

**AUTOMATIC “C” SERIES
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instruction manual for

AUTOMATIC “C” SERIES

COFFEE

 **Automatic Products**
international, ltd.

75 WEST PLATO BLVD. • ST. PAUL, MINNESOTA 55107-2095

Part #460464

Form 3/91

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This document is available free of charge to our customers
www.automaticproducts.com

WARRANTY

The Automatic Products Company warrants this vendor, manufactured by it, to be free from defects in material or workmanship under normal use. Our obligation under this warranty is to the original purchaser only and is limited to making good at our factory any part or parts thereof which shall, within two (2) years after delivery of such product to the original purchaser, be returned to us or to our authorized dealer or distributor from whom purchased with all transportation charges prepaid to our factory, and which our examination shall disclose to our satisfaction to have been defective.

This warranty does not extend: 1: To any of our products which have been subjected to misuse, neglect, accident, incorrect wiring, improper installation, or to use in violation of instructions furnished by us; 2: To units which have been repaired or altered outside of our factory; 3: To cases where the serial number of the product has been removed, defaced or changed; 4: To electrical components, lamps, tubes or circuit breakers; 5: To accessories not of our own manufacture used with our products. Any part manufactured by Automatic Products Company, found by us to be defective within the

warranty period will be exchanged by Automatic Products Company or their authorized dealer or distributor without charge to the owner.

This warranty applied only to our products which are used within the United States of America, and is in lieu of all warranties expressed or implied, including, but not limited to implied warranties of merchantability or fitness for a particular purpose, and no representative or person is authorized to assume for us any other liability in connection with the sale of our products.

The Automatic Products Company reserves the right to make any changes or improvements in its products without notice and without obligation, and without being required to make corresponding changes or improvements in products theretofore manufactured or sold.

AUTOMATIC PRODUCTS COMPANY
75 West Plato Boulevard
St. Paul, Minnesota 55107

The "C" Series vending machines have been designed from superior engineering and quality throughout for the small-site market. The modular units will complement nearly any company's break area. The complete system takes less than 21 square feet of space.

It is recommended that this service manual be thoroughly read and instructions followed pertaining to all loading; servicing, parts etc. to achieve the most economical trouble-free operation of the "C" series vendor. (For indoor use only).

Should you have questions pertaining to this manual or the vendor, please contact your local Automatic Products Company distributor or write directly to:

**Service Manager
Automatic Products Company
75 West Plato Boulevard
St. Paul, Minnesota 55107**

The Coffee machine is assembled and packed so that a minimum amount of time is necessary for preparation to install it on location.

1. **SHIPPING DAMAGE:** Thoroughly inspect the exterior of the carton for damages which may have occurred during shipment.
2. **IF SHIPPING DAMAGE IS NOTICED,** save the carton, notify the delivering carrier immediately and follow their instructions on how to file a damage claim.

3. **REMOVE BOTH SHIPPING BANDS** and lift off the carton. Remove all packing tape from the various areas of the machine.
4. **WARRANTY:** The warranty card, located in the service envelope, must be filled out in full and mailed at once to insure coverage.

PLEASE FOLLOW IN SEQUENCE EACH STEP TO INSURE SAFETY TO BOTH EQUIPMENT & PERSON

installation

1. **LEVELING THE MACHINE** on location is important for the proper function of the machine. The four leg levelers are used to level the machine.

This machine is designed as a counter top vendor. For safety purposes the vendor should always be attached to the counter or placed and attached to the base cabinet that is built by Automatic Products Company. Hardware and instructions are provided within each cabinet.

After positioning the machine on the base cabinet or table top, level the machine in front and rear and right to left directions.

If a base cabinet is not being used the person installing the vendor should mount the vendor to the counter to secure it. Hardware is provided with each machine along with a sanitation rubber seal and instructions.

In order to comply with electrical safety regulations and Underwriters Laboratories requirements, all electrical equipment must be properly polarized and grounded. The machine is wired so that it is properly polarized in accordance with the electrical code. If the wall outlet is wired and grounded properly, then the vendor will connect properly.

Shown in View A & B are two properly grounded and polarized wall outlets. One is a three wire grounding type wall outlet (see View A) and one is a two wire wall outlet (see View B) with an adapter in place. To make a polarity check use a 115 volt neon test lamp as shown or a volt ohm meter. The hot side of the circuit should always be counterclockwise from the ground terminal (which should be at the bottom).

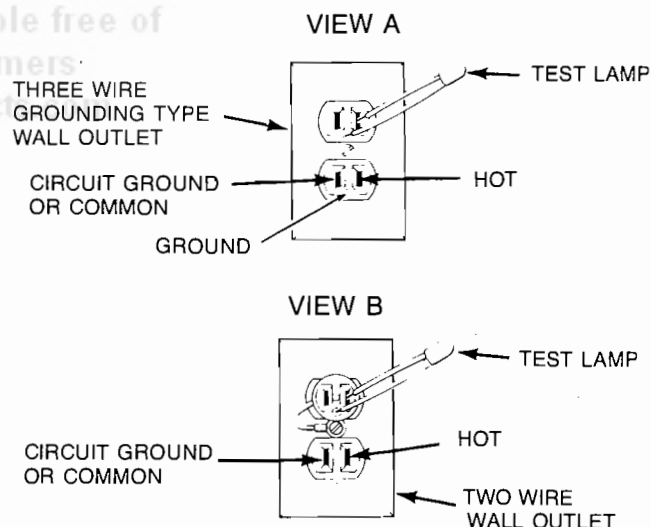
Should the polarity at the wall outlet show any way other than that shown below, the outlet should be rewired.

2. WATER SYSTEM

The installation site must have a drinking water supply line that can be coupled permanently to the vendor. The water line should be one-half inch diameter minimum and be equipped with a manual shut-off valve no more than six feet from the vendor. Water pressure should be 5 psi minimum to 90 psi maximum. If water pressure exceeds 90 psi, install a pressure regulator in the line.

Install the water filter if it is provided. (optional equipment).

Connect the vendor to the water supply using 3/8 inch O.D. soft copper tubing to allow one complete coil approximately three feet in diameter between the water supply line and vendor to allow movement of the vendor for cleaning and to reduce noise due to water pressure surges. Turn water on to the machine and check for water leaks.



3. MAIN POWER CORD

An electrical outlet is needed and must be rated 120 volts, 60 Hz, single phase and capable of delivering 15 amperes within six feet of the vendor. Plug the 3 pin grounded main power cord which is taped in the back of the coffee machine into a properly grounded outlet.

installation

4. SLAVE COFFEE

If the coffee machine is a "slave" unit (contains no changer or selection buttons of its own) a harness provided in this machine will have to be added into the snack machine. This harness will plug into the top right corner of the logic board (J7) in the snack machine and extends to the back of the snack cabinet for the slave coffee machine hook-up.

5. PRICE & SELECTION LABELS

A sheet of price tabs are located in the service envelope. The cup dispenser mechanism will have to be removed for installation of the labels. The selections labels are already installed in each selection button assembly. Installing price tabs or changing selection labels, the cup dispensing mechanism (optional) will have to be removed.

6. LOADING

The coffee machines will vary on the "optional" canisters. Fill each canister with the proper product.

The cup drop dispenser is also an option. Open the cup dispenser door and load it with 7 oz. cups filling the middle section of the cup dispenser first. Load the right and left stacks following the decal instructions.

7. CHANGER

The "C" Series Free Standing Coffee Machine will need a changer. Use only those changers specified on the label where the changer will be mounted. The changer should be mounted on the door below the upper coin chute assembly on the three shoulder rivets and secured with the screw that is provided.

8. PRICE SETTING

Turn power onto the machine by using the cheat interlock tool used in export machines only or by pulling the door interlock switch out, Page 35 Item 3. To set up prices in the machine you will have to first press the service mode button once on the control board, (See Figure 1) and use the selection panel buttons for programming.

- A. Press the selection letter (D) and the number (1).
The price for that selection will be lit on the control board.
- B. To **increase** that selection price - press #8. The L.E.D. will then increase in increments of (\$.05).
- C. To **decrease** that selection price - press #7. The L.E.D. will then decrease in increments of (\$.05).
- D. To **increase** that selection price - press #8. The L.E.D. will then increase in increments of (1). **Export only.**
- E. To **decrease** that selection price press #7. The L.E.D. will then decrease in increments of (1). **Export only.**

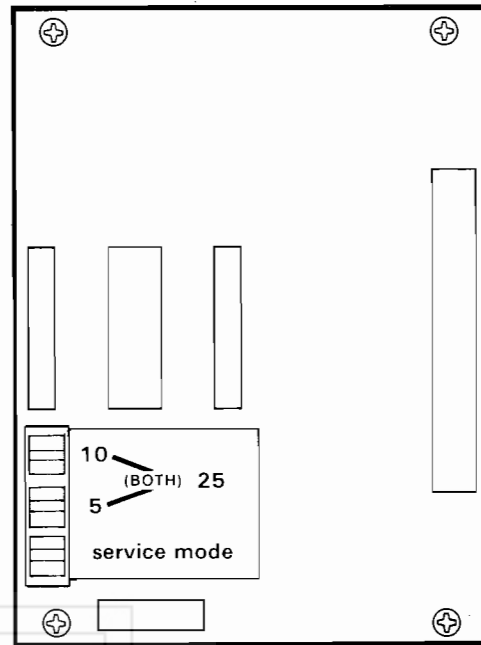


Figure 1. MODE SWITCHES

- F. To **increase** that selection price - press #6. The L.E.D. will then increase in increments of (10). **Export only.**
 - G. To **decrease** that selection price - press #5. The L.E.D. will then decrease in increments of (10). **Export only.**
 - H. After pricing the selections press the mode switch on the control board a second time to return the machine to the operate condition. NOTE: after a 20-30 second delay it will automatically go into the operate condition.
- ## 9. PRICE CHECKING
- Price checking is done through the selection panel in conjunction with the mode switch button on the control board. The L.E.D. on the selection panel will always display a ".00" credit.
- A. To check prices for each selection simply press the selection letter (which will appear on the L.E.D. panel) and then press the number. The price for this selection will also appear on the display.
- ## 10. PROGRAMMING — START & DURATION TIMES
- To program or change the start & duration times you will have to use the #1, #2, #3 selection buttons. First, push the service mode switch on the control board. (See Figure 1). Then push selection #1 and channel "0" will show up on the L.E.D. display. Press the selection #2 and the start time of 25.0 for channel "0" will show up

on the L.E.D. display. This start time indicates when the designated channel begins functioning. The start time is rarely changed. (If necessary, the start time may be changed using selection #7 to go down or selection #8 to go up). Press the selection #3 and the duration time of channel "0" will show up on the L.E.D. display (.1). Duration times are frequently changed due to the fact variations of gram throws of product may vary as in cream, sugar, etc. Duration time can be changed using #7 to increase or #8 to decrease time. Continue to set all the channels accordingly to the specific charts sent with each machine.

11. WATER TANK - HEATER THERMOSTAT

The water tank contains an adjustable heater thermostat Page #21, Item #33, which by turning an adjustable screw, can increase (turn to the right) or decrease (turn to the left) the temperature. The normal setting should be approximately 195 degrees.

12. CARAFE SWITCH

Each coffee machine has a carafe switch which is located on the door to the left of the cup station door. This carafe switch when used will enable the machine to vend more than one cup. Turning the key to its horizontal position will disable the light sensors, cup drop mechanism, and put the machine on a "free vend" condition. Insert a coffee pot or jug into the cup station and select desired amount of cups by pressing the selection button. **NOTE:** make sure the coffee pot or jug will hold the right amount of cups selected.

Turning the key back to the vertical position while dispensing coffee will stop at the completion of that vend cycle. (If another pot or jug is to be filled the key must be turned on and the desired amount of cups selected again). The machine now will be back in the normal vend operation where money must be inserted.

13. LIGHT SENSORS & CUP INDICATOR LIGHT

When a selection is made the red indicator light on the cup well trim will light until either a cup is dropped or placed in the cup well. When a cup is in position it will break the beam from the sensors, and the red indicator light will then go out. The machine will not start a vend cycle unless the sensor beam is broken. (NOTE: Use of the carafe switch will disable the sensors).

14. COMMODITY

Containers for the dry product required to make the beverages which the hot beverages machine dispenses are all made of rugged translucent plastic. They are designed to dispense products on a first in - first out basis in order to insure a fresh product at all times.

The augering system used to dispense the products runs in reinforced nylon bearings to assure long trouble-free life. The dispensing end of the canister may have a louvered spout. These louvers control the

accuracy of discharge so that proper mixing is assured for each drink.

The translucent materials permit the service person to estimate the contents of the canister without having to open the canister. Commodity levels may be marked on the outside of the canister so that the service person can easily refill them to a predetermined level. This type of control will reduce the product waste and assure commodity freshness by the elimination of overfilling.

15. THE STEAM EXHAUST CONTROL SYSTEM

Steam from the hot water needed to make the beverages is controlled by this system. Uncontrolled steam in a vending machine will create severe problems through caking and hardening of the dry products. Such a condition will prevent proper dispensing.

By moving low velocity air, in high volume through the areas where steam is generated, the steam is removed before it can reach the dry product dispensers. The air is moved by a squirrel cage blower, and discharges outside the machine cabinet.

The steam is generated whenever the machine is activated to dispense a beverage. The hot water used to make coffee passes through the main trough as the dry products are dropped. Immediately adjacent to the trough is a vacuum duct which is connected to the blower by a reinforced plastic duct. Directly over the trough is the steam deflector and commodity chute. Lightener and sugar products are dropped into the moving liquid in the trough directly from their respective canisters. The design of this deflector is such that a constant stream of dry air is pulled down through the commodity chutes of the deflector and actually helps delivery of the product to the water. At the same time this deflector effectively prevents the steam vapor from rising in the area of the commodity canister outlets.

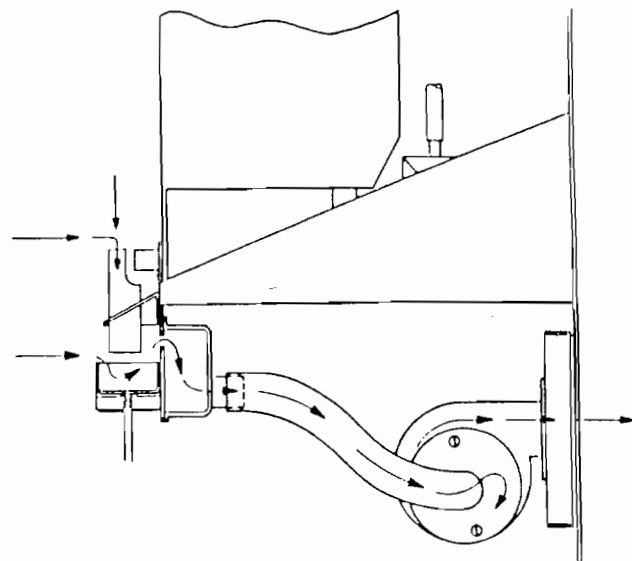
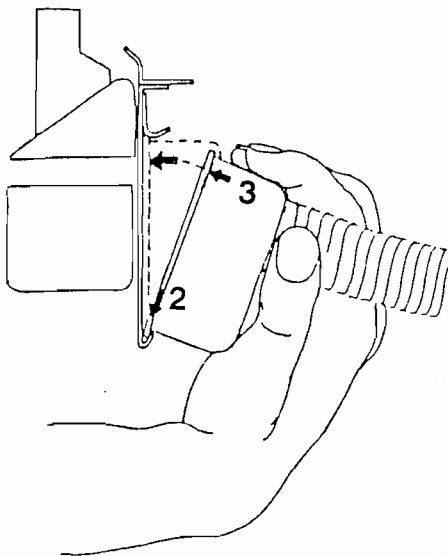


Figure 2. EXHAUST FLOW

STEAM EXHAUST FLOW - See Figure 2

These parts, the trough, the steam deflector, the vacuum duct, its channel to the blower, are all easily removed for cleaning. Cleaning is easily accomplished by rinsing in hot water. The trough itself, which carries the beverages, should be sanitized according to the current industry practices.



1. To remove the steam exhaust duct, pull the top down away from the front plate of the canister rack and lift from the bottom flange.
2. To install the steam exhaust duct place the bottom lip of the duct on the bottom flange of the canister rack, behind the front plate.
3. Rotate the top of the exhaust duct toward the back of the front plate of the rack until it snaps securely in place.
4. Looking at the front of the rack, slide the duct left or right until the slots in the front plate properly line up with the ends of the exhaust duct.

16. THE HUMIDITY BAR (Domestic Only)

The humidity bar is a vital part of the commodity system. It is electrically heated and by providing a slightly higher temperature at the canister outlet ports will prevent moisture from being absorbed by the dry products, in areas where high humidity is present. If the machine is operated in a humid atmosphere without the humidity bar in operation, it is likely that the dry products will cake and not dispense properly.

The tabs on the humidity bar fit into their respective slots in the commodity rack between the canisters. The humidity bar plugs into a harness on the left side of the cabinet.

17. CHOCOLATE AND SOUP HOMOGENIZER

The chocolate beverage is made more attractive and

palatable to the user by whipping it as it is delivered. There is a separate mixing system for chocolate. It does not pass through the same mixing system as coffee or the other beverages. As soon as the water for chocolate is released the whipper motor, which runs at high speed, starts. The chocolate/soup powder is dropped from its canister directly into the water in the homogenizer and then to the cup.

The homogenizer parts are all of a food approved plastic material, highly resistant to mechanical damage. They are easily removed, without tools, for sanitization. The assembly is held together by spring clips located on the front of motor assembly.

18. THE CANISTER RACK

The support for the entire dry product commodity system is of open construction design, with a minimum of horizontal surfaces to catch dust and spillage. The motors which drive the canister augers are all located behind and under the steel cover. Each motor may be removed, if necessary, by loosening four screws and lifting it out. Water tubes, to direct the water to the trough and homogenizer are stainless steel and permanently attached to assure proper alignment.

19. WATER SYSTEM

The water system is a time proven open gravity system used successfully for many years. The temperature control will maintain the water temperature at a near boiling point (205° max setting).

20. WATER INTAKE SYSTEM

There are two possible configurations in the intake system. The standard method is a straight tube with a shut-off valve between the inlet fitting and the water inlet valve. The optional method provides for a water filter to be installed as a part of the original equipment. The filter housing includes the shut-off valve.

The water inlet valve provides a sure method for controlling the intake of water into the water tank. This valve also functions as a safety overflow valve. If the safety overflow switch for the liquid waste is open the valve will not allow water into the water tank.

21. THE WATER TANK - See Figure 3

The water tank is constructed of stainless steel and holds approximately five gallons of water. It has a removable lid that is sealed at the top of the tank with a gasket. The tank has one 1200 Watt heater that is on a priority system controlled by the thermostat mounted on the base of the tank.

22. THE THERMOSTATIC CONTROL SYSTEM

Coffee extraction requires hot water as close to boiling as possible. The thermostatic control system has

been time proven as a very dependable, yet simple control method.

23. LOW WATER CONTROL

The low water switch (heater safety) is connected in series with the thermostats. If a low water level condition occurs the float switch will depress the arm of the low water switch and prevents the heaters from turning on.

24. WATER OUTLET SYSTEM

Four valves comprise the water outlet system. They are: the Coffee Water Outlet Valve, the Chocolate Water Outlet Valve, the Tea Water Outlet Valve, and the Soup Water Outlet Valve. Each of these valves will release water into its particular segment of the commodity troughs, depending on the beverage selected.

25. THE COFFEE WATER OUTLET VALVE

This valve is mounted on the face of the water tank directly behind the brewer. The valve outlet in the tank is contained within the stainless steel tank. This valve is operated by channel 3 of program setting and the switch assembly mounted on the brewer.

26. TEA, SOUP AND CHOCOLATE VALVES

These valves are mounted on the left hand side of the water tank. One, two, or three valves are provided because each beverage may require a different amount of water to brew the beverage properly, and each beverage is made and released from the machine through its own channel to avoid taste contamination. Each valve is controlled by a separate time channel on the control board. Each of these valves is connected to the commodity rack by a flexible tube.

27. RINSE HOSE

A convenience feature is the rinse hose. This is provided for maintaining proper machine sanitation. It is long enough to reach each part of the machine which will normally require cleaning. To avoid any possibility of this hose leaking, a storage bracket has been provided, which holds the outlet of the hose above the normal water level in the tank.

28. OVERFLOW

Mounted on the upper left hand side of the water tank is the overflow fitting. Should the water level in the tank rise too high, regardless of the reason, the excess will run out of the fitting, through the overflow tubing and directly to the liquid waste bucket.

29. OVERFLOW SAFETY BOX

If the overflow condition continues the level in the waste pail will rise and eventually raise the float of the safety overflow switch shutting the water inlet valves

and placing the machine on a "soldout" status. When on "sold out" any coins inserted will be returned.

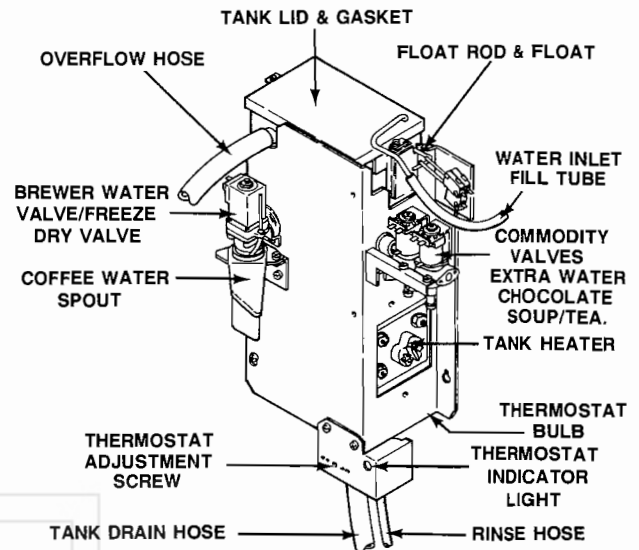


Figure 3. WATER TANK

installation

30. THE BREWER

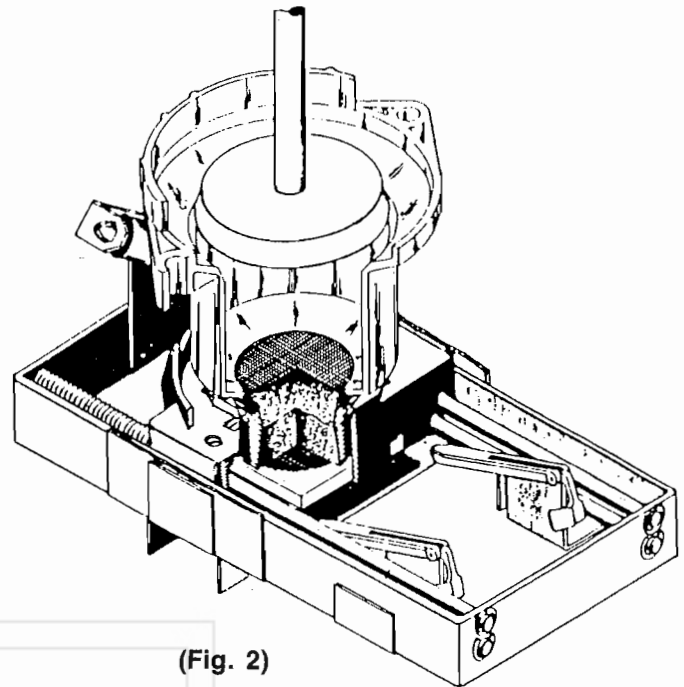
The heart of the A.P. hot drink machine is the open cylinder brewer. It has been "time proven" and "experience improved". It is simple, lightweight, easy to clean and easy to service.

HOW THE BREWER WORKS

The word "front" used in this description refers to the part of the brewer nearest the observer, standing before the open cabinet.

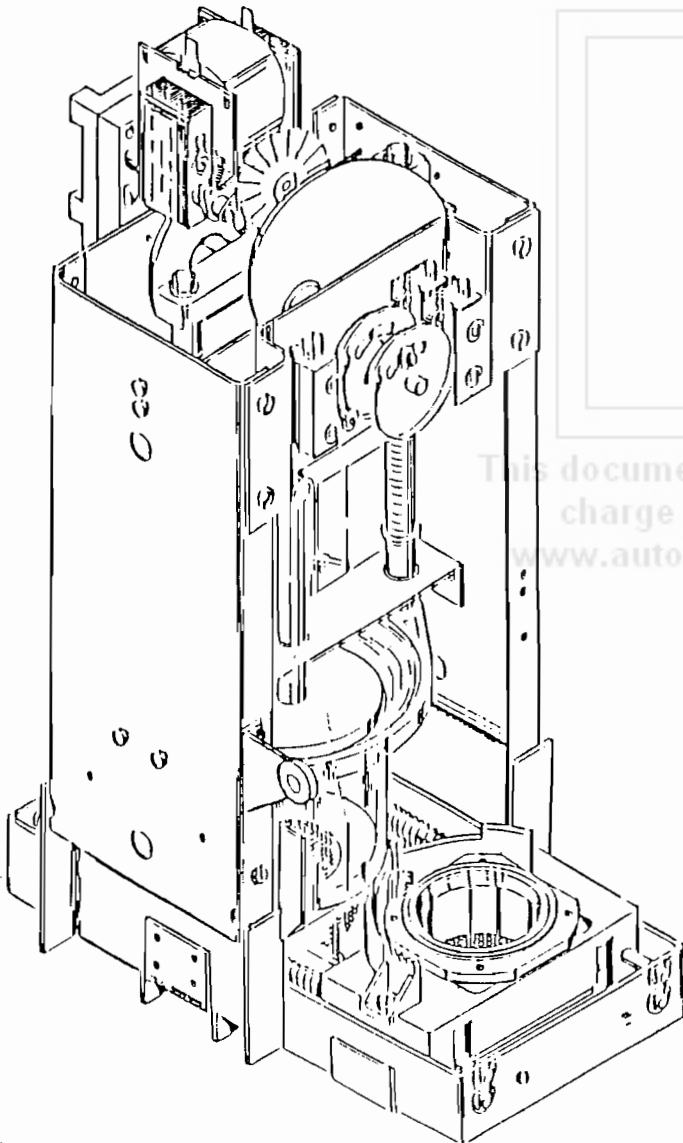
The brewer may be adjusted to stop at any point in the cycle, but the ready-to vend position we recommend are as follows: See Figure 1.

The brewer is stopped with the carriage and brew chamber just in front of the brewer assembly. When the coffee canister assembly is closed, the coffee chute should be directly above the grounds brew chamber.

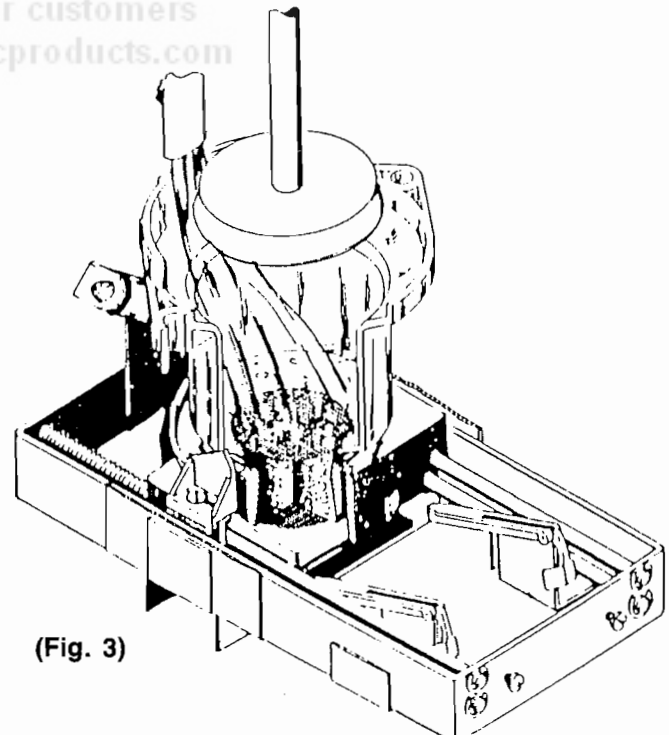


(Fig. 2)

When coffee has been selected and button is pressed and cup has dropped, the coffee grounds will dump immediately into grounds chamber. Approximately 2 seconds later the grounds chamber carriage will go back under brew cylinder and brew cylinder will seat itself on the grounds chamber (Figure 2). The cylinder is held against the brew chamber seal by the springs on the cylinder support rods. Water should start about 1 second later into the cylinder (figure 3). [Note: Water amount is adjusted by 1.) Timing of brewer and water channel in program setting on control board on door or 2.) opening of front cam switch located at top of brewer.]

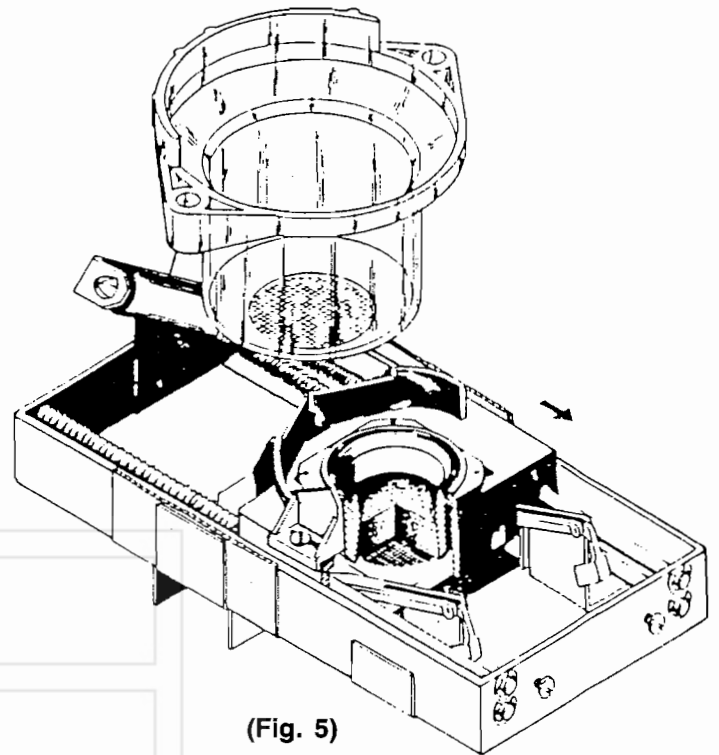


(Fig. 1)

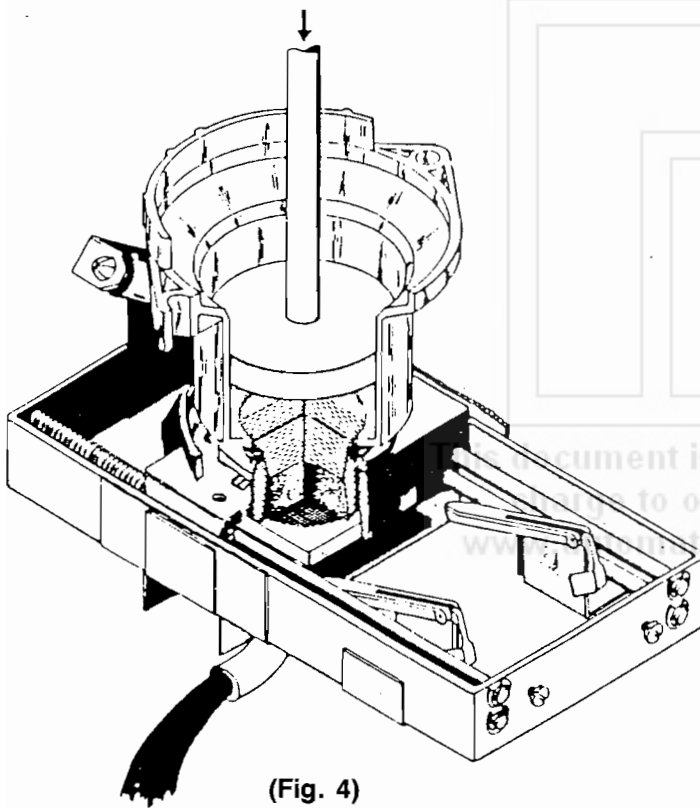


(Fig. 3)

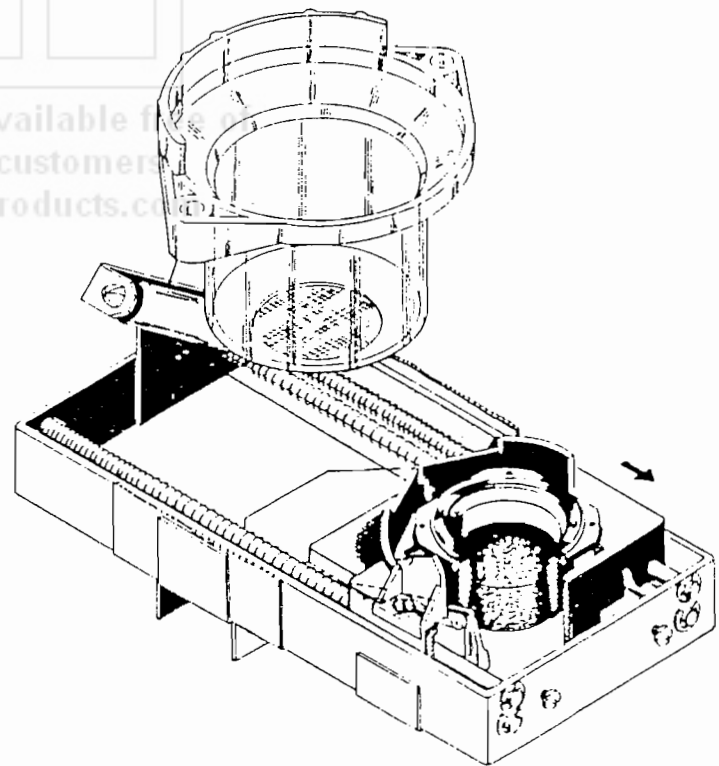
The water flows into the cylinder, down through the stainless steel screen, and into the coffee-filled brew chamber (Fig. 4). The screen in the bottom of the cylinder prevents the coffee grounds from floating up into the cylinder. As the cycle continues, the piston is moved down into the cylinder by a cam on the main shaft. As the piston moves into the cylinder, the cylinder springs are compressed continuously farther, increasing the pressure of the cylinder on the brew chamber seal. Air, trapped between the piston and the water in the cylinder, is quickly heated by the hot water and begins to expand. The downward motion of the piston, plus pressure of the expanding air, forces the water through the coffee grounds in the brew chamber and out into the delivery funnel. The heated, compressed air follows the water through the grounds, forcing the remaining water through the grounds.



(Fig. 5)



(Fig. 4)

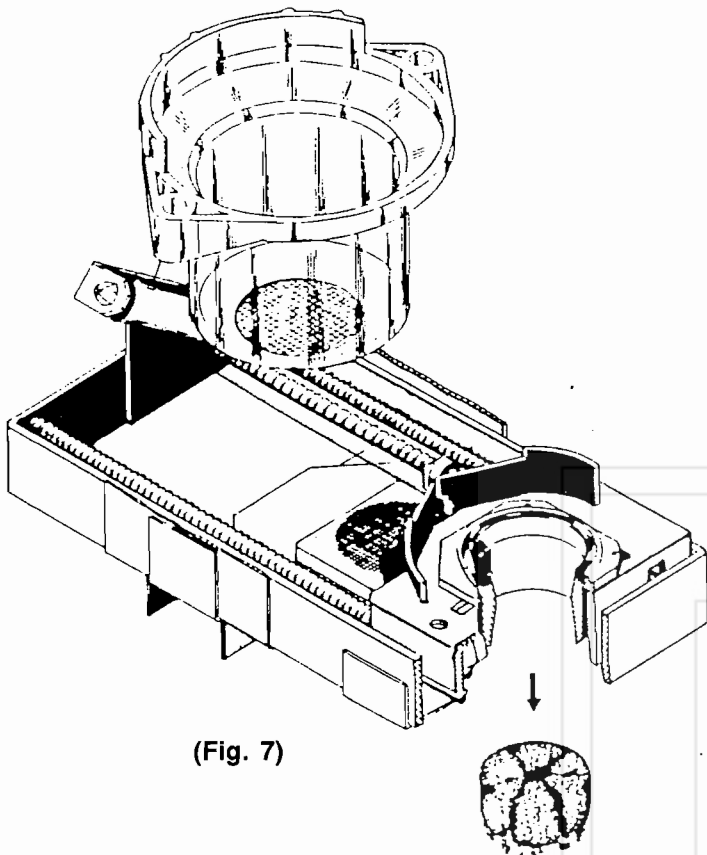


(Fig. 6)

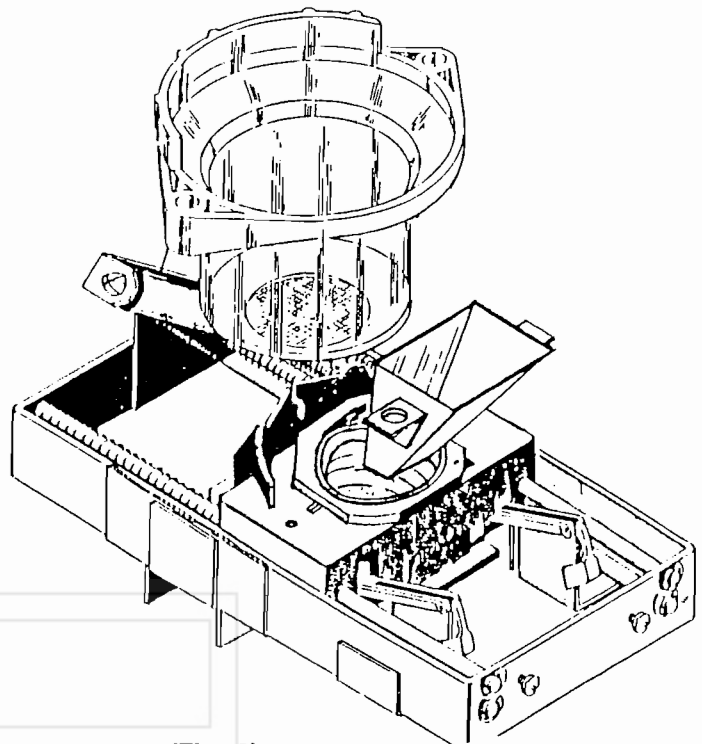
The slack or looseness is taken out of the cable, and the piston and cylinder are raised far enough to allow the brew carriage to pass under the cylinder (Fig. 5). The cable is then unwound, controlling the forward motion of the brew carriage, which is moved forward by the carriage springs. As the brew carriage passes over the two white pawls in the base assembly, the ears on the brew chamber lift the brew chamber upward against the springs which secure it to the carriage (Fig. 6).

installation

After the grounds are expelled (figure 7), the cable begins to retract the brew carriage to the original position with the brew grounds chamber directly under the stainless chute on the coffee canister assembly (figure 8).



(Fig. 7)



(Fig. 8)

31. BREWER ADJUSTMENTS

The brewer has three principle adjustments: They are, 1) the cut off, or stopping position; 2) the water starting point and quantity per brew; 3) the cable adjustment. The upper front channel of the brewer has a shaft projecting forward which holds the cam assemblies. Each of these cams has a switch associated with it. The switch nearest the channel controls the cut-off point of the brewer. The outer switch regulates the starting point and the amount of water released for brewing each cup.

Each cam assembly has two sections. The main section is attached to a hub containing set screws, which is secured to the shaft. The adjustable section rotates around the hub and is secured to the main section by a hex-head slotted screw. The cams are cut so that it is possible to change the low section from full closed to open about 180°.

32. THE CUT OFF CAM

This is the cam which determines the stopping point of the brewer. It is adjusted so that the roller of its switch drops into the valley at the precise point the brewer is to stop. The adjustable section of the cam is set so that it will raise the switch roller after the brew

motor has turned the shaft several degrees. The brewer motor is started by a starting voltage controlled by channel 0 (Brew Motor - Start Time) and runs on this voltage until the cut off switch is closed by the high side of the cam which raises the roller of the switch. The brewer will continue to run on its switch until the roller drops into the valley of the cut off cam (approximately 25 seconds).

33. THE WATER CAM AND SWITCH

The front switch, mounted on the right hand side of the brewer front channel, in combination with the front cam, determines the starting point, along with channel 3, of the water dispensed into the cylinder, and also the amount of water dispensed to make a single cup of coffee. The cam should be adjusted so that the water switch roller drops into the valley of the cam, slightly before or precisely at the moment the cylinder clamps down on the brew chamber seal. The adjustable section of the cam should be set to release only the amount of water needed to brew one cup of coffee. This adjustable section of the cam should be set to release only the amount of water needed to brew one cup of coffee. This adjustment can best be made by actually brewing a cup of coffee and measuring the volume of the finished drink delivered into the cup. The water flow from the valve will be stopped as soon as the water switch roller is raised enough by the high portion of the cam to operate the switch. To increase the amount of water dispensed, the length of the cam's valley must be increased, so the brewer water valve is open for a longer time.

The voltage for starting the brewer motor and for the water switch is controlled by channel three (Brewer Motor & Water). The start time applies the voltage to start the motor and applies the voltage to the switch. The duration time allows how much water is dumped into the brew cylinder.

34. THE CARRIAGE CABLE ADJUSTMENT

The horizontal movement of the carriage is caused by the springs in the base assembly. The action of the springs is controlled by the brew carriage cable assembly. The cable is wrapped on an outer spool and is wound and unwound to move the carriage in synchronization, with the other movements of the brewer. The cable spool is controlled by the rear-most cam in the main cam shaft assembly. The configuration of the cam determines when the cable is reeled in and when it is payed out.

When the cylinder is down on the brew carriage the cable is slack. Just as the cylinder begins to rise the cable assembly tightens, to prevent the brew carriage from jumping forward as the cylinder clears the carriage. As soon as the cylinder is high enough to clear the carriage, the cable is payed out and the carriage moves forward to dump its grounds. After the grounds have been dumped, the cable again winds on the outer spool and pulls the carriage back to the brewer stopping point (See Figure 8).

The cable is secured to the outer spool of the spool assembly with a cotter pin. The inner section or hub is secured to a shaft and gear assembly. The gear is rotated by a pivoting gear segment through the motion of a cam on the welded cam shaft assembly. The outside surface of the hub has teeth which will engage similar teeth on the inside circumference of the spool. When the two parts are assembled, they are secured by a screw and washer which prevents them from becoming disengaged.

The proper adjustment of the cable is as follows:

Cycle the brewer and as the brew carriage assembly is being pulled back by the cable, jog the brewer by using the toggle switch located on the main electrical box switch on top of brewer support brkt. noted as (cycle). When the cylinder starts down, the carriage will be slightly behind the cylinder. As the carriage moves forward, the bottom outside edge of the cylinder should be approximately 1/16" to 1/32" above the seal ring of the brew chamber. The cable should now be free and not restraining the carriage. The carriage is now being guided by the outside of the cylinder. The cycle will now continue and the cylinder will continue to move down contacting the seal of the brew chamber as the cable goes slack.

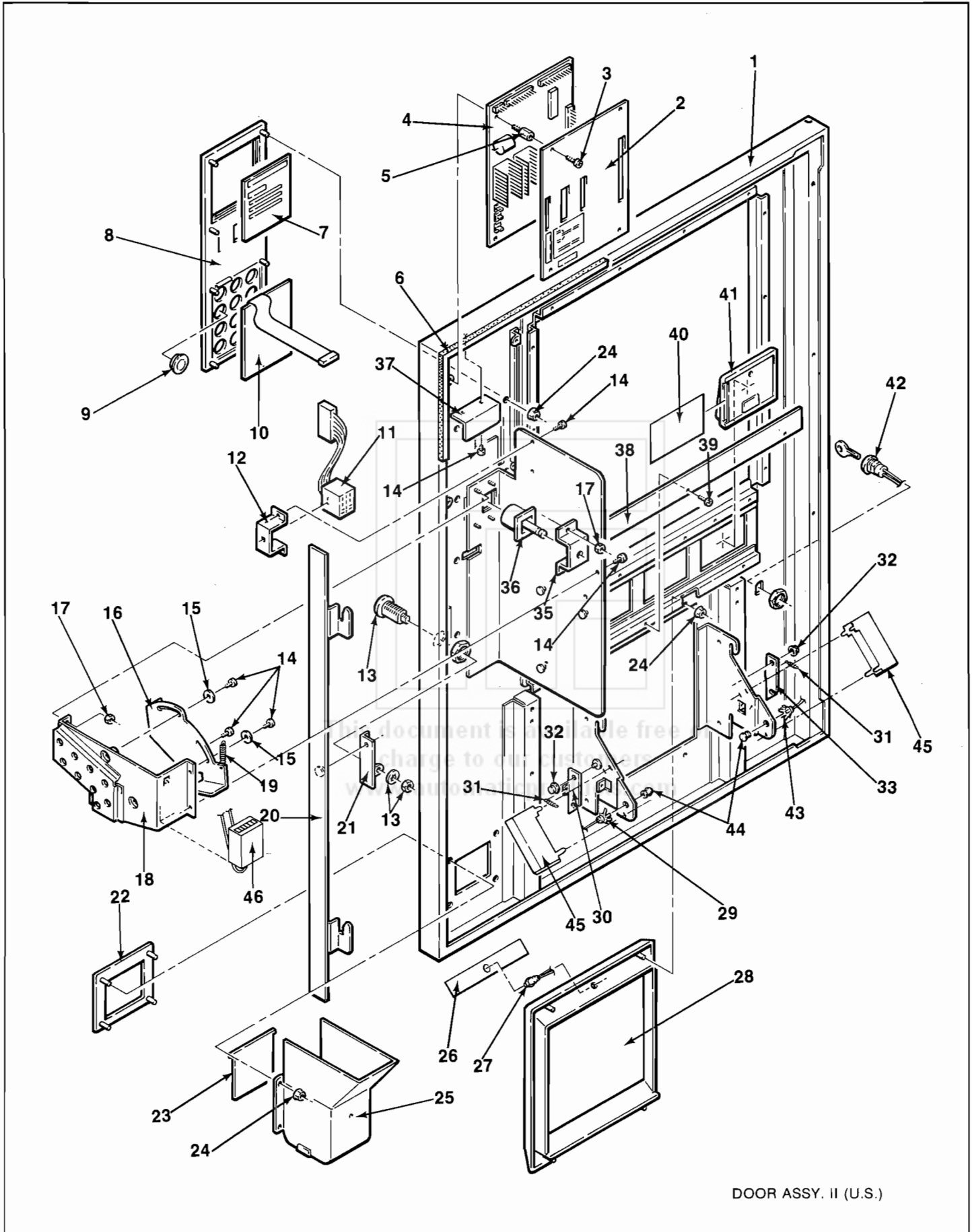
If adjustment is required it is suggested that a pencil mark be made across the two plastic parts of the cable

spool assembly. Remove the screw and washer and rotate the outer spool one tooth at a time and recycle the brewer. When correct timing is obtained replace screw and washer.

Operate the brewer through a full cycle and observe that (1) the cable goes slightly slack just before the cylinder contacts the brew chamber seal, and (2) the cable is not too slack that it will allow the brew carriage to stop under the outer edge of the cylinder preventing it from sealing properly.

available free of
our customers
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door assembly



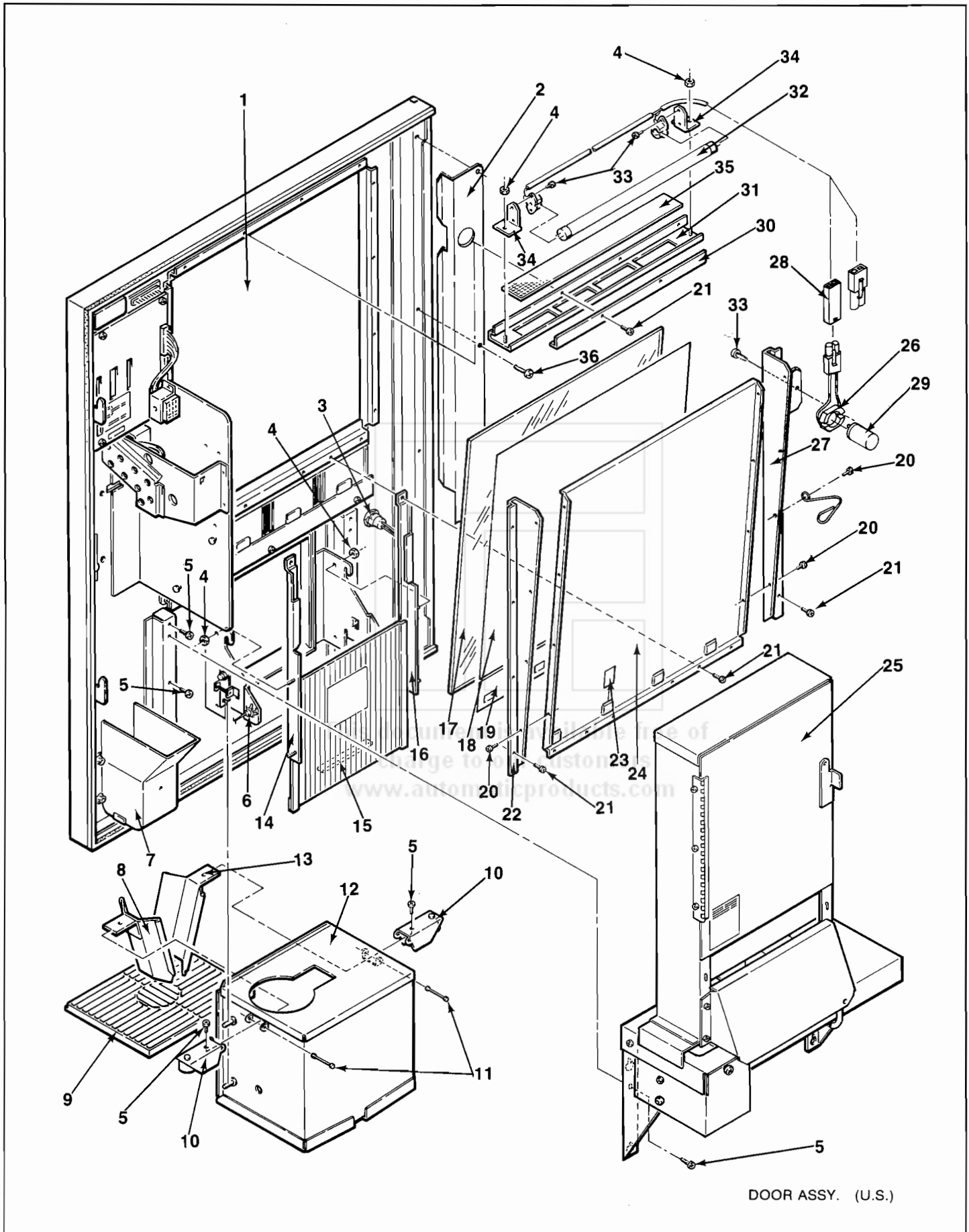
DOOR ASSY. II (U.S.)

Item No.	Part No.	Description
1	600535	Door Only. Coffee With A Changer. Specify Color.
	600535-1	Door Only. Coffee <u>Without</u> A Changer. Specify Color.
2	201641	Control Board Cover.
3	276-6R4	Screw Pan Hd. Phillips Self Tap (6-32 x 1/4).
4	360124	Control Board.
5	300182	Control Board Spacer.
6	460041-1	Adhesive Foam.
7	440316	Instruction Glass.
8	440291	Selector Trim Only.
9	440304	Selector Button.
10	750130	Selector Switch Panel With Plate.
11	680341	Harness, Changer.
12	201636	Changer Socket Bracket. (US only).
13	420020	Door Lock w/2 Keys.
	420020-1	Door Lock w/1 Key.
	420020-2	Door Lock Only.
14	276-8R6	Screw, Pan Hd. Phillips Self Tap (8-32 x 3/8).
15	420010-9	Washer.
16	201640	Rejector Lever.
17	404-8	Hex Nut (8-32).
18	660374	Assembly Complete. Door Coin Chute.
19	400034	Spring.
20	600572	Door Locking Bar.

Item No.	Part No.	Description
21	640173	Assembly, Lock Cam.
22	440296	Trim, Coin Cup.
23	201156	Door, Coin Cup.
24	18443	Palnut (1/4).
25	600474	Coin Cup.
26	460449	Cup Bezel Decal.
27	380267	Cup Needed Indicator Light.
28	440329	Cup Well Bezel.
29	380268-2	Cup Present Sensor. Photo.
30	33820	Cup Well Catch. Left Side.
31	09023	Spring, Cup Well.
32	420217	Fastner, Washer Cap.
33	33820-1	Cup Well Catch. Right Side.
35	201634	Coin Return Button Support.
36	440289	Coin Return Button.
37	201888	Door Switch Striker.
38	201873	Selector Button Retainer.
39	200-6R6	Screw Rd. Hd. Phillips Type AB (6-32 x 3/8).
40		See Page 49 For Individual Labels.
41	660369-1	Assembly Selector Button.
42	420243	Carafe Switch With Nut and Key.
	420192-1	Key Only.
43	380268-1	Cup Present Sensor. (L.E.D.)
44	380268	Cup Present Sensor. (Lense).
45	202134	Cover, Cup Sensor.
46	680476	Optinal - Cash Counter

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door assembly

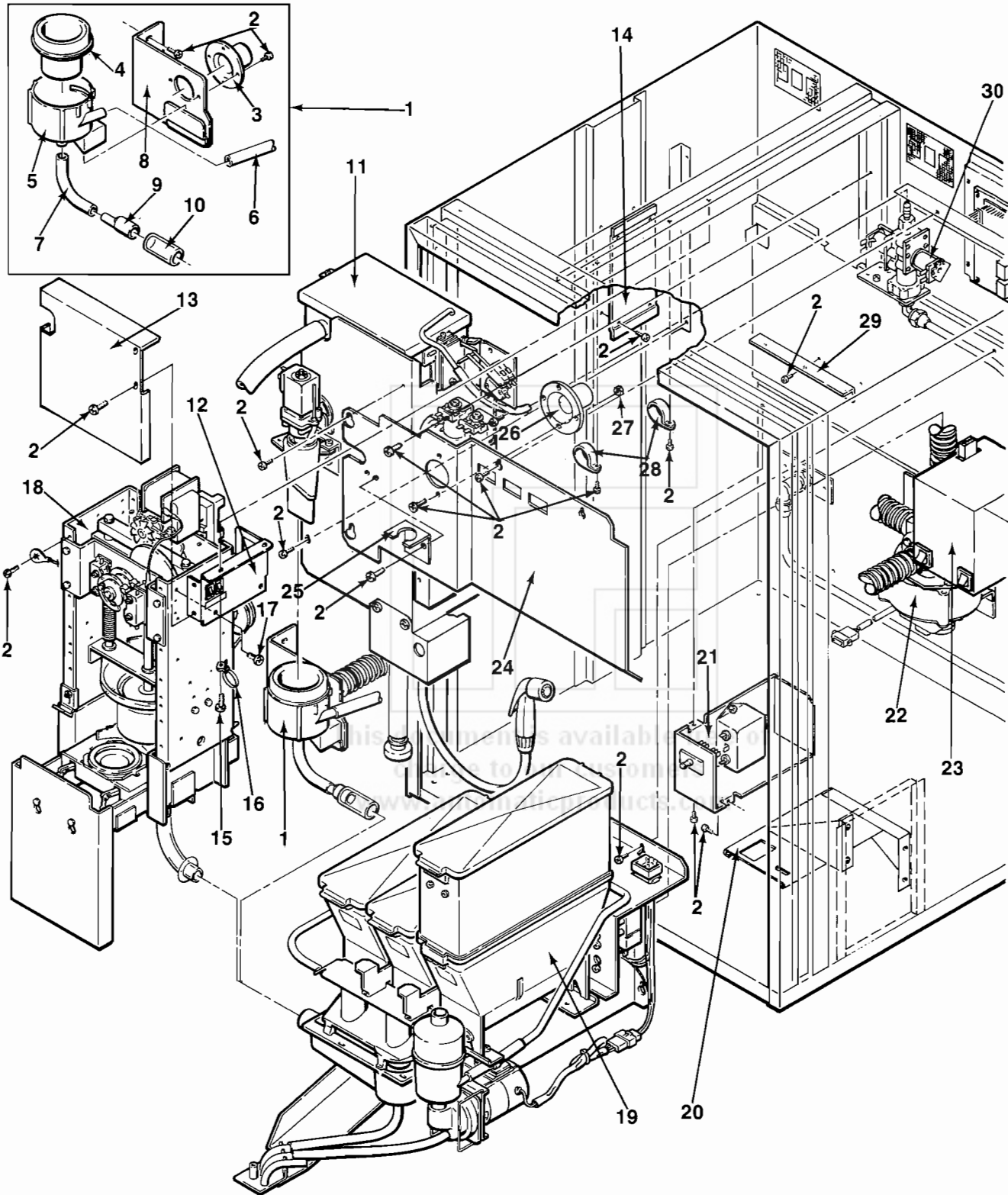


Item No.	Part No.	Description
1		See Page 11 For Additional Parts
	600535	Door Only. Coffee With Changer. Specify Color.
	600535-1	Door Only. Coffee Without Changer. Specify Color.
2	202045	Cover, Door Harness.
3	420243	Carafe Switch With Nut & Key.
	440192-1	Key Only.
4	404-8	Hex Nut (#8-32).
5	276-8R6	Screw Pan Hd. Phillips #23 (8-32 x 3/8).
6	380268	Cup Present Sensor.
7	600474	Coin Cup.
8	600581	Cup Guide. Right Side.
9	440337	Cup Well Grill.
10	640174	Cup Guide Stop.
11	300200	Cup Guide Pin.
12	660415	Assembly Complete. Cup Well. Use With Cup Dispenser.
	660415-1	Assembly, Complete. Cup Well. Use <u>Without</u> Cup Dispenser.
	600582	Cup Well Only. Use With Cup Dispenser.
	600582-1	Cup Well Only. Use <u>Without</u> Cup Dispenser.
13	600581-1	Cup Guide. Left Side.
14	640167	Cup Door Guide. Right Side.
15	19290	Cup Door.
16	640167-1	Cup Door Guide. Left Side.
17	440324	Picture Cover.
18	440325-3	Picture. Coffee. No Wording.
	440325-1	Picture Coffee. With Wording.

Item No.	Part No.	Description
19	440326-1	Picture Price Strip. Free Standing With Changer.
20	201-6R6	Screw Rd. Hd. Phillips Type B (6-32 x 3/8).
21	200-6R6	Screw Rd. Hd. Phillips Type A (6-18 x 3/8).
22	201839-2	Price Holder. Right Side.
23	460445	Price Tabs (25¢ - \$1.00).
24	201838	Picture Holder. Back.
25	30401	Cup Station. Assembly Complete. See Page 23 For Itemized Parts.
26	380284	Starter Socket Harness.
27	600595	Assembly Picture Holder. Left Side.
28	680434	Harness, Light.
29	380023-3	Starter (FS-5).
30	201843	Lens Hold Down Bracket.
31	640164	Assembly Picture Holder. Top.
32	380022-3	Fluorescent Lamp (F8-T5-K-12).
	440358	Tube Guard (Not Shown).
	440359	End Cap. Tube Guard (Not Shown).
33	276-4R7	Screw. Pan Hd. Phillips #23 (4-40 x 7/16).
34	201842	Lamp Bracket.
35	440327	Diffuser Lens.
36	210-8R6	Screw. Truss Hd. Type A (8 x 3/8).

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main cabinet assembly



CABINET ASSY. II (U.S.)

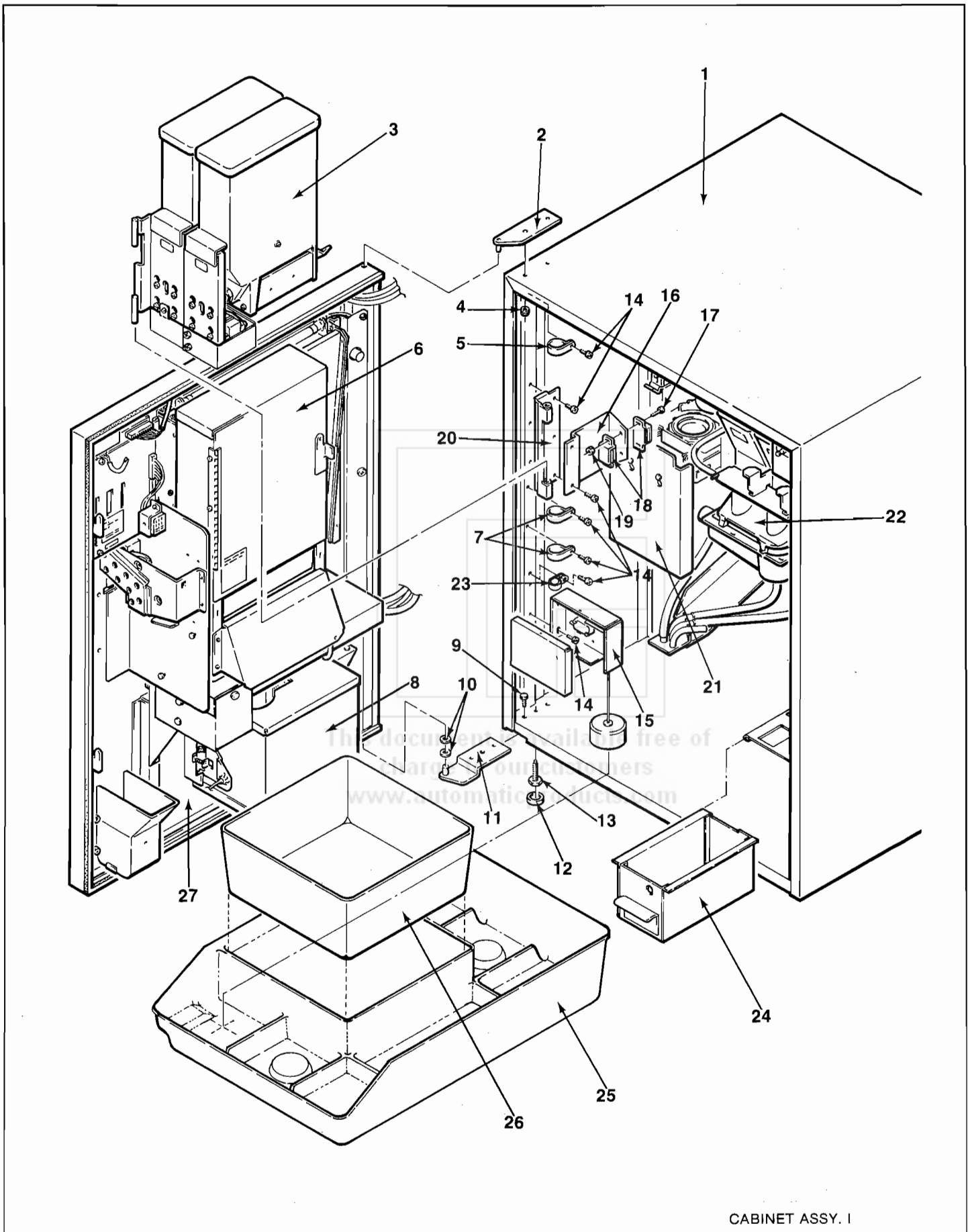
main cabinet assembly

Item No.	Part No.	Description
1	660397	Assembly Complete. Freeze Dry Bowl & Bracket.
2	276-8R6	Screw, Pan Hd. T23 Phillips (8-32 x 3/8).
3	32633	Adapter Vacuum Hose.
4	32632	Freeze Dry Mixing Bowl - Top
5	32631	Freeze Dry Mixing Bowl - Bottom
6	440221-10	Tubing. Brown. Sil. (5/16 x 12 5/8)
	420221	Tubing. Order By Inches.
7	420221-14	Tubing. Brown. Sil. (5/16 x 14").
	420221	Tubing. Order By Inches.
8	600558	Support Bracket. Freeze Dry Bowl.
9	32285	Adapter. Brewer Tube & Trough.
10	420219-1	Tubing Brewer to Trough.
11		See Page 21 For Itemized Parts.
12	201866	Top Support. Brewer.
13	202034	Brewer Cover.
14	201865	Mounting Bracket. Brewer.

Item No.	Part No.	Description
15	276-8R8	Screw. Pan Hd. T23 Phillips (8-32 x 1/2).
16	380078	Cable Tie.
17	277-10R8	Screw, Pan Hd. Phil., Type 23 (10-32 x 1/2).
18		See Page 37 For Itemized Parts.
19		See Page 29 For Itemized Parts.
20	600596	Cash Box Housing Supt.
21		See Page 35 For Itemized Parts.
22		See Page 33 For Itemized Parts.
23		See Page 19 For Itemized Parts.
24	202040	Harness Cover.
25	27853	Hanger, Rinse Hose.
26	32633	Adapter, Vacuum Hose.
27	404-8	Nut #8.
28	420035-2	Cable Clamp (1/2).
29	201960	Bracket Support. Water Tank.
30		See Page 19 For Itemized Parts.

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main cabinet assembly



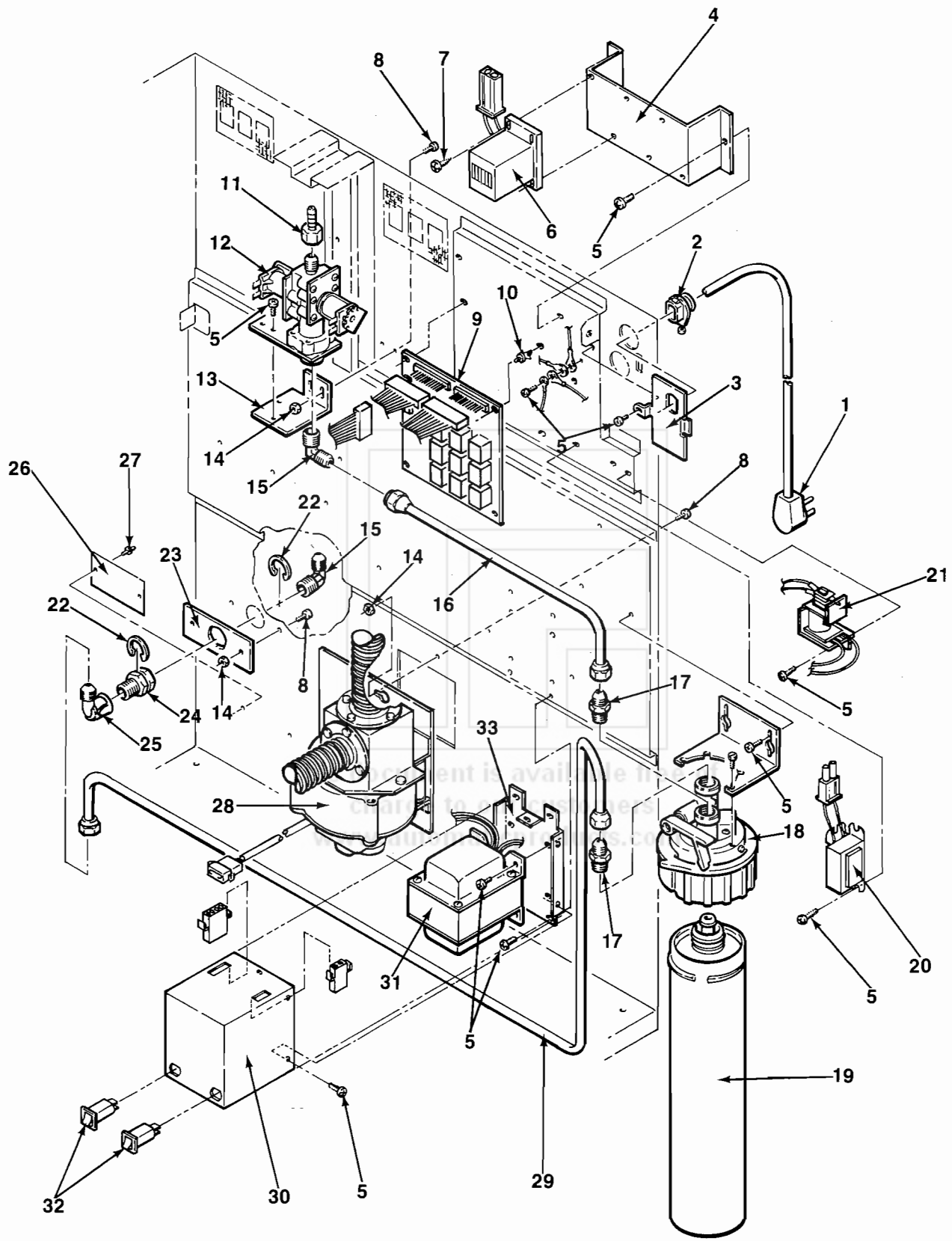
CABINET ASSY. I

Item No.	Part No.	Description
1	750131-3 750131-4	Assembly, Cabinet. Specify Color. Assembly, Cabinet. Specify Color. Export Only.
2	640141	Assembly Upper Hinge.
3		See Page 27 For Itemized Parts.
4	438-41	Nut Keps (1/4 x 20).
5	420035-5	Cable Clamp (3/4).
6		See Page 23 For Itemized Parts.
7	420035	Cable Clamp (5/8).
8		See Page 13 For Itemized Parts.
9	114-41-8	Screw Hex Hd. Mach. (1/4-20 x 1/2).
10	420010-17	Washer (9/16).
11	640160	Assembly Lower Cabinet Hinge.
12	420177	Leg Leveler Cap.
13	300174	Leg Leveler.

Item No.	Part No.	Description
14	276-8R6	Screw, Pan Hd. Phillips (8-32 x 3/8).
15		See Page 47 For Itemized Parts.
16	660392	Assembly, Complete. Magnetic Latch Bracket.
	201859	Magnetic Mounting Bracket Only.
17	116-8R12	Screw Pan Hd. Phillips (8-32 x 3/4).
18	31356	Magnet.
19	404-8	Hex Nut (8-32).
20	201858	Hinge Support Bracket-Coffee Canister
21	201854	Grounds Splash Guard.
22		See Page 29 For Itemized Parts.
23	420035-2	Cable Clamp (1/2).
24	600598	Cash Box.
25	440354	Tray - Overflow. New Style.
26	18245	Grounds Pan.
27		See Page 11 For Itemized Parts.

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main cabinet assembly



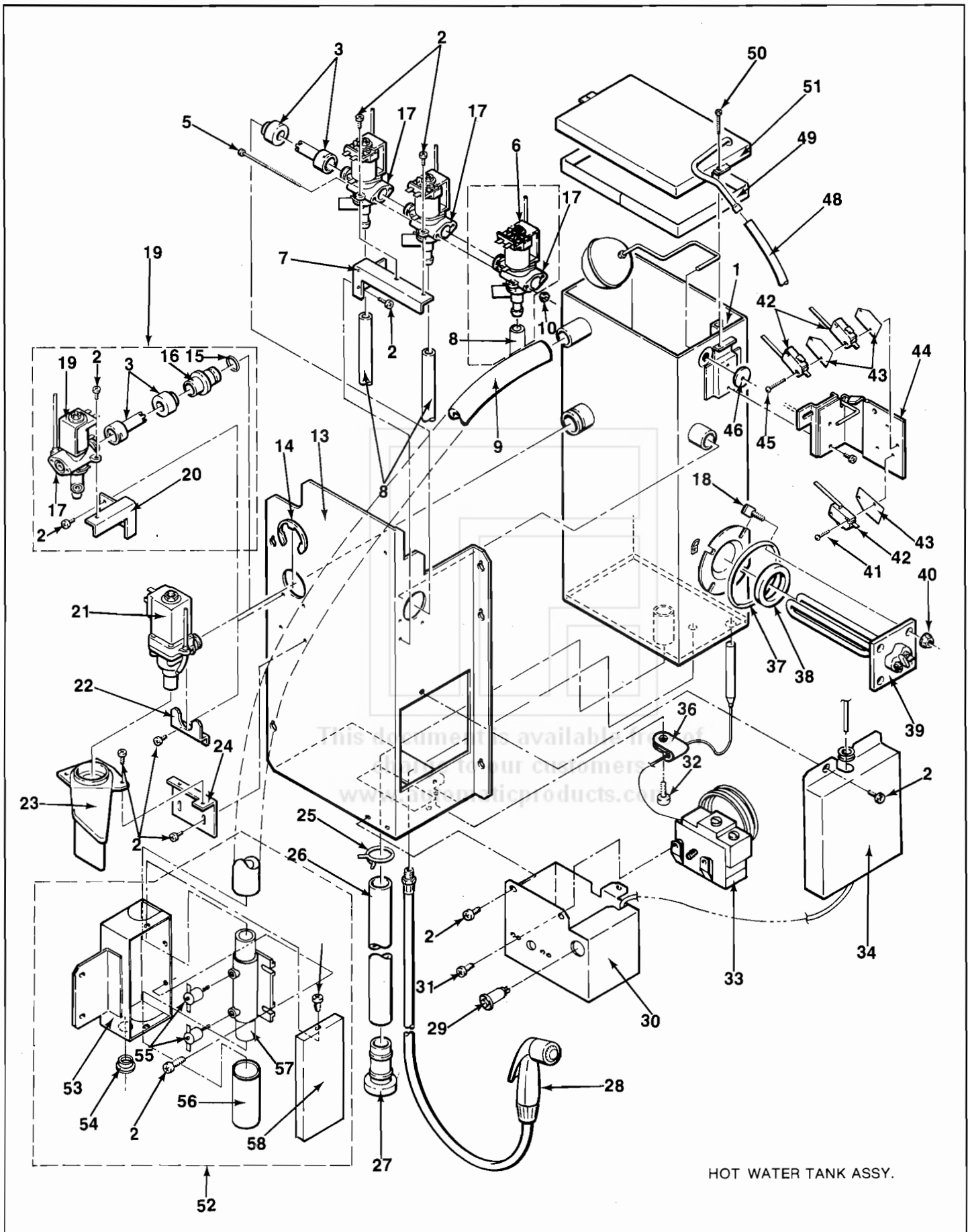
CABINET DETAIL (U.S.)

Item No.	Part No.	Description
1	680439	Line Cord.
2	380052-4	Strain Relief Bushing.
3	201958-2	Strain Relief Plate.
	201958-3	Strain Relief Plate. Slave Machine Only.
4	202048	Optional - Counter Mounting Bracket.
5	276-8R6	Screw, Pan Hd. Phillips (8-32 x 3/8).
6	680432	Optional - Counter Assembly.
7	200-6R6	Screw, RD. HD. Phil. Type A (6-18 x 3/8)
8	335-8R6	Screw, Pan Hd. Taptite Phillips (8-32 x 3/8).
9	360141	Coffee Driver Board.
10	420095	Drive Board Stand-Off.
11	420190-1	Coupling 1/4 Barb x 1/4 NPT FM.
12	660393	Assembly Water Inlet Valve.
	360146	Water Inlet Valve Only.
13	201869	Water Valve Mounting Bracket.
14	404-8	Hex Nut (8/32),
15	420196	Elbow (3/8) Flare to 3/8 MPT.
16	420211	Assembly Tubing. Filter to Valve.
17	420194	Male Union (3/8) NPTX 3/8 Flare.

Item No.	Part No.	Description
18	660399	Assembly Filter Head and Ring With Male Flare.
	23281	Assembly Filter Head and Ring Ony.
19	16991	Water Cartridge.
20	680278-6	Ballast, Assembly - Light.
21	660425	Vend Relay Assembly.
22	750-93	Retaining Ring (15/16).
23	26444	Retainer, Water Inlet Fitting.
24	25886	Adapter - Altered.
25	420195	Elbow 90° Flare (3/8) x 3/8 NPT.
26	460447	Serial Plate.
27	420078-4	Pop Rivet.
28		See Page 33 For Itemized Parts.
29	420213	Assembly Tubing. Filter to Inlet.
30	660431	Transformer Assembly Complete.
	202047	Transformer Cover.
31	360158	Transformer.
32	380241	Circuit Breaker.
33	202046	Transformer Mounting Bracket.

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hot water tank assembly



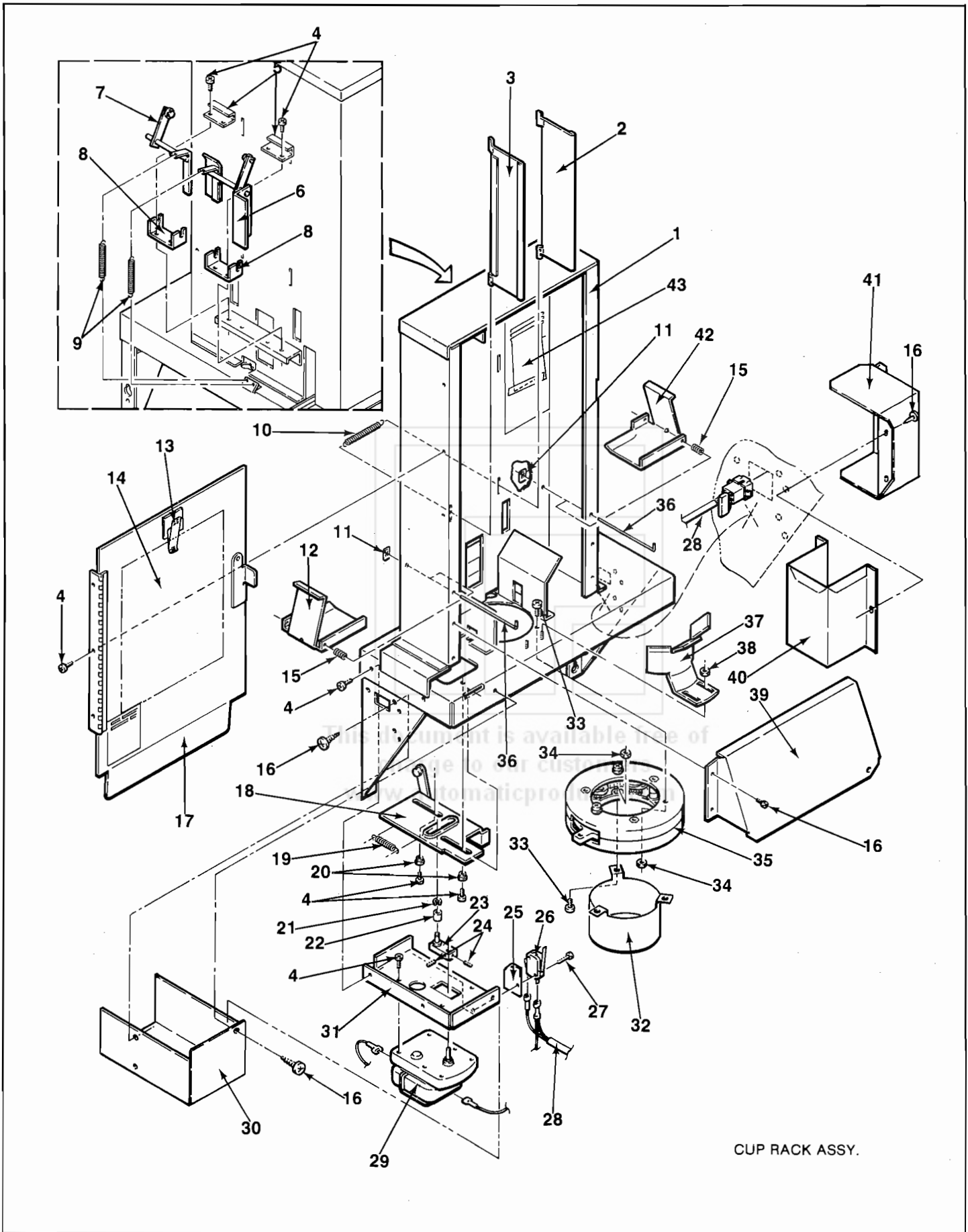
HOT WATER TANK ASSY.

hot water tank assembly

Item No.	Part No.	Description
1	660428	Assembly Complete. Water Tank. For Freeze Dry.
	660428-1	Assembly Complete. Water Tank. With Brewer. Domestic.
	660428-2	Assembly Complete. Water Tank. For Freeze Dry. With 2 Commodity Valves. Export Only.
	660428-3	Assembly, Complete. Water Tank. With Brewer. Export Only.
	660428-4	Assembly Complete. Water Tank For Freeze Dry. With 3 Commodity Valves. Export Only.
	660428-5	Assembly Complete. Water Tank With Brewer. With 3 Commodity Valves. Export Only.
	600579	Water Tank Only.
2	276-8R6	Screw, Pan Hd. Phillips (8-32 x 3/8).
3	32944	Inlet Nozzle. Commodity Valve.
5	106-6R84	Screw, Fl. Ph. Hd. (6-32 x 5 1/4). 3-Valve.
	106-6R56	Screw, Fl. Ph. Hd. (6-32 x 3 1/2). 2-Valve.
6	660408	Assembly Complete. 2 Valve Commodity.
	660408-1	Assembly Complete. 3 Valve Commodity.
	660408-2	Assembly Complete. 1 Valve Commodity.
	750157	Kit, Commodity Valve Rebuild.
	360144	Commodity Valve Only.
7	201953	Commodity Valve Mounting Bracket.
8	420221	Brown Tubing. Order Amount of Inches Needed.
9	420204-2	Tubing (39 Inches).
	420204-3	Tubing (28 Inches). Export Only.
10	404-6	Hex Nut (6-32).
11	420231	Float 2 1/4 Dia. Stainless.
12	404C6	Hex Nut (6-32) Stainless.
13	600580	Water Tank Jacket.
14	751-118X	Retaining Ring.
15	33492	"O" Ring.
16	33129	Adapter, Commodity Valve.
17	32943	Plug With "O" Ring.
18	420230	Weld Screw.
19	660409	Assembly Complete. Freeze Dry Water Valve.
	360144-1	Commodity Valve Only. Freeze Dry.
20	201954	Commodity Water Valve Freeze Dry Support Bracket.
21	360145	Brewer Valve.
	750158	Kit, Brewer Valve Rebuild..

Item No.	Part No.	Description
22	201880	Brewer Water Valve Support Bracket.
23	660394	Assembly Complete. Coffee Valve Spout.
	440332	Spout Only.
24	201868	Water Spout Support Bracket.
25	420229	Hose Clamp.
26	420220-1	Water Tank Drain Tubing. (30 inches).
27	33553	Drain Plug.
28	14494	Faucet and Rinse Hose.
29	380096-3	Light (250 V). Export Only.
	380096-1	Light (125 volt).
30	202037	Thermostat Mounting Bracket.
31	276-6R4	Screw, Pan Hd. Phillips (6-32 x 1/4).
32	276-8R4	Screw, Pan Hd. Phillips (8-32 x 1/4).
33	380266	Temperature Control.
34	202038	Heater Cover.
35	420135-4	Hole Grommet (3/8 x 5/8).
36	420035-4	Nylon Cable Clamp.
37	22414	"O" Ring.
38	22262	Heater Gasket.
39	360148	Water Tank Heating Element. (120 volt).
	360148-1	Water Tank Heating Element (240 V). Export Only.
40	420130-1	Serrated Flange Nut (1/4-20).
41	100-4R10	Screw, Rd. Hd. Phillips (4-40 x 5/8).
42	380272	Tank Fill Switch.
43	360023	Switch Insulation.
44	600577	Float Switch Bracket and Retainer.
45	100-4R16	Screw, Rd. Hd. Phillips (4-40 x 1).
46	33015	Seal, Hot Water Tank - Float.
47	400160	Float Rod.
48	420242-1	Tubing Valve to Water Tank (7 inches).
49	420205	Gasket, Hot Water Tank - Extrusion.
50	100-6R8	Screw, Rd. Hd. Phillips (6-32 x 1/2).
51	600575	Assembly, Hot Water Tank Lid.
52	660440	Assembly Complete. Over Temp. Box. Export Only.
53	600602	Over Temp. Box Only.
54	420048-8	Snap Bushing 5/8 I.D.
55	34438	Thermostat 150° Spst.
56	420204-4	Tubing 5 1/2 Inch. Export Only.
57	34678	Tube Mounting - Thermostat.
58	202067	Cover, Over Temp. Box.

cup drop assembly

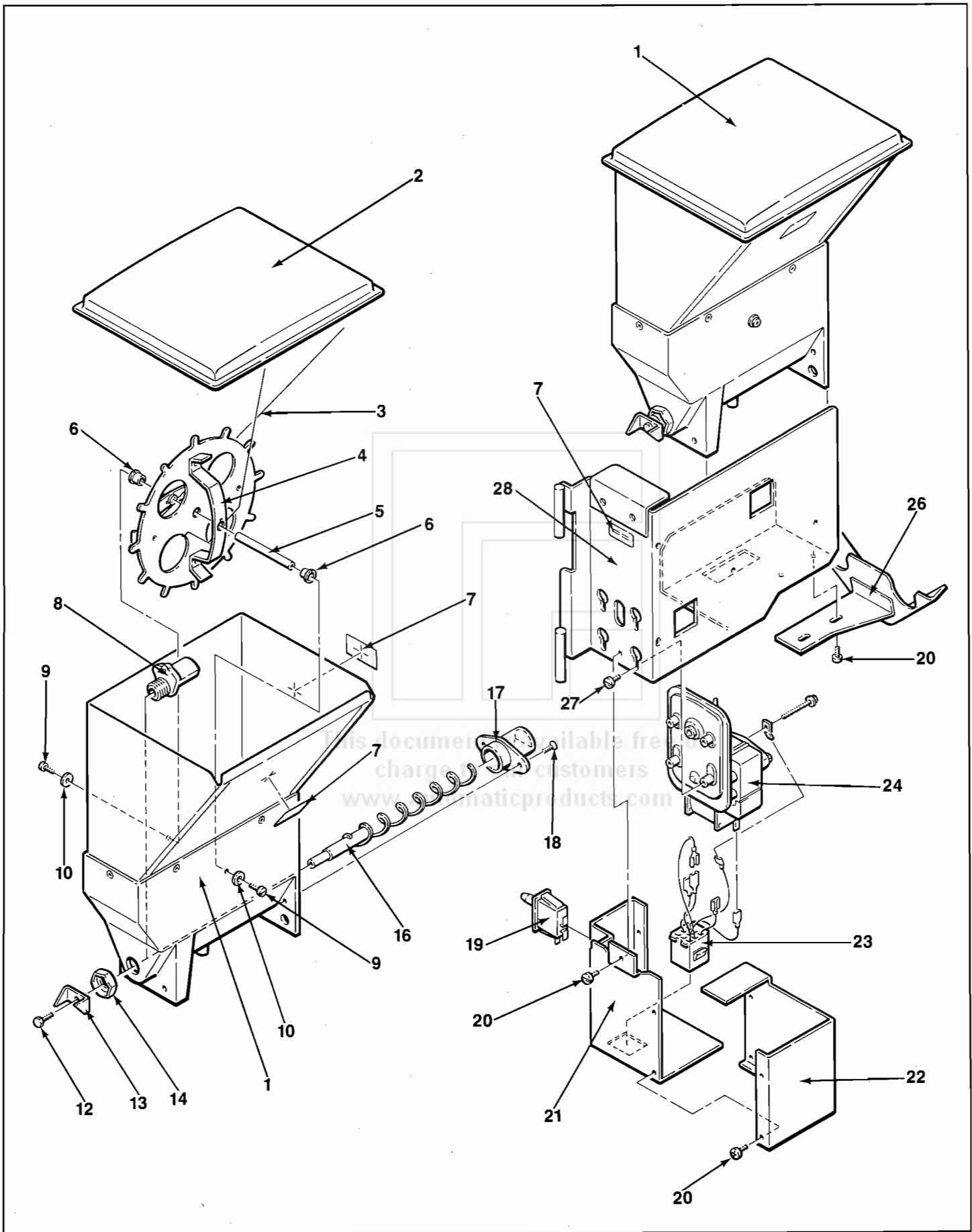


Item No.	Part No.	Description
1	660401	Assembly Complete. Cup Drop Station.
	660401-1	Assembly Complete. Cup Drop Station. Export Only.
	600592	Cup Chassis & Housing Only.
2	201925-1	Cup Divider. Right Side.
3	201925	Cup Divider. Left Side.
4	276-8R6	Screw, #8-32 x 3/8. Pan Hd. Phillips #23.
5	201934	Cup Shift Retainer.
6	600564	Assembly Cup Index Feeler. Left Side.
7	600563	Assembly Cup Index Feeler. Right Side.
8	201929	Support Bracket. Cup Shift.
9	400157	Spring-Cup Index.
10	400158	Cup Divider Spring.
11	420057-1	Tinnelman Speed Nut.
12	201924	Cup Support. Left Side.
13	420244	Display Clip. Service Envelope.
14	460483	Decal. Price/Program Setting
15	400159	Compression Spring - Cup Support.
16	210-8R6	Scr. Truss Hd. Type A (#8 x 3/8).
17	640175	Assembly Door Complete.
18	640170	Assembly, Drive Slide (Includes Item #20).
19	400156	Spring, Support Arm.
20	300198	Drive Slide Bushing.
21	751-18	Ring, Retaining #(3/16).

Item No.	Part No.	Description
22	300192	Drive Roller.
23	640169	Assembly, Crank Arm.
24	140-8A3	(#8-32 x 3/16) Al Skt. Hd. Cup PT/Set
25	360023	Switch Insulation.
26	360150	Cup Drop Cycle Switch.
27	276-4R10	Screw (#4-40 x 5/8) Rd. Hd. Mach.
28	680423	Cup Drop Harness.
29	360149	Cup Drop Motor.
30	202015	Cover, Cup Drop Motor.
31	201923	Motor Mounting Bracket.
32	23752	Chute Cup, Anti-Theft.
33	117-10R8	Sur #10-32 x 1/2. Pan Hd. Phillips #23.
34	405-10	Nut Hex #10-32.
35	660407	Assembly, Cup Ring Complete.
	660407-1	Assembly Cup Ring Complete. Export Only.
36	400155	Cup Support Hinge Pin.
37	201926	Movable Cup Guide.
38	404-8	Nut Hex #8-32.
39	202001	Cup Switch Cover.
40	202014	Cover, Plug, Cup Drop.
41	202044	Cover, Cup Drop Outside.
42	201924-1	Cup Support. Right Side.
43	460461	Decal, Cup Fill.

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coffee hopper assembly - single



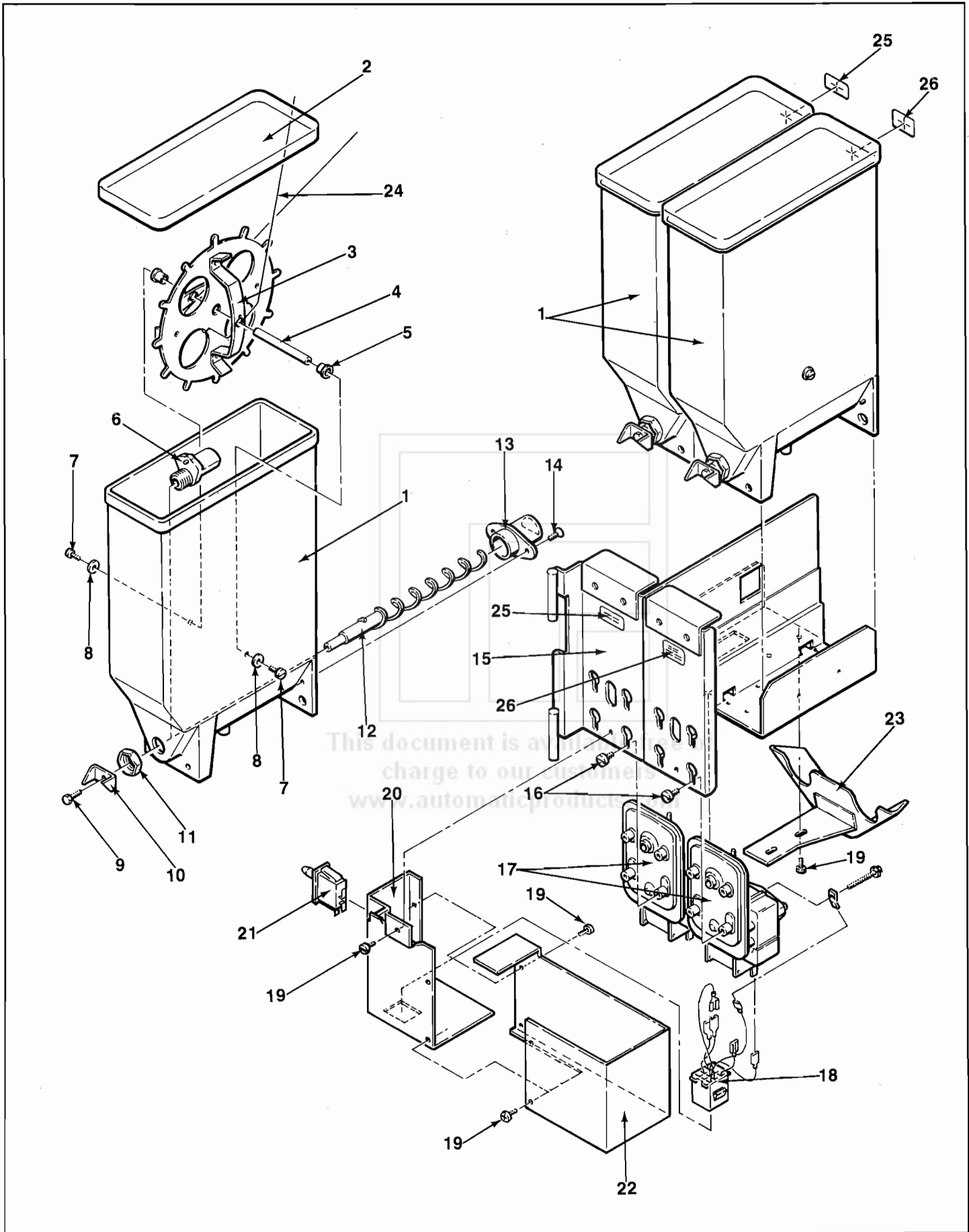
coffee hopper assembly - single

Item No.	Part No.	Description
1	660412	Assembly Complete. Coffee Canister Only (Single).
	660411	Canister Only (Single).
2	201914	Coffee Hopper Cover.
3	28143	Coffee Hopper Agitator.
4	640172	Assembly Complete. Commodity Wheel.
	14419	Commodity Wheel Only.
5	14017	Wheel Axle.
6	16058-11	Nyliner.
7	15556-6	Label, Canister. Reg. Coffee (US).
	33079-2	Label, Canister. Reg. Coffee (Export).
8	14012	Rear Bearing.
9	116-6R6	Screw, Pan Hd. Phillips (6-32 x 3/8).
10	600-6	Washer
12	25970	Auger Driver Screw.
13	25969	Auger Driver.
14	420136-1	Pal Nut (5/8 -11).

Item No.	Part No.	Description
16	14023	Assembly, Auger and Shaft.
17	14011	Canister Spout.
18	203-6R6	Screw, Flat Hd. Type B (6-18 x 3/8).
19	380279	Switch, Operate.
20	276-8R6	Screw, Pan Hd. Phillips (8-32 x 3/8).
21	202031	Plug & Switch Bracket.
22	202030	Motor Cover. Single Hopper.
23	680424	Harness, Coffee Hopper (Single).
24	660403	Assembly Complete. Motor With Roll Pin & Screws (170 rpm).
26	600547	Coffee Chute.
27	116-8R4	Screw, Pan Hd. Phillips (8-32 x 1/4).
28	600550	Motor & Canister Support (Single).
	660413-2	Assembly Complete. With motor & Cannister Support (Single).

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coffee hopper assembly - dual



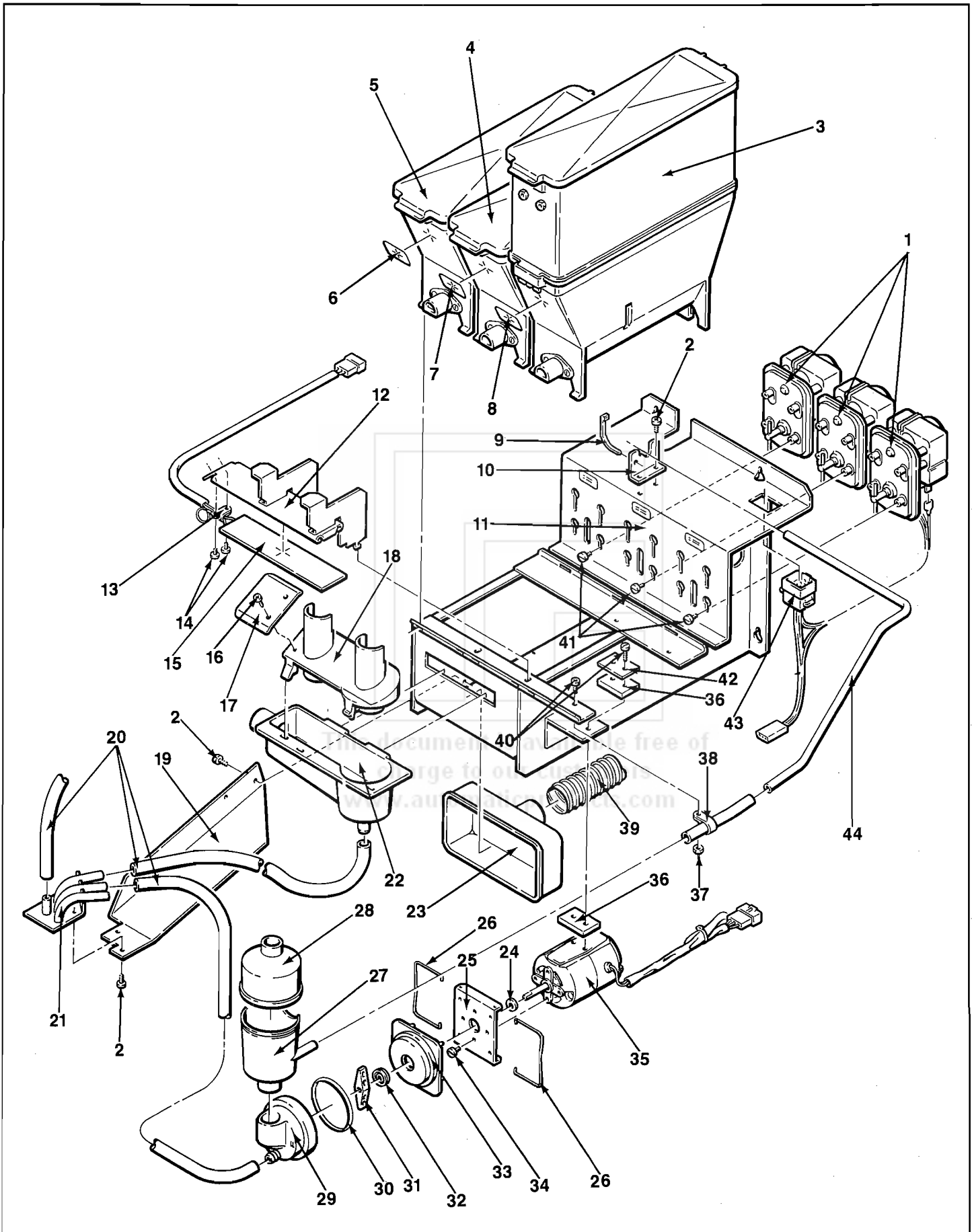
coffee hopper assembly - dual

Item No.	Part No.	Description
1	660412-1	Assembly. Coffee Canister Only (Dual).
	14006	Canister Only.
2	06695	Canister Cover.
3	640172	Assembly Complete. Commodity Wheel.
	14419	Commodity Wheel Only.
4	14017	Wheel Axle.
5	16058-11	Nyliner.
6	14012	Rear Bearing.
7	116-6R6	Screw, Pan Hd. Phillips (6-32 x 3/8).
8	600-6	Washer.
9	25970	Auger Driver Screw.
10	25969	Auger Driver.
11	420136-1	Pal Nut (5/8-11).
12	14023	Assembly Auger & Shaft.
13	14011	Canister Spout.

Item No.	Part No.	Description
14	203-6R6	Screw, Flat Hd. Type B (6-18 x 3/8).
15	660413-3	Assembly Complete. With Motor Canister Supt.
	600551	Assembly Only. Canister Supt. (Dual).
16	116-8R4	Screw Pan Hd. Phillips (8-32 x 1/4).
17	660403	Assembly Complete. Motor w/Roll Pin and Screws (170 rpm).
18	680425	Harness Coffee Hopper (Dual).
19	276-8R6	Screw, Pan Hd. Phillips (8-32 x 3/8).
20	202031	Plug & Switch Bracket.
22	202029	Cover, Motor.
23	600547	Coffee Chute.
24	28143	Coffee Hopper Agitator.
25	15556-6	Label, Canister. Reg. Coffee.
	33079-2	Label, Canister. Reg. Coffee. Export Only.
26	28948	Label, Canister. Decaf. Coffee.
	33079-9	Label, Canister. Decaf. Coffee. Export Only.

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canister rack assembly

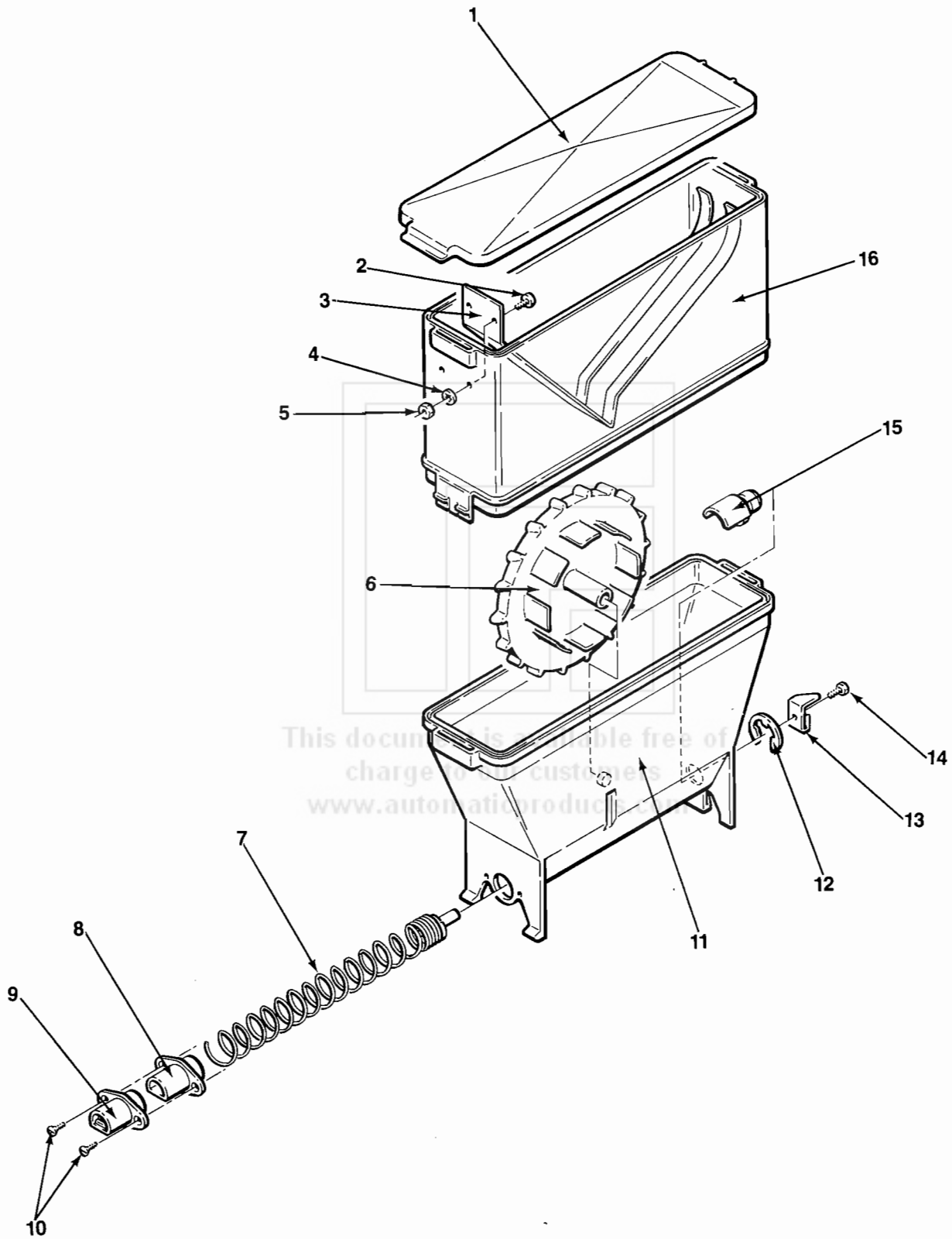


Item No.	Part No.	Description
1	660403-1	Assembly Motor & Roll Pin (180 rpm).
2	276-8R6	Screw, Pan Hd. Phillips (8-32 x 3/8).
3	660412-5	Assembly, Complete. Chocolate Canister.
4	660412-4	Assembly, Complete. Sugar Canister.
5	660412-3	Assembly, Complete. Cream Canister.
6	33079-3	Decal, "Cream."
7	33079-5	Decal, "Sugar."
8	33079-1	Decal, "Chocolate."
9	460044	Cable Tie.
10	201886	Tubing Support, Canister.
11	600553	Canister Rack Only. (3).
12	600546	Humidity Bar Bracket.
13	420035-4	Cable Clamp.
14	276-8R4	Screw, Pan Hd. Phillips T-23 (8-32 x 1/4).
15	660410-1	Assembly Heater Bar.
	360147	Humidity Heater Strip Only.
16	420186	Screw Drill Pt. (6-20 x 1/2).
17	202000	Commodity Hood Deflector.
18	32488	Commodity Chute.
19	201917	Dispensing Spouts Support.
20	420221	Brown Tubing. Order Amount of inches needed.
21	600560	Dispensing Spouts.
22	32317	Commodity Trough.
23	32468	Steam Exhaust Duct.

Item No.	Part No.	Description
24	13918	Slinger.
25	13914	Mounting Plate.
26	13915	Spring.
27	28045	Chocolate Whipper Funnel.
28	14745	Whipper Funnel Top.
29	13909	Whipper Outer Housing.
30	13919	"O" - Ring.
31	34091	Impeller.
32	27435	Seal Whipper.
33	27421	Housing, Inner
34	116-8R4	Screw, Pan Hd. Phillips (8-32 x 1/4).
35	660406-1	Whipper Assembly Complete.
	360156	Whipper Motor Only.
36	33279	Vibration Pad.
37	404-8	Hex Nut (8-32).
38	420035-2	Cable Clamp.
39	420203-2	Exhaust Hose.
40	116-8R10	Screw, Pan Hd. Phillips (8-32 x 5/8).
41	116-8R4	Screw, Pan Hd. Phillips (8-32 x 1/4).
42	201882	Vibration Retainer Plate.
43	680419	Harness, LGC.
	680422	Harness, Chocolate Only.
44	420212	Canister Tube. Use With Chocolate.

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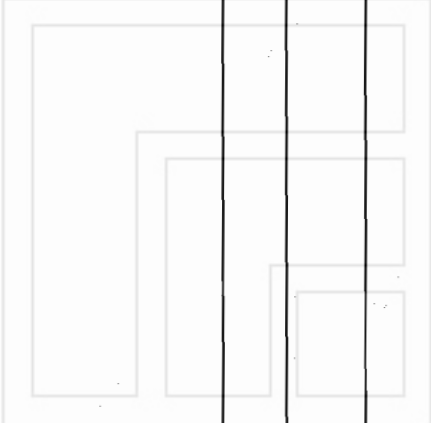
commodity canister assembly



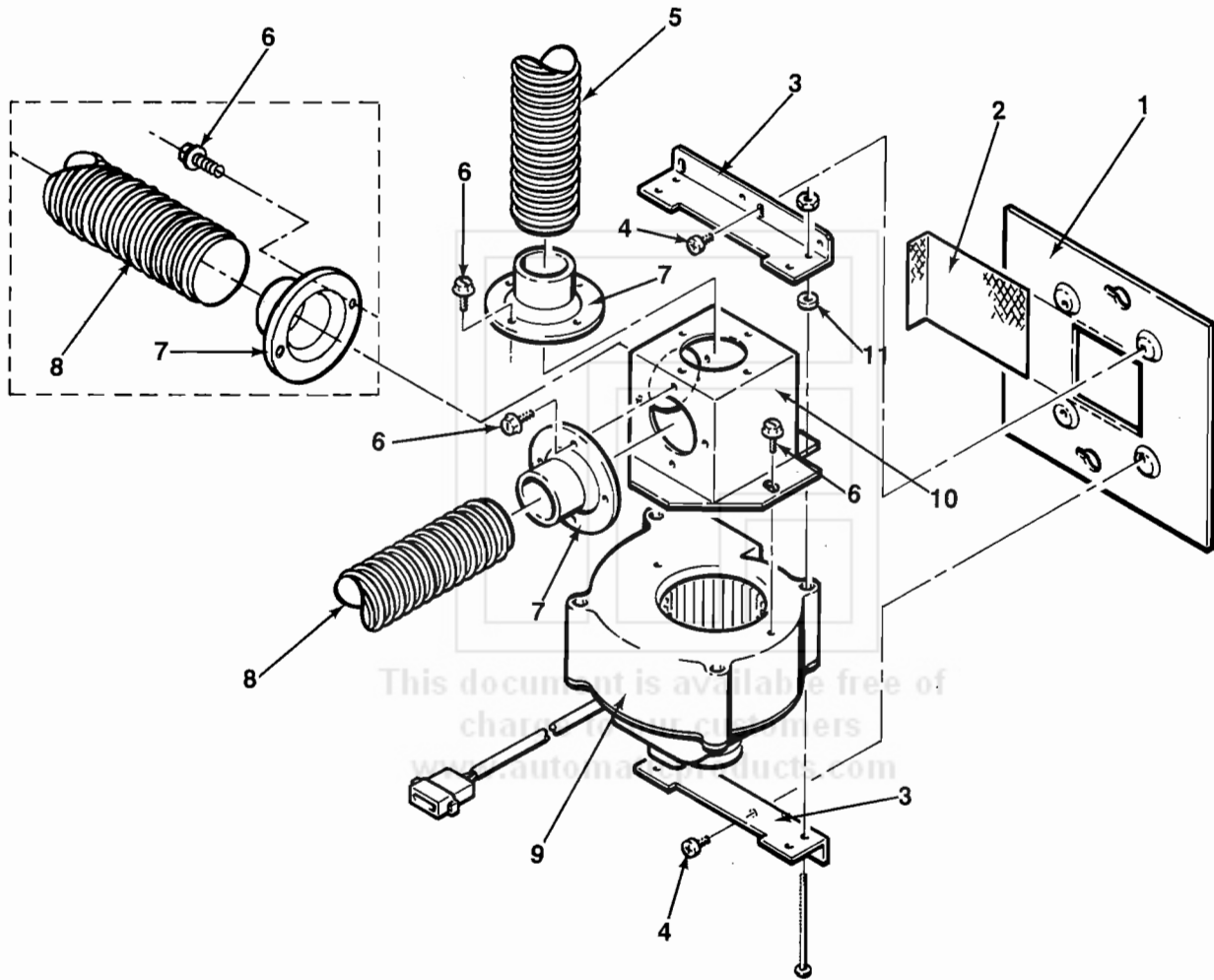
commodity canister assembly

Item No.	Part No.	Description
1	20647	Canister Lid.
2	116S6R6	Screw, Pan Hd. M/S Stnlis. Phillips (6-32 x 3/8).
3	23757	Assembly. Chocolate Extension Only.
4	600-6	Flat Washer. Chocolate Canister Only.
5	19927	Locking Nut (6-32) Chocolate Canister Only.
6	20311	Commodity Wheel (Used in Cream, Soup, or Chocolate).
7	20645	Assembly, Auger.
8	26643	Spout Without Louveres. (Used in Sugar, and Chocolate).
9	26643-1	Spout Louvered (Used in Cream Only).
10	203-6R6	Screw, Flat Hd. Phillips Hd. Type B (6-18 x 3/8).
11	20288	Canister Bottom.

Item No.	Part No.	Description
	660412-3	Assembly Complete. Cream Canister.
	660412-4	Assembly Complete. Sugar Canister.
	660412-5	Assembly Complete. Chocolate Canister.
	15556-1	Label, Canister, Chocolate.
	15556-4	Label, Canister, Light.
	15556-5	Label, Canister, Sugar.
12	20646	Retaining Ring.
13	25969	Driver - Auger.
14	25970	Screw, Auger Drive.
15	20263	Bearing, Rear Canister.
16	23711	Extension, Chocolate Canister.


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blower assembly

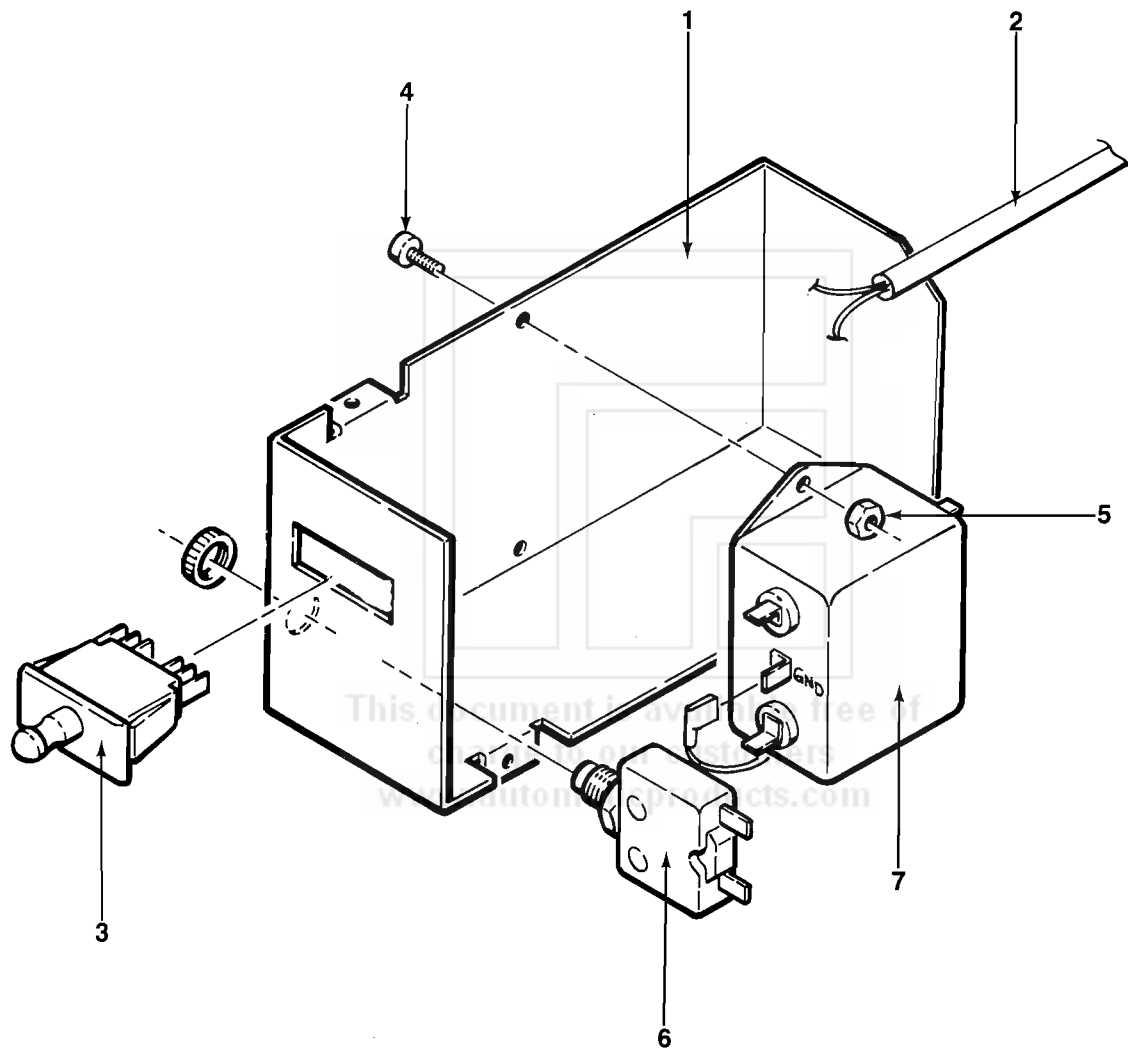


Item No.	Part No.	Description
1	201870	Suction Blower Mounting Plate.
2	20942	Screen - Exhaust Vent.
3	24048	Blower Side Bracket.
4	276-8R4	Screw, Pan Hd. Phillips (8-32 x 1/4).
5	420203-3	Exhaust Hose (27) Vent.
6	276-8R6	Screw, Pan Hd. Phillips (8-32 x 3/8).
7	32633	Adapter Vacuum Hose.
8	420203-2	Exhaust Hose (12).

Item No.	Part No.	Description
9	660402-2	Blower. Assembly Complete. FD (3 Hose)
	660402-3	Blower. Assembly Complete. Standard (2 Hose)
	380270	Exhaust Blower Only.
10	33337	Exhaust Box Only. STD.
	202063	Exhaust Box Only. F.D.
11	420106-2	Nylon Washer.

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main power junction box



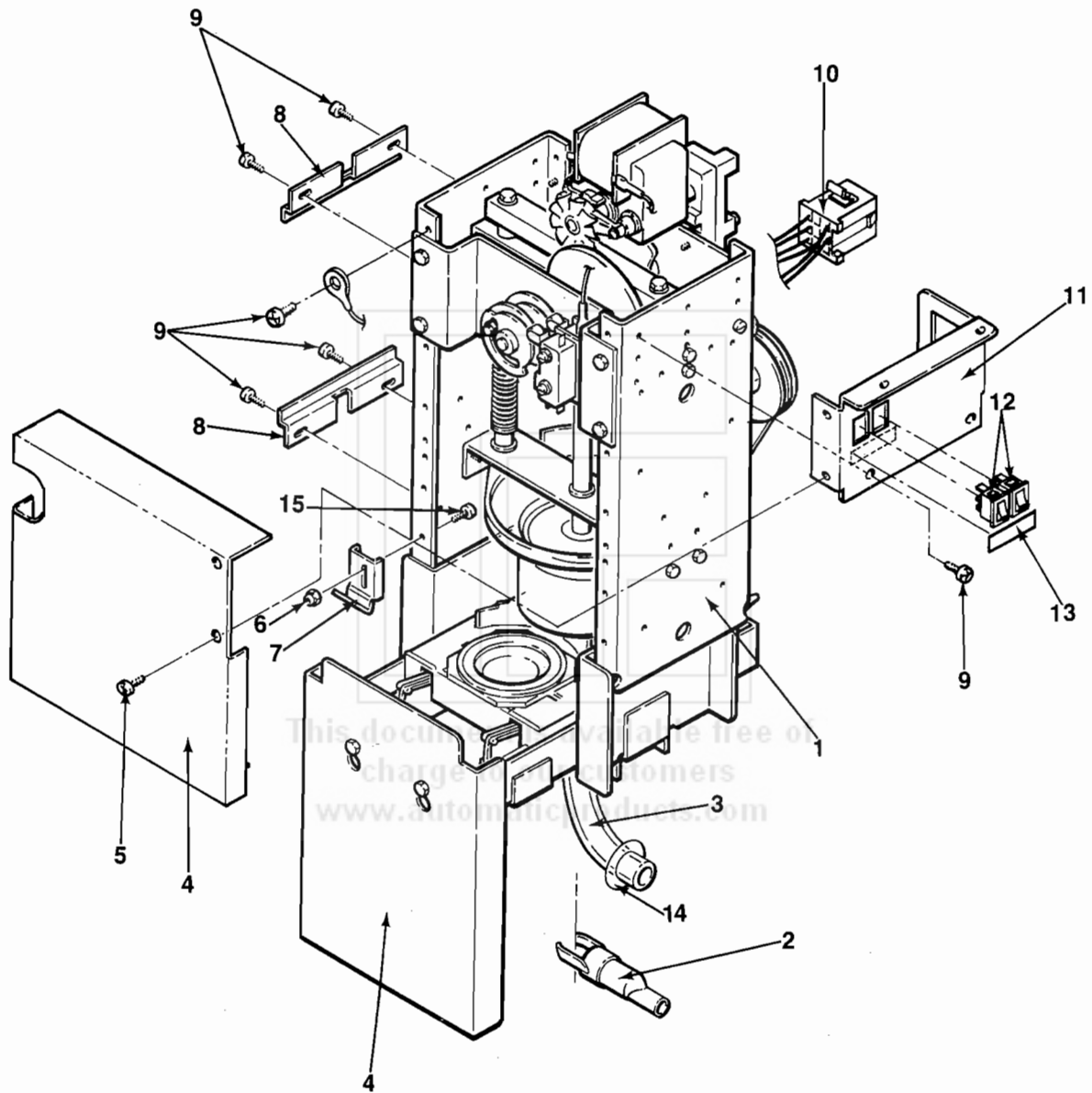
main power junction box

Item No.	Part No.	Description
1	660429 202039	Assembly Complete. Power Inlet Box. Switch & Relay Mounting Bracket Only.
2	680436	Inlet Box Harness.
3	380261	Door Switch. 16 Amp.

Item No.	Part No.	Description
4	276-8R6	Screw, Pan Hd. Type 23 (#8 x 3/8).
5	404-8	Hex Nut (8-32).
6	380101-4	Circuit Breaker. 15 Amp.
7	380265	R.F. Filter

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coffee brewer assembly

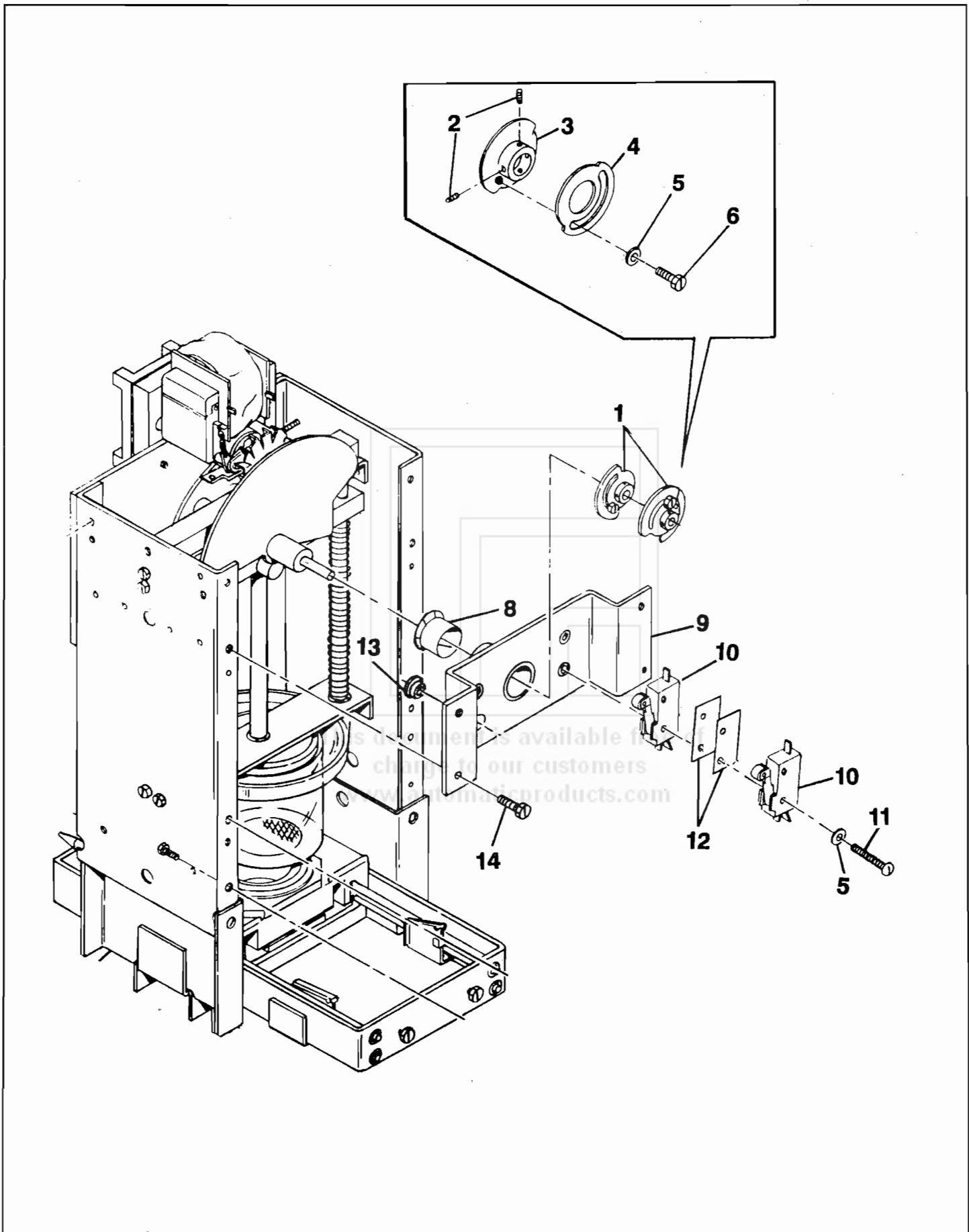


BREWER ASSY.

Item No.	Part No.	Description
1	660430 660430-1	Assembly Complete. Brewer w/o Tea. Assembly Complete. Brewer w/Tea. Export Only. See Pages 39-46 For Itemized Parts. (See Attached Sheets)
2	27370	Adapter - Brewer Funnel (Use With Black Only).
3	420219-1	Tubing, Clear. 7"
4	201854 202034	Guard, Splash, Brewer. Cover, Brewer.
5	210-8R6	Screw, Truss Hd. Type A (8 x 3/8).
6	21042	Nut, (#8-32) Stop.
7	32715	Bracket, Latch, Base Assembly.

Item No.	Part No.	Description
8	201883	Side Mounting Bracket, Brewer.
9	277-10R6	Screw, Pan Hd. Phillips (#10 x 3/8).
10	680428 680429	Brewer Harn w/o Tea. Brewer Harn w/Tea. Export Only.
11	680430 201866 201866-1	Brewer Harn. For use with Freeze Dry. Top Support, Brewer. Coffee Only. Top Support, Brewer. For use w/Tea. Export Only.
12	380283	Switch, Rocker-Momentary.
13	460493	Decal, Brewer Cycle.
14	19047	Ring, Drip.
15	116-8R8	Screw (#8-32 x 1/2) PH Phil Mach.

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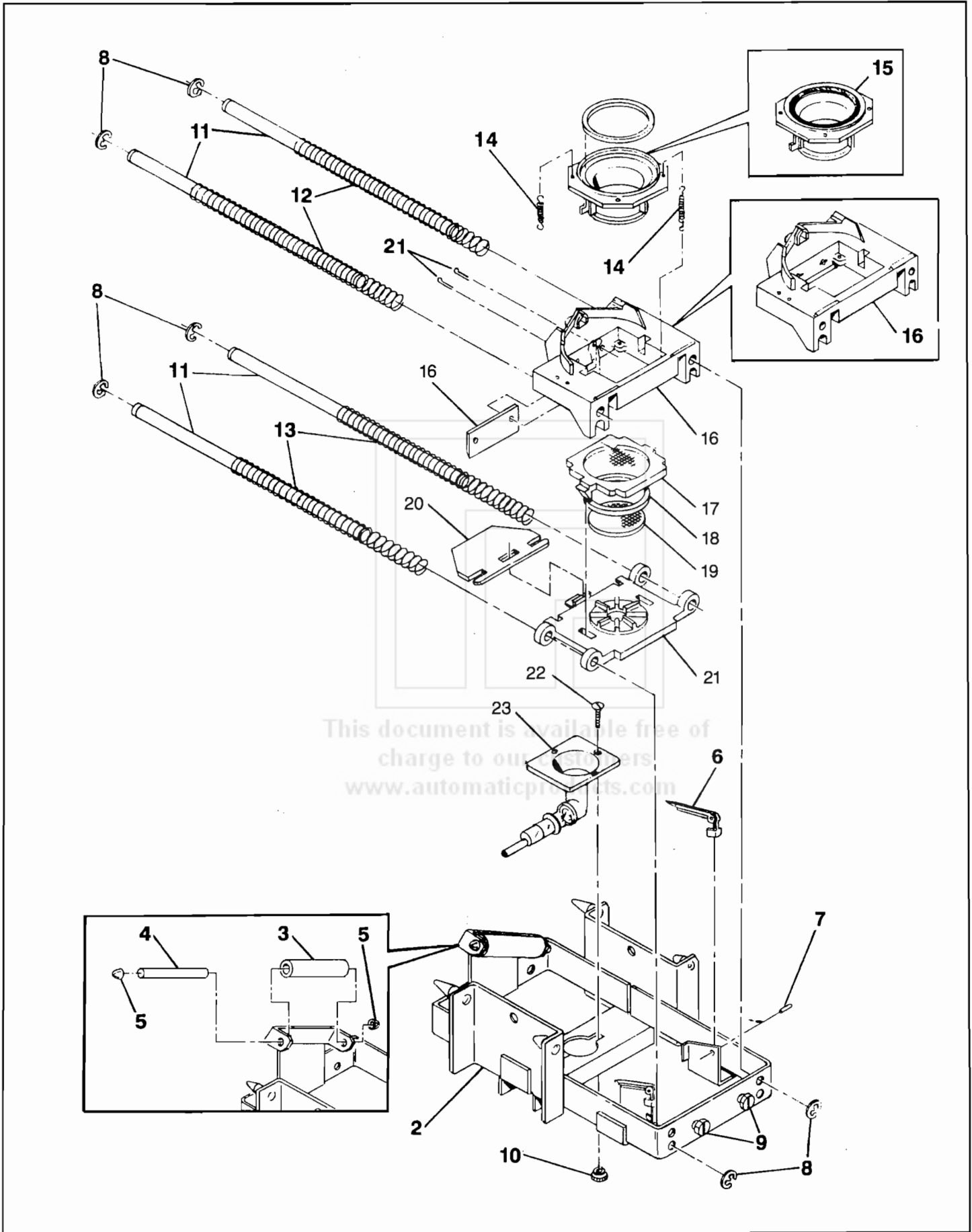
coffee brewer assembly cont.

Item No.	Part No.	Description
1	13147	Cam Assembly.
2	00652	Screw (6-32 x 3/16), Socket Set, Cup Point.
3	13151	Cam w/Hub, Stationary, Tapped.
4	13152	Cam, Slotted.
5	00826	Washer, Flat #6 SCP.
6	13154	Screw (6-32 x 1/4), HH SD SCP.

Item No.	Part No.	Description
8	16058-5	Nyliner, 12L12 FGS.
9	18971	Channel ASM, Front, Brewer.
10	17583	Switch, Unimax AA413C.
11	17428	Screw (6-32 x 1 3/4), PH SCP.
12	19557	Insulation, Switch, Flat Fishpaper.
13	17848	Nut, Brewer Switch MTG, Nylon Insulation.
14	277-10R6	Screw, PH. Type 23 (10-32 x 3/8).

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brewer base assembly



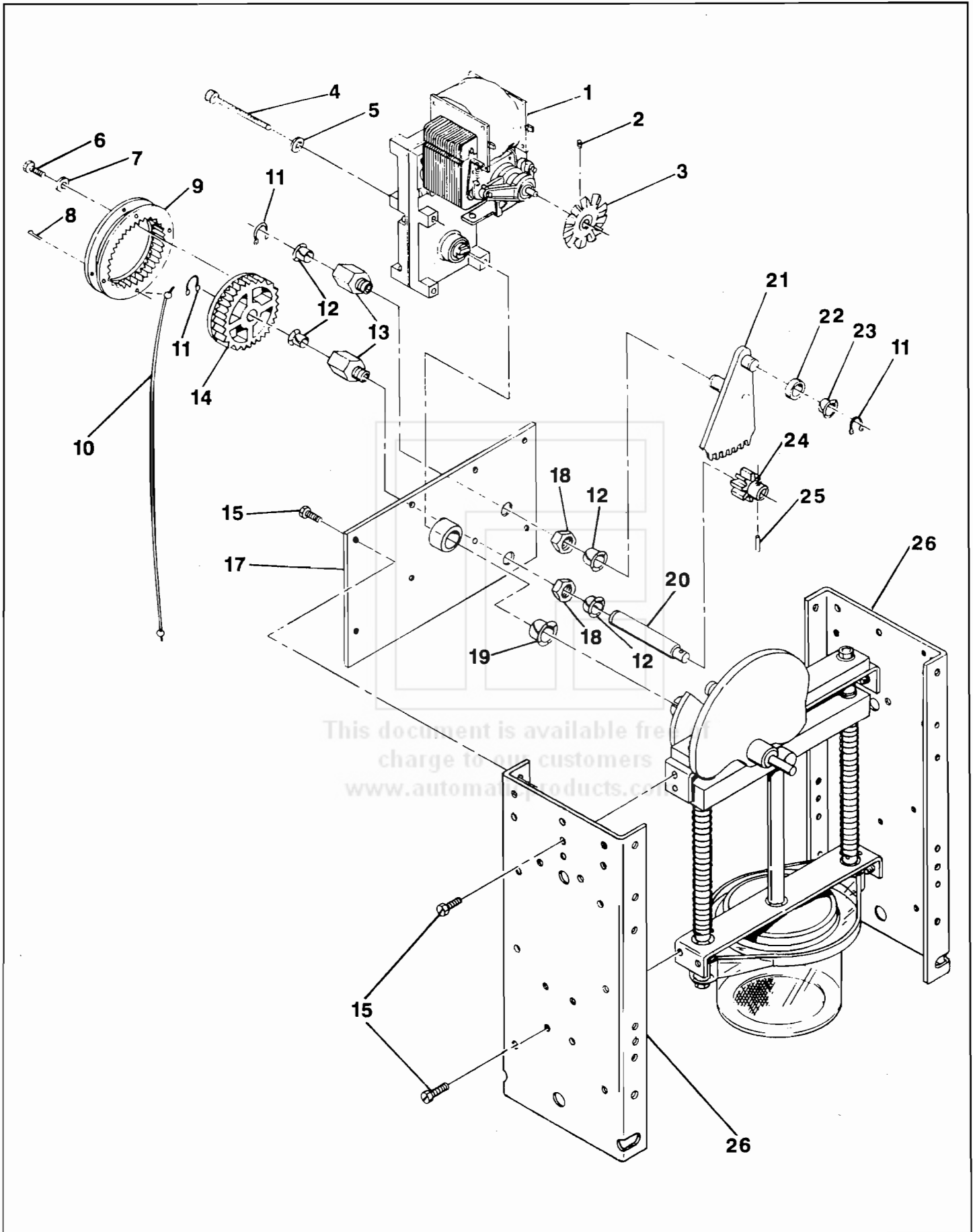
brewer base assembly

Item No.	Part No.	Description
1	660467	Base ASM Complete (Includes Items 2-23).
2	28531	Frame ASM, Base, Welded (Only).
3	14370	Idler, Roller.
4	16291	Shaft, Idler.
5	16419	Nut, Push, Acorn, Palnut.
6	15019	Pawl.
7	14780	Pin, Roll (1/16 x 1/4), SS.
8	17521-3	Ring, Retaining, 1/4 BCU.
9	14805	Screw (10-32 x 3/8), HH SD SCP.
10	04862	Nut, 6-32, KN Thumb
11	14344	Rod, Carriage & Filter Support.
12	15528	Spring, Carriage Return.
13	14354	Spring, Filter Return.

Item No.	Part No.	Description
14	14435	Spring, Brew Chamber.
15	29372	Chamber with Seal.
	12798	Seal, Brew Cavity.
	28406	Chamber, Brew.
16	29373	Carriage, Brew with Wiper.
17	16721	Filter, Molded, Brown.
18	16724	Seal, Ring Filter.
19	16723	Screen, Filter.
20	27926	Cover, Funnel.
21	28020	Support, Screen, Filter.
22	15022	Screw (6-32 x 1/2), FH,SS.
23	17898	Funnel, Poly.

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brewer base assembly cont.



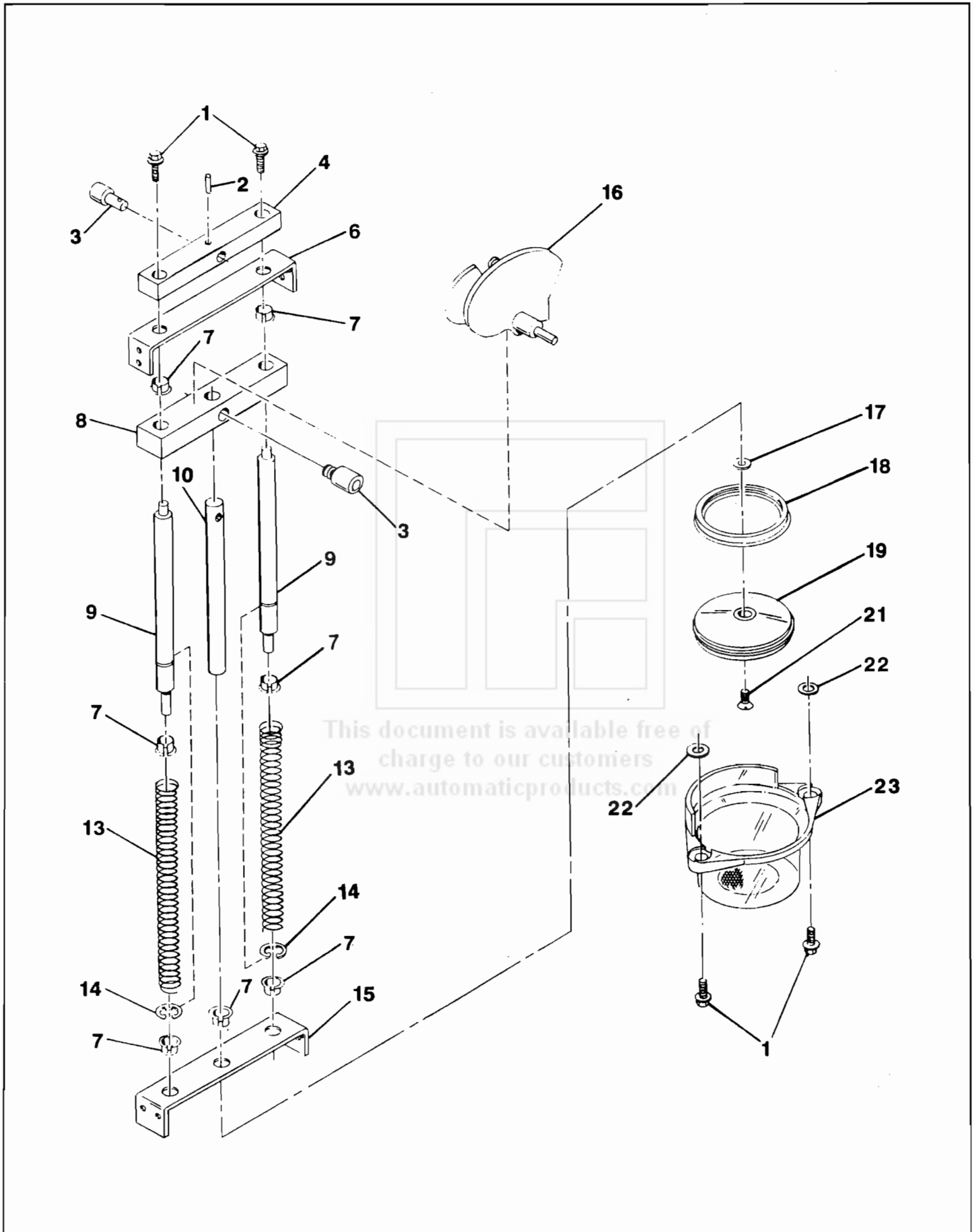
brewer base assembly cont.

Item No.	Part No.	Description
1	17365	Motor, Brewer.
2	03272	Screw (8-32 x 3/16), NYLD, SK Set.
3	17584	Blade, Fan, 1 5/8 Dia.
4	17846	Screw (10-32 x 2"), Socket Head Cap.
5	17423	Washer, Lock, #10 Int. Star, SCP.
6	14806	Screw (8-32 x 3/8), HH SCP F SD WA.
7	00961	Washer, Flat #8, SCP.
8	17412	Pin, Cotter (1/16 x 3/4) SS.
9	15553	Spool, Outer.
10	17404	Cable ASM, Slow Return.
11	17521-7	Ring, Retaining, 3/8 BCU, Waldes 5100-37140.
12	16058	Nyliner, 6L6F.
13	17683	Sleeve, Bearing.

Item No.	Part No.	Description
14	15554	Spool, Inner
15	277-10R6	Screw (10-32 x 3/8), HH, SD, SCP. Screw PH Phil. Type 23 (10-32 x 3/8).
17	17531	Panel, ASM, Brewer Back.
18	00822	Nut (5/8 -18 x 3/16), Hex, Brass.
19	16058-5	Nyliner, 12L12FGS.
20	15521	Shaft, Pinion.
21	15522	Gear ASM Segment.
22	15512	Cam Follower.
23	16058	Nyliner, CAM Follower.
24	15520	Gear, Pinion.
25	14511	Pin, Roll (3/32 x 1/2), SS.
26	17332	Channel, Brewer Side.

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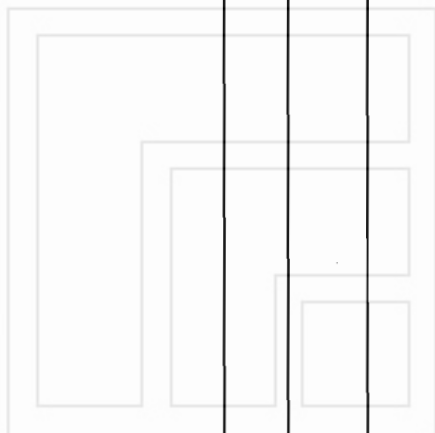
brewer base assembly cont.



brewer base assembly cont.

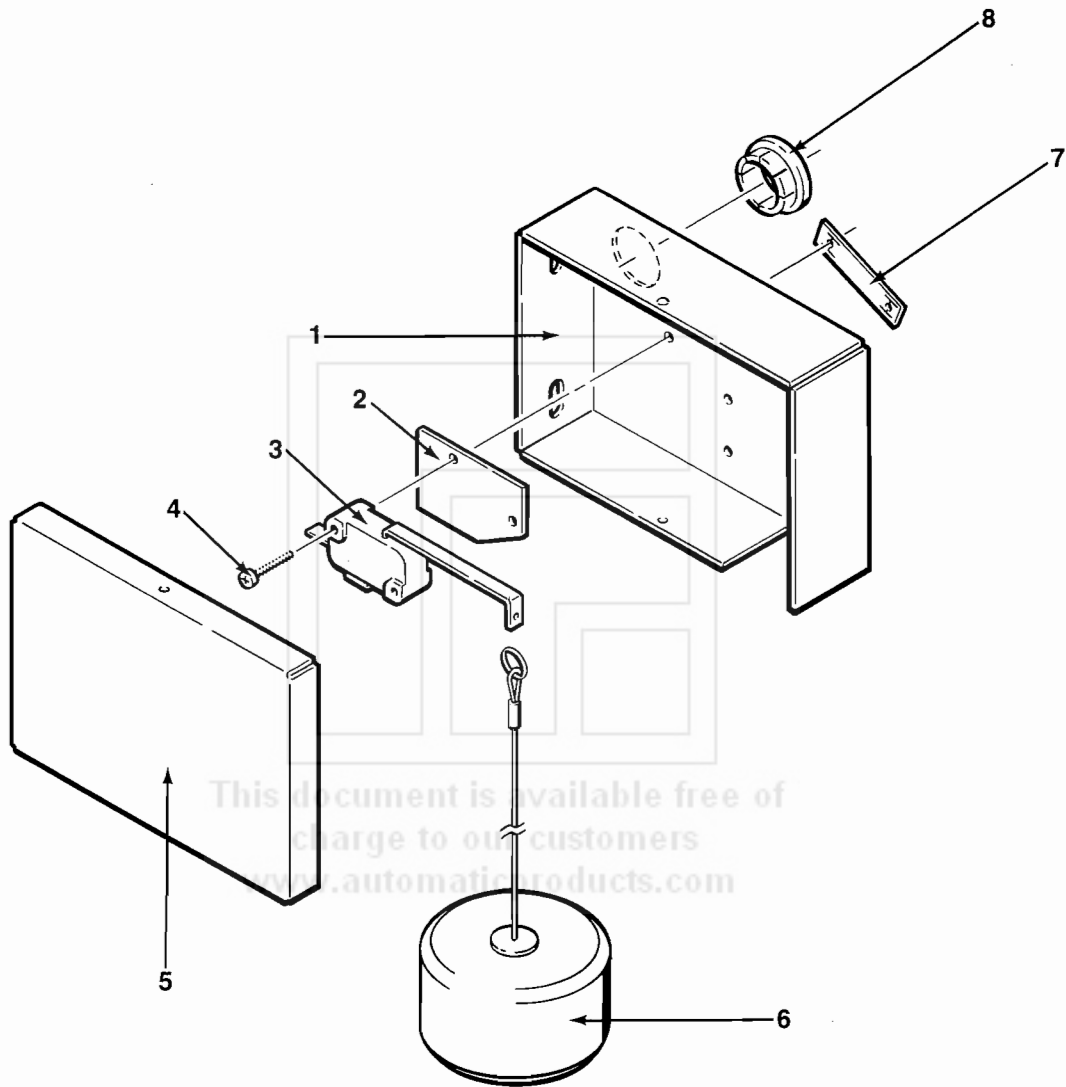
Item No.	Part No.	Description
1	17415	Screw (1/4-20 x 1/2), HH, WA, M, SCP.
2	14511	Pin, Roll (3-32 x 1/2), SS.
3	11947	Follower, CAM, Sealed.
4	17324	Bridge, Cylinder.
6	17326	Bracket, Guide Top
7	16058-17	Nyliner, 8L2FF.
8	33625	Bridge, Piston Assy.
9	33465	Rod, Cylinder.
10	33466	Rod, Piston.

Item No.	Part No.	Description
13	11956	Spring, Piston Return.
14	17521-10	Ring, Retaining, 7/16 SS.
15	17325	Bracket, Guide, Bottom.
16	17519	CAM ASM.
17	13085	Gasket, Piston.
18	29482	Seal, Piston, White Silicone.
19	29481	Piston, Molded, Red.
21	12716	Screw (1/4-20 x 1 1/4), SS
22	13839	(3/8 x 11/16 x 1/16), SS.
23	32714	Cylinder, Brewer.



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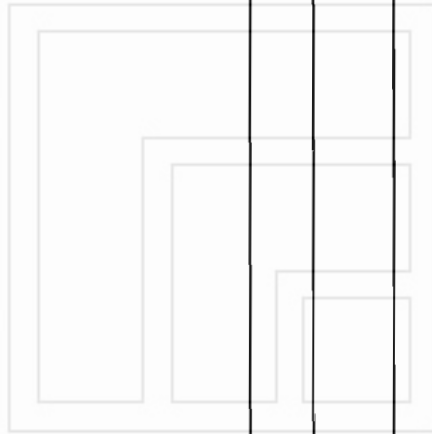
overflow switch assembly



overflow switch assembly

Item No.	Part No.	Description
1	660423-1	Assembly Complete. Overflow Switch Box.
	202003	Overflow Switch Bracket Only.
2	360023	Switch Insulation.
3	380273	Overflow Switch.

Item No.	Part No.	Description
4	100-4R10	Screw, Rd. Hd. Phil. Mach. (#4-40 x 5/8).
5	201876	Switch Box Cover.
6	660433	Assembly Float Overflow.
7	420241	Twin Type Speed Nut.
8	420040-8	Snap Bushing (5/8).



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labels

Orange - 440335-1

**DECAFFEINATED
FRESHBREW COFFEE**
Select
D5 Black
D6 White
D7 Black with Sugar
D8 White with Sugar

Dark Brown - 440335-2

**FRESHBREW
COFFEE**
Select
D1 Black
D2 White
D3 Black with Sugar
D4 White with Sugar

Dark Brown - 440335-3

COFFEE
Select
D1 Black
D2 White
D3 Black with Sugar
D4 White with Sugar

Light Brown - 440335-22

**WHIPPED
HOT CHOCOLATE**
Select
C7

Medium Brown - 440335-23

COFFEE
Freshly Brewed
Select
D1 black D3 Sugar
D2 light D4 light & sugar

Rust - 440335-25

**HAVE
A
NICE
DAY!**

Dark Brown - 440335-39

**DECAFFEINATED
COFFEE**
Select
D5 Black
D6 White
D7 Black with Sugar
D8 White with Sugar

Medium Brown - 440335-40

**FRESHBREW
COFFEE**
Select
D1

Orange - 440335-41

**DECAFFEINATED
FRESHBREW
COFFEE**
Select
D5

Medium Brown - 440335-42

COFFEE
Select
D1

Orange - 440335-43

**DECAFFEINATED
COFFEE**
Select
D5

Rust - 440335-44

**THANK
YOU**

Medium Brown - 440335-24

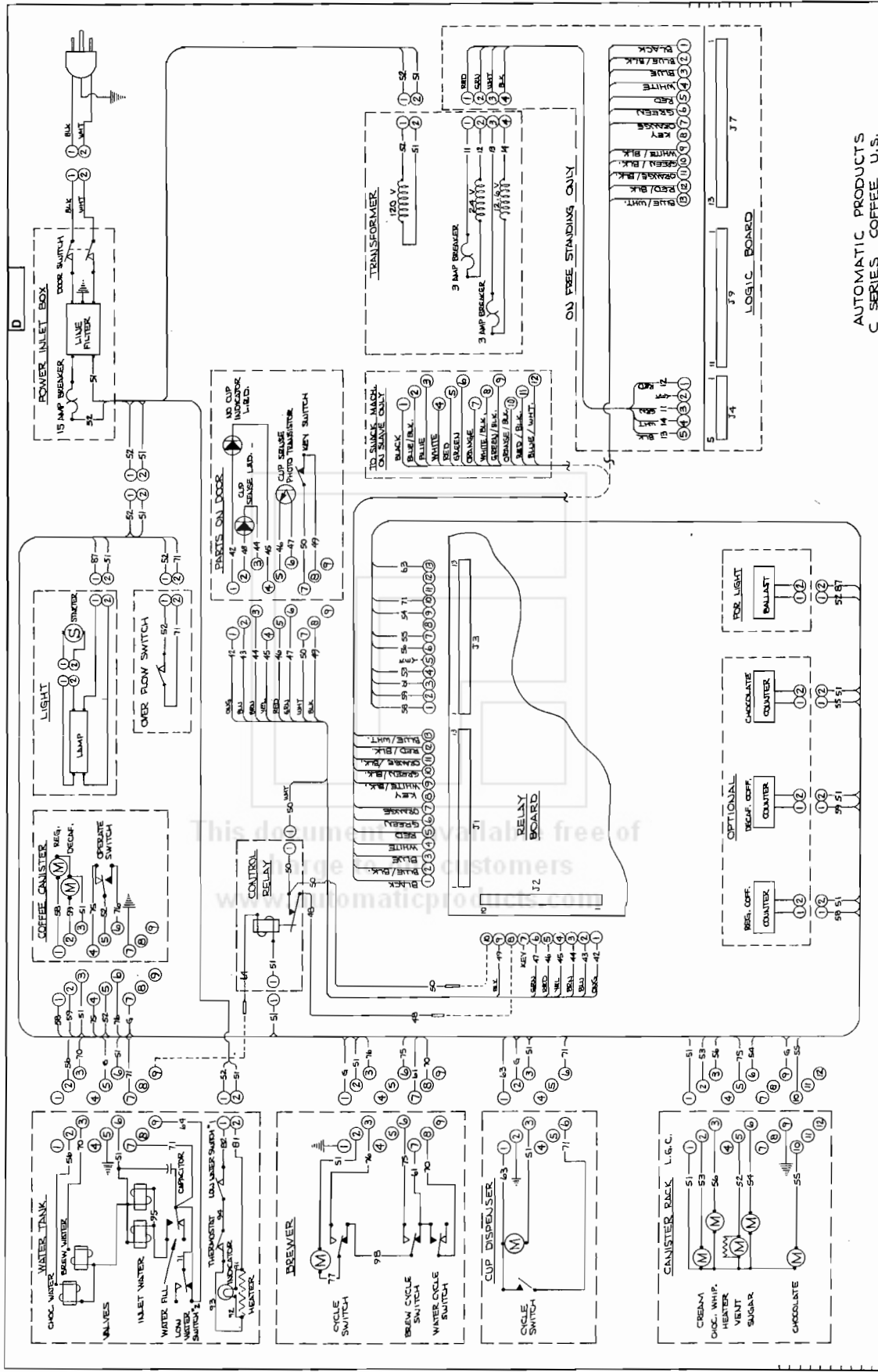
HOT WATER
Select
C8
Hold 8 for as long as
you want water.

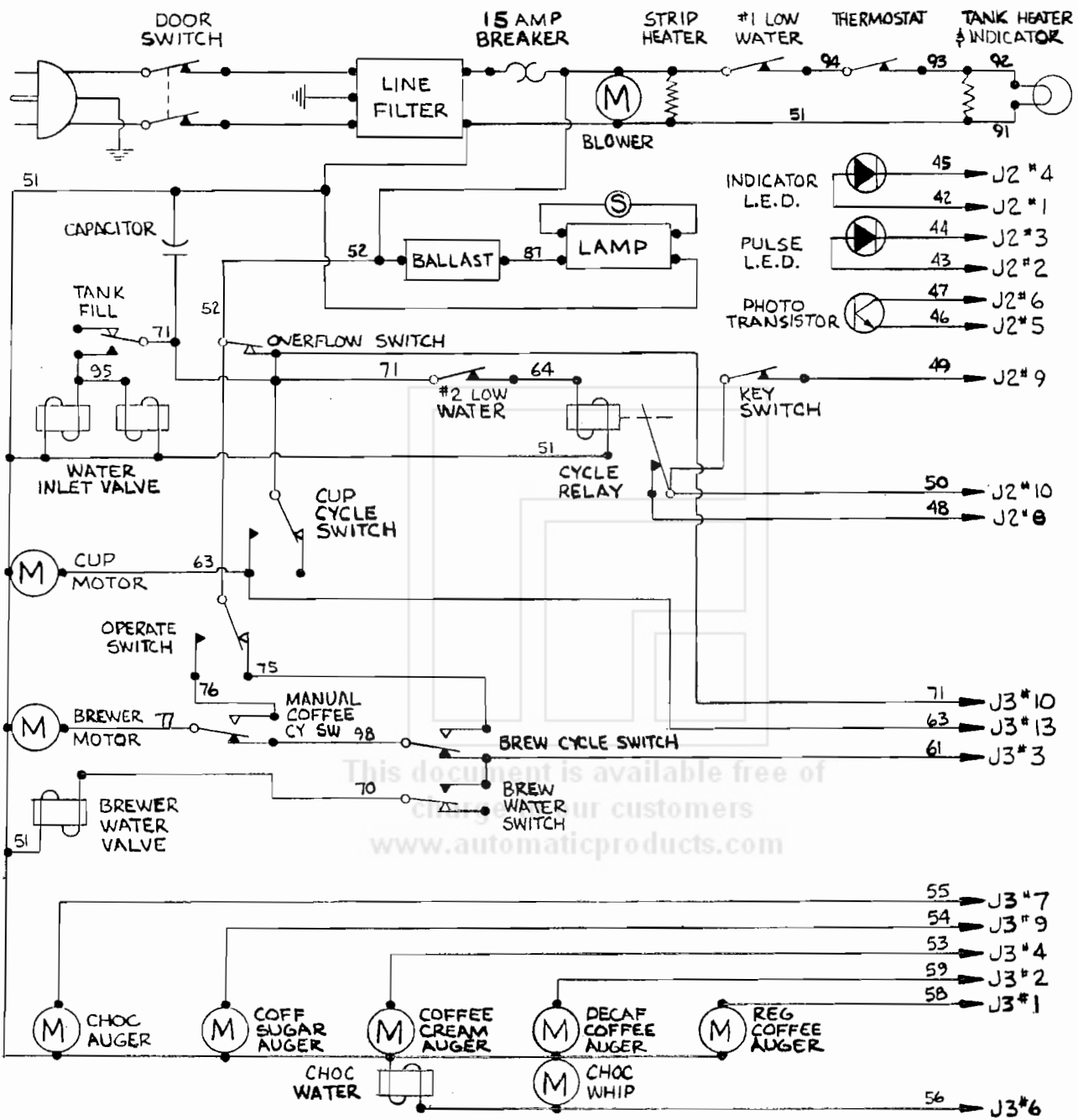
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electrical harnesses

Item No.	Part No.	Description
	680414	Coffee Free Standing Harness.
	680420	Harness, Vend Relay.
	680426	Harness, Coffee Cabinet.
	680428	Harness, Brewer.
	680395	Snack Harness To Coffee (Slave).
	680419	Canister Harness.
	680422	Canister Harness. Choc. Only.
	680423	Cup Drop Harness.
	680424	Coffee Hopper Harness (Single).
	680386	Interconnect Harness Coffee To Snack (Slave).

Item No.	Part No.	Description
	680425	Coffee Hopper Harness (Dual).
	680430	Harness, Brewer. Freeze Dry.
	680432	Counter Assembly With Harness.
	680433	Harness, Sense Circuit.
	680435	Harness, Water Tank.
	680436	Inlet Box Harness.
	680438	Free Standing Power Harness.
	680439	Line Cord.
	680444	Coffee To Can Harness.

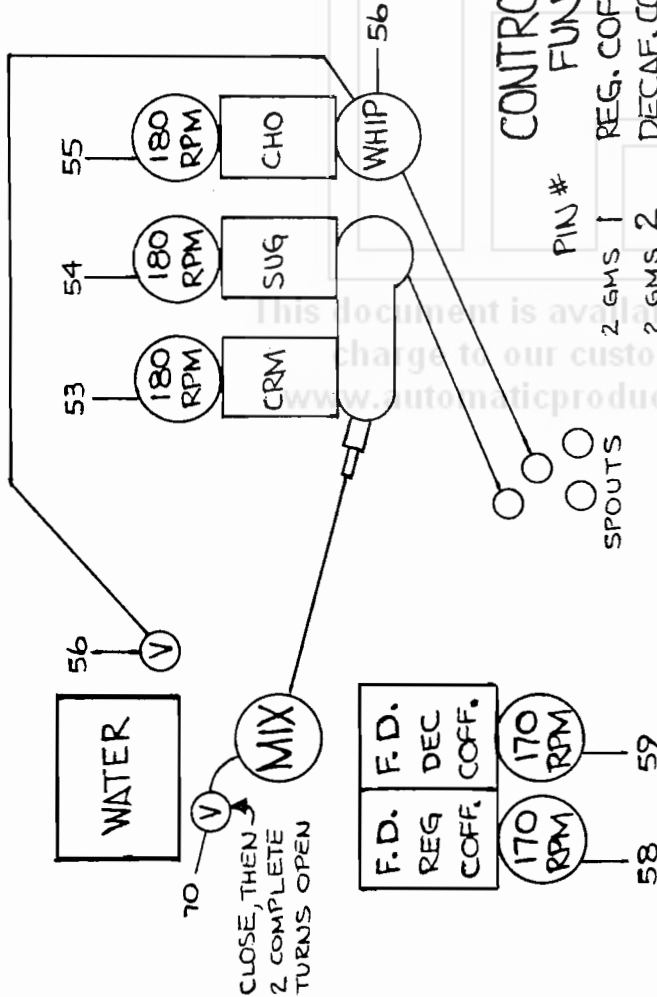




NOTE: INTERNAL GROUND
CIRCUITS NOT SHOWN

AUTOMATIC PRODUCTS
US C SERIES COFFEE

OTHER CONTACT ON ALL MOTORS & VALVES #51. WHERE BREWER PLUGS INTO CABINET HARNESS, USE A PLUG THE JUMPS, *70 TO *61.



LINE NO.	TIME CHAN.	BUT #2	BUT #3
—	0	25.0	.1
58	1	1.5	.2
59	2	1.5	.2
61	3	1.0	7.0
53	4	3.0	.6
54	5	3.0	1.0
X	6	.0	.0
55	7	.1	3.6
56	8	.1	4.8
X	9	—	—
X	—	—	—
71	—	—	—
X	—	.0	.0
63	—	—	—
	A	.1	.0

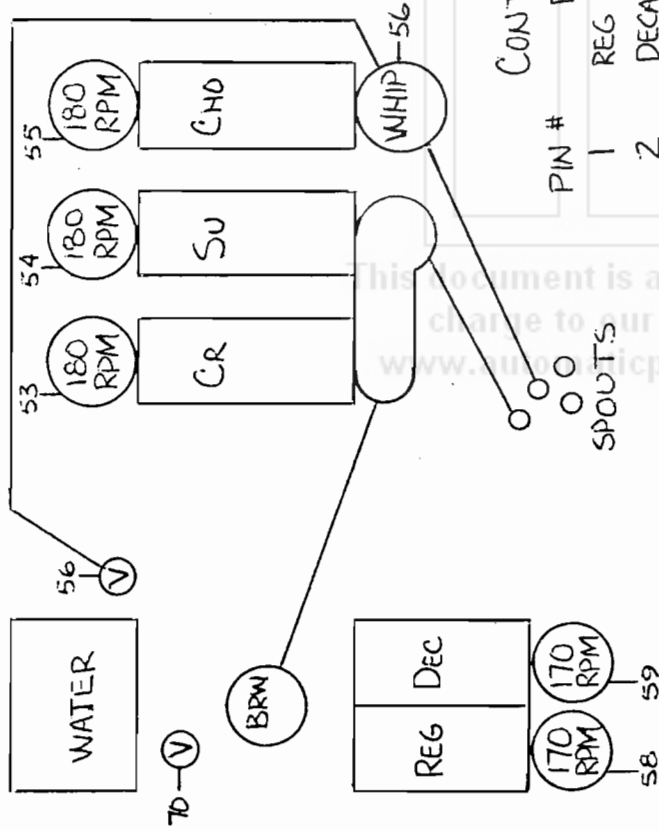
CONTROL BOARD FUNCTION

PIN #	FUNCTION
1	REG. COFF. AUGER
2	DECAF. COFF. AUGER
3	BREWER & WATER
4	CREAM
9	SUGAR
8	NOT USED
7	CHOCOLATE AUGER
6	CHOC. WHIP. & WATER
11	NOT USED
5	KEY
10	POWER TO BOARD
12	NOT USED
13	DISPENSE CUP

SELECTION	FUNCTION
C7	CHOCOLATE
D1	COFFEE BLACK
D2	COFFEE/CREAM
D3	COFFEE/SUGAR
D4	COFF/CRM & SUG
D5	DECAF BLACK
D6	DECAF/CREAM
D7	DECAF/SUGAR
D8	DECAF/CRM & SUG

US FDC or DFDC

OTHER CONTACT ON ALL
MOTORS & VALVES #51



LINE NO.	TIME CHAN	BVT #2	BVT #3
-	0	25.0	.1
58	1	0.0	2.0
59	2	0.0	2.2
61	3	3.0	3.5
53	4	11.0	.6
54	5	11.0	1.0
X	6	.0	.0
55	7	.1	3.6
56	8	.1	4.8
X	9	-	-
X	-	-	-
71	-	.0	.0
-	-	-	-
63	A	.1	.0

CONTROL BOARD

FUNCTION	PIN #
REG COFF AUGER	1
DECAF COFF AUG	2
BREWER & WATER	3
CREAM	4
SUGAR	9
NOT USED	8
CHOCOLATE AUG	7
CHOC WHIP & WATER	6
NOT USED	11
KEY	5
POWER TO BOARD	10
NOT USED	12
DISPENSE CUP	13

- SELECTION C7 CHOCOLATE
- D1 COFFEE BLACK
- D2 COFFEE / CREAM
- D3 COFFEE / SUGAR
- D4 COFF / CRM & SUG
- D5 DECAF BLACK
- D6 DECAF / CREAM
- D7 DECAF / SUGAR
- D8 DEC / CRM & SUG

US LGC or DHC.