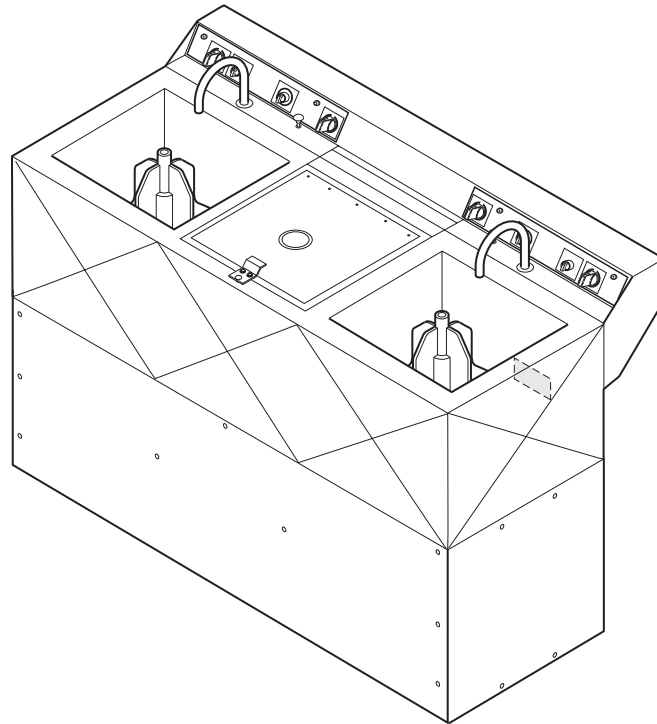


Washer-Extractor

Top Loading
UM202
Design 2 Models



CAR2C

Installation/Operation/Maintenance

Keep These Instructions for Future Reference.

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



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Part No. F232212R2
July 2008

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Introduction

Model Identification

Information in this manual is applicable to this model:

UM202*

* This manual applies to models with U2 in the 9th and 10th positions in the model number (e.g. UM202M1OU20001).

Nameplate Location

The nameplate 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.

Replacement Parts

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

Customer Service

For technical assistance, call (920) 748-3121, Ripon, Wisconsin U.S.A.

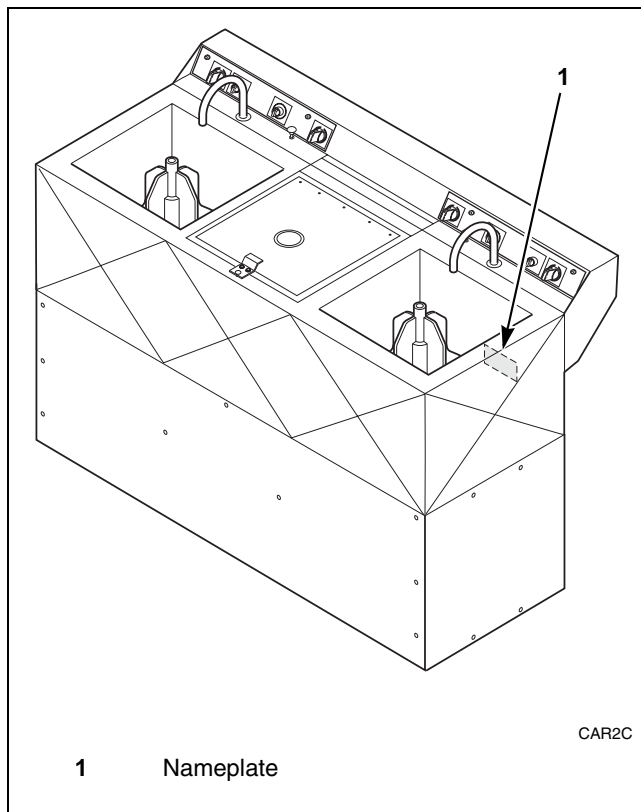


Figure 1

Model Number Familiarization Guide	
Sample Model Number: UM202M1OU20001	
UM	Model Number Prefix
202	Washer-Extractor Capacity (pounds dry weight of laundry)
M	Type of Electrical Control
1	Washer-Extractor Speed Capability (1 = 1 speed)
O	Electrical Characteristics
U2	Design Series
0001	Option Identification (varies from machine to machine)

Model No: UM202M1OU20001

Serial No: XXXXXXXXX

Voltage: 208 – 240 **Amps:** 5

Circuit Breaker: 15 amps

Hz: 60 **Wire:** 3 **Phase:** 3

Max Load: 24 lbs 11 kg **Max Speed:** 1750 rpm

Electric Heat: N/A **Steam Pressure:** N/A psi 0.0 bar

ETL Listed
 Conforms To ANSI/UL Std. 1206, 4th Ed
 Certified To CAN/CSA Std. C22.2 No. 53-1968
 Certified for use in wet locations

EXAMPLE OF NAMEPLATE


CAR17N


Figure 2


Safety Information

Explanation of Safety Messages

Throughout this manual and on machine decals, you will find precautionary statements (“DANGER,” “WARNING,” and “CAUTION”) followed by specific instructions. 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

Save These Instructions


	WARNING
To reduce the risk of fire, electric shock, serious injury or death to persons when using your washer, follow these basic precautions:	
<small>W023</small>	

1. Read all instructions before using the washer.
2. Refer to the GROUNDING INSTRUCTIONS in the INSTALLATION manual for the proper grounding of the washer.
3. Do not wash textiles that have been previously cleaned in, washed in, soaked in, or spotted with gasoline, dry-cleaning solvents, or other flammable or explosive substances as they give off vapors that could ignite or explode.
4. Do not add gasoline, dry-cleaning solvents, or other flammable or explosive substances to the wash water. These substances give off vapors that could ignite or explode.
5. 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.
6. 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 is a safety rule for all appliances.
7. Before the washer is removed from service or discarded, remove the door to the extract compartment.


8. Do not reach into the washer if the extract drum or the wash agitator is moving.
9. Do not tamper with the controls.
10. 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.
11. 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.
12. Use washer only for its intended purpose, washing textiles.
13. Never wash machine parts or automotive parts in the machine. This could result in serious damage to the basket.
14. ALWAYS disconnect the washer from electrical supply before attempting any service. Disconnect the power cord by grasping the plug, not the cord.
15. Install the washer according to the INSTALLATION INSTRUCTIONS. All connections for water, drain, electrical power and grounding must comply with local codes and be made by licensed personnel when required.
16. To reduce the risk of fire, textiles which have traces of any flammable substances such as vegetable oil, cooking oil, machine oil, flammable chemicals, thinner, etc. or anything containing wax or chemicals such as in mops and cleaning cloths, must not be put into the washer. These flammable substances may cause the fabric to catch on fire by itself.
17. Do not use fabric softeners or products to eliminate static unless recommended by the manufacturer of the fabric softener or product.
18. 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.
19. If the supply cord is damaged, it must be replaced by a special cord or assembly available from a service agent.
20. 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.
21. 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).
22. Always follow the fabric care instructions supplied by the textile manufacturer.
23. Never operate the washer with any guards and/or panels removed.
24. DO NOT operate the washer with missing or broken parts.
25. DO NOT bypass any safety devices.
26. 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 WARNING 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.

	WARNING
<p>This machine must be installed, adjusted, and serviced by qualified electrical maintenance personnel familiar with the construction and operation of this type of machinery. They must also be familiar with the potential hazards involved. Failure to observe this warning may result in personal injury and/or equipment damage, and may void the warranty.</p>	
<small>SW004</small>	

IMPORTANT: Ensure that the recommended clearances for inspection and maintenance are provided. Never allow the inspection and maintenance space to be blocked.

	WARNING
<p>Install the machine on a level floor of sufficient strength. Failure to do so may result in conditions which can produce serious injury, death and/or property damage.</p>	
<small>W703</small>	


Safety Decals

Safety decals appear at crucial locations on the machine. Failure to maintain legible safety decals could result in injury to the operator or service technician.

To provide personal safety and keep the machine in proper working order, follow all maintenance and safety procedures presented in this manual. If questions regarding safety arise, contact the manufacturer immediately.

Use manufacturer-authorized spare parts to avoid safety hazards.

Operator Safety

	WARNING
<p>NEVER insert hands or objects into basket until it has completely stopped. Doing so could result in serious injury.</p>	
<small>SW012</small>	

To ensure the safety of machine operators, the following maintenance checks must be performed daily:

1. Prior to operating the machine, verify that all warning signs are present and legible. Missing or illegible signs must be replaced immediately. Make certain that spares are available.
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 with the lid open.
 - b. Close the lid without locking it and attempt to start the machine. The machine should not start with the lid unlocked.
 - c. Close and lock the lid and start a cycle. Attempt to open the lid while the cycle is in progress. 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

Specification		
Overall Dimensions		
Overall width, in. (mm)		60 (1524)
Overall depth, in. (mm)		29.5 (749)
Overall height, in. (mm)		40.5 (1029)
Weight & Shipping Information		
Net weight, lb. (kg)		510 (232)
Wash Compartment Information		
Width, in. (mm)		20.25 (514)
Length, in. (mm)		22.25 (565)
Depth, in. (mm)		11.75 (298)
Volume, cu. ft. (liter)		2.74 (77.6)
Dry weight capacity, lb. (kg)		12 (5.45)
Extractor Basket Information		
Basket volume, cu. ft. (liter)		1.09 (30.9)
Basket diameter, in. (mm)		16.06 (409)
Basket depth, in. (mm)		9.25 (235)
Basket dry weight capacity, lb. (kg)		12 (5.45)
Perforation open area, %		1.5
Drive Train Information		
Number of motors in drive train		3
Wash motor power, hp (kW)		2 x 0.33 (0.25)
Extract motor power, hp (kW)		1 x 1.0 (0.75)
Water Consumption		
Average water consumption per agitation cycle, gallons (liters)	Low	14 (53)
	Medium	17 (64)
	High	21 (80)
Drain Information		
Drain connection size, in. (mm)		2 (50)
Number of drain outlets		1
Drain flow capacity, gallons (liters) per min.		27 (101)
Recommended drain pit size, cu. ft. (liters)		7.7 (219)
Water Supply Information		
Water inlet connection size, in. (mm)		0.75NH (G0.75)
Number of water inlets (1 hot, 2 cold)		3
Inlet flow capacity, gallons (liters) per min.		23 (87)

Table 1

Specifications and Dimensions

Table 1 (Continued)

Specification		
Operating Speeds		
Wash agitator speed, reversals per minute (Input frequency: 60 Hz/50 Hz)		60/50
Power Consumption		
Average power consumption per cycle, kW-hr		0.28
Average HVAC load, Btu/hr (kcal/hr)		200 (51)
Centrifugal Force Data		
Extract centrifugal force, G's	208-240 V, 60 Hz	690
	220-240 V, 50 Hz	496
	380-415 V, 50 Hz	499
	440-480 V, 60 Hz	698

Machine Capacity Dimensions Refer to <i>Figure 3</i>	
A	60 in. (1524 mm)
B	11.75 in. (298 mm)
C	18.38 in. (467 mm)
D	22.25 in. (565 mm)
E	16.5 in. (419 mm)
F	29.5 in. (749 mm)
G	19.88 in. (505 mm)
H	40.5 in. (1029 mm)

Table 2

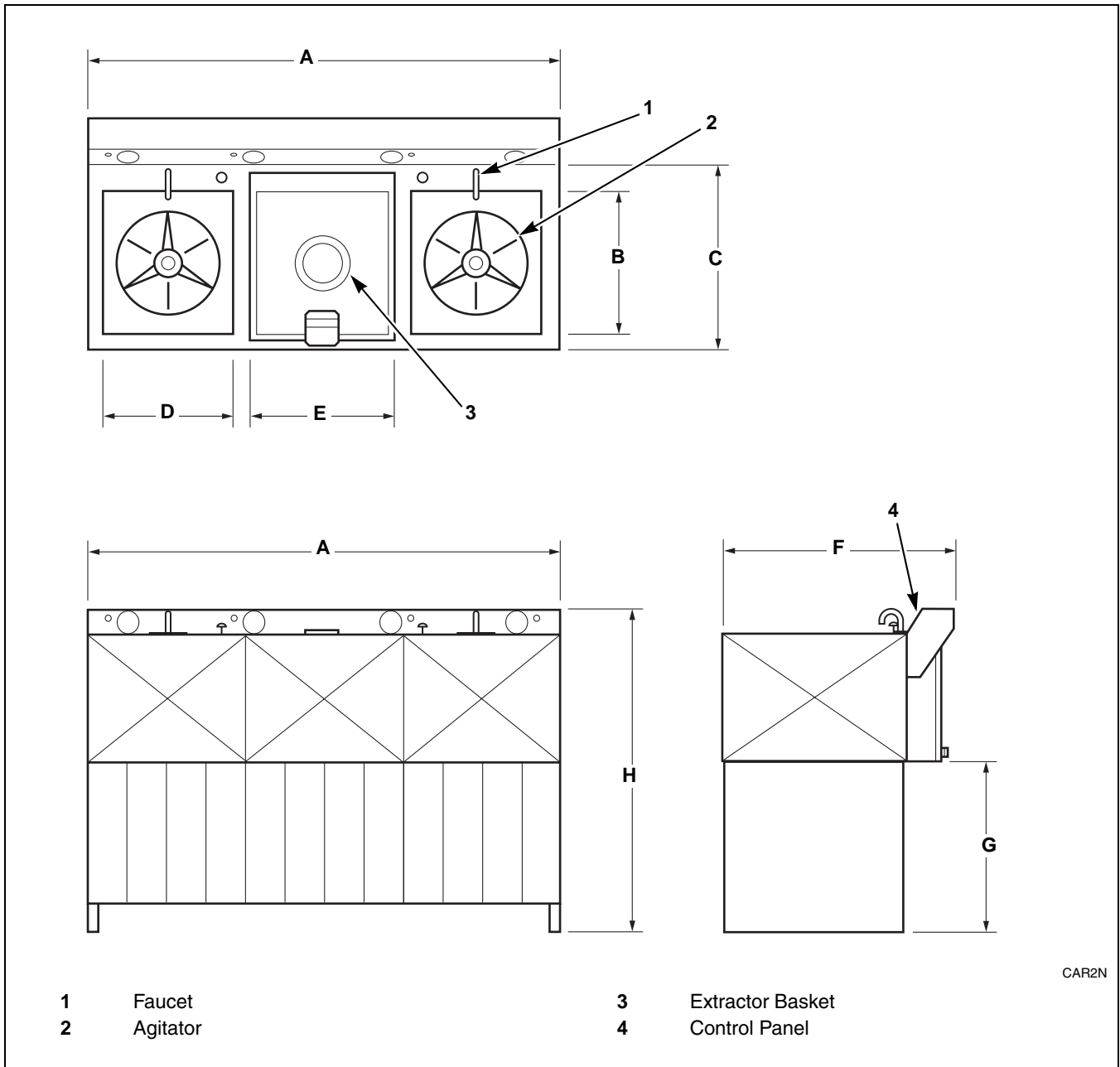


Figure 3

Specifications and Dimensions

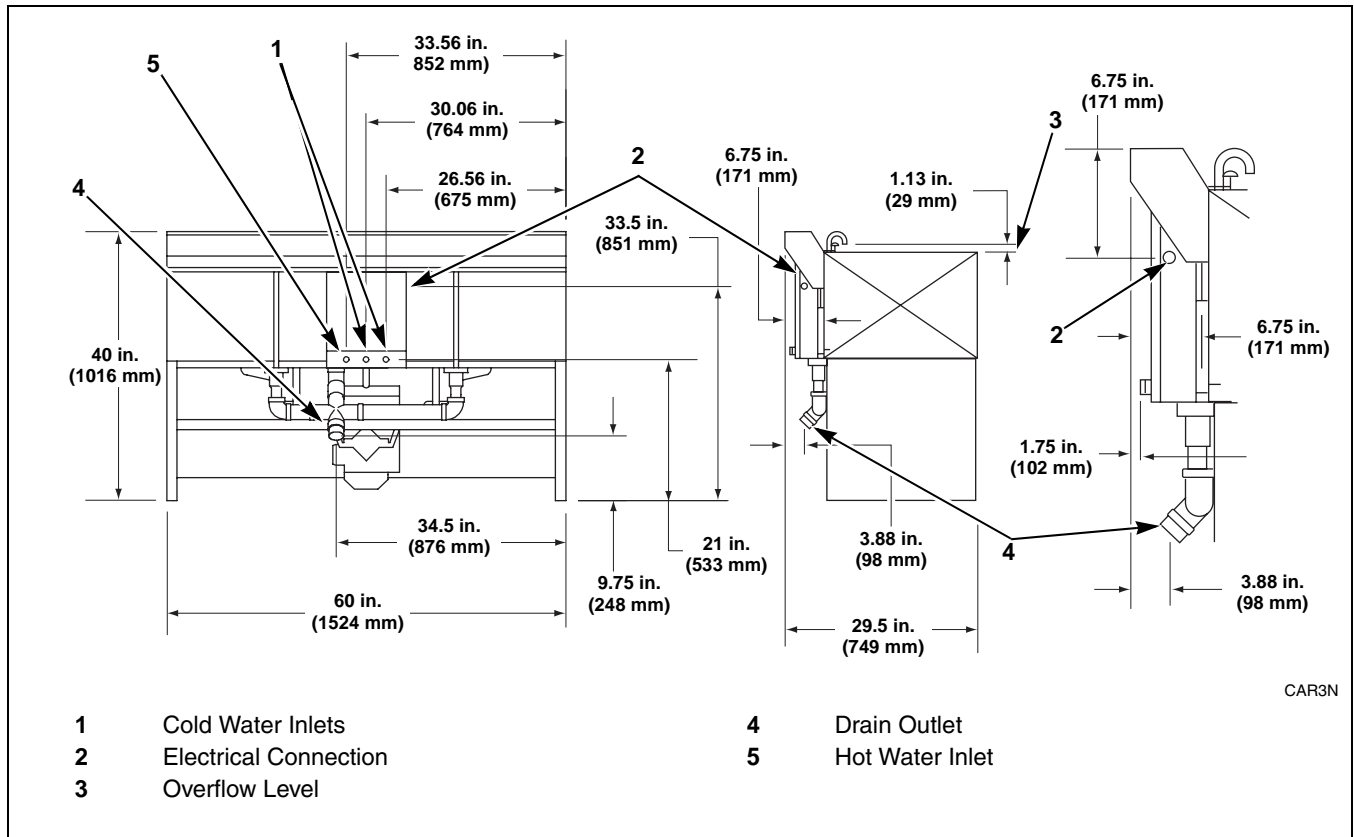


Figure 4

Installation

Dimensional Clearances

Refer to *Figure 5* for recommended dimensional clearances.

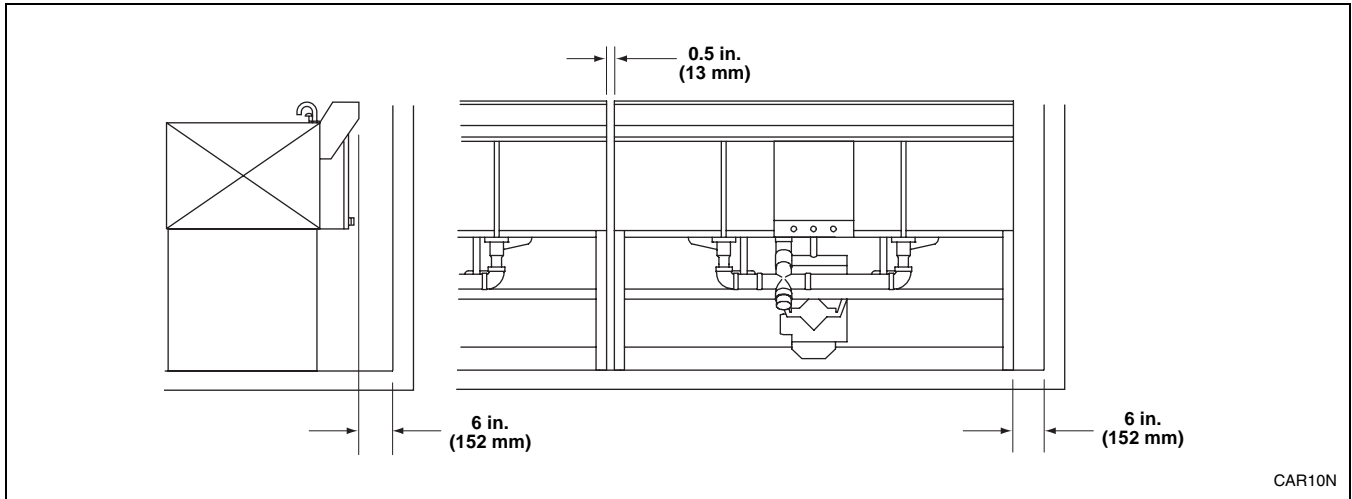


Figure 5

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.

Refer to *Table 3* for static loads on the floor.

Floor Load Data	
Specification	
Static floor load	840 lbs. (3.7 kN)
Static pressure	68 lbs-ft ² (3.3 kN-m ²)


Table 3

Machine Anchoring

Bolting to floor is optional. To bolt down the machine, use 0.375 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.	
<small>W532</small>	

NOTE: The control voltage is 220 V for all systems.

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

NOTE: Rotation of the extractor basket should be clockwise as indicated by the arrow on the lid. To change direction of extractor rotation, interchange the L1 and L2 leads.

IMPORTANT: Improper connections will result in equipment damage and will void the warranty.

Connection Specifications

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

NOTE: Machine has passed rain test and is certified for use in wet locations.

Grounding

For personal safety and proper operation, the machine must be grounded in accordance with state and local codes. If such codes are not available, grounding must conform with the National Electric Code. 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. Refer to *Table 4*. 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 L3 lead.

Electrical Specifications								
Voltage Designation					Standard			
Code	Voltage	Cycle	Phase	Wire	Full Load Amps	Breaker	AWG	mm ²
C	380-415	50	3	4	5	15	14	2.5
D	220-240	50	3	3	7	15	14	2.5
F	440-480	60	3	3	5	15	14	2.5
O	208-240	60	3	3	7	15	14	2.5

NOTE: Wire sizes shown are for copper, THHN, 90° conductor per NEC article 310.

Table 4

	WARNING
<p>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.</p>	
SW008	

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 conductors, or any low voltage condition will burn out motors and solenoid windings.

Installation

Drain Connection

Figure 6 shows plumbing for UM machines.

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, such as in below-ground-level installations.

Refer to General Specifications and Table 5 for drain information.

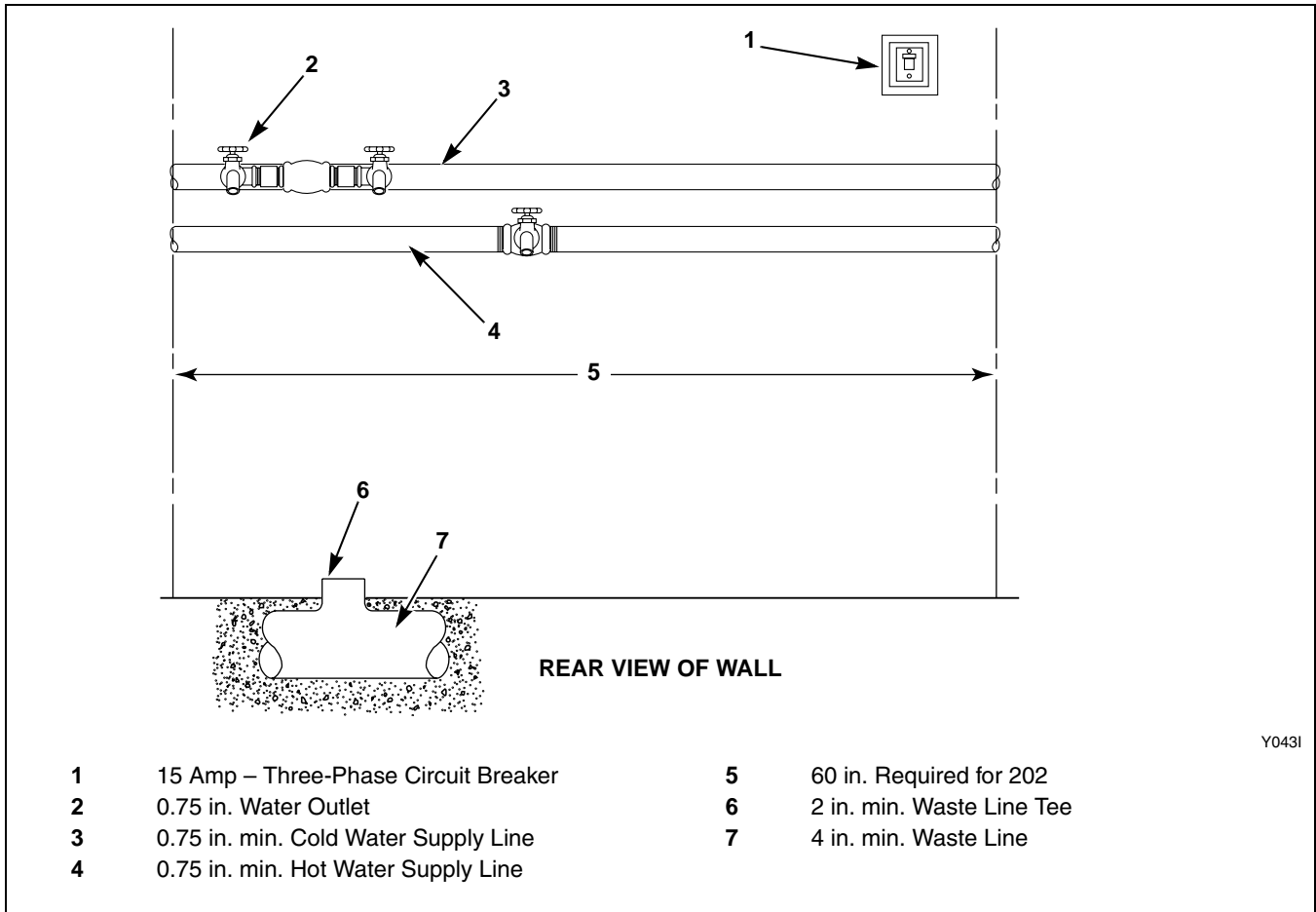


Figure 6

Drain Line Sizing Minimum Drain ID	
Number of Machines	
1	2 in. (51 mm)
2	3 in. (76 mm)
3	4 in. (102 mm)
4	4 in. (102 mm)
5	4 in. (102 mm)
6	4 in. (102 mm)
7 – 10	6 in. (152 mm)

Table 5

Water Connection

Refer to General Specifications for water supply information.

Rigid pipe connections are not recommended.

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. Installation of additional machines will require proportionately larger water lines. Refer to *Table 6*.

Water Supply Line Sizing	
Number of Machines	Supply Line Size
1	0.75 in. (19 mm)
2	1 in. (25 mm)
3	1.25 in. (32 mm)
4	1.5 in. (38 mm)
5	1.5 in. (38 mm)
6 – 10	2 in. (50 mm)

Table 6

	WARNING
<p>To avoid personal injury, recommended inlet water temperature should be no higher than 125° Fahrenheit (51° Celsius).</p>	
<small>W709</small>	

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.

Each hose is connected to a hot or cold water faucet with a 0.75 inch hose bib.

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

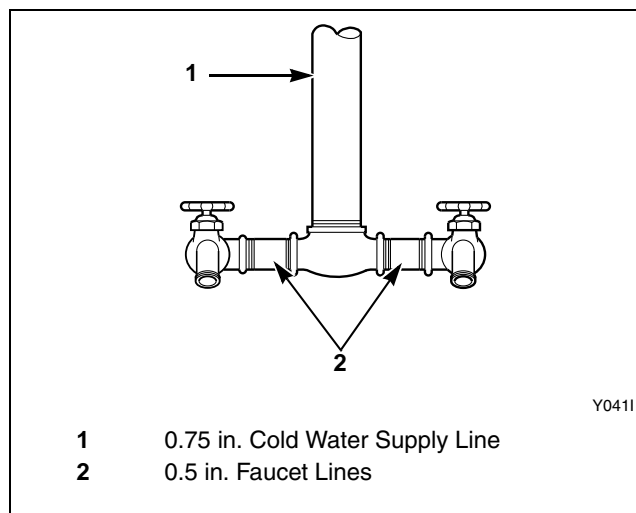


Figure 7

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” (*Figure 8*).

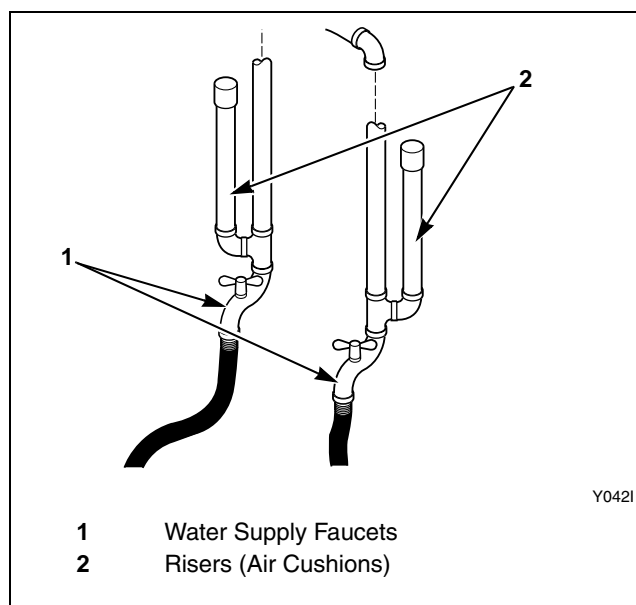


Figure 8

Installation

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 counterclockwise to the two minute mark, remain for three seconds, and return dial to “off” position.

NOTE: Step 4a must be performed every time power is disconnected from machine to reset rotation detector.

- b. 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 with the lid open.
- d. Close the lid without locking it and attempt to start the machine. The machine should not start with the lid unlocked.
- e. Close and lock the lid and start a cycle. Attempt to open the lid while the cycle is in progress. The lid should not open.

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 in the extract step, disconnect power and have a qualified electrician reverse lines L1 and L2 at power input block.

Operation

Control Panel

Figure 9 shows the control panel for both standard and car wash top-loading machines.

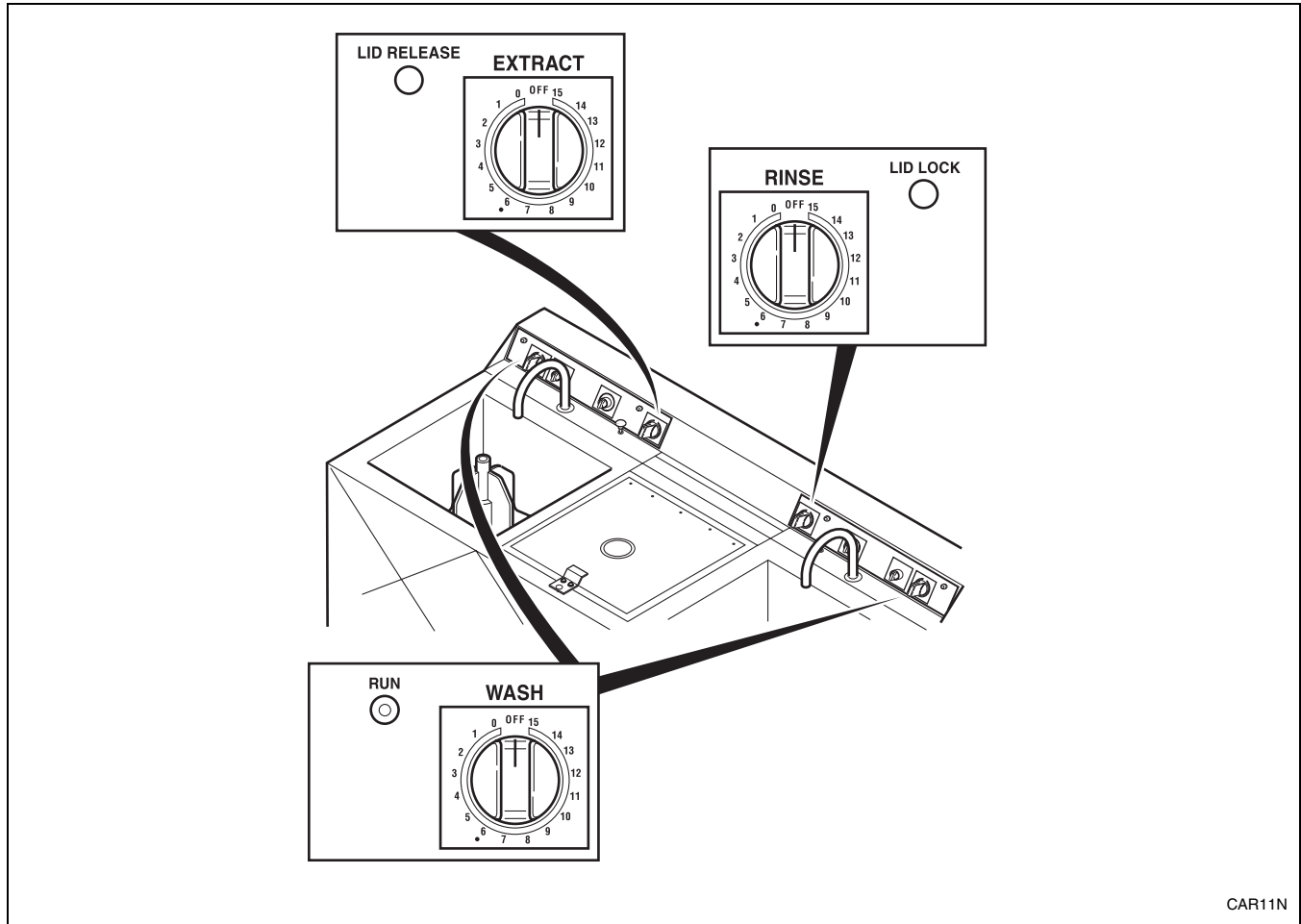


Figure 9

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 on the extract-rinse compartment.

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

Operation

Operating Instructions

1. Turn on the main power source (circuit breaker).
2. Close drain of wash compartment to be used.
Refer to *Figure 10*.

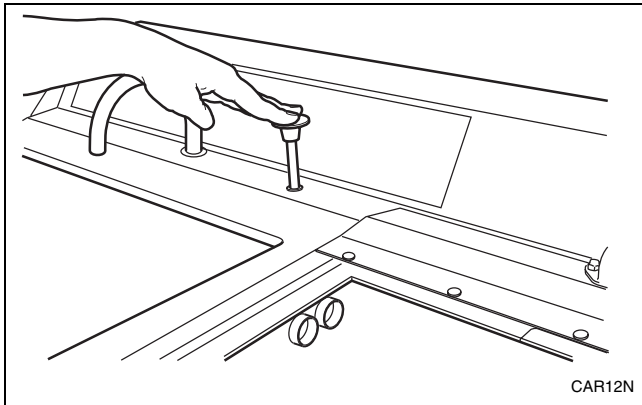


Figure 10

3. Select desired temperature and water level.

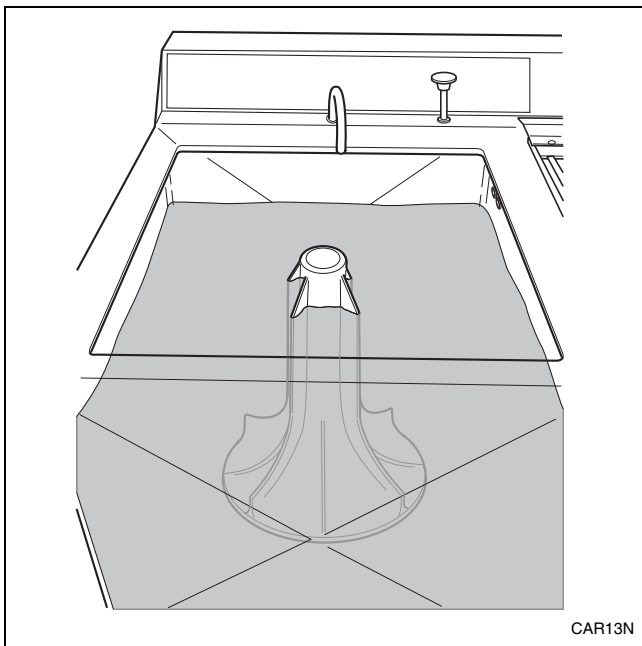


Figure 11

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 12*.

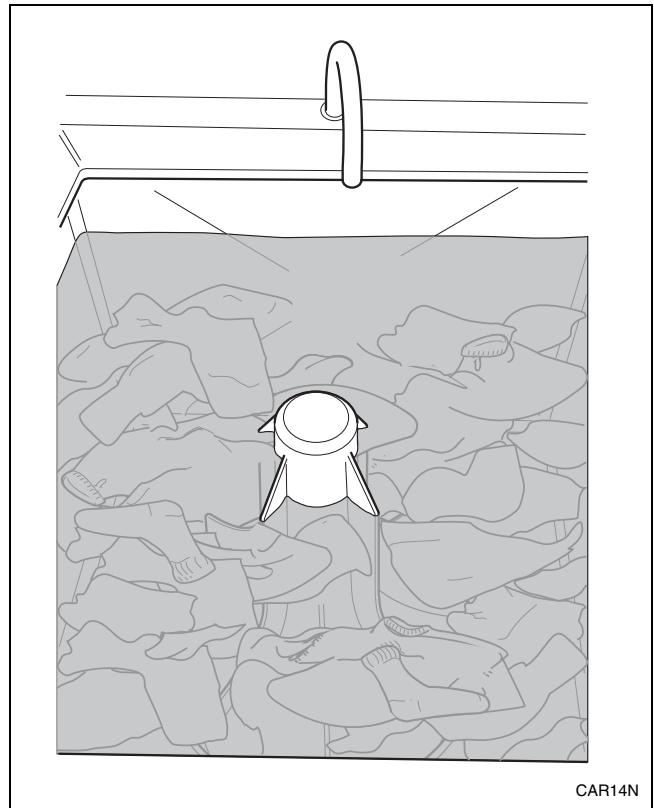


Figure 12

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

- Set wash timer to desired time. Agitation will begin when selected water level is reached.

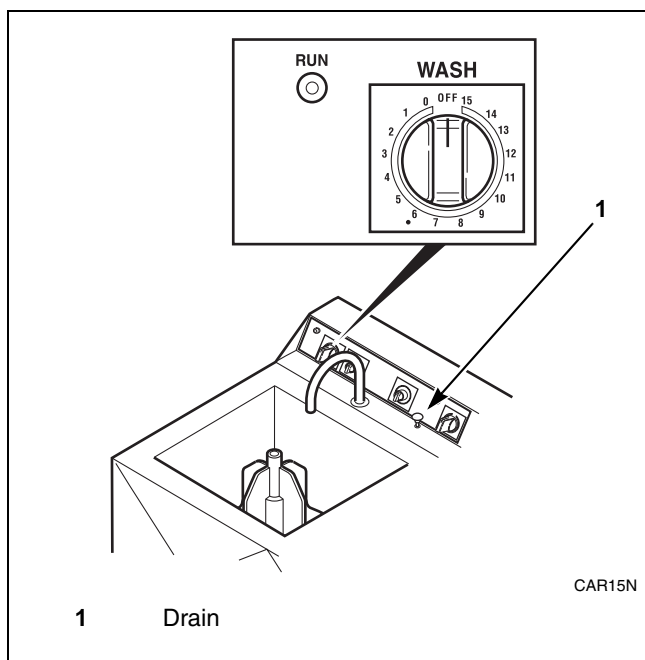


Figure 13

- When cycle is finished, place washables in extract-rinse compartment. Distribute evenly around agitator. Refer to *Figure 14*.

NOTE: Place loosely woven washables first, then sheets, pillow slips and other closely woven articles.

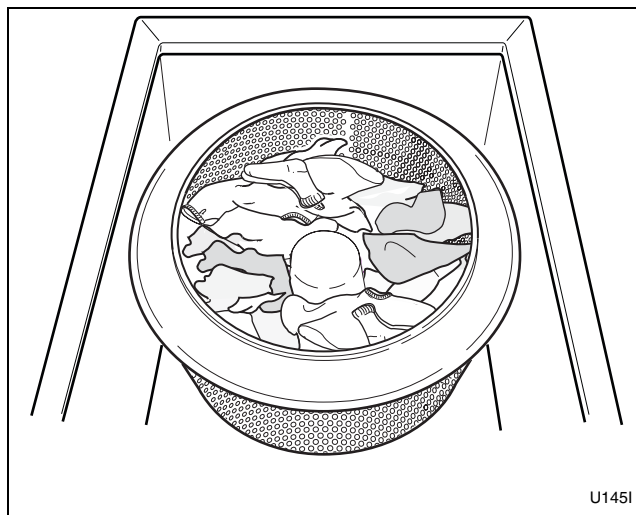


Figure 14

- Close lid, making sure lid is locked.

Recommended Cycle Times			
	Wash	Extract	Rinse
Fluff-Dry Washables			
Bath mats, towels, face cloths, spreads, mop heads, rugs, athletic and camp washables	6 min.	5 min.	3 min.
No-Iron Washables			
Sheets	4 min.	4 min.	2 min.
Pillow slips	8 min.	4 min.	2 min.
Tablecloths/napkins	8 min.	4 min.	2 min.
Specialties			
Blankets	5 min.	4 min.	3 min.
Drapes	5 min.	5 min.	3 min.
Uniforms	8 min.	4 min.	2 min.
NOTE: Each compartment has a 12 pound dry weight capacity.			

Table 7

Operation

10. Set extract timer and rinse timer to desired cycle times. Refer to *Figure 15*. Refer to *Table 7* for recommended rinse and extract times.

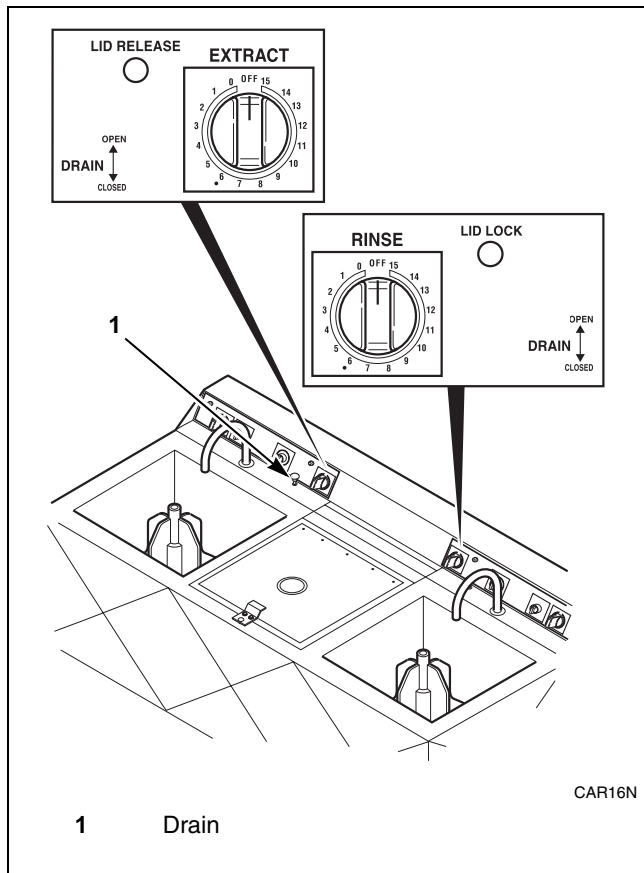



Figure 15

11. When cycle is complete, wait until basket stops, then press LID RELEASE button to open lid. Refer to *Figure 15*.
12. Remove washables.

Maintenance

	WARNING
<p>Sharp edges can cause personal injury. Wear safety glasses and gloves, use proper tools and provide lighting when handling sheet metal parts.</p>	
<small>W366R1</small>	

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. Any missing or illegible safety instructions stickers should be replaced immediately.

1. Clean main body, front and side panels with mild detergent. Rinse with clean water.
2. Clean lid of all foreign matter.
3. Leave lid open to air out the machine at end of the cycle and at end of day.


Weekly

1. Check drain for leaks and proper opening.
2. Check all water connections and hose connections for leaks. Tighten or replace as needed.

Monthly

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

1. Clean lint from motors.
2. Remove and clean water inlet valve and hose screen filters. Replace if worn or damaged.
3. Wipe clean inside of washer and check that all electrical components are free of moisture and dust.
4. 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.
5. Check extract motor vibration pads. Pads must be replaced if pads are worn and metal is showing.
6. Tighten transmission and extract motor mounting nuts, if necessary.
7. To clean inlet hose filter screens:
 - a. Turn water off and allow valve to cool, if necessary.
 - b. Remove hose and screen.
 - c. Clean screens with soapy water. Replace worn or damaged screens.
 - d. Reinstall screens.

	CAUTION
<p>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.</p>	
<small>W357</small>	

Maintenance

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.
- Do not leave sanitizers or sterilizing solutions on stainless steel equipment for prolonged periods of time.
- If the stainless steel appears to be rusting, the source of the rust may actually be a foreign piece of iron or steel part not made of stainless steel, such as a nail or screw contacting the stainless steel surface. Tip: Paint all carbon steel parts with a heavy protective coating. Stainless steel fasteners should be used whenever possible.