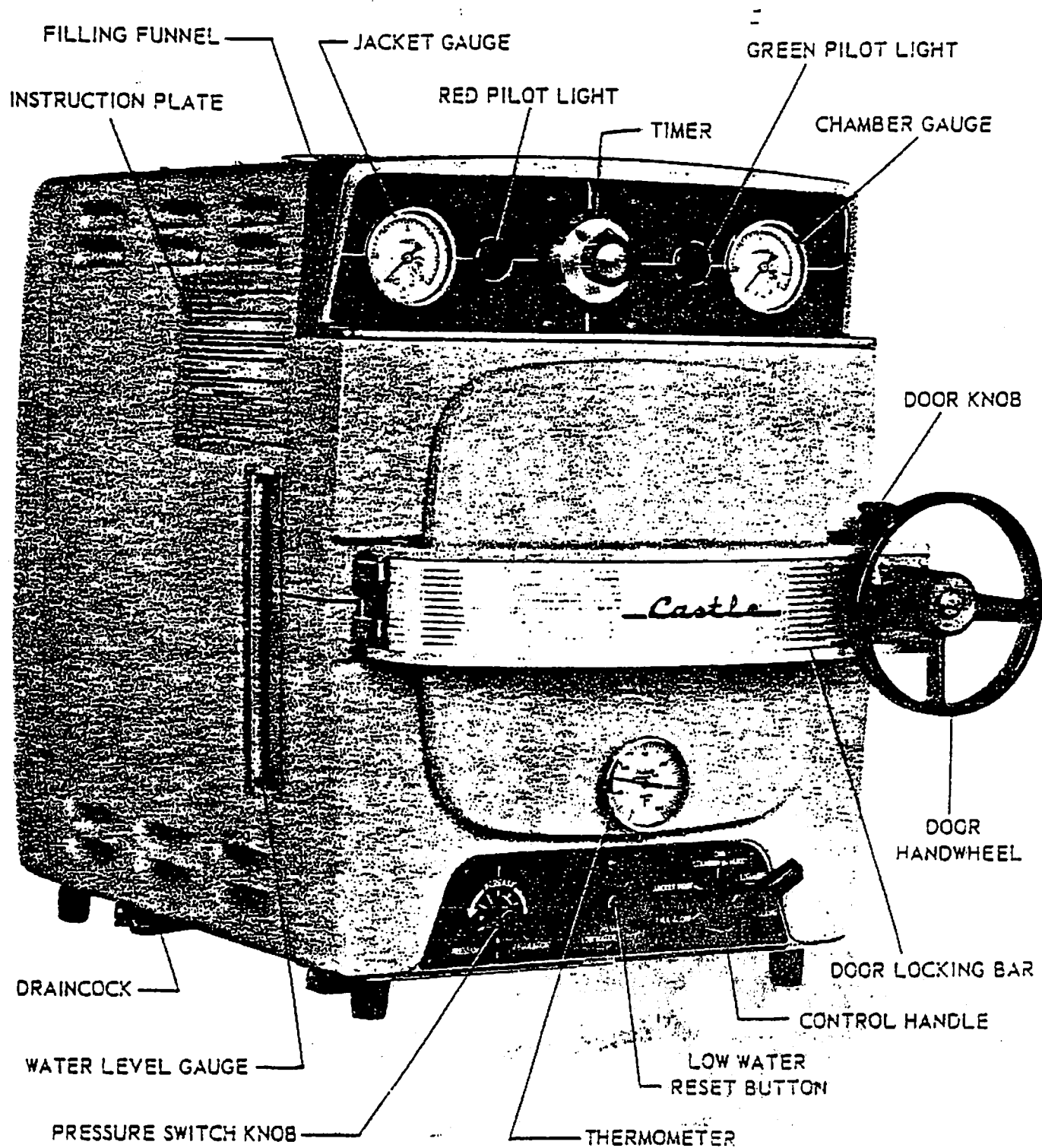


999-C AUTOCLAVE



SECTION I.

DESCRIPTION and PRINCIPLES of OPERATION

GENERAL

The Castle 999C Autoclave is a portable, double shell sterilizer designed for maximum safety and simplicity of operation. The steam for sterilization is generated from a self contained water supply. The only external connection is to a 110-120 volt, AC electric supply line. Operation of the Autoclave is controlled by the control handle after the timer dial and pressure switch knob have been set. A red pilot light that indicates when the heater is in operation, and a green one showing that the pre-selected Autoclave time has not been completed, can easily be seen from anywhere in the room. A water gauge, that indicates the water level in the jacket reservoir, is recessed in the side cover. It does not show the amount of water available in the condenser tank.

Sterilization is accomplished by exposing the contents to saturated steam at a definite temperature for a definite period of time. Steam enters the rear of the chamber and is deflected upward by a baffle. As steam displaces the air in the chamber, it forces all the air and condensate out of the air release assembly. Deflection of the steam to the top of the chamber, and location of the control handle beneath the door, eliminate the possibility of steam burns if a cycle is accidentally started when the door is open.

PRINCIPLES OF OPERATION

An external clamp-on heater under the sterilizer shell assembly heats the DISTILLED OR DEMINERALIZED water, which is in the jacket, until the vapor pressure in the jacket reaches a preset pressure (up to 27 pounds). When the proper pressure has been attained in the jacket, the sterilizer door is sealed and the control handle moved to the AUTOCLAVE position. Steam flows from the jacket to the chamber. Setting of the pressure switch gives the proper pressure for the various types of materials which are to be sterilized and setting of the timer gives the operator a means of visually observing the exposure period.

After sterilization has been completed, the steam is exhausted from the chamber by turning the control handle to the STANDBY & VENT position. This allows the steam to flow from the chamber to the condenser coils in the condenser tank. The steam condenses in the coils and then is forced into the collector tank and recirculated to the jacket reservoir.

The steam pressure in the jacket is reduced by

closing the sterilizer door and turning the control handle to the JACKET VENT position. This permits the steam to flow from the jacket to the chamber and then on to the condenser coil where it is condensed. After condensing, it moves to the collector tank and is then recirculated to the jacket reservoir.

CABINET

The upper and lower front sections of the sterilizer housing are fastened around the shell assembly headring. A control panel is bolted to the upper section. The back cover is held in place against the rear of the shell assembly by a threaded knob. The cabinet is braced from the front four corners to the rear four corners with tie rods. The wrap around cover, which fits in a groove on the back cover and a groove on the front housing, wraps around and encloses the top and two sides of the unit. The cover fastens to the bottom of the Autoclave with two screws which are easily removed for servicing the unit. A special formulated paint that will not discolor at high temperatures is used on all painted parts.

INSTRUMENT PANEL

The instrument panel above the Autoclave door contains the following components:

Pressure Gauges. The jacket pressure gauge and the chamber pressure gauge indicate steam pressure in the jacket and chamber respectively. Each gauge has a removable bezel and glass. The glass is removable to permit calibration of the pressure gauge.

Pilot Lights. The red pilot light is lit when heat is being supplied by the heater. The green pilot light is lit when the timer is set, and goes out when the set time expires.

Timer. The one-hour timer is graduated in minutes and aids in timing the proper exposure period. It does not control the operation of the Autoclave.

CONTROL PANEL

The control panel beneath the Autoclave door consists of the following components:

Pressure Switch Knob. Turning of the pressure switch knob on the left hand side of the control panel

SECTION NO. 1-

regulates the jacket steam pressure in the STANDBY phase of a cycle, and it regulates the jacket and chamber pressure in the AUTOCLAVE phase of a cycle. The pressure is controllable from 0 to 27 psi. and it can be maintained at any point within that range.

Low Water Reset Button. Pressing this button resets the cut-out switch, if it has opened the electrical circuit due to overheating of the system. This is usually caused by an inadequate water supply.

Control Handle. Operation of the Autoclave is controlled by moving this handle to one of the five positions which are: FILL & OFF, JACKET VENT, ON-STANDBY & VENT, LIQUIDS COOL and AUTOCLAVE.

WATER SUPPLY FIXTURES

The external parts of the water supply system consist of:

Screened Fill Funnel Opening. The screened opening, for filling the unit with water, is on top of the Autoclave at the front left hand side.

Draincock. The draincock is on the left hand side and at the lowest point on the unit. This permits complete removal of the water for shipment or for servicing. The draincock is also used to drain off excess water if the unit is overfilled.

Gauge Glass. This is located at the left hand side of the unit and it indicates the water level in the jacket reservoir.

DOOR

The door, which is self aligning, is pivoted on a locking bar that is hinged on the Autoclave headring. A lock bolt with a handwheel threaded on it is pivoted in an identical hinge on the opposite side of the headring. When the door is closed, the locking bolt and handwheel are swung into a slot in the locking bar, and tightened. When the door is being drawn up tight, the thrust is carried against a bearing in the handwheel. Steam pressure in the chamber will prevent the lock bolt from pivoting out of its seat if the handwheel is accidentally loosened.

A temperature gauge is located on the front part of the door. It accurately measures the temperature at all times.

ELECTRICAL CONNECTION

The only electrical connection necessary is to plug the 3-prong grounded type plug of the insulated

supply cord into a standard receptacle.

CHAMBER

The Autoclave is furnished with a tray rack and two corrosion resistant, perforated metal trays. A bottle rack is available as an accessory. In normal operation, steam enters at the rear center of the chamber, and is deflected upward by a baffle. It is exhausted through a screened drain at the lower front of the chamber.

INTERIOR

Shell Assembly. The shell assembly is a double walled cylinder with space between the inner and outer walls. The two concentric cylinders are sealed at one end with a single backhead and on the other end with a headring. The sealed area between the cylinders holds steam independent of the chamber. When steam is present in the chamber during sterilization, the chamber is made steam tight by a gasketed door.

Heater. The unit is heated by a formed tubular heater which is fastened to the bottom of the shell assembly with a curved sheet of steel called a heater holddown pad. A disbursing plate between the heater and the shell assembly, conducts the heat evenly from the heater. A curved metal reflector beneath the hold-down pad reduces the heat loss and confines the heating zone.

Low Water Cut-Out Switch. This is a bi-metal thermostat switch mounted on the outer shell. It opens the electric supply circuit if the unit overheats. The switch is reset by pushing the low water reset button.

Condenser Assembly. The condenser tank condenses the steam vented from the chamber and the jacket. A filter screen in the outlet line from the tank prevents foreign matter from entering the fill valve.

Collector Tank. After the steam has condensed, it is forced into the collector tank and recirculated to the jacket reservoir.

Valve And Cam Assembly. The valve bracket supports the vent valve, autoclave valve, and fill valve which have stainless steel springs and heat resistant O-ring seals. It also contains the cam shaft with its component parts. Turning of the control handle rotates the cams which in turn open and close the valves and the electric supply switch. The switch is mounted on the valve bracket at the rear of the valve assembly.

Valve Control Detent. The valve control detent retains the control handle in each of its operating

SECTION NO. 1.

positions by means of a notched detent plate and a spring detent arm.

Safety Valve. This valve provides protection from excessive pressure and is factory set to release pressure at 29 psi. It is mounted on top of the collector tank and is connected to the jacket by a safety valve line.

Air Release Assembly. This assembly expels air from the system and prevents stratification. It is mounted on top of, and discharges into, the collector tank.

Pressure Switch. The pressure switch, adjustable from 0 to 27 psi., controls the operating temperature and pressure in the Autoclave by controlling the heater. It is accurate to within $\pm 3/4$ psi. or approximately $\pm 1-1/2$ degrees F. at any setting. Jacket and chamber gauge readings are indicated in pounds. To convert pressure readings to the corresponding temperatures, see the table on Page 7.

Water Tube Assembly. This assembly indicates the amount of water in the unit. The gauge glass is connected by tubing and fittings to ports at the top and bottom of the jacket. This arrangement prevents air being trapped in the gauge, and balances pressure on the water column so that an accurate reading is possible at all times.

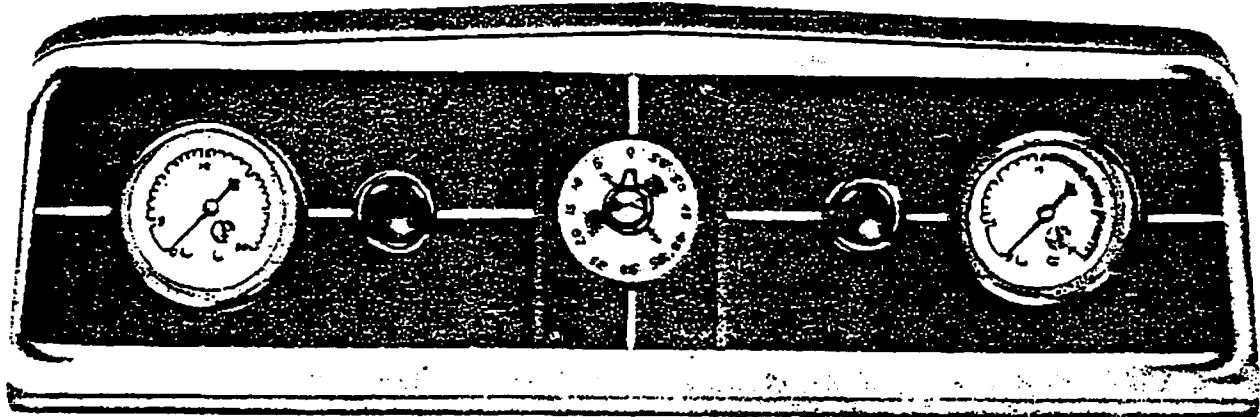
Filter Assembly. A filter has been placed in the tubing line between the fill valve and the jacket. The screen assembly within the filter is removable for cleaning.

Tubings and Fittings. All the steam and water lines of the system are copper tubing and are connected by brass compression fittings. The steam lines are insulated with fiberglass tubing.

Wire Harness. The electrical connections are made with a single wiring harness and two short jumper wires. The wires can be attached to the proper terminals by following the pictorial wiring diagram in the Manual.

SECTION II.

OPERATING INSTRUCTIONS



INSTRUMENT PANEL

GENERAL

The following are detailed instructions for operating the Autoclave. Condensed instructions are printed on a decal attached to the side of the unit.

LEVELING

Always place the Autoclave on a level surface. It has been constructed so that the rear of the chamber is slightly higher than the front to assure proper drainage.

ELECTRICAL SUPPLY

The Autoclave is wired for 110-120 volts, AC current only, unless it has been ordered special for 220-240 volts. Connect the 3-prong grounded type plug at the rear of the unit to a wall outlet. If the plug does not fit, it is recommended to adapt the wall outlet to the plug. This will assure proper grounding of the unit.

DOOR OPENING

To open the Autoclave door, rotate the handwheel

several turns counterclockwise and then swing it to the side, thus freeing the door. Pull the door open with the knob on top of the door locking bar.

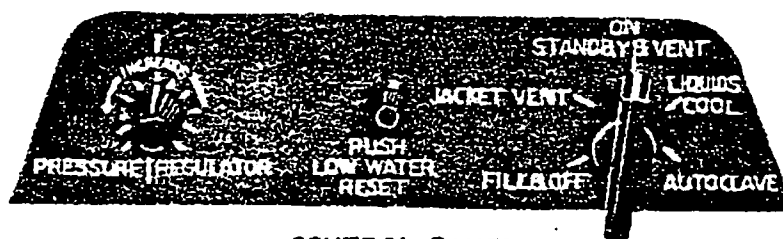
WATER SUPPLY

NOTE

Use only distilled or demineralized water in the Autoclave.

Initial Filling. Open the Autoclave door and turn the control handle to the FILL & OFF position. Measure and pour exactly 3-1/2 quarts of distilled or demineralized water slowly into the fill funnel on top of the unit. Stop occasionally to check the water level by the gauge glass markings. These are: "OF" - Over-Filled, "F" - Full, and "E" - Empty. The water will not begin to rise immediately in the gauge glass because the water must pass through the collector tank and internal piping before reaching the jacket reservoir and gauge glass.

a. The unit may become air-bound during the initial filling with water and give an inaccurate reading on the gauge glass. Turn the control handle back



CONTROL PANEL

SECTION NO: II

and forth between FILL and AUTOCLAVE about three times. This will work the valves and release the air.

b. If the unit is overfilled, partially unscrew the threaded plug in the draincock and drain the water until it is below the "OF" - OverFilled mark on the gauge.

Refilling. After each load, check the water level gauge. If the water level has receded to the "E" - Empty mark, fill it as follows:

a. Close and seal the door. Vent the jacket by turning the control handle to the JACKET VENT position. Allow the pressure to vent through the chamber until the jacket gauge reading is zero. When the jacket gauge reads zero, turn the control handle to the FILL & OFF position and wait a few minutes for the water, that has accumulated in the collector tank, to return to the jacket reservoir. Add distilled or demineralized water through the fill funnel on top of the unit until the water level in the gauge glass reaches the "F" - Full mark.

NOTE

Before turning the control handle to the FILL & OFF position, turn it to the JACKET VENT position and allow the jacket pressure to drop to zero. There is no possibility of injury to either the operator or the unit if the handle is turned directly to the FILL & OFF position with steam pressure in the jacket, but will result in the emission of undue noise.

MARKING OF PRESSURE SWITCH DIAL

All Autoclaves are set to operate at 27 psig. when they leave the factory. To operate at pressures less than 27 psig., it is recommended to mark the dial behind the pressure switch knob for each pressure setting. Subsequent operation will only require setting the pressure switch knob to the mark on the dial for the desired pressure.

NOTE

For recommended times and temperatures, refer to the Time and Temperature Chart.

Mark the pressure switch dial in the following manner:

a. Turn the control handle to the STANDBY & VENT position and the pressure switch knob counterclockwise toward "Increase", against the stop pin. This turns on the current, energizes the heater, and

lights the red pilot light. The red pilot light will remain lit until the jacket temperature reaches 27 psig. When the red light goes out, turn the control handle to AUTOCLAVE. The pressure will drop in the jacket and equalize with the chamber pressure. The two gauge pressures will rise together. Watch the gauges and when the reading reaches the desired pressure, selected from the Time and Temperature Chart, turn the pressure switch knob slowly clockwise until the red pilot light goes out. Mark the pressure switch knob at this point and repeat the procedure for other pressure temperature settings desired. Subsequent operation at the same pressure will only require setting the knob at the mark.

OPERATING CYCLE

a. Check the water gauge. If the water level has receded to the "E" - Empty mark, add distilled or demineralized water as outlined under "Refilling". Turn the pressure switch knob counterclockwise toward "Increase", against the stop pin. Turn the control handle to the STANDBY & VENT position which turns on the electric supply to the heater, and lights the red pilot light. The pressure will begin to rise in the jacket as indicated on the jacket pressure gauge. Under normal conditions, the jacket pressure will reach its maximum pressure of 27 psi in approximately 22 minutes.

NOTE

If the red pilot light does not come on when the control handle is turned to the STANDBY & VENT position, check the water supply and fill if necessary. Then press the red LOW WATER RESET BUTTON. If the pilot light still does not come on, check the electrical supply.

b. Place the materials to be sterilized in the Autoclave. The unit is provided with two instrument trays which are removable for processing bulky loads.

c. Close the door of the Autoclave and swing the handwheel into the locking bar recess. Rotate the handwheel until the door is sealed.

d. Rotate the pressure switch knob clockwise to the desired setting previously marked on the dial and turn the control handle to the AUTOCLAVE position. When the chamber pressure gauge indicates the desired pressure temperature, turn the timer knob clockwise to the exposure setting recommended in the chart for the corresponding temperature. This is best done by turning the timer knob to a point beyond the selected setting. Then, return it to the exact desired reading. This action will turn on the green pilot light which

SECTION NO. 11

will remain lit until the necessary exposure period is completed. Note that the timer does not control current to the heater.

e. When the green pilot light goes out, the timing cycle is completed. If the load consists of instruments, cotton or rubber goods, turn the control handle to the STANDBY & VENT position and the pressure switch knob counterclockwise to its highest setting against the stop pin. This resets the unit for the next cycle. For solutions or infant formula, turn the control handle counterclockwise to the LIQUIDS COOL position. This setting allows the entire unit to cool slowly avoiding ebullition of the liquids due to rapid decompression.

f. When the chamber pressure is zero, open the door slightly and leave it in this position for 3-5 minutes. This allows complete drying of the instruments, cotton or rubber goods. Liquid loads may be removed as soon as the chamber gauge reads zero, because there is no necessity for placing the door in the ajar position for drying. Note that it is normal for a small amount of condensate to remain in the chamber when the above described procedure, for slow cooling of liquid loads, is followed.

g. To repeat a cycle, follow the instructions starting again under OPERATING CYCLE. Jacket steam pressure has been automatically maintained by leaving the control handle in the STANDBY & VENT position.

NOTE

The Autoclave heater is protected by a low water cutout. Should the unit run dry, current to the heater will be automatically cut off. When this happens, turn the control handle to FILL & OFF and refill through the filling funnel. Then press the red low water reset button.

h. At the end of the working day, shut the Autoclave off by closing the door and turning the control handle to the JACKET VENT position. When the jacket pressure reaches zero, open the door and turn the control handle to the FILL & OFF position. Always leave the Autoclave door slightly ajar when the unit is not in use.

TIME AND TEMPERATURE CHART

TEMPERATURE		PRESSURE	MINIMUM EXPOSURE TIME FOR VARIOUS TYPES OF LOADS				
C.	F.	Lbs.	Instruments	Cotton	Rubber	Solutions	Formula
110°	230°	7	*	*	*	*	10 min.
121°	250°	15	20 min.	30 min.	15 min.	15 min.	*
127°	260°	21	10 min.	20 min.	*	*	*
132°	270°	27	3 min.†	*	*	*	*

* Not Recommended.

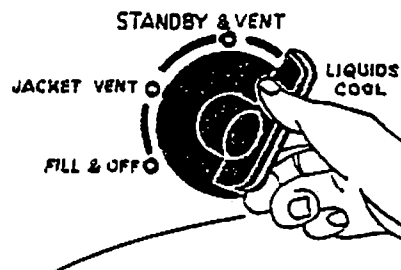
† For emergency processing of a few instruments only. Larger instrument loads require a 6-minute exposure time at 270°F.

NOTE: Timing of the cycle, as recommended above, should begin only after the chamber gauge needle has reached the corresponding autoclaving temperature described above.

SECTION III.

OPERATIONAL SEQUENCE, MECHANICAL

Illustrations of a 999-C Autoclave appear in this section. The shaded or toned areas of the piping and components show where the following elements are present, and arrows indicate the direction of flow.



STEAM IN TRANSITORY STATE



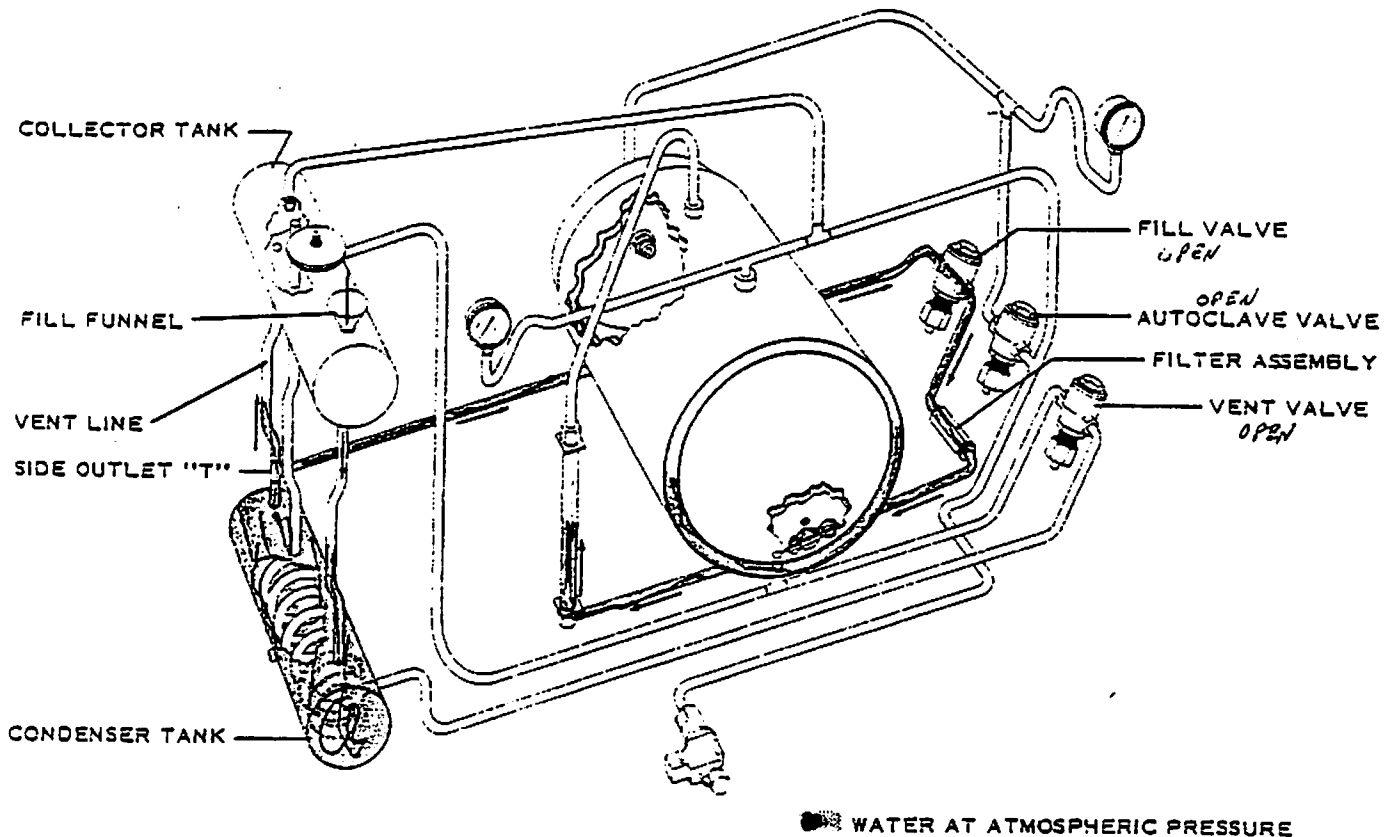
WATER AT ATMOSPHERIC PRESSURE



STEAM UNDER PRESSURE



WATER UNDER PRESSURE



SCHEMATIC DIAGRAM OF STEAM SYSTEM IN "FILL" PHASE

OPERATING PHASES

Fill Phase. During the filling process, the control handle is placed in the FILL & OFF position. Water poured through the screened fill funnel flows into the collector tank and through the connecting fill line to the condenser tank below. After the condenser tank is filled, the water flows through a fine screen filter located inside the tank. Then, it flows through the side outlet "T", and through the tubing line to the fill valve. The tubing at the top opening of the side outlet "T" provides a vent line back to the collector tank.

Rotating the control handle to the FILL & OFF position automatically opens the three operating valves to permit air release. The water flows through the fill valve, tubing, filter assembly, and into the jacket. The jacket port has a "T" fitting with one outlet connected to the bottom of the water level tube. The top of the water level tube is connected to a port in the top of the jacket. As water flows from the fill valve into the jacket inlet "T", part of the flow continues on into the water level tube and registers the water level in the jacket.

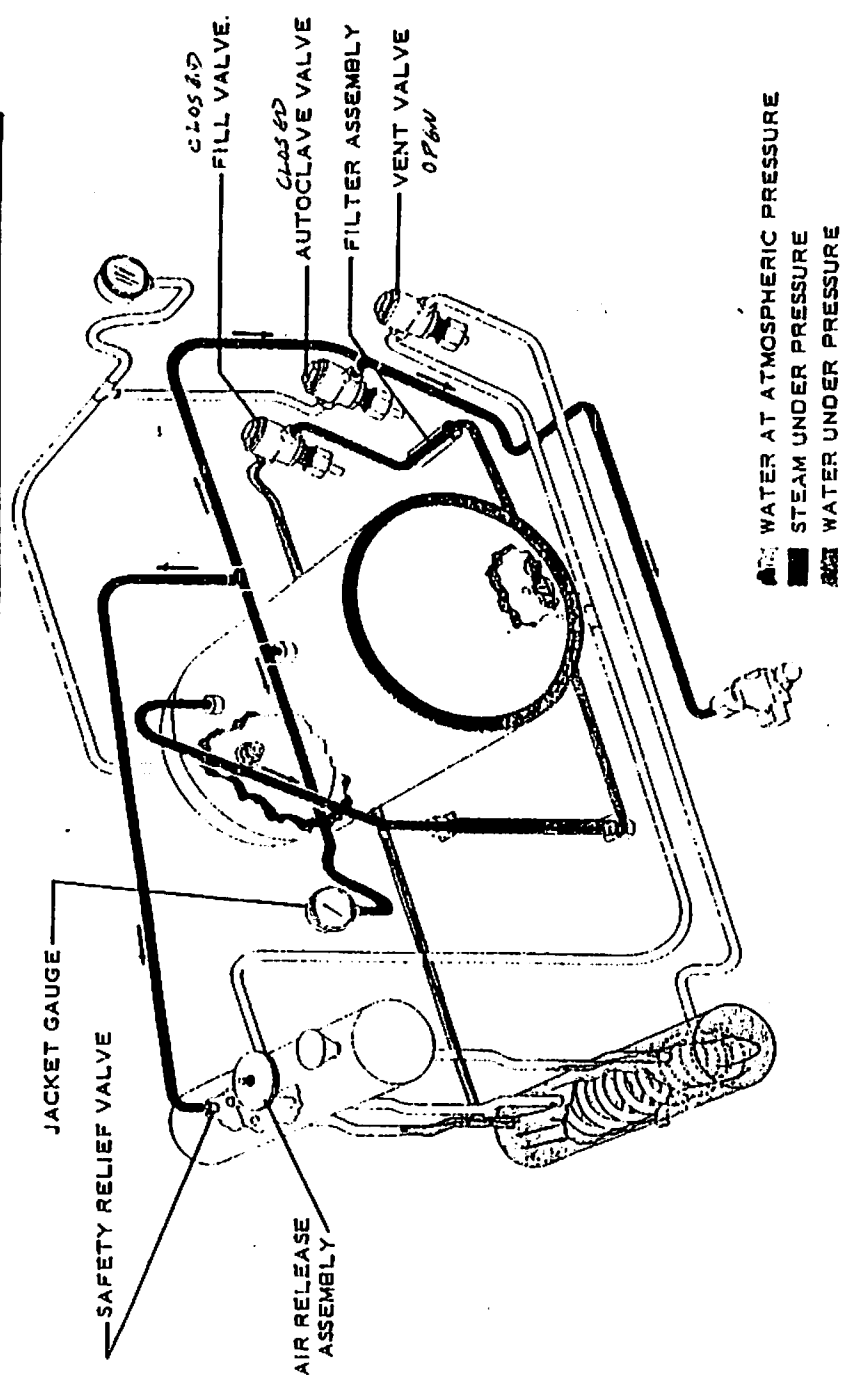
Filling continues until the level in the gauge

glass shows that the jacket has been filled approximately to its center line.

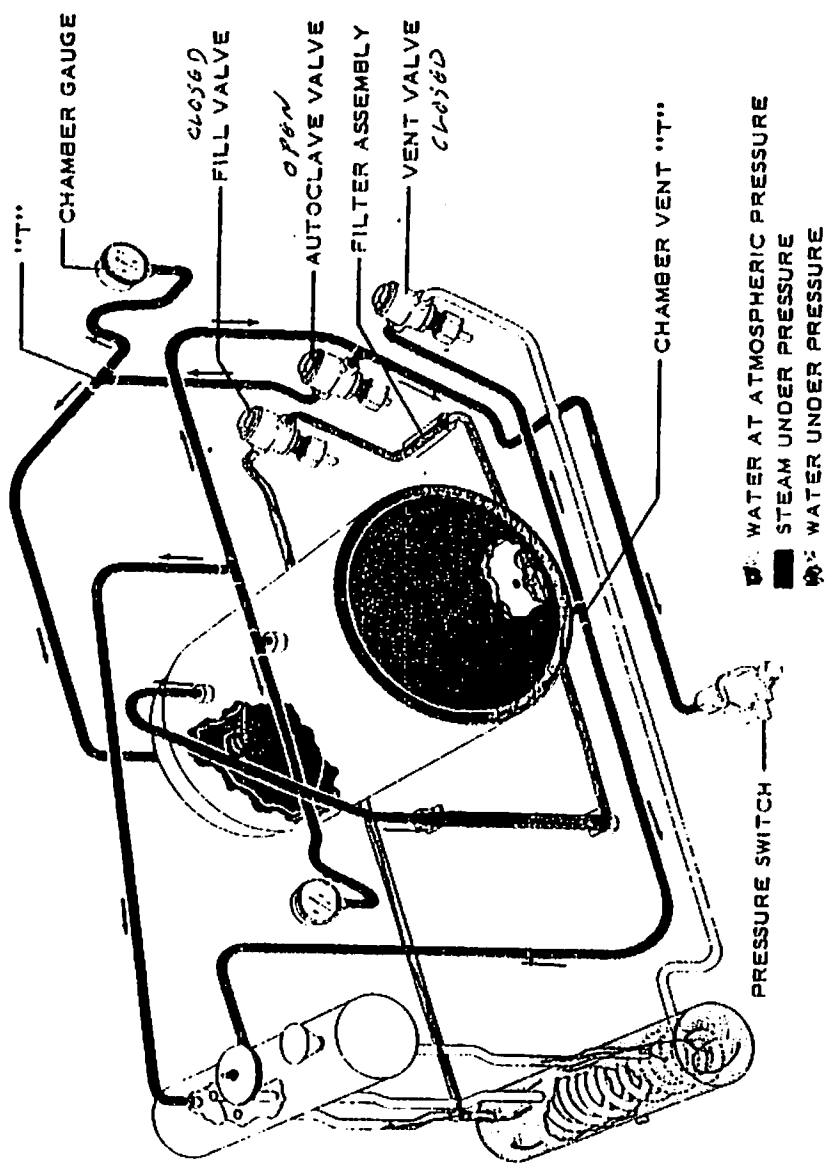
Standby Phase (Jacket Pressure is Building Up or Stabilized). During this phase the vent valve is open to prevent pressure from building up in the chamber. The autoclave valve and fill valve are closed. The main switch is on and the pressure switch is turning the heater on and off as required to establish or maintain the selected pressure in the jacket. The water in the condenser tank and in the line to the fill valve is at atmospheric pressure. Water in the jacket, filter assembly, gauge glass, and associated tubing, up to the fill valve, is under pressure. Steam under pressure fills the jacket above the water line. Arrows in the diagram show how the pressure is transmitted through the lines. It is transmitted from the top of the jacket to the jacket gauge, pressure switch, water level gauge glass, and to the safety valve located at the top of the collector tank.

Autoclave Phase. In this phase only the autoclave valve is open. The main switch is on. The fill valve and the vent valve are closed. All conditions of the water and steam are the same as in the Standby Phase, with the addition of the following:

SECTION NO: iii

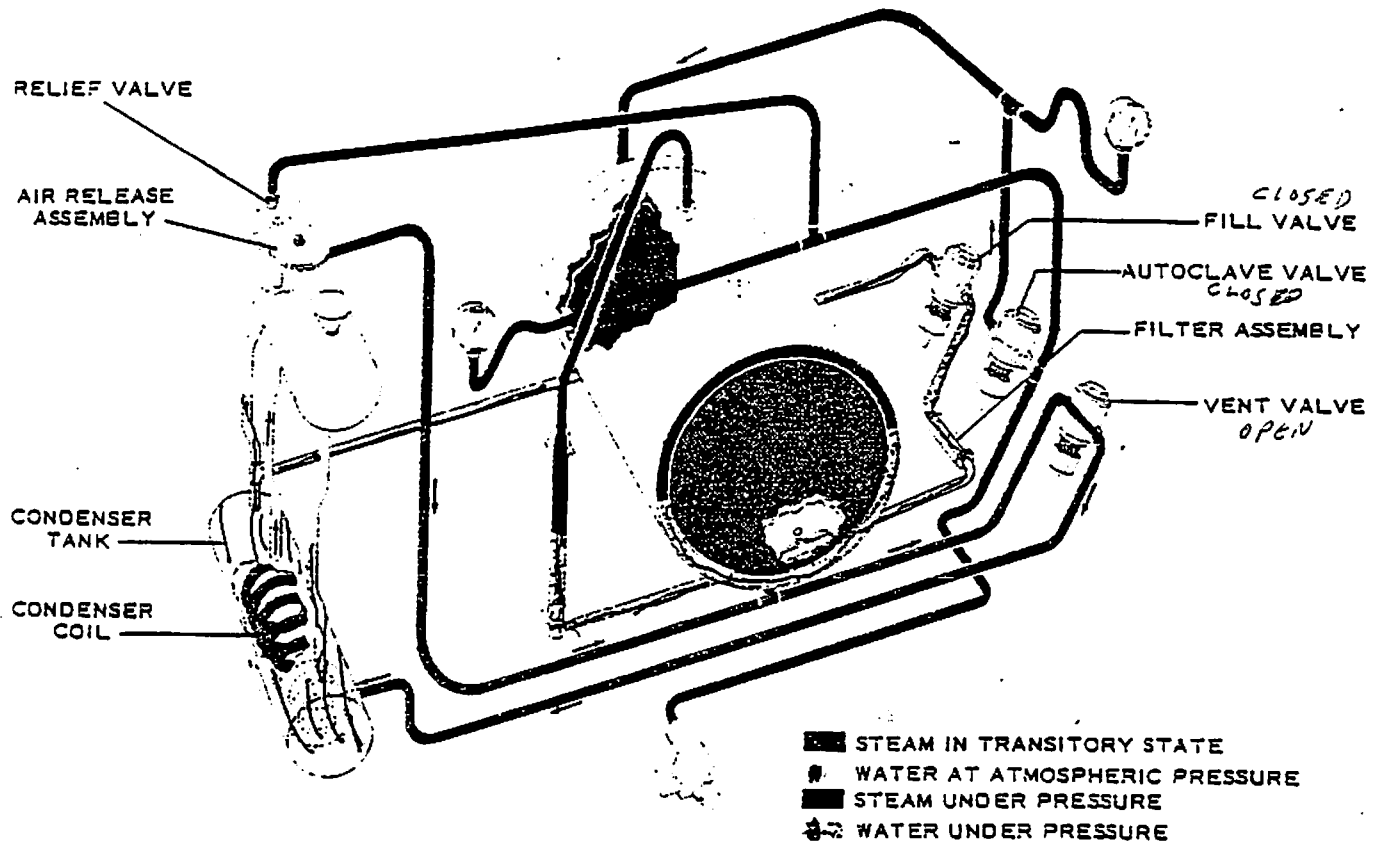


SCHEMATIC DIAGRAM OF STEAM SYSTEM IN "STANDBY" PHASE

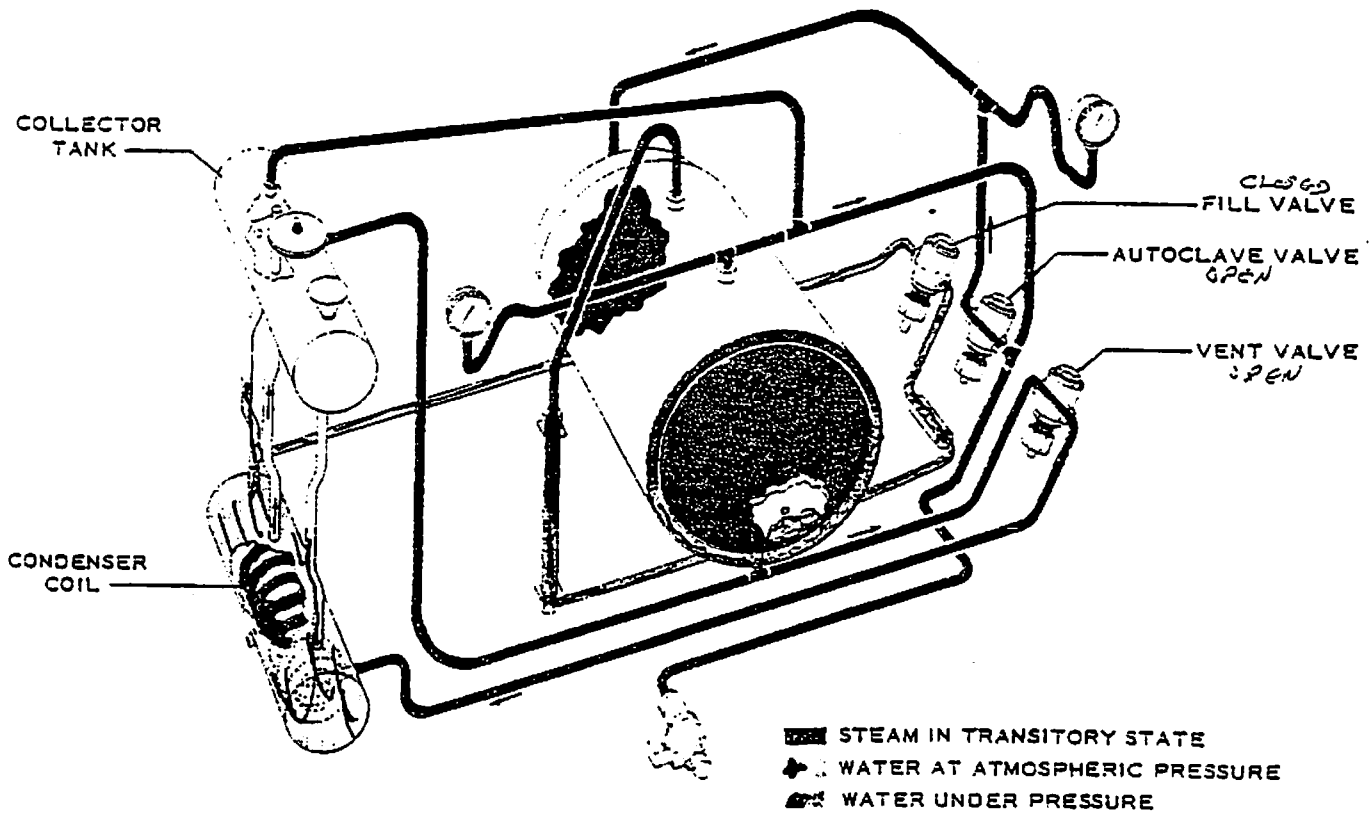


SCHEMATIC DIAGRAM OF STEAM SYSTEM IN "AUTOCLAVE" PHASE

SECTION NO. III



SCHEMATIC DIAGRAM OF STEAM SYSTEM IN "STANDBY & VENT" PHASE (as Chamber is Venting)



SCHEMATIC DIAGRAM OF STEAM SYSTEM IN "JACKET VENT" PHASE

SECTION NO. III

Steam in the line from the top of the jacket to the pressure switch passes through the open autoclave valve into a tubing line and "T". Arrows in the diagram show the direction of flow as steam passes from one side of this "T", through tubing, to the chamber gauge. From the other side of this "T", steam flows through the tubing, to the rear of the unit and into the chamber. Steam leaves the chamber through a port at the lower front and enters a "T". One branch leads to the now closed vent valve. The other branch leads to the air release assembly. Air and condensate are expelled as the steam under pressure enters the chamber.

Standby & Vent Phase (As Chamber is Venting).

This diagram illustrates the steam pressure in the chamber being reduced at the moment the control handle is returned to the STANDBY & VENT position from the AUTOCLAVE position. A fourth shaded pattern has been added to the diagram. This identifies steam under pressure and in the transitory state as it is being exhausted from certain areas and condensed. When condensation is complete, the system returns to exactly the same conditions as in the STANDBY phase. By turning the control handle to the STANDBY & VENT position, the autoclave valve is closed and the vent valve opened. The main switch remains closed. Steam passes through the condenser coils in

the direction shown by the arrows.

The exhaust steam passes through the coil in the condenser tank and is condensed. The condensate is forced, by back pressure, out of the condenser coil through a connecting tube to the collector tank. The condensate flows from the collector tank down into the condenser tank. The heater maintains pressure in the jacket so that it is continuously ready for the next Autoclave cycle.

Jacket Vent Phase. The condition shown in the diagram represents the steam system a moment after the control handle has been swung from the AUTOCLAVE position directly to the JACKET VENT position. Note that all the area in the Autoclave diagram containing steam under pressure is shown in the Jacket Vent diagram as steam reducing in pressure. It is exhausted to the condenser, where it is condensed. Arrows show its direction of flow. By setting the control handle to the JACKET VENT position, the autoclave and vent valves are opened and the main switch turned off. This allows all the steam in the unit to be exhausted through the condenser coil to the collector tank. The condensate then flows to the condenser tank. When all the steam in the unit has been condensed, all the water shown in this diagram under pressure, also returns to atmospheric pressure.

SECTION IV.

REPAIR and MAINTENANCE

GENERAL

Instructions for the removal, replacement, and adjustment of the Autoclave parts are given in this section.

When the repair procedure makes it obvious, instructions for the cover removal, reassembly, and draining of the unit are not repeated.

Unplug the electric cord from the power supply. Drain the water from the unit by turning the control handle to the FILL & OFF position, opening the Autoclave door, and unscrewing the plug from the draincock.

Place the unit on a pad when it is turned on its side for repair. This prevents marring of the painted and chrome surfaces.

Extreme caution should be taken to prevent chips, pipe dope, and dirt from getting into the lines during servicing.

COVER REMOVAL

Remove the two screws, on the lower left hand side of the unit, that fasten the cover to the base plate. Pull out on the bottom of the cover until it clears the side of the Autoclave and then lift up on it until the top and other side are free. The cover can then be unhooked from the base plate and removed.

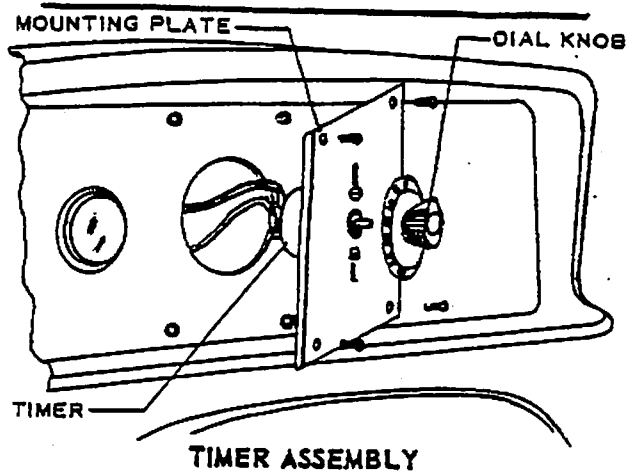
CAUTION

Never tilt the unit toward the left side. The draincock may be damaged or broken off.

TIMER

Removal. Pull forward on the timer dial knob until the timer dial assembly slides off the timer shaft. It is held on by friction. Remove the four screws that secure the timer mounting plate. Pull the timer mounting plate and attached timer forward. Remove the two wire leads from the terminals on the back of the timer. Remove the two screws that secure the mounting plate to the timer.

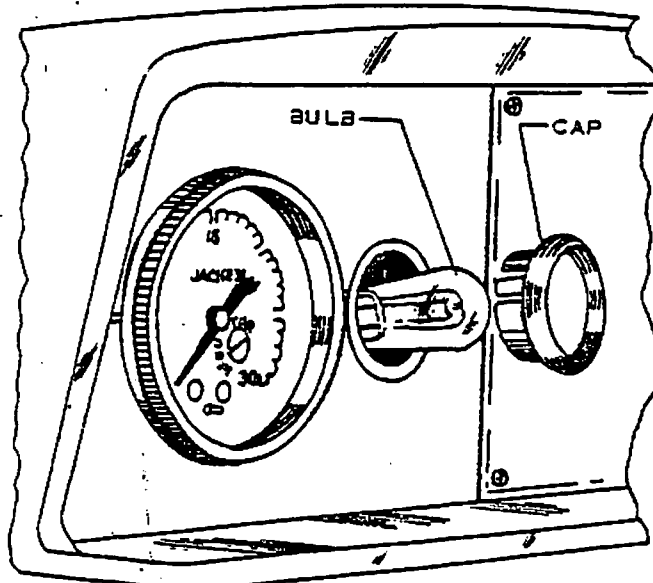
Installation. The timer must be installed with the side terminals facing the top of the sterilizer. The dial assembly must have the zero at the top of the sterilizer. This is the OFF position. The wires may be attached to either terminal of the timer.



Adjustment and Testing. The timer dial knob should read zero when turned counterclockwise as far as it will go. It should operate freely and not bind against the mounting plate. Test the timer by turning the dial knob through 360 degrees. It should not stall before reaching zero. This can be checked by listening for the ticking of the clock mechanism, and by ascertaining that the timer turns on the green pilot light.

PILOT LIGHT CAP ASSEMBLIES

The pilot light caps are mounted on compressible sleeves of thin metal which slide into the pilot light



SECTION NO. IV

assemblies. To remove the cap, pull it out. To install the cap, push it in.

PILOT LIGHT BULBS

The clearance between the bulb and the wall of the pilot light assembly makes the use of a bulb holding tool convenient but not necessary for removal.

Removal. Remove the pilot light cap assembly, and unscrew the bulb by rotating it counterclockwise.

PILOT LIGHT ASSEMBLIES

Removal. Remove the wires from the terminals on the rear of the assembly. Unscrew the hex nut and remove the washers. Slide the assembly out toward the front of the unit.

PRESSURE GAUGE GLASS

CAUTION

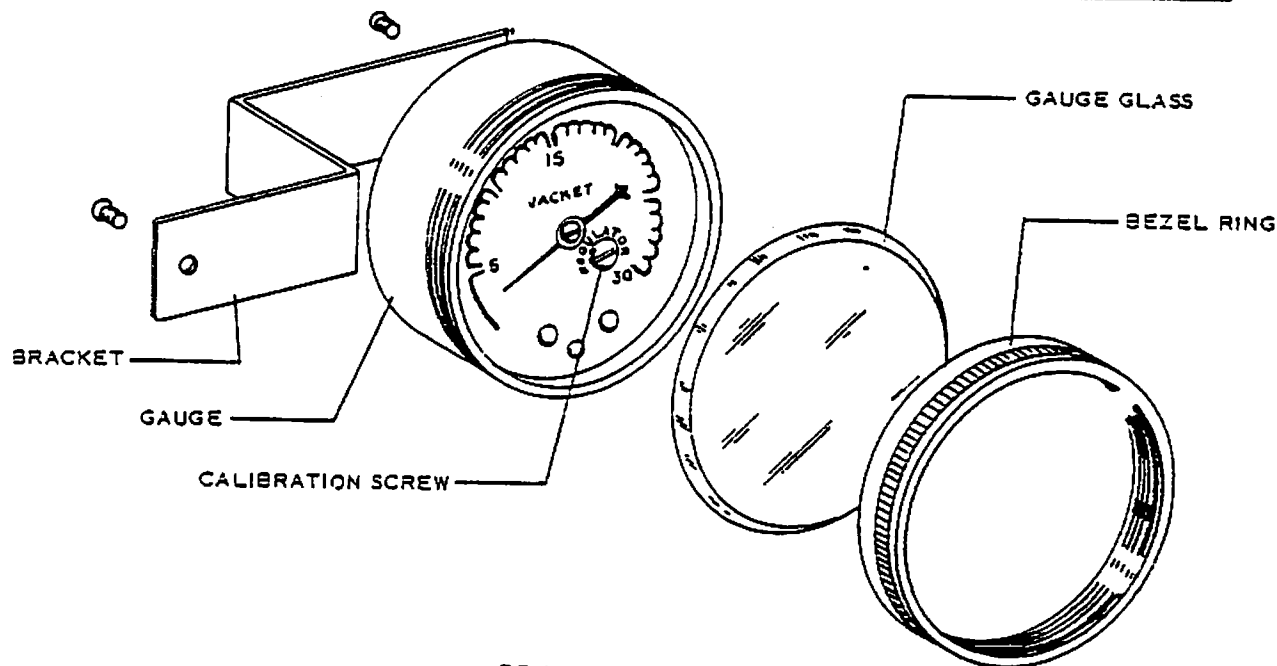
The gauge glass is not fastened in the bezel ring. Be very careful to prevent the glass from falling out when the bezel ring is removed.

Installation. Be sure the glass seats evenly in the bezel ring. To avoid crossing the threads, turn the bezel ring counterclockwise until the threads drop into alignment, then screw the bezel ring clockwise onto the shoulder of the gauge and tighten lightly against the panel.

PRESSURE GAUGE

Removal. Remove the cabinet cover. Unscrew the bezel ring and gauge glass from the front of the gauge. Disconnect the compression fitting at the bottom rear of the gauge. Remove the lower screw and loosen the upper bracket screw. Swing the bracket free, and pull the pressure gauge out.

Calibration. When the unit is in the AUTOCLAVE position, the pressure gauges should read the same pressure. If they do not have identical pressure readings, determine which gauge is out of calibration by setting the pressure switch to its maximum increase position. Both gauges should reach 27 psi. If one fails to do so, it is out of calibration. To recheck, put the unit in the JACKET VENT position. If either gauge fails to read zero after the pressure is exhausted, it is out of calibration. A gauge out of calibration by more than 3 psi. should be considered defective and replaced. Otherwise, it may be calibrated by removing



PRESSURE GAUGE

Removal. Unscrew the bezel ring from the face of the gauge. If the threads are hard to start, use a piece of chamois under your fingers. If the threads are still tight, loosening of the bracket screws on the back of the gauge will free the bezel ring from the instrument panel.

the bezel ring and glass from the face of the gauge and adjusting the calibration screw.

A more conclusive check of the pressure gauge can be made with a lag thermometer. Put a lag thermometer in the chamber, complete a test cycle, and

SECTION NO. IV

check the thermometer reading against the maximum pressure gauge reading reached during the cycle. The temperature readings may be converted to pressure readings by using the Time and Temperature Chart. If the unit has a thermometer installed in the door, it should be used as the checking standard, rather than the pressure gauge.

PRESSURE SWITCH

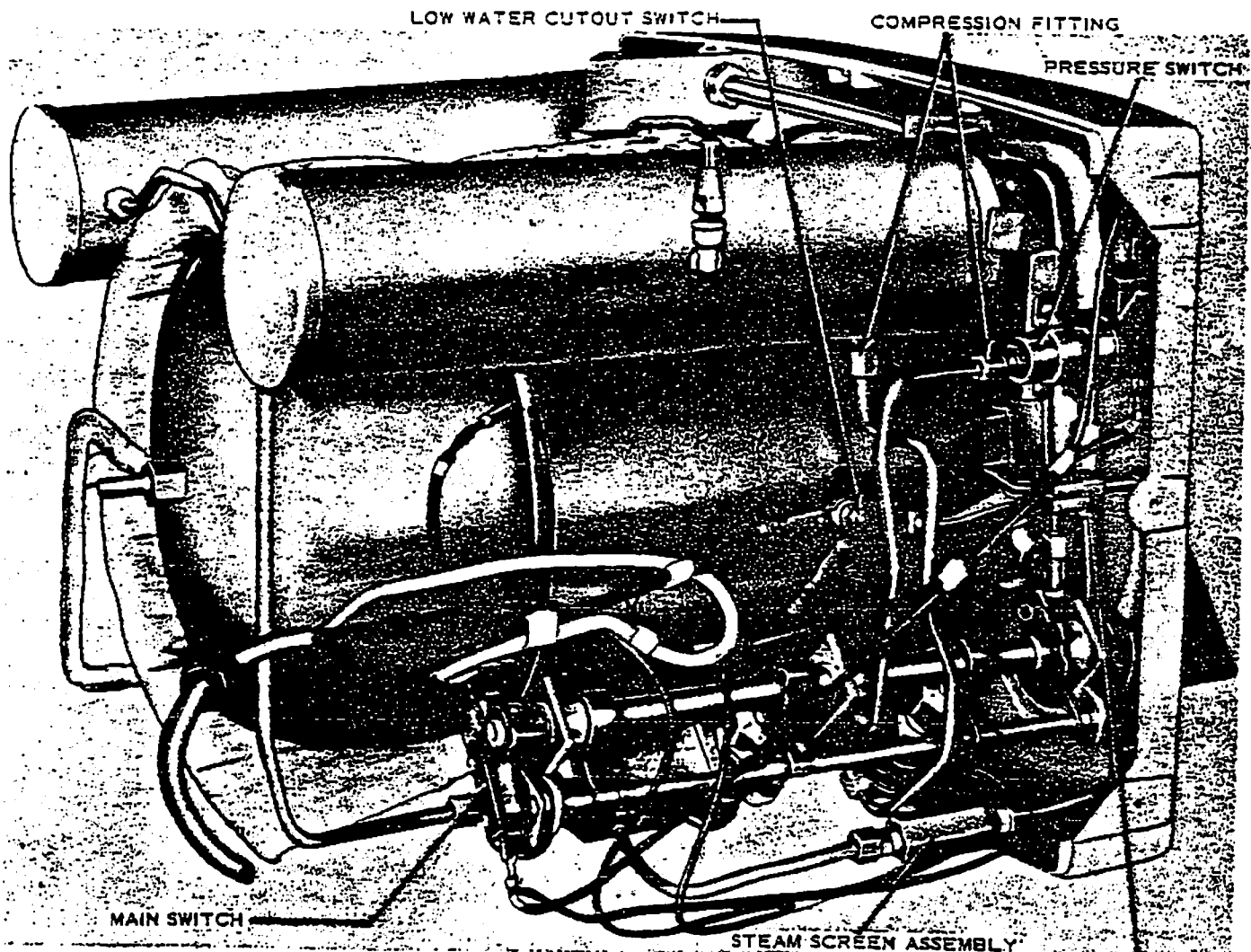
Removal. Loosen the set screw on the switch knob and remove the knob. Turn the unit on its right side, making sure the handwheel is away from any obstruction. Disconnect the compression fitting. Remove the wires from the switch terminals. Unfasten the "U" bracket by removing the machine screws, nuts, and washers.

Installation. Position the pressure switch behind the panel with the shaft and stop pin through the panel

holes. Align the holes in the "U" bracket with the holes in the pressure switch support and fasten loosely. Push the pressure switch against the panel and tighten the "U" bracket. Tighten the compression fitting and attach the wires. Slide the pressure switch knob on the shaft and tighten the set screw.

Calibration. Fill the unit with water and plug into the electrical supply. Turn the control handle to the **STANDBY & VENT** position. With the switch knob removed, allow the jacket pressure to build up to 27 psi. If the red light goes out before the jacket pressure gauge reads 27 psi., turn the pressure switch shaft counterclockwise a fraction of a turn. Repeat as necessary to allow the pressure to build up to 27 psi. Continue the adjustment until the red light goes out as the jacket pressure gauge reaches 27 psi.

If the gauge reading shows more than 27 psi., and the light remains on, turn the pressure switch shaft



BOTTOM VIEW

LOW WATER RESET MECHANISM

SECTION NO. IV

clockwise slightly. The red light should go out. With the correct setting, the red light will come on as pressure builds up, and it will go out when the jacket pressure gauge reads 27 psi.

After the pressure switch has been calibrated, replace the switch knob on the slotted shaft in the maximum increase position with the pointer against the stop pin, and tighten the set screw.

LOW WATER RESET MECHANISM

Removal. The reset mechanism consists of the reset lever, the reset strap, and the low water reset button. It is fastened to the reset bracket assembly by a screw. To remove it, unscrew the red low water reset button. Remove the cabinet cover and turn the unit on its right side with the handwheel away from any obstruction. Take off the sheet metal bottom. Remove the screw from the reset bracket assembly and remove the reset mechanism.

Installation. Align the reset strap with the reset bracket assembly and tighten the screw. Place the reset rod through the front panel casting and hold it in position with a pair of pliers. Align the reset lever with the reset strap. Screw the red reset button to the reset rod and tighten the locknut and washer against the button.

LOW WATER CUT-OUT SWITCH

Removal. With the cabinet cover removed, turn the unit on its right side. Be sure the handwheel is away from any obstruction. Take off the sheet metal bottom. Disconnect the wires from the switch terminals. Remove the screw and washer on the low water cut-out mount, to which the cut-out switch is fastened.

Installation. Fasten the low water cut-out switch loosely to the low water cut-out mount. Align the reset plunger of the switch with the reset lever arm. Tighten the mounting screw against the switch and connect the wires to the switch terminals.

NOTE

If the switch cuts out while the unit has an adequate water supply, or does not cut out when the unit runs dry, replace the switch.

AIR RELEASE ASSEMBLY

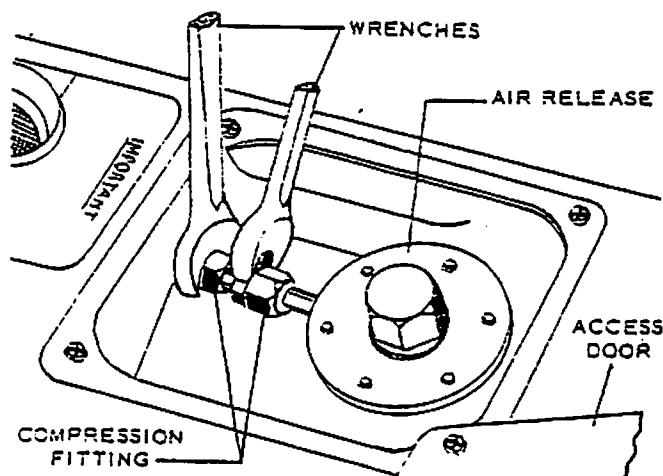
WARNING

Do not attempt to service the air release assembly with pressure in the chamber.

Test. Seal the door. Turn the pressure switch knob to its maximum setting and put the control handle in the STANDBY & VENT position. When the jacket

pressure reaches 27 psi., turn the control handle to the AUTOCLAVE position to release pressure to the chamber and remove all the trapped air from the jacket. Air should be heard hissing from the bellows. As soon as both the jacket pressure gauge and the chamber pressure gauge read the same, return the unit to the STANDBY & VENT position. Wait for the chamber pressure to fall to zero before opening the door. The pressure in the jacket will rise.

When the jacket pressure reaches 27 psi., seal the door and put the control handle in the AUTOCLAVE position. Pressure readings on both the jacket and chamber gauges should now equalize at 13 to 17 psi. if the bellows is functioning properly. If the gauges do not equalize at 13 to 17 psi., replace the air release assembly. **DO NOT ATTEMPT TO ADJUST THE AIR RELEASE ASSEMBLY. ADJUSTMENTS ARE MADE ONLY AT THE FACTORY.**



AIR RELEASE ASSEMBLY

Removal. Remove the access door from the top of the Autoclave cover. Disconnect the compression fitting using two wrenches. Unfasten the retaining wire or band holding the assembly in position.

SAFETY VALVE

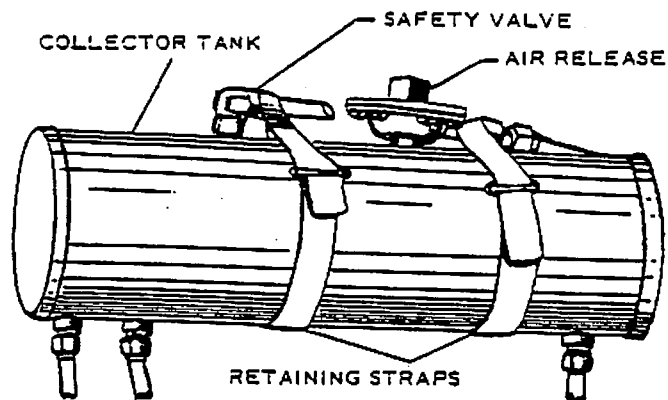
CAUTION

Do not attempt to service the safety valve. If it fails to function properly, replace it.

Removal. Unscrew the right angle fitting from the safety valve. Unfasten the strap holding the safety valve in position on the collector tank.

Test. If the safety valve blows off at less than 28 psi. or more than 33 psi. as indicated on the jacket gauge, the valve should be replaced. Accuracy of the jacket gauge should be confirmed however, by checking it against the chamber gauge.

SECTION NO. IV



SAFETY VALVE AND AIR RELEASE

COLLECTOR TANK ASSEMBLY

Removal. Unfasten the retaining straps and lift the air release assembly and the safety valve out of their mounting holes on top of the tank. Disconnect the three compression fittings at the bottom of the tank.

OPERATING VALVES

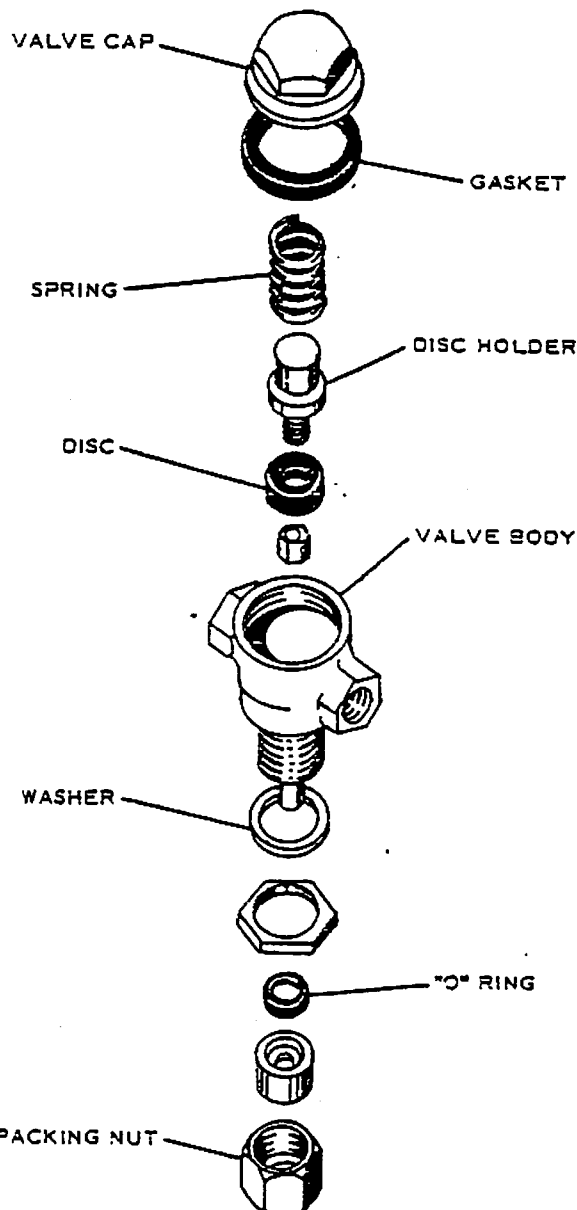
(Autoclave Valve, Fill Valve, and Vent Valve)

Removal. Loosen the compression fittings. Un-

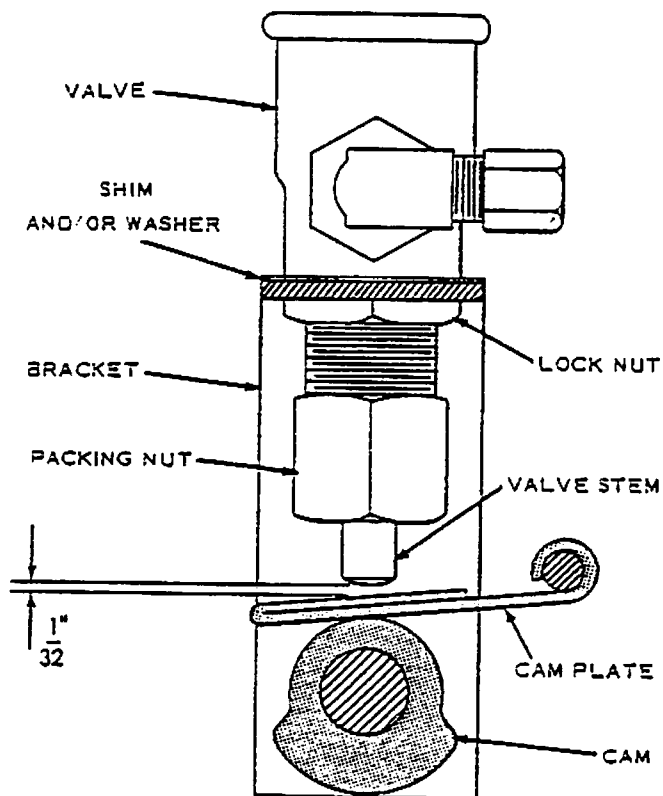
screw the packing nut and the locknut and remove the valve from its mounting bracket.

Installation. Remove the packing nut and the locknut from the valve. Set the control handle in the OFF & LIQUIDS position. Place the valve in its mounting hole in the valve bracket and loosely thread on the locknut and the packing nut. Slide shims or washers under the valve shoulder until there is approximately 1/32 inch gap between the end of the valve stem and the cam plate. Use a feeler gauge to check the dimension of the gap. Tighten the locknut and packing nut.

Replacing the Valve Cap Gasket. Unscrew the cap, replace the gasket, and tighten the cap.



OPERATING VALVE



OPERATING VALVE ASSEMBLY

SECTION NO. IV

Replacing the Valve O-Ring. Unscrew the packing nut. Slide the protruding ring gland off, over the end of the stem. Replace the O-ring in the ring gland and reassemble.

Replacing the Valve Disc. Unscrew the valve cap and remove the spring and disc holder. Unscrew the slotted disc nut. Replace the disc and tighten the disc nut. Reassemble.

Replacing the Valve Spring. Unscrew the valve cap, replace the valve spring and tighten the valve cap.

Cleaning the Valve Seat. Unscrew the valve cap and remove the valve spring and disc holder. Clean the valve seat and disc. If the valve seat is in any way damaged, it must be replaced.

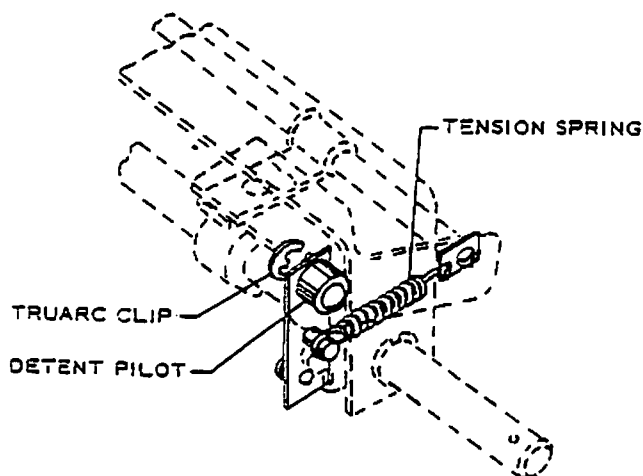
CONDENSER ASSEMBLY

Disconnect the four compression fittings at the top and bottom of the tank. Turn the unit on its right side with the handwheel clear of any obstruction. Disconnect the compression fitting on the inner side of the tank.

MAIN SWITCH

Removal. Disconnect the wires from the switch terminals. Remove the two screws that hold the switch to the switch plate.

Adjustment. Loosen the two screws in the switch plate. The upper hole is slotted for movement of the plate. Pivot the plate and switch assembly so the switch will be "ON" in the AUTOCLAVE and the STANDBY positions and "OFF" in all other positions.



DETENT ARM ASSEMBLY

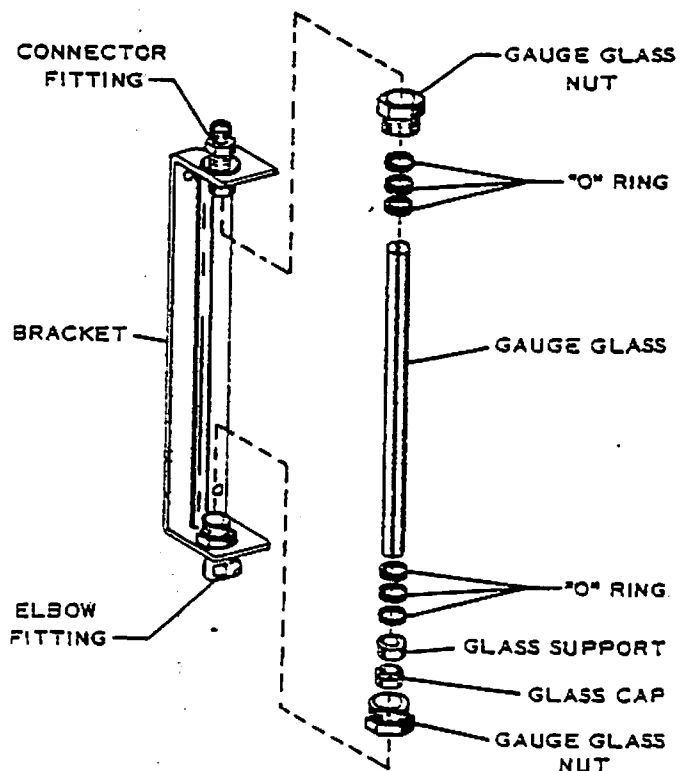
DETENT ARM ASSEMBLY

Removal. Remove the cover and turn the unit on its right side with the handwheel away from any obstruction. To replace the detent arm assembly, detach the tension spring and remove the truarc clip from the detent pilot.

GAUGE GLASS

WARNING

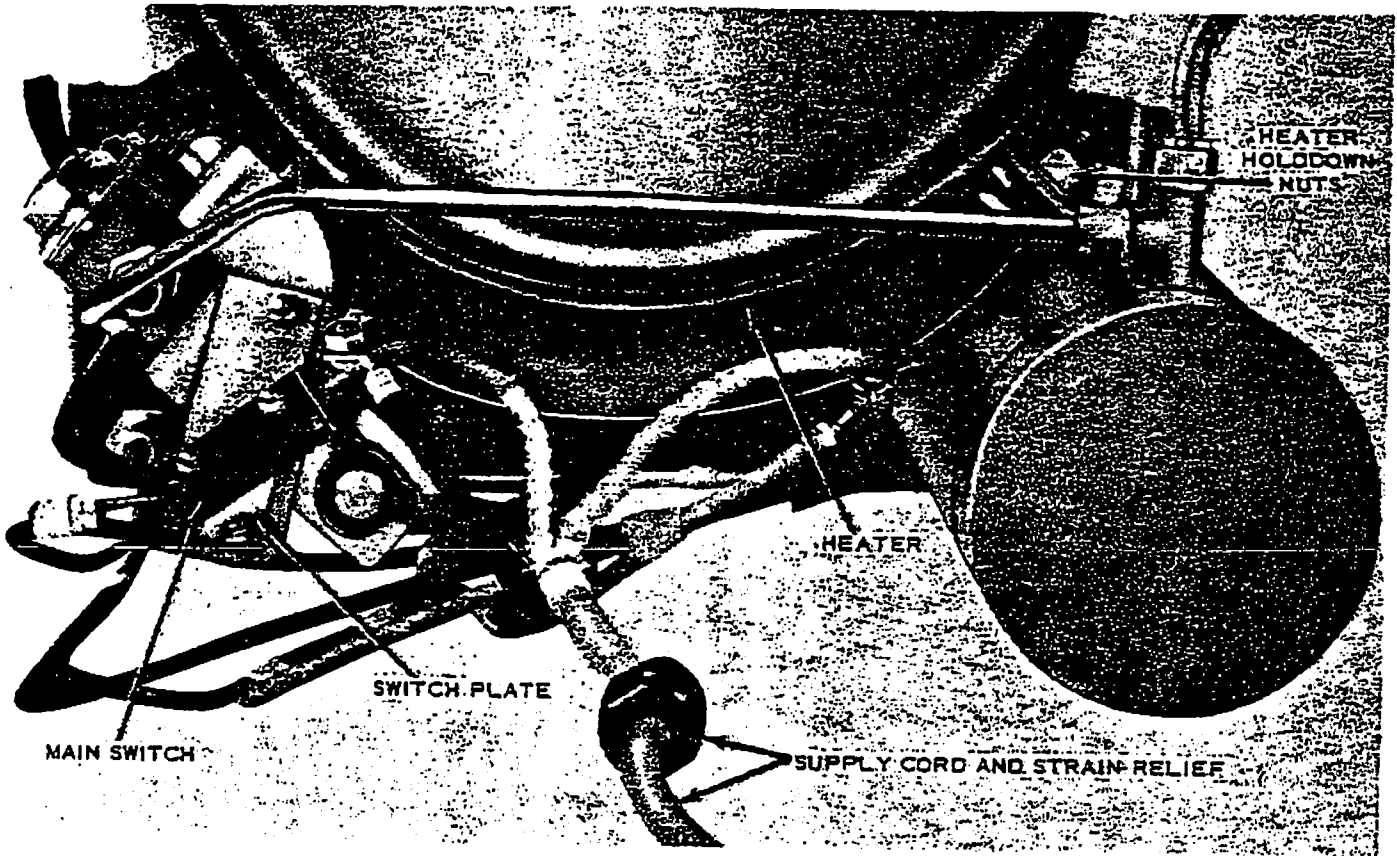
The gauge glass is a steam line. Do not service it when there is pressure in the jacket.



GAUGE GLASS ASSEMBLY

Removal. Unscrew the gauge glass nuts located at the top and bottom of the glass tube. Slide the nuts and O-rings along the glass tube about 1/2 inch from each end for clearance. Lift up on the gauge glass, removing the bottom and then the top.

Installation. Slide the gauge glass nut and O-rings over each end of the glass tube. Place the upper end of the glass tube in position first, and then the lower end. Slide the nuts and O-rings into position and hand tighten the nuts. Carefully tighten the nuts with a wrench only enough to stop any leakage. Excessive tightening will damage the O-rings and crack the glass tube.

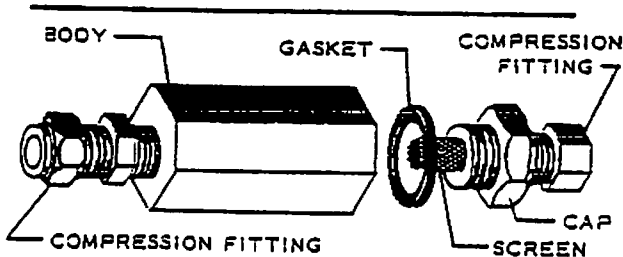


REAR BOTTOM VIEW

FILTER ASSEMBLY

Removal. Unscrew the compression nuts from the fittings at both ends of the assembly. Slide the nuts back on the connecting tubes. If the assembly is to be replaced, remove the nipples of the tube connectors from both ends of the assembly and install them in the new filter screen assembly.

Inspection. Unscrew the filter cap from the filter assembly and run water through the screen. If the flow is restricted, clean the assembly.



FILTER ASSEMBLY

Installation. Place the assembly in the tubing line with nut and washer end toward the front of the unit. Tighten the tube compression fittings.

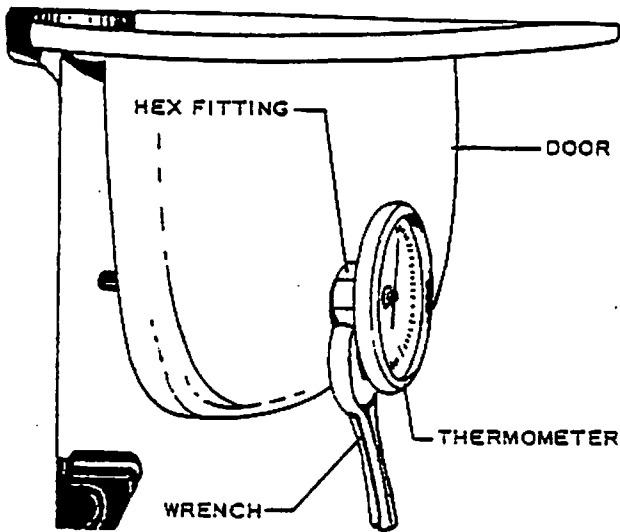
HEATER

Removal. Remove the cabinet cover and the serial number plate. Loosen, but do not remove, the three heater holddown nuts on either side of the shell assembly. Remove the electrical leads from the heater terminals by unsoldering them in the older models or by removing the nuts and washers in the newer models. Slide the heater out through the rear access opening.

Installation. Pass the heater through the rear access opening and insert it between the heat dispersing plate and the heater holddown pad. The heater terminals should be at the rear of the unit and angled down. Do not insert the heater too far, as this prevents it from clamping snug against the shell wall. Insert it to the point where the ends of the heater tube begin to angle down. Tighten the heater holddown nuts and connect the terminals to the wiring harness. Check for any electrical shorts. Allow the heater to warm up. Then, after allowing it to cool down, retighten the holddown nuts.

DOOR GASKET

To recement the existing gasket or install a new one, pull off the gasket and clean the gasket groove.



THERMOMETER

Apply 3M adhesive EC-1300 with a brush to the gasket groove and gasket. Press the gasket into the groove. When installing the gasket, do not pull and stretch it, for this will make the gasket too long to insert in the groove. Close the door and snug-up the handwheel enough to hold the gasket in position. Leave for several hours to permit the cement to set.

HANDWHEEL THRUST BEARING

Removal. The thrust bearing is held by a very light press fit into the handwheel insert. Start it by carefully prying around the circumference of the inner shoulder with a small screwdriver. Slide the thrust bearing out.

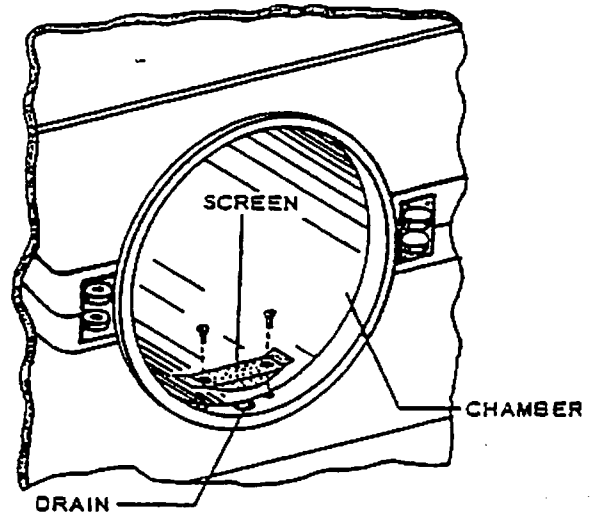
Installation. With the stamped name on the bearing facing inward, carefully press or tap the thrust bearing lightly into place against the shoulder of the handwheel insert.

THERMOMETER

NOTE

The thermometer will be damaged if threaded tightly to the door by grasping the dial.

Removal. Place an open end wrench on the hex



VENT SCREEN

fitting behind the thermometer and unscrew it. Be careful not to mar the paint on the door with the wrench.

Installation. Apply pipe dope or some other suitable sealer to the pipe threads on the thermometer. Screw the thermometer into the door until it is snug enough to prevent leaking, and right side up. Caution must be taken not to screw the thermometer too far in when tightening. Unscrewing the thermometer to level the dial will cause leaking.

VENT SCREEN

The vent screen in the front of the autoclave chamber should be cleaned periodically. The screen is removed by unscrewing the two screws that hold it in place. When cleaning under the vent screen, prevent dirt and foreign matter from falling into the vent opening.

DRAINING THE UNIT FOR SHIPPING

Plug in the unit. Open the draincock and drain the condenser tank. Turn the control handle to the STAND-BY & VENT position. When the pressure reaches 20 psi. on the jacket gauge, seal the door and turn the control handle directly to the FILL & OFF position. When all draining stops, turn the unit off and close the draincock.

999-C AUTOCLAVE – OPERATIONAL CHECK CHART

PROPER PERFORMANCE	IMPROPER PERFORMANCE	POSSIBLE CAUSE
<p>"OFF" POSITION</p> <p>Set the control handle at the OFF position. The pilot lights and heater are off.</p>	<p>The heater is on. Pilot lights are on. Chamber or jacket gauge shows pressure.</p>	<p>Main switch improperly adjusted. Main switch defective or wired normally open. Defective wiring.</p>
<p>"STANDBY & VENT" POSITION (Pre-Autoclave Phase)</p> <p>Turn the control handle from the OFF to the STANDBY & VENT position. Turn the pressure switch knob counter-clockwise to the maximum "increase" position. The red pilot light comes on and the jacket starts to heat. The jacket will heat to 27 psi. in approximately 10–20 minutes.</p>	<p>A. Red pilot light does not come on. B. Heater does not function.</p> <p>C. Water blows back into collector tank. D. Steam enters the chamber. E. Safety valve opens at less than 27 psi. F. Heater shuts off below 25 to 27 psi. and does not come on.</p>	<p>A. Defective bulb or bulb receptacle. B. No voltage at wall receptacle. Defective supply cord or wiring. Low water thermostat is open. Main switch defective or not properly adjusted. Defective pressure switch. Burnedout heater. C. Fill valve is sticking or defective. D. Autoclave valve is sticking or defective. E. Defective safety valve. F. Defective low water thermostat.</p>
<p>"AUTOCLAVE" POSITION</p> <p>Turn the control handle clockwise to the AUTOCLAVE position. The jacket and chamber pressure will equalize and then build up to 27 psi. Set the timer dial knob for the proper exposure time.</p>	<p>A. Steam leaks around the Autoclave door. B. Chamber does not build up to maximum pressure. C. Green pilot light does not light when timer dial knob is set.</p>	<p>A. Door gasket is damaged, improperly sealed or not cemented in the door recess. B. Vent valve is sticking or defective. Air release assembly not functioning properly. C. Bulb loose or faulty. Defective timer.</p>
<p>"STANDBY & VENT" POSITION (Post-Autoclave Phase)</p> <p>Turn the control handle from the AUTOCLAVE position to the STANDBY & VENT position. The chamber gauge pressure will drop to zero in less than 60 seconds. Then open the door wide.</p>	<p>A. Pressure drops slowly or not at all. B. Excessive steam comes out of the fill funnel opening.</p>	<p>A. Plugged vent screen. Plugged vent tube. B. Insufficient water in the condenser tank. Excessive lime on the interior of the condenser tank due to use of tap water.</p>

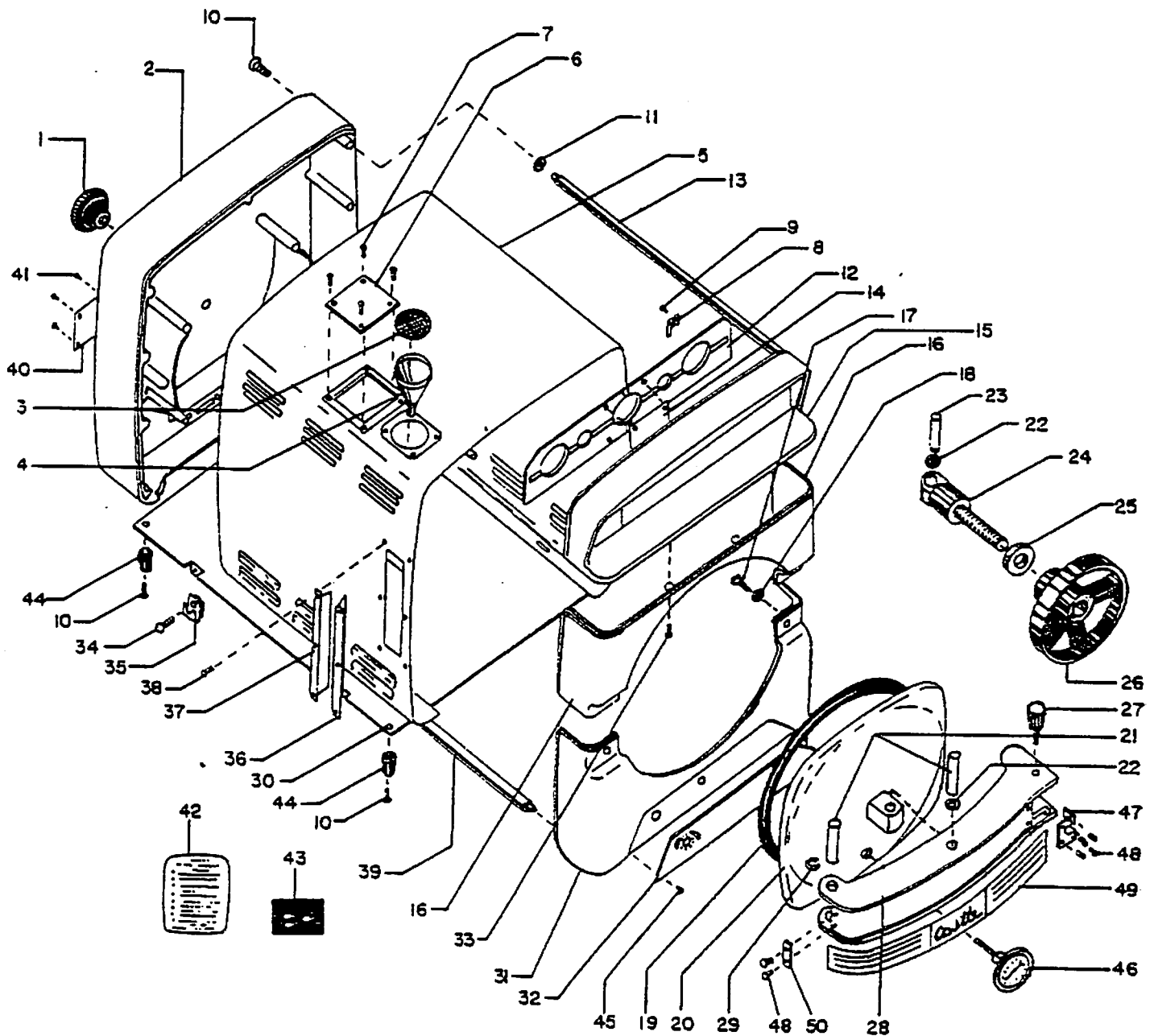
999-C AUTOCLAVE - OPERATIONAL CHECK CHART

PROPER PERFORMANCE	IMPROPER PERFORMANCE	POSSIBLE CAUSE
<p>"FILL & OFF" POSITION</p> <p>To fill the Autoclave when there is pressure in the unit, close and seal the door. Turn the control handle to the JACKET VENT position to release the pressure. Open the door and rotate the control handle to the FILL & OFF position. Allow 2 minutes for the condensate to return to the jacket reservoir.</p>	<p>A. Water drains slowly from the fill funnel.</p>	<p>A. Filter screen in the fill funnel is clogged.</p>
<p>GENERAL</p> <p>A. Gauge glass appears clear and clean.</p> <p>B. Door handwheel rotates freely.</p> <p>C. Chamber and jacket gauges synchronize within ± 1 pound pressure.</p> <p>D. Control handle has a positive detent action in each position.</p> <p>E. No residual condensate appears at the rear of the chamber when the door is opened.</p>	<p>A. Gauge glass has a film on the inside and is no longer clear.</p> <p>B. Door handwheel does not rotate freely.</p> <p>C. Chamber and jacket gauges do not read the same when the chamber pressure is 25-27 psi.</p> <p>D. Control handle rotates without a holding action at each position.</p> <p>E. Condensate collects and remains at the rear of the chamber.</p>	<p>A. Improper use of tap water instead of distilled or demineralized water.</p> <p>B. Dirt has become lodged in the handwheel thrust bearing or it needs lubrication.</p> <p>C. Either gauge may be defective and need replacing or the gauges need calibration.</p> <p>D. Broken or disconnected detent spring.</p> <p>E. Autoclave is not properly leveled.</p>

SECTION V. PARTS CATALOG

CABINET AND DOOR ASSEMBLY

999-C AUTOCLAVE



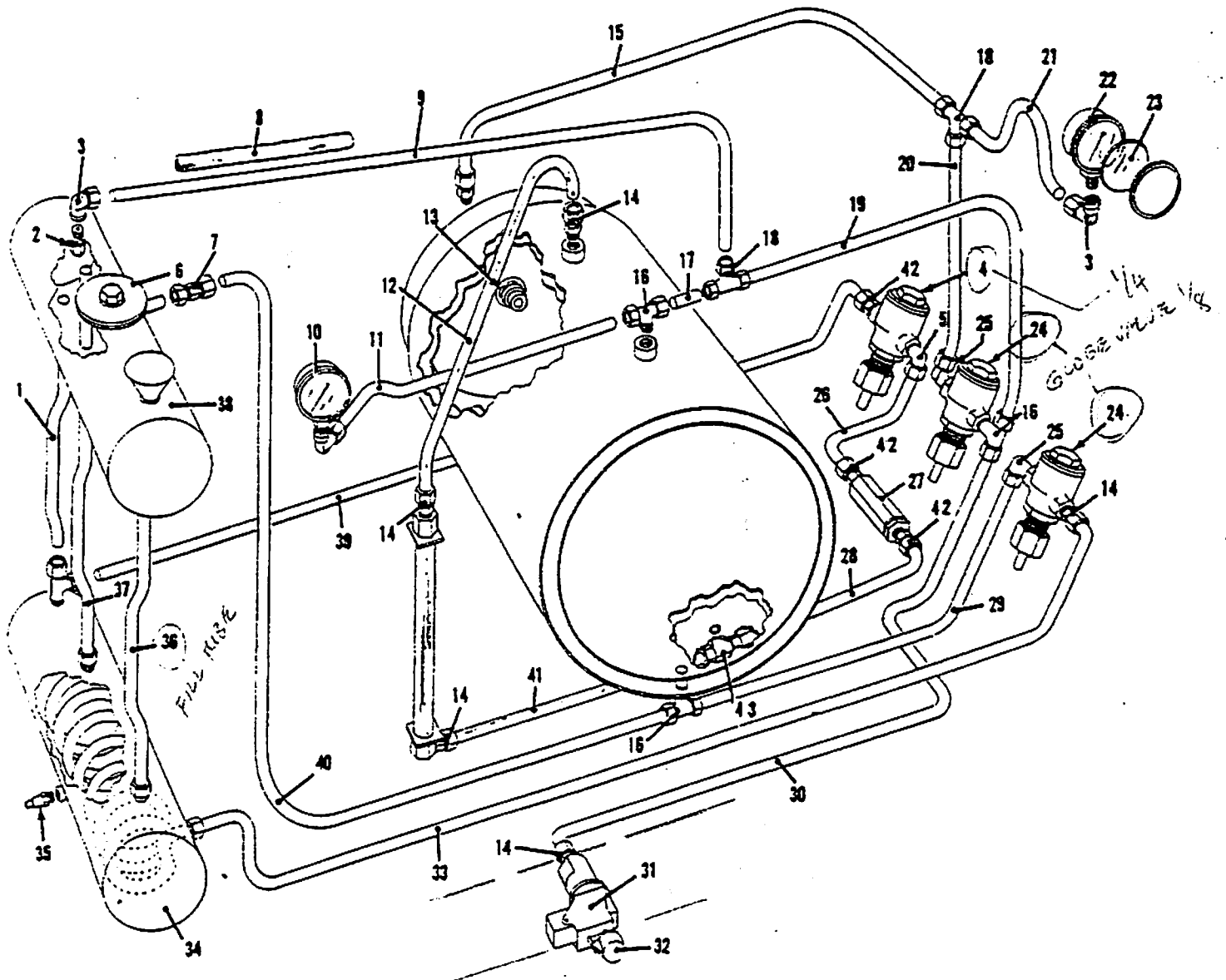
PARTS LIST FOR CABINET AND DOOR ASSEMBLY

999-C AUTOCLAVE

INDEX	PART NO.	PART NAME	QUANTITY
1	11509	Rear Knob	1
2	11507	Back Cover	1
3	11513	Screen	1
4	11511	Fill Funnel	1
5	22754	Cover	1
6	27526	Bellows Access Door	1
7	E- 74	Screw, 6-32 x 3/8 Washerhead	4
8	11532	Gauge Bracket	2
9	E- 2169	Screw, Self Tapping, 6-32 x 3/8	2
10	E- 2164	Screw, Phillips Rd. Hd. 10-32 x 3/4	8
11	E- 5399	Lockwasher, Split No. 12	4
12	27535	Instrument Panel	1
13	13715	Upper Tie Rod	2
14	27525	Timer Mounting Plate	1
15	11519	Panel Housing	1
16	11535	Upper Front Housing	1
17	E- 5061	Screw, Rd. Hd. 10-32 x 3/8	4
18	E- 2044	Lockwasher, Internal Type No. 10	4
19	11540	Door Gasket	1
20	19074	Door	1
21	14075	Door Pivot Pin	2
22	11546	Bolt Pin Spring	2
23	11551	Bolt Pin	1
24	22450	Lock Bolt	1
25	11555	Thrust Bearing	1
26	11555 WC 31676	Hand Wheel	1
27	22448	Door Knob	1
28	22766	Locking Bar	1
29	E- 5315	Truarc Clip No. 5133-50 W	2
30	22453	Base Plate	1
31	11536	Lower Front Housing	1
32	22447	Control Panel	1
33	E- 5026	Screw, Rd. Hd. Br. 8-32 x 3/8	5
34	E- 2160	Screw, Rd. Hd. Br. 1/4-20 x 1	2
35	E- 4927	Retainer Nut	2
36	11514	Front Reflector	1
37	11515	Rear Reflector	1
38	E- 5172	Screw, Sheet Metal No. 4 x 3/16	6
39	13716	Lower Tie Rod	2
40	11508	Serial Number Plate	1
41	E- 5300	Screw, Self Tapping, 6-32 x 1/4	4
42	11518	Instruction Plate	1
43	11721	Wiring Layout	1
44	14813	Foot	4
45	E- 5302	Screw, Self Tapping No. 2 x 3/16	6
46	19072	Thermometer	1
47	21476	Thrust Plate	1
48	E- 2194	Screw, Pan Hd. 6-32 x 1/4	6
49	22449	Name Plate	1
50	28642	End Plate	1

STEAM AND WATER SYSTEM COMPONENTS

999-C AUTOCLAVE



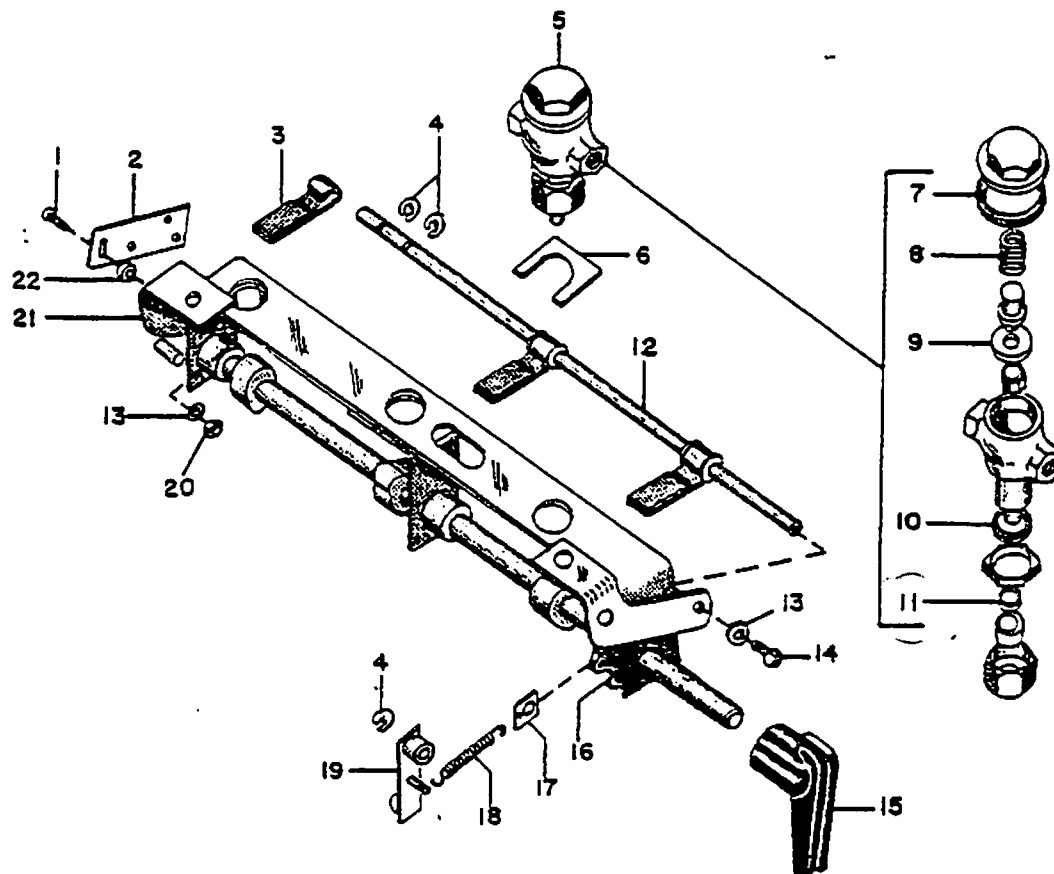
PARTS LIST FOR STEAM AND WATER SYSTEM COMPONENTS

999-C AUTOCLAVE

INDEX	PART NO.	PART NAME	QUANTITY
1	11704	Rear Vent Tube	1
2	11683	Relief Valve	1
3	11529	70-F Elbow, 1/8 Female x 1/4 Tube	3
4	16042	Quick Opening Globe Valve, 1/4 NPT	1
5	3705	69-F Elbow, 1/4 Pipe x 3/8 Tube	2
6	11666	Air Release Assembly	1
7	11620	62-F Union, 1/4 Tube	1
8	R- 826	No. 2 Fiberglass Sleeving	5
9	27542	Relief Valve Tube	1
10	19071	Jacket Pressure Gauge	1
11	11690	Jacket Tube Line	1
12	27528	Top Water Gauge Tube	1
13	E- 5312	Fastener - Tinnerman C-895-55-020	1
14	11561	68-F Connector, 1/8 Pipe x 1/4 Tube	7
15	11696	Back Head Tube	1
16	11564	72-F Tee, 1/8 Pipe x 1/4 Tube	4
17	11692	Jacket to Chamber Tube	1
18	11523	64-F Tee, 1/4 Tube	2
19	11694	Autoclave Valve To Jacket Outlet Tube	1
20	11695	Chamber Gauge "T" Outlet Tube	1
21	11691	Chamber Gauge Tube	1
22	19070	Chamber Pressure Gauge	1
23	29082	Pressure Gauge Glass	2
24	11566	Quick Opening Globe Valve, 1/8	2
25	11562	69-F Elbow, 1/8 Pipe x 1/4 Tube	3
26	11711	Fill Valve To Filter Tube	1
27	--	Filter Assembly	1
	20875	Filter Body	1
	11717	Filter Cap And Screen Assembly	1
	14549	Filter Gasket	1
28	11700	Fill Valve To Jacket Tube	1
29	11699	Chamber To Vent Valve Tube	1
30	11697	Pressure Switch To Autoclave Valve Tube	1
31	11662	Pressure Switch	1
32	11745	Pressure Switch Knob	1
33	11698	Chamber Vent Valve To Condenser Tube	1
34	11622	Condenser Assembly	1
35	11626	200-E Draincock, 1/8 Pipe Thread	1
36	11705	Fill Tube	1
37	11703	Condenser Tube	1
38	11617	Collector Tank Assembly	1
39	11701	Tank To Fill Valve Tube	1
40	11702	Bellows To "T" Tube	1
41	11673	Bottom Water Gauge Tube	1
42	16039	68-F Connector, 1/4 Pipe x 3/8 O.D. Tube	1
43	16038	72-F Tee, 1/4 Pipe x 3/8 O.D. Tube	1

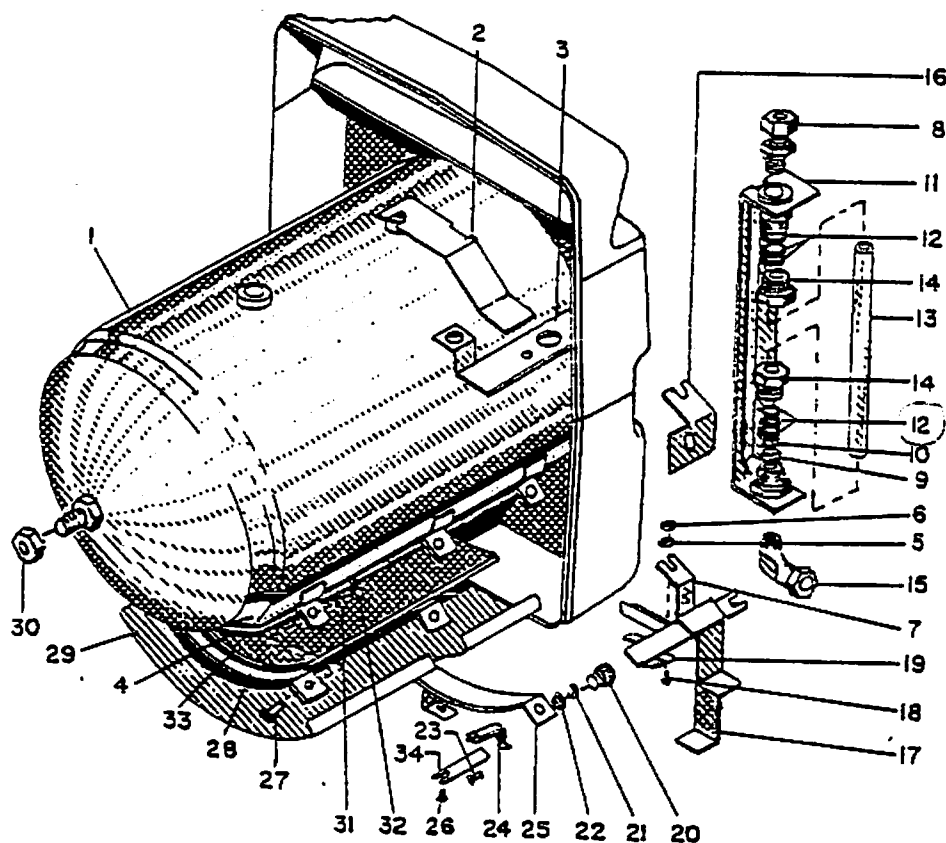
PARTS LIST FOR VALVE AND CAM ASSEMBLY

999-C AUTOCLAVE



INDEX	PART NO.	PART NAME	QUANTITY
1	E- 5062	Screw, Mach. Rd.Hd. No. 10-32 NF x 1/2	2
2	11572	Switch Bracket	1
3	11569	Cam Plate	3
4	E- 2042	Truarc Clip No. 5133-25	7
5	11566	Quick Opening Globe Valve, 1/8	2
6	16042	Quick Opening Globe Valve, 1/4	1
7	11628	Valve Shim	1
8	11567	Gasket	3
9	11565	Spring	3
10	11563	Disc. P.D.S. 1456	3
11	11560	Washer	3
12	11559	O-Ring	3
13	11568	Rocker Arm Shaft	1
14	E- 2044	Lockwasher, Internal Type, No. 10	3
15	E- 5061	Screw, Mach. Rd.Hd. No. 10-32 NF x 3/8	1
16	11557	Control Knob	1
17	E- 5222	Truarc Clip, No. 5133-50	2
18	11602	Spring Clip	1
19	11601	Tension Spring	1
20	11595	Detent Arm Assembly	1
21	E- 149	Nut, Hex, Ni.Pl., No. 10-32 NF	1
22	11574	Cam Assembly	1
	11573	Switch Bracket Spacer	2

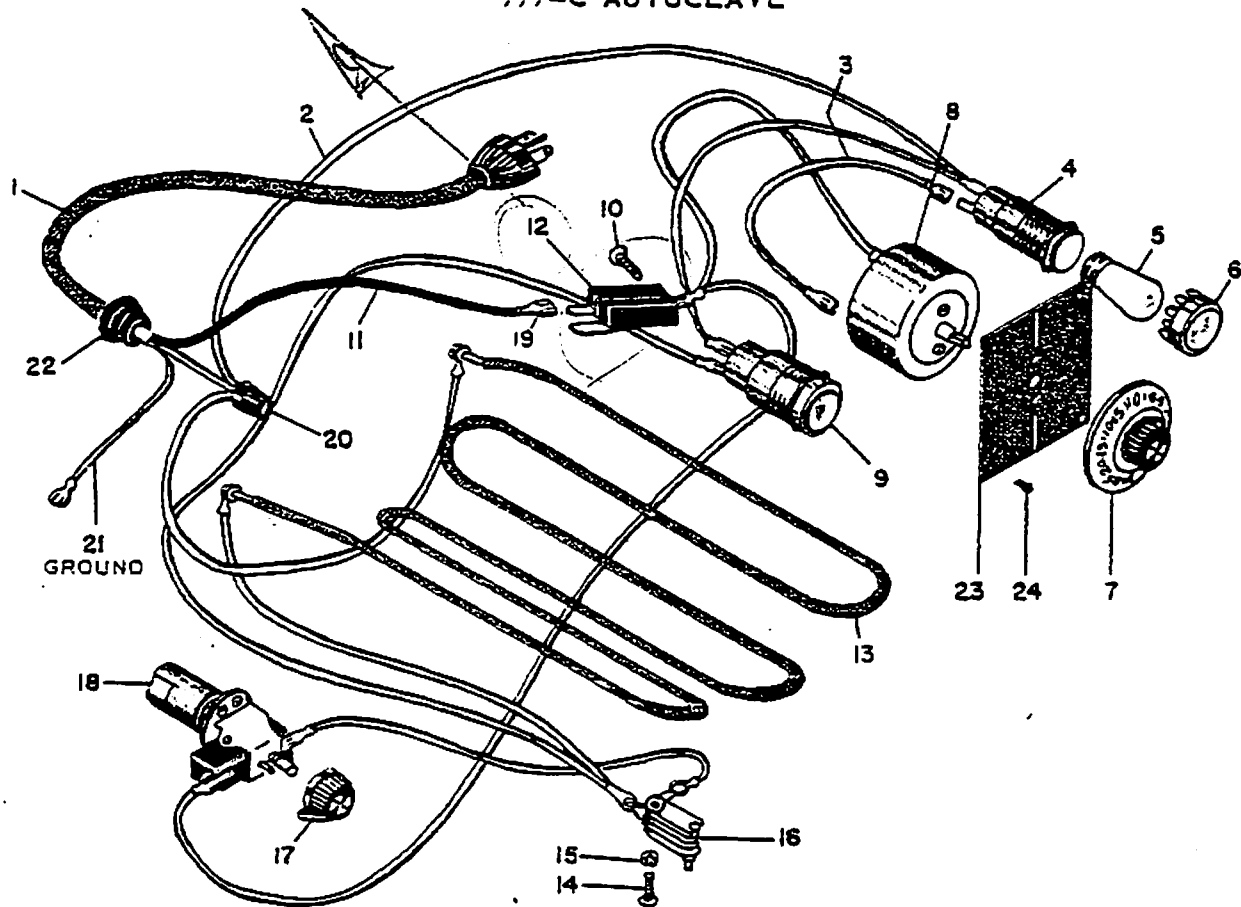
PARTS LIST FOR AUTOCLAVE BODY AND WATER LEVEL TUBE
999-C AUTOCLAVE



INDEX	PART NO.	PART NAME	QUANTITY
1	11629	Shell Assembly	1
2	11534	Gauge Bracket	1
3	11538	Tank Support	1
4	27529	Heat Dispersing Plate	1
5	E- 2044	Lockwasher, Internal Type No. 10	2
6	E- 149	Hex Nut 10-32	2
7	11663	Pressure Switch Support	1
8	11561	Connector Fitting Imp. 68-F	1
9	11615	Gauge Cap	1
10	16461	Glass Support	1
11	16457	Gauge Glass Bracket	1
12	11611	O-Ring	6
13	11610	Gauge Glass	1
14	11609	Gauge Glass Nut	2
15	11562	Elbow Fitting, 69-F Imp.	1
16	16460	Lower Gauge Glass Bracket	1
17	13898	Condenser Support Bracket	1
18	E- 5061	Screw, Rd.Hd. 10-32 x 3/8	2
19	11664	Pressure Switch "U" Bracket	1
20	11556	Button	1
21	E- 5407	Monel Washer, 1/2 O.D. x 3/16 I.D.	1
22	E- 253	Steel Hex Nut No. 8-32	1
23	E- 19	Machine Screw, 8-32 x 1/2	1
24	11661	Reset Strap	1
25	11647	Reset Bracket Assembly	1
26	E- 5385	Self Tapping Screw, 10-32 x 3/8	1
27	E- 5131	Hex Hd. Cap Screw, 5/16-24 x 1-1/4	6
28	11656	Heater Holddown	1
29	11665	Heater Reflector	1
30	E- 24	Hex Steel Nut 3/8-24	1
31	E- 218	Split Lockwasher, 5/16	6
32	E- 5189	Hex Steel Nut, 5/16-24	6
33	11641	Heater Holddown Assembly	1
34	11594	Reset Lever	1

PARTS LIST FOR ELECTRICAL COMPONENTS

999-C AUTOCLAVE



INDEX

PART NO.

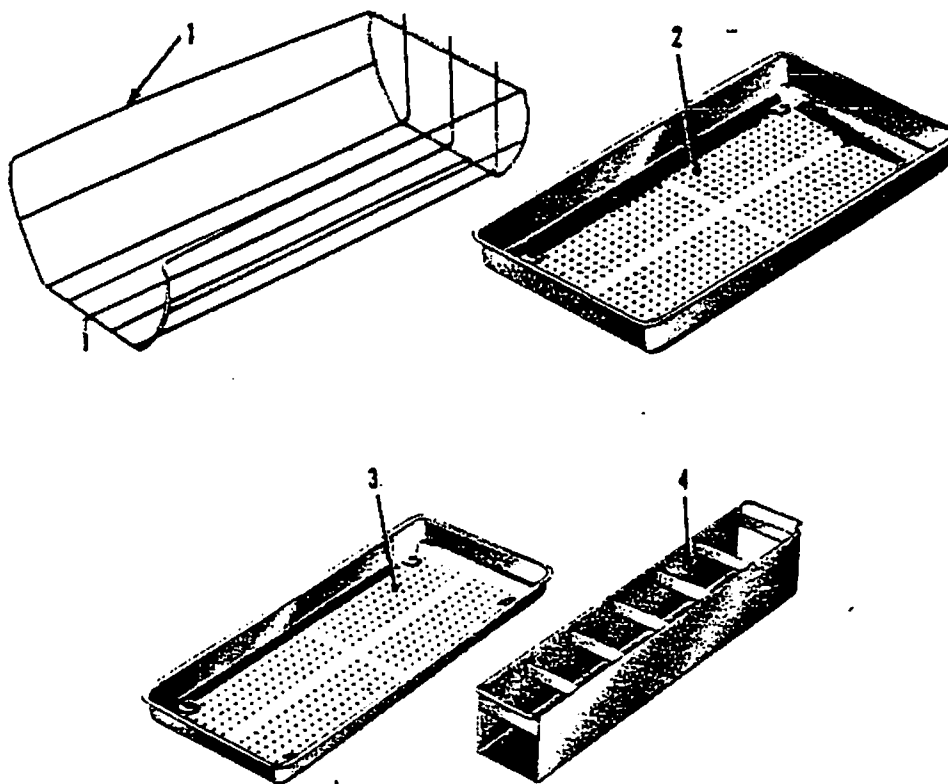
PART NAME

QUANTITY

1	13942	Cord Assembly	1
2	11708	Wiring Harness	1
3	11713	Timer To Green Pilot Light Wire	1
4	11526	Pilot Light Assembly	2
5	7863	G.E. Lamp Bulb, 6W-130V-656	2
6	11533	Green Cap Assembly	1
7	22454	Timer Dial Assembly	1
8	11521	Timer	1
9	11530	Red Cap Assembly	1
10	E- 39	Screw, Mach.Rd.Hd. Br. No. 6-32 NC x 3/4	2
11	-	Switch To Line Wire	1
12	11571	Switch	1
13	11640	1600 Watt - 115 Volt Heater	1
14	E- 40	Screw, Mach.Rd.Hd.Br. No. 8-32 NC x 3/4	1
15	E- 2041	Washer, Shakeproof, Internal Type, No. 8	1
16	11646	Low Water Thermostat	1
17	11745	Pressure Switch Knob	1
18	11662	Pressure Switch	1
19	11718	Quick Disconnect Spade	9
20	8172	Marr Connector	1
21	-	Ground Wire	1
22	8397	Strain Relief Bushing	1
23	27525	Plate - Timer Mounting	1
24	E- 4866	Screw - Binding Head, 4-40 x 5/16	4

PARTS LIST FOR TRAYS AND RACKS

999-C AUTOCLAVE



INDEX	PART NO.	PART NAME	QUANTITY
1	11730	Tray Rack	1
2	11633	Large Tray	1
3	11681	Small Tray	1
4	11726	Bottle Rack (Optional)	1