INSTALLATION, OPERATION, AND SERVICE MANUAL

NOBLE UH30-FND
NOBLE UL30
NOBLE UL30H

REVISION HISTORY

Revision Letter	Revision Date	Made by	Applicable ECNs	Details
A	7-18-16	JH	N/A	Initial release of the manual.
B	3-7-17	JH	N/A	Added UL30 and UL30H units. Updated pg. 43 with new motor and assembly P/Ns.
C	5-17-17	JH	8511	Updated water line connection information. Changed wording in the chemical feeder pump programming section to indicate changes are lost if closed without saving. Changed the steps in the Heater Contactor Wiring and Shutdown & Cleaning sections to be applicable to units with a mechanical timer. Removed item #25 from pg. 48. Changed Discharge Hose to 05700-004-43-76 in the Wash Manifold Assembly. Added 05700-004-36-95 to UH30-FND Display page and corrected the P/N for the Display Decal. Added a Plumbing Options page.
D	6-6-17	JH	N/A	Corrected draining procedure. Corrected wash motor amps for UL30/UL30H on Electrical Requirements page. Updated the UL30/UL30H schematic. Removed the UH30-FND from the manual.
E	8-23-17	JH	QOF-386	Added the 100" chemical tubes for red, white, and blue to Chemical Feeder Pump Assembly page.
F	10-17-17	JH	N/A	Added the UH30-FND to the manual.
G	2-19-19	JH	8585 8599	Updated pg. 2. Corrected references to flow pressure on pg. 6. Updated references to E and F outputs on pgs. 9-10. Corrected part numbers of motor assembly and motor only on pg. 42. Updated parts on pg. 44. Changed item #11 on pg. 48. Updated item #6 on pg. 52 and added link to instructions. Added links to instructions on pg. 53.

NOBLE WAREWASHING

UH30-FND

Undercounter dishmachine; high-temperature, hot-water sanitizing, with a booster tank and detergent and rinse-aid chemical feeder pumps.

UL30

Undercounter dishmachine; low-temperature, chemical-sanitizing, with detergent, rinse-aid, and sanitizer chemical feeder pumps.

UL30H

Undercounter dishmachine; low-temperature with wash tank heater, chemical-sanitizing, with detergent, rinse-aid, and sanitizer chemical feeder pumps.

The manufacturer provides technical support for all of the machines detailed in this manual. We strongly recommend that you refer to this manual before making a call to our technical support staff. Please have this manual open when you call so that our staff can refer you, if necessary, to the proper page.
Technical support is not available on holidays.

Contact technical support toll free at 1-888-800-5672.

Technical support is available for service personnel only.

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SCHEMATICS

UH30-FND 208-240 V, 50/60 Hz, 1/3 Phase 62
UL30/UL30H 115 V, 50/60 Hz, 1 Phase 63

SYMBOLS

- Risk of Injury to Personnel

- Risk of Damage to Equipment

- Risk of Electrical Shock

- Caustic Chemicals

- Reference Data Plate

- Lockout Electrical Power

NOTICE - Important Note

- Instructions Hyperlink

ABBREVIATIONS & ACRONYMS

ANSI - American National Standards Institute
Btu/Hr - British Thermal Units per Hour
CFM - Cubic Feet per Minute
GHT - Garden Hose Thread
GPH - Gallons per Hour
GPM - Gallons per Minute
GPG - Grains per Gallon
HP - Horsepower
Hz - Hertz
ID - Inside Diameter
kW - Kilowatts
MCA - Minimum Circuit Ampacity
MOP - Maximum Overcurrent Protection
NFPA - National Fire Protection Association
NPT - National Pipe Thread
OD - Outside Diameter
PRV - Pressure Regulating Valve
PSI - Pounds per Square Inch
V - Volts

MACHINE DIMENSIONS

LEGEND

A - Electrical Connection

B - Water Inlet (with 6' Hose) (3/4" Male GHT, connect to true 1/2" ID line, MIN 110 °F)

C - Drain Connection (1" ID, 1 3/8" OD) (Connect to MIN 1 1/2" Drain with Air-gap)

All dimensions from the floor can be increased 1" using the machine's adjustable feet.

NOTICE *UH30-FND shown.*

OPERATING PARAMETERS

Operating Capacity	UH30-FND	UL30/UL30H
Racks per Hour	24	24
Dishes per Hour	600	600
Glasses per Hour	864	864
Gallons per Rack	1.1	1.2
Gallons per Hour	26.4	28.8

Tank Capacity (Gallons):

Wash Tank	1.1	1.2
Rinse Tank	3.0	N/A

Electrical Loads (as applicable):

Wash Motor HP	1.0	1.0
Rinse Heater kW	6.7 (208 V)/8.2 (230 V)	N/A
Wash Heater kW	N/A	1.5

NOTICE *Always refer to the machine data plate for specific electrical and water requirements. The material provided on this page is for reference only and is subject to change without notice.*

HOT WATER SANITIZING
Water Temperatures (°F):

Minimum Wash Temperature	150	N/A
Minimum Rinse Temperature	180	N/A
Minimum Incoming Water Temperature	110	N/A

CHEMICAL SANITIZING
Water Temperatures (°F):

Minimum Wash Temperature	N/A	120
Minimum Rinse Temperature	N/A	120
Minimum Incoming Water Temperature	N/A	120

Other Water Requirements:

Water Flow Pressure (PSI)	20 ± 5	20 ± 5
Flow Rate Minimum (GPM)	6.6	6.6
Water Line Connection Size (NPT)	3/4" GHT	3/4" GHT
Water Line Size (NPT)	1/2"	1/2"
Drain Line Size (NPT)	1" ID	1" ID
	1 3/8" OD	1 3/8" OD

NOTICE *Connect drain line to MIN 1 1/2" Drain with Air-gap.*

Minimum Chlorine Required (PPM)	N/A	50

ELECTRICAL REQUIREMENTS

NOTICE

All electrical ratings provided in this manual are for reference only. Always refer to the machine data plate to get exact electrical information for this machine. **All electrical work performed on machines should be done in accordance with applicable local, state, territorial, and national codes.** Work should only be performed by qualified electricians and authorized service agents.

Note that all electrical wiring used in this series of machines must be rated, at a minimum, for 212 °F (100 °C), and that only copper conductors must be used.

Where applicable, heating element amperage draws have been adjusted for the assumed input voltage. The manufacturer assumes incoming voltages will be either 208 or 230 V. Some heating elements used in the machines are rated for other voltages, such as 240 V and 480 V. Always verify the amperage draw of the machine in operation when sizing circuit protection.

If the dishmachine is equipped with the optional rinse heater, note the rinse heater might have its own electrical connection and require a separate service. Amperage loads for motors and heaters are indicated on the machine data plate.

The electrical configurations of this series of machines are as follows:

Available Electrical Characteristics:

UH30-FND

- 208 V, 60 Hz, Single-phase
- 230 V, 60 Hz, Single-phase

UL30/UL30H

- 115 V, 60 Hz, Single-phase

Available Wash Tank Heaters:

- 1.5 kW (UL30H Only)

**The UL30H is designed so that the wash motor is never running when the wash heater is on. Total Load is based on the higher of the two loads.*

Electrical Characteristics

UH30-FND

VOLTS	208	230
PHASE	1	1
FREQ	60	60
WASH MOTOR AMPS	5.0 A	5.0 A
RINSE HEATER AMPS	32.2 A	35.7 A
TOTAL LOAD	37.2 A	40.7 A

UL30

VOLTS	115
PHASE	1
FREQ	60
WASH MOTOR AMPS	10.0 A
TOTAL LOAD	10.0 A

UL30H

VOLTS	115
PHASE	1
FREQ	60
WASH MOTOR AMPS	10.0 A
WASH HEATER AMPS	13.1 A
TOTAL LOAD	13.1 A*

INSPECTION

Do not throw away container if damage is evident!

Before installing the unit, check packaging and machine for damage. Damaged packaging might be an indication of damage to the machine. If there is any type of damage to both packaging and unit, do not throw away the packaging. The dishmachine has been inspected at the factory before shipping and is expected to arrive in new, undamaged condition. However, rough handling by carriers or others might result in damage to the unit while in transit. If this occurs, do not return the unit to the manufacturer. Instead, contact the carrier and ask them to send a representative to the site to inspect the damage and request that an inspection report be completed.

Contact the carrier within 48 hours of receiving the machine as well as the dealer that sold you the unit.

UNPACKING

Remove the box and machine from the pallet before installing. Open the front door and remove all of the materials from inside. Once unpacked, verify there are no missing parts (reference the Parts section). If a part is missing, contact the manufacturer immediately.

PLUMBING

The plumber must flush the incoming water line!

All plumbing connections must be made to adhere to local, state, territorial, and national codes. The installing plumber is responsible for ensuring the incoming water lines are flushed of debris before connecting to the machine. Note that chips and materials from cutting processes can become lodged in the solenoid valves and prevent them from opening or closing. Any valves that are found to be fouled or defective because of foreign matter left in the water line, and any subsequent damage, are not the responsibility of the manufacturer.

A water hardness test must be performed.

A water hardness test must be performed. A hardness test kit can be found on the warning tag that is attached to the incoming plumbing connection on the back of the machine. If water hardness is higher than 3 GPG, install a water softener or install the optional Scale Prevention System (SPS). See the Plumbing Options page and the next section for more information on the SPS.

See the Machine Dimensions page and reference item "B" for water inlet connection location.

NOTICE *The manufacturer does NOT endorse "Tankless On-demand" water heaters for use with their dishmachines. The manufacturer DOES endorse, and highly recommends, the standard "Tank" style water heaters, sized to properly handle the water heating requirements of the facility.*

WATER SUPPLY CONNECTIONS: WATER HARDNESS HIGHER THAN 3 GPG

A water hardness test must be performed. There is a hardness test kit on the warning tag attached to the incoming plumbing connection on the back of the machine. If water hardness is higher than 3 GPG and a water softener is not being used, install an SPS (see Plumbing Options page) into the water line between the facility water line and the machine water line (installed at the factory). Observe proper inlet/outlet water directions. A water shut-off valve should be installed before installing the SPS to allow access for service. The water supply must be capable of a minimum of 20 ± 5 PSI "flow" pressure at the recommended temperature indicated on the data plate.

Example

**Adapters needed will vary.*

WATER SUPPLY CONNECTIONS: WATER HARDNESS LOWER THAN 3 GPG

If water hardness tests at 3 GPG or lower, connect the machine water line (installed at the factory) to the facility water line. A water shut-off valve should be installed in the water line between the facility supply and the machine to allow access for service. The water supply line must be capable of a minimum of 20 ± 5 PSI "flow" pressure at the recommended temperature indicated on the data plate.

PRESSURE REGULATOR

Take care not to confuse static pressure with flow pressure!

The manufacturer has an optional water pressure regulator to accommodate areas where water pressure fluctuates or is higher than the recommended pressure. Take care not to confuse static pressure with flow pressure: static pressure is line pressure in a "no flow" condition (all valves and services are closed); flow pressure is the pressure in the fill line when the valve is opened during the cycle. See the Plumbing Options page.

SHOCK ABSORBER

It is suggested that a shock absorber (not supplied) be installed on the incoming water line. This prevents water hammer (hydraulic shock)—induced by the solenoid valve as it operates—from causing damage to the equipment. See the Plumbing Options page.

CONNECTING THE DRAIN LINE

The dishmachine has a pumped (pressure) drain capable of pumping waste water to a height of 24" above the floor to the kitchen's drain system. Each dishmachine is supplied with a drain hose. When installed, it will extend from the rear of the machine. There must be an air-gap between the machine drain line and the floor sink or drain. If a grease trap is required by code, it should have a flow capacity of 12 GPM.

PLUMBING CHECK

After installing the incoming fill line and the drain line, slowly turn on the water supply to the machine. Check for any leaks and repair as required. All leaks must be repaired before operating the machine.

ELECTRICAL POWER CONNECTIONS

Disconnect electrical power at the breaker or disconnect switch and tag-out in accordance with procedures and codes.

Electrical and grounding conductors must comply with the applicable portions of the National Electric Code ANSI/NFPA 70 (latest edition) and/or other electrical codes.

The data plate is located at the left-front side of the dishmachine. Refer to the data plate for machine operating requirements, machine voltage, total amperage, and serial number.

Remove the back panel and set aside. This will require removing the screw at the bottom of the back panel with a phillips screwdriver. Install 3/4” conduit into the pre-punched holes in the back of the control box. Route power wires and connect to power block and grounding lug. Install the service wires (L1 and L2 for UH30-FND, L1 and N for UL30/UL30H) to the appropriate terminals as they are marked on the terminal block. Install the grounding wire into the lug provided. It is recommended that “DE-OX” or another similar anti-oxidation agent be used on all power connections.

UH30-FND

UL30/UL30H

VOLTAGE CHECK

Ensure that the "ON/OFF" switch is in the "OFF" position and apply power to dishmachine. Check the incoming power at the terminal block and ensure it corresponds with the voltage listed on the data plate. If not, contact a qualified service agency to examine the problem. Do not run dishmachine if voltage is too high or too low. Shut-off the service breaker and advise all proper personnel of the location of the breaker and any problems. Replace the control box cover and tighten-down the screws.

SURROUNDING AREA

This is a commercial dishmachine and reaches temperatures that can exceed those generated by a residential machine. Surrounding countertops, cabinets, flooring material, and subfloor material must be designed and/or selected with these higher temperatures in mind.

NOTICE *Any damage to surrounding area that is caused by heat and/or moisture to materials that are not recommended for higher temperatures will not be covered under warranty or by the manufacturer.*

THERMOSTATS

The thermostats on this dishmachine have been set at the factory. They should only be adjusted by an authorized service agent.

CHEMICAL FEEDER EQUIPMENT

CAUTION! *Chlorine-based sanitizers can be detrimental to this machine if the chemical solution is too strong. See a chemical professional to ensure the dispenser is set-up correctly.*

The bottom of the chemical container cannot be located any higher than 8” from the floor. If the unit is equipped with the 6” or 18” table stand, the highest position will be 14” or 26” from the floor, respectively. It is important to remember that if you decide to operate the unit in chemical-sanitizing mode, you must ensure an appropriate chlorine-based sanitizer is used in the final rinse line.

PREPARING CHEMICAL FEEDER PUMPS

The UH30-FND dishmachine is supplied with detergent and rinse-aid chemical feeder pumps.

The UL30 and UL30H dishmachines are supplied with detergent, rinse-aid, and sanitizer chemical feeder pumps.

Locate the open ends of the chemical tubes with the tube stiffeners and place each one in the appropriate container.

A. Red Tubing = Detergent B. Blue Tubing = Rinse-Aid
C. White Tubing = Sanitizer

PRIMING CHEMICAL FEEDER PUMPS

WARNING! ***Some of the chemicals used in dishwashing might cause chemical burns if they come in contact with skin. Wear protective gear when handling these chemicals. If any contact with skin occurs, immediately follow the treatment instructions provided with the chemicals.***

Chemical feeder pumps need priming when the machine is first installed or if the chemical lines were removed and air was allowed to enter.

CAUTION! *Water must be in the sump and wash tank before chemicals are dispensed.*

1. Verify that the proper chemical tube stiffener inlet is in the proper container.

2. Use the prime switches located on the control panel at the bottom of the unit to prime each pump. The switches are clearly marked, "D" for detergent and "R" for Rinse-aid.

3. To prime the pumps:

UH30-FND

- Detergent - hold the "D" switch in the momentary position until detergent is seen entering the wash tank.

- Rinse-aid - hold the "R" switch in the momentary position for one minute.

PRIMING CHEMICAL FEEDER PUMPS

UL30/UL30H

- Detergent, Rinse-aid, and Sanitizer - hold each priming switch until the respective chemical can be seen entering the wash tank.

4. Detergent is dispensed as required during the wash cycle by the timer. The amount of detergent might need to be increased or decreased depending upon water quality and type of detergent.

5. Rinse-aid is dispensed as required into the final rinse. The amount of rinse-aid might need to be adjusted depending upon water hardness and results.

6. Sanitizer is dispensed proportionally into the final rinse water line. The amount of sanitizer might need to be adjusted depending on concentration.

7. Please refer to the instructions below on adjusting the chemical feeder pumps on the universal timer.

PROGRAMMING CHEMICAL FEEDER PUMPS

To access the programming mode, the machine must be ON and idle (between cycles).

On the timer board, press and hold both the MOVE and ENTER buttons on the timer board simultaneously for two seconds.

The PROGRAM (PGM) light and light A will illuminate.

NOTICE *Once in the programming mode, the MOVE button is used to scroll between the programming categories and the ENTER button is used to select the category.*

Press the MOVE button to move the solid light to the desired location of FILL, RINSE AID, DETERGENT, or SANITIZER. Please note that options A, B, C, and D are not adjustable outputs (E and F are also not adjustable on the UH30-FND).

Press the ENTER button for the chosen category. Now, the (PGM) light will illuminate along with lights corresponding to the time values for the chosen category. The ACCEPT light will blink.

The PROGRAM light will illuminate.

PROGRAMMING CHEMICAL FEEDER PUMPS

To change the value of a parameter, use the MOVE button to illuminate the light next to the time option (time is measured in seconds). In the time categories, each second in use will light up. To deselect the option, press ENTER and the light will go off, press ENTER again and it will illuminate. Once you have set your time category, press the MOVE button until the ACCEPT light illuminates and press ENTER. This will save the changed parameters and exit the programming mode.

To change any other values, you will have to return to the programming mode. To revert back to a previous setting, you must return to that option and change the parameter back to the previous setting.

Once in the programming mode, if there have been no keypad inputs for approximately two minutes, the system will automatically exit out of the programming mode. Any changes to parameters will be lost when the programming mode is automatically exited.

The wash and drain cycles are not adjustable.

All time adjustments are in seconds. Refer to the chart below for adjustable outputs.

PGM	UH30-FND	UL30/UL30H
E	Not adjustable	Rinse-Aid
F	Not adjustable	Fill
G	Detergent	Sanitizer
H	Rinse-Aid	Detergent

TIMER PROGRAMMING BOARD

LEVELING

The dishmachine is designed to operate while level. This is important to prevent any damage to the machine during operation and to ensure the best possible results. The unit comes equipped with adjustable bullet feet which can be turned using a pair of pliers. Since this machine is an undercounter unit, it should be leveled as close as possible to the unit's location before it is pushed under the counter.

HEATER CONTACTOR WIRES (UH30-FND ONLY)

Heater contactor wires must NOT be connected before water fills the unit the first time!

1. Flip the "ON/OFF" switch to "ON."

2. Listen for the water to stop filling.

3. Flip the "ON/OFF" switch to "OFF."

4. Listen for the water to stop draining.

5. Flip the "ON/OFF" switch back to "ON."

6. Listen for the water to stop filling.
7. Flip the "ON/OFF" switch back to "OFF."
8. Listen for the water to stop draining.
9. Flip the "ON/OFF" switch back to "ON."
10. Listen for the water to stop filling. This time the water should begin to splash into the cavity of the machine.
11. Once you hear water splashing, flip the "ON/OFF" switch back to "OFF."
12. Listen for the water to stop draining.

HEATER CONTACTOR WIRES (UH30-FND ONLY)

Disconnect electrical power at the breaker or disconnect switch and tag-out in accordance with procedures and codes.

13. Disconnect electrical power at the breaker or disconnect switch and tag-out in accordance with procedures and codes.

14. Remove the front panel of the machine.

15. Locate the loose connector with the orange/white and blue/black wires.

16. Plug the loose connector into the empty connector on the Right side of the ELAN thermostat board.

17. Replace the front panel of the machine.
18. Reconnect electrical power at the breaker or disconnect switch in accordance with procedures and codes.
19. The machine is now ready for operation.

PREPARATION

Before operating the unit, verify the following:

1. Strainer is in place and clean.

2. Wash and rinse arms are screwed securely into place and end-caps are tight.

3. Wash and rinse arms rotate freely.

4. Chemical levels in chemical containers are correct.

FILLING THE WASH TUB

1. Close the door.
2. Flip the “ON/OFF” switch to the “ON” position.

(UH30-FND Controls Shown.)

3. The unit will automatically begin to fill.
4. Once the wash tub is filled, wait for five minutes.
5. Flip the “ON/OFF” switch to the “OFF” position and wait for unit to drain.
6. Flip the “ON/OFF” switch to the “ON” position and wait for unit to fill.
7. Ensure wash temperature is at least 150 °F before operating the unit.

WARE PREPARATION

Proper preparation of ware will help ensure good results and fewer re-washes. If not done properly, ware might not come out clean and the efficiency of the dishmachine will be reduced. Putting unscraped dishes into the machine affects its performance, so scraps should always be removed from ware before being loaded into a rack. Pre-rinsing and pre-soaking are good ideas, especially for silverware and casserole dishes.

Place cups and glasses upside-down in racks so they don't hold water during the cycle. The dishmachine sanitizes as well as cleans. To do this, ware must be properly prepared before being placed in the machine.

WASHING A RACK OF WARE

To wash a rack, open the door completely and slide the rack into the unit. Close the door, ensure the "WASH/DELIME" switch is on "WASH," press the "Start" button, and the unit will start. After the cycle light turns off, the cycle is complete. When the flush light is on (steady, not flashing), tank water should be drained and refilled.

OPERATIONAL INSPECTION

Based on use, the strainer might become clogged with soil and debris as the workday progresses. Operators should regularly inspect the strainer to ensure it has not become clogged. If clogged, it will reduce the washing capability of the machine. Instruct operators to clean out the strainer at regular intervals or as required by workload.

SHUTDOWN & CLEANING

1. At the end of the workday, close the door. Flip the “ON/OFF” switch to the “OFF” position.

(UH30-FND Controls Shown.)

2. The drain pump will activate and empty the unit of water.

SHUTDOWN & CLEANING

3. When draining stops, remove the strainer.

4. Remove soil and debris from the strainer and set to the side.

5. Unscrew the wash and rinse arms from their manifolds. Remove the end-caps and flush the arms with water. Use a brush to clean out the inside of the arms. If the nozzles appear to be clogged, use a toothpick to remove the obstruction.

6. Wipe the inside of the unit out, removing all soil and scraps.

7. Reassemble the wash/rinse arms.

SHUTDOWN & CLEANING

8. Replace the wash and rinse arms in the unit. The arms only need to be hand-tight; do not use tools to tighten them down.

9. Reinstall the strainer and close the door.

DELIMING

Follow the steps below to delime the machine. The tank capacities of the machine can be found in the Specifications section of this manual.

NOTICE

If this machine is equipped with an SPS and lime is becoming a frequent problem, the cartridge needs to be replaced. To order a replacement cartridge, call the manufacturer.

1. Remove rinse arms and place in sink with deliming solution (UH30-FND only).

2. Flip the "ON/OFF" switch to the "ON" position.

3. Flip the "WASH/DELIME" switch to the "DELIME" position.

4. Add deliming solution per chemical supplier's instructions.
5. Close the door.
6. Push the "START" button.

7. Wait until cycle is complete and inspect the inside of the machine. If the machine is not delimed, run again.

NOTICE *This equipment is not recommended for use with deionized water or other aggressive fluids. Use of deionized water or other aggressive fluids will result in corrosion and failure of materials and components. Use of deionized water or other aggressive fluids will void the manufacturer's warranty.*

DETERGENT CONTROL

Detergent usage and water hardness are two factors that greatly contribute to the machine's operating efficiency. Using the proper amount of detergent can become a source of substantial savings. A qualified water-treatment specialist can determine what is needed for maximum efficiency from the detergent.

- Hard water greatly affects the performance of the machine, causing the amount of detergent required for washing to increase. If the machine is installed in an area with hard water, the manufacturer recommends the installation of the Scaltrol Water Treatment system.

- Deposited solids from hard water can cause spotting that will not be removed with a drying agent. Treated water will reduce this occurence.

- Treated water might not be suitable for use in other areas of operation and it might be necessary to install a water treatment system for the water going to the machine only. Discuss this option with a qualified water treatment specialist.

- Properly train operators on how much detergent is to be used per cycle. Meet with a water treatment specialist and chemical supplier to discuss a complete training program for operators.

- Provide chemicals for proper operation and sanitization and require the installation of third-party chemical feeders to introduce these chemicals to the machine. Contact a chemical supplier with any questions.

- Water temperature is an important factor in ensuring the machine functions properly, and the machine's data plate details what the minimum temperatures must be for the incoming water supply, the wash tank, and the rinse tank. If minimum requirements are not met, it's possible that dishes will not be clean or sanitized.

- Instruct operators to observe the required temperatures and to report when they fall below the minimum allowed. A loss of temperature can indicate a larger problem.

OVERVIEW

The timer accepts user input and provides feedback on the status of the dishmachine.

Cycle steps are the different sub-cycles (fill, drain, etc.) of the total wash cycle.

POWERING ON

The display will read "JACKSON WWS" and the firmware version when powered on. This is the Default/Home screen.

- If inactive for 15 seconds the blue backlight will turn off.
- If inactive for 30 seconds the display will turn off.
- Inactivity timer will reset if any button is pushed.
- Push any button while inactive and the display will turn on and show the Home screen.

SELECTING MODEL

1. With the display on, press TIMER MODEL. Display will show "SELECT MODEL" and the currently-active model.

2. Select correct model using ARROW buttons under STEP DURATION.
3. Press SAVE/EXIT.

Models
CONS XL2
CONS XL-E
(Use for XL-E, XL-E-FL, and XL HH)
CONS XL-E-LTH
DELTA 5

CHANGING CYCLE STEP TIMES

The first two steps (CYCLE and PUMP) are fixed and can't be adjusted. All other steps are adjustable.

Timing of the total wash cycle begins when an open door is closed (or when START is pressed on Delta 5-E). Machine returns to IDLE after one full cycle.

1. Press button for step being changed. The LED for that step will come on.

2. Change STEP START TIME or STEP DURATION using ARROW buttons (adjustments are made in 0.25-second increments).

Hold ARROW buttons for rapid change (slew).

3. Press SAVE/EXIT to save the change and exit.

"M" = Modifed Timing
"F" = Factory Defaults

Change is also saved if inactive for 10 seconds or any other button is pressed.

4. Repeat with other steps as needed.
5. To review current settings for a given step, press button for that step during IDLE. Its current STEP START TIME and STEP DURATION will be displayed.

RESETTING TO FACTORY DEFAULTS

1. Press and hold CYCLE COUNT button and DOWN ARROW button (under STEP DURATION) simultaneously for 3–4 seconds.

2. Resets all settings to factory defaults for the active model. Cycle count is unaffected by the reset.
3. Firmware version on the Home screen shows "F" at the end, indicating the timer is now set to factory defaults for the active model.

Firmware version changes, so number will be different depending on when timer was installed.

"M" = Modifed Timing
"F" = Factory Defaults

CHECKING CYCLE COUNT

1. Press CYCLE COUNT button. Cycle count will show on display.

PLANT TEST MODE

1. Press and hold CYCLE COUNT button and DOWN ARROW button (under STEP START TIME) simultaneously for 3–4 seconds.

2. Press and hold the DRAIN button. The DRAIN output stays on while the button is held. The output turns off when the button is released. Repeat for the other seven buttons (use SAVE/EXIT to activate CYCLE output, use CYCLE COUNT to activate PUMP output). Second row of display shows outputs and inputs that are active.

After 15 seconds of no button being pressed, the timer exits the plant test mode.

If more than one input is on, the first letters of each will show (e.g. "Drain-DH" indicates the DRAIN output and DoorClosed and Heavy inputs are on).

Outputs
Cycle
Wash
Drain
Fill
Sani
Deter
Rinse
Spare

Inputs
DoorClosed
Start
LTH Only
Heavy
Medium

3. Plant test mode can also be used to prime chemicals if the machine has no priming function. Open door and press and hold the SANI button until sanitizer is seen entering the wash sump/tank and no air is in the line.

4. Repeat for DETER and RINSE AID buttons.

PREVENTATIVE MAINTENANCE

The manufacturer highly recommends that only qualified service personnel perform any maintenance and repairs not specifically discussed in this manual.

WARNING! *Unqualified personnel performing maintenance on the machine may void the warranty, lead to larger problems, or cause harm to the operator.*

By following the operating and cleaning instructions in this manual, you should get the most efficient results from your machine. As a reminder, here are some steps to take to ensure that you are using the dishmachine the way it was designed to work:

CAUTION!
Do NOT beat strainers to remove debris!

1. Ensure that the water temperatures match those listed on the machine data plate. There can be a variety of reasons why your water temperature could be too low.
2. Ensure that all strainers are clean and securely in place before operating the machine. When cleaning out strainers, do NOT beat them on waste cans. Wipe out strainers with a rag and rinse under a faucet if necessary. Use a toothpick to dislodge any stubborn debris.
3. Ensure that all wash and rinse arms are secure in the machine before operating.
4. Remove as much soil from dishes by hand as possible before loading into racks.
5. Do not overfill racks.
6. Ensure that glasses are placed upside-down in the rack.
7. Ensure that all chemicals being injected into machine have been verified at the correct concentrations.
8. Clean out the machine at the end of every workday per the Shutdown and Cleaning section of this manual.
9. Follow all safety procedures, whether listed in this manual or put forth by local, state, or national codes/regulations.

TROUBLESHOOTING

WARNING! *Inspection, testing, and repair of electrical equipment should only be performed by qualified service personnel. Certain procedures in this section require electrical tests or measurements while power is applied to the machine. Exercise extreme caution at all times. If test points are not easily accessible, disconnect power, attach test equipment, and reapply power to test. When replacing electrical parts, disconnect power at source circuit breaker.*

OBSERVATION	POSSIBLE CAUSE	REMEDY
Water overflow from bottom of door.	1. Clogged drain. 2. Machine not level. 3. Excessive inlet pressure. 4. Detergent foaming. 5. Wash/rinse arm end-cap missing.	1. Remove obstruction. 2. Level machine or increase height to the front. 3. Install pressure regulator or adjust if one is present. Ensure flow meets data plate specification. 4. Reduce detergent quantity. 5. Replace.
Wash motor doesn't operate on delime wash.	1. Loose or broken wires. 2. Defective "WASH/DELIME" switch. 3. Defective motor starting relay. 4. Machine in FAULT mode and locked out.	1. Reconnect or replace wires in motor. 2. Verify "WASH/DELIME" switch triggers input on PLC. If not, check wiring/replace membrane. 3. Replace. 4. Review fault screen for active faults.
No water comes through the arms when the "WASH/ DELIME" switch is depressed.	1. Water not turned on. 2. Defective solenoid valve	1. Turn water on. 2. Replace solenoid valve.
Little or no water coming through the wash/rinse assemblies.	1. Limed-up heads or piping. 2. Low water pressure.	1. Delime heads. 2. Adjust pressure regulator (not supplied) or increase pipe size to machine.
Rinse water runs continuously with breaker turned off.	1. Defective plunger in solenoid valve. 2. Defective diaphragm in solenoid valve.	1. Replace. 2. Replace diaphragm.

TROUBLESHOOTING

WARNING! *Inspection, testing, and repair of electrical equipment should only be performed by qualified service personnel. Certain procedures in this section require electrical tests or measurements while power is applied to the machine. Exercise extreme caution at all times. If test points are not easily accessible, disconnect power, attach test equipment, and reapply power to test. When replacing electrical parts, disconnect power at source circuit breaker.*

OBSERVATION	POSSIBLE CAUSE	REMEDY
Wash temperature not at required temperature range.	1. Water level low. 2. RTD setpoint too slow. 3. Defective RTD. 4. Wash heater defective. 5. Defective heater contactor R1.	1. Check water level. If low, run new fill cycle. 2. Check fault screen. Adjust wash temperature setpoint 3. Replace. 4. Replace heater element. 5. Replace.
Rinse water not at required temperature range.	1. Incoming rinse water does not meet minimum criteria indicated on machine data plate. 2. RTD is defective. 3. Rinse heaters damaged. 4. Setpoint screens set low.	1. Adjust as required. 2. Replace if necessary. 3. Check amperages. Replace if necessary. 4. Adjust rinse tank setpoint.
Machine doesn't drain when power button is pressed.	1. Drain clogged. 2. Defective drain valve.	1. Remove obstruction. 2. Replace.
No indication of pressure.	1. Water turned off. 2. Pressure gauge failure.	1. Turn water on. 2. Replace pressure gauge.

UH30-FND CONTROL PANEL

ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Contactor, 30 A, 240 V	05945-002-74-20
2	1	Relay, Omron	05945-111-89-75
3	2	Open/Closed Bushing	05975-003-35-21
4	1	Control Panel Weldment	05700-004-35-76
5	1	Universal Timer	05945-003-75-23
6	4	Screw, 10-32 x 1"	05305-002-19-42
7*	1	Peri-pump Plate	05700-004-35-78
8	9	Screw, 10-32 x 3/8"	05305-173-12-00
9	1	Terminal Board	05940-002-78-97
10	1	Snap Bushing, 1 1/8"	05975-210-08-00

*See Chemical Feeder Pump Assembly page for Peri-pumps.

UL30 CONTROL PANEL

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Contactor, 110 V	05945-109-05-69
2	1	Relay, Omron	05945-002-47-41
3	3	Open/Closed Bushing	05975-003-35-21
4	1	Control Panel Weldment	05700-004-35-76
5	1	Universal Timer	05945-003-75-23
6	4	Screw, 10-32 x 1"	05305-002-19-42
7	1	Thermostat Plate	05700-004-37-67
8	7	Screw, 10-32 x 3/8"	05305-173-12-00

UL30H CONTROL PANEL

ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Contactor, 110 V	05945-109-05-69
2	2	Relay, Omron	05945-002-47-41
3	3	Open/Closed Bushing	05975-003-35-21
4	1	Control Panel Weldment	05700-004-35-76
5	1	Universal Timer	05945-003-75-23
6	4	Screw, 10-32 x 1"	05305-002-19-42
7	1	Thermostat Plate	05700-004-37-67
8	1	Thermostat, ELAN Electric (Dual)	06685-004-17-27
9	7	Screw, 10-32 x 3/8"	05305-173-12-00

UH30-FND DISPLAY PANEL

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Bracket, Control Panel	05700-004-35-82
2	1	Gauge, with Green Zone	06680-011-86-42
3	1	Hose, Pressure Gauge	05700-004-36-95
4	1	Light, Green	05945-111-44-43
5	2	Prime Switch	05930-011-49-54
6	1	Decal, Display Panel	09905-004-35-30
7	2	Switch	05930-011-49-55
8	1	Light, Red	05945-111-44-45
9	1	Rinse Gauge, 96"	06685-004-31-46
10	1	Light, Amber	05945-111-44-44
11	1	Wash Gauge, 48"	06685-004-31-47

UL30 DISPLAY PANEL

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Bracket, Control Panel	05700-004-37-73
2	1	Thermometer, 48" Rinse	06685-004-31-47
3	2	Light, Red	05945-504-07-18
4	3	Prime Switch	05930-011-49-54
5	2	Switch	05930-011-49-55
6	1	Counter	05990-111-35-38
7	1	Light, Amber	05945-111-44-44
8	1	Light, Green	05945-111-44-43
9	1	Light, Red	05945-111-44-45
10	1	Decal, Display Panel	09905-004-39-18

UL30H DISPLAY PANEL

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Bracket, Control Panel	05700-004-37-73
2	1	Thermometer, 48" Rinse	06685-004-31-47
3	2	Light, Red	05945-504-07-18
4	3	Prime Switch	05930-011-49-54
5	2	Switch	05930-011-49-55
6	2	Light, Red	05945-111-44-45
7	1	Decal, Hi-Limit Ring	09905-004-37-89
8	1	Counter	05990-111-35-38
9	1	Light, Amber	05945-111-44-44
10	1	Light, Green	05945-111-44-43
11	1	Decal, Display Panel	09905-004-39-18

TERMINAL BLOCK BOX

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Decal, Power Connections, UH30-FND	09905-011-62-72
		Decal, Power Connections, UL30/UL30H	09905-011-47-64
2	1	Terminal Block Box	05700-003-27-69
	1	Terminal Box Cover (Not Shown)	05700-003-27-70
3	1	Decal, Copper Conductors	09905-011-47-35
4	2	Screw, 10-32 x 1/2"	05305-011-39-36
5	1	Ground Lug	05940-200-76-00
6	2	Terminal Block	05940-500-02-19
7	1	Locknut, 10-24 SS Hex with Nylon Insert	05310-373-01-00
8	1	Terminal Block Track	05700-000-43-60

UH30-FND CHEMICAL FEEDER PUMP

ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Stiffener, Chemical Tube	05700-002-66-49
2	1	Peri-pump, 14 RPM	05700-002-72-48
3	1	Peri-pump, 36 RPM	05700-003-78-74
4	1	Tubing, Clear, 1/8" x 48"	05700-002-76-15
5	1	Tubing, Clear, 1/8" x 120"	05700-002-76-14
6	1	Tubing, Red, 1/4" x 80"	05700-011-37-14
7	1	Tubing, Red, 1/4" x 120"	05700-011-37-15
8	1	Bulkhead to 1/2" Hose Barb Assembly	05700-004-30-86

UH30-FND CHEMICAL FEEDER PUMP COMPONENTS

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Motor, 14 RPM 240 V Rinse Aid Feeder Pump	04320-111-47-46
	1	Motor, 36 RPM 240 V Detergent Feeder Pump	04320-111-47-47
2	1	Rear Housing	04320-111-37-09
3	2	Screw, 8-32 x 1/2" Phillips Pan Head	05305-011-37-06
4	1	Squeeze Tube (goes with 14 RPM)	05700-011-65-21
	1	Squeeze Tube (goes with 36 RPM)	05700-003-22-89
5	1	Roller, Black (goes with 14 RPM)	04320-111-65-27
		Roller, White (goes with 36 RPM)	04320-002-82-28
6	1	Front Housing	04320-111-37-08
7	4	Screw, 6-32 x 3/4" Phillips Pan Head	05700-011-37-05
8	2	Screw, 8-32 x 3/8" Phillips Pan Head	04320-111-37-07

UL30/UL30H CHEMICAL FEEDER PUMP

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Motor, 14 RPM	04320-111-35-13
2	2	Motor, 36 RPM	04320-111-35-14
3	1	Tubing, White, 1/4" x 48"	05700-002-62-13
4	1	Tubing, Blue, 1/4" x 48"	05700-002-62-11
5	1	Tubing, Red, 1/4" x 48"	05700-002-62-12
6	3	Pump Cover	04320-111-37-08
7	1	Tubing, White, 1/4" x 100"	05700-003-20-67
8	1	Tubing, Blue, 1/4" x 100"	05700-003-20-68
9	1	Tubing, Red, 1/4" x 100"	05700-003-03-45

UL30/UL30H PERI-PUMP TRACK

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Track Mount	05700-004-37-93
2	1	Pipe Clamp	05700-000-35-05
3	2	Peri-pump Track	05700-003-33-29
4	1	Peri-pump Plate	05700-003-54-41

UH30-FND PLUMBING

UH30-FND PLUMBING

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Tee, 1/2" Brass	04730-211-27-00
2	1	Plug, 1/2" Brass Pipe	04730-209-03-00
3	1	Nipple, 1/2" Close Brass	04730-207-15-00
4	3	Adapter, Male	04730-401-03-01
5	1	Tube, Copper 1/2" x 22"	05700-003-32-16
6	1	Vacuum Breaker	04820-003-06-13
7	2	Plug, 1/4" Brass	04730-209-01-00
8	1	Pipe Clamp	05700-011-38-62
9	1	Injector Adapter	05700-031-40-44
10	1	Check Valve	04820-111-51-14
11	1	Fitting, Outlet Elbow	04820-111-51-18
12	1	Nut, Tube	04730-011-59-45
13	1	Bushing, 1/4" x 1/8"	04730-003-05-61
14	1	Valve, 1/2" 208/60	04810-003-71-56
15	1	Hose Adapter	04720-004-24-68
16	1	Elbow, 1/2"	04730-406-31-01
17	1	Copper Tube 1/2" x 3"	05700-003-36-25
18	1	Union, 1/2"	04730-412-05-01
19	1	Elbow, 1/2" 90-Degree	04730-406-32-01
20	1	Tee, 1/2" x 1/2" x 1/4" Female	04730-411-25-01
21	1	Copper Pipe, 4 3/4" Long	05700-002-91-02
22	1	Adapter, 1/2" Male	04730-011-59-53
23	2	Rinse Hub Weldment	05700-021-38-31
24	2	Pipe Clamp (Side of Unit)	05700-000-35-05
25	1	Thermometer,100-220 Degrees 48" SS	06685-004-31-47

NOTICE *Use teflon tape on threads. Do NOT use "pipe dope."*

UL30/UL30H PLUMBING

07610-004-37-38-G

UL30/UL30H PLUMBING

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Vacuum Breaker	04820-003-06-13
2	1	Elbow, 1/2" NPT x 3/4" Hose, 45-Degree	04730-003-29-22
3	1	Pipe Clamp	05700-011-38-62
4	2	Pipe Clamp (Side of Unit)	05700-000-35-05
5	1	Union, 1/2"	04730-412-05-01
6	2	Male Adapter	04730-401-03-01
7	2	Elbow, 1/2"	04730-406-31-01
8	1	Copper Pipe, 1/2" x 3"	05700-003-36-25
9	1	Valve, 1/2"	04810-003-71-55
10	1	Copper Pipe, 1/2" x 6 1/2"	05700-002-60-71
11	1	Copper Pipe, 1/2" x 5 1/4"	05700-002-04-92
12	1	Elbow, 1/2", 45-Degree	04730-011-67-77
13	1	Copper Pipe, 1/2" x 25 1/2"	05700-011-59-85
14	1	Upper Manifold	05700-031-34-82
15	2	Rinse Plumbing Plate	05700-011-82-86
16	1	Rinse Plumbing Gasket	05330-111-42-81
17	1	Manifold	05700-002-13-75
18	1	Manifold Tube Position Bracket	05700-011-34-63
19	1	Lower Manifold	05700-021-52-80
20	1	O-ring	05330-002-60-69
21	1	Deflector Plate	05700-002-62-49

NOTICE *Use teflon tape on threads. Do NOT use "pipe dope."*

SHOCK ABSORBER (WATER ARRESTOR) OPTION

PRESSURE REGULATING VALVE (PRV) OPTION

SCALE PREVENTION SYSTEM (SPS) OPTION

SPS System
04730-003-28-03

NOTICE

Must be installed vertically. The provided bracket is secured to the wall. Observe proper inlet/outlet water directions (flow directions are molded into the top of the head). Line pressure should be released before changing cartridges. Machine should be delimed before installation.

Replacement Cartridge
(inspect at least every 6 months)
04730-003-28-04

Replacement Test Strip
(Not Shown)
06401-003-28-06

VACUUM BREAKER ASSEMBLY

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Components of Repair Kit	06401-003-06-23
		Complete Vacuum Breaker Assembly 1/2” NPT	04820-003-06-13

WASH MANIFOLD

WASH MANIFOLD

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Hub, Discharge Machine	05700-021-37-90
2	1	Gasket, Manifold	05330-200-23-00
3	1	Nut, Jam 1 1/2-12	05700-000-86-23
4	4	Hose Clamp, 1 5/16” - 2 1/4” #28	04730-719-01-37
5	1	Hose, 1 1/4” x 2 1/4” Reinforced	05700-011-44-48
6	1	Hose, Bottom Manifold Pump	05700-001-22-92
7	3	Clamp, 3/16” to 1 1/2”	04730-719-06-09
8	1	Discharge Hose	05700-004-43-76
9	1	Hosebarb, 1” x 3/4” NPT Polypropylene	04730-011-65-86
10	1	Spacer, Drain Valve	05700-003-31-93
11	1	Bracket, Drain Valve Support	05700-004-35-85
12	1	Hose, 1” ID x 10' Long	05700-011-39-72
13	1	Hose-barb, 90-Degree 1” x 3/4” NPT	04730-011-65-87

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Complete Pump & Motor Assembly, UH30-FND/UL30/UL30H
06105-004-35-22

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Pump Casing SS, 60 Hz	05700-002-85-00
2	1	Impeller, 60 Hz	05700-002-81-86
3	1	Mechanical Seal, 60 Hz	05330-002-34-22
4	1	Seal Plate, 60 Hz	05700-002-81-87
	1	Case O-ring, 60 Hz	05330-002-81-83
	1	Drain Plug (Not Shown)	04730-002-81-89
5	1	Motor Only, UH30-FND/UL30/UL30H	06105-004-32-04
6	1	Shim Kit	05700-002-82-58
7	1	Case Capscrew	05305-356-04-00
8	2	Bolt, 3/8"	05311-276-03-00
	2	Lock washer, 3/8"	05311-276-01-00
	2	Nut Hex, 3/8-16	05310-276-01-00
9	1	Mounting Bracket	05700-003-31-58

Complete Wash Arm Assembly
1 per Unit on UH30-FND
2 per Unit on UL30/UL30H
05700-021-39-23

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Wash Arm with End-cap	05700-021-46-58
2	1	Bearing, Assembly	05700-021-35-97
3	1	O-ring	05330-002-60-69
4	2	End-cap, Wash Arm	05700-003-31-59

RINSE ARMS & WASH ARMS

Complete Rinse Arm Assembly
2 per Unit on UH30-FND
0 per Unit on UL30/UL30H
05700-031-39-21

Rinse Arm Bearing Kit
06401-004-57-50

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Retaining Ring	05340-112-01-11
2	1	O-ring (included in item #3)	05330-002-60-69
3	1	Bearing Assembly, Rinse Arm	05700-004-54-71
4	1	Rinse Arm	05700-031-38-30
5	2	End-cap, Rinse Arm	04730-111-60-41

THERMOSTAT & RINSE TANK

Complete Rinse Tank Assembly
05700-003-31-94

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Thermostat, Elan Electric Dual	06685-004-17-27
2	1	Rinse Tank Weldment	05700-003-31-95
3	1	Fitting, 1/4" Imperial Brass	05310-924-02-05
4	1	208-230 V Heater	04540-111-43-21
5	4	Lock Washer, 5/16" Split	05311-275-01-00
6	4	Nut, 5/16-18 SS Hex	05310-275-01-00
7	1	Gasket, Heater	05330-011-47-79
8	9	Locknut, 1/4-20 SS Hex with Nylon Insert	05310-374-01-00
9	1	Harness, 4-Connector	05700-004-36-24
10	1	Harness, 5-Connector	05700-004-36-25
11	1	Thermostat Mounting Bracket	05700-004-21-55
12	1	Probe, Thermister 4"	06685-004-17-26

DOOR

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ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Outer Door Weldment	05700-004-36-55
2	2	Screw, 10-32 x 1/4"	05305-173-01-00
3	2	Bolt, 1/4-20 x 3/8" Hex	05305-274-20-00
4	2	Nut, Lock 6-32 Hex with Nylon Insert	05310-373-03-00
5	2	Washer, SS 1/4-20 ID	05311-174-01-00
6	1	Gasket, Door 20"	05330-003-58-35
7	2	Gasket, Door 17 1/8"	05330-003-58-36
8		Item intentionally left blank.	
9	1	Door Handle	05700-003-26-62
10	2	Stop, Door Hinge	05700-003-32-55
11	1	Hinge, Left	05700-003-32-71
12	1	Hinge, Right	05700-003-32-72
13	1	Inner Door	05700-003-33-21
14	12	Screw, 10-32 x 1/2" Pan Phillips Head	05305-011-44-52
15	1	Baffle, Door	05700-003-33-38
16	2	Hinge Spacer	05700-003-33-42
17	1	Switch Assembly	05700-003-34-80
18	2	Retaining Plate	05700-011-44-37
19	1	Magnet	05930-002-88-42
20	1	Channel, Door Seal	05700-003-55-49
21	6	Screw, 1/4-20 x 1 1/2" Hex	05305-274-23-00
22	1	Gasket, Door L	05330-004-36-05
23	1	Gasket Clamp	05700-004-36-56
24	6	Pop Rivet, 1/8" x 3/8"	05320-003-06-98

MISCELLANEOUS DOOR COMPONENTS

MISCELLANEOUS DOOR COMPONENTS

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Switch Mounting Plate Assembly	05700-003-33-54
2	1	Door Spring	05700-003-32-85
3	1	Cover, Left Hinge Weldment	05700-004-36-80
4	1	Cover, Right Hinge Weldment	05700-004-36-81
		Hinge Components secured with Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00
5	2	O-ring	05330-003-32-34
6	1	Latch Spring	05700-003-32-32
7	2	Latch Nut	05700-003-32-33
8	2	Hardware: Locknut, 6-32 Hex with Nylon Insert	05310-373-03-00
	2	Screw, 6-32 x 1/4” Flat Head	05305-171-01-00
9	1	Door Switch	05930-003-31-44
10	1	Door Switch Bracket	05700-003-31-43
	1	Door Switch & Bracket Assembly	05700-003-32-21
11	1	Complete Switch Mount Assembly	06401-004-47-76

FRAME & PANEL COMPONENTS

FRAME & PANEL COMPONENTS

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Top Shroud Weldment	05700-003-37-06
2	1	Left Shroud Weldment	05700-003-37-04
3	1	Right Shroud Weldment	05700-004-36-82
4	1	Left Frame Weldment	05700-003-31-91
5	1	Swivel Feet	05340-108-02-00
6	1	Right Frame Weldment	05700-003-31-90
	4	Hardware: Nut, 1/4-20 Serrated Hex	05310-959-03-00
	4	Nut, 5/16-18 Cad Spine	05310-959-03-00
7	2	Bottom Strap	05700-003-92-20
8	1	Optional Back Panel	05700-003-33-55
9	1	Standard Back Panel	05700-004-36-83
10	2	Shroud Plug	05700-003-32-50

MISCELLANEOUS PARTS

Parts are not shown to scale in relation to each other.

ITEM	QTY	DESCRIPTION	PART NUMBER
		Components secured with Locknut, 1/4-20 SS Hex with Nylon Insert	05310-374-01-00
1	1	Rail, Left Rack	05700-031-37-88
2	1	Rail, Right Rack	05700-031-37-88
3	1	Splash Shield	05700-003-33-51
4	1	Strainer Spacer	05700-002-70-60
		Attaches with: Nut, Nylon Wing, 1/4-20	05310-994-01-00
5	1	Strainer Weldment	05700-031-35-81
6	1	Drain Water Tempering Kit (UH30-FND)	06401-004-60-64

STANDS & COMPONENTS

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	6” Stand Assembly	05700-003-34-24
2	1	Stand	05700-002-88-82
3	4	6” Leg	05700-021-61-10
4	4	Bullet Foot	05340-108-01-03
5	1	18” Stand Assembly	05700-003-34-25
6	1	Stand	05700-002-88-82
7	4	Bullet Foot	05340-108-01-03
8	4	18” Leg	05700-002-89-47
9	4	Cross Brace	05700-003-25-90
10	4	Cross Member Bracket	04730-003-25-89

GO BOX KIT

A GO Box is a kit of the most-needed parts for a particular model or model family to successfully effect a repair in the first call, 90% or more of the time.

UH30-FND Go Box Kit
06401-004-40-87

ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Squeeze Tube, Rinse-aid	05700-011-65-21
2	2	Squeeze Tube, Detergent and Sanitizer	05700-003-22-89
3	12	Tubing, Blue Plastic	04720-601-11-00
4	12	Tubing, Red Plastic	04720-601-12-00
5	1	Timer, Universal	05945-003-75-23
6	2	Bearing, Rinse Arm	03120-004-12-13
7	2	Snap Ring, Retaining, Rinse Arm	05340-112-01-11
8	4	Washer, Rinse Arm	05330-011-42-10
9	1	Harness, 10-Wire Solid Fused Timer	05999-003-87-88
10	2	End-cap, Rinse Arm	04730-111-60-41
11	4	Bearing Assembly, Wash Arm	05700-021-35-97
12	4	End-cap, Wash Arm	05700-003-31-59
13*	1	Pump/Motor Assembly	06105-002-72-75
14	1	Auto/Manual, ON/OFF Switch	05930-011-49-55
15	1	Solenoid Valve, 1/2"	04810-003-71-56
16	1	Pump Seal	05330-002-34-22
17	2	Shim Kit	05700-002-82-58

* Special pricing when purchased with a Go Box Kit. Call for details.

UL30H OPTIONAL HEATER COMPONENTS

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Thermostat Bracket	05700-004-36-37
2	1	High Limit Thermostat	05930-004-33-12
3	1	Probe Bracket	05700-004-38-45
4	1	Wash Heater, 115 V, 1.5 kW	04540-004-33-76
5	4	Lockwasher, Split, 5/16"	05311-275-01-00
6	4	Nut, Hex 5/16-18	05310-275-01-00
7	1	Wash Heater Gasket	05330-011-61-34

UL30/UL30H VACUUM SWITCH

ITEM	QTY	DESCRIPTION	PART NUMBER
		Complete Assembly	05700-003-55-98
1	1	Box, Vacuum Switch	05700-003-55-96
2	2	Switch, Vacuum	06685-003-36-13
3	2	Wye, 1/4” Barbed PVDF	04730-003-36-14
4	6	Tubing, Clear 5/16" ID	04710-003-53-26
5	1	Tube, Red 1/4" OD x 100" Long	05700-003-03-45
6	1	Tube, White 1/4" OD x 100" Long	05700-003-03-45
7	1	Fitting, Liquidtite .231" x .394" Heyco	05700-003-20-67
8	2	Pressure Switch Bracket	05700-003-53-03
9	2	Spice, Blue Butt	05940-200-11-44
10	6	Locknut, 10-24 x 3/8" Phillips Truss	05945-602-01-16
11	14	Cable, 18 GA/5 Con 46”	05700-003-55-97
12	3	Tube Stiffener	05700-002-66-49
13	2	Splice, Red Butt	05940-200-26-00

UL30/UL30H VACUUM SWITCH INSTALL

Back of machine showing use of existing mounting hardware for installation of vacuum switch assembly.

Remove locknut on plumbing support bracket and mount switch box over existing stud. Reinstall bracket and route red and white tubes behind blue hose as shown.

Route gray cable down back and under the tub along inlet plumbing, remove wires from existing pressure switches, and connect to gray cable per instructions below.

Detergent Switch (Red Tube)

1. Connect black wire from gray cable to black/yellow wire from switch.

2. Connect brown wire from gray cable to blue wire from switch.

Sanitizer Switch (White Tube)

1. Connect white wire from gray cable to white/yellow wire from switch.

2. Connect red wire from gray cable to blue wire from switch.

After cutting the existing red and white tube approximately 12” above the gray tube stiffener, insert the cut ends into the clear tubes as shown.

UH30-FND
ELECTRICAL DIAGRAM

208/240 VOLT 50/60 HERTZ 1/3 PHASE

UL30/UL30H

(OPTIONAL WASH TANK HEATER)

115 VOLTS, 50/60 Hz, 1-PHASE

LEGEND

C1 CYCLE/RESET MICROSWITCH
C2 OFF/DRAIN MICROSWITCH
C3 WASH MICROSWITCH
C4 DRAIN MICROSWITCH
C5 FILL MICROSWITCH
C6 SANITIZER MICROSWITCH
C7 DETERGENT MICROSWITCH
C8 RINSE AID MICROSWITCH
E1 POWER LIGHT
E2 CYCLE LIGHT
E3 FILL LIGHT
E4 HI LIMIT LIGHT (OPTIONAL)
E5 DETERGENT LIGHT
E6 SANITIZER LIGHT
FS FILL SOLENOID
FL FLOAT (OPTIONAL)
H1 WASH HEATER (OPTIONAL)
HL WASH HEATER OVERLOAD (OPTIONAL)
M1 WASH PUMP MOTOR
M2 DRAIN MOTOR
M3 SANITIZER PUMP MOTOR
M4 DETERGENT PUMP MOTOR
M5 RINSE AID PUMP MOTOR
R1 WASH MOTOR CONTACTOR
R2 WASH HEATER CONTACTOR (OPTIONAL)
R3 CONTROL RELAY
R4 WASH HEATER RELAY (OPTIONAL)
S1 POWER SWITCH
S2 CYCLE SWITCH
S3 DOOR SWITCH
S4 WASH/DELIME SWITCH
S6 SANITIZER PRIME SWITCH
S7 DETERGENT PRIME SWITCH
S8 RINSE AID PRIME SWITCH
S9 DETERGENT VACUUM SWITCH
S10 SANITIZER VACUUM SWITCH
TM TIMER MOTOR
TS THERMOSTAT

TIMING CHART

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