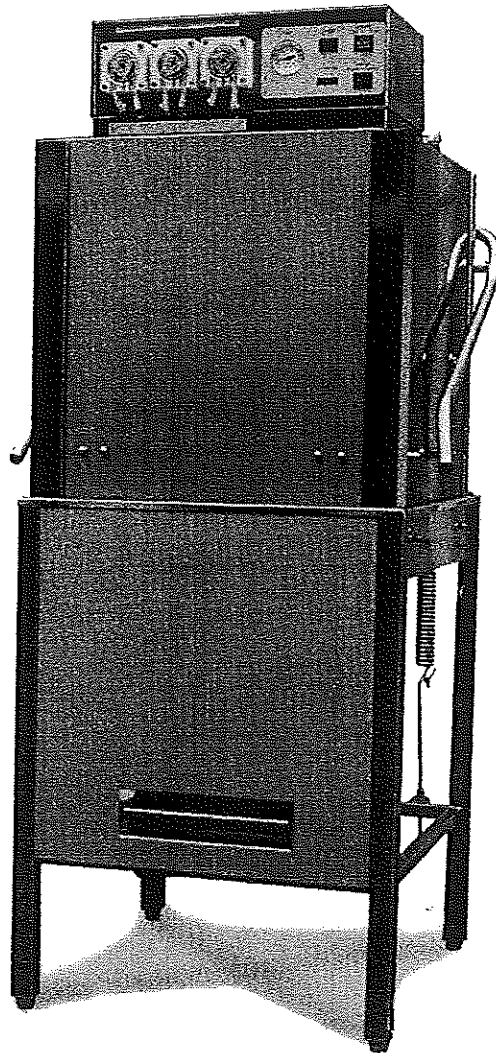


**OPERATION MANUAL**  
**LOW TEMP DISHWASHER**  
**MODEL ADT-1LT**



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## 1. Specification

1) Model Name : ADT-1LT

### 2) Summary

This equipment is Low Temperature Dishwasher for small restaurant, designed for saving energy without using separate booster or heating system to both wash and sanitize dishes, cups and utensils by high temperature water(140°F) only. It can complete by 1 cycle washing, detergent supplying and rinsing dishes inlayed in a rack (size 20"x20") and slided into the unit.

### 3) Main Structure

Single Tank.

Single Rack.

Detergent, Rinse, Sanitize Aid System.

Balanced three-door lift system.

Upper and lower single washing nozzle.

High efficiency pump

### 4) Standard Feature

ELECTRIC POWER	115V 1PH 60Hz
WASH MOTOR	3/4HP 115V 1PH
MINIMUM WASH TEMPERATURE	120 F
RECOMMENDE WASH TEMPERATURE	140 F
MINIMUM RINSE TEMPERATURE	120 F
RECOMMENDE RINSE TEMPERATURE	140 F
MINIMUM WASH CYCLE TIME	40 SEC
MINIMUM RINSE CYCLE TIME	20SEC
OPTIMUM FLOW PRESSURE	20 PSI
MINIMUM WATER VOLUME	1.7 GAL
MINIMUM CHLORINE REQUIRED	50 PPM
1CYCLE TIME	90 SEC

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## 2. Setting Method

### 1) Setting Method of Machine

The main body of dishwasher should be established on flat ground. Otherwise, Leg should be adjusted not to be leaned.

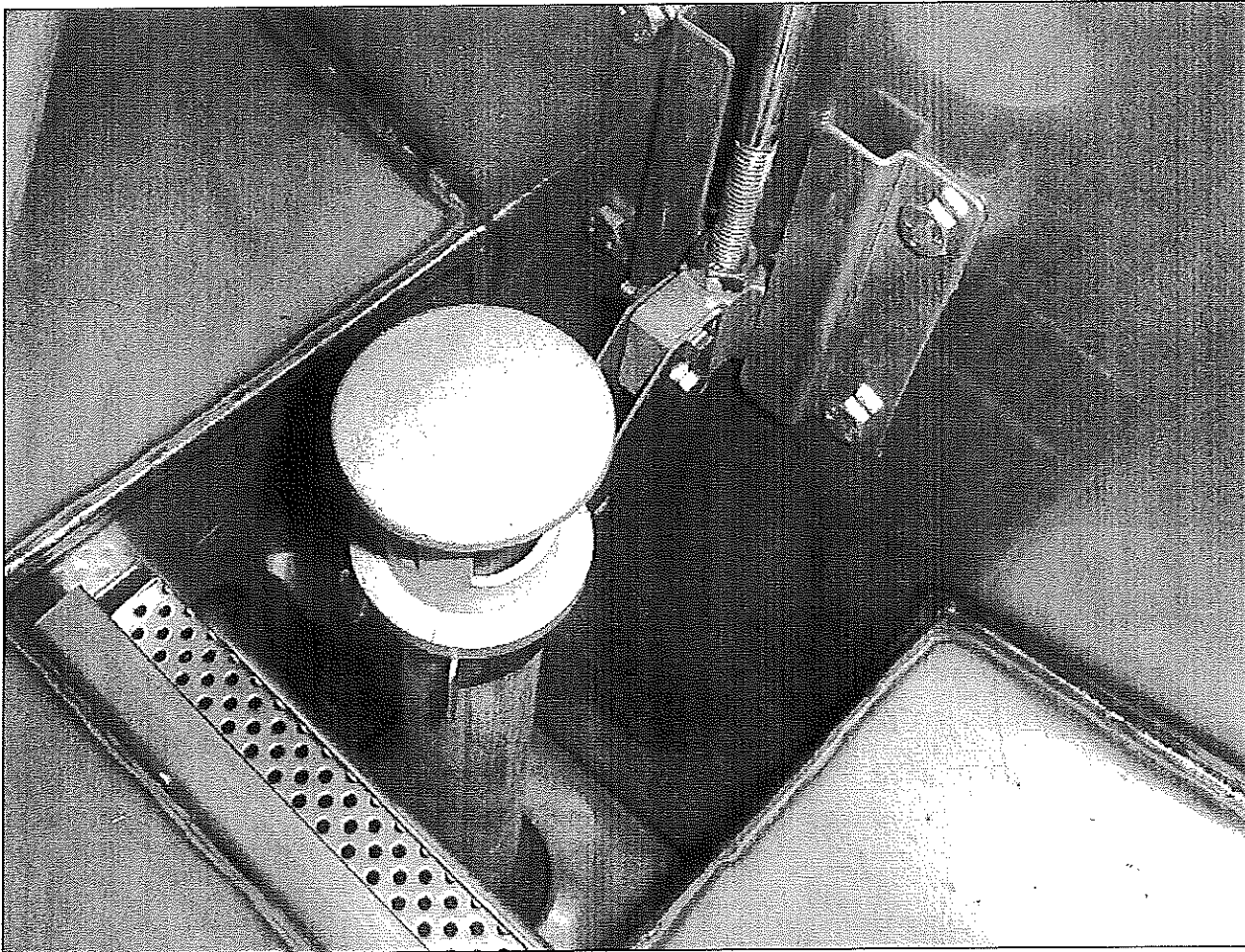
### 2) Setting Method of utility

#### (1) Fill tube setting

Fill tube should be connected with 1/2" pipe and maintained by water pressure supplied at min.20-22psi and water temperature at 120°F-140°F lowest..

#### (2) Drain tube setting

Drain tube should be connected by 1-1/2" pipe.



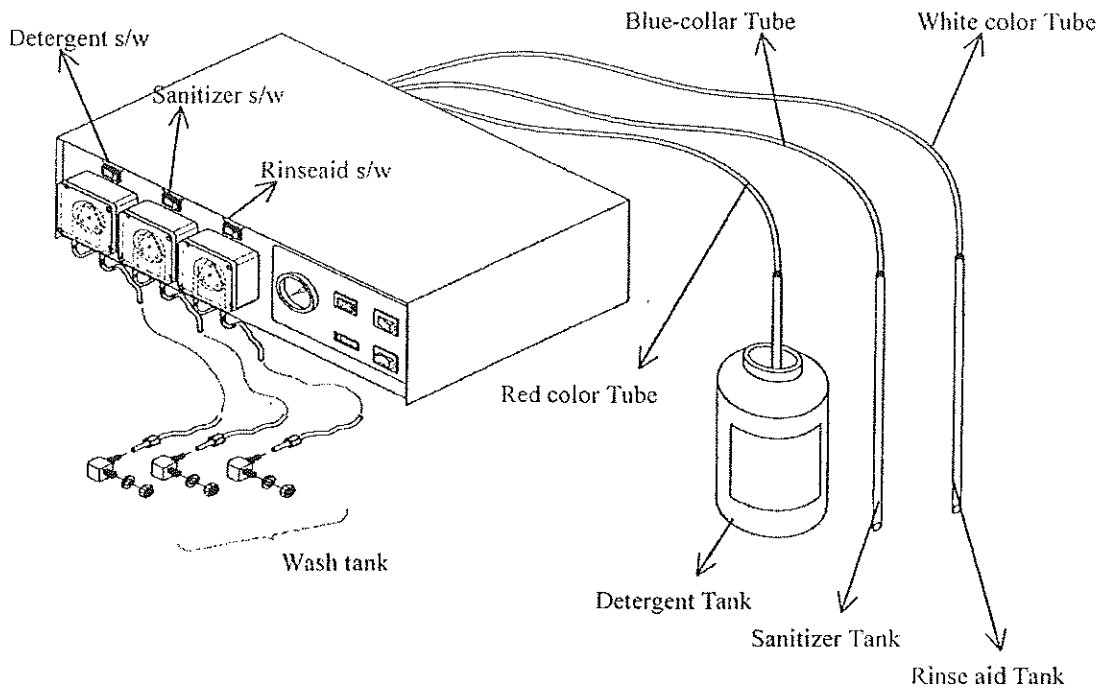
ADAMATION

**(3) Chemical Aid connect**

Input the red color tube mounted (1/4") into Detergent Tank.

Input the blue color tube mounted (1/4") into Rinse aid Tank.

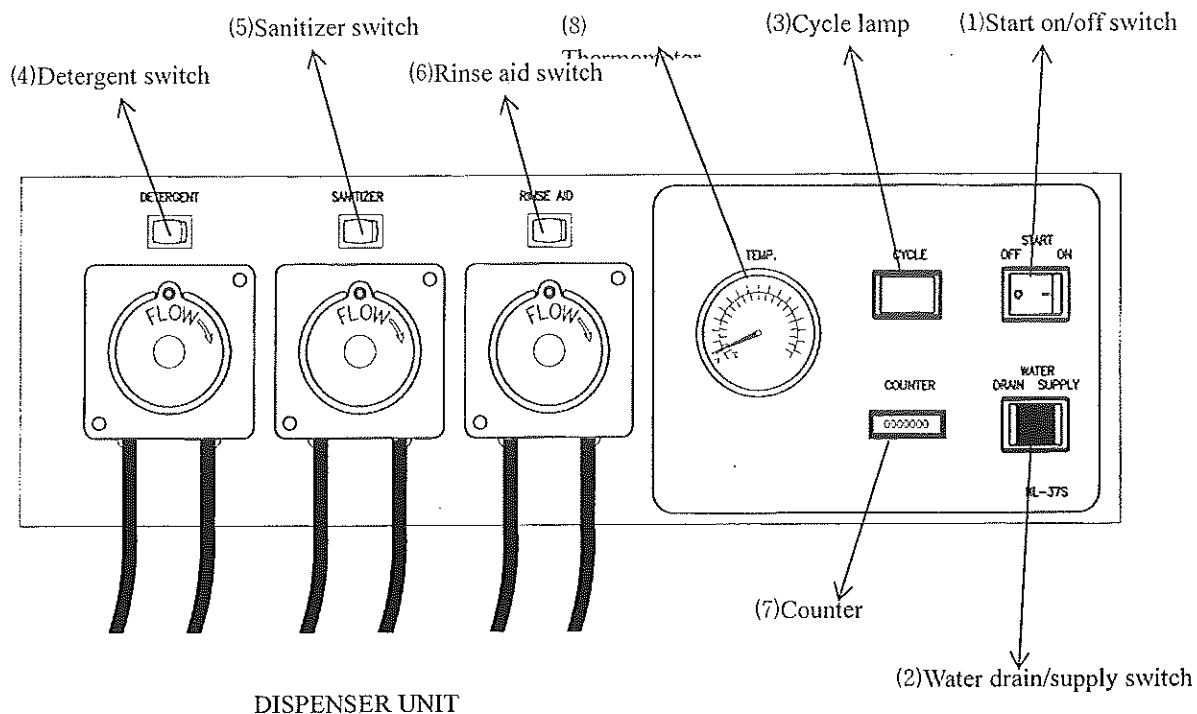
Input the white color tube mounted (1/4") into Sanitizer Tank.



- After chemical agents are connected, Priming switch (Detergent s/w, Sanitizer s/w, Rinse s/w) should be pressed and held to operate supplying pump until the chemical reaches end of delivery tube.

### 3. Function & Name of each part

#### 1) Front Control Box



## 2) Function of each switch

### (1) Start On/Off Switch

Power On/Off switch initially adjusted by pressing On/Off direction. In case Switch is on, switch lamp lights which indicates in working.

### (2) Water Drain/Supply Switch

Water Drain/Supply Switch makes water fill and drain in wash tank. But, this switch starts running only when the door is closed. In case of insufficient water in wash tank, supply water by using switch.

### (3) Cycle Lamp

Cycle Lamp is lighting when cycle is running.

### (4) Detergent Switch

“Detergent Switch” should be operated when detergent aid is changed or air income inside supplying hose is removed. .

(5) Sanitizer Switch

“Sanitizer Switch” should be operated when sanitizer aid is changed or air income inside supplying hose is removed.

(6) Rinse Switch

“Rinse Switch” should be operated whrn Rinse aid is changed or air income inside supplying hose is removed.

3) Thermometer

(7) Wash Temp

This indicates the temperature of Wash Tank.

- Note -

Please check temperature before washing. If water temperature is below 120°F, drain and refill unit with fresh water by pressing Water Drain/Supply Switch.

4) Counter

(8) Counter

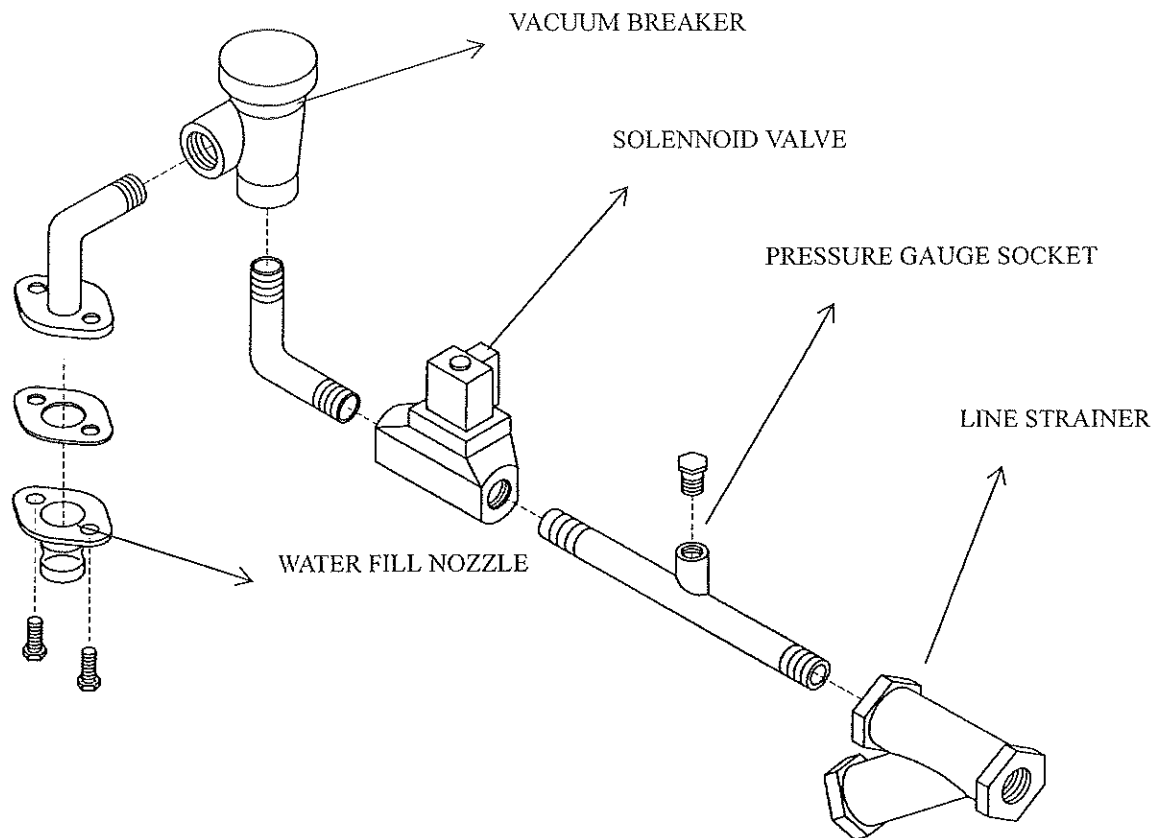
Number is added by each washing (1 Cycle). But, in case of opening and closing in course of washing is not checked.

5) Piping and accessories

- Piping -

This is the line to deliver water in dishwasher, composed by line strainer, pressure gauge (Option), solenoid valve, vacuum breaker, temperature analyzing unit, water fill nozzle the connection screw is 1/2" NPT Screw. Water pressure at 20-22psi is proper and temperature over 120°F should be maintained.

## - Accessories -



## (1) Strainer

This strainer prevents lime sediment or pipe scale from reaching the solenoid valve and must be cleaned regularly.

## (2) Pressure gauge (option)

This gauge can measure water pressure and the proper scale ranges 0-60psi.

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(3) Solenoid Valve

This valve controls water flow of which size is 1/2" voltage 110V 60 Hz.

(4) Vacuum Breaker

This vacuum breaker provides an air gap in line to prevent backflow of water into the fresh water line.

(6) Water fill nozzle

This water fill nozzle is designed to spray 360° water and remove lime deposit on the inside walls and drains it out.

## 4. Operation

### 1) Preparing Unit for initial cycle

(1) Close doors.

(2) Open fill water main valve.

(3) Turn on power switch.

(4) Rinse aid priming switches should be pressed and held until chemical reaches end of delivery tube.

(5) Press water supply switch to fill and hold for approximately 10 seconds and release.

### 2) Normal cycle

(1). Open doors.

(2). Slide rack of dishes into unit, close doors.

When the doors are closed, timer starts working and the unit cycle

(Approximately 90 seconds) will begin automatically and cycle lamplight.

- (3). When the cycle light goes out, raise doors and remove rack of clean dishes.
- (4). Repeat from step (2).

### 3) Ending cycle

- (1). The unit may be drained by either pressing water drain switch or by opening the door and lifting drain bar until the unit is completely drained.
- (2). Disconnect the electrical power.
- (3). Close main valve.

## 5. Timing Adjustment

- Notice -

In order to adjust timer must disconnect power and open the cover of control box.

### 1) Washing time adjustment

Find timer mounted on right when the control box is opened.

Find cam marked wash cycle on timer and adjust time interval by loosening tighten screw and enlarging or reducing cam space.

### 2) Detergent Supplying Portion Adjustment

3 cams out of 7 cams in timer is for detergent, sanitizer and rinse aid. Find cam marked and loosen tighten screw and adjust detergent supplying portion by adjusting cam spaces.

## 6. Removing lime deposits inside Machine

The dishwasher should be delimed on a regular basis as required. The regularity will depend on mineral content of the supply water. In area where the water supply contains high concentrations of water solids, frequent deliming is necessary. Deliming should be done when you can see clear signs of lime deposits (a white chalky substance) on the

inside wall and on the arm or bearing assemblies. Inspect the unit interior for lime deposits. If deliming is necessary, a deliming agent (such as Lime Away or LSR) should be used for best solution.

### 1) Removing method of lime deposits

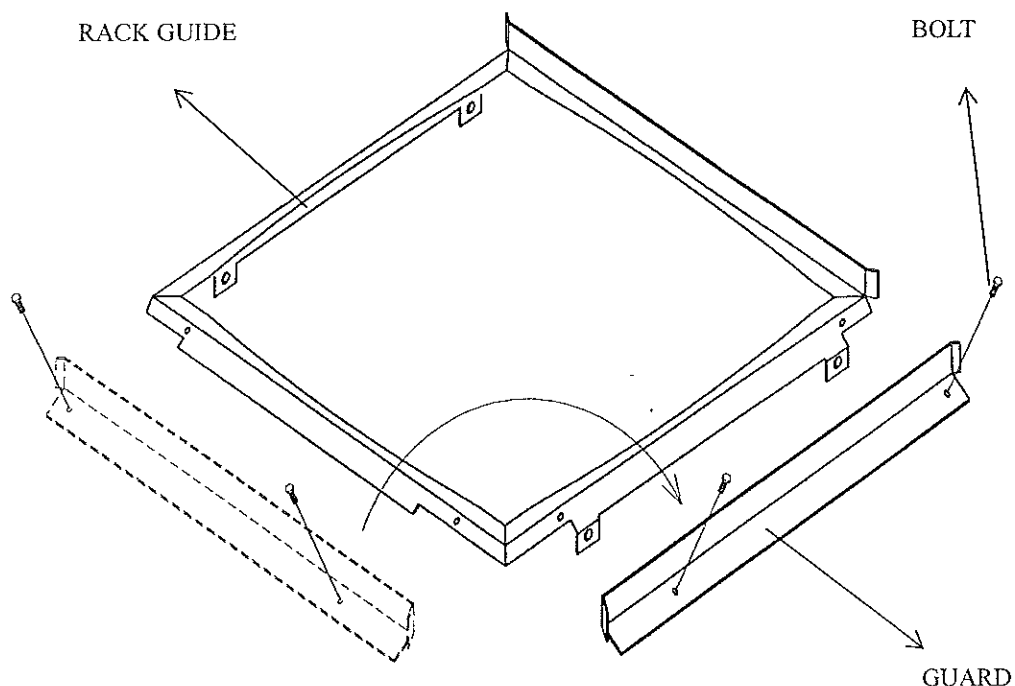
- (1). Make sure the unit is at the end or a cycle completion of a normal cycle.
- (2). Be sure unit has water in tank.
- (3). Open door and add deliming agent to the water in the dishwasher.
- (4). Close door.
- (5). Turn On Extend/Normal Switch at the back of control box for running wash pump.
- (6). None of the other unit functions will operate in the delime mode.
- (7). Turn Extend Switch off and inspect interior of unit for lime deposits condition.  
After the recommended by deliming agent.
- (8). Repeat steps 5 through 7 if necessary.
- (9). Once again check interior of unit for lime deposits.
- (10). Extend Switch back to Normal position.
- (11). Run unit without loading dishwasher for two complete cycles to remove the  
Chemical deliming agent.
- (12). Drain unit and run normal cycle under procedure step.

## 7. Operation Direction Change Procedure

### 1) Changing method of Corner Type.

The unit has three doors, which are lifted up by a single door handle. configuration allows the machine to be changed from a straight to a corner operation by loosening front rack guide screw and reassembling it to the right side.

- (1). Disconnect power.
- (2). Open door.
- (3). Release bolt by hexagonal box driver
- (4). Lift Rack Guide and move to sides
- (5). Reassemble bolt.
- (6). Inspect the install fixed steadily.



ADAMATION

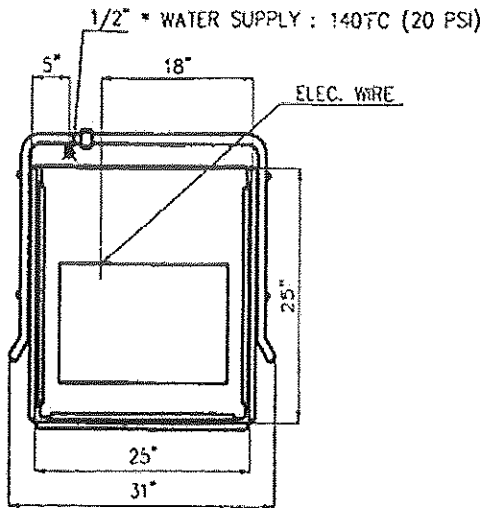
## 8. Cycle Time Chart

### TIME CHART

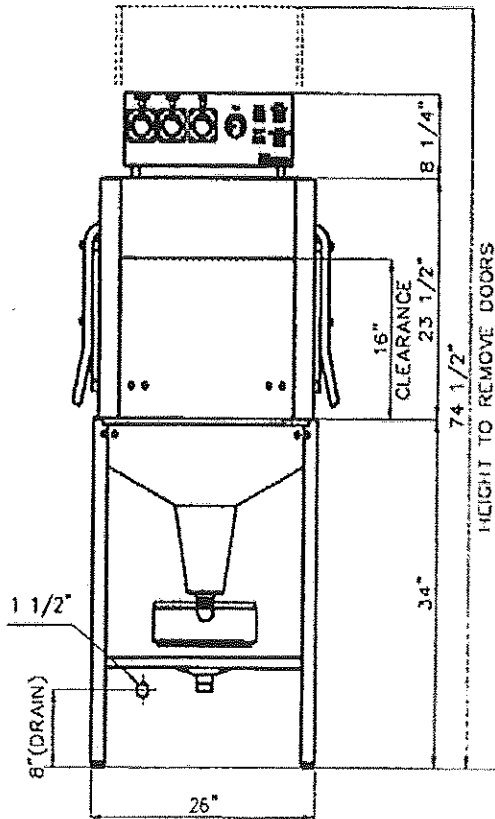
SWITCH ITEM	CYCLE TIME (sec)	
	N. D	N. C
CAM1 CYCLE/RESET	N. D	87
	N. C	88.5
CAM2 WASH & RINSE PUMP	N. D	40
	N. C	65
CAM3 DRAIN SOL V/V	N. D	40
	N. C	50
CAM4 FILL SOL V/V	N. D	48
	N. C	63
CAM5 DETERGENT FEEDER	N. D	7
	N. C	7
CAM6 SANITIZER FEEDER	N. D	56
	N. C	59
CAM7 RINSE FEEDER	N. D	55
	N. C	58
CAM8 SPARE	N. D	
	N. C	CYCLE END

- (1) WASH TIME 40 Seconds (Initial Value) Adjustable Extention 30-50 Seconds
- (2) RINSE TIME 20 Seconds (Initial Value) Adjustable Extention 15-20 Seconds
- (3) DRAIN TIME 10 Seconds (Initial Value) Adjustable Extention 5-10 Seconds
- (4) FILL TIME 15 Seconds (Initial Value) Adjustable Extention 10-20 Seconds  
It depends on fill water pressure.
- (5) DETERGENT TIME 7 Seconds (Initial Value) Adjustable Extention 1-10 Seconds  
It depends on chemical agent concentration
- (6) SANITIZER TIME 3 Seconds (Initial Value) Adjustable Extention 2-5 Seconds  
It depends on chemical agent concentration
- (7) RINSE FEEDER TIME 3 Seconds (Initial Value) Adjustable Extention 2-5 Seconds  
It depends on chemical agent concentration
- (8) RESET TIME 2 Seconds (initial Value)
- (9) TOTAL TIME 90 Seconds

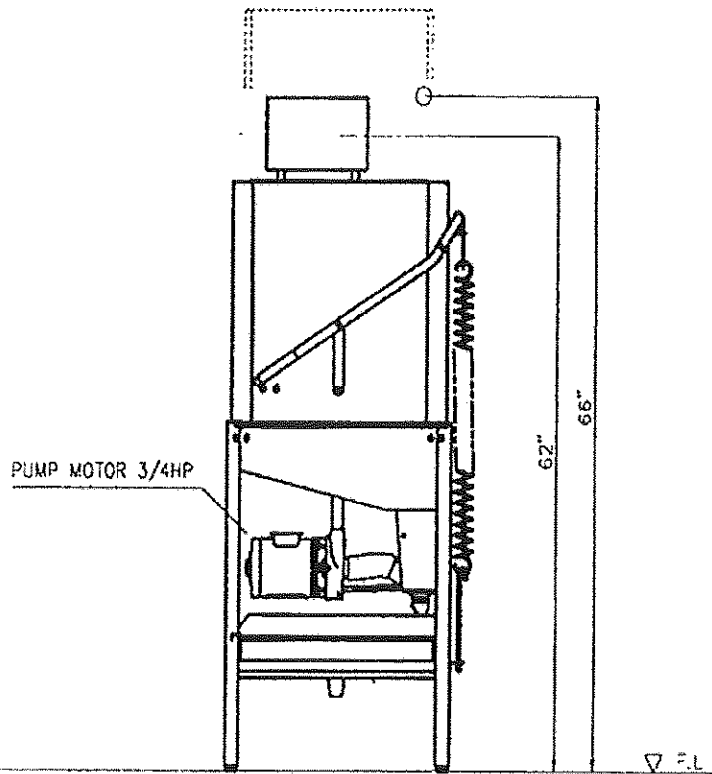
# 9. Shape View



PLAN VIEW



FRONT VIEW



SIDE VIEW

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