Installation/Operation/Maintenance

Washer-Extractors
Twin Tub UM202 Design 3 Models

Original Instructions
Keep these instructions for future reference. CAUTION: Read the instructions before using the machine.

(If this machine changes ownership, this manual must accompany machine.)

www.alliancelaundry.com

F821501EN4
October 2018
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<th>26</th>
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</thead>
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<td>Weekly</td>
<td>26</td>
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<tr>
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<td>26</td>
</tr>
<tr>
<td>Care of Stainless Steel</td>
<td>26</td>
</tr>
</tbody>
</table>

**Disposal of Unit** ................................................................. 28
## Introduction

### Model Identification

Information in this manual is applicable to this model:

UM202*

* This manual applies to models with U3 in the 9th and 10th positions in the model number [e.g. UM202M1O U30001].

### Serial Plate Location

The serial plate decal is located at the rear of the machine. Always provide the machine's serial number and model number when ordering parts or when seeking technical assistance.

![Serial Plate](CAR19N_SVG)

1. Serial Plate

### Replacement Parts

If literature or replacement parts are required, contact the source from which the machine was purchased or contact Alliance Laundry Systems at +1 (920) 748-3950 for the name and address of the nearest authorized parts distributor.

### Customer Service

For technical assistance, contact your local distributor or contact:

Alliance Laundry Systems
Shepard Street
P.O. Box 990
Ripon, WI 54971-0990
U.S.A.
www.alliancelaundry.com
Phone: +1 (920) 748-3121 Ripon, Wisconsin

---

## Model Number Familiarization Guide

<table>
<thead>
<tr>
<th>Sample Model Number: UM202M1OU30001</th>
</tr>
</thead>
<tbody>
<tr>
<td>UM Model Number Prefix</td>
</tr>
<tr>
<td>202 Washer-Extractor</td>
</tr>
<tr>
<td>M Type of Electrical Control</td>
</tr>
</tbody>
</table>

Table 1 continues...
### Sample Model Number: UM202M1OU30001

<table>
<thead>
<tr>
<th>Sample Model Number: UM202M1OU30001</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
<tr>
<td>O</td>
</tr>
<tr>
<td>U3</td>
</tr>
<tr>
<td>0001</td>
</tr>
</tbody>
</table>

#### Table 1

#### Example of Serial Plate

**MODE L NO:** UM202M1OU30001  
**SERIAL NO:** XXXXXXXXXX  
**VOLTAGE:** 208 – 240  
**HZ:** 60  
**PHASE:** 3  
**NUMBER OF WIRES:** FLA:  
**amps**  
**CIRCUIT BREAKER SIZE:**  
**amps**  
**MAX LOAD:** 24 lbs  
**11 kg**  
**SCHEMATIC:**  
**SUPPLY WATER:** 30 – 85 psi,  
**2 – 5.7 bar**

Figure 2

---

**ETL Listed**  
Conforms to ANSI/UL Std. 1204, 4th Ed  
Certified to CAN/CSA Std. C22.2 No. 137–968  
Certified for use in wet locations
Explanation of Safety Messages

Precautionary statements (“DANGER,” “WARNING,” and “CAUTION”), followed by specific instructions, are found in this manual and on machine decals. These precautions are intended for the personal safety of the operator, user, servicer, and those maintaining the machine.

DANGER
Indicates an imminently hazardous situation that, if not avoided, will cause severe personal injury or death.

WARNING
Indicates a hazardous situation that, if not avoided, could cause severe personal injury or death.

CAUTION
Indicates a hazardous situation that, if not avoided, may cause minor or moderate personal injury or property damage.

Additional precautionary statements (“IMPORTANT” and “NOTE”) are followed by specific instructions.

IMPORTANT: The word “IMPORTANT” is used to inform the reader of specific procedures where minor machine damage will occur if the procedure is not followed.

NOTE: The word “NOTE” is used to communicate installation, operation, maintenance or servicing information that is important but not hazard related.

Important Safety Instructions

WARNING
To reduce the risk of fire, electric shock, serious injury or death to persons when using your washer, follow these basic precautions:

- Read all instructions before using the washer.
- Install the washer according the INSTALLATION instructions. Refer to the EARTH/GROUND instructions in the INSTALLATION manual for the proper earth/ground connection of the washer. All connections for water, drain, electrical power and earth/ground must comply with local codes and be made by licensed personnel when required. It is recommended that the machine be installed by qualified technicians.
- Do not install or store the washer where it will be exposed to water and/or weather.
- To prevent fire and explosion, keep the area around machine free from flammable and combustible products. Do not add the following substances or textiles containing traces of the following substances to the wash water: gasoline, kerosene, waxes, cooking oils, vegetable oils, machine oils, dry-cleaning solvents, flammable chemicals, thinners, or other flammable or explosive substances. These substances give off vapors that could ignite, explode or cause the fabric to catch fire by itself.
- Under certain conditions, hydrogen gas may be produced in a hot water system that has not been used for two weeks or more. HYDROGEN GAS IS EXPLOSIVE. If the hot water system has not been used for such a period, before using a washing machine or combination washer-dryer, turn on all hot water faucets and let the water flow from each for several minutes. This will release any accumulated hydrogen gas. The gas is flammable, do not smoke or use an open flame during this time.
- To reduce the risk of an electric shock or fire, DO NOT use an extension cord or an adapter to connect the washer to the electrical power source.
- Do not allow children to play on or in the washer. Close supervision of children is necessary when the washer is used near children. This appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance. This is a safety rule for all appliances.
- DO NOT reach and/or climb into the tub or onto the washer, ESPECIALLY if the wash drum is moving. This is an imminently hazardous situation that, if not avoided, will cause severe personal injury or death.
- Never operate the washer with any guards, panels and/or parts removed or broken. DO NOT bypass any safety devices or tamper with the controls.
- Use washer only for its intended purpose, washing textiles. Never wash machine parts or automotive parts in the machine. This could result in serious damage to the basket or tub.
- Use only low-sudsing, no-foaming types of commercial detergent. Be aware that hazardous chemicals may be present. Wear hand and eye protection when adding detergents and chemicals. Always read and follow manufacturer’s instructions on packages of laundry and cleaning aids. Heed all warnings or precautions. To reduce the risk of poisoning or
chemical burns, keep them out of the reach of children at all times [preferably in a locked cabinet].

- Do not use fabric softeners or products to eliminate static unless recommended by the manufacturer of the fabric softener or product.
- Always follow the fabric care instructions supplied by the textile manufacturer.
- The lid MUST BE CLOSED any time the washer is to spin. DO NOT bypass the lid release button by permitting the washer to operate with the lid open. Do not attempt to open the lid until the extract compartment has drained and all moving parts have stopped.
- Be aware that hot water is used to flush the supply dispenser, if applicable. Avoid opening the dispenser lid while the machine is running.
- Do not attach anything to the supply dispenser’s nozzles, if applicable. The air gap must be maintained.
- Do not operate the machine without the water reuse plug or water reuse system in place, if applicable.
- Be sure water connections have a shut-off valve and that fill hose connections are tight. CLOSE the shut-off valves at the end of each wash day.
- Keep washer in good condition. Bumping or dropping the washer can damage safety features. If this occurs, have washer checked by a qualified service person.
- DANGER: Before inspecting or servicing machine, power supply must be turned OFF. The serviccer needs to wait for at least 5 minutes after turning the power OFF and needs to check for residual voltage with a voltage meter. The inverter capacitor or EMC filter remains charged with high voltage for some time after powering OFF. This is an imminently hazardous situation that, if not avoided, will cause severe personal injury or death.
- Do not repair or replace any part of the washer, or attempt any servicing unless specifically recommended in the user-maintenance instructions or in published user-repair instructions that the user understands and has the skills to carry out. ALWAYS disconnect the washer from electrical, power and water supplies before attempting any service.
- Disconnect the power by turning off the circuit breaker or by unplugging the machine. Replace worn power cords.
- Before the washer is removed from service or discarded, remove the lid to the washing compartment.
- Failure to install, maintain, and/or operate this washer according to the manufacturer’s instructions may result in conditions which can produce bodily injury and/or property damage.

NOTE: The WARNINGS and IMPORTANT SAFETY INSTRUCTIONS appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense, caution and care must be exercised when installing, maintaining, or operating the washer.

Any problems or conditions not understood should be reported to the dealer, distributor, service agent or the manufacturer.

Any problems or conditions not understood should be reported to the dealer, distributor, service agent or the manufacturer.
2. Check lid lock and interlock before starting operation of the machine:
   a. Attempt to start the machine with the lid open. The machine should not start.
   b. Close the lid without locking it and attempt to start the machine. The machine should not start.
   c. Close and lock the lid and start a cycle. Attempt to open the lid. The lid should not open.

   If the lid lock and interlock are not functioning properly, call a service technician.

3. Do not attempt to operate the machine if any of the following conditions are present:
   a. The lid does not remain securely locked during the entire cycle.
   b. Excessively high water level is evident.
   c. Machine is not connected to a properly grounded circuit.

   Do not bypass any safety devices in the machine.
### Specifications and Dimensions

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall Dimensions</strong></td>
<td></td>
</tr>
<tr>
<td>Overall width, in. [mm]</td>
<td>60 [1524]</td>
</tr>
<tr>
<td>Overall depth, in. [mm]</td>
<td>29.5 [749]</td>
</tr>
<tr>
<td>Overall height, in. [mm]</td>
<td>40 [1016]</td>
</tr>
<tr>
<td><strong>Weight &amp; Shipping Information</strong></td>
<td></td>
</tr>
<tr>
<td>Net weight, lb. [kg]</td>
<td>475 [215]</td>
</tr>
<tr>
<td><strong>Wash Compartment Information</strong></td>
<td></td>
</tr>
<tr>
<td>Width, in. [mm]</td>
<td>20.25 [514]</td>
</tr>
<tr>
<td>Length, in. [mm]</td>
<td>22.25 [565]</td>
</tr>
<tr>
<td>Depth, in. [mm]</td>
<td>11.75 [298]</td>
</tr>
<tr>
<td>Volume, cu. ft. [liter]</td>
<td>2.74 [77.6]</td>
</tr>
<tr>
<td>Dry weight capacity, lb. [kg]</td>
<td>12 [5.45]</td>
</tr>
<tr>
<td><strong>Extractor Basket Information</strong></td>
<td></td>
</tr>
<tr>
<td>Basket volume, cu. ft. [liter]</td>
<td>1.09 [30.9]</td>
</tr>
<tr>
<td>Basket diameter, in. [mm]</td>
<td>16.06 [409]</td>
</tr>
<tr>
<td>Basket depth, in. [mm]</td>
<td>9.25 [235]</td>
</tr>
<tr>
<td>Basket dry weight capacity, lb. [kg]</td>
<td>12 [5.45]</td>
</tr>
<tr>
<td>Perforation open area, %</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Drive Train Information</strong></td>
<td></td>
</tr>
<tr>
<td>Number of motors in drive train</td>
<td>3</td>
</tr>
<tr>
<td>Wash motor power, hp [kW]</td>
<td>2 x 0.50 [0.38]</td>
</tr>
<tr>
<td>Extract motor power, hp [kW]</td>
<td>1 x 1.0 [0.75]</td>
</tr>
<tr>
<td><strong>Water Consumption</strong></td>
<td></td>
</tr>
<tr>
<td>Average water consumption per agitation cycle, gallons [liters]</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>14 [53]</td>
</tr>
<tr>
<td>Medium</td>
<td>17 [64]</td>
</tr>
<tr>
<td>High</td>
<td>21 [80]</td>
</tr>
<tr>
<td><strong>Drain Information</strong></td>
<td></td>
</tr>
<tr>
<td>Drain connection size, in. [mm]</td>
<td>2 [50]</td>
</tr>
<tr>
<td>Number of drain outlets</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 2 continues...
# Specifications and Dimensions

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drain flow capacity, gallons [liters] per min.</td>
<td>27 [101]</td>
</tr>
<tr>
<td>Recommended drain pit size, cu. ft. [liters]</td>
<td>7.7 [219]</td>
</tr>
<tr>
<td><strong>Water Supply Information</strong></td>
<td></td>
</tr>
<tr>
<td>Water inlet connection size, in. [mm]</td>
<td>.75NH [G.75]</td>
</tr>
<tr>
<td>Number of water inlets [1 hot, 1 cold]</td>
<td>2</td>
</tr>
<tr>
<td>Inlet flow capacity, gallons [liters] per min.</td>
<td>21 [79]</td>
</tr>
<tr>
<td><strong>Operating Speeds</strong></td>
<td></td>
</tr>
<tr>
<td>Wash agitator speed, reversals per minute [Input frequency: 60 Hz/50 Hz]</td>
<td>60/50</td>
</tr>
<tr>
<td><strong>Power Consumption</strong></td>
<td></td>
</tr>
<tr>
<td>Average power consumption per cycle, kW-hr</td>
<td>0.25</td>
</tr>
<tr>
<td>Average HVAC load, Btu/hr [kcal/hr]</td>
<td>200 [51]</td>
</tr>
<tr>
<td><strong>Centrifugal Force Data</strong></td>
<td></td>
</tr>
<tr>
<td>Extract centrifugal force, G’s</td>
<td></td>
</tr>
<tr>
<td>208-240 V, 60 Hz</td>
<td>690</td>
</tr>
<tr>
<td>220-240 V, 50 Hz</td>
<td>496</td>
</tr>
</tbody>
</table>

Table 2
Machine Capacity Dimensions

1. Faucet
2. Agitator
3. Extractor Basket
4. Control Panel

Figure 3

<table>
<thead>
<tr>
<th>Machine Capacity Dimensions [Refer to Figure 3]</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>C</td>
</tr>
<tr>
<td>D</td>
</tr>
</tbody>
</table>

Table 3 continues...
Machine Capacity Dimensions [Refer to Figure 3]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>16.5 in. [419 mm]</td>
</tr>
<tr>
<td>F</td>
<td>29.5 in. [749 mm]</td>
</tr>
<tr>
<td>G</td>
<td>21.5 in. [546 mm]</td>
</tr>
<tr>
<td>H</td>
<td>40.5 in. [1029 mm]</td>
</tr>
</tbody>
</table>

Table 3

Plumbing Dimensions

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>40 in. [1016 mm]</td>
</tr>
<tr>
<td>B</td>
<td>33.47 in. [852 mm]</td>
</tr>
<tr>
<td>C</td>
<td>26.47 in. [675 mm]</td>
</tr>
<tr>
<td>D</td>
<td>34.5 in. [876 mm]</td>
</tr>
<tr>
<td>E</td>
<td>60 in. [1524 mm]</td>
</tr>
<tr>
<td>F</td>
<td>9.75 in. [248 mm]</td>
</tr>
<tr>
<td>G</td>
<td>21 in. [533 mm]</td>
</tr>
</tbody>
</table>

Table 4 continues...

1. Drain Outlet
2. Hot Water Inlet
3. Cold Water Inlet
4. Electrical Connection
5. Overflow Level

Figure 4
### Plumbing Dimensions [Refer to Figure 4]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H</strong></td>
<td>33.5 in. [851 mm]</td>
</tr>
<tr>
<td><strong>I</strong></td>
<td>6.75 in. [171 mm]</td>
</tr>
<tr>
<td><strong>J</strong></td>
<td>1.13 in. [29 mm]</td>
</tr>
<tr>
<td><strong>K</strong></td>
<td>3.88 in. [98 mm]</td>
</tr>
<tr>
<td><strong>L</strong></td>
<td>29.5 in. [749 mm]</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>6.75 in. [171 mm]</td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>6.75 in. [171 mm]</td>
</tr>
<tr>
<td><strong>O</strong></td>
<td>3.88 in. [98 mm]</td>
</tr>
<tr>
<td><strong>P</strong></td>
<td>1.75 in. [44 mm]</td>
</tr>
</tbody>
</table>

Table 4
Installation

Dimensional Clearances

<table>
<thead>
<tr>
<th>Dimensional Clearances [Refer to Figure 5]</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
</tr>
<tr>
<td>B</td>
</tr>
<tr>
<td>C</td>
</tr>
</tbody>
</table>

Table 5

Machine Foundation

The machine may be placed on any level floor as long as floor will hold the weight of the machine.

Position the machine and level with shims or grout under the corners.

<table>
<thead>
<tr>
<th>Floor Load Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specification</td>
</tr>
<tr>
<td>Static floor load</td>
</tr>
<tr>
<td>Static pressure</td>
</tr>
</tbody>
</table>

Table 6

Shipping Block and String Removal

WARNING

To avoid severe personal injury and machine damage, remove the shipping block and shipping string before connecting power to the machine.

The shipping string is provided to open lid before power is connected to machine. Operating machine with shipping string installed will prevent the wash basket from stopping when lid is open.

To open lid before power is connected, pull the shipping string to the left and hold, then lift lid open.

IMPORTANT: If machine is operated with shipping block in place, damage to machine, tub and drive motor may result. To avoid damage to machine, remove shipping block before operation.

Machine Anchoring

Bolting to floor is optional. To bolt down the machine, use 3/8 inch bolt holes located on the frame at the bottom of each corner. One quarter inch machine anchors should be used.
Electrical Installation

Input Voltage Requirements

**WARNING**

Turn off power and water before attempting any maintenance, repairs, or service, or before opening any service panel or door.

### Electrical Specifications

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Cycle</th>
<th>Phase</th>
<th>Wire</th>
</tr>
</thead>
<tbody>
<tr>
<td>208-240</td>
<td>60 Hz</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>220-240</td>
<td>50 Hz</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**NOTE:** The control voltage is 24 V for all systems.

Table 7

If a delta supply system is used, the high leg must be connected to the L3 lead at the J-box.

**Connection Specifications**

**IMPORTANT:** Connection must be made by a qualified electrician using wiring diagram provided with machine. Use liquid-tight conduit and copper connectors.

**IMPORTANT:** Electrical ratings are subject to change. Refer to serial decal for electrical ratings information specific to your machine.

**WARNING**

Dangerous voltages are present inside the machine. Only qualified personnel should attempt adjustments and troubleshooting. Disconnect power from the machine before removing any cover and guards, and before attempting any service procedures.

**WARNING**

Hazardous Voltage. Can cause shock, burn or death. Verify that a ground wire from a proven earth ground is connected to the lug near the input power block on this machine.

Electrical connections are made at the rear of the machine. The machine must be connected to the proper electrical supply shown on the identification plate attached to the rear of the machine, using copper conductors only.

**IMPORTANT:** Alliance Laundry Systems warranty does not cover components that fail as a result of improper input voltage.

Make sure the correct transformer jumper [208 Volt or 240 Volt] is in place. Refer to the “optional” Electrical Service Connection label located on the back of the machine near the electrical service input for machine electrical requirements.

**Grounding**

For personal safety and proper operation, the machine must be grounded in accordance with local codes. The ground connection must be to a proven earth ground at the location service panel and/or to a grounded metal cold water pipe.

Use wire size indicated in Electrical Specifications table for runs up to 50 feet. Use next larger size for runs of 50 – 100 feet. Use TWO sizes larger for runs greater than 100 feet. This protects against voltage drop which would result in a reduction of starting torque.

**Phase Adder**

If three-phase service is not available and a Roto-Phase or other phase adder is used, the artificial leg must be connected to the L3A lead.

**Thermal Overload Protector**

Machine has thermal overload protectors in each drive motor windings and a separate fuse for control circuit.

**Circuit Breakers**

Three-phase machines require a separate, three-phase inverse-time circuit breaker to prevent damage to the motors by disconnecting all legs if one should be lost accidentally.

**IMPORTANT:** The machine should be connected to an individual branch circuit not shared with lighting or other equipment.
### Electrical Specifications

<table>
<thead>
<tr>
<th>Code</th>
<th>Voltage</th>
<th>Cycle</th>
<th>Phase</th>
<th>Wire</th>
<th>Full Load Amps</th>
<th>Breaker</th>
<th>AWG</th>
<th>mm2</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>220-240</td>
<td>50</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>15</td>
<td>14</td>
<td>2.5</td>
</tr>
<tr>
<td>O</td>
<td>208-240</td>
<td>60</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>15</td>
<td>14</td>
<td>2.5</td>
</tr>
</tbody>
</table>

**NOTE:** Wire sizes shown are for copper, THHN, 90° conductor per National Electric Code, article 310.

Table 8

---

### WARNING

Ensure that a ground wire from a proven earth ground is connected to the ground lug near the input power block on this machine. Without proper grounding, personal injury from electric shock could occur and machine malfunctions may be evident.

SW008

### Drain Connection

A flexible connection must be made to a vented drain system to prevent damage to rigid drain pipes. Drain should be vented to ensure proper flow and prevent siphoning. If proper drain size is not available or practical, a surge tank is required. A surge tank along with a sump pump should be used when gravity drainage is not possible.

---

**IMPORTANT:** Installation shall conform with local codes or, in absence of local codes, with the National Electric Code ANSI/NFPA No. 70. Overloaded or undersized lines, or any low voltage condition will burn out motors and solenoid windings.
1. 15 Amp – Three-Phase Circuit Breaker
2. 0.75 in. [19 mm] Water Outlet
3. 0.75 in. [19 mm] min. Cold Water Supply Line
4. 0.75 in. [19 mm] min. Hot Water Supply Line
5. 60 in. [152 mm] Required
6. 2 in. [51 mm] min. Waste Line Tee
7. 4 in. [102 mm] min. Waste Line

Figure 6

Drain Line Sizing / Minimum Drain ID

<table>
<thead>
<tr>
<th>Number of Machines</th>
<th>Drain Line Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2 in. [51 mm]</td>
</tr>
<tr>
<td>2</td>
<td>3 in. [76 mm]</td>
</tr>
<tr>
<td>3</td>
<td>4 in. [102 mm]</td>
</tr>
<tr>
<td>4</td>
<td>4 in. [102 mm]</td>
</tr>
<tr>
<td>5</td>
<td>4 in. [102 mm]</td>
</tr>
<tr>
<td>6</td>
<td>4 in. [102 mm]</td>
</tr>
<tr>
<td>7 – 10</td>
<td>6 in. [152 mm]</td>
</tr>
</tbody>
</table>

Table 9

Water Connection

Connections should be supplied by a hot and a cold water line of at least the sizes shown in the Water Supply Line Sizing table. Refer to Table 10.

<table>
<thead>
<tr>
<th>Number of Machines</th>
<th>Drain Line Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.75 in. [19 mm]</td>
</tr>
<tr>
<td>2</td>
<td>1 in. [25 mm]</td>
</tr>
<tr>
<td>3</td>
<td>1.25 in. [32 mm]</td>
</tr>
<tr>
<td>4</td>
<td>1.5 in. [38 mm]</td>
</tr>
<tr>
<td>5</td>
<td>1.5 in. [38 mm]</td>
</tr>
</tbody>
</table>

Table 10 continues...
### Water Supply Line Sizing

<table>
<thead>
<tr>
<th>Number of Machines</th>
<th>Drain Line Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 – 10</td>
<td>2 in. [51 mm]</td>
</tr>
</tbody>
</table>

Table 10

To connect water service to machine with rubber hoses, use the following procedure:

1. Before installing hoses, flush the water system for at least two minutes.
2. Check filters in the machine’s inlet hoses for proper fit and cleanliness before connecting.
3. Hang hoses in a large loop; do not allow them to kink.

If additional hose lengths are needed, use flexible hoses with screen filters.

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### WARNING

To prevent personal injury, avoid contact with inlet water temperatures higher than 125° Fahrenheit [51° Celsius] and hot surfaces.

Install vacuum breakers and check valves when required by local codes.

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Install a screen filter in each hose to keep rust and other foreign particles out of the solenoid valves.

Suitable air cushions should be installed in supply lines to prevent “hammering”. Refer to Figure 8.

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Figure 7

1. 0.75 in. [19 mm] Cold and Hot Water Supply Line
2. 0.5 in. [13 mm] Faucet Lines

Figure 8

1. Water Supply Faucets
2. Risers [Air Cushions]
Connect Inlet Hoses

To connect water service to a machine with hoses, use the following procedure:

1. Before installing hoses, flush the building’s water system at the machine connection valves for at least two (2) minutes.
2. Remove the two (2) plain rubber washers and two (2) filter screens from the accessories bag supplied with the machine.
3. Install one (1) plain rubber washer onto one end and one (1) filter screen into the other end of each fill hose. The screens must be facing outward toward the water supply. Refer to Figure 9.
4. Screw hose couplings with the filter screens onto the water supply faucets until they are finger-tight. Use the red color-coded hose for the hot water connection and the blue color-coded hose for the cold water connection.
5. Using pliers, screw approximately 1/4 turn.
6. Screw the coupling with the plain rubber washer of the red color-coded hose (attached to the hot water connection) onto the valve inlet marked with a red label. Screw the coupling with the plain rubber washer of the blue color-coded hose (attached to the cold water connection) to the valve inlet marked with a blue label. Tighten to finger-tight.
7. Using pliers, screw approximately 1/4 turn.
   IMPORTANT: DO NOT cross thread or overtighten couplings. This will cause them to leak.
8. Hang hoses in a large loop; do not allow them to kink.
9. Turn on water supply and check for leaks.
10. If leaks are found, turn off the water, unscrew hoses and reinstall them until there are no leaks.
   IMPORTANT: Turn off water supply whenever there will be an extended period of non-use.

If additional hose lengths are needed or using hoses other than those supplied by manufacturer, flexible hoses with screen filters are required.

Control Function Test

The machine should be cleaned after the installation is complete. A function test should then be executed on the unloaded machine:

1. Check the power supply for correct voltage, phase, and cycles to be sure they are correct for the machine.
2. Open manual shut-off valves to the machine.
3. Turn on electric power.
4. Check the lid interlock before starting operation:
   a. Turn extract timer dial clockwise to the two minute mark, remain for five seconds, and return dial to “off” position.
   b. Once rotation has stopped press the lid release button and open the lid to the extract-rinse compartment.
   c. Attempt to start the machine with the lid open. The machine should not start.
   d. Close the lid without locking it and attempt to start the machine. The machine should not start.
   e. Close and lock the lid and start a cycle. Attempt to open the lid.
If the lid lock and interlock are not functioning properly, call a service technician.
5. Run a complete cycle, checking operation of water inlet valves, drain, and extract functions.

6. Check that basket rotation is clockwise in the extract step. If rotation is not clockwise, disconnect power and have a qualified electrician reverse lines L1 and L2 at power input block.
Control Panel

*Figure 10* shows the control panel for both standard and car wash top-loading machines.

The **RUN indicator light** indicates a wash cycle is in progress.

The **WASH timer** can be set to up to 15 minutes for wash cycle times. Machine will start automatically after timer is set. Agitation will begin when selected water level is reached.

The **LID LOCK indicator light** indicates when the lid is properly closed when the extract-rinse compartment is rotating.

After extract-rinse basket stops spinning, pressing the **LID RELEASE button** unlocks the extract-rinse compartment’s lid.

The **EXTRACT** and **RINSE timers** allow operator to set the amount of time for extract and rinse cycles. Machine will start automatically after timers are set. The rinse will begin 30 seconds after basket begins to spin.

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**Operating Instructions**

1. Turn on the main power source [circuit breaker].
2. Close drain of wash compartment to be used. Refer to *Figure 11*. 

3. Select desired temperature and water level.

4. Add detergent and bleach, if desired, to water. Use ONLY liquid bleach.

5. Set wash timer for 30 seconds to begin filling tub and allow detergent/bleach to mix.

6. Place washables in compartment. Distribute evenly around agitator. Refer to Figure 13.

NOTE: Place stringy items such as mop heads in a laundry net to prevent blockage of drains.

7. Set wash timer to desired time.

1. Drain
Recommended Cycle Times

<table>
<thead>
<tr>
<th>Items</th>
<th>Wash</th>
<th>Extract</th>
<th>Rinse</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fluff-Dry Washables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bath mats, towels,</td>
<td>6 min.</td>
<td>5 min.</td>
<td>3 min.</td>
</tr>
<tr>
<td>face cloths, spreads, mop</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>heads, rugs, athletic and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>camp washables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No-Iron Washables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sheets</td>
<td>4 min.</td>
<td>4 min.</td>
<td>2 min.</td>
</tr>
<tr>
<td>Pillow slips</td>
<td>8 min.</td>
<td>4 min.</td>
<td>2 min.</td>
</tr>
<tr>
<td>Tablecloths/napkins</td>
<td>8 min.</td>
<td>4 min.</td>
<td>2 min.</td>
</tr>
<tr>
<td><strong>Specialties</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blankets</td>
<td>5 min.</td>
<td>4 min.</td>
<td>3 min.</td>
</tr>
<tr>
<td>Drapes</td>
<td>5 min.</td>
<td>5 min.</td>
<td>3 min.</td>
</tr>
<tr>
<td>Uniforms</td>
<td>8 min.</td>
<td>4 min.</td>
<td>2 min.</td>
</tr>
</tbody>
</table>

**NOTE:** Each compartment has a 12 pound dry weight capacity.

Table 11

8. When cycle is finished, place washables in extract-rinse compartment. Distribute evenly around agitator. Refer to Figure 15.

**WARNING**

Operating the machine with severe out-of-balance loads could result in personal injury and serious equipment damage.

**NOTE:** Place loosely woven washables first, then sheets, pillow slips and other closely woven articles.
11. When cycle is complete, wait until basket stops, then press LID RELEASE button to open lid. Refer to Figure 16.

12. Remove washables.
Maintenance

WARNING

Sharp edges can cause personal injury. Wear safety glasses and gloves, use proper tools and provide lighting when handling sheet metal parts.

IMPORTANT: Replace all panels that are removed to perform service and maintenance procedures. Do not operate the machine with missing guards or with broken or missing parts. Do not bypass any safety devices.

Daily

IMPORTANT: Lid lock should be checked daily to ensure proper operation. Also check that all safety and instruction stickers are on the machine. Replace missing or illegible safety labels.

1. Clean the machine’s main body, front and side panels with mild detergent. Rinse with clean water.
2. Clean lid of all foreign matter.
3. Inspect and clean extract basket.
4. Leave lid open after each completed cycle to allow moisture to evaporate.

Weekly

1. Verify that the drain system is free from obstruction.
2. Inspect water inlet valve hose connections on the back of the machine for leaks.

Monthly

NOTE: Disconnect power to the machine at its source before performing the monthly maintenance procedures.

1. Vacuum lint from motor vents.
2. Clean lint and debris from extract compartment’s drain.
3. Remove and clean water inlet valve and hose screen filters. Replace if worn or damaged.
4. Wipe clean inside of wash compartment.
5. Clean all electronic boards of moisture and dust with canned air.
6. Check basket ball to see if it needs grease. If basket does not rock easily and does not return to level position when pushed down on one side, add grease to top of nylon basket ball cap.
7. Check extract motor vibration pads. Pads must be replaced if pads are worn and metal is showing.
8. Tighten transmission and extract motor mounting nuts, if necessary.
9. Clean inlet hose filter screens:
   a. Turn water off and allow valve to cool, if necessary.
   b. Unscrew inlet hose and remove filter screen.
   c. Clean with soapy water and reinstall. Replace if worn or damaged.
10. Check hoses for any visible signs of deterioration. Any hose showing signs of cracking, blisters or material wear should be replaced immediately. All hoses should be replaced every five years.
11. Check if belt(s) require replacement or adjustment. Call a qualified service technician in either case.
   a. Check each belt for uneven wear and frayed edges.
   b. Verify that each belt is properly aligned.

CAUTION

To help avoid personal injury, take care when doing any maintenance or making any check or repair. Follow manufacturer’s instructions for all materials used during service and maintenance of this machine. If used or handled improperly, they can be hazardous. Improper or incomplete service can also affect the machine and result in personal injury, or damage to the machine and may void the warranty.

Care of Stainless Steel

• Remove dirt and grease with detergent and water. Thoroughly rinse and dry after washing.
• Avoid contact with dissimilar metals to prevent galvanic corrosion when salty or acidic solutions are present.
• Do not allow salty or acidic solutions to evaporate and dry on stainless steel. Wipe clean of any residues.
• Rub in the direction of the polish lines or “grain” of the stainless steel to avoid scratch marks when using abrasive cleaners. Use stainless steel wool or soft, non-metal bristle brushes. Do not use ordinary steel wool or steel brushes.
• If the stainless steel appears to be rusting, the source of the rust may be an iron or steel part not made of stainless steel, such as a nail or screw.
• Remove discoloration or heat tint from overheating by scouring with a powder or by employing special chemical solutions.
• Do not leave sterilizing solutions on stainless steel equipment for prolonged periods of time.

• When an external chemical supply is used, ensure no siphoning of chemicals occurs when the machine is not in use. Highly concentrated chemicals can cause severe damage to stainless steel and other components within the machine. Damage of this kind is not covered by the manufacturer’s warranty. Locate the pump and tubing below the machine’s injection point to prevent siphoning of chemicals into the machine.
Disposal of Unit

This appliance is marked according to the European directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Refer to Figure 17. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. Ensuring this product is disposed of correctly will help prevent potential negative consequences for the environment and human health which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact the local city office, household waste disposal service, or the source from which the product was purchased.

Figure 17