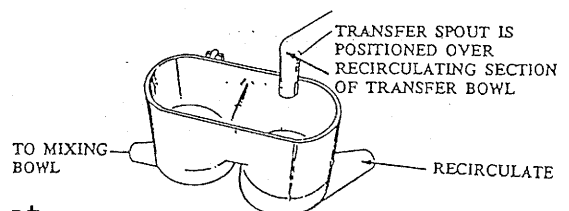
CHOCOLATE AND SOUP WATER VALVES (OPTIONAL)

The chocolate water valve when used will be mounted on the manifold, to the water tank. The chocolate water valve will be energized by the chocolate water switch on the timer assembly.

The soup water valve when used will be mounted on the manifold, to the water tank. The soup water valve will be energized by the soup water switch located on the timer assembly.

COFFEE TRANSFER BOWL AND SOLENOID

The transfer bowl and solenoid are located in the upper cabinet mounted on the left side wall. The TRANSFER SPOUT is connected by tubing to the outlet port of the pump and is operated by the Diverter Switch on the Brew Unit Cam.

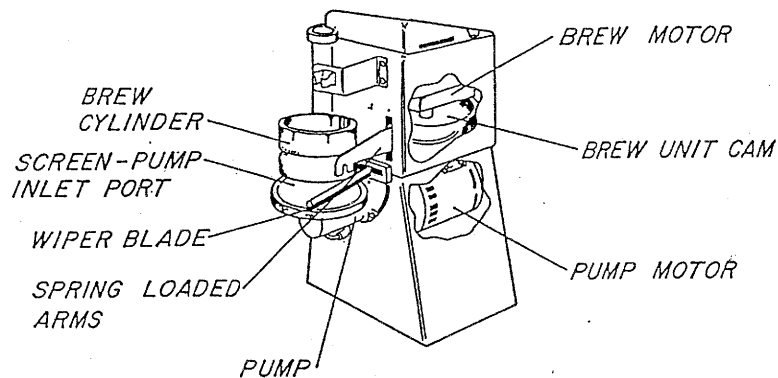


COMPONENTS AND FUNCTIONS

COFFEE TRANSFER BOWL AND SOLENOID (CONTINUED)

The TRANSFER BOWL is partitioned into two sections. The rear section directs coffee to the Brew cylinder for recirculation. The front section directs coffee to cup well.

BREW UNIT



PUMP MOTOR

The pump motor is located in the lower brew unit housing, and drives the roller vane type pump by a miniature "V" belt and pulley. A spring controlled idler is used to maintain constant tension on the "V" belt.

BREW CYLINDER

The brew cylinder is controlled by two spring loaded arms operated by the brew unit cam.

The brew cylinder receives the water and coffee that is to be brewed during a coffee cycle.

BREW SCREEN

The brew screen serves as an inlet port for the pump and also provides a seal surface for the brew cylinder, when the coffee is being brewed.

WIPER BLADE

The wiper blade is operated by the brew unit cam and travels across the brew screen to remove the coffee grounds after the brew cycle.

BREW MOTOR AND PUMP MOTOR

The brew motor and pump motor are started by the brew start switch (control box cam). A brew motor carrier switch mounted on the brew unit cam stops both motors.

DIVERTER SWITCH

The diverter switch which is mounted in the upper housing of the brew unit on the brew motor mounting plate, is operated by the brew unit cam. The diverter switch controls the operation of the coffee re-circulating and delivery solenoid.

C.R.E.M. SWITCH

The C.R.E.M. switch is mounted in the upper housing of the brew unit on the brew motor mounting plate, it is operated by the brew unit cam. The C.R.E.M. switch provides the stand by circuit to the coin mechanism.

COMPONENTS AND FUNCTION
BREW UNIT (CONTINUED)
CARRIER SWITCH

The brew motor carrier switch is located in the upper brew housing mounted to the brew motor mounting plate. This switch is operated by the brew unit cam, assuring that the brewer runs through a complete cycle.

BREW UNIT - HOW IT WORKS

In standby the brew cylinder is at rest on the rubber portion of the brew screen to form a seal.

The transfer spout is positioned over the recirculating section of the transfer bowl.

When a coffee selection is made, hot water and coffee ingredient are introduced into the brew cylinder. Both the brew unit motor and the pump motor are started at the same time. The pump pulls the water through the ingredients up through the transfer tube, out the transfer spout into the recirculation section of the transfer bowl and back into the brew cylinder.

The coffee ingredient forms a layer of grounds on the screen and as the water is recirculated through it, extraction takes place -- coffee is brewed.

At a predetermined time, the solenoid moves the transfer spout to the other section of the transfer bowl. Coffee is gravity fed from the transfer bowl to the cup well and then to the cup.

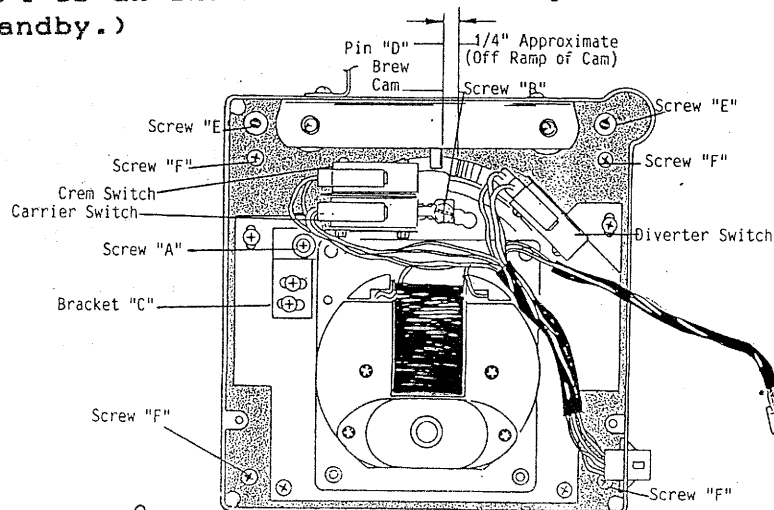
As the cam continues to rotate, the brew cylinder is lifted off the brew screen and the wiper blade is driven across the screen and back to clear the grounds.

The transfer spout is returned to its standby position and the brew cylinder is lowered to the screen by the rotating cam.

The cam operates the brew motor carrier switch to stop both the brew and pump motors.

BREW MOTOR CARRIER SWITCH

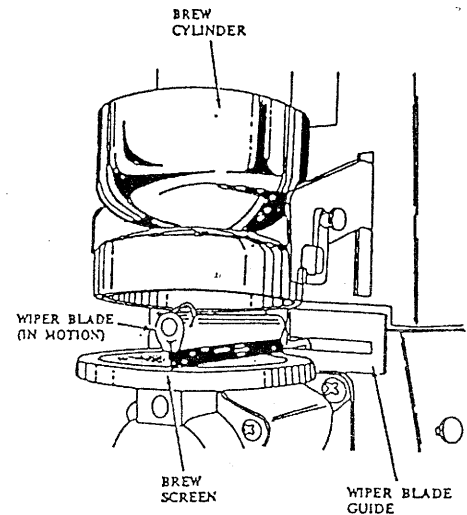
Adjust Screw "A" so that the brew motor carrier switch will be operated by screw "B" on the brew cam. Adjust the brew motor carrier switch bracket "C" so that the brew motor stops with pin "D" approximately 1/4 of an inch off the cam ramp. (Brew cylinder on the screen at standby.)



BREW UNIT (CONTINUED)

WIPER BLADE GUIDE

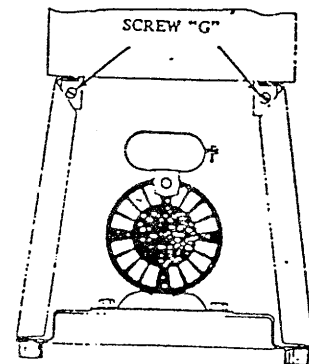
The two screws "E" are used to assure that the wiper blade travels in a flat plane across the brew screen to remove all grounds. The blade must be adjusted so that it "just touches" the full surface of the screen. If the blade is "too low" the safety ratchet will cause the wiper to stall. If it is too high it won't clean the screen.



BREW CYLINDER TO BREW SCREEN POSITION

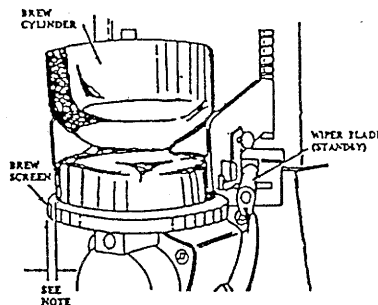
This positioning is obtained by loosening the four screws "F" that hold the upper and lower brew unit section together. Use the two adjustable shoulder screws "G" to "shift" the brew cylinder (Right to left, forward or back). Then retighten screws "F".

NOTE: This position is factory set and no adjustment should be necessary unless an upper or lower brew unit section is replaced or interchanged with another unit.



BACK VIEW
(WITH COVER OFF)

NOTE: The brew cylinder must be "Centered" on the brew screen to insure a "seal" at standby.



CONTROL BOX

The control box is located in the upper cabinet, lower right side. Contained in the control box is the timer motor and cam assembly, 15 Amp and 5 Amp circuit breakers, manual flush switch, auto flush timer assembly and four (4) relays.

15 AMP & 5 AMP BREAKER

The 15 Amp breaker is across line 1 and supplies power to the water heater and to the 5 Amp breaker. The 5 Amp breaker is across line 1 to all components in the vendor.

MANUAL FLUSH SWITCH

The manual flush switch when operated and held (for approximately two (2) seconds) will produce one brew unit cycle with water only. This switch is used when testing brewer or cleaning unit to obtain one cycle of brewer.

BREW FLUSH TIMER

A preset timer that will automatically start the sanitizer, if after a 14 hour period no coffee selection is made. Each coffee selection will reset the timer to start another 14 hour period.

RELAYS

There are four (4) relays mounted in the control box. The four (4) relays are from left to right: credit relay, A, B, and C relays.

CREDIT RELAY

The credit relay is de-energized in standby. It may be energized from the coin mechanism or by operating the free vend switch. When energized this relay provides line 1 to all product selection switches so that when any one of them is operated a vend cycle will start.

RELAY "A"

This relay is used during the decaffeinated and regular fresh brew coffee cycle.

RELAY "B"

This relay is used during coffee cycle and is also isolated for use during hot chocolate selection.

RELAY "C"

This relay is used during soup selection cycle in vendor.

DIODE

There are two(2) diodes in the control box. Their function is to provide isolation of the relay selection circuits through directional current flow

CAM MOTOR AND CAM ASSEMBLY

The cam motor and cam assembly controls the total vend cycle timing. This controls both the timing and "sequence" of all components involved in the vend cycle.

The ingredients and water cams are named to identify their functions and these cams are adjustable by loosening the wing nut on the end

COMPONENTS AND FUNCTIONS

CAM MOTOR AND CAM ASSEMBLY (CONTINUED)

of the timer shaft. These cams consist of two (2) leaves, either of which may be rotated on it's hub independently of the other. One leaf starts a function the other stops it.

The cams that are involved with sequence timing only, do not adjust and are thus protected from accidental change, are adjustable. The function of these (sequence only) cams and switches are as follows:

DESELECT SWITCH

The deselect switch at standby, provides the selection circuit through the energized credit relay.

TIMER CARRIER SWITCH

The timer carrier switch when operated provides a circuit to keep the cam timer motor running through vend cycle.

BREW START SWITCH

The brew start switch starts the brew motor and pump motor. (The brew motor carrier switch in the brew unit completes the brew unit cycle).

PRODUCT ADJUSTMENTS

WATER ADJUSTMENTS

There are two adjustments for water volume for coffee, hot chocolate, and soup. One adjustment is on the water valve. A metering screw is located in the front of each valve. By turning the screw counter-clock wise this will "Increase" the flow or by turning clockwise, this will "Decrease" the water flow from the valve. The other adjustment is at the water cams, located in the control box and are color coded for identification.

The coffee water cam located in the control box is colored white, soup water cam is violet, and the chocolate water cam is yellow. The front cam is stationary, with the color coded cam being adjustable.

NOTE: Before loosening the wing nut on the cam assembly note the position of each cam. After each adjustment retighten the wing nut.

Coffee Water: (White Cam)

To increase water, decrease number of spaces or color.

To decrease water, increase number of apaces or color.

Soup Water: (Violet Cam)

To increase water, increase number of spaces or color.

To decrease water, decrease number of apaces or color.

WATER ADJUSTMENTS (CONTINUED)

Chocolate Water: (Yellow Cam)

To increase water, increase number of spaces
or color.

To decrease water, decrease number of spaces
or color.

INGREDIENT ADJUSTMENTS

The ingredients are adjusted by cams on the timer assembly. The regular coffee ingredient cam is colored red, decaffeinated coffee cam is orange, soup cam is green, and chocolate cam is blue.

Regular Coffee: (Red Cam)

To increase ingredient, decrease number of spaces
or color.

To decrease ingredient, increase number of spaces
or color.

Decaffeinated Coffee: (Orange Cam)

To increase ingredient, decrease number of spaces
or color.

Soup: (Green Cam)

To increase ingredient, decrease number of spaces
or color.

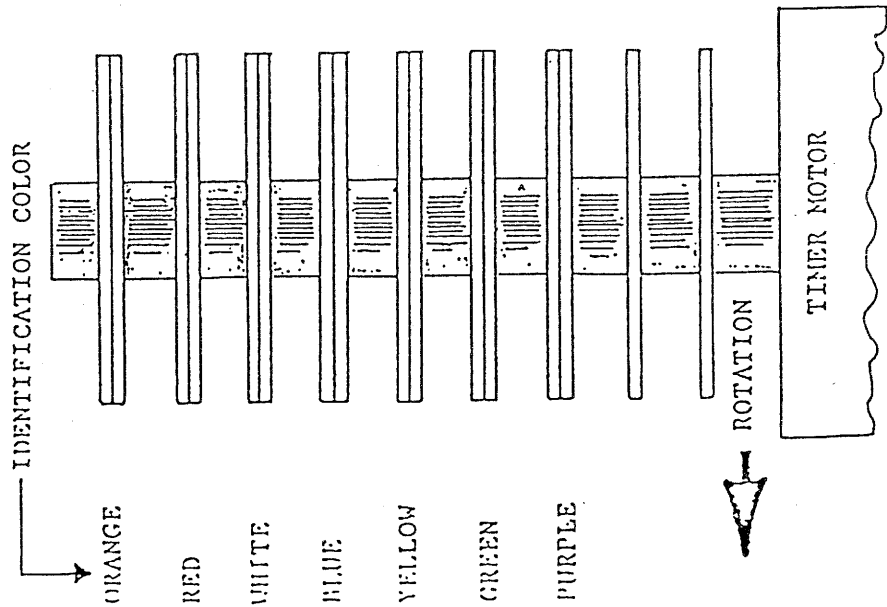
To decrease ingredient, increase number of spaces
or color.

Chocolate: (Blue Cam)

To increase ingredient, increase number of spaces
or color.

To decrease ingredient, decrease number of spaces
or color.

CAM IDENTIFICATION AND RECOMMENDED
INGREDIENT/VOLUME SETTINGS



CAM IDENTIFICATION & FUNCTION	VOLUME OR GRAM THRON SETTINGS		
	7 OUNCE CUP	9 OUNCE CUP	VOLUME
DECAFFEINATED COFFEE INGREDIENT	2	2 1/2	8.7 GR
COFFEE INGREDIENT	6 1/2	8 1/4	7.1 GR
COFFEE WATER	4	4 1/2	210 ML
CHOCOLATE INGREDIENT	6	8	27 GR
CHOCOLATE WATER	11	14	174 ML
SOUP INGREDIENT	7	9	7.1 GR
SOUP WATER	3 1/2	4 1/2	212 ML
BREW START	NON ADJUSTABLE		
MOTOR CARRIER & DESELECT	NON ADJUSTABLE		

NOTE: REFER TO SERVICE MANUAL FOR CAM ADJUSTMENT PROCEDURE.

RECOMMENDED SERVING PROCEDURE

The following procedure should be used each time the vendor is serviced.

1. Either unplug or turn the power off.
2. Fill the cup holders.
3. Remove ingredients canister and cup housing.
4. Clean around the ingredient drive motors with a small brush.
5. Wipe the canister shelves with a damp cloth.
6. Clean the interior of the vendor including the top sides and walls.
7. Remove the brew unit cover by lifting up on the cover and sliding out to remove from the hanger studs.
8. Rinse the brew cylinder and the wiper blades.
9. Return the power to the vendor and run the brewer through at least one cycle.
10. Clean the cup housing and surrounding door area.
11. Clean and refill the ingredient canisters.
12. Replace the ingredient canister on shelves. Be sure the studs are engaged in the key slots, and the drive motor is engaged in the augur.
13. Empty and clean the waste containers, use chlorine bleach to retard odor.
14. Replace waste containers making sure they are seated against their respective position switches and replace floats to each container.
15. It is recommended at least every 30 days to flush urn cleaner through the brewer.

TO SANITIZE THE COFFEE BREWER USING URN CLEANER

1. Empty one packet (3 grams) of urn cleaner into the coffee brew cylinder.
2. Press and hold for approximately 2 seconds flush switch.
3. When the coffee water begins to run into the cup area through the delivery valve turn vendor off.
4. Allow the urn cleaner to remain in the brewer about 5 minutes.
5. Turn the power on and run the brewer through at least five(5) flush cycles.
6. Rinse and wipe the upper area of the brew cylinder to remove any sanitizing compound that may have splashed.

TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE	CORRECTIVE ACTION
Machine rejects all coins.	Machine unplugged	Plug in machine
	No power to machine	Check breaker
	Waste container full	Empty container
	Defective waste container float switch	Repair or replace
	Defective waste container positioning switch	Repair or replace
	Waste container not in proper position holding positioning switch activated	Put waste container in position against switch
	Upper or lower door power switch defective or not activated	Repair or replace
	Defective or out of sequence timer carrier switch	Repair or replace
	Defective or out of adjustment C.R.E.M. switch	Repair or replace
	Machine not level	Level machine
	Dirt or foreign material in coin acceptor	Clean coin rejector
Defective coin mechanism	Repair or replace	
Defective or blown 5 Amp or 15 Amp breaker	Check and reset breaker	
Machine accepts coins but will not vend any selection	Credit relay not holding in	Repair or replace
	Broken wire orange-blue, white	Repair or replace
	Timer motor not starting	Repair or replace
	Defective deselect switch	Repair or replace
	Defective brew start switch	Repair or replace
	Defective coin mechanism	Repair or replace
	Broken wire blue/yellow, red/blue	Repair or replace

TROUBLE SHOOTING GUIDE

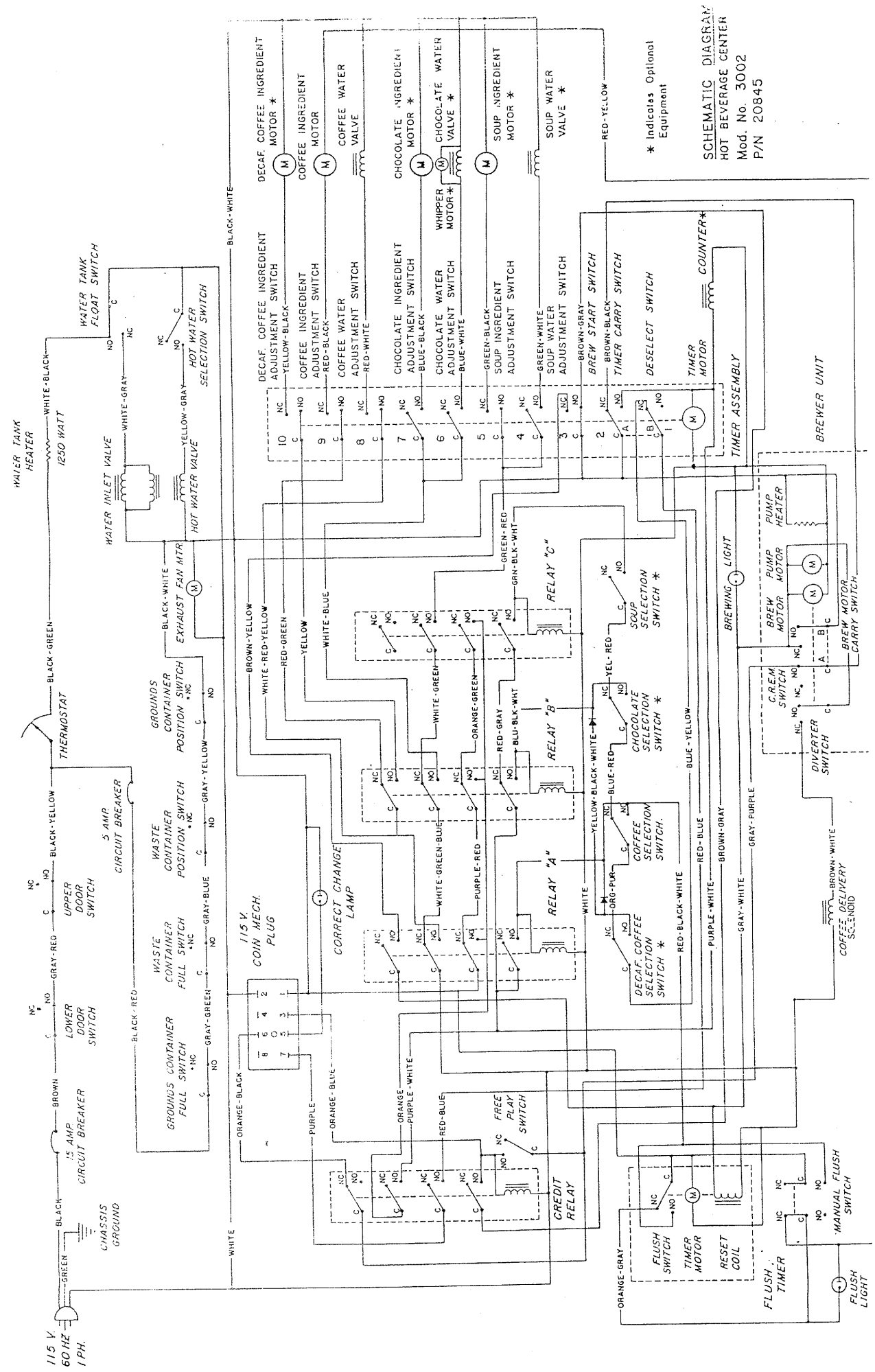
PROBLEM	CAUSE	CORRECTIVE ACTION
Machine accepts coins but does not vend one or more selections	Selection switch broke or out of adjustment Defective or unplugged selection relay Broken or disconnected selection wire, orange/violet, blue/red, yellow/red Broken or out of adjustment brew motor carrier switch	Replace or adjust switch Repair or replace Repair or reconnect wire Repair or replace
Machine vends properly, but pays wrong or no change	Coin mechanism out of change Defective coin mechanism Vend price set incorrectly	Fill coin tubes Repair or replace Set vend price
Coin mechanism accepts nickels & dimes, but no quarters and correct change light is on	Check coin mechanism change tubes for enough change Check coin empty switch or sensor for proper activation Foreign material or dirt in coin acceptor Coin acceptor open slightly Defective coin mechanism	Fill coin tubes Repair or replace switch of sensor Clean or remove dirt or material Repair or replace Repair or replace
Coin mechanism accepts nickels & dimes but no quarters, correct change light out	Check for burned out correct change light Check coin acceptor for dirt or foreign material Quarter C.R.E.M. defective Quarter sensor defective Defective coin mechanism	Replace light Clean or remove dirt and material Replace C.R.E.M. Replace sensor Repair or replace

TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE	CORRECTIVE ACTION
Coin mechanism accepts quarters, but no nickels or dimes	<p>Check coin acceptor for proper operation</p> <p>Check coin acceptor for dirt foreign material</p> <p>Check C.R.E.M. coil, may be defective</p> <p>Defective coin mechanism</p> <p>Coin acceptor gate staying open</p>	<p>Adjust or replace</p> <p>Clean or replace</p> <p>Repair or replace</p> <p>Repair or replace</p> <p>Clean or repair</p>
Selection vends wrong product	<p>Canisters loads incorrectly or wrong position</p> <p>Selection switch stuck closed</p> <p>Selection switch wired wrong</p> <p>Diode in control box harness plug defective</p> <p>Canister motors wired incorrectly</p>	<p>Reload canister or reposition</p> <p>Clean or replace switch or button</p> <p>Rewire switch</p> <p>Check diode for circuit flow and connection</p> <p>Rewire motors</p>
Selection vends water only	<p>Canister not in place properly</p> <p>Ingredient motor defective or jammed</p>	<p>Position canister</p> <p>Repair or replace ingredient motor</p>
No water from dispensing lines	<p>Water supply turned off</p> <p>Float in water tank defective</p> <p>Water tank float switch defective</p> <p>Water filter needs to be replaced</p> <p>Inlet water valve defective</p>	<p>Check supply line</p> <p>Check float for operation</p> <p>Replace float switch</p> <p>Replace filter</p> <p>Check valve solenoid and wiring</p>
Water incoming to tank does not shut-off	<p>Float stuck down in water tank</p>	<p>Repair or replace float</p>

TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE	CORRECTIVE ACTION
Water incoming to tank does not shut-off	Defective water inlet valve Float switch defective	Repair or replace valve stuck open Replace float switch
Selection water valve does not shut-off	Water valve stuck open Timer motor not turning Water valve not sealing properly	Repair or replace Repair or replace timer motor Clean any foreign material valve seat or body
Water temperature too hot	Thermostat set too high Thermostat not shutting off	Re-adjust thermostat Replace thermostat
Water not hot	Thermostat set too low Thermostat defective 15 Amp breaker defective or tripped Float switch defective or out of adjustment Heater element defective Broken wire or connection	Reset thermostat Replace thermostat Check and reset breaker Adjust or replace float switch Replace element Check wiring diagram for circuit



* Indicates Optional Equipment

SCHEMATIC DIAGRAM
HOT BEVERAGE CENTER
Mod. No. 3002
P/N 20845

