

Pressure Actuated Temperature Control

DOMESTIC

THE LOW WATER CUT -OFF (MANUAL RESET)

Fastened to a special mounting brace behind the front panel, the Low Water Cut-Off acts to shut off the complete unit, should the water run dry. The Low Water Cut Off is factory set, and adjusted to shut the unit off when sterilizing cylinder temperature rises between 380 and 440° Fahrenheit.

When the Sterilmatic is turned on without water or the water has been evaporated away, the temperature of the aluminum sterilizing cylinder will rise and by heat induction effect the Low Water Cut-Off. Its inner electrical contacts will be forced open from heat expansion, thus cutting off the flow of electric current to the heating elements. With the replacement of water into the cylinder. The cylinder temperature will drop and the contacts of the Low Water Cut-Off can be again closed. The unit will only restart after the manual button has been re-set.

THE ELECTRIC CONTACTORS

The Electric Contactors are located behind the removable lower front panel. These important components receive an electrical impulse when the Timer is turned on. When the unit reaches a pre-set pressure of 12.5 PSI the #1 switch will cut out causing the front contactor to become de-energized. This, in turn, will disconnect the left and right banks of heaters and the timer motor will start.

Note: Timer does not start timing until unit reaches temperature and front contactor drops out causing timer motor to start.

THE TIMER

The Sterilmatic is put into operation with the manual setting of the timer. With the setting of the timer, an electrical current is directed to the pressure control. The current energizes the pressure control, which activates the contactor coils to cause a current flow to the heating elements. When the cylinder pressure reaches 13 to 13.5 P.S.I., the timer motor and pilot light are energized. At the end of the cycle the timer will cut off the flow of electricity to all the components except the exhaust, the exhaust solenoid and the timer motor. They will revert back to their original deactivated state. The timer motor and pilot light will continue to be energized after the timed sterilizer cycle has been completed and for two additional minutes. Only after this will the timer and white pilot light is de-energized. If the timer fails to operate the Sterilmatic, replace it. The timer is replaceable only as a complete unit as factory repairs to it would not be practical in the economical interests of the customer.

THE STEAM PRESSURE GAUGE

The Steam Pressure Gauge registers the pressure of steam, which is within the sterilmatic sterilizing chamber. To replace this unit, it is necessary to disconnect the 4.8mm copper tubing and to remove the two nuts holding the gauge framework in place

THE SAFETY VALVE

The Safety Valve is factory set to automatically open and exhaust excess steam from within the sterilizing cylinder, thereby assuring that operating pressures remain within safe limits. The lever action of safety valve must be free to operate unrestricted at all times. If the Safety Valve should leak continually with a pressure build-up or should it causes an interruption on a sterilizing cycle prematurely (below 124° Centigrade on the temperature gauge), it must be replaced. However, the temperature gauge should first be checked for accuracy.

THE FLUE

The Flue serves as a protective shield for the steam trap safety valve, exhaust valve, as well as a mounting base for the control panel. The pressure gauge, dial thermometer, exhaust valve switch and timer, protrude through the control panel. The Flue cover may be removed to allow more room for servicing the control components. The control panel face may then be removed by unscrewing the sheet metal screws, which mount it to the Flue.

THE EXHAUST SOLENOID VALVE

The exhaust solenoid is normally closed and only opens at the end of the cycle when it is energized.

