

SERVICE MANUAL

CSV-2P

BREWFRESH COFFEE SYSTEM

GENERAL

The CSV-2P Coffee System has been developed as a part of the cooperative service vending program. Its purpose is to provide the best tasting product from a controllable dispenser designed for easy servicing. It offers:

- Modular construction
- Each cup individually brewed and filtered
- Unique long-life piston type brewer
- Simple cleaning requirements
- Change-making coin mechanism
- Free vend capability
- Programmable control box for easy field conversion of machine functions.
- Optional whipped hot chocolate attachment.
- Optional free hot water or vended water
- Multi-price capability

SPECIFICATIONS

Overall Dimensions:

Height.....70"
 Width.....25"
 Depth.....25"

Weight:

Shipping.....276 pounds

Capacity:

Coffee.....4.0 pounds
 Cups.....200
 Filter.....2400 cups

Electrical:

Primary.....115 VAC/13 AMPS
 Secondary.....24 VAC

NOTE: Polyvend, Inc. is not responsible for faulty or overloaded circuits where CSV banks are installed. The exact load imposed by each bank module is stated in the related service manual. The sum of all such modules in any particular location will determine the total line load.

INSTALLATION

The sequence listed below describes a recommended step-by-step procedure for installation. The actual sequence used will vary depending on individual company procedure and customer demands. In all cases, the module should be thoroughly inspected upon receipt for shortages or shipping damage.

- Remove all packing materials.
 - Remove keys from taped location on countertop.
 - Open both upper and lower compartment doors.
 - Locate inlet hose in upper compartment. Remove locknut from bulkhead fitting and insert bulkhead fitting through hole in the back of the cabinet. Thread nut on the fitting and tighten (See FIG. 1).
 - Using 3/8" minimum inside diameter tubing, connect to a potable water supply.
 - If optional water filter is used, (SEE FIGURE 1)
 - Locate four holes on the rear of the machine which match the filter wall bracket, and attach it with four #8 x 1/4 type "B" screws.
 - Insert two #8 x 3/8 type "AB" screws in face of bracket.
 - Attach "L" shaped bracket to the center of the filter.
 - Hang assembly on wall bracket.
 - Install 3/8" NPT x 3/8" NPS fittings (not included) into the head.
 - Bring inlet and outlet tubing to the head and attach. (Make sure water will flow in direction of arrow on filter).
 - Install quick change cartridge (Use Heated water type).
 - To Install Machine:
 - Turn main switch (in lower compartment) to "off".
 - Remove valve cover by removing (1) screw on top, then lift cover up and pull forward.
 - Remove tape from end of heater wire and connect wire to heater terminal.
 - Turn water on at water filter (water tank will not fill yet).
 - Slide machine into position and adjust leveling legs so that doors will open and close while maintaining alignment with the cabinet.
- NOTE: All leveling legs must contact the floor.

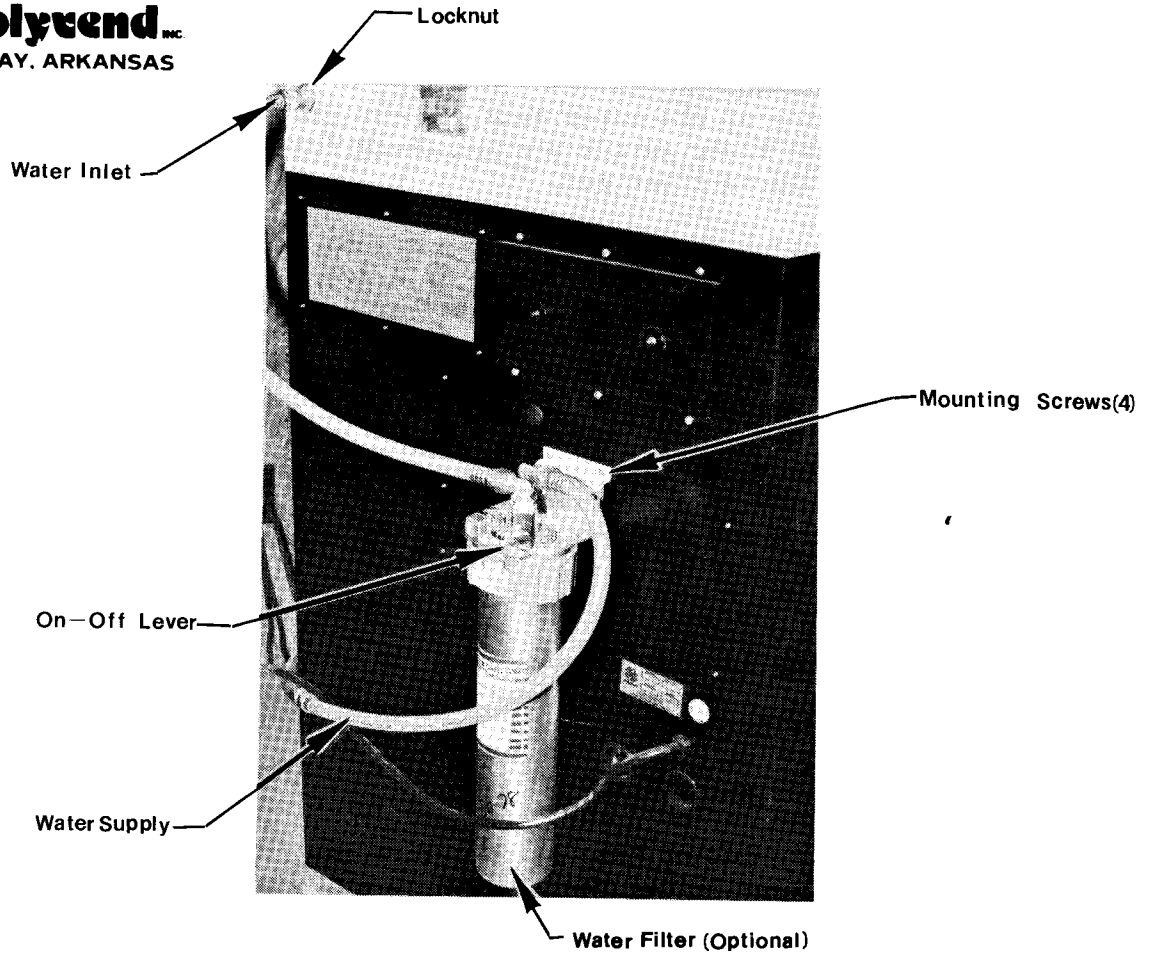


Fig. 1

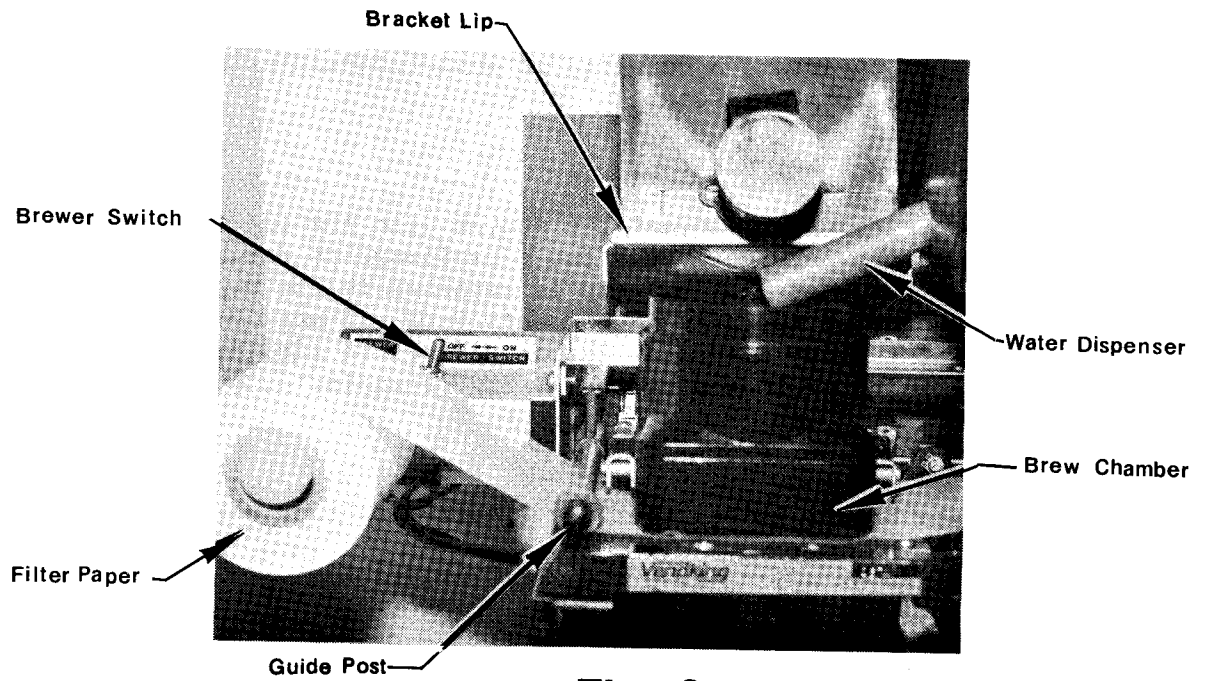


Fig. 2

- On the top of the water tank, remove the packing support from under the float switch arm and check for any binding of the switch arm or float rod.
- Plug machine into a 115 VAC power source using three pronged, grounded connector provided. If a ground receptacle is not available, use a proper external ground on all locations.
- Turn main switch "on". The water tank should now fill and begin to heat when full.
- Load coin tubes in coin changer and cycle manual payout once.
- Machine is now ready for loading and adjustments required.

MACHINE LOADING

All machine loading is accomplished from the front. This requires:

- A roll of filter paper.
- A waste container liner.
- Up to four pounds of vend grind coffee meeting Tyler-Ro-Tap specification number 1 (see page 31).
- A supply of "Hot" paper cups.
- A supply of stir sticks (no longer than (5) inches to fit holder).
- A supply of cream and sugar in desired dispensers.
- Up to eight pounds of hot chocolate mix (if machine is so equipped).

A roll of filter paper and a quantity of waste container liners are shipped with each machine from Polyvend.

- Load the Cup Dispensers
 - Using "hot" cups, insert the stacks with the cup tops pointing toward the machine. Push the cups inward as far as possible, or until the last (bottom) cup is retained in the cup dispenser. Depending on the size of the cups used, it may be necessary to adjust the cup dispenser throat springs to fit the cup size by tightening or loosening the spring retaining nuts.
- Load Filter Paper (FIGURE 2)
 - Locate brewer switch and brewer button on tape post bracket.
 - Push brewer switch lever to "off" position.
 - Push down on brewer button and hold down until black brewer chamber has lifted to its highest position, and then release the brewer button.

- Place filter paper roll on filter post so it unrolls clockwise off the top.
- Advance filter paper by: (FIGURE 3)
 - Threading the end of the paper under the guide post and raised brewer chamber.
 - Using left hand, raise and hold rubber pinch wheels by lifting up on pinch wheel frame.
 - Using right hand, pull paper under pinch wheels and approximately 8 inches past tape drum.
 - Release pinch wheels.
 - Wrap end of paper clockwise around take-up spool and twist paper tight being careful not to tear paper under pinch wheels.
- Push brewer switch lever to "on" position. This will allow the machine to cycle to "home" position.

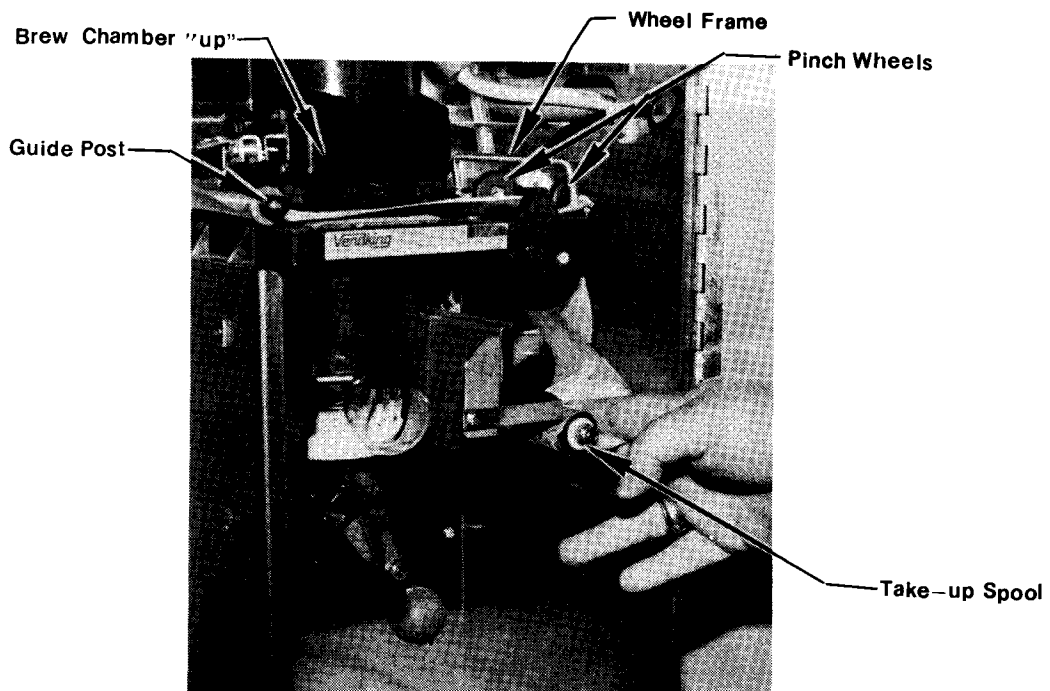


Fig.3



- Install waste container liner:

Installing the waste container liner properly is critical to prevent spilling fluids and grounds around the inside of the machine during operation. To install:

- Open the liner top and pull it over the top of the waste container until it is down around the sides of the container about three (3) inches (SEE FIGURE 4A).
- Push in the liner until it is in contact with the container bottom.
- Expand the liner and smooth against all corners and sides of the container (FIGURE 4B). Be sure no bulges are present that could catch discarded fluids or grounds.
- Place waste container in machine, making sure right top is properly fitted under deflector on right side of tower.

FIGURE 4A

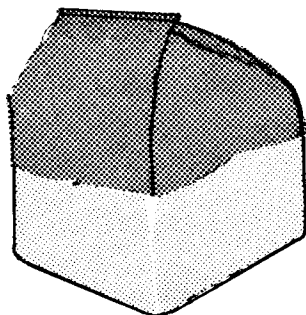


FIGURE 4B

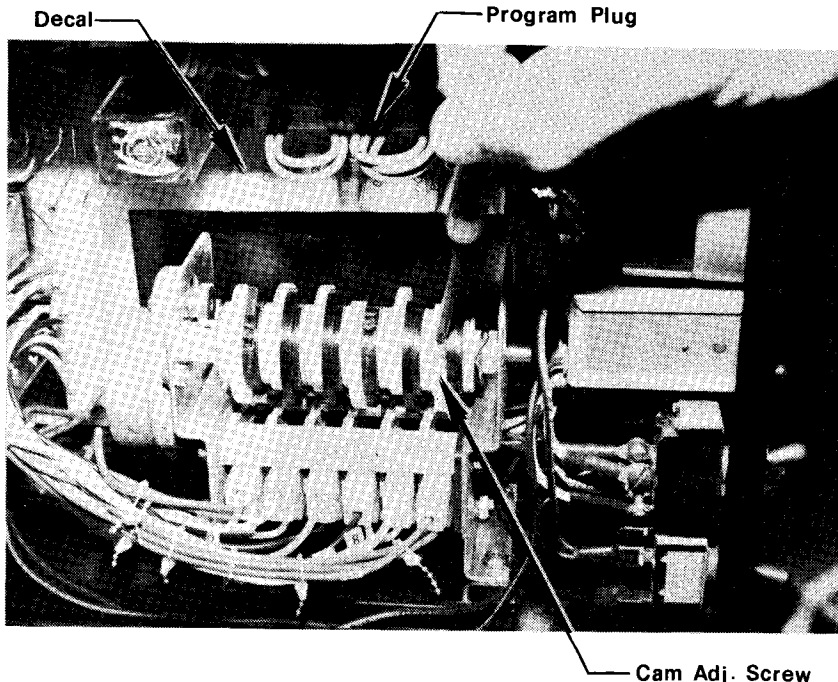
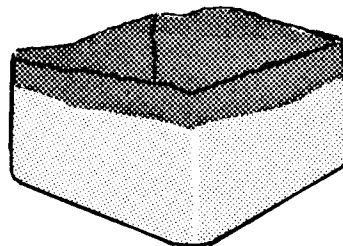


Fig.5

PRODUCT LOADING

Loading of the product requires up to four pounds of the proper grind coffee and, if so equipped, up to eight pounds of hot chocolate mix. All product canisters are identical and therefore are loaded in the same manner.

- Remove product canister from machine and lift off lid.
- Remove all packing tape and clean canister - being sure inside is completely dry before filling.
- Fill the canister with loosely poured product - DO NOT pack the coffee or chocolate mix.
- Use the cap attached to the canister to cover the spout and prevent product spillage while handling.
- Replace the filled canister in its proper position (coffee left and chocolate right) being sure that the drive yoke on the back engages with the dispenser motor shaft and the lower front of the canister is secured behind the metal lip. (FIGURE 2)
- Remove the cap(s) from over the canister spout(s).

PRODUCT THROW ADJUSTMENT(S)

Product throw is controlled by individual switches of the control box timer. These switches are wired through the normally closed (N.C.) set of contacts and therefore activate the dispenser motor only when the switch lever is allowed to move to its normal position during a dispense cycle thru that product relay. The time that the switch lever is allowed to move to its normal position is adjustable by positioning rotating cams on the timer shaft. There are two cams per switch: one white and one black; each independent of the other. By design, the black cam starts the cycle and the white cam stops the cycle. Only the white cam should be adjusted in the field because movement of the black cams could effect the product mixing time and resulting taste. After loading of the product canister(s) adjust the throw(s) as follows:

- On front of control box in lower compartment turn Product Switch "ON".
- On front of control box, turn free vend switch to "free".
- Remove funnel in top of brewer so as to have clearance to catch dispensed coffee.
- If equipped for hot chocolate, also remove mixing funnel of hot chocolate attachment.

- In upper compartment, under valve cover, pull one wire terminal off each of the coffee and hot chocolate outlet water valve so as not to dispense water during cycles that will be run later to set product throw.
- Position container under spout of product canister that is to be dispensed.
- Cycle by depressing product selection button on front panel and catch dispensed amount.
- Repeat as many times as needed to get dispenser spout full of product.
- Using suitable gram scale, measure amount of product dispensed on next cycle.
- Determine product throw to be set. Recommended throws are: Coffee - 8.5 to 9.2 grams; Hot chocolate - 20-24 grams.
- If adjustment is needed, remove "L" bracket that retains slide out control box.
- Pull out control box and remove aluminum cover. (FIGURE 8)
- Locate product switch on timer to be adjusted. All switches are alike and are labeled for identification.
- Turn main switch on front of control box to "off".
- Manually rotate timer shaft until slot of the adjustment screw on white cam is so that it can be turned with screwdriver. (FIGURE 5)
- Decide if throw is to be increased or decreased.
- To increase, turn screw clockwise on white cam only. This increases the "dwell" between the cams and therefore the time that the switch lever is allowed to move to its normal position.
- To decrease, turn screw counterclockwise.
- Turn main switch on front of control box "on". Timer will rotate to home position.
- Again cycle product and measure throw.
- Repeat adjustment steps above as necessary to set throw of each product (coffee and if equipped, hot chocolate).
- After setting product throw(s) replace wire terminals pulled earlier from the water outlet valves.

WATER TEMPERATURE MEASUREMENT

The correct temperature of the heated water coming out of the holding tank is critical for the proper operation of this machine and the quality of the finished product. Commonly referred to as the "brewing temperature", the correct setting is 190^o to 194^o F directly out of the tank. This temperature assures no unstable reactions of boiling water while extracting only the desirable flavors from the coffee grounds. The finished product temperature should range from 170^o to 190^o F depending on when the reading is taken on sequential cups dispensed. This variation is due to heat loss of the product coming thru the brewing system. Because of this heat loss and the demand for the critical "brewing temperature" of the water, a step by step procedure should be followed in reading and setting the holding tank temperature. These are as follows:

- Turn product switch in lower compartment to "off".
- Turn free vend switch in lower compartment to "free".
- Remove funnel in top of brewer so as to have ample clearance to catch dispensed water.
- Only with the heating element cycled off by the thermostat, press "coffee" button on front of machine and catch water dispensed in styrofoam cup (preferred because of insulating qualities).
- Remove first cup of water dispensed from top of brewer before tape rewind cycle starts.
- Place thermometer to be used in first cup for preheat purposes.
- Again cycle machine and again catch dispensed water in styrofoam cup.
- Immediately read temperature - should be 190-194^o F.

THERMOSTAT ADJUSTMENTS

Any thermostat adjustment required to set water temperature demands an even more attentative step-by-step procedure to prevent false readings due to stratification of water levels by temperature:

- To decrease temperature of the water in the tank:
 - Rotate the top of the thermostat shaft toward you (FIGURE 15) no more than 1/8 of a turn at a time.
 - Draw off about 7 cups (42 oz.) of water from the tank. Heating element should cycle on.
 - Allow element to be cycled off by thermostat setting and remeasure as in steps above.

- To increase temperature of the water in the tank:
 - Rotate the top of the thermostat shaft away from you (FIGURE 15) - no more than 1/8 of a turn at a time.
 - The heating element should cycle on.
 - Allow element to be cycled off by the thermostat setting and remeasure as in steps above.
- Repeat as necessary to assure correct "brewing temperature".

NOTE: Never take temperature readings while heating element is on. The element can be heard in most cases but a 110V lamp may be connected across heating element terminals on top of tank to indicate on and off cycles.

WATER THROW ADJUSTMENT(S)

The water throw is controlled by two adjustments: The water switch and cam of the timer and the flow restrictors in the outlet water valves. Since a common switch is utilized for all timed water throws, this set of cams regulate the amount of time that all vended water valves are held open. The flow restrictor in the individual outlet valve is then used to set the proper amount of water released for the time that the selected valve is held open by the common water switch. Depending on the optional equipment and desired machine configuration determined by the program plug used in control box (FIGURE 9, PAGE 18), set the water throw(s) as described below:

- Turn product switch in lower compartment to "off".
- Turn free vend switch in lower compartment to "on".
- Fully open flow restrictor(s) on coffee and hot chocolate (If so equipped) outlet water valves.
 - Locate flow restrictor(s) on outlet water valve(s). See page 60 Item # 11 .
 - Note that flow restrictors are constructed so that slot in knurled head aligns with restrictor blade.
 - Fully open restrictors by loosening hex head clamp screw and rotating restrictor so that the slot in the knurled head of the restrictor is aligned with the inlet tube of the valve body. (Slot should be running from front to back of machine). This position has least resistance to flow of water.
- Tighten hex head clamp screw.

- Take initial reading of water throw at "lowest" numbered outlet water valve per the following number designation in relation to optional equipment included on machine.
 1. "Paid" water valve
 2. Hot chocolate water valve
 3. Coffee water valve.

Please note that only when the hot water is to be "Paid" and therefore controlled, should you adjust the amount dispensed for this valve. The "free" hot water option does not require throw adjustment since the customer simply holds the button on the front panel depressed for the amount of hot water desired. The "free" or "paid" function is determined by the program plug used in control box.

- Place "hot" type measuring container, so as to catch dispensed water. With the top door open, the coffee water will be dispensed at lower opening in brewer cylinder. The "paid" hot water and hot chocolate water will be dispensed at front door cup stand whether door is open or not.
- Cycle machine by depressing first "lowest" numbered selection per above listing. The first cup dispensed at each valve should be discarded. Then dispense three cycles of selection, catching and measuring each cup. Take average of three cups measured as reading.
- Set water throw of first function included on machine

Water throw needed is determined by type of selection. They should be set as follows:

1. "Paid" Hot Water = 5oz; 2. Hot Chocolate = 5½ oz. 3. Coffee = 5 3/4oz.

- Starting with "lowest" numbered selection per above listing included on the machine, adjust water switch of timer in control box as follows:
 - Turn "off" main switch on front of control box.
 - In lower cabinet, remove "L" bracket retaining slide out control box.
 - CAUTION: SOME CIRCUITS IN THE CONTROL BOX ARE 115V.
 - Pull out control box
 - Locate water switch of timer (FIGURE 5). All cams and switches in timer are identical. The water switch is labeled and is the fourth switch from the front of the control box. Also note that there are two cams per switch, one white and one black; each independent of the other. In all cases, the black cam starts the cycle and the white cam stops the cycle. Only the white cam should be adjusted in the field.

- Manually rotate timer until slot of the adjustment screw on white cam of water switch is so that it can be turned with screw-driver. (FIGURE 5)
- Starting with "lowest" numbered option listed above that is on machine, decide if amount of water dispensed from that valve needs to be increased or decreased.
- To decrease amount thrown, turn screw on white cam counterclockwise.
- To increase - turn screw clockwise.

NOTE: One turn of the adjustment screw changes the amount of water thrown approximately $\frac{1}{4}$ ounce. Turning this screw rotates the white cam on the timer shaft and therefore either increases or decreases the time that the lever of the water switch is allowed to move to its normal position. This switch is wired through its normally closed (N.C.) set of contacts so that only when the switch is in its normal position is the outlet water valve activated during a vend cycle.

- Turn "on" main switch on front of control box. Timer will rotate to home position.
- After adjustment, again take readings from the outlet water valve of "lowest" numbered option as listed above that is included on machine.
- Repeat above steps as necessary only to set water throw from the prescribed valves (Example: This would be the hot chocolate water valve if the machine has hot chocolate attachment but does not have the "paid" hot water function. If neither the "paid" hot water nor the hot chocolate option is utilized, this would be the coffee water outlet valve).

Please again note that only when the hot water option is to be "Paid" can the throw be controlled by the timer switch and cam adjustment.

- Set water throw of other function(s) (Only needed if machine is equipped with hot chocolate option and/or "Paid" hot water option).
 - Take water throw readings at other function(s) included on machine. Use the three cup averaging method.
 - In all cases, the amount of throw should be more than needed. If less than needed, check for kinks or blockage in delivery hoses.
 - Adjust restrictor(s)
 - Loosen hex head clamp on valve.

- Rotate knurled head of restrictor slightly. (Slot in head of restrictor aligns with blade of restrictor - amount of restriction is determined by position of blade in relation to inward water flow.)
- Tighten hex head clamp screw.
- Again take throw readings and repeat restrictor adjustment as necessary to set proper amount of water throw for that particular valve.
- If no product throw or brewer delay adjustments are needed, return machine to normal operation condition.
- Push in control box.
- Replace "L" bracket and retaining screw.
- Turn product switch to "on".
- Turn free vend switch to position wanted for normal service ("coin" or "free").

BREWER DELAY ADJUSTMENT

This machine has a built-in delay on the coffee brewing cycle. The delay may be used as an adjustment to fine-tune the brewing system to achieve the highest quality cup of coffee both in flavor and extraction. The delay is used to increase the pull-thru time at the end of the brewing cycle. In some instances, this may eliminate a "wet patty" problem that is usually caused by coffee grounds with too high a content of dust or "fines". The delay may be adjusted from 0 to 3 seconds by simply positioning a cam in the timer as follows:

- Turn main switch on front of control box to "off". (FIGURE 8)
- Remove "L" bracket retaining slide out control box.
- Pull out control box
- Locate brewer delay switch - it is the 3rd switch from the front of the control box and is labeled. (FIGURE 5)
- Manually rotate timer until the adjustment screw of the white cam can be turned with a screwdriver.
- Decide if delay is to be increased or decreased.

- To increase time of delay, turn the adjusting screw clockwise on white cam only. This increases the "dwell" between the cams and therefore the time that the switch lever is allowed to move to its normal position. One full turn of the adjustment screw equals about $\frac{1}{2}$ second of delay.
- To decrease, turn screw counterclockwise, again on white cam only.
- To eliminate any delay, turn white cam adjustment screw counterclockwise until no "dwell" difference is present between the white and black cams.
- Turn main switch "on". Timer should cycle home.
- Cycle machine and note delay time.
- Repeat steps above if needed to set desired delay.

PRICE SETTING

The Polyvend Brewfresh system is designed to accommodate either a single or four price coin changer. The type changer used is determined by the program plug in the control box (Item #6, FIGURE 9, Page 18). Simply by plugging in the type program plug for the desired machine configuration and coin changer used, the system can be single or multi-price for coffee, hot chocolate, and "paid" hot water.

If a single price changer is used, the vend price is determined by the setting in the changer and all products vend for that price. See price setting instructions for changer used.

If different vend prices are desired for the products dispensed, a four price changer is necessary for multi-price capability:

Level #1 = Vend Price of "Paid" hot water

Level #2 = Vend price of coffee

Level #4 = Vend price of hot chocolate

NOTE: Level #3 is not used, but some value should be set on this level to assure proper operation of coin changer.

OPERATION

3200 - Coffee

- A Depositing money in the coin mechanism establishes credit to the selector circuit.
- B When the coffee button is depressed, the coffee relay is energized - thus starting the coffee cycle: (C) below:
- C₁ Power is supplied to the timer motor - starting it on its cycle which is completed through 360° by the timer cycle switch.
- C₂ Power from the coffee relay is circuited through the timer switches to the coffee dispense motor and coffee water valve for the time controlled by the cam settings.
- C₃ Power is supplied to the brewer motor - starting it on its cycle.
- D Once the brewer is started in its cycle, the home switch powers it through a complete 360° rotation. During this cycle, the piston moves up to first agitate and mix the coffee and water dispensed into the brewer above. Then the brewed coffee is pulled through the filter paper by the vacuum created and delivered out the spout openings at the bottom of the cylinder.
- E The relay break switch on the timer is opened momentarily just before the end of the cycle, which de-energizes the coffee relay.

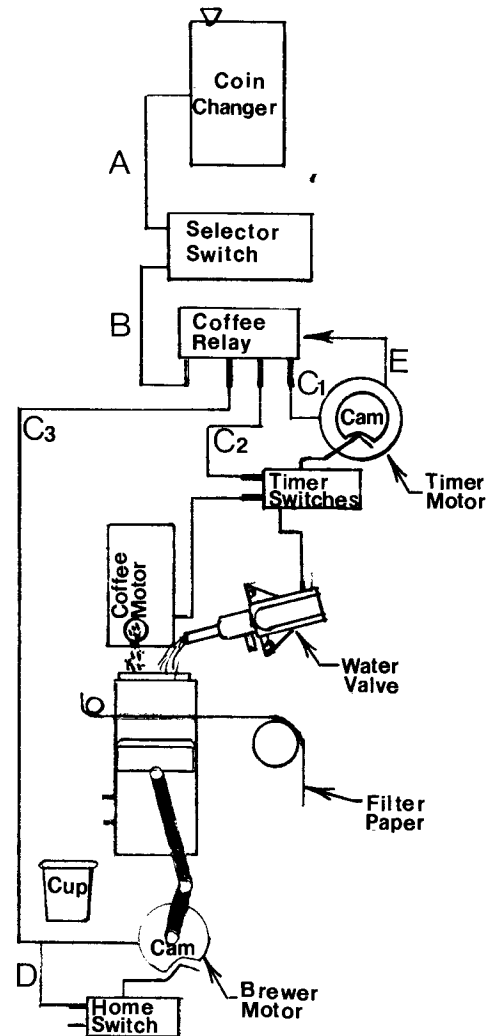


FIGURE 6



OPERATION

3200 - Hot Chocolate

- A Depositing money in the coin mechanism establishes credit to the selector switch.
- B When the hot chocolate button is depressed, the hot chocolate relay is energized, thus starting the hot chocolate cycle, (C) below:
- C₁ Power is supplied to the timer motor, starting it on its cycle which is completed through 360° by the timer cycle switch.
- C₂ Power from the chocolate relay is circuited thru the timer switches to the chocolate dispense motor, water valve, and whipper motor for the time controlled by the cam settings.
- D The dispense cycle is completed as the hot chocolate flows out of the blender housing and into the cup.
- E The relay break switch on the timer is opened momentarily just before the end of the cycle, which de-energizes the chocolate relay.

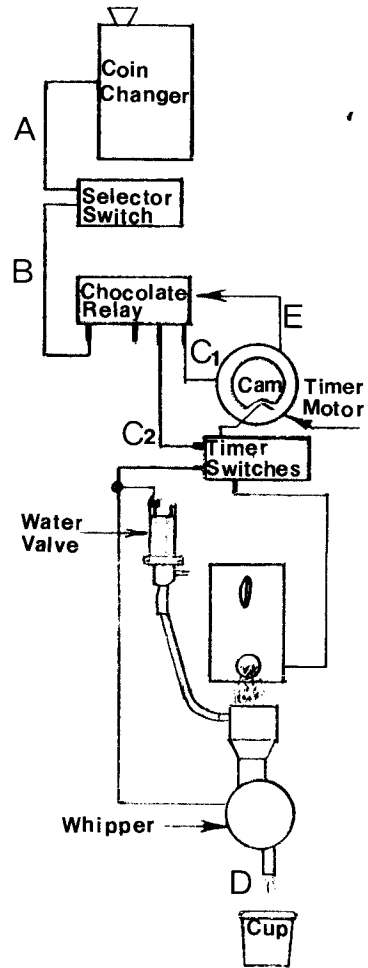


Figure 7

ELECTRICAL

The 3200 Coffee Module operates on a primary power supply of 115 volts A.C., 60 Hertz. A 3-receptacle junction box is located on the back wall of the lower compartment for connection of machine components to 115 VAC. Since the primary operation of this machine is 115 VAC, CAUTION should be exercised by servicing personnel.

The 115 VAC overhead fluorescent lamp requires a ballast and starter for operation. The fluorescent tube is easily accessible for replacement by sliding back the white diffuser that is retained by the two elbow catches (see parts breakdown, page 42).

The control box, Item 1, Fig. 8 below, also plugs into the 115 VAC junction box. The control box is mounted on a slide that permits easy access to its components. To slide the control box out, remove the screw holding the retaining bracket and pull box out to stops.

Although the control box has a 24 volt step down transformer for some control circuits and the coin mechanism, there are several 115 VAC circuits present in the control box. In fact, 115 VAC is supplied to the upper tower assembly electrical components from the control box. Some of these have control wiring through the timer switches and relay circuits such as the water dispense valves, product dispense motors, chocolate whipper motor, and initial pulse to brewer. Others, such as the water level and water heating systems are independent of control box regulating circuits.

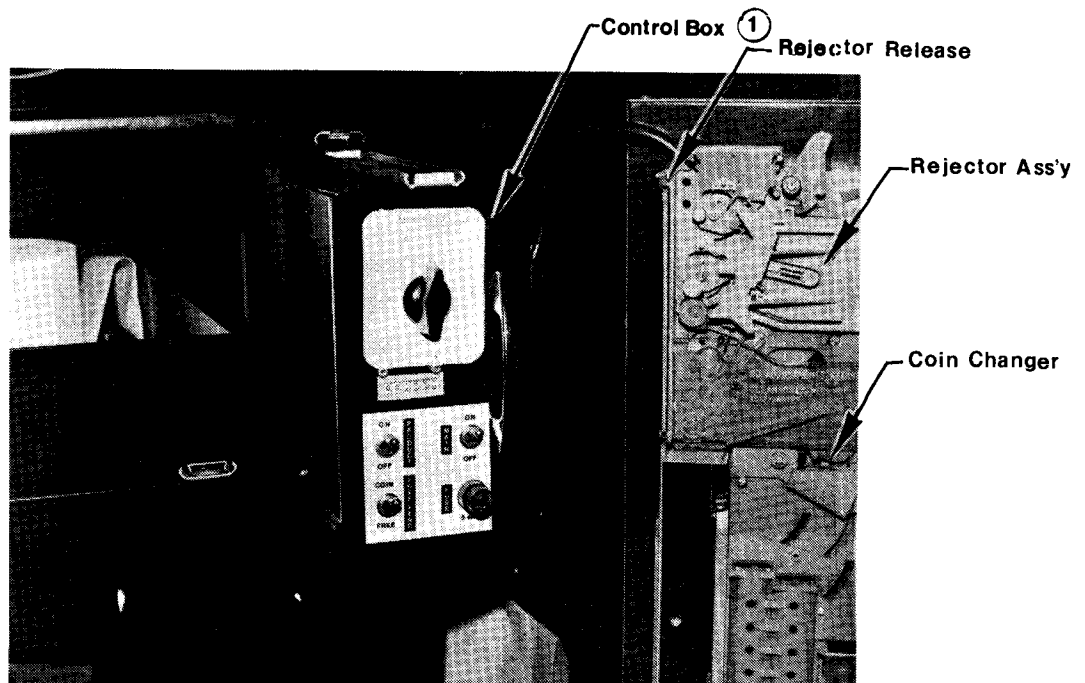


Fig. 8



ELECTRICAL CONTROL BOX

Figure 9 shows the inside of the control box after the cover has been removed. Item 1 is the transformer that reduces 115 volts to 24 volts. Item 2 is the coffee relay. Item 3 is the chocolate relay. Item 4 is the "vended" water relay. Item 5 is the vend relay on the single price option or the free vend relay on the 4-price option.

NOTE that the coffee relay, Item #2 and the (free) vend relay, Item #5 are always present; but that the chocolate relay #3, and the "vended" water relay, #4, are needed only when these options are on the machine.

Item 6 is the program plug. If the machine is to be converted from single price to four price, (or four price to single price) the program plug and coin changer are the only components that have to be changed.

Item 7 is the multi-cup timer which, when dialed with the free vend switch on, will have machine to sequentially dispense the selected number of cups.

Item 8 is the counter that records a vend each time a product is dispensed.

Item 9 is the timer assembly which consists of the motor, cams and switches.

All wiring is of modular construction with connectors on both ends of each harness for easy replacement.

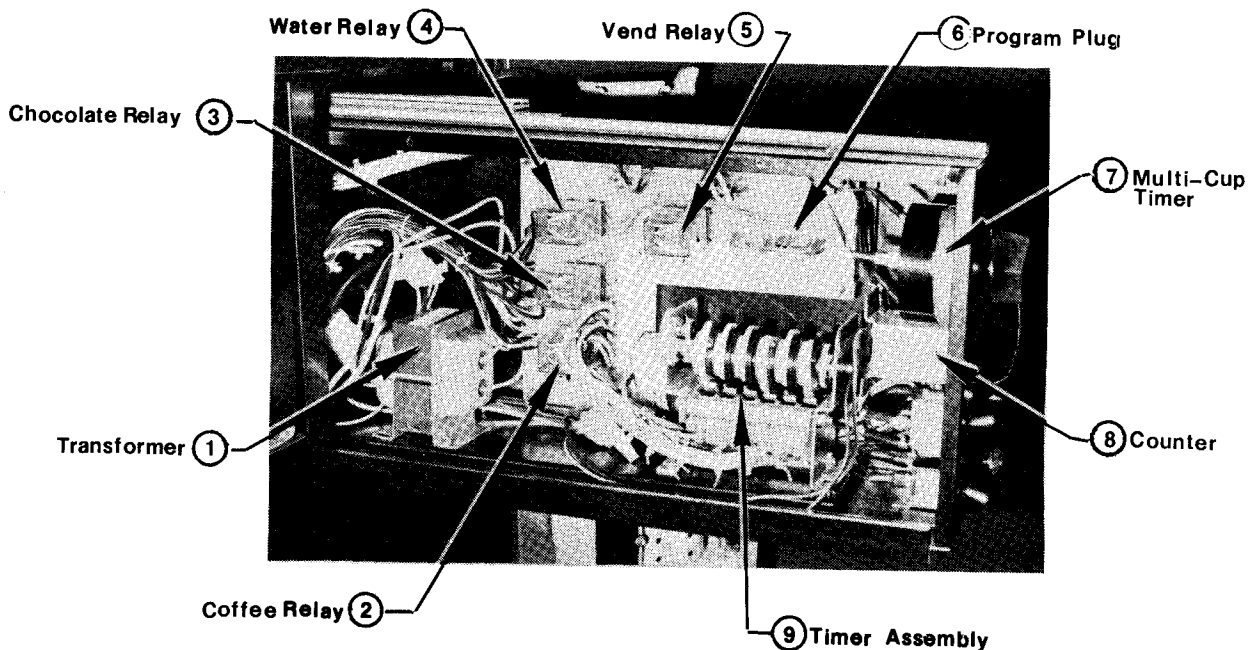


Fig. 9

CLEANING AND SERVICE

Cleaning and servicing of the Brewfresh system is made easy by its modular construction. All can be accomplished from the front, in keeping with the Polyvend Bank concept.

Cleaning is the most important step in servicing the system. It serves to maintain the quality of the product and prevents harmful residual build-up. To clean:

REGULAR CLEANING - DAILY

- Brewer funnel -- remove, clean later (see last step below).
- Product switch -- (lower cabinet) -- turn to "off".
- Free vend switch -- (lower cabinet) -- turn to "free".
- Coffee selector button -- (front panel) -- press, after positioning container to collect flush water. Repeat a second time.
- Brewer Chamber -- wipe out inside, careful not to tear filter paper.
- Chocolate selector button -- (front panel) -- press, after positioning container to collect flush water. Repeat a second time.
- Product switch -- (lower cabinet) -- turn to "on".
- Free vend switch -- turn to "Coin".
- Pour trough -- remove -- separate cover when cleaning.
- Drip pans -- remove -- one removes from front of door, one from back.
- Clean -- Brewer funnel, pour trough and drip pans -- use warm water only, no soap or detergents. Remove accumulated oils by wiping with paper or cloth towel.
- Replace parts -- Brewer funnel, pour trough and drip pans.

MONTHLY CLEANING

- Perform first (5) steps of daily cleaning section above.
- Locate brewer switch (behind filter paper roll) and turn it to "off" position.
- Place cap over coffee hopper spout to prevent spillage and remove coffee hopper.

- Tear filter paper between roll and brewer and remove used filter paper. (Depress brewer button until brew chamber lifts and remove filter paper).
- Turn brewer switch to "on" position and the brewer will cycle to "home" position.
- Mix (6) ounces of water and a commercial grade brewer or plastic cleaner.
- Pour cleaner into the brewer chamber and allow to soak for 5 minutes.
- Place brewer switch in "off" position.
- Depress brewer button until piston has traveled down as far as it can without allowing cleaner to run out of cylinder holes.
- Allow cylinder to soak ten minutes.
- Turn brewer switch to "on" and catch cleaning solution as it is being dispensed.
- Using a clean cloth, wipe out brewer chamber to remove any remaining coffee oils and residue.
- Press coffee selection button to cycle hot water through machine. Repeat until at least (10) cups of water have been dispensed.
- On last cycle, turn brewer switch to "off" position when black chamber is raised. Rewind filter paper thru brewer.
- Turn free vend switch to "off", product switch to "on" and brewer switch to "on".
- Replace coffee and remove cap from end of spout.
- Push coffee button to check operation (free vend light will now go off).

COMPLETE SOAKING

In larger operations it is sometimes more efficient to carry replacement brewers which are pre-sanitized at the service center and replace them on location. After extended use, the outside of the brewer may become stained and need to be cleaned. To remove, clean, and replace brewer follow steps below.

- Place cap over coffee hopper spout.
- Turn brewer switch to "off" and push brewer button until black brew chamber raises. Remove filter paper from brewer.
- Pull down on brewer lock pin and rotate to hook on the bracket. (FIG. 10)
- Remove brewer by pulling outward to the right.
- Soak brewer in one gallon of hot water and a commercial grade brewer cleaner. Brush grounds from brew chamber and brewer frame.



- Wipe brewer with cloth.
- Rinse brewer completely in hot or warm water.
- Let brewer dry completely.
- Place a few drops of light weight oil on the chain and all shafts turning in bronze bushings.
- Replace brewer in machine by inserting at slight angle to clear mounting bracket on left side.
- Pull down and rotate locking pin so that when released it engages brewer.

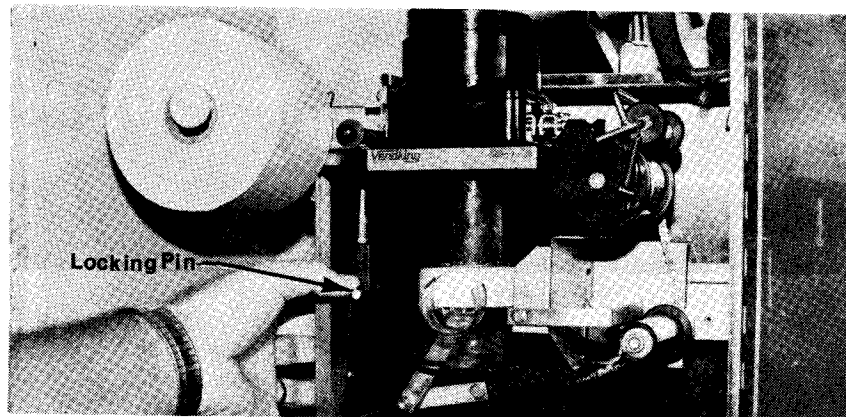
If the brewer or motor socket has been rotated while the brewer was 'out of the machine, the brewer drive may not line up with the motor socket and therefore will not slide into position. To rotate the motor socket:

- Locate brewer switch behind filter tape post and push switch to "off" position.
- Press the brewer button (which will rotate the motor socket) while pushing firmly on the brewer until it slides in and seats on the brewer motor socket. Release button.
- Turn brewer switch to "on" position and the brewer will automatically cycle to home position.
- Remove cap from coffee hopper spout.
- Cycle machine to test operation.

The coffee canister should be cleaned each month. It should never be cleaned with soap or detergents. Simply use warm, clean water to rinse it and then dry. To clean:

- Remove the canister from the machine. (FIGURE 11)
- Save remaining coffee by pouring it into a suitable container.
- Remove the wire auger by pulling straight out. (FIGURE 12)
- Rinse and wipe the canister and auger, using warm water only.
- Replace the auger (only one end will fit properly into base).
- Allow canister to completely dry.
- Replace the canister in the machine. (Be sure the two guide pins fit directly into the two holes in the back of the canister.)

Fig. 10



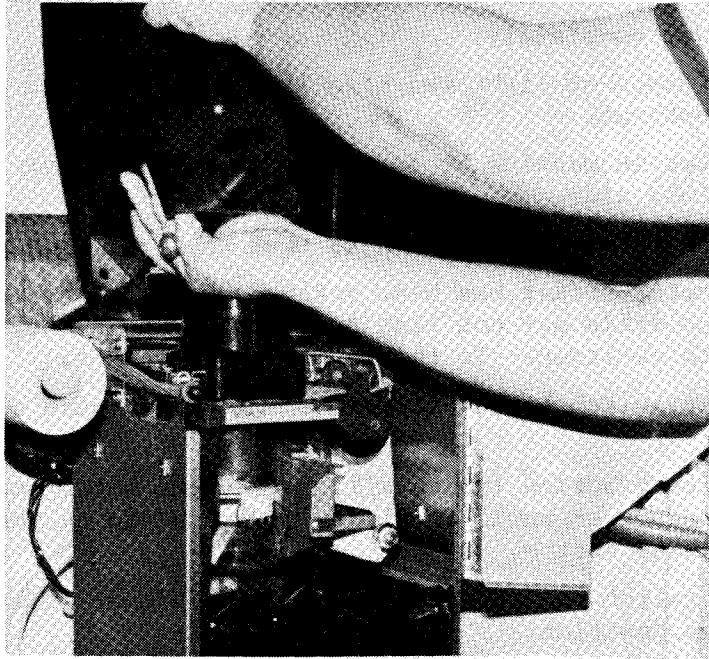


Fig. 11

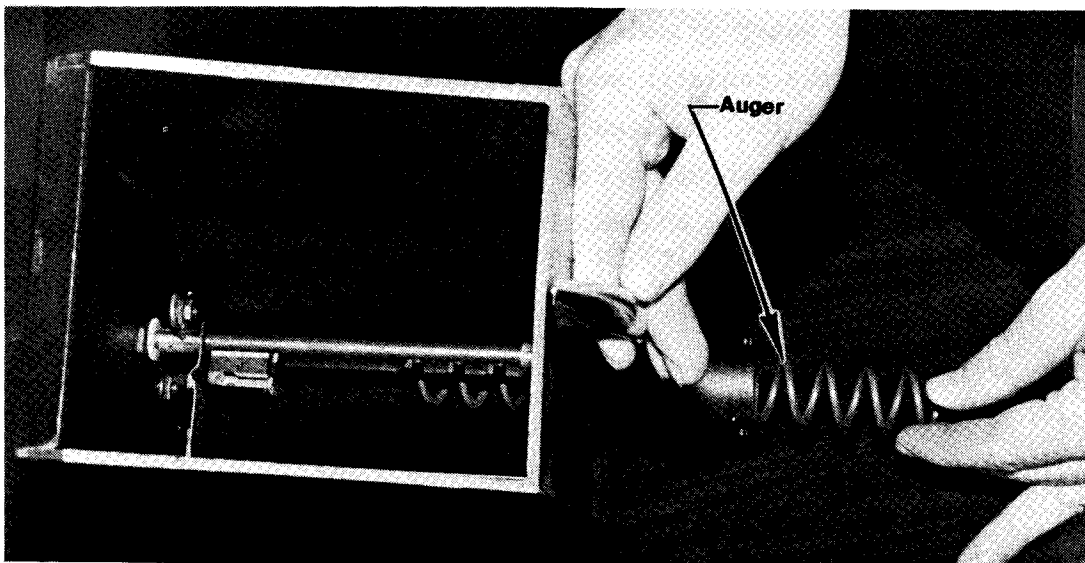


Fig. 12

WATER SYSTEMS

The 3200's have an "Open" water tank, which means open to the atmosphere - no pressure. The water level is controlled by a float - operated switch located on the tank lid. The tank is refilled each time a cup of water is taken from the tank. The heater element and the thermostat are also attached to the tank lid. The float in the tank also controls the heater safety switch that prevents power from going through the heater element until the tank is almost full. Another safety feature in the 3200's is the overflow float in the waste pail. If the tank overflows for any reason or if the waste pail should become full of water, this float will turn off the safety switch attached to the back of the tower. This safety switch turns off all electrical power to the machine except the heater element.

If the water tank should need to be removed, follow the steps below.

- Unplug the machine and turn off water supply. (If machine is equipped with optional water filter, turn water off by turning lever to "off" position).
- Drain water tank by inserting drain hose (supplied with every 3200) in the drain cock and opening the drain cock. CAUTION: The water draining out will be hot! (FIGURE 13)
- Disconnect water inlet hose from the fitting on the inside upper cabinet (FIG 13)
- Remove (4) mounting screws that hold tower to countertop.
- Disconnect wiring harness by unplugging the quick-disconnect (FIG 13).
- Disconnect wires from the heater safety switch, the water level switch, and the heater element. Label these wires as they are removed to facilitate re-connection (FIGURE 16). Remove the water valve(s) by removing the (2) screws holding it to the bracket, removing the two wires on the switch and pulling the valve forward to remove it from the tank. (If the machine has a hot chocolate or hot water valve, the dispense hose must also be pulled from the valves). Each water valve has a soft "O" ring that is easily damaged if care is not taken when inserting it into the tubes. Wet the "O" ring before inserting in into the water tube. (FIG 14)
- The coffee tower can now slide out on the countertop and be turned around to expose the back of the water tank.
- Remove the screw holding the tank strap to the coffee canister bracket. Remove the screw holding the bottom tank bracket to the tower.
- Lift tank off.



- Tank Cleaning

To clean the tank, use a deliming solution. Completely remove both drain valve assembly and water inlet fitting with hose attached. Shape wooden plug to block both fittings at bottom of tank and the three outlet tubes on the front of tank and insert same. Fill the tank with a deliming solution. Follow the instructions of the deliming solution manufacturer, regarding length of time and cleaning procedure after deliming. However, in general, the deliming solution should be left at 180°F for 20-30 minutes. The tank should then be drained, flushed with hot water mixed with baking soda or some other neutralizing agent, and flushed again with hot water. Replace the lid and reinstall in machine, reversing the procedures listed above.

NOTE: Do not use the lid heater assembly to heat the deliming solution as the thermostat bulb is damaged by the solution.

Fig.13

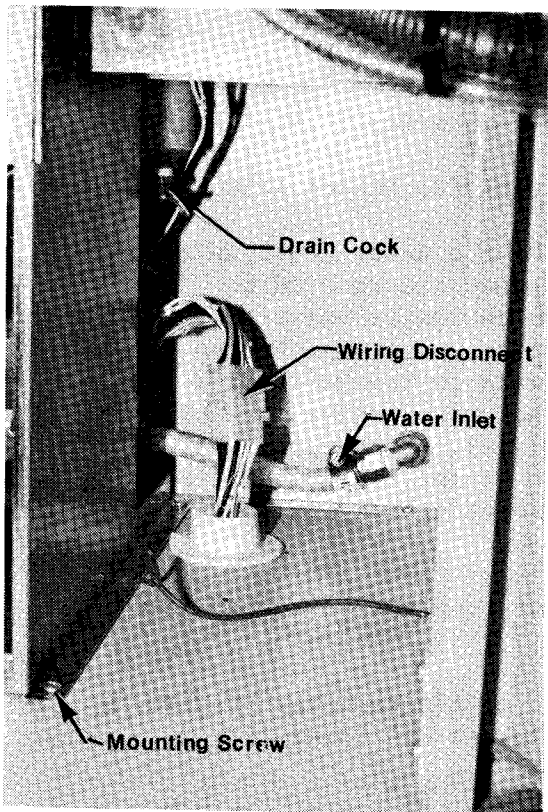
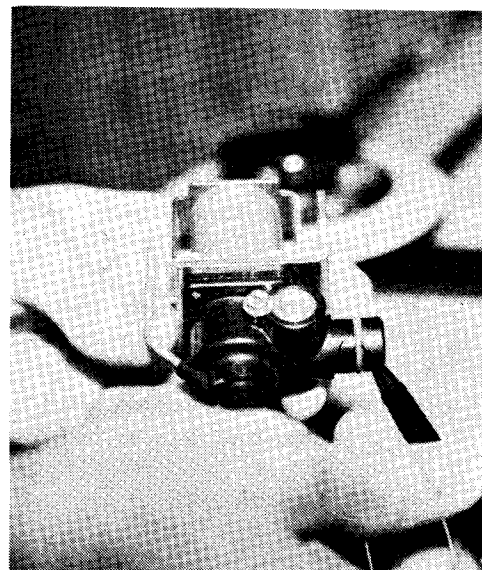


Fig.14



- Replace coffee canister.
- Replace brewer.
- Turn on product switch.
- Change free vend switch to coin operation position.
- Rethread filter paper.
- Close machine and test operation.

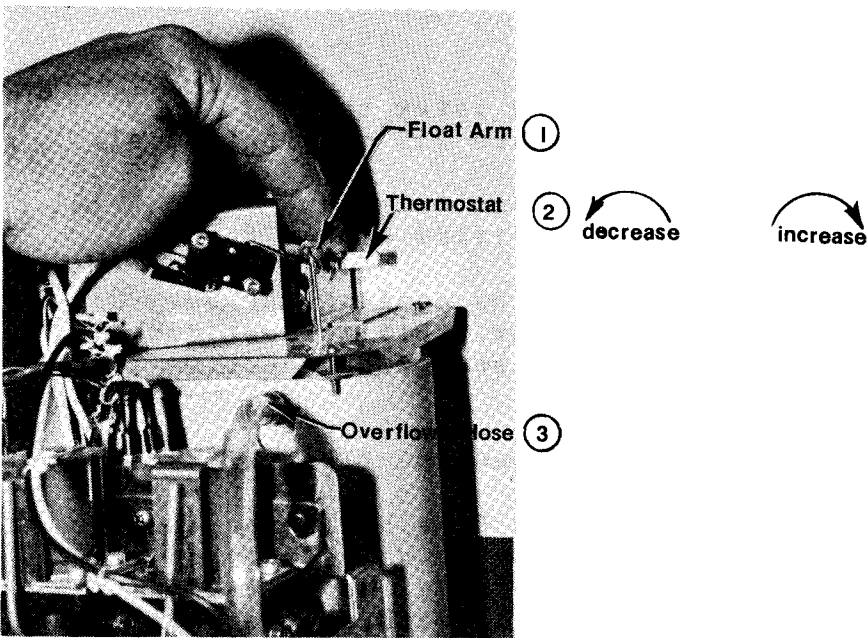


Fig.15

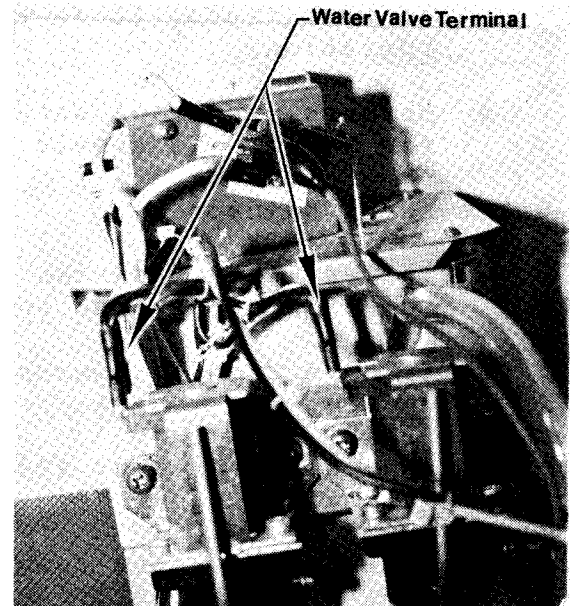


Fig.16

WATER LEVEL MEASUREMENT AND ADJUSTMENT - HOLDING TANK

The water level in the holding tank of the Brewfresh System is controlled by the float and switch assembly on top of the tank. For the unit to function properly, the water level should be maintained at a position from 8 to 11 ounces below the overflow outlet. This assures proper head pressure for the outlet water valves. Adjustment of the water level is made by bending the switch arm to cause the position of the float to operate the switch earlier or later as determined by the water level. Before measuring and adjusting, be sure the float rod hangs free through the hole in the tank top and that the float switch operates both directions without contacting the heater safety switch arm directly below it.

Water Level Measurement (SEE FIGURE 15)

- Remove product canister(s).
- Remove the valve cover from over the water tank.
CAUTION: All circuits on tank top are 115 volt potential.
- Hold down the float arm until the tank overflows (FIGURE 15). This can be observed by watching overflow hose (Item 3).
- Start dispensing and catching water by easiest method. On machines equipped with free hot water, this is best done thru that valve. Otherwise, cycle the coffee function with the product switch off.
- Continue dispensing just until you see the float arm raise suddenly after gradually lowering.
NOTE: On machines not equipped with free hot water, catch the water coming out of the coffee water valve only until you see the float arm raise. Make provisions to catch remaining water dispensed during cycle with another container. In most cases, it is easiest to remove brewer for this operation.
- Measure amount of water dispensed before float switch called for water. It should be between 8 and 11 ounces.

Water Level Adjustment

- If less than 8 ounces was dispensed above, slightly bend arm of float switch downward.
- If more than 11 ounces was dispensed, slightly bend arm upward.
- Repeat measurement and adjustment until proper level is maintained.
- Replace all parts removed.

HEATING ELEMENT REMOVAL

CAUTION: TO PREVENT ELECTRICAL SHOCK, UNPLUG SERVICE CORD FROM THE 115V. POWER SUPPLY. THE TANK LID AND HEATING ELEMENT WILL BE HOT DUE TO HOT WATER IN THE TANK.

- FIGURE 17 Unplug machine from 115 volt outlet. Open upper door, and remove the canister(s) from the machine.
- FIGURE 18 Using a phillips screwdriver, remove the aluminum cover mounting screw and lift the cover off.
- FIGURE 19 Observe which wires are connected to the thermostat, heating element, float switch, and heater safety switch. Unplug these wires.
- FIGURE 20 The tank lid is mounted with four(4) screws. Using a phillips screwdriver, remove these 4 screws.
- FIGURE 21 Lift the lid assembly up until it "hangs" on the outlet tubes.
- FIGURE 22 Rotate the lid assembly clockwise (float toward you) while gently lifting upward.
- FIGURE 23 Tilt the top of the lid toward the left front and continue lifting up until heating element is out of the tank.



FIGURE 17

CANISTER
LID

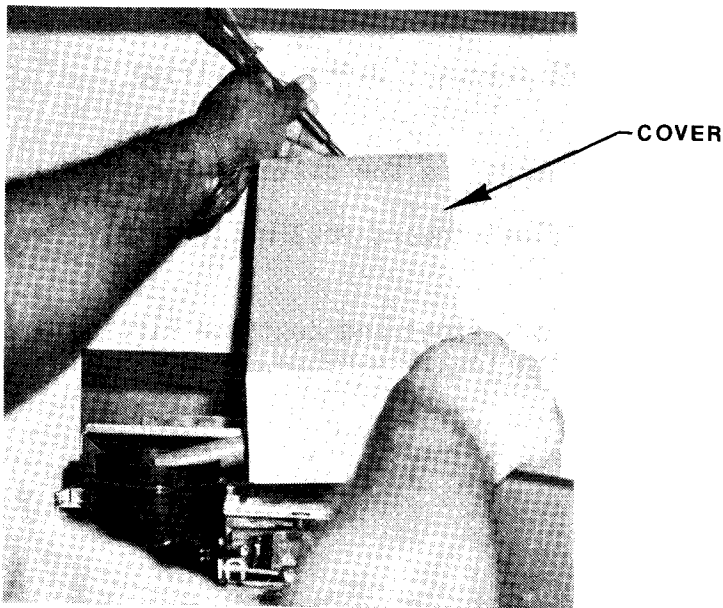
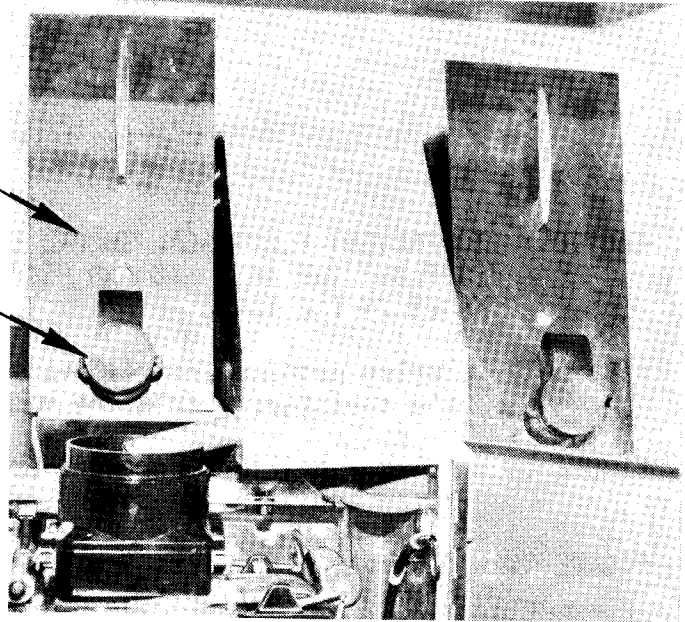


FIGURE 18

FIGURE 19

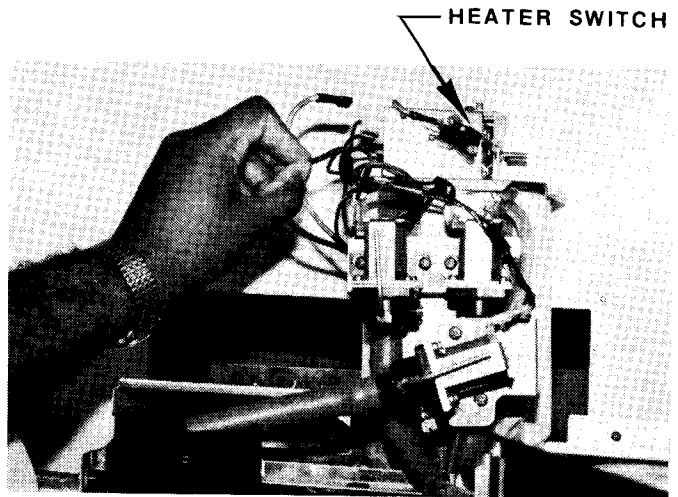




FIGURE 20

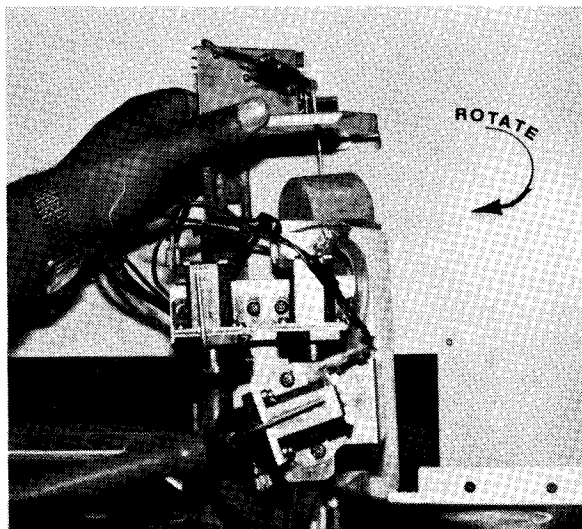
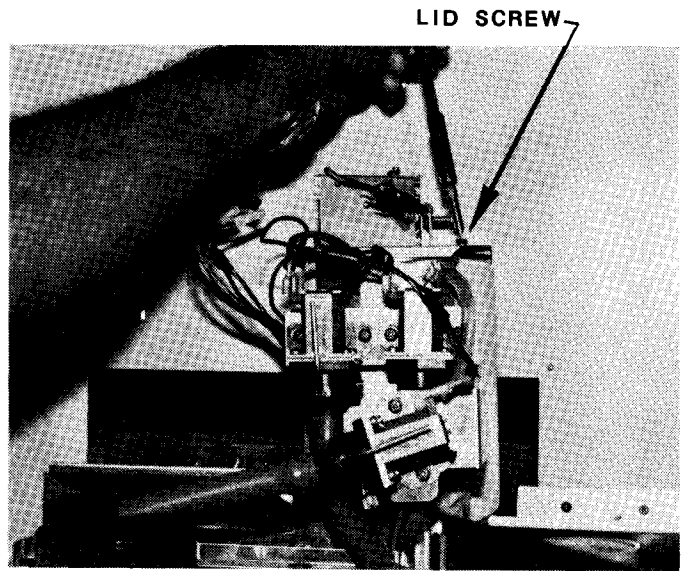


FIGURE 21

FIGURE 22

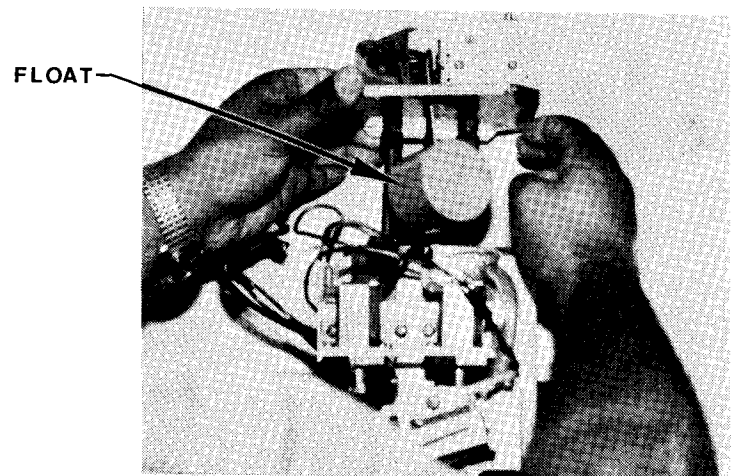
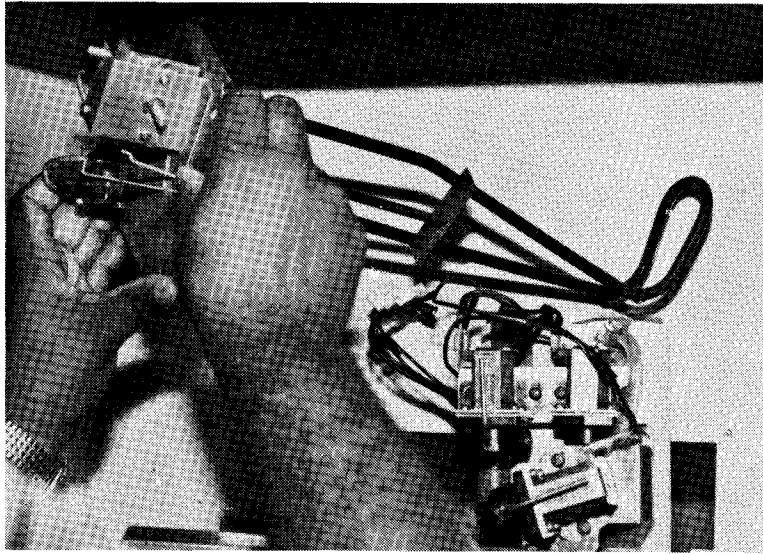




FIGURE 23



BREWER

This section describes how to operate and service the 3200's suction brewer (U.S. and foreign patents granted). It uses a unique principle and has been designed and constructed to give efficient trouble-free service. Though the brewer is simple in principle and operation, it will, nevertheless, be necessary for all new owners and operators to read this section with care. Keep in mind as you read and as you begin to operate the brewer, that it is, in a sense, an instrument designed to aid in brewing a cup of coffee in the shortest time while providing coffee as it should be--with its perfect aroma and flavor unspoiled by holding it on a heater. The brewer is easily removed or installed for servicing or cleaning.

Special filter tape runs between the brew chamber and the cylinder below. When freshly ground coffee and 190-195 degrees Fahrenheit hot water enters and mixes in the brew chamber, the piston inside the cylinder moves upward. The air trapped between the top of the piston and the filter tape is forced through the mixture of coffee and water, mixing and brewing it thoroughly. The piston then commences its downstroke, pulling or drawing the liquid through the tape and leaving the spent grounds. Just before pouring, air escapes the liquid, assuring a "clear" cup of coffee. When the piston reaches the bottom of its stroke, the brewed coffee pours gently from the cylinder as the spent coffee grounds are moved out of the brewer area and replaced by fresh tape, ready for the next brew cycle.

One of the great advantages of the Brewfresh brewer is the extremely long life and durability of the seal and cylinder. THE COFFEE GROUNDS SHOULD NEVER TOUCH THE TEFLON SEAL under normal circumstances and consequently, both the seal and the cylinder should last for hundreds of thousands of cycles.

Filter tapes should never be removed from under the brew chamber unless the brewer has been removed from its bracket and all coffee grounds flushed out completely. This action is required to prevent the coffee grounds from causing excessive wear between the piston and the cylinder wall.

- TO REMOVE BREWER
 - Remove spent tape from the rewind.
 - Break the new paper just above filter paper guide spool.
 - Pull down the brewer lock pin under the front left of the brewer, and rotate it away from you to the right to secure in down position. (FIGURE 24)
 - Grasp the brewer firmly and pull it straight out. (FIGURE 25)

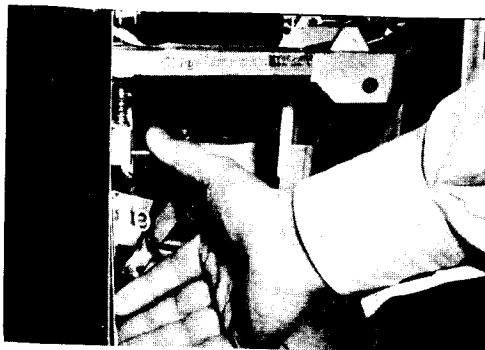


FIGURE 24

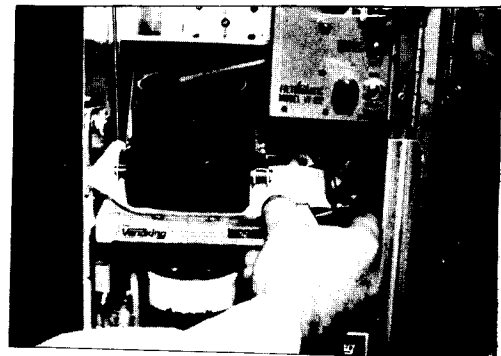


FIGURE 25

● BREWER -- TO REMOVE CYLINDER ASSEMBLY

- Wash out all grounds from brewer and wipe clean.
- Loosen and unscrew jam nut on vertical rod (FIGURE 26)
- Using an open wrench, place it on crank arm and bring piston down to lowest position possible. (FIGURE 27)

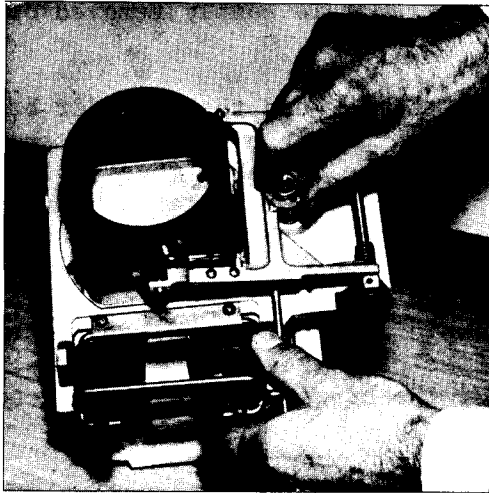


FIGURE 26

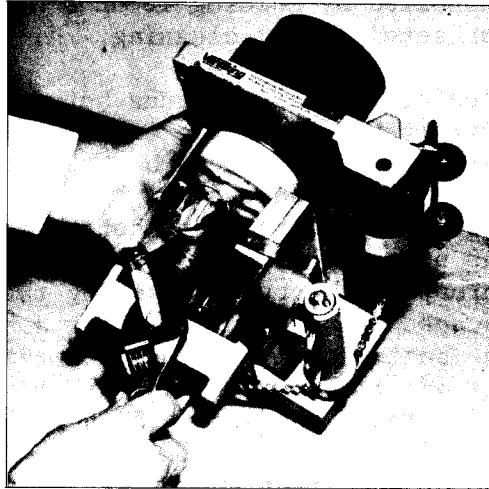


FIGURE 27

- Unscrew adjusting nut on vertical rod and allow brew chamber and H-frame to swing fully back. (FIGURE 28)
- Remove jam nut and shoulder screw connecting rod to crank arm.
- Remove four flat head screws, attaching cylinder to main frame.
- Turn cylinder counterclockwise half a turn and lift straight up. (FIGURE 29)

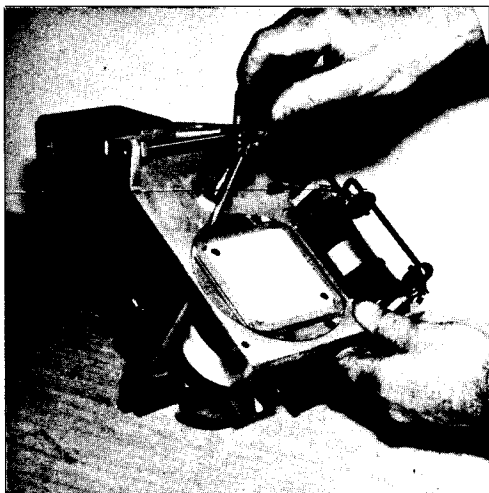


FIGURE 28

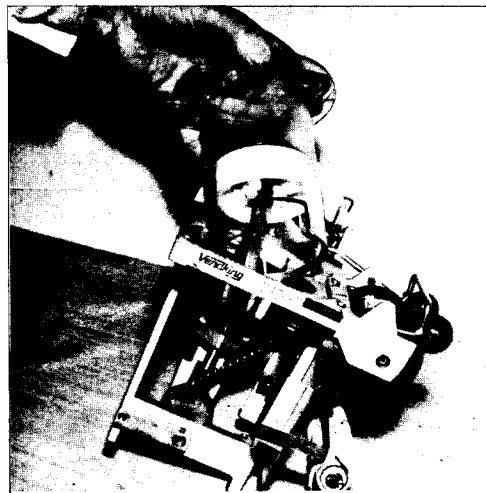


FIGURE 29

- BREWER -- TO DISASSEMBLE PISTON ASSEMBLY
 - Pull piston assembly from cylinder and remove four pan head screws.
 - Pull teflon seal off piston.
 - Then remove rubber ring by applying pressure with two fingers (or screwdriver) and push ring out of groove, enough to grip and pull over top.

- BREWER -- TO REASSEMBLE PISTON ASSEMBLY
 - Insert rubber ring into groove on piston.
 - Insert four wooden matches, or any pins similar in size, in screw holes on piston and drop O-rings over these.
 - Place teflon seal over matches and piston and press down evenly.
 - Remove matches and place four screws through top plate and tighten securely.
 - Push piston assembly into bottom of cylinder until it is visible through five pour holes, and MAKE SURE flange on bronze bushing in connecting rod faces BACK (away from pour).

- BREWER -- TO REINSTALL CYLINDER ASSEMBLY
 - Drop cylinder into hole in main frame and turn assembly clockwise half a turn. Line up four holes for retaining screws and push in place.
 - Insert and tighten all four screws.
 - Insert and tighten shoulder screw, retaining connecting rod to crank arm and screw, and tighten jam nut while holding shoulder screw.

- BREWER -- TO ADJUST PRESSURE ON BREW CHAMBER SPRINGS
 - Pull crank arm, and bring piston up to highest position possible.
 - Swing new chamber and H-frame over top of vertical rod, and start adjusting nut on thread.
 - Apply pressure near center on H-frame with one hand, while tightening adjusting nut with the other.
 - Once nut is "fingertight", place wrench on hexagon and tighten half a turn.
 - Screw jam nut on rod and tighten securely, but hold on the adjusting nut to avoid its setting being altered.

- BREWER -- TO REPLACE PISTON SEAL AND MAIN CYLINDER

If possible, be sure to have one complete brewer beside you when you make the change, for reference purposes.

 - Remove the jam nut on the vertical shaft, then remove the washer-nut assembly completely. The H-frame assembly will then swing up, allowing you access to the screws on the main cylinder.

- Remove the #10 jam nut on the back of the shoulder screw holding the connecting rod to the crank arm. Then remove the shoulder screw.
- Remove the 4 screws holding down the main cylinder. Then by turning same, remove the cylinder assembly.
- Remove the piston from the cylinder.
- Replace the piston seal on same as follows:
 - Remove the four screws holding the top plate.
 - Remove and discard the old seal, and the four small "O" rings under same.
 - Holding the piston flat, put four match sticks in screw holes.
 - Drop the four "O" rings supplied on these match sticks.
 - Push the new seal over the piston so that the match sticks go through the holes in same.
 - Drop the stainless steel top plate over the four matches.
 - Carefully remove each match stick so that the "O" ring under the seal does not move. Put a screw in each hole and tighten.
 - Remove the square rubber ring and screen from the cylinder you have just removed from the brewer.
 - Place the screen in the new cylinder.
 - Put the square rubber seal into place in the new cylinder, turning it over to extend life of same.
 - Gently push the piston into the new cylinder.
 - Put the new cylinder-seal into the frame of the brewer, and replace the four #8 screws holding down the main cylinder assembly.
- Replace the shoulder screw holding the connecting rod to the crank arm. BE SURE that the bearing in the connecting rod has the shoulder on the side between the connecting rod and crank arm. Then, replace the #10 jam nut on the other side of the crank arm.
- With the piston in its highest possible position, swing the H-frame assembly down, and replace the nut-washer assembly. Then, THIS IS IMPORTANT, hold the H-frame as hard as you can with your thumb and tighten it further (about 3/4 of a turn) to put pressure on the brew chamber. Replace the jam nut on top of same and tighten, while holding the adjusting nut.
- Turn the brewer with a wrench on the crank arm, making sure it works smoothly.

COFFEE

The information below is a guide for coffee suppliers in determining what grind will successfully brew a good cup of coffee. Variations, of course, are made by each coffee supplier to suit the type of bean or roast that they use in a given factory.

The following chart, known as the Tyler-Ro-Tap Specifications No. 1 is the coffee suppliers' method for determining the "Fineness" of grind required. Coffee meeting this specification is ideally suited for the 3200's and will produce the best results while minimizing the possibility of problems.

TYLER-RO-TAP SPECIFICATIONS NO. 1

| | | | |
|------------------------------|----|---|----|
| Retaining U.S. 20 Sieve..... | 2 | + | 2% |
| Retaining U.S. 30 Sieve..... | 10 | + | 5% |
| Retaining U.S. 40 Sieve..... | 38 | + | 5% |
| Retaining U.S. 50 Sieve..... | 30 | + | 5% |
| Retaining on Pan..... | 20 | - | 5% |

A good cup of coffee will result when 8.5 - 9.2 grams of coffee and 5¼ ounces of water are supplied to the brewer. Naturally, this amount will vary with desired strength and taste preferences.

Some variations will exist depending on the brand of coffee and the actual mineral content in the local water supply.

TROUBLESHOOTING

- MACHINE WILL NOT ACCEPT COINS - REJECTS ALL COINS:
 - Check acceptor/rejector in top of coin changer for full release or being "dirty".
 - Operate manual payout on coin changer.
 - If payout does not operate:
 - Check that machine is plugged to 115 VAC (Is overhead fluorescent lamp on?)
 - Check that control box power cord is plugged into junction box on back wall of lower compartment.
 - Check that main switch is on.
 - Check that 5 amp fuse on control box is not blown.
 - Check for sufficient filter tape supply on roll and that core is seated properly on tape post.
- CSV 2-400 CUP & BMS-2
 - Check waste bucket empty if full & check waste bucket switch.
 - Check all wire harness plugs and receptacles in and on back of control box and also in upper compartment for being securely connected.
 - Check that 24 volt stepdown transformer is good.(FIG. 9) (Manually rotate timer cams out of home - should automatically cycle to home if transformer is good).
 - Check that coin changer is plugged securely at Jones plug and that changer is proper type (24 volt).
 - Check for defective changer by replacing with one known to be good.
- If payout does operate (but crem coils are dead):
 - Check that timer in control box is operating and is in home position by manually rotating cams either direction noting that it will automatically return to home position.
 - Check that cycle switch of timer is in place and that wire connector is plugged to switch securely.
 - Check for bad cycle switch by unplugging connector and shorting across common to normally closed positions of connector (two outside positions of connector).

- Check that program plug in control box is connected securely and that the jumper from #9 to #13 on plug has continuity.
- Check that all other wire harness plugs and receptacles are plugged securely and all terminals are seated. Particularly those on the back of the control box.
- Check for defective changer or crem coils by replacing with one known to be good.
- MACHINE ACCEPTS COINS, BUT NOTHING WILL DISPENSE:
 - Turn free vend switch to "free" and make a selection.
 - If machine now operates:
 - Check that program plug in control box is the proper one for the machine and that it is securely connected.
 - Check that all other wire harness plugs and receptacles are plugged securely and all terminals are seated.
 - Check for defective changer.
 - If machine still does not operate:
 - Check that brewer switch behind filter paper roll is "on". (FIG. 2)
 - Check relay #4, top right one in control box. (This is the vend relay on a single price machine and operates as a "free" vend relay on a four price machine.)
 - If machine has coffee as the only vended product, check relay #1, lower left one in control box. (This is the coffee relay.)
 - Check that timer is operating by manually rotating cams and noting that it automatically returns to the home position.
 - Check that all wire harness plugs and receptacles are plugged securely and all terminals are seated.
- WATER DOES NOT FLOW INTO HOLDING TANK
 - Check that water supply is turned on.
 - Check power supply connections at wall outlet and also in lower compartment junction box.

- Check that main switch is "on".
- Check 5 amp fuse on control box for being blown.
- Check that brewer switch behind filter tape roll is in "on" position.
- Check that overflow float behind brewer is positioned so as to have switch arm activated down and switch is wired securely to normally open (N.O.) and common (C) terminals.
- Check that float is in position on end of float switch on top of tanks.
- Check that float switch on top of holding tank has free movement; is wired to normally open (N.O.) and common (C) terminals; and operates on and off without contacting the heater safety switch arm directly below it.
- Check that water filter is not clogged (if used) and that on-off lever is in down position (FIGURE 1; Page 3).
- Check water inlet valves for proper operation.
- Check wiring and connectors for secure attachment.
- WATER OUT OF HOLDING TANK IS NOT HOT
 - Check wiring connections on top of tank - Heater safety switch to be wired to normally closed (N.C.) and common (C) terminals - and all connections to thermostat and heater element to be securely attached.
 - Check for defective thermostat or low adjustment - See water temperature measurement and thermostat adjustment sections on Page 9.
 - Allow time for proper recovery if 15 to 20 cups have been rapidly drawn from tank.
 - Check for defective heating element - resistance of element should read approximately 10 ohms.
 - Check that tip of thermostat thermocouple in tank is located between element conductors and is not up against the element.
- WATER IS NOT DISPENSED DURING CYCLE
 - Check water supply.
 - Check outlet water valve(s) for proper operation - should be able to hear them open on each cycle.

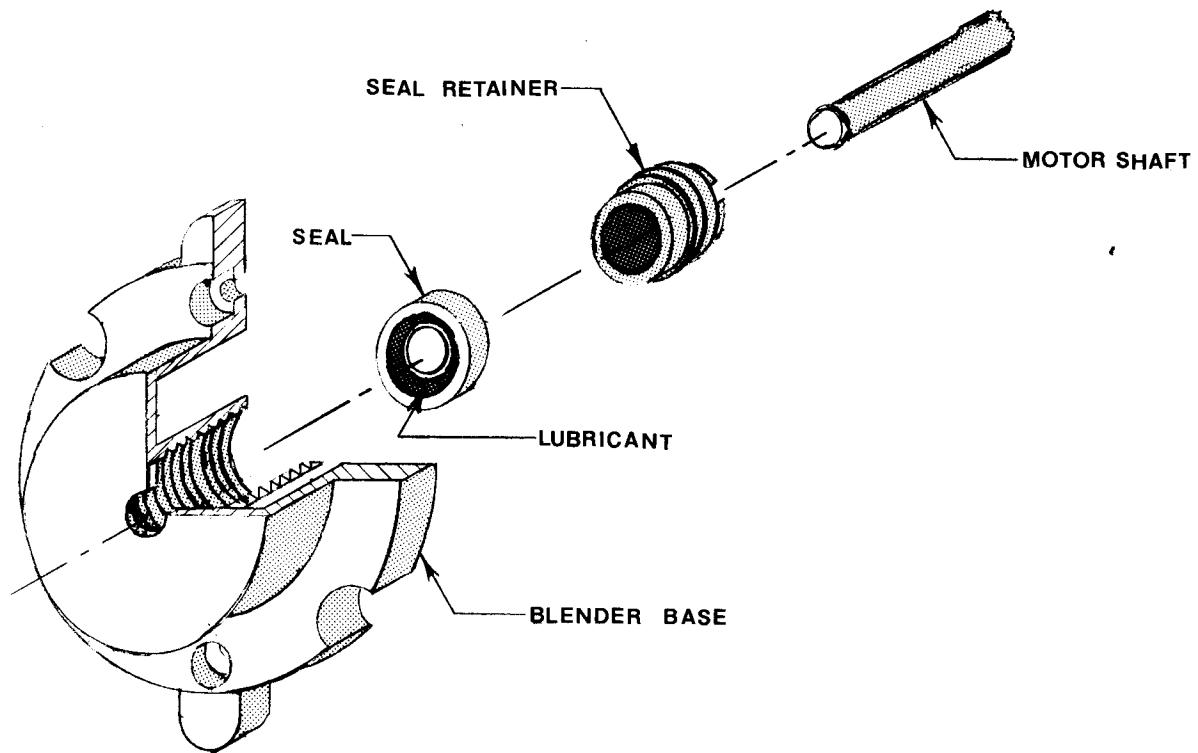
- Check timer water switch and connections for secure assembly.
- Check relays in control box by interchanging.
- MACHINE CYCLES BUT PRODUCT IS NOT DISPENSED FROM CANISTER
 - Check product supply.
 - Check that product switch is "on".
 - Check that canister is in place against drive.
 - Check canister for free operation. Product may be packed too tight.
 - Check that gears on back of canister are intact.
 - Check relay in control box by interchanging.
 - Check product switch of timer in control box for proper operation and position in housing.
 - Check wiring and connectors. (Especially in and on back of slide out control box.)
 - Check product dispense motor(s) for proper operation.
- WATER TANK FLOODS
 - Check float switch and rod on top of tank for binding.
 - Check for correct water level adjustment in water tank (See section on page 26).
 - Check for correct temperature of water in holding tank. (See section on Page 9.)
 - Check for dual inlet water valves malfunctioning.
- BREWER AND COFFEE DISPENSE MOTORS DO NOT CYCLE
 - Check coffee relay by interchanging.
 - Check brewer switch of timer in control box for being fully seated and operational.
NOTE: Coffee dispense and brewer cycling are controlled by the same set of contacts in coffee relay and also by the brewer switch of the timer. If neither are cycling, these two controls should be detailed for malfunction.

- TAPE REWIND NOT TAKING UP SPENT TAPE PROPERLY
 - Check for proper positioning of adjusting nut on take-up spool. If too tight, tape may be tearing. If too loose, spool is not rewinding enough.
 - Check for buildup of grounds behind take up spool or for deformed surface of spool or pressure washer.
 - Check scraper arm for proper operation.
- BREWER FLOODS WHEN CHAMBER RAISES
 - The coffee may have too high dust content - try other coffee. Coffee should meet specifications on Page 31.
 - Check for proper temperature out of water tank. (See page 9.)
 - Water and coffee throws may be too much - brewer is designed for 6 ounce dispense.
 - Check for tight seal of brewer chamber.
 - Check for loss of seal of piston in cylinder of brewer.

HOT CHOCOLATE IS NOT MIXED PROPERLY

- Check whipper motor for proper operation and secure connections
- Check whipper blade for proper assembly on motor shaft.
- Check chocolate relay by interchanging. NOTE: Water and whipper are controlled by same set of contacts in relay.

WARNING: Do not operate chocolate dispenser without water running thru whipper housing. The dry chocolate mix can clog in the hose. In normal operation, the mix should only be dispensed while the water and whipper is cycling.



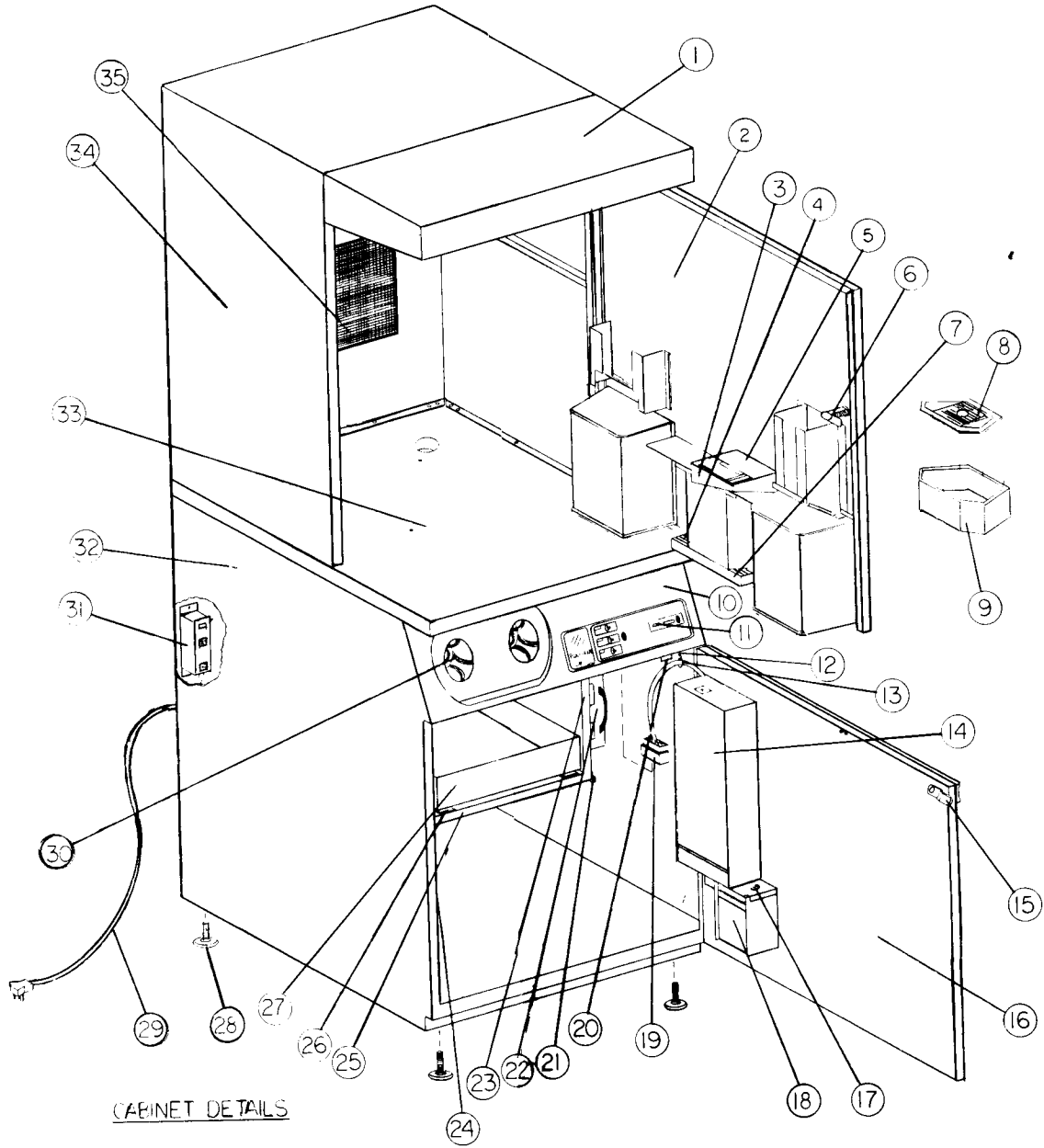
The whipper motor shaft needs regular lubrication to prevent damage to the blender base seal. Petroleum jelly is placed in the cone shaped - recess of the seal. As the motor shaft turns, the lubricant is spread between the seal and shaft to assure smooth operation.

To Remove the Blender Base:

1. Lift funnel out of blender housing.
2. Remove whipper housing by turning it 1/8 turn clockwise and pulling straight away from machine. The housing should snap off easily.
3. Remove whipper blade by gently prying it off shaft with a screwdriver.
4. Remove the (2) screws holding the blender base to the mounting bracket.
5. Remove the blender base.
6. Remove the threaded seal retainer by turning it counterclockwise.
7. Push seal out of threaded shaft and place lubricant in the cone shaped recess as shown
8. Reassemble by reversing steps 1-7.
9. Cycle machine 3 times to check for proper operation.

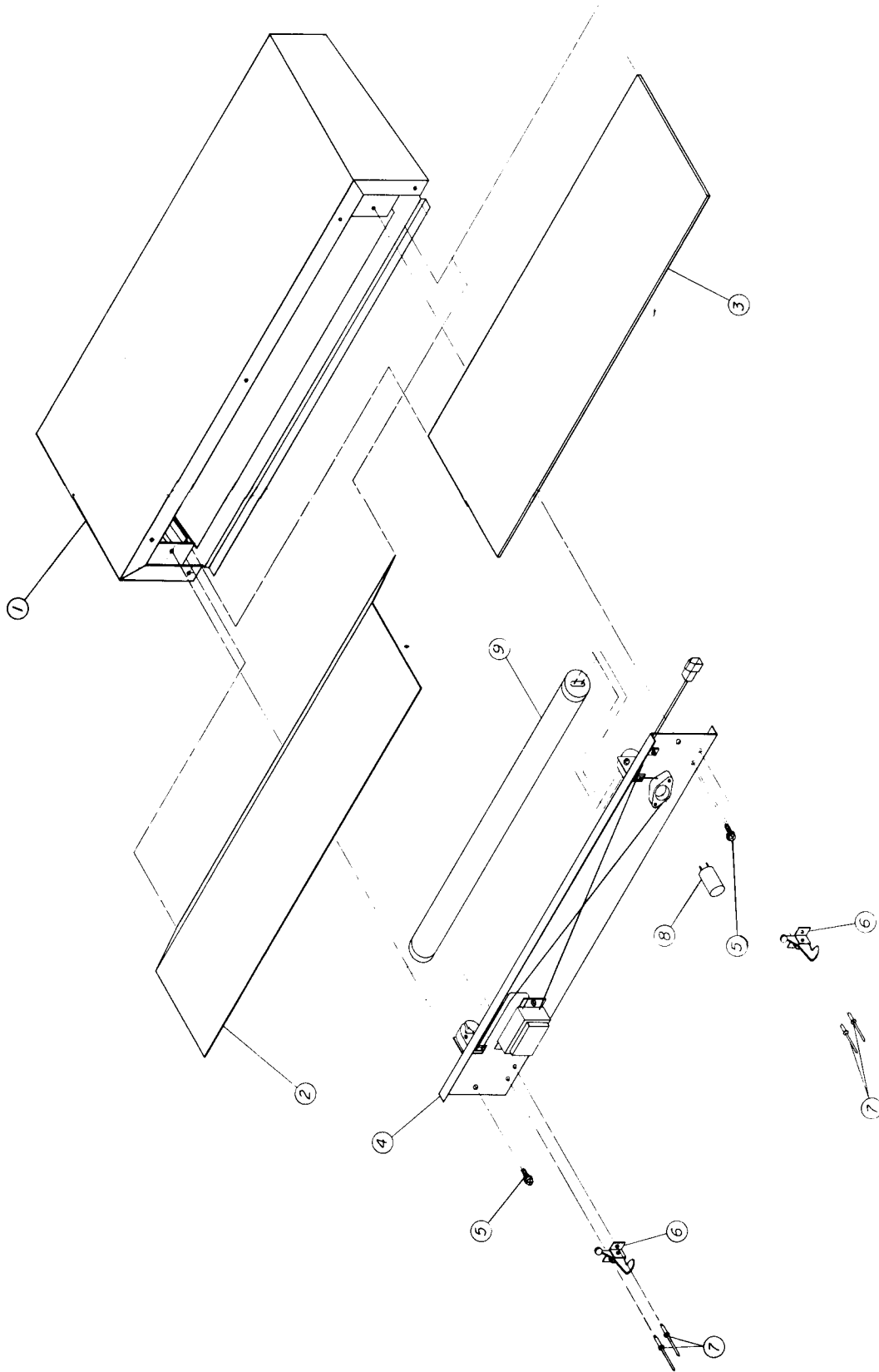
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| ITEM | PART NO. | DESCRIPTION |
|------|--------------|-----------------------------------|
| 1 | A-11325 | Fixture Asy - Light |
| 2 | A-11172-* | Door Asy - Coffee |
| 3 | A-4414 | Trough - Coffee |
| 4 | A-4399 | Grill - Tray |
| 5 | B-12182 | Cover - Coffee Trough |
| 6 | B-11115-** | Lock Asy (Chicago) |
| | A-11380-** | Lock Asy (National) |
| 7 | A-4398 | Tray |
| 8 | A-4400 | Grill - Cupstand |
| 9 | A-4415 | Cupstand |
| 10 | A-11965-* | Panel Sub-Asy - Slanted |
| 11 | A-5322 | Plunger - Reject Lever |
| | B-5055-01 | Lever - Reject (Not shown) |
| | A-5366 | Cap - Pin (Not shown) |
| | A-610 | Spring (Not shown) |
| 12 | A-84 | Spring |
| 13 | A-2369 | Clamp - Wire Cable |
| 14 | as specified | Changer - Coin |
| 15 | B-11117-** | Lock Asy (Chicago) |
| | A-11377-** | Lock Asy (National) |
| 16 | D-11153 | Door Asy - Lower |
| 17 | B-11114-** | Lock Asy - Coin Box (Chicago) |
| | A-11382-** | Lock Asy - Coin Box (National) |
| 18 | A-11051-01 | Bank W.A. - Coin (No top) |
| | A-12519 | Bank - Coin W/Locktop (Less lock) |
| 19 | A-597-01 | Brkt Jones |
| 20 | A-11023 | Insert W.A. - Coin Chute |
| 21 | A-11987-01 | Track Shelf |
| 22 | D-11970 | Box - Control, Complete |
| 23 | C-11566-01 | Support - Shelf, Vertical |
| 24 | A-11581-01 | Support - Shelf |
| 25 | B-5431-01 | Shelf - Cabinet, Lower |
| 26 | A-5434 | Slide - Accuride (Candy Tray) |
| 27 | A-5432-01 | Tray - Candy |
| 28 | A-2601 | Glide - Leg |
| 29 | B-5801 | Cord - Service |
| 30 | A-5181 | Dispenser - Cup |
| 31 | C-11139 | Box Asy - Junction |
| 32 | C-11102-01 | Cabinet W.A. - Lower |
| 33 | D-12420 | Countertop |
| 34 | C-11041-01 | Cabinet W.A. - Upper |
| 35 | C-8512 | Screen - Cabinet, Upper |

* Specify Machine Product Options
 ** Specify Key Number



A-11325 LIGHT FIXTURE COMPLETE

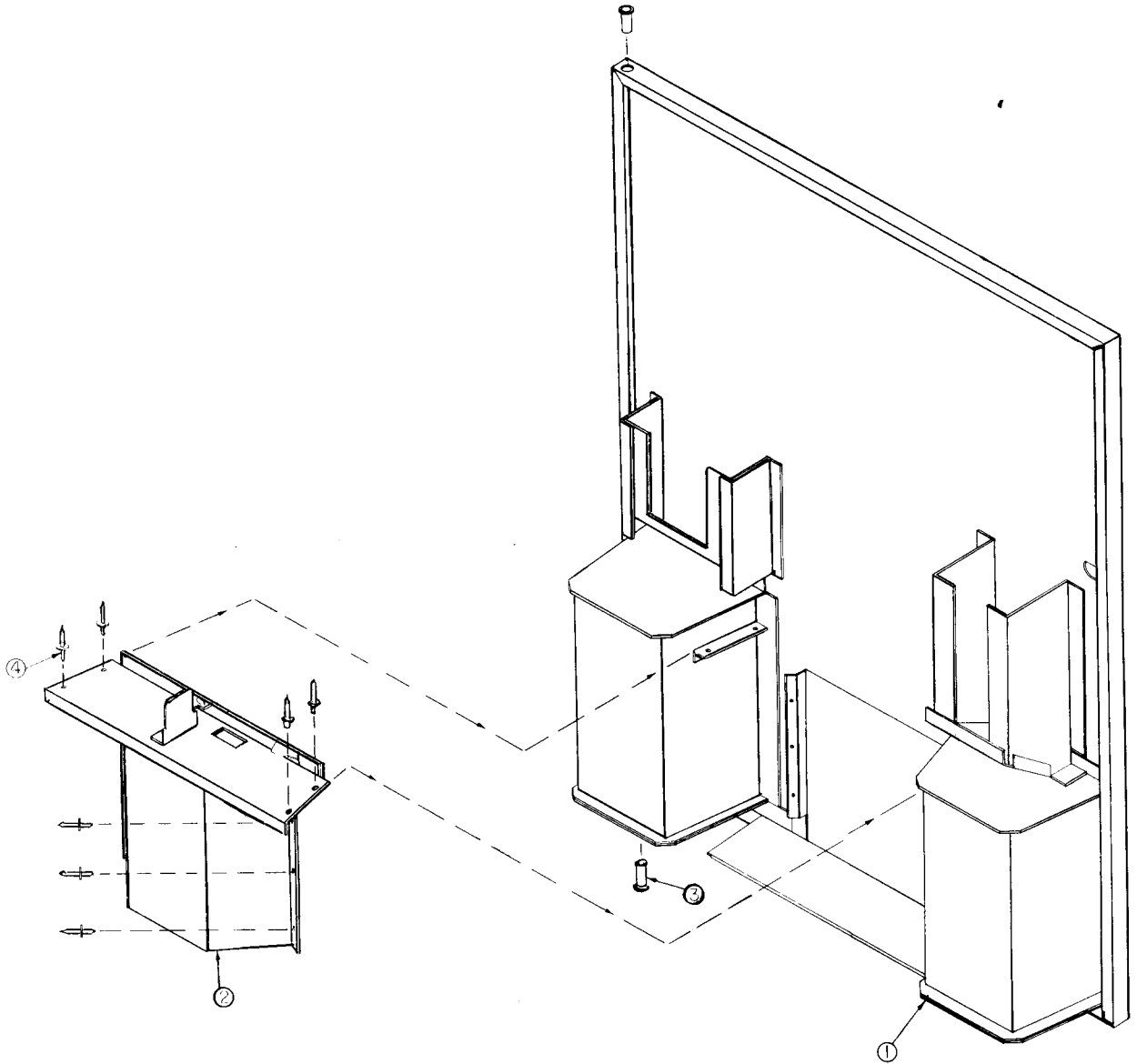
| ITEM | PART NO. | QTY. | DESCRIPTION |
|------|------------|------|---------------------------------|
| 1 | C-11320-01 | 1 | Fixture WA - Light |
| 2 | B-5167 | 1 | Deflector - Light |
| 3 | B-5822 | 1 | Diffuser - Light |
| 4 | D-11324 | 1 | Brkt As'y. - Lamp |
| 5 | A-1715 | 2 | Screw - TP 23 Pan #8 x 3/8 SEMS |
| 6 | A-2372 | 2 | Catch - Elbow |
| 7 | A-729 | 4 | Rivet - Pop 125D x 232 |
| 8 | A-2607 | 1 | Starter - FS-25 |
| 9 | A-5373 | 1 | Lamp - F15T12/CW |



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COFFEE DOOR ASSEMBLY COMPLETE D-11172-*

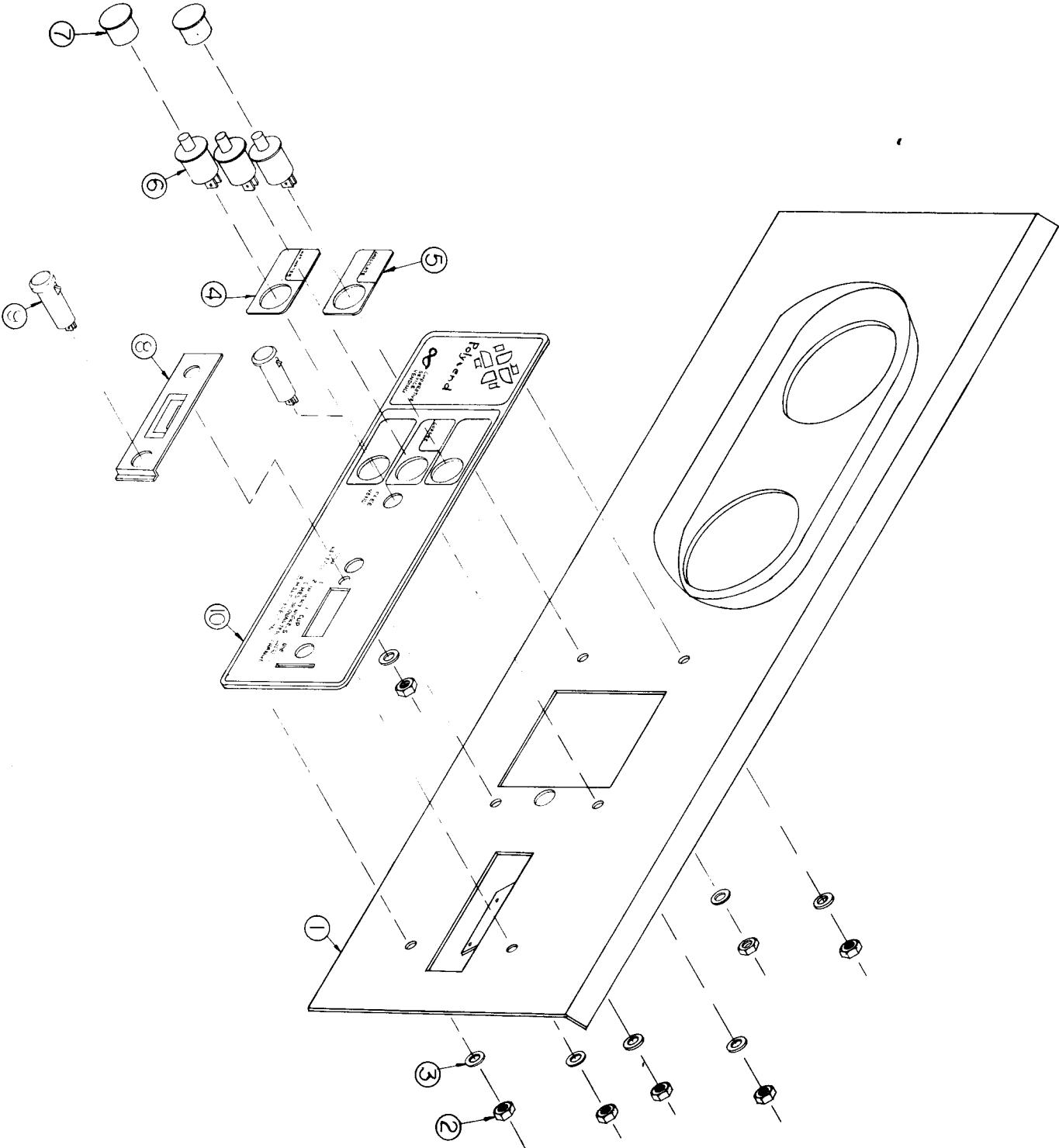
| ITEM | PART NO. | DESCRIPTION | Coffee | | Coffee-Choco. | |
|------|-----------|------------------------|------------|-----|---------------|------|
| | | | D-11172-01 | | D-11172-02 | |
| | | | PART NO. | QTY | PART NO. | QTY. |
| 1 | C-11109-* | Door W.A. - Coffee | C-11109-01 | 1 | C-11109-02 | 1 |
| 2 | A-11171 | Box W.A. - Cup | A-11171 | 1 | A-11171 | 1 |
| 3 | A-5280 | Bushing - Door Hinge | A-5280 | 2 | A-5280 | 2 |
| 4 | A-729 | Rivet - Pop 125D x 232 | A-729 | 10 | A-729 | 10 |

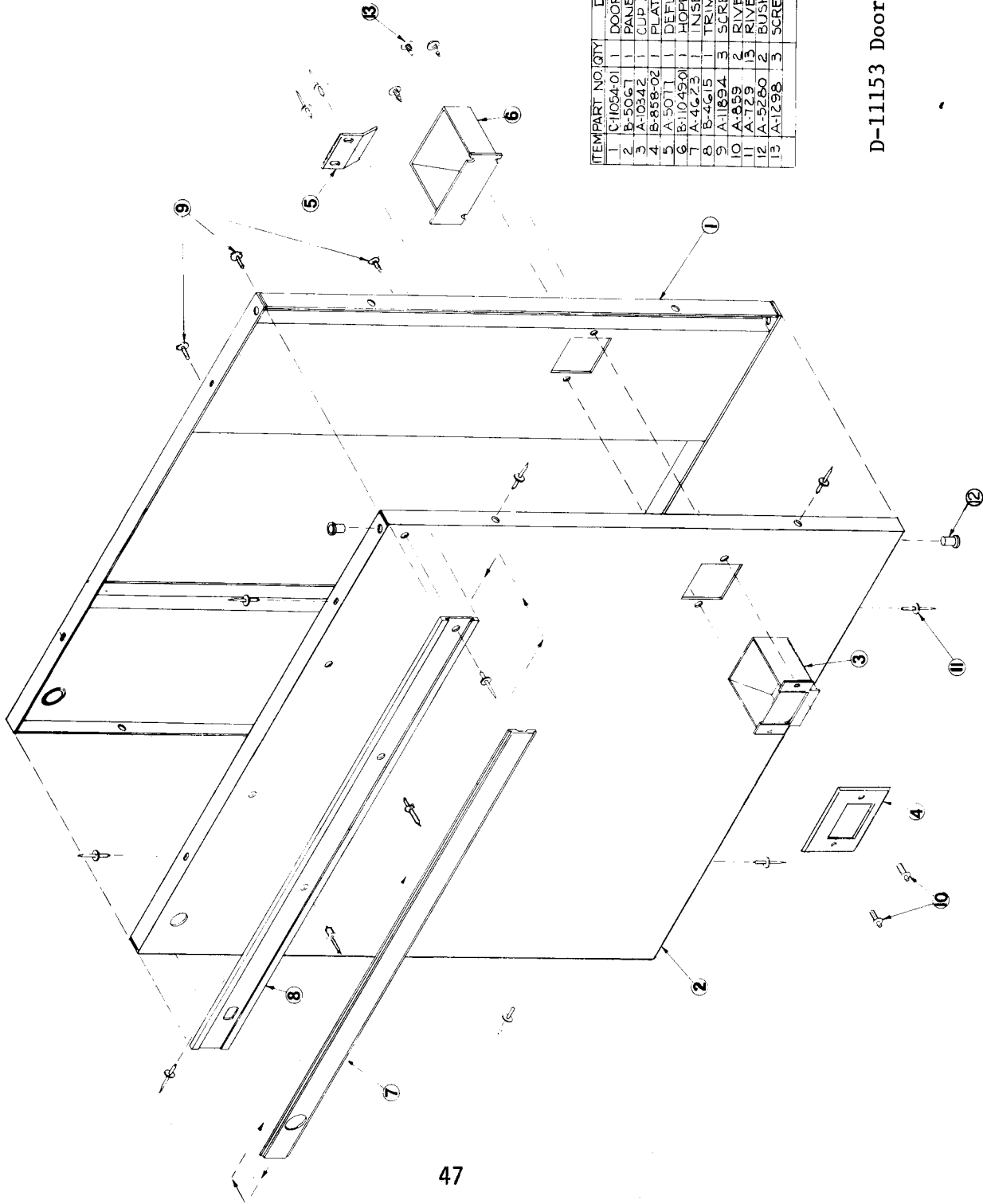


SLANTED PANEL ASSEMBLY COMPLETE D-11965-*

| ITEM | D-11965-01* PART NO. | QTY. | D-11965-02* PART NO. | QTY. | D-11965-03* PART NO. | QTY. | D-11965-04* PART NO. | QTY. | DESCRIPTION |
|------|-------------------------|------|-------------------------|------|-------------------------|------|-------------------------|------|------------------------|
| 1 | C-11037-01 | 1 | C-11037-01 | 1 | C-11037-01 | 1 | C-11037-01 | 1 | Slanted Panel Assembly |
| 2 | A-3030 | 7 | A-3030 | 7 | A-3030 | 7 | A-3030 | 7 | Hex Nut |
| 3 | A-5364 | 7 | A-5364 | 7 | A-5364 | 7 | A-5364 | 7 | Flat Washer |
| 4 | -- | - | A-12100-02 | 1 | -- | - | A-12100-02 | 1 | Decal, Hot Water |
| 5 | -- | - | -- | - | A-12100-01 | 1 | A-12100-01 | 1 | Decal, Chocolate |
| 6 | A-990 | 1 | A-990 | 2 | A-990 | 2 | A-990 | 3 | Select Button |
| 7 | A-5496 | 2 | A-5496 | 1 | A-5496 | 1 | -- | - | Domed Plug |
| 8 | A-11967 | 1 | A-11967 | 1 | A-11967 | 1 | A-11967 | 1 | Insert Trim Plate |
| 9 | A-5083 | 2 | A-5083 | 2 | A-5083 | 2 | A-5083 | 2 | Indicator Lamp |
| 10 | B-11966 | 1 | B-11966 | 1 | B-11966 | 1 | B-11966 | 1 | Overlay Plate Assembly |

* D-11965-01 --- GSV-2P WITH COFFEE ONLY
 D-11965-02 --- GSV-2P WITH COFFEE & HOT WATER
 D-11965-03 --- GSV-2P WITH COFFEE & HOT CHOCOLATE
 D-11965-04 --- GSV-2P WITH COFFEE, HOT CHOCOLATE & HOT WATER

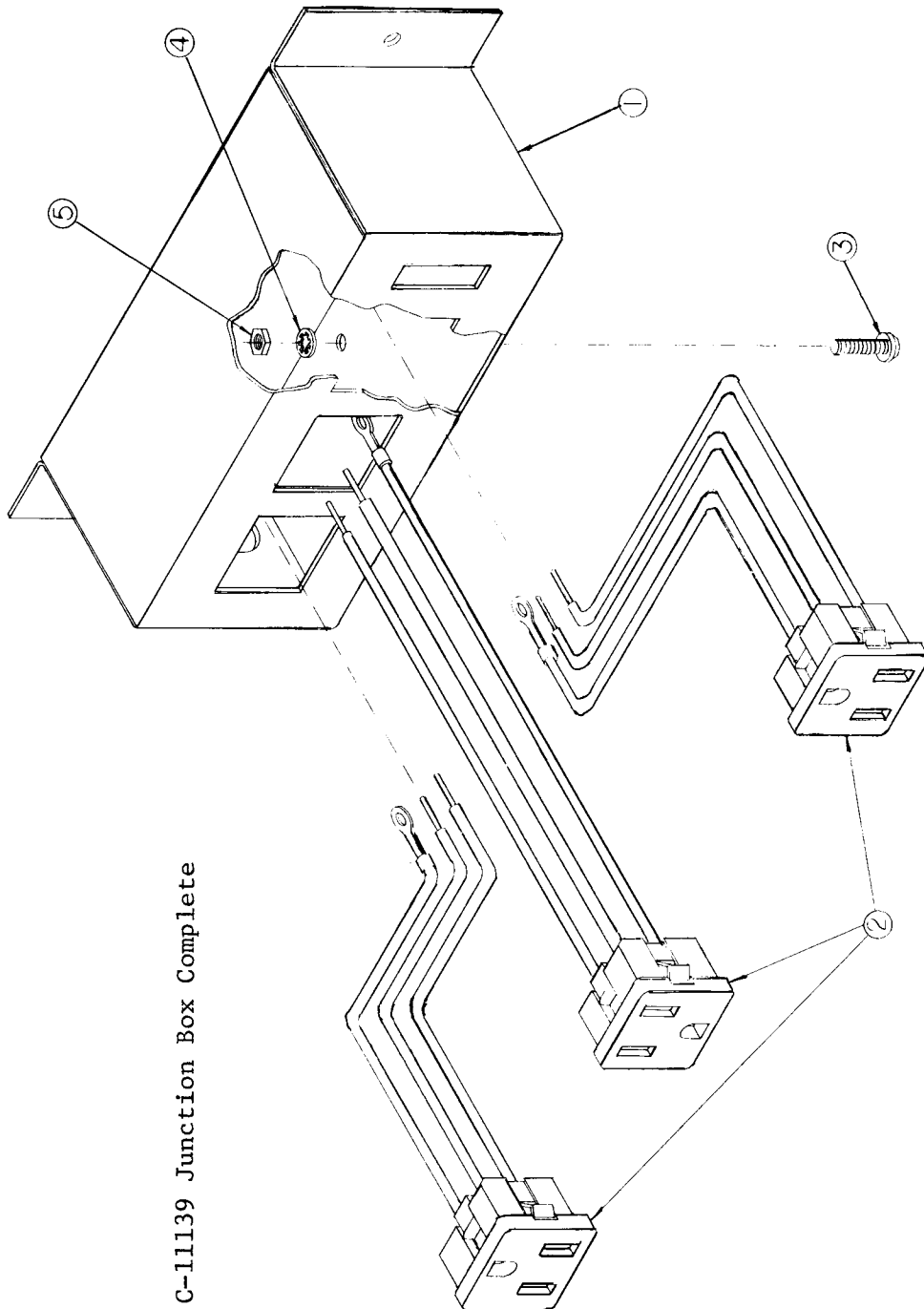




| ITEM PART NO. | QTY | DESCRIPTION |
|---------------|-----|-------------------------------------|
| C-1054-01 | 1 | DOOR WELD ASSEMBLY - INNER |
| B-5067 | 1 | PANEL - OUTER DOOR |
| A-1034 | 2 | CUP ASSEMBLY - COIN RETURN |
| B-858-02 | 1 | PLATE - COIN CUP TRIM |
| A-5071 | 1 | DEFLECTOR - COIN |
| B-1049-01 | 1 | HOPPER - COIN |
| B-4623 | 1 | INSERT - LOWER TRIM, BANK |
| B-4615 | 1 | TRIM - BANK LOWER |
| A-11894 | 3 | SCREW - TP Z3 PAN #8 x 3/8 PHILLIPS |
| A-859 | 6 | RIVET - DRIVE 125 D X Z50 |
| A-129 | 13 | RIVET - POP 125 D X Z32 |
| A-5280 | 2 | BUSHING - DOOR HINGE BANK |
| A-1298 | 3 | SCREW - TP AB PAN #8 x 3/8 PHILLIPS |

D-11153 Door Assembly

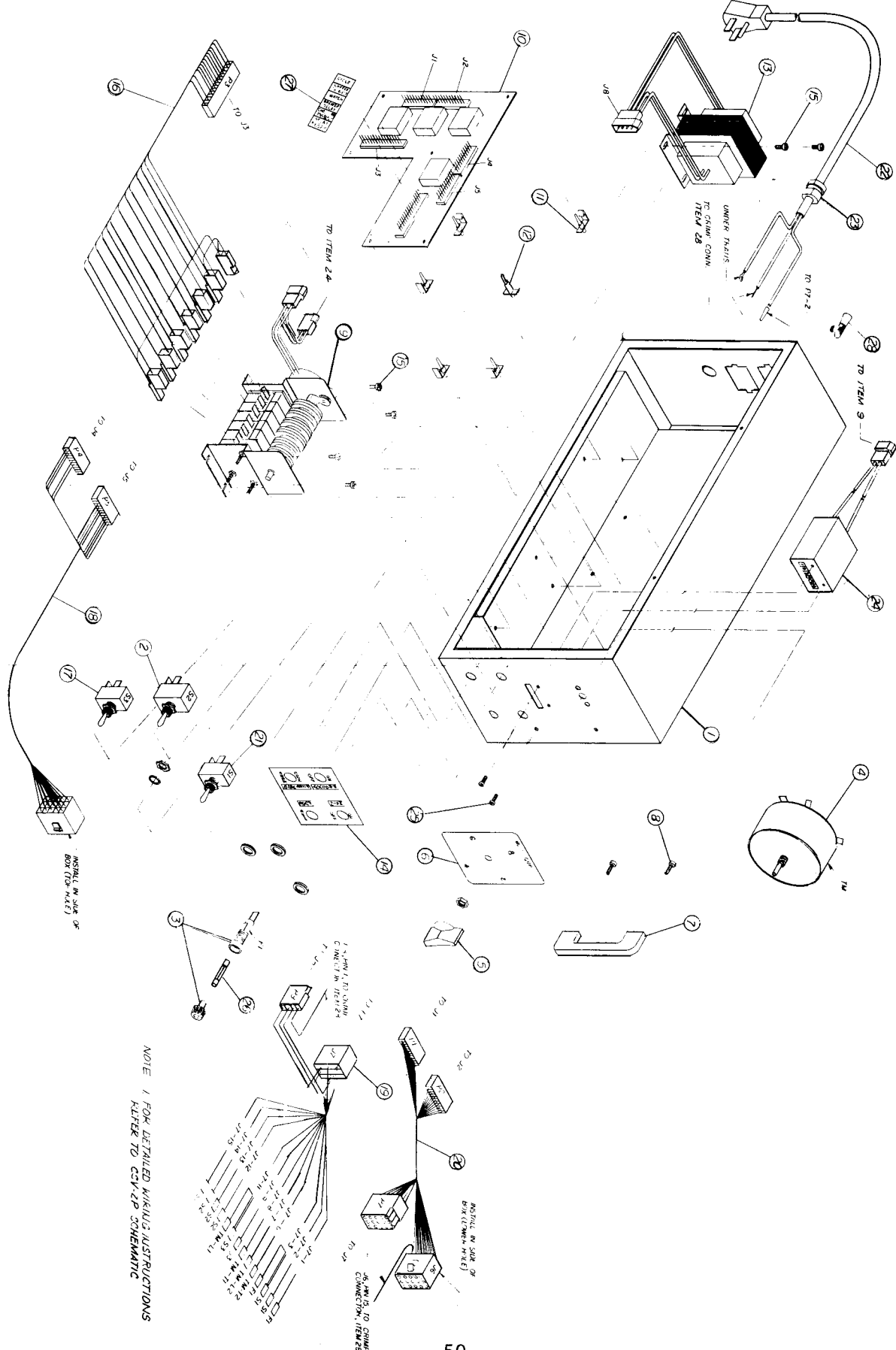
C-11139 Junction Box Complete



| ITEM PART NO. | QTY | DESCRIPTION |
|---------------|--------|-------------------------------|
| 1 | A-5296 | 1 BOX - JUNCTION |
| 2 | A-2421 | 3 OUTLET, 3 WIRE |
| 3 | A-5367 | 1 SCREW - MCH PAN #8-32 X 1/2 |
| 4 | A-266 | 1 WASHER - INT TOOTH #8 |
| 5 | A-1958 | 1 NUT - HEX #8-32 ZP |

CONTROL BOX ASSEMBLY D-11970

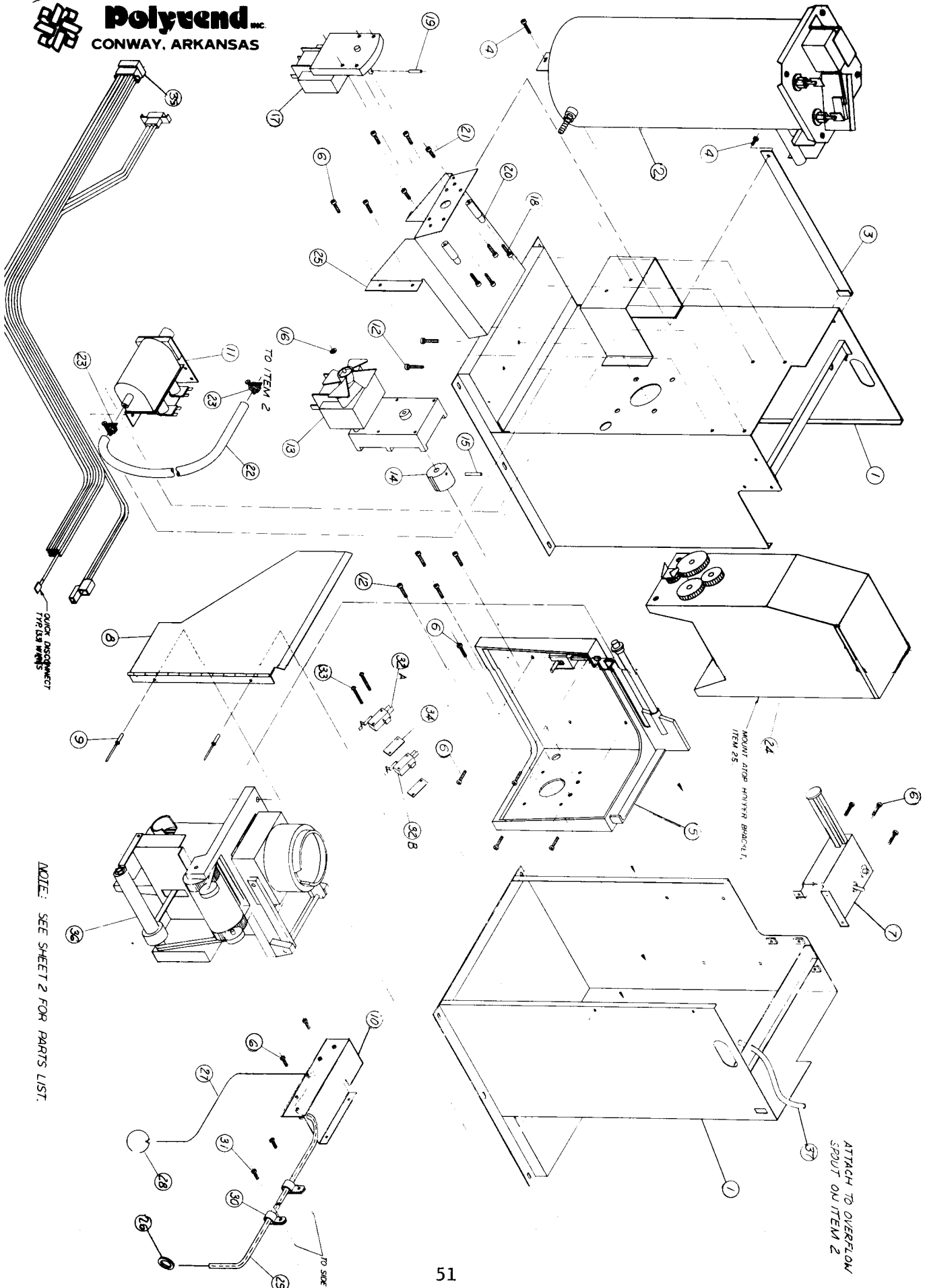
| ITEM | PART NO. | QTY | DESCRIPTION |
|------|------------|-----|-------------------------------|
| 1 | B-11885-01 | 1 | Box W.A. - Control |
| 2 | A-12121 | 1 | Switch - Toggle |
| 3 | A-996 | 1 | Holder - Fuse |
| 4 | A-1007 | 1 | Timer - Egg |
| 5 | A-1008 | 1 | Knob - Egg Timer |
| 6 | A-5318 | 1 | Decal - Multi-Cup |
| 7 | A-5127 | 1 | Handle - Coffee Hopper |
| 8 | A-12252 | 2 | Screw - Mch. Pan #8-32 x 5/16 |
| 9 | A-11822 | 1 | Timer Asy - CSV-200P |
| 10 | A-11789 | 1 | Board Asy - P.C. |
| 11 | A-11790 | 5 | Retainer - Edge |
| 12 | A-11808 | 1 | Support - Circuit Brd |
| 13 | A-5359 | 1 | Transformer 50 VA |
| 14 | A-11981 | 1 | Decal - Control Box |
| 15 | A-1298 | 6 | Screw - TP AB Pan #8 x 3/8 |
| 16 | A-12027 | 1 | Harness - Timer |
| 17 | A-992 | 1 | Switch - Toggle |
| 18 | B-12028 | 1 | Harness - P.C. Control |
| 19 | B-12136 | 1 | Harness - Control Box |
| 20 | B-12029 | 1 | Harness - P.C. Main |
| 21 | A-4320 | 1 | Switch - Toggle SPST |
| 22 | B-12036 | 1 | Cord - Control Box |
| 23 | A-5802 | 1 | Bushing - Sr-7P-2 |
| 24 | A-12391 | 1 | Counter Asy |
| 25 | A-4523 | 2 | Screw-Mch Pan #4-40 x 1/4 |
| 26 | A-4323 | 1 | Fuse - Mth 5 |
| 27 | A-12135 | 1 | Decal - Timer |



NOTE 1 FOR DETAILED WIRING INSTRUCTIONS REFER TO CSV-2P SCHEMATIC



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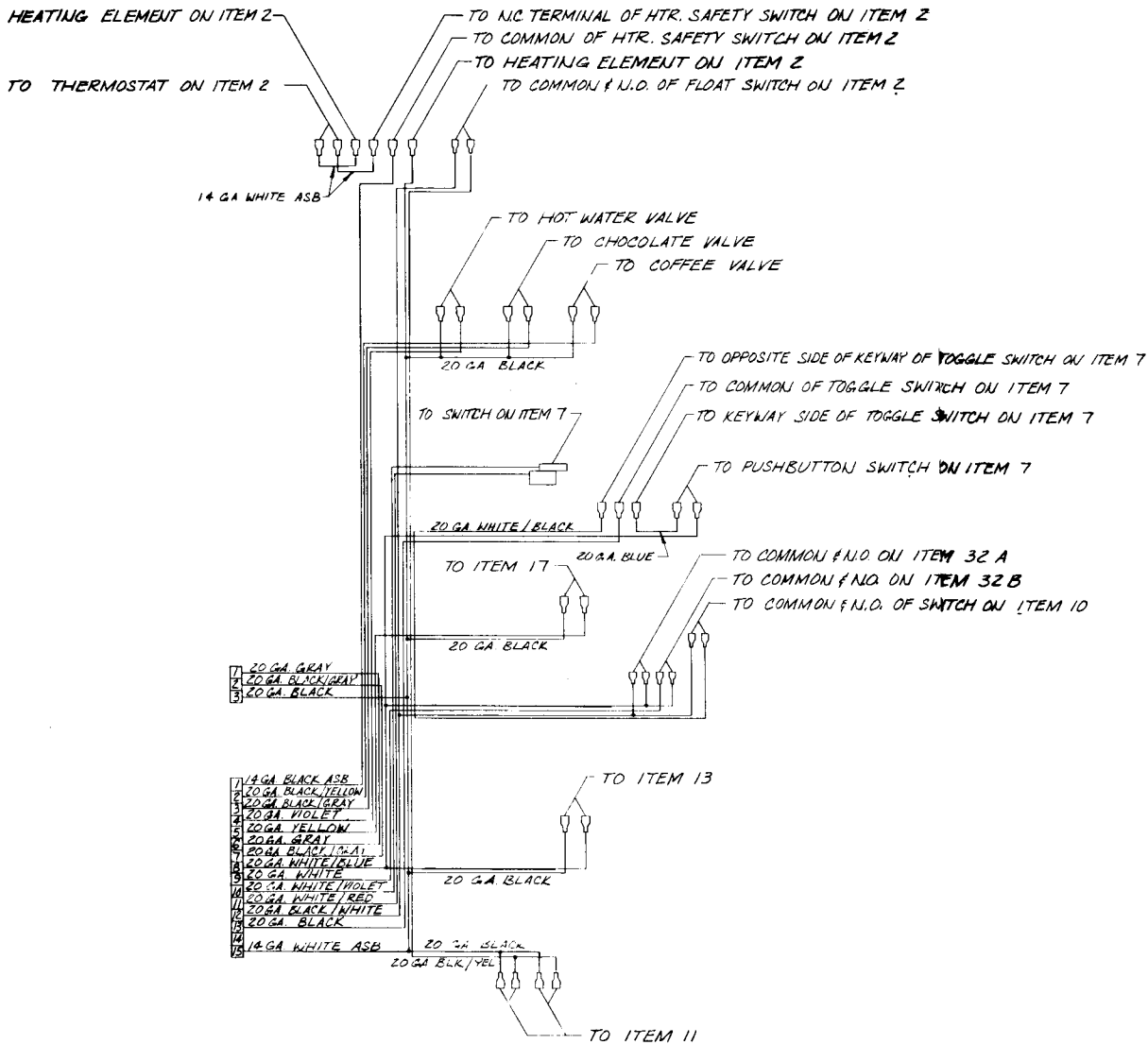
| ITEM | PART NO. | QTY. | DESCRIPTION |
|------|------------|------|-----------------------------------|
| 1 | D-11984 | 1 | Tower WA - Coffee |
| 2 | D-12041 | 1 | Tank Asy |
| 3 | A-11840 | 1 | Strap - Tank |
| 4 | A-12031 | 2 | Screw - TP T Rnd #8 |
| 5 | C-11813 | 1 | Brkt - Brewer Mtg |
| 6 | A-4228 | 14 | Screw - Mch Pan #10-24 x 3/8 S.S. |
| 7 | C-12032 | 1 | Post Asy - Tape |
| 8 | C-12033 | 1 | Door WA - Brewer |
| 9 | A-729 | 2 | Rivet - Pop 125D x 232 |
| 10 | C-10235 | 1 | Brkt Asy - Waste Float |
| 11 | A-4537 | 1 | Valve - Water Inlet |
| 12 | A-4226 | 6 | Screw - Mch Pan #10-32 x 1/2 S.S. |
| 13 | A-11804 | 1 | Motor - Brewer |
| 14 | A-11773 | 1 | Socket - Motor Drive |
| 15 | A-4507 | 1 | Pin - Roll 1/8 x 1 1/4 |
| 16 | A-11448 | 1 | Ring - Self Lock 187 |
| 17 | A-11820 | 1 | Motor - Product Disp. |
| 18 | A-4239 | 4 | Screw - Mch Pan #8-32 x 1/2 S.S. |
| 19 | A-4214 | 1 | Pin - Roll 3/32 x 1 1/8 |
| 20 | A-11817 | 2 | Guide - Hopper |
| 21 | A-4237 | 2 | Screw - Mch Trs #6 |
| 22 | A-11772-01 | 1 | Tubing - Braided 3/8 |
| 23 | A-4345 | 2 | Clamp - Hose 3/8 - 7/8 |
| 24 | C-8607 | 1 | Canister Asy |
| 25 | B-11842 | 1 | Brkt - Hopper |
| 26 | A-12309 | 1 | Ring - Pull |
| 27 | A-12097-03 | 1 | Line - Float |
| 28 | A-12258 | 1 | Float - Waste Pail |
| 29 | A-12185-02 | 1 | Tube - Float Line |
| 30 | A-4332-01 | 2 | Clamp - Cable 1/4 |
| 31 | A-12410 | 2 | Screw - Mch Pan #8-32 x 3/16 S.S. |
| 32 | B-12043 | 2 | Switch - Brewer |
| 33 | A-12034 | 2 | Screw - Mch Bnd M3 (Metric) |
| 34 | A-12294 | 2 | Insulator - Switch |
| 35 | A-12044 | 1 | Harness - Tower |
| 36 | D-11148 | 1 | Brewer Asy |
| 37 | A-11810-03 | 1 | Tube - Overflow |

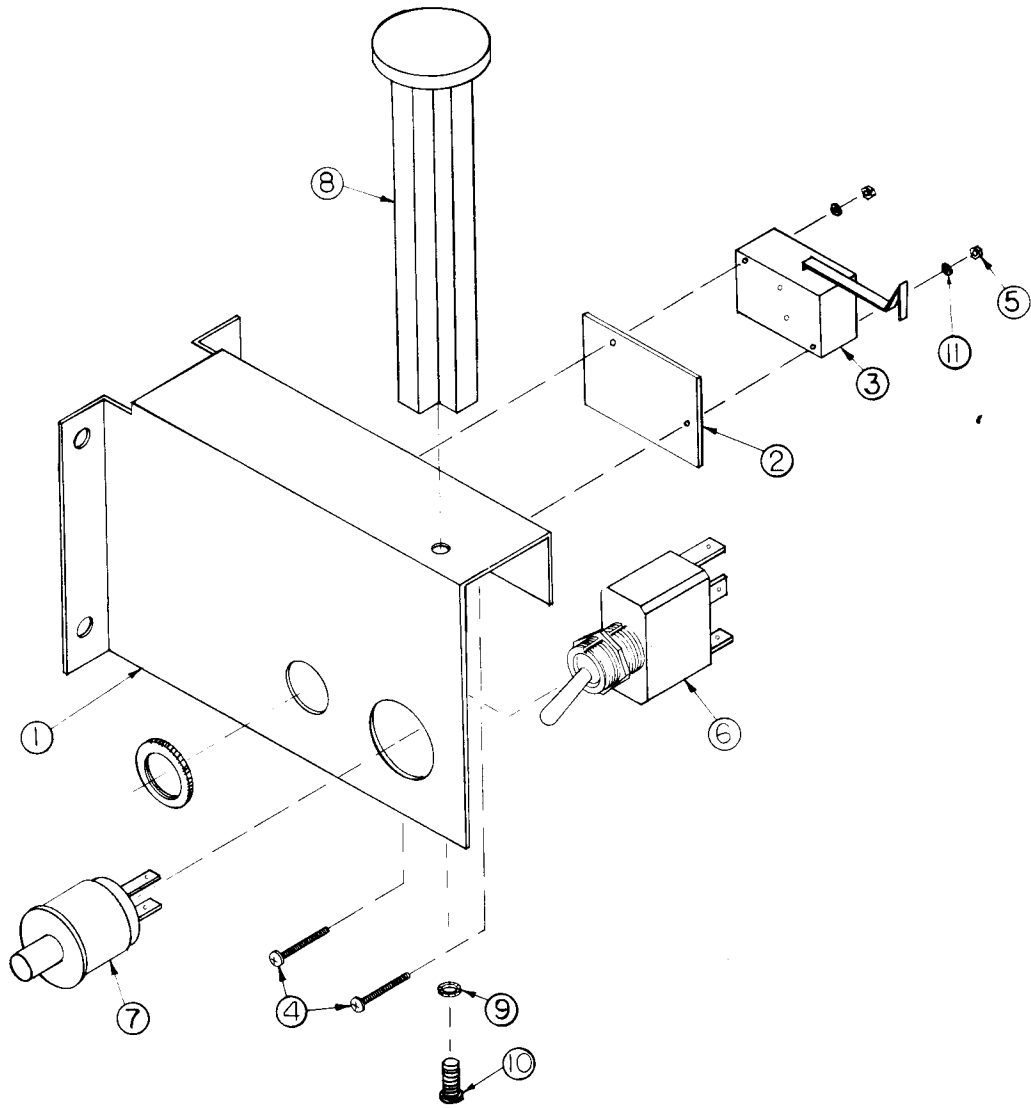
3200 ASSEMBLY COMPLETE D-12030

Page 3 of 3

C-12044 Harness

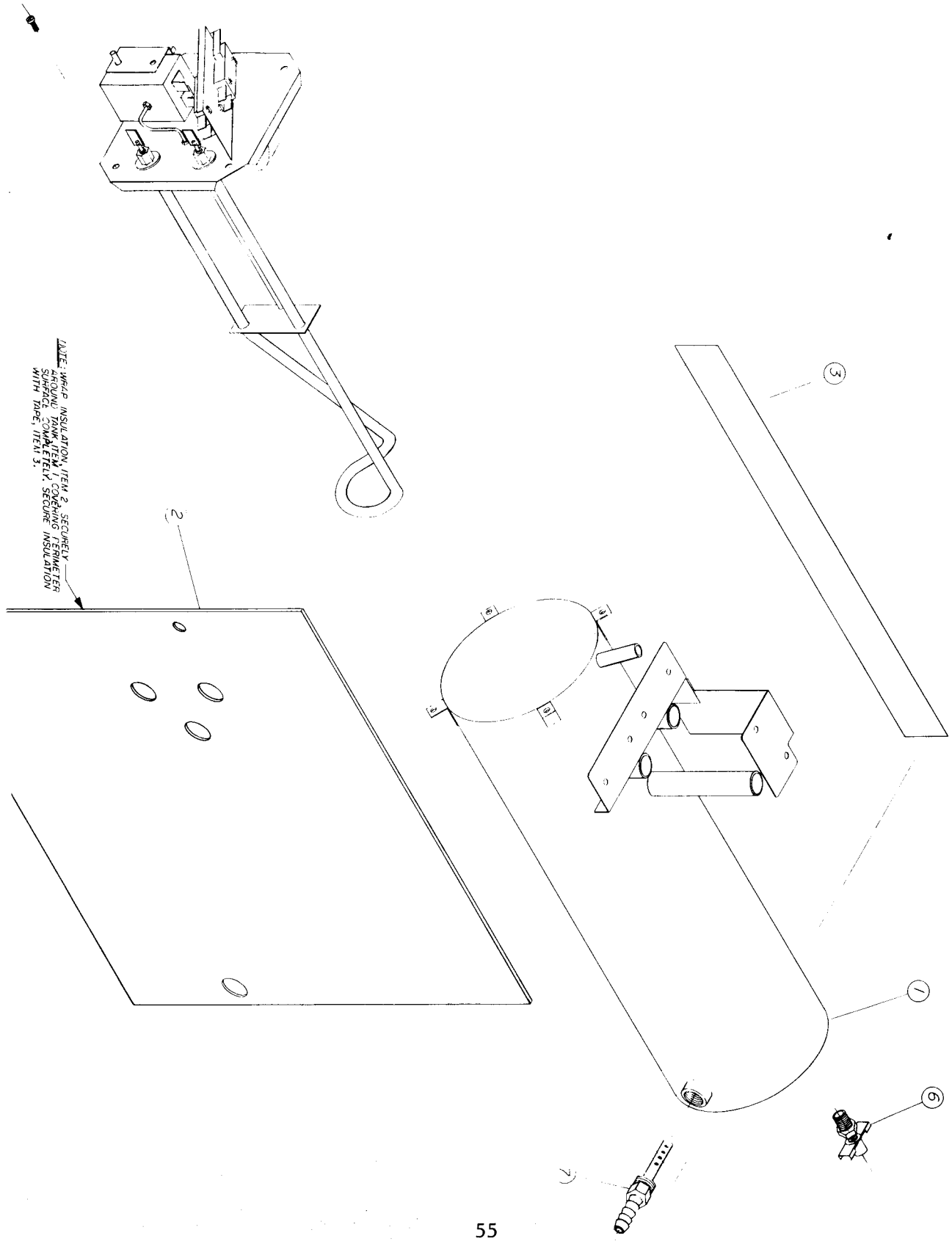
WIRING INSTRUCTIONS ITEM 35





TAPE POST ASSEMBLY C-12032

| ITEM | PART NO. | DESCRIPTION |
|------|----------|------------------------------------|
| 1 | B-11839 | Bracket - Filter |
| 2 | A-12294 | Insulator - Switch |
| 3 | A-4425 | Switch - Lever, Tape SAF |
| 4 | A-4455 | Screw - Mch Pan #4-40 x 5/8 S.S. |
| 5 | A-11794 | Nut - Hex #4-40 |
| 6 | A-12104 | Switch - Toggle |
| 7 | A-990 | Switch - Pushbutton |
| 8 | A-11444 | Spool - Filter Disp. |
| 9 | A-4526 | Washer - Ext. Tooth #10 |
| 10 | A-4228 | Screw - Mch. Pan #10-24 x 3/8 S.S. |
| 11 | A-4527 | Washer - Int. Tooth #4 |

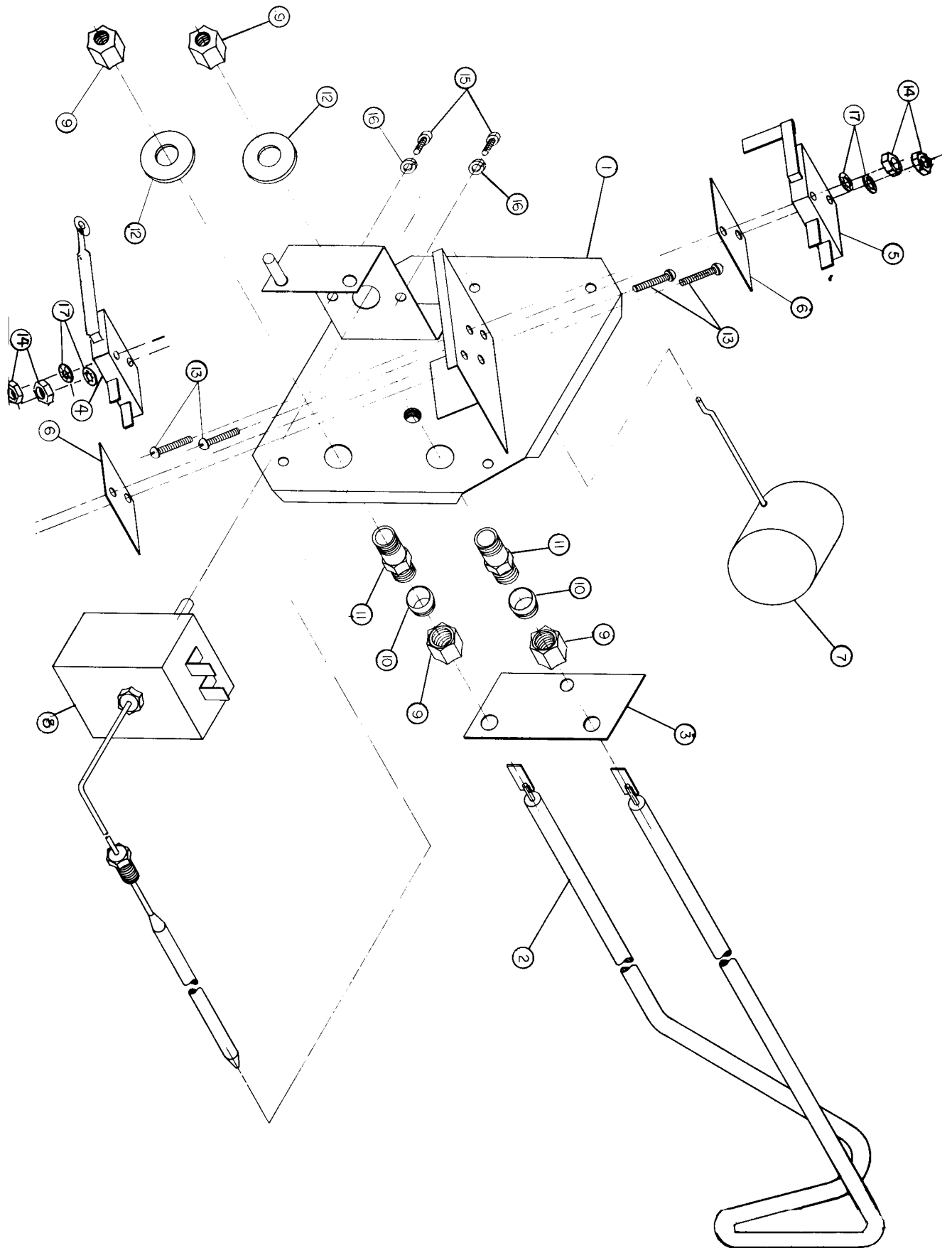


TANK ASSEMBLY D-12041

| ITEM | PART NO. | QTY | DESCRIPTION |
|------|------------|--------|-------------------------------|
| 1 | C-11815-01 | 1 | Tank W.A. - Hot Water |
| 2 | A-12021 | 1 | Insulation - Tank |
| 3 | A-338 | 15 7/8 | Tape - Grey Duct |
| 4 | D-12037 | 1 | Lid Asy - Tank |
| 5 | A-4237 | 4 | Screw - Mch. Trs #6-32 x 5/16 |
| 6 | A-4474 | 1 | Valve - Water Drain |
| 7 | A-11922 | 1 | Diffuser - Water |

TANK LID ASSEMBLY D-12037

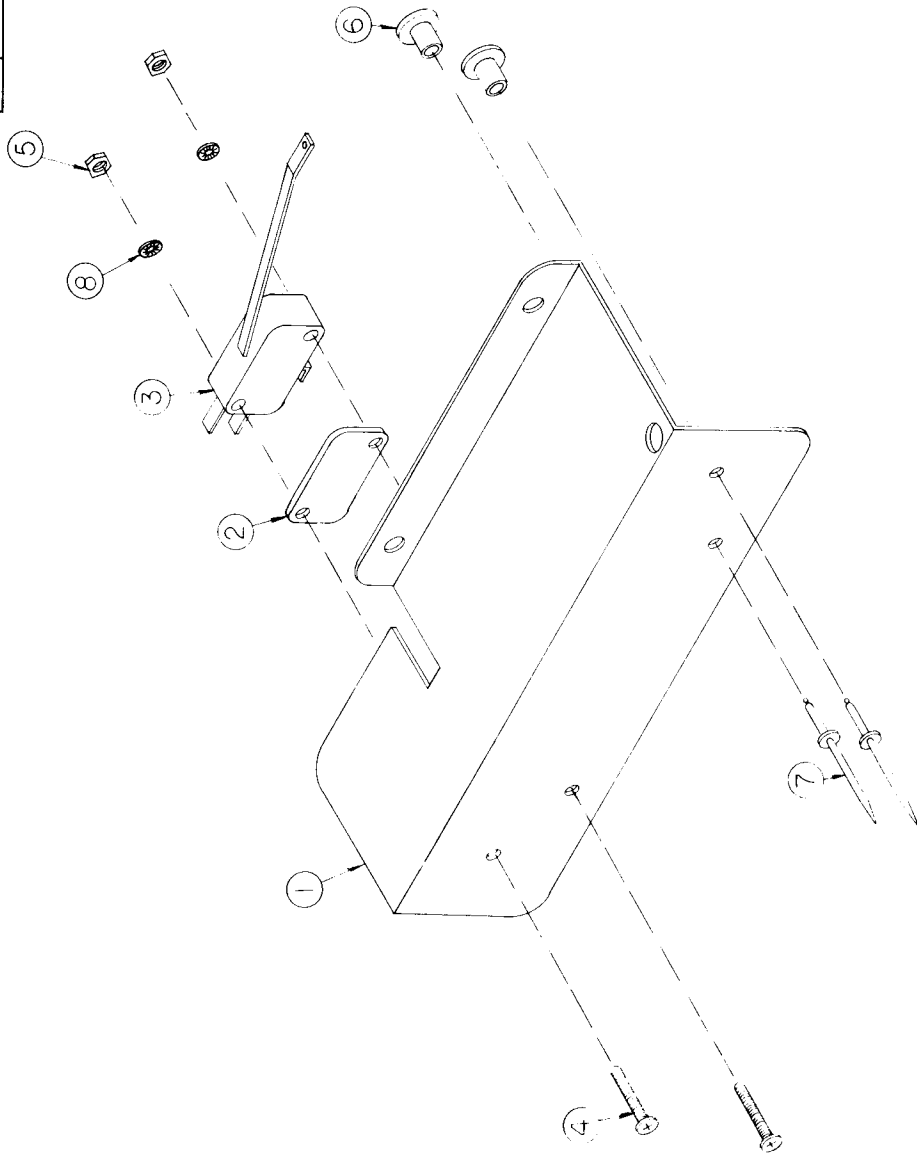
| ITEM | PART NO. | QTY. | DESCRIPTION |
|------|------------|------|--|
| 1 | A-11857-01 | 1 | Lid W.A. - Tank |
| 2 | C-12019 | 1 | Element - Heating |
| 3 | A-11920 | 1 | Stabilizer - Probe |
| 4 | A-4423 | 1 | Switch - Lever, Wat Lev |
| 5 | B-12042 | 1 | Switch - Heater Safety |
| 6 | A-12294 | 2 | Insulator - Switch |
| 7 | A-12122 | 1 | Float Asy - Water |
| 8 | A-4360 | 1 | Thermostat |
| 9 | A-12310 | 4 | Nut - Compression, 5/16 |
| 10 | A-12311 | 2 | Ferrule - 5/16 |
| 11 | A-12312 | 2 | Union - Heater Element |
| 12 | A-4382 | 2 | Washer - Flat $\frac{1}{2}$ S.S. |
| 13 | A-4455 | 4 | Screw - Mch Pan #4 x 5/8 S.S. |
| 14 | A-11794 | 4 | Nut - Hex #4-40 S.S. |
| 15 | A-4236 | 2 | Screw - Mch Pan #6-32 x $\frac{1}{4}$ S.S. |
| 16 | A-4202 | 2 | Washer - Split #6 |
| 17 | A-4527 | 4 | Washer - Int Th #4 |

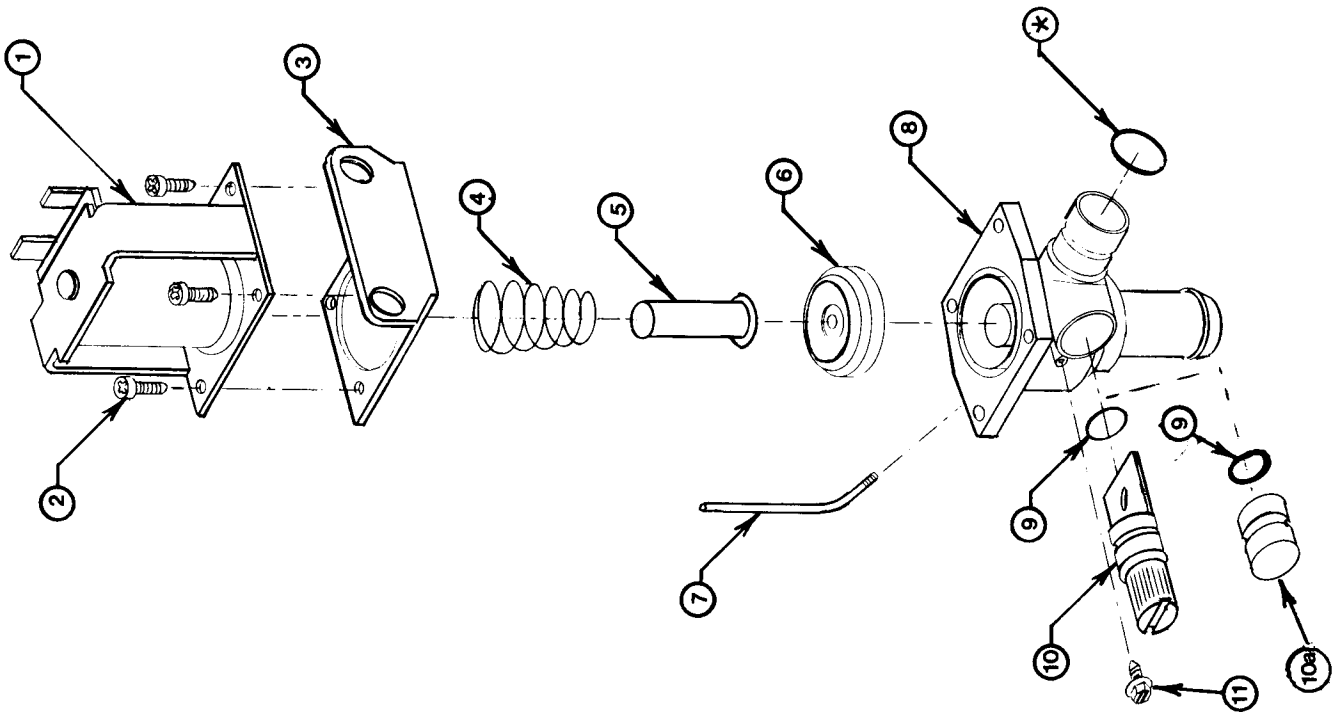




| ITEM | PART NO. | QTY | DESCRIPTION |
|------|----------|-----|-----------------------------|
| 1 | A-12387 | 1 | BRKT - SWITCH |
| 2 | A-12294 | 1 | INSULATOR - SWITCH |
| 3 | A-12358 | 1 | SWITCH - LEVER |
| 4 | A-4455 | 2 | SCREW - MCH PAN #4-40 x 5/8 |
| 5 | A-11794 | 2 | NUT - HEX #4-40 |
| 6 | A-1745 | 2 | SPACER - DETENT SPRING |
| 7 | A-1642 | 2 | RIVET - POP 12.5 D X 4.19 |
| 8 | A-4527 | 2 | WASHER - INT TH #4 |

C-12035 - Bracket Assembly - Waste Pail Float





VALVE - OUTLET COMPLETE A-11916-01 W/PLUG
 VALVE - OUTLET COMPLETE A-11916-02 W/RESTRICTOR

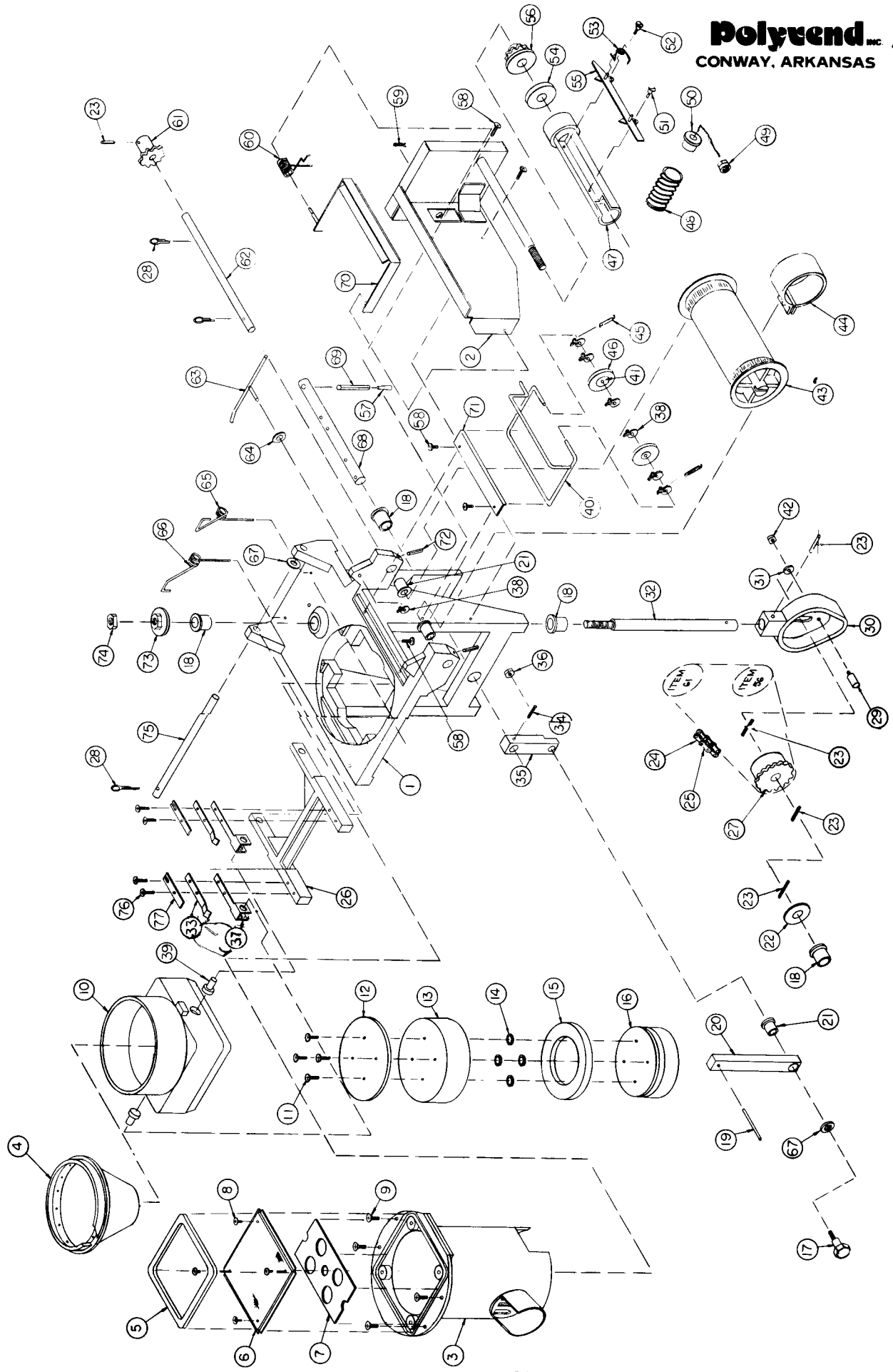
| ITEM | PART NO. | DESCRIPTION |
|------|----------|-----------------------|
| 1 | A-12600 | Coil Assembly |
| 2 | A-12605 | Screw - #8 x 7/16 lg. |
| 3 | A-12598 | Bracket |
| 4 | A-12342 | Spring |
| 5 | A-12599 | Plunger Assembly |
| 6 | A-12341 | Diaphragm |
| 7 | A-12344 | Vent Tube |
| 8 | A-12343 | Body |
| 9 | A-12603 | O-Ring |
| 10 | A-12601 | Restrictor - Flow |
| 10a | A-12602 | Plug |
| 11 | A-12604 | Screw #8 x 1/4" lg. |
| * | A-4346 | O-Ring |

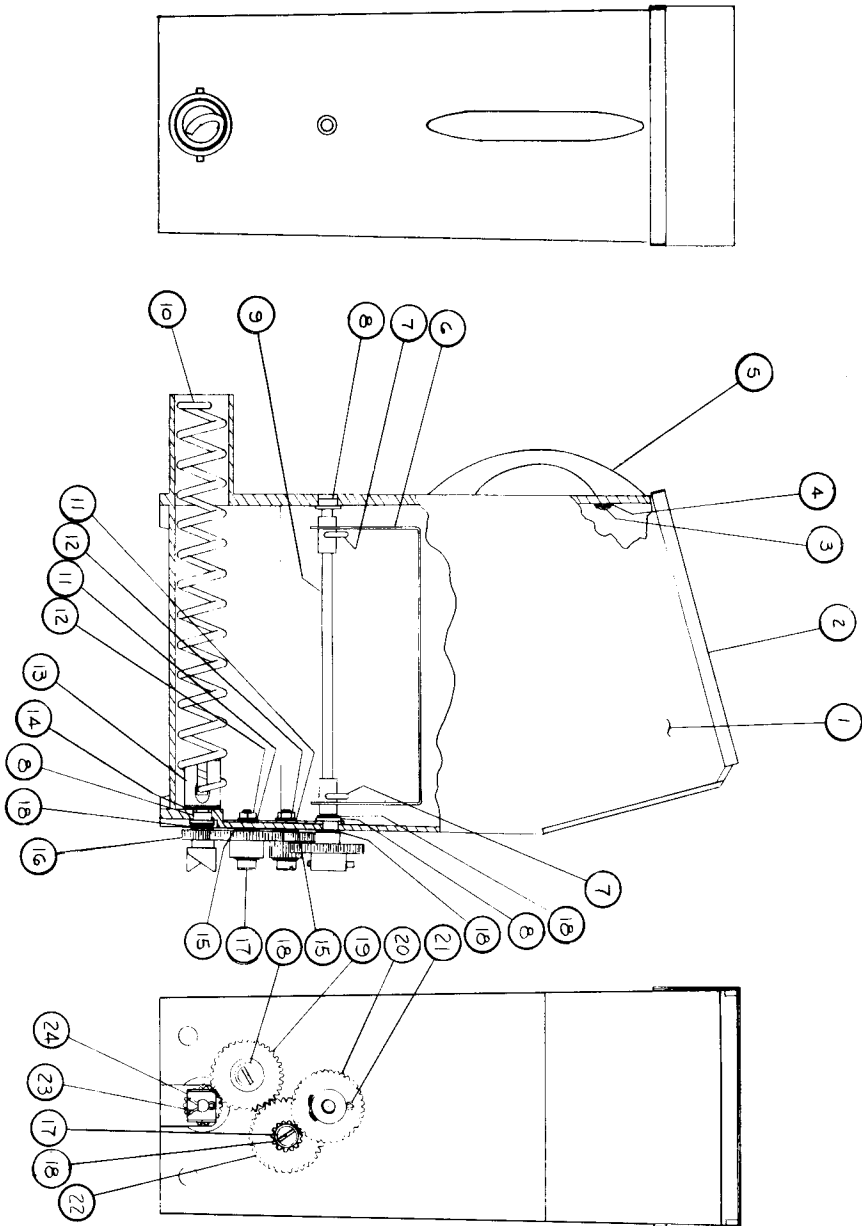
*Note: A-4346 is not included in A-11916-01 or -02.

BREWER ASSEMBLY D-111148



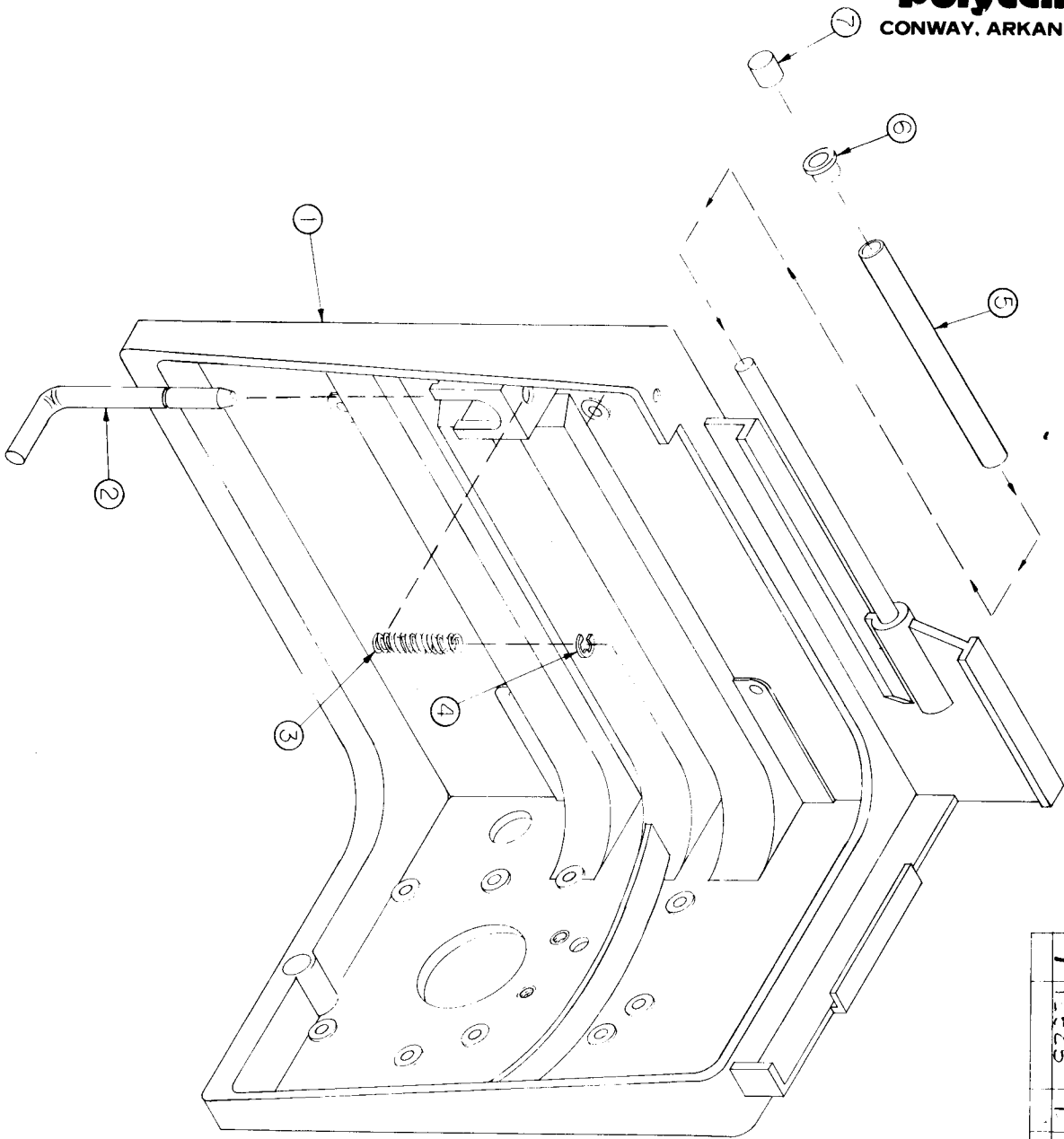
| ITEM | PART NO. | QTY. | DESCRIPTION | ITEM | PART NO. | QTY. | DESCRIPTION |
|------|--------------------------|------|------------------------|------|----------|------|---------------------------|
| 1 | A-4418 | 1 | Frame - Main | 40 | A-4403 | 1 | Yoke - Tape Drum |
| 2 | A-4485 | 1 | Brk't - Tape Rewind | 41 | A-4379 | 2 | Bearing - Rub'r Wheel |
| 3 | A-4411 / 2281 | 1 | Cylinder | 42 | A-4525 | 1 | Nut-Hex No. 10-32 |
| 4 | A-4396 | 1 | Funnel-Brew Chamber | 43 | A-4417 | 1 | Drum - Tape |
| 5 | A-4275 | 1 | Seal-Cylinder Rubber | 44 | A-4245 | 1 | Band-Tape Drum Guide |
| 6 | A-4274 | 1 | Screen - Filter | 45 | A-4318 | 2 | Spring - Extension |
| 7 | A-12253 | 1 | Support - Screen | 46 | A-4277 | 2 | Wheel - Rubber |
| 8 | A-4529 | 4 | Screw-TP, AB Flt #6 | 47 | A-4283 | 1 | Spool - Tape |
| 9 | A-4240 | 4 | Screw-Mch. Flt #8 | 48 | A-4491 | 1 | Spring-Rewind Spool |
| 10 | A-4412 | 1 | Chamber - Brew | 49 | A-4492 | 1 | Nut-Hex Lock 1/4 |
| 11 | A-4530 | 4 | Screw-TP, AB TRS #8 | 50 | A-4354 | 1 | Seat-Spring, Rew. Spool |
| 12 | A-4247 | 1 | Plate - Piston, Top | 51 | A-4487 | 1 | Screw-Shoulder |
| 13 | A-4287 | 1 | Seal - Teflon | 52 | A-4488 | 1 | Screw-Shoulder |
| 14 | A-4388 | 4 | O-Ring | 53 | A-4312 | 1 | Spring - Ridge Asy |
| 15 | A-4397 | 1 | Ring - Piston Rubber | 54 | A-4490 | 1 | Washer - Rubber |
| 16 | A-4276 | 1 | Piston - Brewer | 55 | A-4427 | 1 | Ridge Asy |
| 17 | A-4267 | 1 | Screw - Shoulder | 56 | A-4256 | 1 | Sprocket - Rewind Clut |
| 18 | A-4386 | 4 | Bearing - Bronze | 57 | A-4389 | 1 | Pin-Taper 3/4 x 4/0 |
| 19 | A-4507 | 1 | Pin - Roll 1/8 x 1 1/4 | 58 | A-4242 | 4 | Screw Mch Pan #8-32 x 3/8 |
| 20 | A-4265 | 1 | Rod - Connecting | 59 | A-4306 | 1 | Pin-Hair 7/64 x 1/2 |
| 21 | A-4380 | 3 | Bearing - Bronze | 60 | A-4308 | 1 | Spring - Scraper |
| 22 | A-4220 | 1 | Washer - Flat 3/8 SS | 61 | A-4384 | 1 | Sprocket |
| 23 | A-4222 | 5 | Pin - Roll 1/8 x 5/8 | 62 | A-4261 | 1 | Shaft-Tape Drum |
| 24 | A-4391 | 1 | Chain-Roller No. 25 | 63 | A-4304 | 1 | Bar- Yoke Lift |
| 25 | A-4390 | 1 | Link-Connector No. 25 | 64 | A-12353 | 1 | Washer-Plain, Type A |
| 26 | A-4395 | 1 | Frame-Brewer Chamber | 65 | A-4316 | 1 | Spring-Lift, Right |
| 27 | A-4258 | 1 | Sprocket - Cam | 66 | A-4315 | 1 | Spring - Lift, Right |
| 28 | A-4219 | 3 | Pin-Cotter 3/32 x 1/2 | 67 | A-4215 | 2 | Washer - Flat 1/4 |
| 29 | A-4535 | 1 | Follower - Cam | 68 | A-4259 | 1 | Shaft - Main |
| 30 | A-4257 | 1 | Housing - Vertical Rod | 69 | A-4218 | 1 | Pin-Roll 3/16 x 1 1/4 |
| 31 | A-4209 | 1 | Washer-Split No. 10 | 70 | A-4486 | 1 | Scraper-Tape, Rewind |
| 32 | A-4263 | 1 | Vertical Rod | 71 | A-4246 | 1 | Plate-Yoke, Retaining |
| 33 | A-4303 | 2 | Spring - Filter Pres | 72 | A-4212 | 2 | Pin-Roll 3/32 x 1/2 |
| 34 | A-4213 | 1 | Pin-Roll 3/32 x 5/8 | 73 | A-4264 | 1 | Nut Asy - Adjusting |
| 35 | A-4273 | 1 | Arm - Crank | 74 | A-4528 | 1 | Nut-Hex, Jam 3/8 - 24 |
| 36 | A-4208 | 1 | Nut-Hex No. 10-24 | 75 | A-4262 | 1 | Shaft - H-Frame |
| 37 | A-4305 | 2 | Plate - Spring | 76 | A-4238 | 4 | Screw-Mch Pan #6 |
| 38 | A-4385 | 7 | Ring - Retaining | 77 | A-4317 | 2 | Plate - Support |
| 39 | A-4260 | 1 | Pin-Pressure Spring | | | | |





| ITEM NO | POLYVEND PART NO | QTY | DESCRIPTION |
|---------|------------------|-----|----------------------|
| 1 | A-4475 | 1 | CANISTER-COFFEE DISP |
| 2 | A-4476 | 1 | LID-CANISTER |
| 3 | A-4242 | 2 | SCREW-MCH PAN #8 |
| 4 | A-4204 | 2 | WASHER-FLAT #8 |
| 5 | A-5127 | 1 | HANDLE-COFFEE HOPPER |
| 6 | A-4436 | 1 | AGITATOR |
| 7 | A-4307 | 2 | PIN-HITCH |
| 8 | A-4352 | 4 | BUSHING-AGITATOR |
| 9 | A-4479 | 1 | SHAFT-AGITATOR |
| 10 | A-4404 | 1 | AUGER-COFFEE DISP |
| 11 | A-4481 | 2 | WASHER INT TH #10 |
| 12 | A-4208 | 2 | NUT-HEX #10-24 |
| 13 | A-4268 | 1 | SHAFT-STUB |
| 14 | A-4220 | 1 | WASHER-FLAT 3/8 55 |
| 15 | A-12353 | 2 | FLAT WASHER #10 |
| 16 | A-4351 | 1 | GEAR-STUB SHAFT |
| 17 | A-4477 | 2 | SCREW-SHOULDER |
| 18 | A-4376 | 5 | WASHER-FLAT 1/4 55 |
| 19 | A-4350 | 1 | GEAR-IDLER COF DISP |
| 20 | A-4281 | 1 | GEAR-AGITATOR SHAFT |
| 21 | A-4480 | 1 | PIN-COTTER 3/32 X 1" |
| 22 | A-12138 | 1 | GEAR-IOLE |
| 23 | A-4306 | 1 | PIN-HAIR 7/64 X 1/2 |
| 24 | A-4249 | 1 | YOKE-STUB SHAFT |

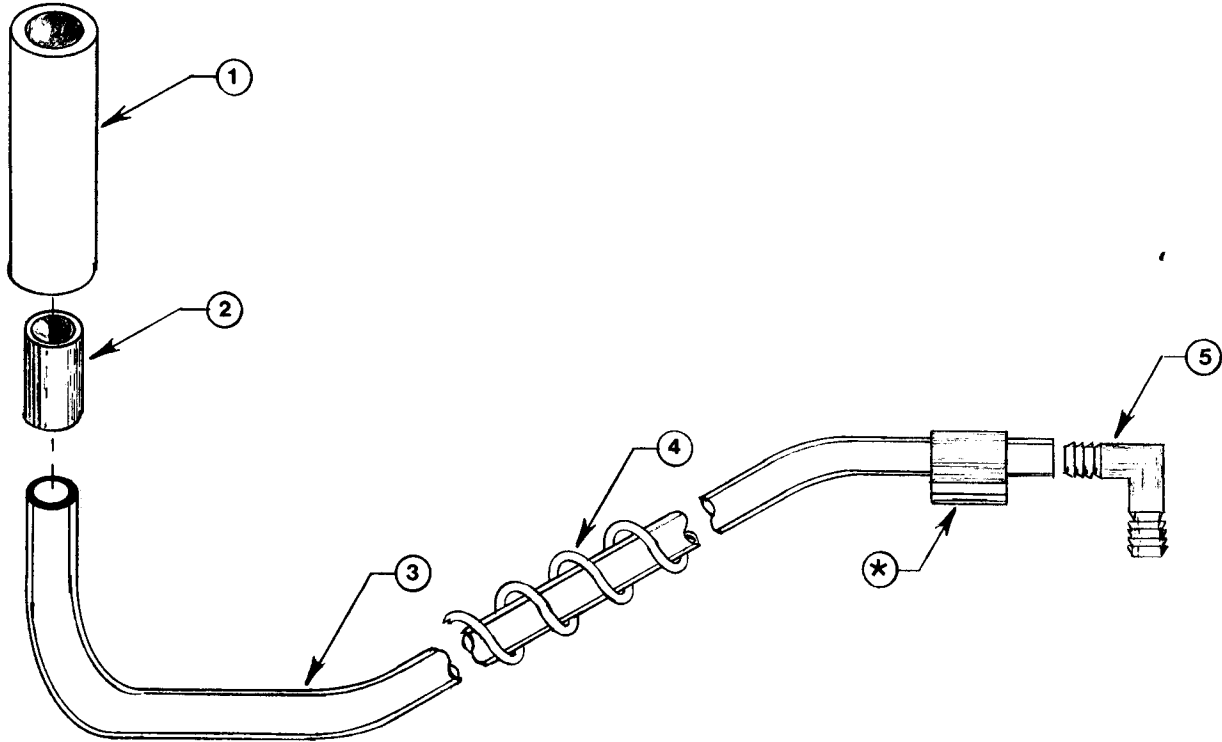
C-8607 Canister Assembly
 Complete
 (Coffee & Chocolate)



| ITEM | PART NO. | QTY | |
|------|----------|-----|----------------------|
| 1 | 12520 | 1 | FRAME-BREWER BRACKET |
| 2 | 12521 | 1 | PIN - BREWER LATCH |
| 3 | 12522 | 1 | SPRING - LATCH PIN |
| 4 | A-2559 | 1 | RING-E, 5133-25 |
| 5 | 12523 | 1 | SLEEVE - POST |
| 6 | 12524 | 1 | SHOULDER - SLEEVE |
| 7 | 12525 | 1 | CAP - POST |

NOTE: THIS PART IS FOR ASSEMBLED COMPLETE. THE ABOVE PARTS ARE TO BE USED FOR SALES REPLACEMENT.

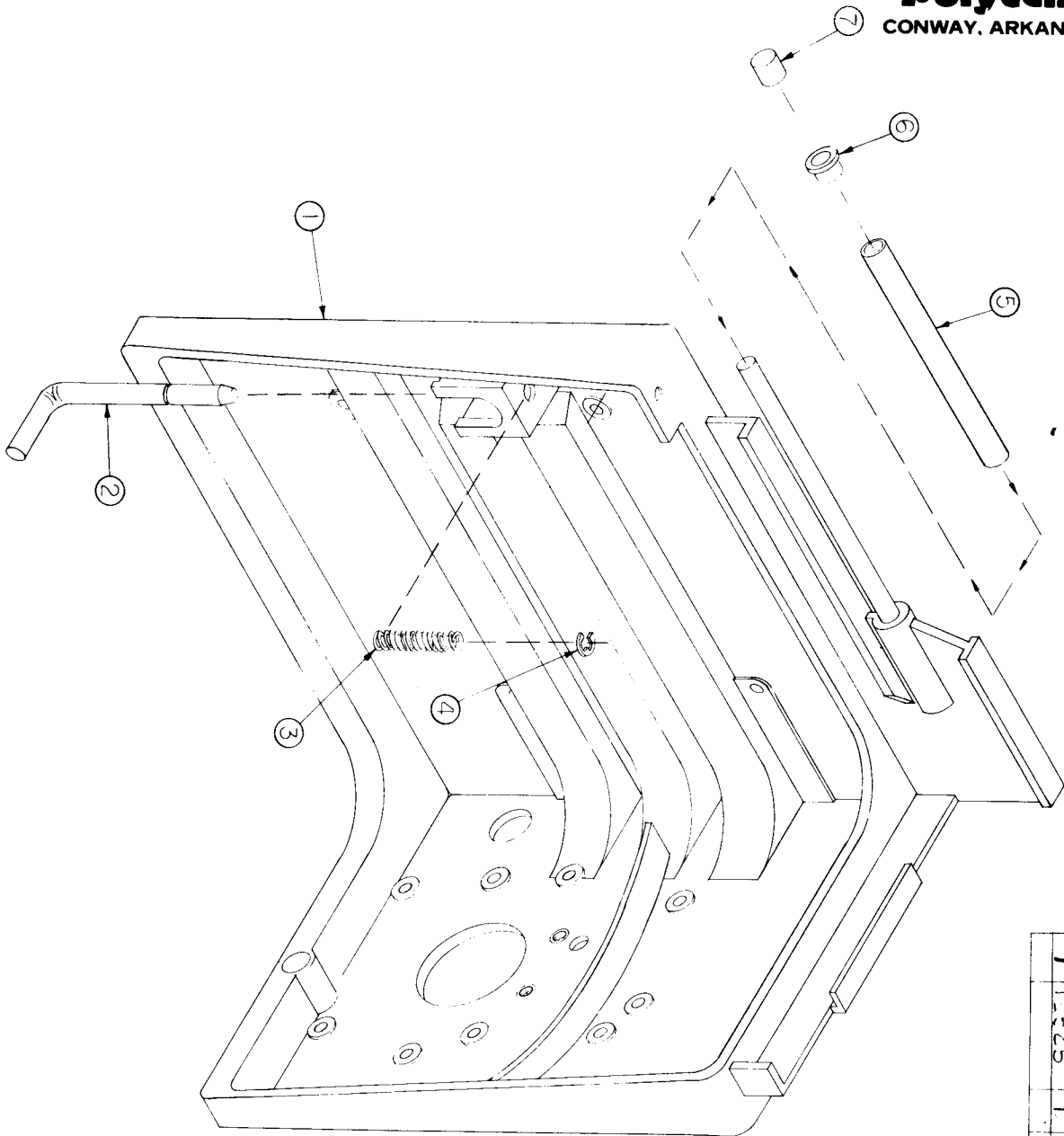
COMPLETE ASSEMBLY
 Part #11813



HOSE ASSEMBLY - HOT WATER A-12053

| ITEM | PART NO. | DESCRIPTION |
|------|------------|--------------------------|
| 1 | A-11814-01 | Hose Rubber |
| 2 | A-4294 | Insert - Tube |
| 3 | A-11810-01 | Tube 1/4 I.D. 1/16" wall |
| 4 | A-12184 | Spring - Hose |
| * | A-8538-01 | Clamp - "Stick On" |
| 5 | A-11896 | Spout - Tube |

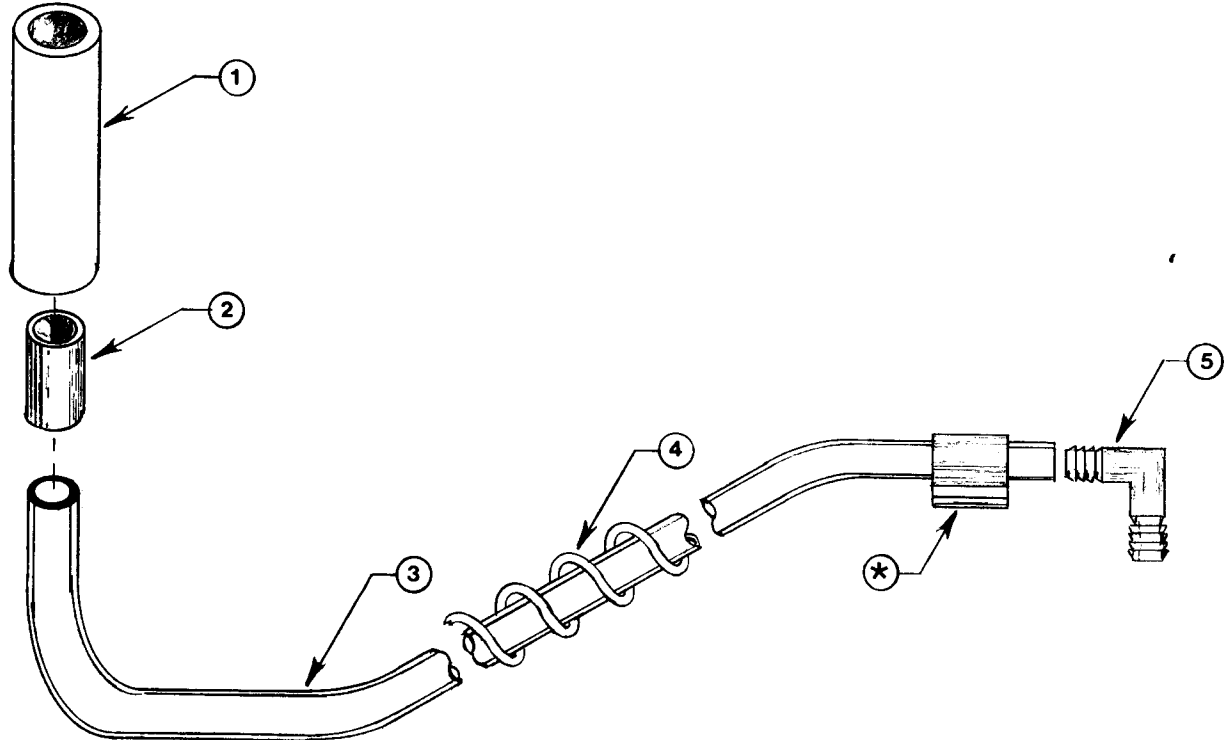
* Clamp not included in A-12053 Assembly.



| ITEM | PART NO. | QTY | |
|------|----------|-----|----------------------|
| 1 | 12520 | 1 | FRAME-BREWER BRACKET |
| 2 | 12521 | 1 | PIN-BREWER LATCH |
| 3 | 12522 | 1 | SPRING-LATCH PIN |
| 4 | A-2559 | 1 | RING-E, 5133-25 |
| 5 | 12523 | 1 | SLEEVE-POST |
| 6 | 12524 | 1 | SHOULDER-SLEEVE |
| 7 | 12525 | 1 | CAP-POST |

NOTE: THIS PART IS EXCHANGED
 ASSEMBLED COMPLETE. THE ABOVE
 PARTS ARE TO BE USED FOR SALES
 REPLACEMENT.

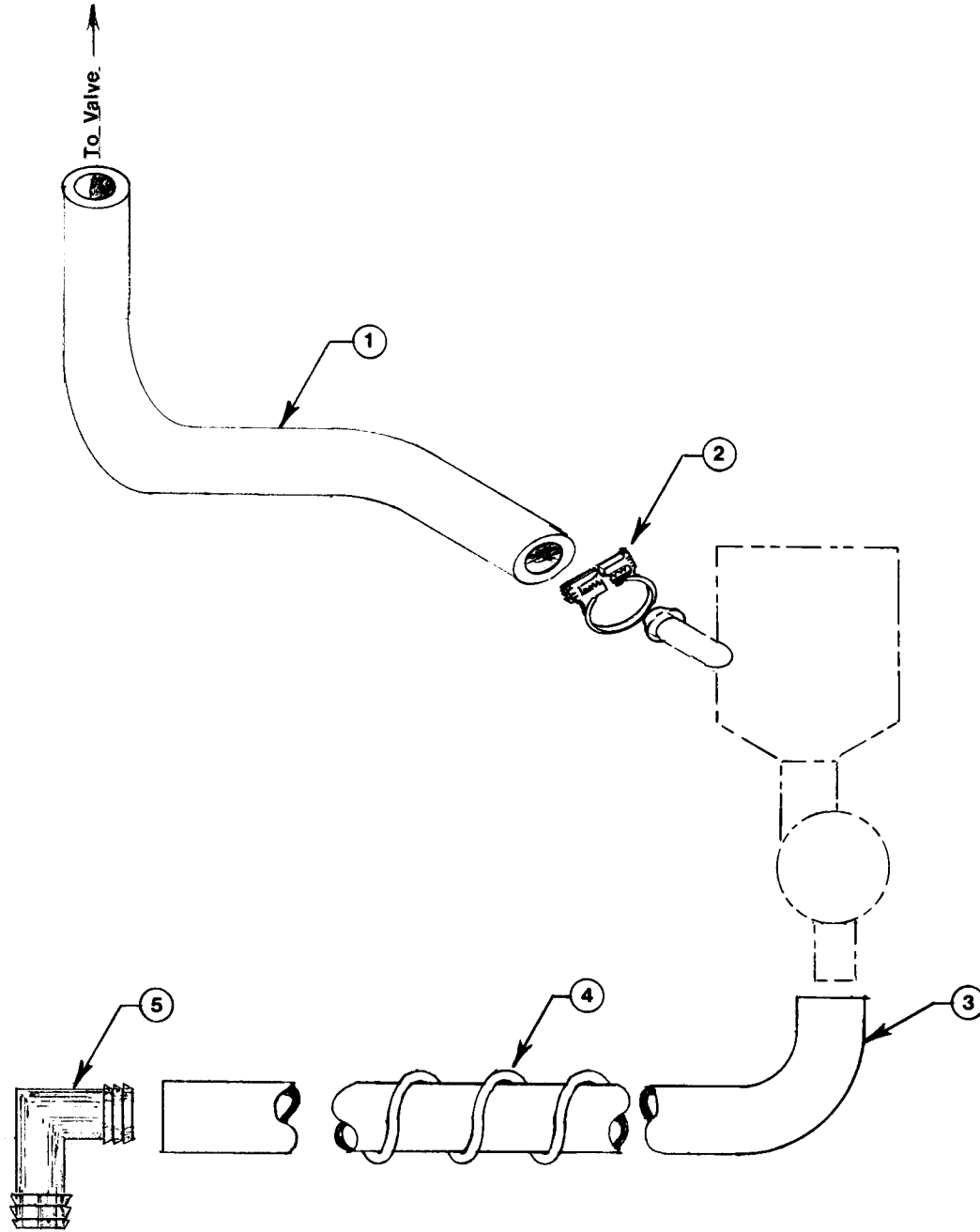
COMPLETE ASSEMBLY
 Part #11813



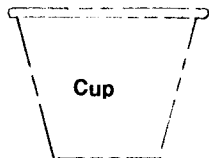
HOSE ASSEMBLY - HOT WATER A-12053

| ITEM | PART NO. | DESCRIPTION |
|------|------------|--------------------------|
| 1 | A-11814-01 | Hose Rubber |
| 2 | A-4294 | Insert - Tube |
| 3 | A-11810-01 | Tube 1/4 I.D. 1/16" wall |
| 4 | A-12184 | Spring - Hose |
| * | A-8538-01 | Clamp - "Stick On" |
| 5 | A-11896 | Spout - Tube |

* Clamp not included in A-12053 Assembly.



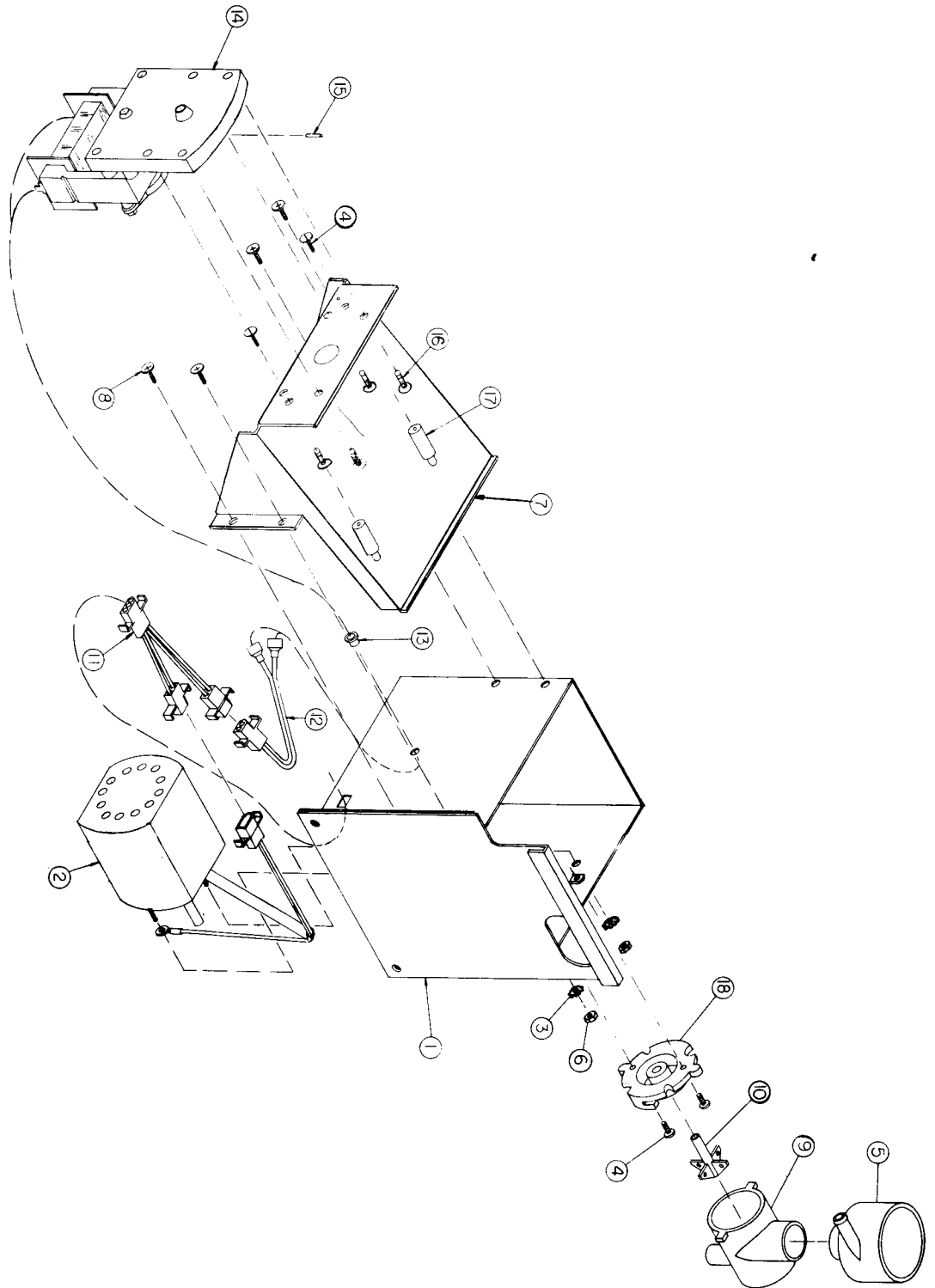
HOSE ASSEMBLY - HOT CHOCOLATE A-12048



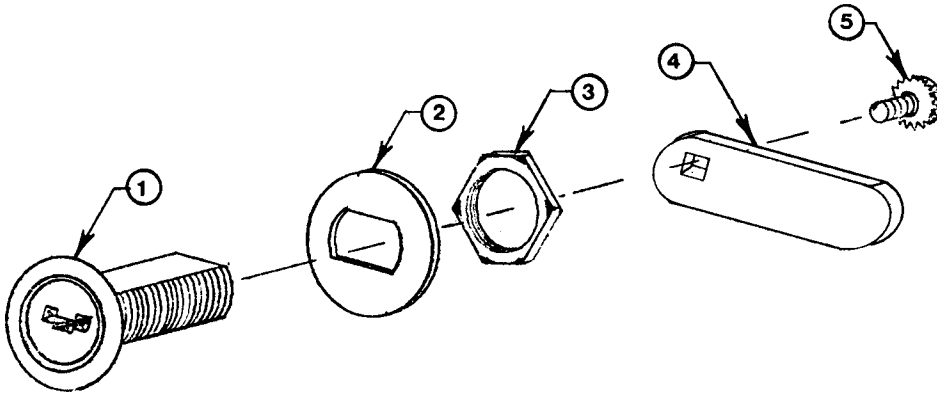
| ITEM | PART NO. | DESCRIPTION |
|------|------------|---------------|
| 1 | A-11814-02 | Hose - Rubber |
| 2 | A-12316 | Clamp |
| 3 | A-11814-03 | Hose - Rubber |
| 4 | A-12183 | Spring |
| 5 | A-11897 | Tube, Spout |

D-12047 Hot Chocolate Attachment Complete

| ITEM | PART NO. | QTY. | DESCRIPTION |
|------|----------|------|----------------------------------|
| 1 | A-12026 | 1 | Brk't Weld Asy |
| 2 | A-12147 | 1 | Motor Asy. |
| 3 | A-4206 | 2 | Washer Ext. Th. #8 |
| 4 | A-4237 | 4 | Screw #6-32 x 5/16 S.S. |
| 5 | A-8630 | 1 | Funnel |
| 6 | A-12102 | 2 | Nut - Hex 8-32 S.S. |
| 7 | B-11842 | 1 | Brkt. - Hopper |
| 8 | A-4228 | 4 | Screw - #10-32 x 3/8" S.S. |
| 9 | A-8631 | 1 | Housing - Blender |
| 10 | A-8634 | 1 | Blade - Whipper |
| 11 | A-12148 | 1 | Harness - Asy |
| 12 | A-12149 | 1 | Harness |
| 13 | A-730 | 1 | Bushing |
| 14 | A-11820 | 1 | Motor - Product Dispenser |
| 15 | A-4214 | 1 | Pin - Spring |
| 16 | A-4239 | 4 | Screw - Mch Pan #8-32 x 1/2 S.S. |
| 17 | A-11817 | 2 | Guide - Hopper |
| 18 | A-8632 | 1 | Base - Blender |



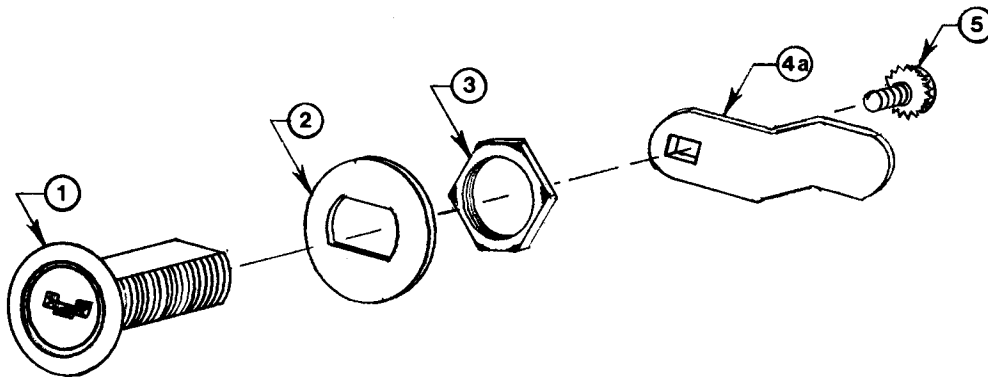
LOCK ASSEMBLY COMPLETE A-11380 UPPER DOOR



| ITEM | PART NO. | DESCRIPTION |
|------|-----------|-------------------------|
| 1 | A-11531-* | Lock Barrel & Tumbler |
| 2 | A-8504 | Washer - Flat |
| 3 | A-11520 | Nut - Hex |
| 4 | A-8498 | Cam - Lock - Upper Door |
| 4a | A-8495 | Cam - Lock - Lower Door |
| 5 | A-11521 | SEMS Unit |

(National Lock)

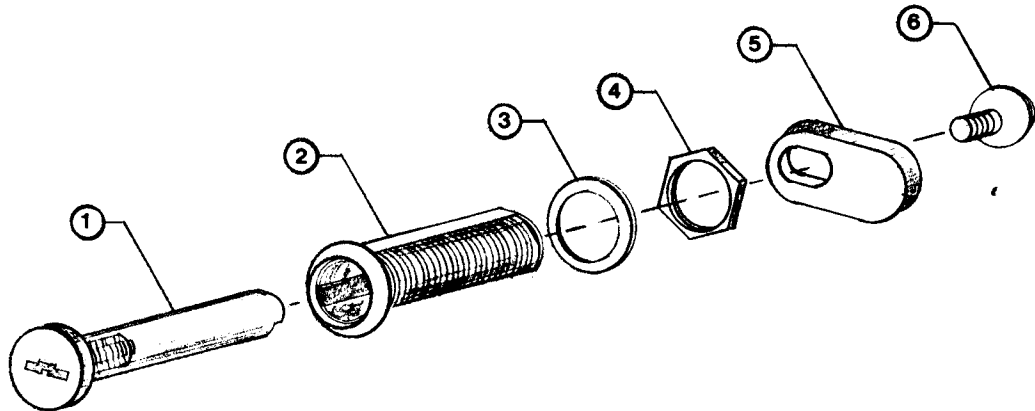
* Please specify key No.



LOCK ASSEMBLY COMPLETE A-11377 LOWER DOOR



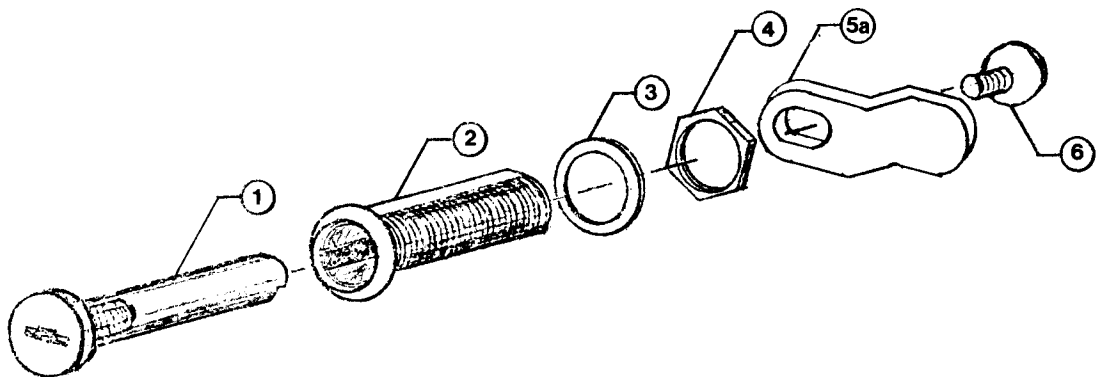
LOCK ASSEMBLY COMPLETE A-11115-* UPPER DOOR



| ITEM | PART NO. | DESCRIPTION |
|------|-----------|------------------------------|
| 1 | A-11525-* | 1½" Tumbler |
| 2 | A-11664 | Barrell |
| 3 | A-5292 | Escutcheon - Flat |
| 4 | A-355 | Nut - Hex |
| 5 | A-5267 | Cam - Straight (Upper Door) |
| 5a | A-5266 | Cam - ½" offset (Lower door) |
| 6 | A-5293 | Screw |

(Chicago Lock)

* Please Specify Key No.



LOCK ASSEMBLY COMPLETE A-11117-* LOWER DOOR

POLYVEND MODEL 3200 SERIES

COFFEE MODULE

ALPHABETICAL PARTS LIST

INCLUDES ALL 3200 SERIES MODELS

| PART NO. | DESCRIPTION |
|-----------------|--|
| A-4436..... | Agitator - Canister Assembly |
| A-4273..... | Arm - Crank, Brewer |
| A-4404..... | Auger, Canister |
| A-4245..... | Band - Tape Drum Guide |
| A-11249..... | Bank - Coin Lock Kit Complete (Coin box & lock assembly) |
| A-12519..... | Bank - Coin W/Lock Top (Less lock) |
| A-11051-01..... | Bank - Coin W.A. (No top) |
| * | Bank - Coin Lock - See "Lock" |
| A-4304..... | Bar - Yoke Lift |
| A-11526..... | Barrel - Lock, Coin Box (Chicago) |
| A-11664..... | Barrel - Lock, Upper & Lower Doors (Chicago) |
| A-8632..... | Base - Blender - Hot Chocolate |
| A-4380..... | Bearing - Bronze, Brewer |
| A-4386..... | Bearing - Bronze, Brewer |
| A-4379..... | Bearing - Rubber Wheel - Brewer |
| A-8634..... | Blade - Whipper |
| A-11789..... | Board Assembly - P.C. |
| A-12343..... | Body - Water Valve |
| ..... | Box, Coin - See "Bank" |
| D-11970..... | Box - Control Complete |
| A-11139..... | Box - Assembly, Junction Complete |
| A-5296..... | Box - Junction |
| B-11885-01..... | Box - Weld Assembly - Control Box |
| A-11171..... | Box - W.A. - Cup |
| D-11324..... | Bracket Assembly - Lamp |
| C-10235..... | Bracket - Assembly, Waste Float |
| C-11813..... | Bracket - Brewer Mtg. (Plastic) |
| B-11842..... | Bracket - Canister Mtg. Chocolate & Coffee |
| A-12045..... | Bracket - Control Box Mtg. |
| A-11020..... | Bracket - Hinge |
| A-597-01..... | Bracket - Jones Plug |
| B-11048..... | Bracket - Rear Cup Dispenser |
| A-12383-01..... | Bracket - Stop, Control Box "L" |
| A-12387..... | Bracket - Switch |
| A-4485..... | Bracket - Tape Rewind |
| A-12026..... | Bracket - W.A. - Hot Chocolate |
| A-12598..... | Bracket - Water Valve, Tank |
| D-11148..... | Brewer Assembly complete (with tape rewind) |

| PART NO. | DESCRIPTION |
|-----------------|--|
| C-8996..... | Brewer Assembly, less tape rewind asy. |
| A-1653..... | Bumper - Pressure Sensitive - Lower Door |
| A-4352..... | Bushing - Agitator (Canister) |
| A-5280..... | Bushing - Door Hinge |
| A-730..... | Bushing - Heyco (Chocolate attachment) |
| A-2358..... | Bushing - Heyco 1/2" mtg. hole |
| A-5803..... | Bushing - Snap, .625 mtg. hole |
| A-1961..... | Bushing - Snap, Heyco 1/2" mtg. hole |
| A-5802..... | Bushing - SR-7P-2 (Strain Relief, Cont. Box) |
| C-11102-01..... | Cabinet Weld Asy - Lower |
| C-11041-01..... | Cabinet W.A. - Upper |
| A-5272..... | Cam - Lock, Coin Box (Chicago) |
| A-8501..... | Cam - Lock, Coin Box (National) |
| A-5266..... | Cam - Lock, Lower Door (Chicago) |
| A-8495..... | Cam - Lock, Lower Door (National) |
| A-5267..... | Cam - Lock, Upper Door (Chicago) |
| A-8498..... | Cam - Lock, Upper Door (National) |
| C-8607..... | Canister Asy. - Chocolate & Coffee complete |
| A-4475..... | Canister - Chocolate and coffee - Body |
| B-11519..... | Cap - Canister (Anti-spill) - plastic |
| A-5366..... | Cap - Pin |
| A-12525..... | Cap - Post Brewer Bracket |
| A-2372..... | Catch - Elbow - Light Assembly |
| A-4391..... | Chain - Roller #25 S.S. |
| A-4412..... | Chamber - Brewer |
| * | Changer - Coin Specify brand, and single price or 4-price. |
| A-4332-01..... | Clamp - Cable 1/4, Pull ring tube |
| A-12316..... | Clamp - Hose, Hot Chocolate |
| A-4345..... | Clamp - Hose 3/8 - 7/8, Water inlet |
| A-2369..... | Clamp - Wire Cable, Changer Cord |
| ..... | Coin Bank - See "Bank" |
| A-11023..... | Coin Chute Assembly |
| A-12600..... | Coil - Assembly - Water Valve |
| ..... | Control Box - See "Box" |
| A-111..... | Connector - Splice Cap, Service Cord |
| A-112..... | Connector - Splice Cap, Service Cord |
| B-12036..... | Cord - Control Box |
| B-5801..... | Cord - Service |
| A-12391..... | Counter Assembly - Control Box |
| D-12420..... | Countertop |
| B-12182..... | Cover - Coffee Trough |
| A-11348..... | Cover Assembly - Cup Lid Dispenser |
| 12392..... | Cover - Valve |
| ..... | Crank - See "Arm" or "Rod" |
| A-10342..... | Cup Assembly - Coin Return |
| ..... | Cup - See "Dispensers" |

| PART NO. | DESCRIPTION |
|-----------------|--|
| A-4415..... | Cupstand |
| A-4411..... | Cylinder - Brewer |
| A-12100-01..... | Decal - Chocolate, Overlay Plate |
| A-11981..... | Decal, Control Box switches |
| C-5979..... | Decal - Door, Coffee/Chocolate |
| A-5911..... | Decal - Good Care |
| A-12100-02..... | Decal - Hot Water, Overlay Plate |
| A-5318..... | Decal - Multi Cup - Control Box |
| A-5391-01..... | Decal - Price 10¢ |
| A-5391-02..... | Decal - Price 15¢ |
| A-5391-03..... | Decal - Price 20¢ |
| A-5391-04..... | Decal - Price 25¢ |
| A-5391-05..... | Decal - Price 30¢ |
| ..... | Available to 5391-18 -- 95¢ |
| A-5391-19..... | Decal - Price 5¢ |
| A-5391-20..... | Decal - Price "Free" |
| A-12118..... | Decal - Filter Post |
| A-12135..... | Decal - Timer Switches Control Box |
| A-11540..... | Decal - Warning, 115V (Lower door) |
| A-5077..... | Deflector - Coin |
| B-5167..... | Deflector - Light |
| A-12341..... | Diaphragm - Water Valve |
| B-5822..... | Diffuser - Light |
| A-11922..... | Diffuser - Water Tank Inlet |
| A-5181..... | Dispenser - Cup |
| A-11172-* | Door - Asy., Upper (specify coffee/hot choco or coffee only) complete |
| D-11153..... | Door - Asy., Complete Lower (less lock) |
| C-12033..... | Door - W.A., Brewer S.S. Tower |
| C-11109-* | Door - W.A., Coffee |
| C-11054-01..... | Door - W.A., Lower Inner Panel |
| A-4417..... | Drun - Tape, Brewer |
| C-12019..... | Element - Heating, Tank |
| A-5292..... | Escutcheon - Flat, Lock, Coin Box, Doors (Chicago) |
| A-12389..... | Fastener - Claw Prong, Tower/Countertop |
| A-12311..... | Ferrule - 5/16 Heater Assembly |
| A-4943..... | Filter Paper - Brewer, Roll |
| A-5381..... | Filter - Water "Hot" |
| A-11163..... | Filter - Water, Complete Kit |
| B-11771..... | Fitting - Bulkhead, Water Inlet |
| A-11325..... | Fixture Asy. - Light Complete |
| C-11320-01..... | Fixture - W.A. - Light |
| A-12122..... | Float Asy - (Rod & Float) Lid |
| A-12258..... | Float - Waste Pail (W/attaching screw) |
| A-4535..... | Follower - Cam, Brewer |
| C-12520..... | Frame - Brewer Bracket, Plastic |
| A-4395..... | Frame - Brew Chamber |

| PART NO. | DESCRIPTION |
|-----------------|---|
| A-4418..... | Frame - Main Brewer |
| A-4396..... | Funnel - Brew Chamber |
| A-4323..... | Fuse - Mth 5, Control Box |
| A-8673-01..... | Gasket Material 11 $\frac{1}{4}$ " lg. Frt./rear tower base |
| A-8673-02..... | Gasket Material 12" lg. L.H./R.H. tower base |
| A-8673-03..... | Gasket Material - Coffee Door Sealant (specify length) |
| | See "Seal" and "Stripping" |
| A-4281..... | Gear - Agitator shaft, Canister |
| A-12138..... | Gear - Idle, Canister |
| A-4350..... | Gear - Idler, Canister |
| A-4351..... | Gear - Stub Shaft, Canister |
| A-2601..... | Glide - Leg Adj. |
| A-4400..... | Grill - Cupstand |
| A-4399..... | Grill - Tray |
| A-11817..... | Guide - Canister |
| A-5127..... | Handle - Control Box, Canister |
| B-12136..... | Harness - Control Box 22" |
| B-12112..... | Harness - Control Box 39" (wiring/jones plug) |
| A-8582..... | Harness - Lamp Fixture (Ripcord) less wall plug |
| B-12113..... | Harness - Main 36" |
| B-12028..... | Harness - P.C. Control |
| B-12029..... | Harness - P.C. Main |
| A-12027..... | Harness - Timer Timer switches/P.C.board |
| C-12044..... | Harness - Tower 32" (to D-12030) |
| | Heater - See "Element" |
| A-11020..... | Hinge Bracket - Lower Door |
| A-11162-03..... | Hinge - Door, Lower |
| A-11162-02..... | Hinge - Door, Upper |
| A-996..... | Holder - Fuse, Control Box |
| A-11774..... | Hose Asy. - Inlet, less bulkhead |
| A-12048..... | Hose Asy. - Complete (Hot Chocolate) |
| A-12053..... | Hose Asy. - Complete (Hot water) |
| A-11814-02..... | Hose - Rubber 9" (Chocolate) |
| A-11814-03..... | Hose - Rubber 18" (Chocolate) |
| A-11814-01..... | Hose - Rubber 4 $\frac{1}{2}$ " (Hot Water) |
| * | Hose - See Also "Tubing/Tube" |
| B-11049-01..... | Hopper - Coin |
| A-4257..... | Housing - Vertical Rod, Brewer Indicator Lamp - See "Lamp" |
| A-4623..... | Insert - Lower Trim, (Black) |
| A-11967..... | Insert - Coin Trim Plate, Slt. Panel |
| A-11023..... | Insert - W.A. - Coin Chute |
| A-12417..... | Instructions - Daily Service |
| A-12318..... | Instructions - Machine Start |
| A-12021..... | Insulation - Tank |
| A-12294..... | Insulator - Switch, Lid, Brewer, Float |

| PART NO. | DESCRIPTION |
|-----------------|--|
| A-1008..... | Knob - multi-cup timer |
| A-5813..... | Label - "Max. Total Load 12A" |
| A-5373..... | Lamp - F15T12/CW 15 Watt |
| A-5083..... | Lamp - Indicator, Amber, Slt. Panel |
| ..... | Leg - See "Glide" |
| B-5055-01..... | Lever - Reject, Coin |
| D-12037..... | Lid Assembly - Tank |
| A-4476..... | Lid - Canister (Aluminum) |
| A-11857-01..... | Lid - Weld Asy., Tank |
| A-12097-03..... | Line - Float |
| A-5249..... | Liner - Waste Pail |
| A-4390..... | Link - Connector #25, Brew. Chain S.S. |
| B-11114-* | Lock Asy. - Coin Box (Chicago) specify key no |
| B-11382-* | Lock Asy.-Coin Box (National) specify key no. |
| B-11117-* | Lock Asy.- Lower Door (Chicago)specify key no. |
| A-11377-* | Lock Asy.-Lower Dr.(National) specify key no. |
| B-11115-* | Lock Asy.-Upper Door(Chicago) specify key no. |
| A-11378-* | Lock Asy.-Upper Door (National)specify key no |
| A-11529-* | Lock - Barrel and tumbler, Coin Box |
| | Specify key number (National) |
| A-11531-* | Lock-Barrel and Tumbler, Doors- Specify key |
| | no. (National) |
| A-8944..... | Manual - Service |
| A-11804..... | Motor - Brewer |
| A-11820..... | Motor - Product Dispenser |
| A-12613..... | Motor - Timer, W. Gear, Bristol |
| A-4264..... | Nut Asy. - Adjusting, Brewer |
| A-12310..... | Nut - Compression, 5/16, Heater |
| A-11794..... | Nut - Hex, #4-40 S.S., Tank lid |
| A-3030..... | Nut - Hex, Slt. Panel |
| A-1958..... | Nut - Hex #8-32 Z.P. Jct. Box |
| A-355..... | Nut - Hex, Lock, Coin Box, Doors (Chicago) |
| A-4208..... | Nut - Hex #10-24 Brewer, Canister |
| A-4525..... | Nut - Hex. #10-32 Brewer |
| A-4528..... | Nut - Hex, Jam 3/8-24, Brewer |
| A-1195..... | Nut - Hex, Jam Bulkhead Asy 5/8-18 Unf. |
| A-347..... | Nut - Hex 1/2" Lock - Coin Box (Chicago) |
| A-4492..... | Nut - Hex, 1/4" Lock, Brewer |
| A-11520..... | Nut - Hex, Lock - Coin Box & Doors (National) |
| A-11470..... | Nut - Lock, Cup Dispenser |
| A-4388..... | O-Ring |
| A-4346..... | O-Ring - Water Tank/Water Valve(& Brass plug) |
| A-12603..... | O-Ring - Water Valve, Restrictor or plug |
| A-2421..... | Outlet - 3 wire, Junction Box |
| B-11966..... | Overlay Plate |
| C-12060..... | Pail - Waste |
| B-5067..... | Panel - Outer, Lower Door |

| PART NO. | DESCRIPTION |
|-----------|---|
| C-11037-* | Panel - Slanted Asy (specify options - coffee, chocolate, and/or water) |
| A-11965-* | Panel - Sub. Asy - Slanted |
| A-12521 | Pin - Brewer Latch |
| A-4480 | Pin - Cotter 3/32" x 1" - Canister |
| A-4219 | Pin - Cotter 3/8" x 1/2" - Brewer |
| A-4306 | Pin - Hair 7/64 x 1/2 - Brewer - Canister |
| A-4307 | Pin - Hitch, Canister |
| A-4260 | Pin - Pressure Spring, Brewer |
| A-4218 | Pin - Roll 3/16 x 1 1/4, Brewer |
| A-4212 | Pin - Roll 3/32 x 1/2, Brewer |
| A-4213 | Pin - Roll 3/32 x 5/8, Brewer |
| A-4214 | Pin - Roll 3/32 x 1 1/8, Product Disp. Mtr. |
| A-4222 | Pin - Roll 1/8 x 5/8, Brewer |
| A-4507 | Pin - Roll 1/8 x 1 1/4, Brewer, Mtr. Socket |
| A-4389 | Pin - Taper, Brewer |
| A-4276 | Piston - Brewer |
| B-858-02 | Plate - Coin Cup Trim |
| A-1293-31 | Plate - Data |
| B-11966 | Plate - Overlay, Less switch, lamp, trim etc. |
| A-1302 | Plate - Patent Notice |
| A-4247 | Plate - Piston, Top |
| A-4305 | Plate - Spring, Brewer |
| A-4317 | Plate - Support, Brewer |
| A-4246 | Plate - Yoke, Retaining, Brewer |
| A-4266 | Plug - Brass, Water Tank Outlet Tubes W/O O-Ring |
| A-5496 | Plug - Domed, Overlay Plate |
| A-12107 | Plug - Program Coffee/free water-Sgl price |
| A-12108 | Plug - Program Coffee/pd water single price |
| A-12110 | Plug - Program Coffee/Choco free water 4-pr. |
| A-12111 | Plug - Program coffee/choco pd water 4-price |
| A-12602 | Plug - Water Valve |
| A-5322 | Plunger - Reject Lever |
| A-12599 | Plunger - Water Valve |
| C-12032 | Post Asy - Tape Program Plug - See "Plug" |
| A-12001 | Relay - Miniature, Control Box |
| A-11790 | Retainer - Edge, Control Box, P.C. Board |
| A-12601 | Restrictor - Flow, Water Valve |
| A-4427 | Ridge Asy. - Brewer |
| A-12309 | Ring - Pull, Float |
| A-4397 | Ring - Piston, Rubber |
| A-4385 | Ring - Retaining, Brewer |
| A-11448 | Ring - Self Lock .187 Mtr. Fan |

| PART NO. | DESCRIPTION |
|----------------|---|
| A-2559..... | Ring - E., Brewer Lock Pin |
| A-859..... | Rivet- Drive .125 x .250, Lower Door |
| A-729..... | Rivet- Pop .125 x .232, Light, Up. Door, lower dr., tower |
| A-1642..... | Rivet-Pop .125 x .419, waste float bracktt |
| A-4265..... | Rod - Connecting, Brewer |
| A-4263..... | Rod - Vertical, Brewer Cam |
| | Rod - See "Arm" |
| A-4486..... | Scraper - Tape Rewind |
| A-766-04..... | Screen - Fiberglas, Black |
| A-9075-03..... | Screen - Rear |
| C-8512..... | Screen - Cabinet, Upper |
| A-4274..... | Screen - Filter, Brewer |
| A-4487..... | Screw - Shoulder, Brewer |
| A-4488..... | Screw - Shoulder, Brewer |
| A-4267..... | Screw - Shoulder, Brewer |
| A-4477..... | Screw - Shoulder, Canister |
| A-4455..... | Screw - Mch. Pan #4-40 x 5/8 S.S., Tank lid |
| A-4523..... | Screw - Mch. Pan #4-40 x 1/4 Control Box |
| A-4237..... | Screw - Mch. Trs. #6-32 x 5/16 - Tank |
| A-4236..... | Screw - Mch Pan #6-32 x 1/4 S.S. |
| A-4529..... | Screw - TP, AB Fit #6 Brewer |
| A-12252..... | Screw - Mch Pan #8-32 x 5/16 |
| A-5367..... | Screw - Mch Pan #8-32 x 1/2 |
| A-1715..... | Screw - TP 23 Pan #8 x 3/8 SEMS (light fix) |
| A-11894..... | Screw - TP 23 Pan #8 x 3/8 Ph. |
| A-1298..... | Screw - Tp AB Pan #8 x 3/8 Ph., Control Box, lower dr., light fix., jones bkrt., upper and lower dr hinge, control box cover. |
| A-12031..... | Screw - Tp T Rnd #8, Tower |
| A-4242..... | Screw - Mch Pan #8-32 x 3/8 Brewer, Canister |
| A-4239..... | Screw - Mch Pan #8-32 x 1/2 S.S. |
| A-12410..... | Screw - Mch Pan #8-32 x 3/16 S.S., Mtr. mount |
| A-4240..... | Screw - Mch. Fit. #8 - Brewer |
| A-4530..... | Screw - Tp., AB Trs #8 Brewer |
| A-12604..... | Screw - #8 x 1/4 BT "25" Dicro. Water Valve |
| A-12605..... | Screw - #8 x 7/16 BT "25: CD/ZN Plate, Water valve |
| A-2614..... | Screw - #8 x 1/2 type "A" Lower hinge dr. |
| A-638..... | Screw - #8-32 x 3/8 Type "23", Control box mtg bracket |
| A-1868..... | Screw - #8 x 1/4 type "B", Rear screens, jct. box, stop bracket, shelf, tray stop |
| A-2574..... | Screw - #8 x 1" Type "A", Upper cab., counter top/low. cab., shelf support |
| A-1299..... | Screw - #8 x 5/8 Ph Pan Hd., - Screen |
| A-12401..... | Screw - #8 x 1 3/4" Mach. Ph. Pan Hd. tower/countertop |

| PART NO. | DESCRIPTION |
|----------------|--|
| A-4226..... | Screw - Mch. Pan #10-32 x 1/2 S.S., inlet valve mtg. |
| A-4228..... | Screw - Mch. Pan #10-24 x 3/8 S.S., tower, water valves mtg. |
| A-5293..... | Screw - Lock upper & lower doors (Chicago) |
| ..... | Screw - Lock, See "SEMS" |
| A-12034..... | Screw - Mch. Bnd. M3 (metric) Brewer brkt switch |
| A-4275..... | Seal - Cylinder Rubber |
| A-12023..... | Seal - Floor Kit |
| A-4287..... | Seal - Teflon - Brewer |
| ..... | Seal - Upper Door See "Stripping" or "Gasket" |
| A-11521..... | Sems Unit - Lock, Coin Box & Doors (National) |
| A-4479..... | Shaft - Agitator, Canister |
| A-4262..... | Shaft - H Frame - Brewer |
| A-4259..... | Shaft - Main, Brewer |
| A-4268..... | Shaft - Stub, Canister |
| A-4261..... | Shaft - Tape Drum, Brewer |
| B-5431-01..... | Shelf - Cabinet, Lower |
| A-12524..... | Shoulder - Sleeve, Tape Guide |
| A-12523..... | Sleeve - Post, Tape Guide |
| A-5434..... | Slide - Accuride, Candy Tray |
| A-11948..... | Slide - Control Box |
| A-11773..... | Socket - Motor Drive |
| A-1745..... | Spacer - Detent Spring |
| A-12522..... | Spring - Brewer Latch Pin |
| A-84..... | Spring - Changer Cord |
| A-4318..... | Spring - Extension, Brewer |
| A-4303..... | Spring - Filter Pressure |
| A-12183..... | Spring - Hose, Hot chocolate |
| A-12184..... | Spring - Hose, Water |
| A-4315..... | Spring - Lift, Right |
| A-4316..... | Spring - Lift, Left |
| A-610..... | Spring - Reject |
| A-4491..... | Spring - Rewind spool |
| A-4312..... | Spring - Ridge Assembly |
| A-4308..... | Spring - Scraper |
| A-12342..... | Spring - Water Valve |
| A-4384..... | Sprocket - Brewer |
| A-4258..... | Sprocket - Cam, Brewer |
| A-4256..... | Sprocket - Clutch, Rewind |
| A-11920..... | Stabilizer - Probe, Tank Lid |
| A-2607..... | Starter - FS 25 Light |
| A-11840..... | Strap - Tank |
| A-810-07..... | Stripping - Neoprene Lamp/Door |
| A-810-*..... | Stripping - Neoprene, Seal - Upper door specify length |

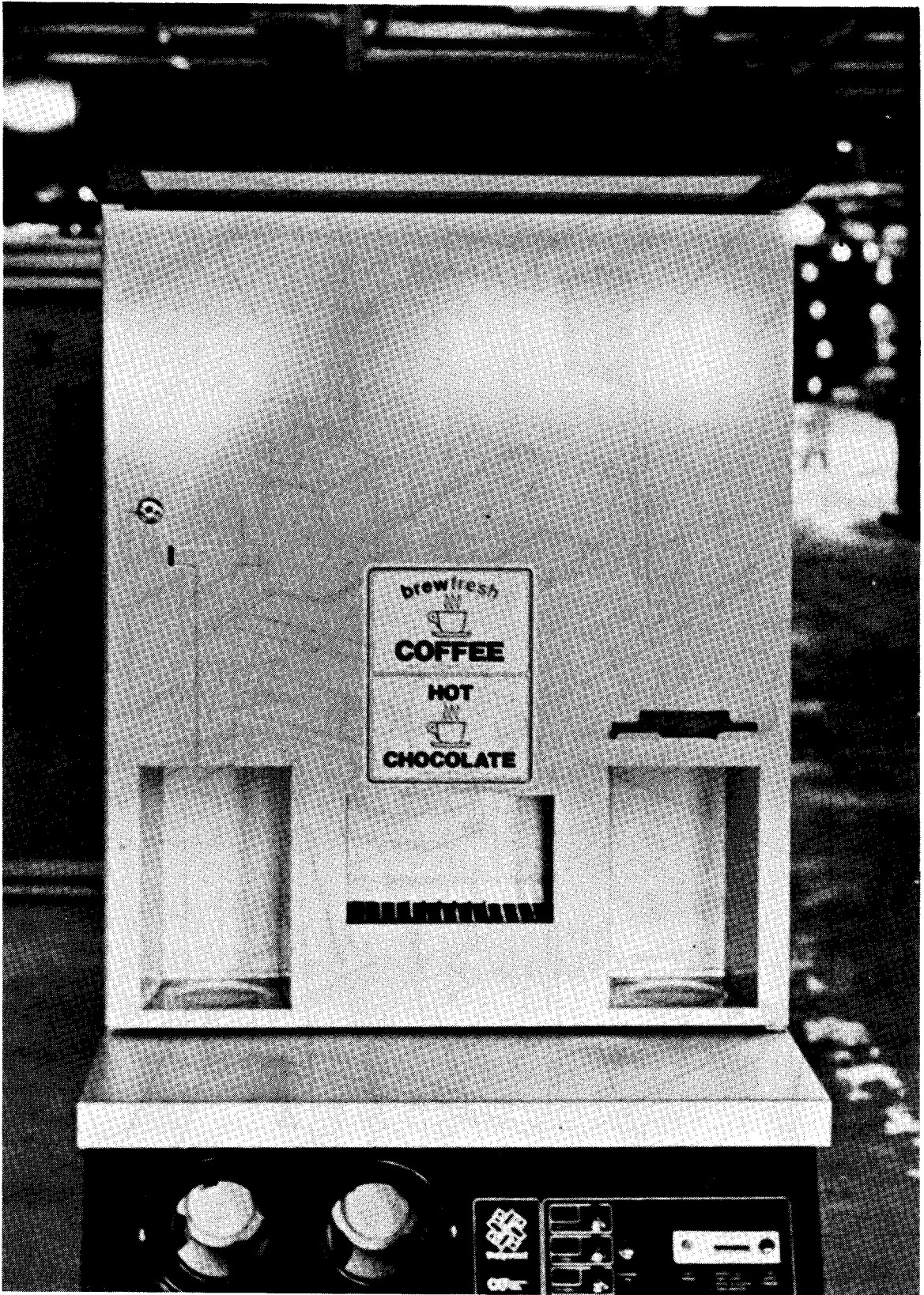
| PART NO. | DESCRIPTION |
|-----------------|---|
| A-5433..... | Stop - Candy - Tray |
| ..... | Stop - See Also "Bracket" |
| A-5802..... | Strain Relief - Heyco, Service Cord |
| A-11808..... | Support - Circuit Board |
| A-12253..... | Support - Screen |
| A-11581-01..... | Support - Shelf |
| C-11566-01..... | Support - Shelf, Vertical |
| A-12043..... | Switch - Brewer |
| A-12042..... | Switch - Heater Safety |
| A-12398..... | Switch - Lever |
| A-4425..... | Switch - Lever Tape Post |
| A-4423..... | Switch - Lever, Water Level |
| A-990..... | Switch - Push Button, Slanted Panel, Post Asy - Tape |
| A-12614..... | Switch - Timer Bristol Timer |
| A-992..... | Switch - Toggle, Control Box S.P.D.T. "Free Vend" 6 amp |
| A-12121..... | Switch - Toggle, Control Box D.P.D.T. "Prod" 6 amp |
| A-4320..... | Switch - Toggle S.P.S.T., Control Box "Main" 15 amp |
| A-12104..... | Switch - Toggle S.P.D.T. 6 amp Post Asy Tape - Filter See "Filter" |
| A-338..... | Tape - Gray Duct - Specify length |
| D-12041..... | Tank - Assembly |
| C-11815-01..... | Tank - W.A., Hot water |
| A-4360..... | Thermostat - Tank |
| A-11822..... | Timer Asy - Control Box |
| A-1007..... | Timer - Multi-cup |
| D-11984..... | Tower - W.A., Coffee |
| A-11987-01..... | Track - Shelf |
| A-5359..... | Transformer - 50 V.A. |
| B-11212..... | Tray - Candy Assembly |
| A-5432-01..... | Tray - Candy |
| A-4398..... | Tray - Cupstand |
| B-4615..... | Trim - Bank Lower Trim - See "Plate" or "Insert" |
| A-4414..... | Trough - Coffee |
| A-11810-01..... | Tube ¼" I.D. 1/16" wall, hot water 27" lg. |
| A-4294..... | Tube, Insert, S.S. |
| A-11896..... | Tube, Spout 5/16" O.D., Hot water |
| A-11897..... | Tube, Spout ½" O.D., chocolate |
| A-12185-02..... | Tube, Float, Line Guide |
| A-11810-03..... | Tube, Overflow, tank |
| A-12344..... | Tube, Vent, Water Valves |
| A-11772-01..... | Tubing - Braided 3/8, inlet valve/tank Tubing - See also "Hose" |

| PART NO. | DESCRIPTION |
|-----------------|--|
| A-11622-*..... | Tumbler - Lock Coin Box (Chicago) Specify key no. |
| A-11525-*..... | Tumbler - Lock, Lower & Upper doors (Chicago) Specify key no. |
| A-12312..... | Union - Heater Element |
| A-4474..... | Valve - Water Drain |
| A-4537..... | Valve - Water Inlet |
| A-11916-01..... | Valve - Water Tank Outlet W/Plug, Hot water |
| A-11916-02..... | Valve - Water Tank Outlet W/Restrictor, Coffee/Chocolate |
| ..... | Vertical Rod - See "Rod" |
| A-4215..... | Washer - Flat ¼" S.S. |
| A-4382..... | Washer - Flat ½" S.S., Lid |
| A-8504..... | Washer - Flat, Lock, Coin Box and Doors (Nat) |
| A-4376..... | Washer - Flat, ¼. S.S. |
| A-4204..... | Washer - Flat #8, Canister |
| A-4220..... | Washer - Flat 3/8 S.S., Brewer, Canister |
| A-5364..... | Washer - Flat, Slt. Panel |
| A-4527..... | Washer - Int. Tooth #4, Lid |
| A-4481..... | Washer - Int. Tooth #10, Canister |
| A-12353..... | Washer, Plain, Type "A" #10 Brewer, Canister |
| A-4490..... | Washer - Rubber, Tape Rewind |
| A-4202..... | Washer - Split #6 |
| A-4209..... | Washer - Split #10 |
| ..... | Waste Pail - See "Pail" |
| ..... | Water Filter - See "Filter" |
| A-4277..... | Wheel - Rubber, Brewer |
| A-5365..... | Wire - Ground, 9" Upper Cabinet/Tower |
| A-12178..... | Wire - Ground, 14" Upper Cab./Lower Cab. |
| ..... | Wires - See "Harness" |
| A-4249..... | Yoke - Stub Shaft |
| A-4403..... | Yoke - Tape Drum |

FOR ADDITIONAL PARTS PERTAINING TO THE 400 CUP MODEL 90 TO 400
 CUP SECTION PAGES 81 - 88.



Model CSV-400 Cup



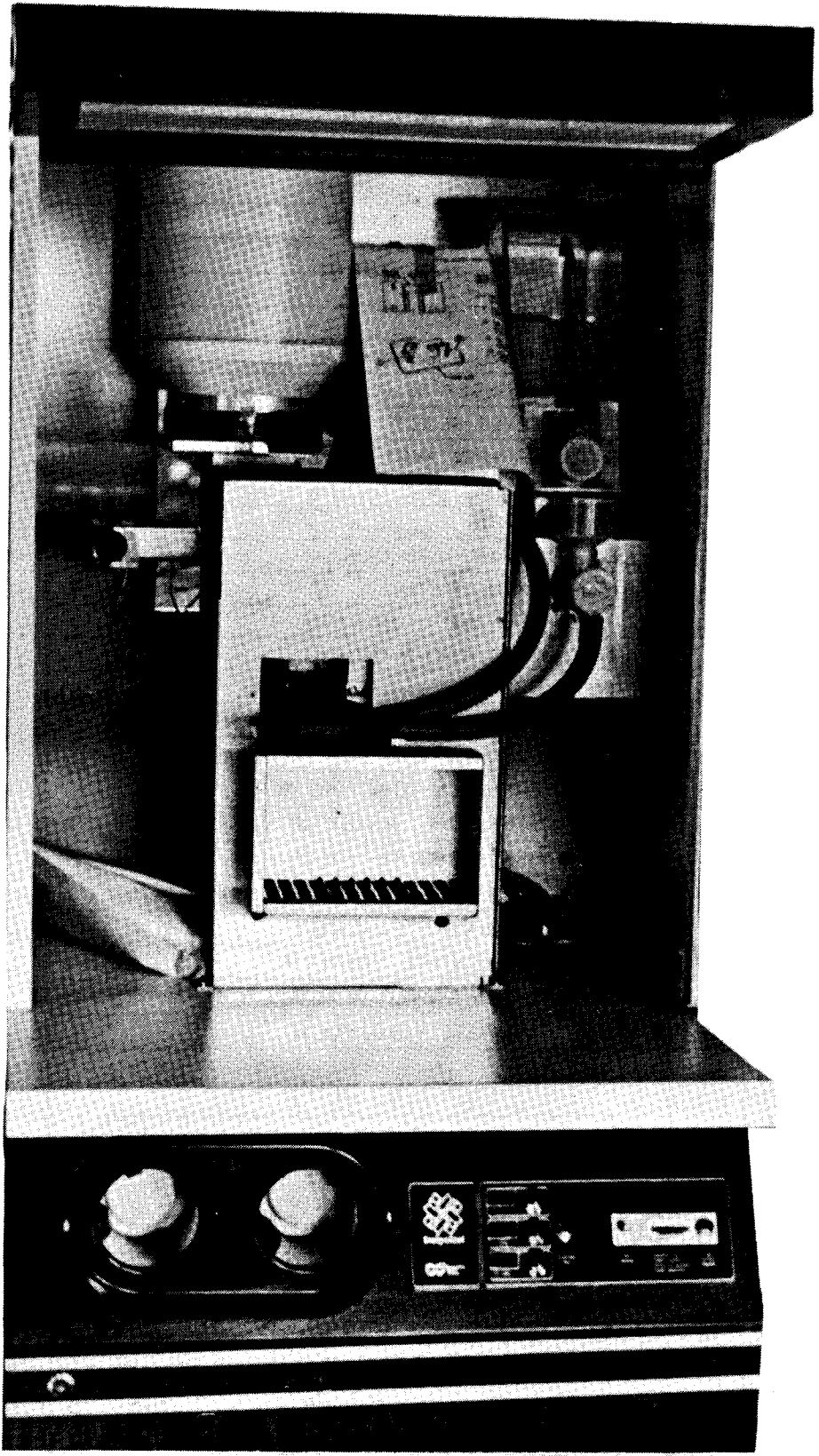
PARTS LIST CSV-2PII

| ITEM | PART NO. | DESCRIPTION |
|------|--------------|---------------------------------|
| 1 | A-11325 | FIXTURE ASY -LIGHT |
| 2 | C-16340-* | DOOR ASY-COFFEE |
| | | |
| | | |
| 6 | B-11115-** | LOCK ASY (CHICAGO) |
| | A-11378-** | LOCK ASY (NATIONAL) |
| | | |
| | | |
| 10 | A-11965-* | PANEL SUB-ASY-SLANTED |
| 11 | A-5322 | PLUNGER-REJECT LEVER |
| | B-5055-01 | LEVER-REJECT (NOT SHOWN) |
| | A-5366 | CAP-PIN (NOT SHOWN) |
| | A-610 | SPRING (NOT SHOWN) |
| 12 | A-84 | SPRING |
| 13 | A-2369 | CLAMP-WIRE CABLE |
| 14 | AS SPECIFIED | CHANGER-COIN |
| 15 | B-11117-** | LOCK ASY (CHICAGO) |
| | A-11377-** | LOCK ASY (NATIONAL) |
| 16 | D-11153 | DOOR ASY-LOWER |
| 17 | B-11114-** | LOCK ASY-COIN BOX (CHICAGO) |
| | A-11382-** | LOCK ASY-COIN BOX (NATIONAL) |
| 18 | A-11051-01 | BANK W.A.-COIN (NO TOP) |
| | A-12519 | BANK-COIN W/LOCKTOP (LESS LOCK) |
| 19 | A-597-01 | BRKT-JONES |
| 20 | A-11023 | INSERT W.A.-COIN CHUTE |
| 21 | A-14284 | WASTE BUCKET |
| 22 | D-16917 | BOX-CONTROL, COMPLETE |
| 23 | C-11566-01 | SUPPORT-SHELF, VERTICAL |
| 24 | A-12398 | LEVER SWITCH |
| | | |
| | | |
| 28 | A-2601 | GLIDE-LEG |
| 29 | B-5801 | CORD-SERVICE |
| 30 | A-5181 | DISPENSER-CUP |
| 31 | C-11139 | BOX ASY-JUNCTION |
| 32 | C-11102-01 | CABINET W.A.-LOWER |
| 33 | C-17050-02 | COUNTERTOP |
| 34 | C-11041-01 | CABINET W.A.-UPPER |
| 35 | C-8512 | SCREEN-CABINET, UPPER |

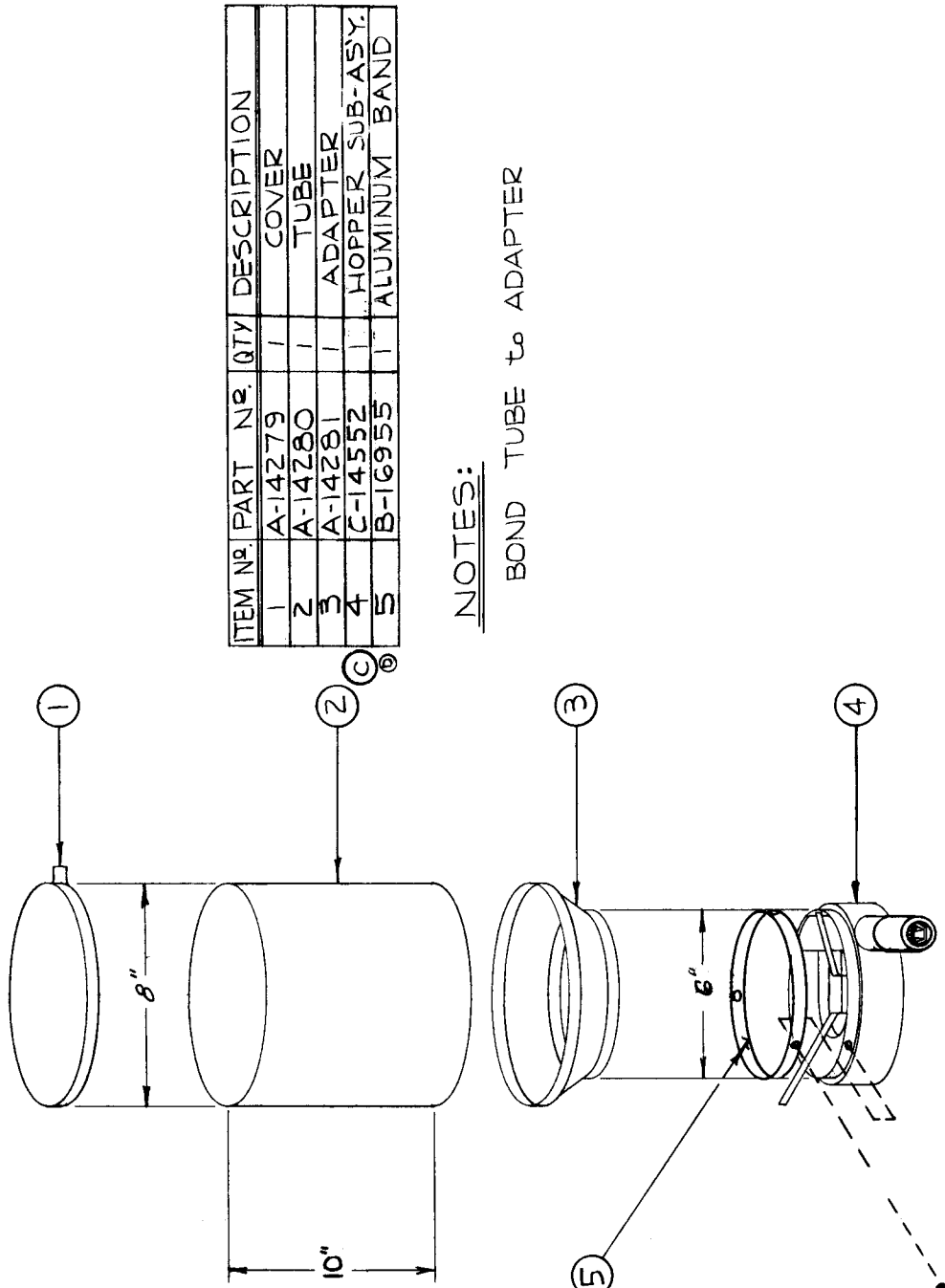
* SPECIFY MACHINE PRODUCT OPTIONS

** SPECIFY KEY NUMBER

New Style Tower Assembly CSV-400 Cup Beginning with Serial #6800



COFFEE HOPPER ASSEMBLY 400 CUP P/N 13623



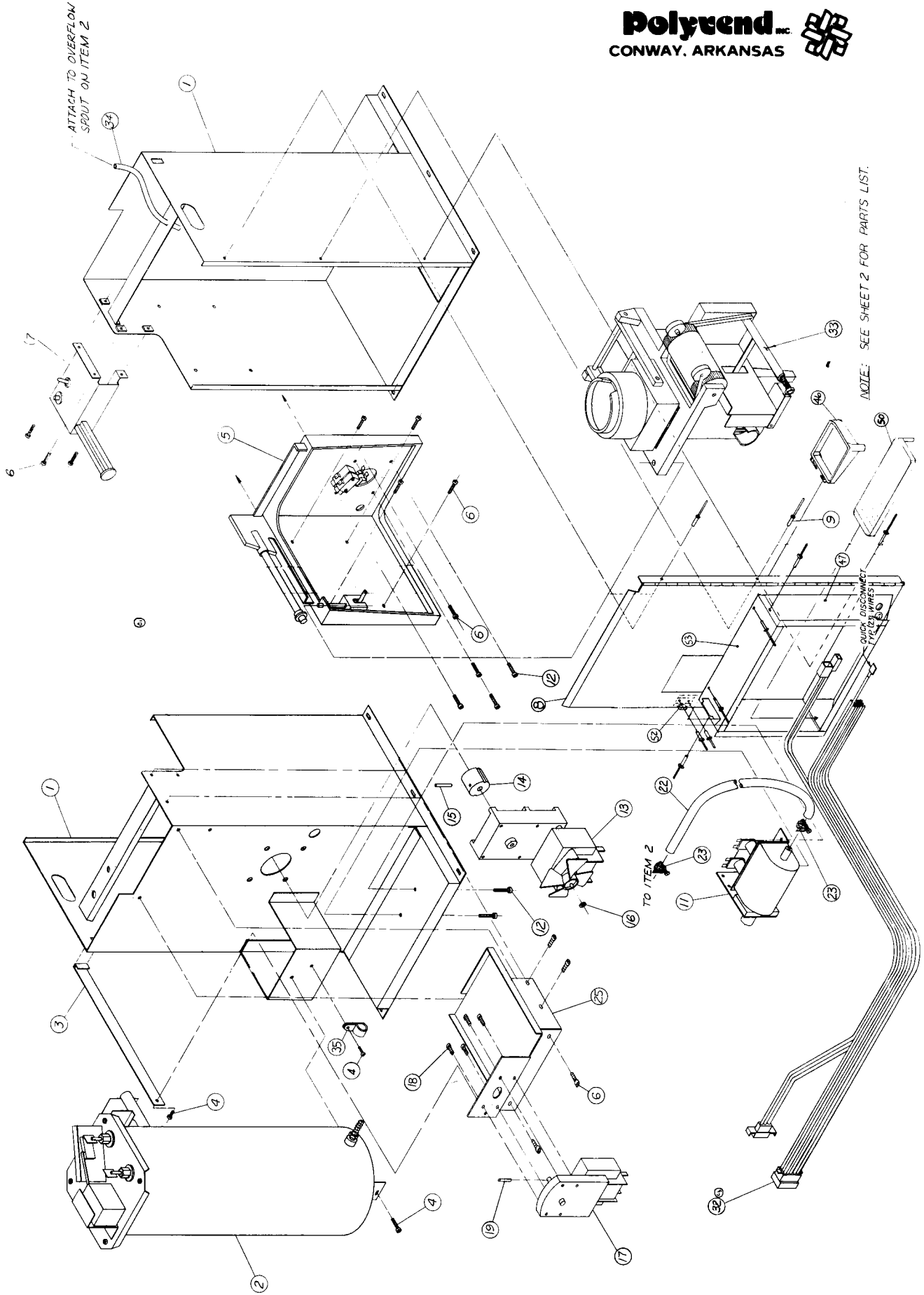
| ITEM N ^o . | PART N ^o . | QTY | DESCRIPTION |
|-----------------------|-----------------------|-----|-----------------|
| 1 | A-14279 | 1 | COVER |
| 2 | A-14280 | 1 | TUBE |
| 3 | A-14281 | 1 | ADAPTER |
| 4 | C-14552 | 1 | HOPPER SUB-ASY. |
| 5 | B-16955 | 1 | ALUMINUM BAND |

NOTES:

BOND TUBE to ADAPTER

MOUNTING SCREW(REF)
CORNELIUS N.P.
15-0918-000
(3-REQUIRED)

TOWER ASSEMBLY BASE 400 CUP



TOWER ASSEMBLY BASE

| ITEM | PART NO. | QTY. | DESCRIPTION | ITEM | PART NO. | QTY. | DESCRIPTION |
|------|----------|---------|-----------------------------|------|----------|---------|--------------------------|
| 1 | 14316 | 1 | TOWER W.A. - COFFEE | 11 | 4537 | 1 | VALVE - WATER INLET |
| 2 | 338 | 3.7 FT. | TAPE - GREY DUCT | 12 | 4226 | 6 | SCREW - MCH PAN #10 |
| 2 | 4474 | 1 | VALVE - WATER DRAIN | 13 | 11804 | 1 | MOTOR - BREWER |
| 2 | 11815-01 | 1 | TANK W.A. - HOT WATER | 14 | 11773 | 1 | SOCKET - MOTOR DRIVE |
| 2 | 11922 | 1 | DIFFUSER - WATER | 15 | 4507 | 1 | PIN - ROLL 1/8 X 1/4 |
| 2 | 4202 | 2 | WASHER - SPLIT #6 | 16 | 11448 | 1 | RING - SELF LOCK 187 |
| 2 | 4236 | 2 | SCREW - MCH PAN #6 | 17 | 11820 | 1 | MOTOR - PRODUCT DISP. |
| 2 | 4360 | 1 | THERMOSTAT - TANK ASY. | 18 | 4239 | 4 | SCREW - MCH PAN #8 |
| 2 | 4382 | 2 | WASHER - FLAT 1/2 | 19 | 4214 | 1 | PIN - ROLL 3/32 X 1 1/8 |
| 2 | 4423 | 1 | SWITCH - LEVER, WATER LEVEL | 21 | 4237 | 4 | SCREW - MCH TRS #6 |
| 2 | 11857-01 | 1 | LID W.A. - TANK | 22 | 11772-00 | 2.1 FT. | TUBE - BRAIDED 3/8 ID |
| 2 | 11920 | 1 | STABILIZER - PROBE | 23 | 4345 | 4 | CLAMP - HOSE 3/8 - 1/8 |
| 2 | 12019 | 1 | ELEMENT - HEATING 115 V | 24 | | | |
| 2 | 12042 | 1 | SWITCH - HEATER SAFETY | 25 | 14300 | 1 | BRKT W.A. - HOPPER |
| 2 | 12090 | 1 | FLOAT - WATER TANK | 26 | | | |
| 2 | 12151 | 1 | ROD - WATER FLOAT | 27 | | | |
| 2 | 12310 | 4 | NUT - COMPRESSION, 5/16 | 28 | | | |
| 2 | 12311 | 2 | FERRULE - 5/16 | 29 | | | |
| 2 | 12312 | 2 | UNION - HEATER ELEMENT | 30 | | | |
| 3 | 14311 | 1 | STRAP - TANK | 31 | | | |
| 4 | 12031 | 4 | SCREW - TP T RND #8 | 32 | 16968 | 1 | HARNES - TOWER |
| 5 | 2559 | 1 | RING - E, 5133 - 25 | 33 | 14305 | 1 | BREWER ASY. - COFFEE |
| 5 | 12034 | 2 | SCREW - MCH BND M3 | 34 | 11810 | 1.3 FT. | TUBE - BEVALINE 1/4 I.D. |
| 5 | 12043 | 2 | SWITCH - BREWER | 35 | 1186 | 1 | CLAMP - HARNES |
| 5 | 12294 | 5 | INSULATOR - SWITCH | 36 | | | |
| 5 | 12520 | 1 | FRAME - BREWER BRKT | 37 | 11768 | 1 | FITTING - BARB. |
| 5 | 12521 | 1 | PIN - BREWER LATCH | 37 | 11769 | 1 | FITTING - BARB. |
| 5 | 12522 | 1 | SPRING - LATCH PIN | 38 | 11711 | 1 | FITTING - BULKHEAD |
| 5 | 12523 | 1 | SLEEVE - POST | 39 | 1195 | 1 | NUT - HEX. JAM 5/8 - 18 |
| 5 | 12524 | 1 | SLEEVE - SHOULDER | 40 | 5343 | 1 | GASKET - TAPERED, BLACK |
| 5 | 12525 | 1 | CAP - POST | 41 | | | |
| 5 | 13261 | 2 | SCREW - TP 23 PAN #4 | 42 | 14284 | 1 | PAIL - WASTE |
| 6 | 4228 | 14 | SCREW - MCH PAN #10 | 43 | 12182 | 1 | COVER - COFFEE THROUGH |
| 7 | 990 | 1 | SWITCH - PUSHBUTTON | 44 | 4398 | 1 | TRAY - SPILL |
| 7 | 4425 | 1 | SWITCH - LEVER, TAP SAFETY | 45 | 4399 | 1 | TRAY - GRILL |
| 7 | 4455 | 8 | SCREW - MCH PAN #4 | 46 | 16322 | 1 | THROUGH - COFFEE |
| 7 | 4526 | 1 | WASHER - INT TH #10 | 47 | 16341 | 1 | STAND - CUP |
| 7 | 4527 | 8 | WASHER - INT TH #4 | 48 | 4943 | 1 | PAPER - FILTER |
| 7 | 11444 | 1 | SPOOL - FILTER DISP. | 49 | | | |
| 7 | 11794 | 8 | NUT - HEX #4-40 | 50 | 16323 | 1 | GRILL - CUP STAND |
| 7 | 11839 | 1 | BRKT - FILTER | 51 | 12392 | 1 | COVER - VALVE INLET |
| 7 | 12104 | 1 | SWITCH - TOGGLE | 52 | 16338 | 1 | CATCH - ROLLER |
| 8 | 16342 | 1 | DOOR W.A. - BREWER | 53 | 16339 | 1 | COVER W.A. - CUP STAND |
| 9 | 729 | 9 | RIVET - POP 125 D X 232 | | | | |



WIRING INSTRUCTIONS TO TOWER HARNESS - C-16968[Ⓢ]

