MODEL UC65e M3

Installation Operation Manual

Rev 1.00 11-01-22



CMA DISHMACHINES
12700 KNOTT AVENUE
GARDEN GROVE, CALIFORNIA 92841

800-854-6417

FAX 714-895-2141

www.cmadishmachines.com

Buy Parts

PRODUCT REGISTRATION ONLINE

Connect to the internet and enter the URL below to register your machine.

https://cmadishmachines.com/warranty-registration/

For future reference, record your dishwasher information in the box below.

Model Number_____ Serial Number_____

Voltage_____Hertz_____ Phase_____

Service Agent _____ Tel:_____

Parts Distributor _____ Tel:_____

National Service Department

CMA Dishmachines
12700 Knott Avenue
Garden Grove, CA 92841
Toll-free: 1 (800) 854-6417
Fax: 1 (714) 895-2141

ATTENTION:

The model no., serial no., voltage, Hz and phase are needed to identify your machine and to answer questions.

The machine data plate is located on the lower front panel.

Please have this information ready if you call for service assistance.

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Table of Contents

Installation 1
- Receiving and Placement 1
- Installation Codes 2
- Water Connection 3
- Drain Connection 4
- Electrical Connection 6
- Detergent Set-up 8
- Rinse-Aid Set-up 10

Operation 12
- Control Panel Description 12
- Loading Wares 13
- Operation Display 14
- Wash Cycle 15
- Rinse Sentry, Auto-Clean, and Drain Mode 16

Cleaning 17
- Wash and Rinse Spray Arms, Scrap Screens, Exterior 17
- Deliming 18

Maintenance 19
- Schedules 19
- Troubleshooting Chart 20

Timing Chart and Electrical Schematic 21
- Timing Chart 21
- Electrical Schematic 22

Safety Symbols

The following symbols are used throughout this manual to alert the reader to important information.



WARNING:
Warnning statements indicate a condition or practice that can result in personal injury or possible death.



CAUTION:
Caution statements indicate a condition or practice that can result in damage to the machine or associated equipment.



DO NOT:
Do not statements indicate that a condition or practice will diminish the effective operation of the machine.



OKAY:
Okay statements indicate that a condition or practice is correct and should be followed.



NOTE:
Note statements highlight important information necessary for the operation of the machine.

Receiving



1. Inspect the outside of the dishwasher carton for signs of damage.
2. Remove the carton and inspect the dishwasher for damage.
3. Check for any options or accessories that may have shipped with your dishwasher.
4. Register by fax using the form at the front of this manual or online at: https://cmadishmachines.com/warranty-registration/



CAUTION:
Be careful when lifting and moving the machine to avoid damage.

Placement

1. Compare the installation site utility connections with the dishwasher utility connections and make sure they are the same.
2. Level the machine using the four leveling feet. Level side-to-side and front-to-back.
3. Plumbing connections must be made before the electrical installation begins.
4. The dishwasher can be installed as a free-standing unit or under a counter-top. The typical counter-top height in most locations is 34" [86cm].
5. It is highly recommended that the underside of the counter-top be clad in metal.
6. Under counter installations should provide storage space for the dishwasher chemical supply containers. Do not elevate the containers above the finished floor.
7. Chemical supply containers should be placed as close to the machine as possible.
8. The chemical tubing taped to the back of the machine must be repositioned before permanently placing the machine.
9. Place the dishwasher in its permanent location.
10. Remove the lower front panel in preparation for utility installations.

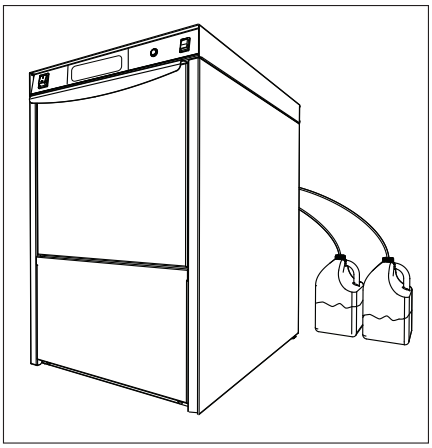


Fig. 1 -
Do not elevate chemical containers

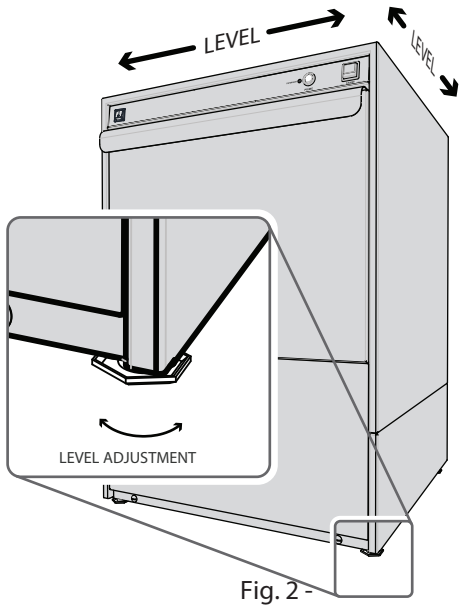


Fig. 2 -
Level the machine.

Installation Codes

The installation of the dishwasher must comply with all local electrical, plumbing, health, and safety codes or in the absence of local codes, installed in accordance with the applicable requirements in the National Electrical Code, NFPA 70, Canadian Electrical Code (CEC), Part 1, CSA C22.1; and the Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, NFPA 96.

NOTE:
The installation of your dishwasher must be performed by qualified service personnel familiar with food service equipment and must comply with all local health codes. Problems due to improper installation are not covered by the Limited Warranty.

STOP  STOP

ALL PLUMBING CONNECTIONS MUST BE MADE BEFORE THE ELECTRICAL INSTALLATION. DAMAGE TO THE WATER HEATERS WILL OCCUR IF POWER IS TURNED ON WITHOUT AN ADEQUATE WATER SUPPLY.

DAMAGE DUE TO IMPROPER INSTALLATION IS NOT COVERED BY THE LIMITED WARRANTY.

Water Connection



HOT WATER

Connect the plumbing in accordance with the specifications below.

MINIMUM 1/2" NPT OR LARGER HOT WATER SUPPLY LINE.

CAUTION: To prevent damage to the dishwasher supply valves, the installing plumber must thoroughly flush debris from the water supply line before connecting it to the dishwasher. Damage caused by improper installation is not covered by the limited warranty.

NOTE: All plumbing connections MUST BE POSITIONED to allow the machine to be moved for service and cleaning.

BOOSTER RISE °F	BOOSTER kW	MINIMUM INCOMING TEMPERATURE	MIMIMUM INCOMING SUPPLY FLOWING PRESSURE	MIMIMUM/MAXIMUM OPERATING FLOWING PRESSURE
40 ° RISE	4kW	140°F/ 60°C	45 PSI/310 kPa	20-22 PSI 138-152 kPa
70 ° RISE	6kW	110°F/ 43°C	45 PSI/310 kPa	20-22 PSI 138-152 kPa

WATER HARDNESS OF 3 GRAINS/US GAL - 0.83 IMP GAL - 5.3mg/L OR LESS.

THE DISHWASHER IS EQUIPPED WITH A 6 FT / 1.8 m FLEXIBLE FILL HOSE WITH A 3/4" FNPT FITTING.

INSTALL A 1/2" OR LARGER SHUT-OFF VALVE IN THE WATER SUPPLY LINE AS CLOSE TO THE DISHWASHER AS POSSIBLE FOR SERVICING.

Continued on the next page.

Drain Connection



Connect the drain in accordance with the specifications below.

CAUTION: The dishwasher drain connection must comply with all local plumbing, health and safety codes. Damage caused by improper installation is not covered by the limited warranty

- THE DISHWASHER IS EQUIPPED WITH A 4FT / 1.2 m CLEAR BRAIDED DRAIN HOSE AND A 3/4" MNPT x 5/8" HOSE BARB ADAPTER.
- CONNECT THE DRAIN HOSE TO A 1-1/2" WYE FITTING.
- THE DRAIN HOSE MUST BE VENTED TO PREVENT SIPHONING.
- DRAIN CONNECTION WITH A DEDICATED WASTE LINE IS STRONGLY RECOMMENDED.



THE LIMITED WARRANTY IS VOID IF:

- an extension is added to the drain hose
- the syphon loop is modified or removed
- the supplied drain hose fitting is not used

Drain Connection

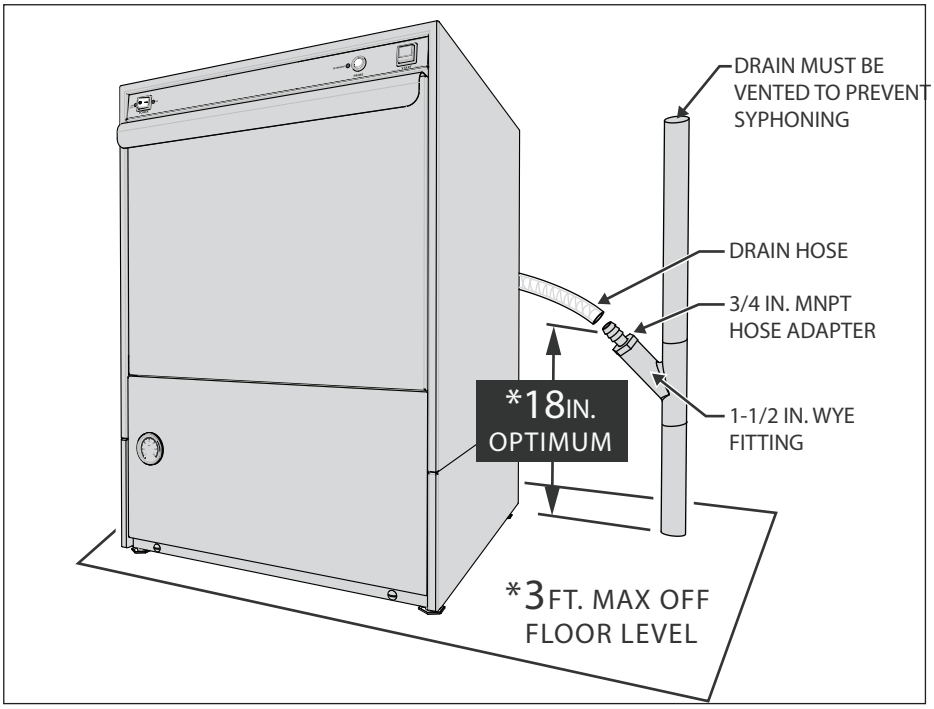


Fig. 3
Configuring the drain line.

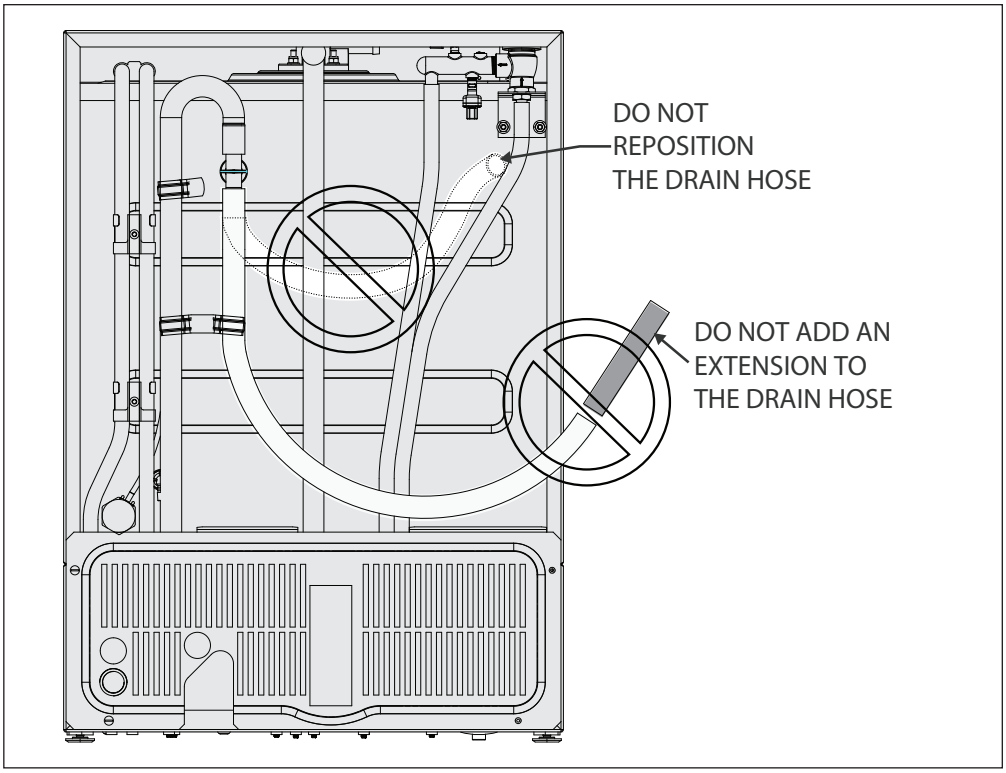


Fig. 4
Do not void the limited warranty.

INSTALLATION CODES

The installation of the dishwasher must comply with all local electrical, plumbing, health and safety codes or in the absence of local codes, installed in accordance with the applicable requirements in the National Electrical Code, NFPA 70, Canadian Electrical Code (CEC), Part 1, CSA C22.1; and the Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, NFPA 96.

RECEIVING

- Inspect the shipping carton damage and report immediately.
- Inspect the shipment for accessories and items shipped with the machine.
- Compare the installation site utilities to ensure they are the correct size and location.

⚠ CAUTION: Be careful when moving the dishwasher to prevent damage.

PLACEMENT

1. The dishwasher can be installed as a free-standing unit or under a counter-top. The typical counter-top height in most locations is 34" [86cm].
2. It is highly recommended that the underside of the counter-top be clad in metal.
3. Under counter installations should provide storage space for the dishwasher chemical supply containers. Do not elevate the containers above the finished floor.
4. Chemical supply containers should be placed as close to the machine as possible and the chemical tubing taped to the back of the machine should be repositioned before permanently placing the machine.
5. Place the dishwasher in its permanent location.
6. The dishwasher has 4 adjustable feet for leveling.
7. Level the dishwasher front-to-back and side-to-side.

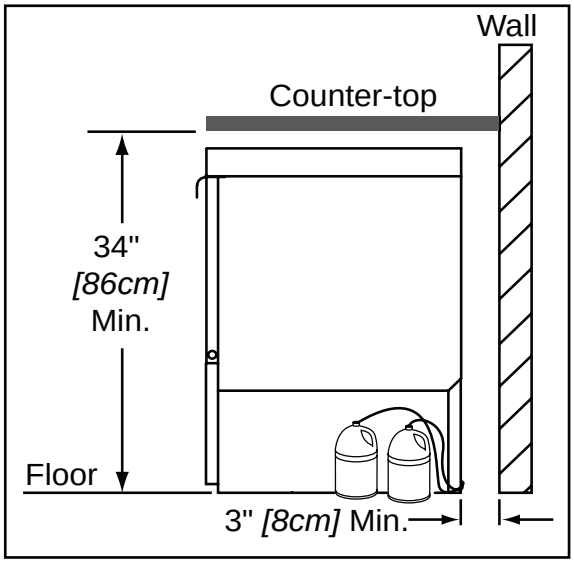


Fig. 1

Electrical Connection





WARNING: Electrocution may occur when working on energized circuits. Disconnect power at the main breaker or service disconnect switch, then lock out and tag it to indicate that work is being performed on the circuit.



CAUTION: Electrical connections must be made AFTER the plumbing installation. Damage to the water heaters will occur if the power is turned on without an adequate water supply.

Follow the instructions below and on the next page to connect power to the machine.

1

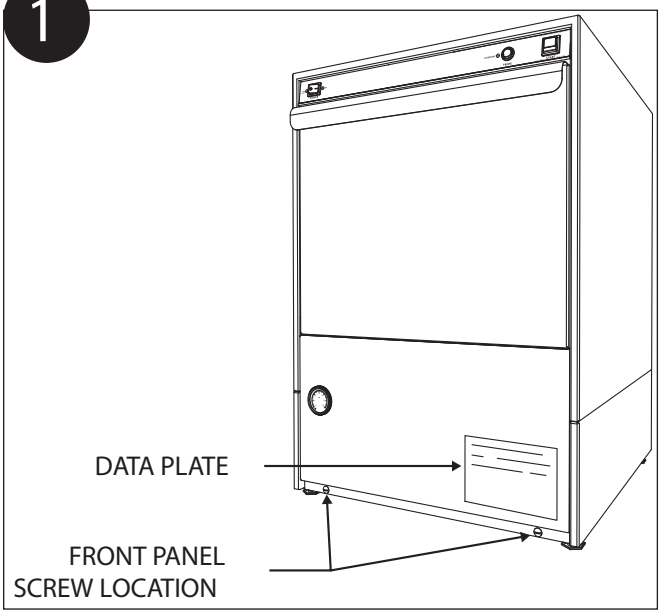


Fig. 5

- CHECK THE ELECTRICAL SPECIFICATIONS ON MACHINE DATA PLATE.
- REFER TO THE BREAKER SIZE TABLE BELOW AND ENSURE THE BUILDING BREAKER SIZE MATCHES.
- REMOVE DISHWASHER LOWER FRONT PANEL TO ACCESS INTERNAL COMPONENTS FOR INSTALLATION.

383HT 40 ˚F/22 ˚C Rise Electric Booster (4kW)

Elec. Specs	Rated Amps	Minimum Supply Circuit Ampacity	Maximum Overcurrent Protective Device (Breaker Size)
208/60/1	22	30	30
240/60/1	24	30	30

383HT 70 ˚F/39 ˚C Rise Electric Booster (6kW)

Elec. Specs	Rated Amps	Minimum Supply Circuit Ampacity	Maximum Overcurrent Protective Device (Breaker Size)
208/60/1	29	40	40
240/60/1	31	40	40

Table - 1
Breaker (Service Disconnect Switch) Size

Electrical Connection (continued)

2

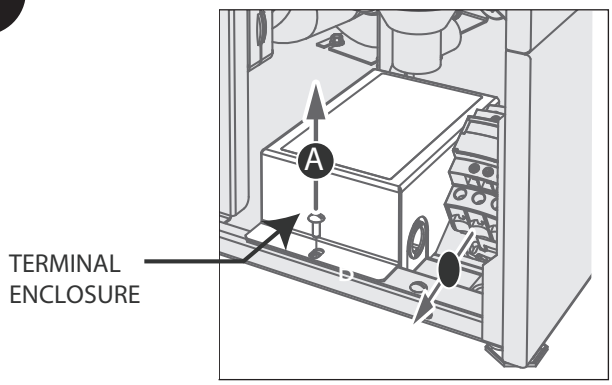


Fig. 6

A REMOVE THE LEFT SCREW ON THE FRONT LIP OF THE TERMINAL BOX.

B LIFT AND REMOVE THE COVER TO ACCESS THE TERMINAL BLOCK.

3

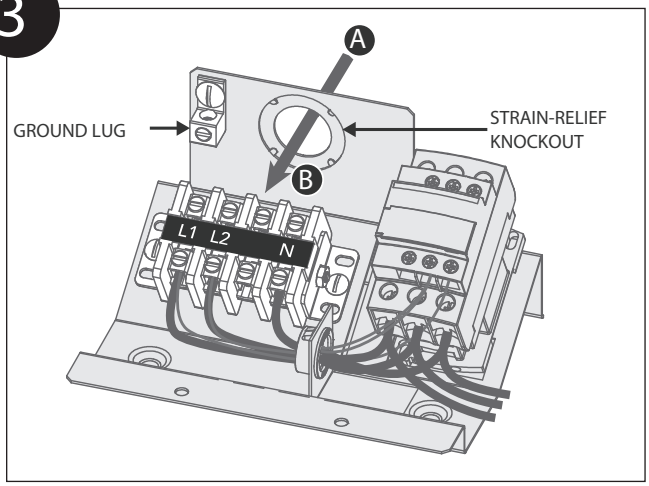


Fig. 7

STOP
STOP

A 30" / 76 cm SERVICE LOOP MUST BE PROVIDED BEHIND THE UNIT FOR SERVICING.

A THREAD THE POWER CABLE THROUGH THE MIDDLE SLOT IN THE REAR PANEL.

B SECURE THE CABLE TO THE TERMINAL BOX USING THE PROPER STRAIN RELIEF.

4

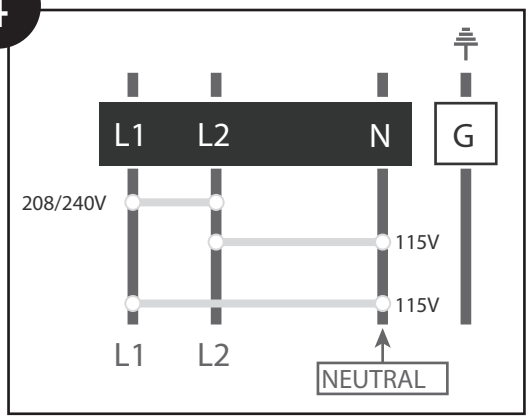


Fig. 8

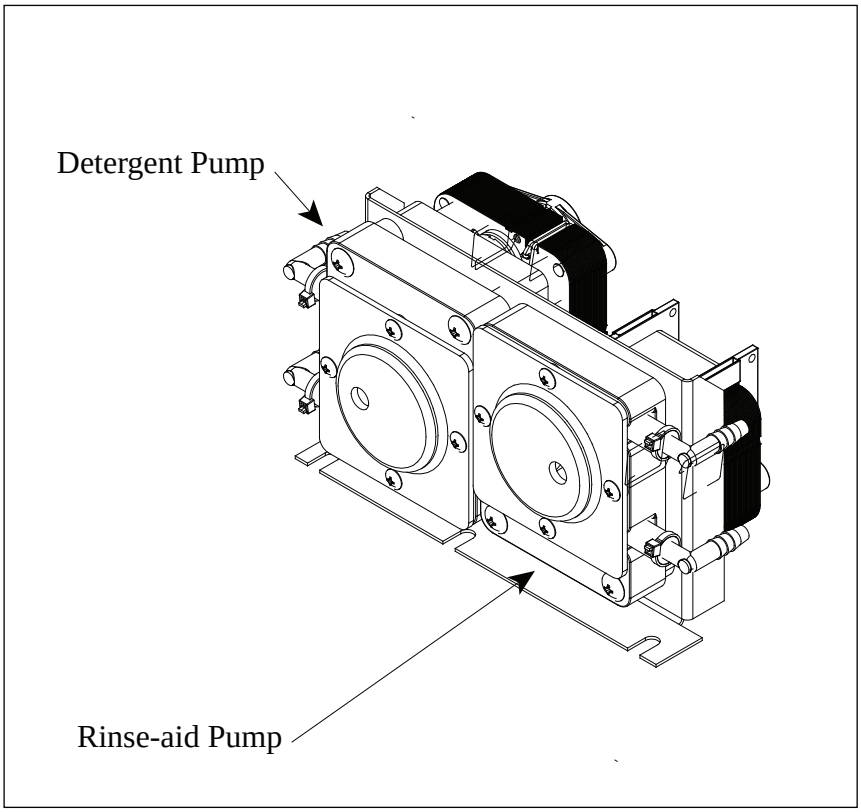
CONNECT THE INCOMING POWER AS SHOWN IN FIG. 8.

208-240V / 60Hz / 1 Ø
115V SPLIT CONNECTION
SINGLE PHASE - THREE WIRE PLUS GROUND WHICH INCLUDES A CURRENT CARRYING NEUTRAL WIRE RATED MIN 190 °F (88 °C).

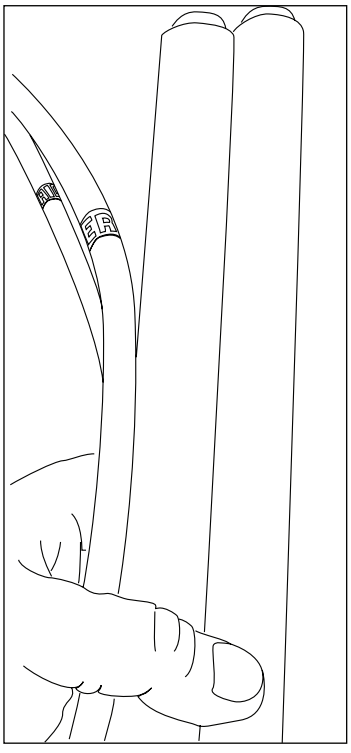
Chemical Dispensing Pumps

! ATTENTION !
Contact a local chemical supplier for detergent and rinse-aid chemicals. The detergent should be a non-chlorinated liquid detergent. The chemical dispensing pumps are adjusted by the chemical supplier.

1. The dishwasher is equipped with a built-in detergent dispensing pump and rinse-aid dispensing pump. *(See the photographs below.)*
2. The pumps are located on the lower panel behind the lower-front access panel.
3. Each pump is equipped with 6 feet [1.8 m] of pick-up supply tubing, a stiffener tube, and a strainer.
4. A red label marked DETERGENT is attached to the detergent pump inlet tubing.
5. A blue label marked RINSE-AID is attached to the rinse-aid pump inlet tubing.
6. The detergent enters the wash tank compartment through a fitting at the right rear of the wash compartment. *(See the illustration on the next page).*
7. The detergent supply should be a non-chlorinated liquid detergent.



The dispensing pumps are located behind the front panel.



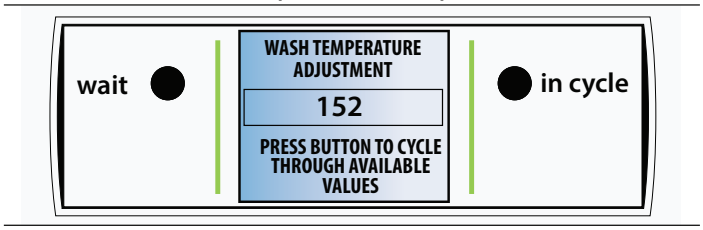
A stiffener tube, strainer and pick-up tubing are supplied with the built-in detergent and rinse-aid pumps.

PARAMETER SETTINGS INSTRUCTIONS

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CAUTION: Parameter changes must be made by qualified personnel only.

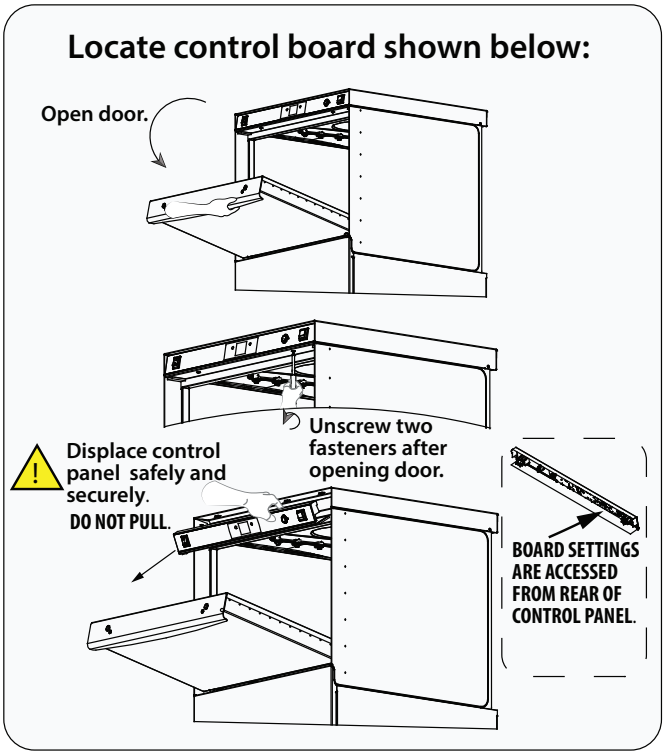
(LCD SCREEN)



The following parameters may be changed depending on model:

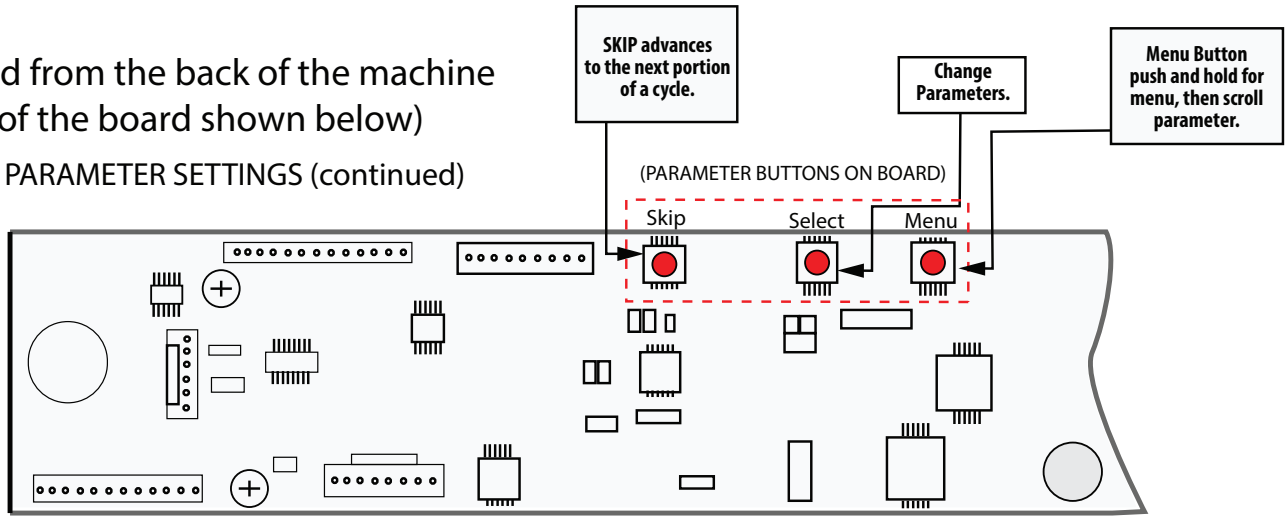
1. DETERGENT CONCENTRATION
2. RINSE TEMP
3. WASH TEMP
4. FILL TIME
5. UNITS (F-C)
6. LANGUAGE (English - French)

Locate control board shown below:



Viewed from the back of the machine
(Back of the board shown below)

PARAMETER SETTINGS (continued)



To Change Parameters:

1. Push and Hold the "Menu" button.
2. DET settings screen will appear first.
3. Push menu button to scroll through until desired parameter is reached.
4. Push "CHANGE" button until desired setting is reached.
5. Release and control will return to normal operation (approximately 3 seconds).

Prime the Detergent and Rinse Additive Pumps

1. Place each chemical pick-up tubes in a full container of detergent and rinse additive.
2. Push the dishwasher power switch ON. The dishwasher will automatically fill with water.
3. Press and hold the PRIME SWITCH for detergent and then rinse additive for 30-60 seconds.
4. Wait twenty minutes or until the temperature display indicates a minimum of 150°F/66°C.

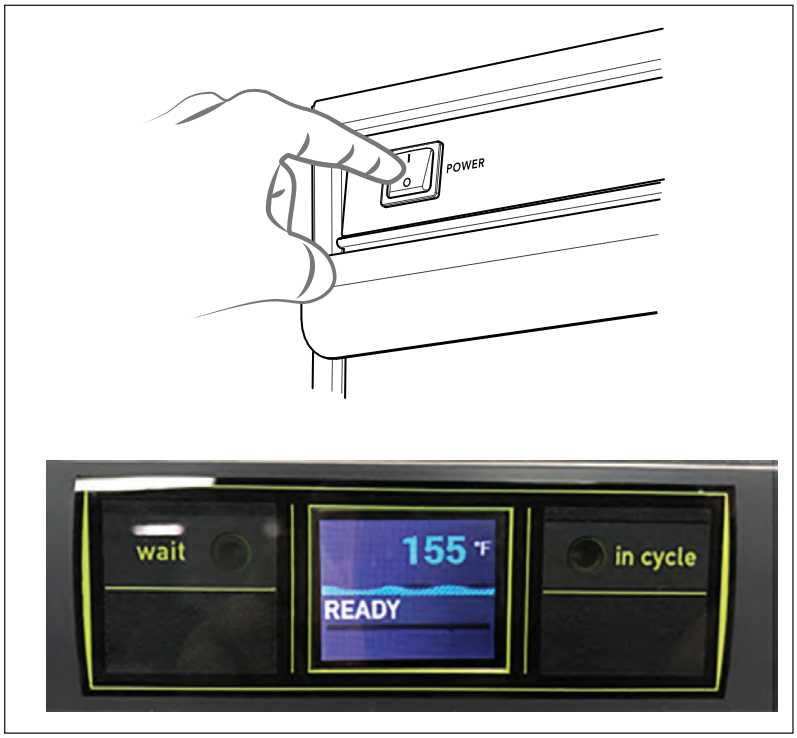


Fig.15

Control Panel Description

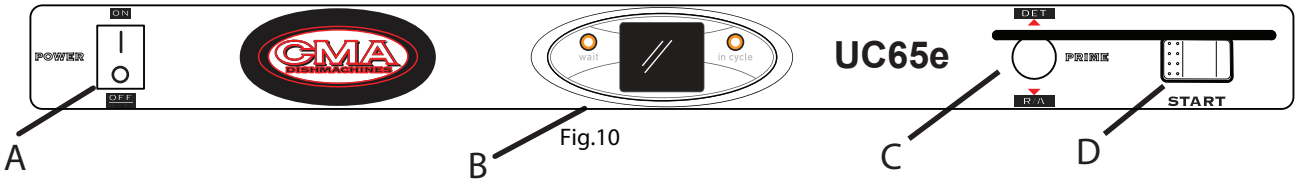


Fig.10

A - ON-OFF/Drain power switch turns power on and off. It initiates the automatic fill cycle when turned on and the automatic drain cycle when turned off.

B - LCD screen displays machine status: including temperatures, operation, heating and autoclean functions such as, wait, and in-cycle. TEMPERATURE DISPLAY indicates water temperature and displays operation codes for the operator. The minimum wash water temperature is 150°F/66°C. The minimum/maximum final rinse temperature is 180-195°F/ 82-91°C.
WAIT INDICATOR light illuminates during the initial fill and as the booster heats to the minimum 180°F/82°C. The indicator light goes out when 180°F/82°C is achieved.

C - CHEMICAL PRIME SWITCH when pressed, runs the detergent dispensing pump or rinse-aid pump to prime the pick-up hose during initial set-up and whenever the detergent supply container is changed.

D - START PUSH BUTTON Pressing the START button initiates an automatic timed cycle and illuminates the IN CYCLE light.

E - PRESSURE GAUGE indicates the final rinse water flowing pressure during the initial fill and the automatic final rinse cycle. The proper pressure reading is 20-22 PSI. The pressure gauge is located on the left side of the lower front panel.

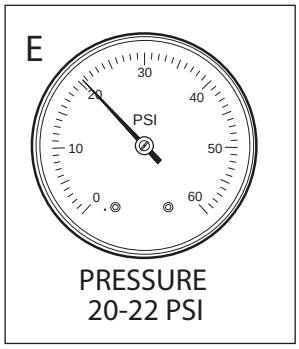


Fig. 18

Operation - Loading Wares

1. REMOVE LARGE FOOD PARTICLES AND DEBRIS BEFORE LOADING WARES.

2. LOAD PLATES IN A PEG RACK. BOWLS AND GLASSES IN A FLAT-BOTTOM RACK.
   LOAD SILVERWARE IN A SINGLE LAYER IN A FLAT-BOTTOM RACK.
   LOAD POTS, PANS, AND UTENSILS UPSIDE DOWN IN A FLAT-BOTTOM RACK.

3. DO NOT OVERLOAD RACK AND ONLY WASH ONE RACK AT A TIME.

4. NEVER WASH FOREIGN OBJECTS SUCH AS DISH RAGS OR MOPS.

CAUTION: Ferrous metals in the form of metal scrub pads must not be used to clean wares or dishwasher surfaces. Avoid putting any type of ferrous* metal in the machine. (*ferrous metals rust.)

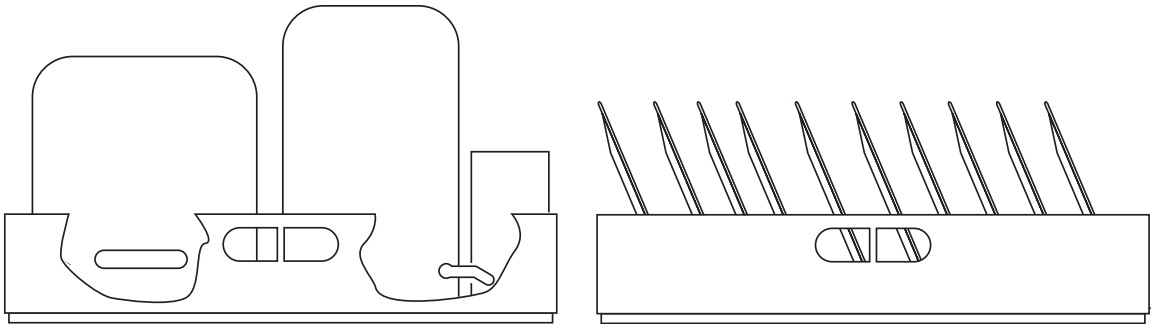
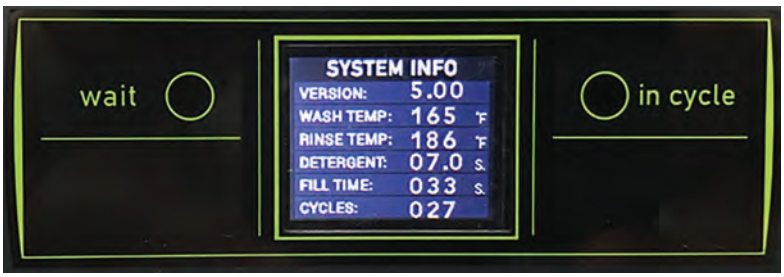


Fig. 19

OPERATIONAL DISPLAY

The screen displays the operational status of the machine throughout the cycle.

- Start-up Sequence



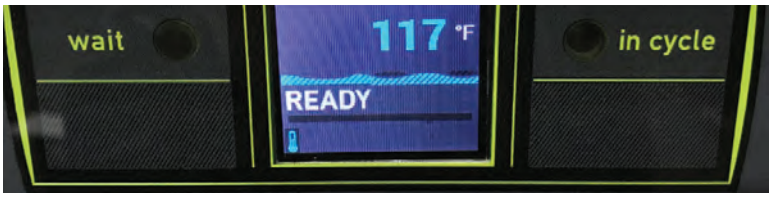
1. When power switch is turned ON, system information screen will show briefly.
2. This shows firmware version, parameter settings, and cycle counts.



1. Machine is filling.
2. Wait light is illuminated.
3. Progress bar shows fill time remaining.



1. Red thermometer indicator shows booster tank is heating.
2. Wait light remains illuminated.
3 Wait light indicates cycle is pending.
4. Progress bar shows remaining heat time.



1. Booster heater has achieved temperature
2. Blue thermometer bar shows the wash tank heat is active.
3. Wait light is out and READY shows a cycle may begin.



1. Ready indicates the machine will wash.
2. 155 °F indicates the wash tank temperture.

Operational Display (continued)

WASH CYCLE



WASH

1. The status indicator shows cycle progress.
2. In-cycle light is illuminated.



DRAIN

1. When the wash cycle is complete the machine will drain all of the water and refill with fresh hot water.

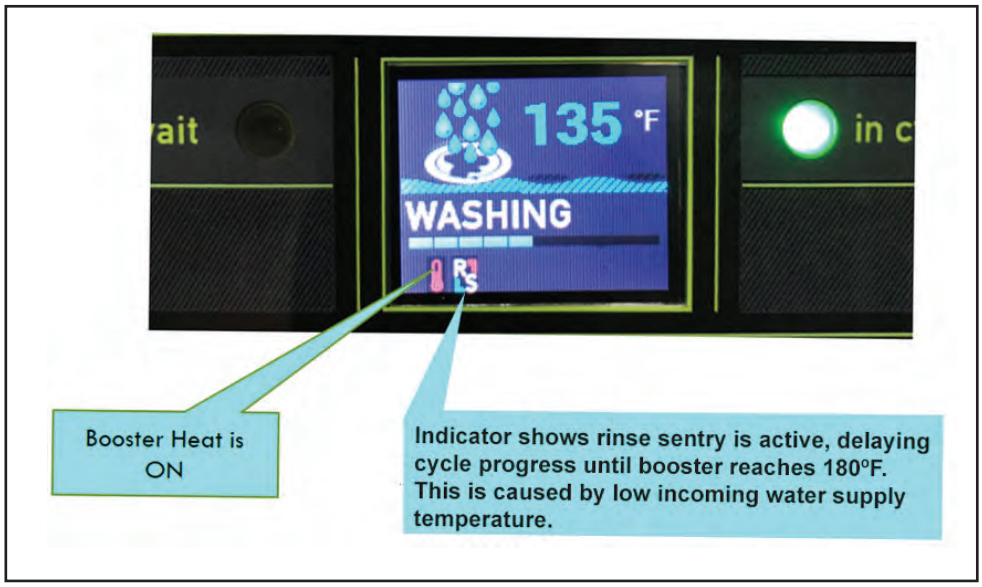


RINSE

1. Display changes to red and indicates rinse temp.

Operation - Rinse Sentry, Auto-Clean, Drain Mode

RINSE SENTRY



AUTOCLEAN DRAIN



1. When machine is turned off, the AutoClean screen with the status indicator is shown.



2. This takes approximately 2-1/2 minutes.
3. When complete, open door to allow machine interior to air dry.

Cleaning

Clean the machine at the end of each meal period, every 2 hours of continuous operation, and at the end of the day.

CAUTION: Dishwasher surfaces may be hot. Cleaning chemicals may be caustic to the skin and eyes. Wear protective clothing and eye protection when handling chemicals and cleaning the machine.

STOP

NEVER USE A METALLIC SCRUB PAD TO CLEAN THE DISHWASHER.
USE A SOFT CLOTH AND MILD DETERGENT.

NEVER SPRAY THE EXTERIOR OF THE MACHINE WITH WATER.
USE A SOFT CLOTH AND MILD DETERGENT.

STOP

1. Push the power button OFF, the light will go out.
2. The machine will enter the Auto-clean mode and then drain.
3. Remove the upper and lower wash and rinse spray arms. Flush with clean water in a sink.
4. Refer to Fig.18 below. Check the rinse spray arm nozzles. If necessary, remove the end plugs and clean the nozzles with a small paper clip to remove debris. Flush the arms thoroughly and replace the end plugs.
5. Remove the scrap screen making sure debris does not fall out of the screen and into the wash tank. Flush and back flush the screen in a sink.
6. Wipe the sump clean with a soft cloth and clean the sump strainer.
7. Wipe the exterior of the machine with a soft cloth and mild detergent.
8. Reassemble the machine and leave the door open to aid overnight drying.

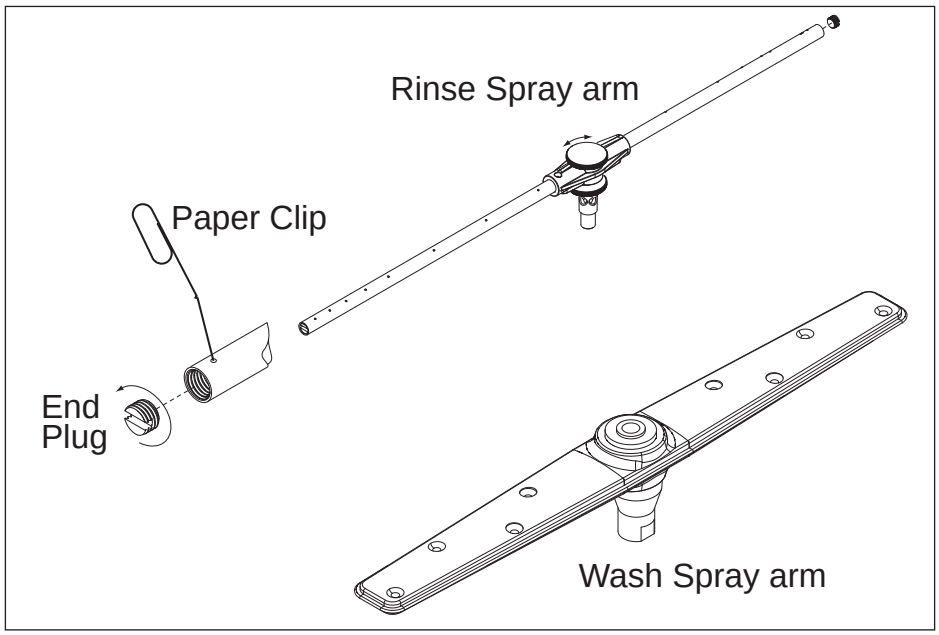


Fig. 20

Cleaning - Deliming



WARNING:
Death or serious injury may result when deliming solution is mixed with sodium hypochlorite (chlorine bleach) sanitizing agent. Mixing may cause hazardous gases to form. Deliming solution and other acids must never be mixed with chlorine, iodine, bromine, or fluorine.

Deliming solutions can cause severe irritation and possible chemical burns. Always wear protective clothing and goggles when handling chemicals.

Follow the steps below to delime the dishwasher.

1. Open the dishwasher door and remove the dish rack.
2. Remove the detergent and rinse-aid chemical supply tubing from their chemical supply containers.
3. Place the pick-up tubes in a container of hot water.
4. Push the dishwasher power switch to the ON position. The dishwasher will fill with water.
5. Press and hold the detergent prime switch UP to flush the detergent from the supply tubing. Release the switch.
6. Turn the dishwasher power switch to OFF/DRAIN to drain the wash tank. The WASH indicator light will go out in about 2 minutes.
7. Always wear eye protection, rubber gloves and protective clothing when handling chemicals.
8. Open the door and carefully add the deliming chemical to the wash tank in accordance with your chemical supplier's instructions. Be careful to avoid splashing.
9. Close the door.
10. Press the power switch to the ON position. The machine will fill with water.
11. Press and hold the Start button for one second to initiate an automatic cycle.
12. When the cycle has ended, open the door and check the deliming results. Clean the rinse arm jets with a paper clip to ensure they are clear.
    Repeat steps 6-11 if necessary. Push the power switch to OFF/Drain to drain the machine.
13. Push the power switch ON to refill the machine. Place an empty dish rack in the machine.
14. Run 4 empty cycles to ensure all deliming chemicals are flushed from the machine.
15. Return chemical supply tubing to their containers and prime the chemical lines.
16. Deliming is complete.

Maintenance - Schedules

Daily Maintenance

1. Check all of the wash arm and rinse arm spray jets and clean as necessary.
2. Make sure the water supply is on and the drain is not clogged.
3. Check the temperature display and ensure it is operating.
4. Make sure the dish racks are in good condition.
5. Check the chemical containers and refill as required.
6. Follow the cleaning procedures on pg.15.

Weekly Maintenance

1. Perform Steps 1-6 in the Daily Maintenance.
2. Inspect water lines for leaks.
3. Check for water leaks underneath the dishwasher.
4. Make sure the floor drain and/or drain lines are unobstructed.
5. Make sure the dishwasher is level.
6. Clean accumulated lime deposits from the wash tank heating element.
7. Inspect the scrap screen and replace if damaged.
8. Check the spray arms and replace or repair if damaged.

Semi-Annual Maintenance

1. Inspect the chemical dispensing pump tubing for cuts, kinks or bends and replace if necessary.
2. Place an empty dish rack inside the dishwasher. Remove the pick-up tubes from the chemical containers. Place the tubes in a container of hot water and run the dishwasher for twenty cycles to thoroughly flush the lines. Check the lines to ensure they are unobstructed.
3. Disassemble the detergent pump and replace the squeeze tube. Reassemble.
4. Return the pick-up tubes into full chemical containers and return the machine to service.

Yearly Maintenance

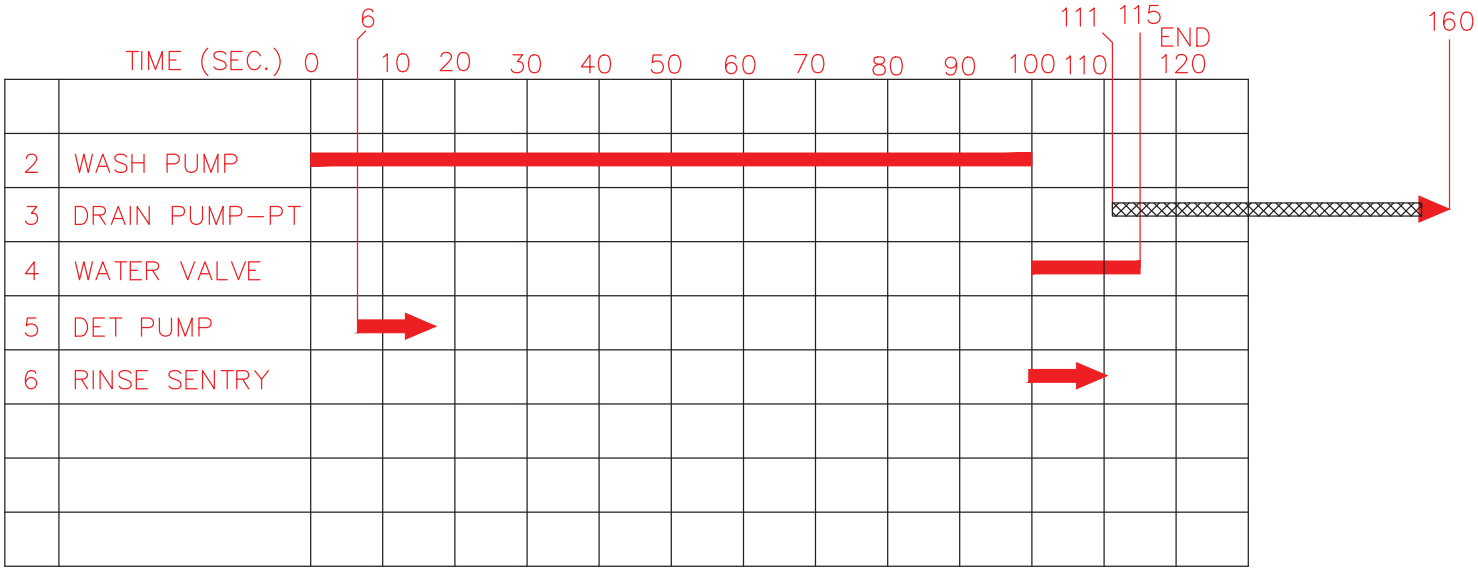
Contact your authorized service agent for a preventive maintenance inspection.

Lubrication

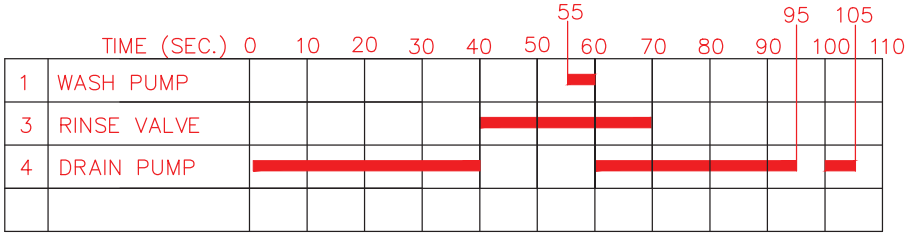
There are no lubrication points for this dishwasher.

Maintenance - Troubleshooting Chart

Condition	Cause	Solution
Dishwasher will not run.	Door not closed. Main power OFF. Dishwasher OFF.	Close door completely. Check breaker on panel. Turn dishwasher power switch ON.
Low or no water. Temperature display indicates "LP"	Main water supply off. Fill hose kinked. Low incoming water pressure Solenoid valve defective. Solenoid strainer clogged.	Open supply valve. Straighten fill hose. Check for kinked or damaged lines. Set flowing water pressure to 20-22 PSI. Install repair kit or replace. Clean strainer.
Chemicals won't feed into dishwasher.	Chemical supply low. Supply tubing damaged. Supply tubing kinked. Pick-up tube clogged Squeeze tube or diaphragm bad.	Refill chemical container. Replace tubing. Straighten tubing. Clean/replace tube. Replace defective components.
Low water pressure pumped from wash spray arms.	Clogged scrap screen. Clogged spray arms. Clogged pump intake screen.	Clean scrap screen. Clean spray arms. Inspect sump and clean pump intake screen.
Poor wash results.	Excessively hard water. Water temperature low. Thermistor defective. (See chemicals won't feed above.) (See low or no water above.) Chemical injector defective. Wares incorrectly loaded. in dishrack. Booster high limit tripped. Wash tank high limit tripped. Rinse jets clogged	Contact chemical supplier. Raise incoming water temperature to 140°F Replace thermistor. (See chemicals won't feed above.) (See low or no water above.) Replace squeeze tube. Replace injector motor. Clean tubing and pick-up. Reposition wares or reduce amount of wares in dish racks. Reset or replace high limit. Reset or replace high limit. Delime the rinse arms and clean the rinse jets with paper clip.
Water has drained out of the wash tank while the dishwasher was idle.	Anti-siphon loop in drain hose has been removed. Drain hose clamp is not holding the drain hose in proper position. Building plumbing does not provide correct air vent to prevent siphoning.	Re-route drain hose. DO NOT STRETCH HOSE Replace/adjust hose clamp making sure goose-neck is maintained. Contact service Agent and/or plumber.
WAIT light is on for an extended period of time. Dishwasher stays in wash cycle for an extended period of time..	Incoming water supply cold Rinse Sentry extends wash mode for a maximum time of 5-minutes to allow final rinse water booster temperature to reach 180˚F/82˚C.	Raise incoming water temperature. Replace final rinse booster thermistor.

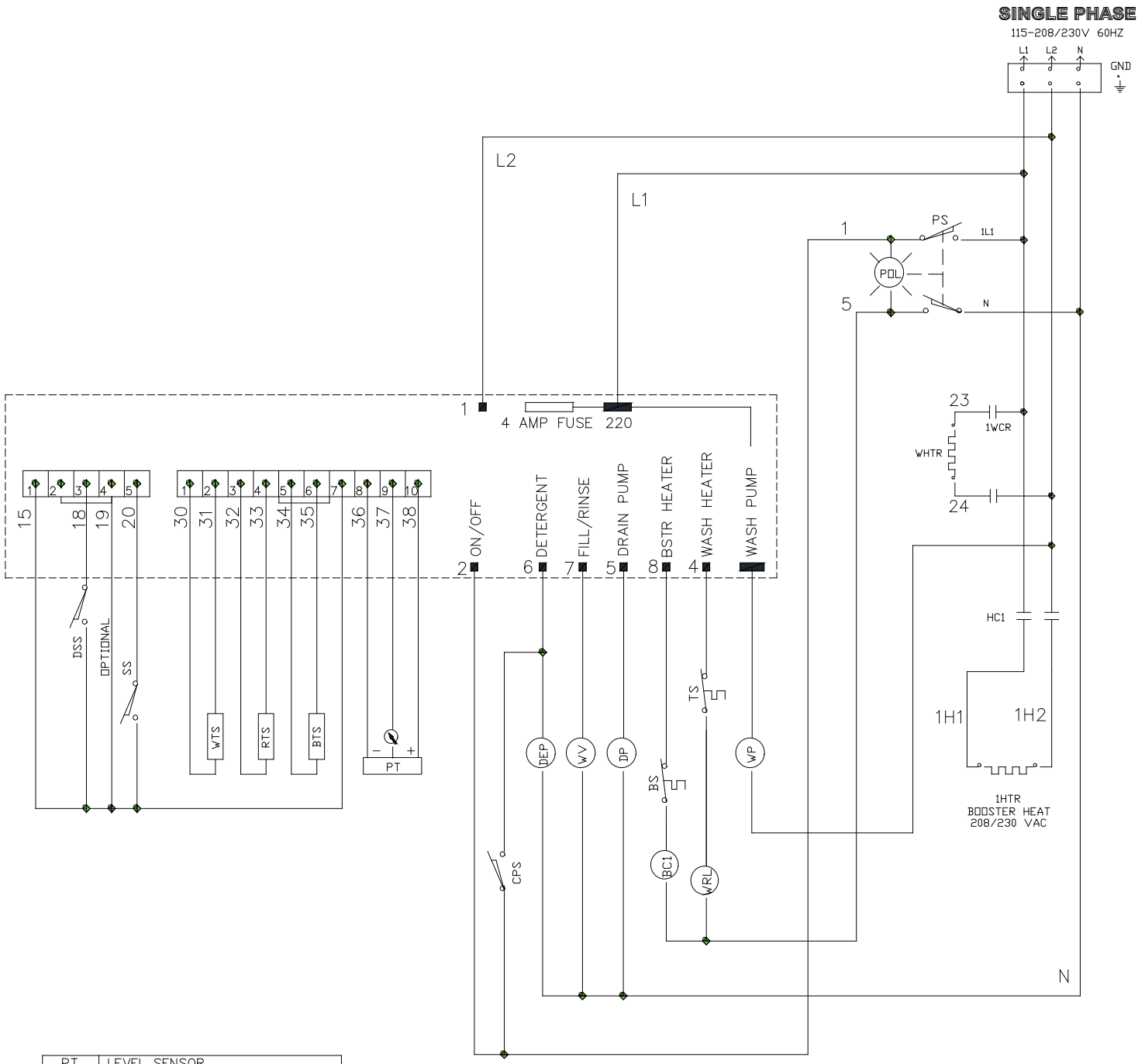


TIMING CHART FOR 383 FWR DRAIN CYCLE
ACTIVATED 4 SEC. AFTER "POWER" SWITCH IS TURNED OFF



REV	ECN	DESCRIPTION	BY	DATE
A		RELEASED TO PRODUCTION	RCH	22 MAY 2019

TOLERANCE	HOLE DIMENSIONS		ISSUED	MOYER DIEBEL LIMITED
DECIMAL	A	F		
ANGLE	B	G	DR.	TIMING CHART
SCALE 1:2	C		CH.	DRAWING NO. 05CTIME
FORMING DIMENSIONS ARE FROM BRAKELINE TO BRAKELINE UNLESS OTHERWISE NOTED	D	H	RTG.	
	E	J		



PT	LEVEL SENSOR
WRL	RELAY, WASH TANK HEATER
BTS	BOOSTER TEMPERTURE SENSOR
RTS	RINSE TEMPERTURE SENSOR
WTS	WASH TEMPERTURE SENSOR
DP	DRAIN PUMP
CB	CIRCUIT BOARD
DSS	DOOR SAFETY SWITCH
FRV	FILL/RINSE VALVE
GND	GROUND
DEP	DETERGENT PUMP
BC1	BOOSTER CONTACTOR
1HTR	BOOSTER HEATER
WP	WASH PUMP
SS	START SWITCH
CPS	CHEMICAL PRIME SWITCH
PS	POWER ON SWITCH
TS	TANK HEAT SAFETY THERMOSTAT
BS	BOOSTER SAFETY THERMOSTAT
EWS	EXTENDED WASH SWITCH
WHTR	WASH TANK HEATER

DIAGRAM STATE
END OF CYCLE
POWER-OFF
DOOR-OPEN

DATE	NUMBER/REV
18-2-2021	0513919