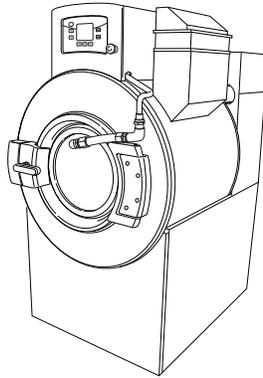


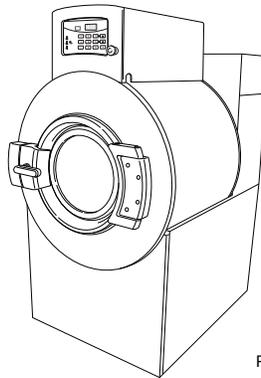
Washer-Extractors

Pocket Hardmount
UniLinc and M30 Control
Refer to Page 6 for Model Numbers



PHM847N

**UniLinc
45 AND 65 MODELS**



PHM848N

**M30
45 AND 65 MODELS**

Installation/Operation/Maintenance

Keep These Instructions for Future Reference.

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



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Safety Information

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
DANGER indicates the presence of a hazard that will cause severe personal injury, death, or substantial property damage if the danger is ignored.	

	WARNING
WARNING indicates the presence of a hazard that can cause severe personal injury, death, or substantial property damage if the warning is ignored.	

	CAUTION
CAUTION indicates the presence of a hazard that will or can cause minor personal injury or property damage if the caution is ignored.	

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:	
W023	

1. Read all instructions before using the washer.
2. Install the washer according to the INSTALLATION instructions. Refer to the GROUNDING instructions in the INSTALLATION manual for the proper grounding of the washer. All connections for water, drain, electrical power and grounding must comply with local codes and be made by licensed personnel when required. It is recommended that the machine be installed by qualified technicians.
3. Do not install or store the washer where it will be exposed to water and/or weather.
4. 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.
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. 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.

Safety Information

7. 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.
8. 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.
9. 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.
10. 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.
11. 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).
12. Do not use fabric softeners or products to eliminate static unless recommended by the manufacturer of the fabric softener or product.
13. Always follow the fabric care instructions supplied by the textile manufacturer.
14. Loading door MUST BE CLOSED any time the washer is to fill, tumble or spin. DO NOT bypass the loading door switch by permitting the washer to operate with the loading door open. Do not attempt to open the door until the washer has drained and all moving parts have stopped.
15. Be aware that hot water is used to flush the supply dispenser. Avoid opening the dispenser lid while the machine is running.
16. Do not attach anything to the supply dispenser's nozzles, if applicable. The air gap must be maintained.
17. Do not operate the machine without the water reuse plug or water reuse system in place, if applicable.
18. 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.
19. 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.
20. DANGER: Before inspecting or servicing machine, power supply must be turned OFF. The servicer needs to wait for at least 3 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.
21. 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.
22. Disconnect the power cord by grasping the plug, not the cord. Replace worn power cords and/or loose plugs. If the supply cord is damaged, it must be replaced by a special cord or assembly available from the service agent.
23. Before the washer is removed from service or discarded, remove the door to the washing compartment.
24. 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.

	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>	
SW004	

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

	WARNING
<p>Never touch internal or external steam pipes, connections, or components. These surfaces can be extremely hot and will cause severe burns. The steam must be turned off and the pipe, connections, and components allowed to cool before the pipe can be touched.</p>	
SW014	

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.

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>	
SW012	

The following maintenance checks must be performed daily:

1. Verify that all warning signs are present and legible, replace as necessary.
2. Check door interlock before starting operation of the machine:
 - a. Attempt to start the machine with the door open. The machine should not start.
 - b. Close the door without locking it and attempt to start the machine. The machine should not start.
 - c. Attempt to open the door while a cycle is in progress. The door should not open.

If the door lock and interlock are not functioning properly disconnect power and call a service technician.
3. Do not attempt to operate the machine if any of the following conditions are present:
 - a. The door 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.

	WARNING
<p>Operating the machine with severe out-of-balance loads could result in personal injury and serious equipment damage.</p>	
W728	

Introduction

Model Identification

Information in this manual is applicable to these models:

UWL045K1L	UWN045K2M	UWU045K2L
UWL045K1M	UWN045T3V	UWU045K2M
UWL045K2L	UWN045T4V	UWU045T3V
UWL045K2M	UWN065K1L	UWU045T4V
UWL045T3V	UWN065K1M	UWU065K1L
UWL045T4V	UWN065K2L	UWU065K1M
UWL065K1L	UWN065K2M	UWU065K2L
UWL065K1M	UWN065T3L	UWU065K2M
UWL065K2L	UWN065T3M	UWU065T3L
UWL065K2M	UWN065T3V	UWU065T3M
UWL065T3V	UWN065T4L	UWU065T3V
UWL065T4V	UWN065T4M	UWU065T4L
UWN045K1L	UWN065T4V	UWU065T4M
UWN045K1M	UWU045K1L	UWU065T4V
UWN045K2L	UWU045K1M	

Delivery Inspection

Upon delivery, visually inspect crate, protective cover, and unit for any visible shipping damage. If the crate, protective cover, or unit is damaged or signs of possible damage are evident, have the carrier note the condition on the shipping papers before the shipping receipt is signed, or advise the carrier of the condition as soon as it is discovered.

Nameplate Location

The nameplate is located on the back of the machine. Always provide the machine's serial number and model number when ordering parts or when seeking technical assistance.

Nameplate Information - UniLinc Models

On UniLinc models, nameplate information is also programmed into the control. To access machine ID through the control:

1. Press and hold , then , then  keypads at the same time.
2. Press the  keypad until Diagnostic is highlighted.
3. Press the  keypad.
4. Press the  keypad until machine ID is highlighted.
5. Press the  keypad.

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 +1 (920) 748-3950 for the name 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, Wisconsin 54971-0990
 U.S.A.
www.alliancelaundry.com
 Phone: +1 (920) 748-3121
 +32 56 41 20 54
 Wevelgem, Belgium

Specifications and Dimensions

Specifications	45	65
Weight And Shipping Information		
Net weight, lb. (kg)	1020 (463)	1060 (481)
Standard shipping weight, lb. (kg)	1065 (483)	1105 (501)
Standard shipping volume, ft ³ (m ³)	61.5 (2)	83.3 (2)
Standard shipping dimensions, WxDxH, in. (mm)	37.2 x 53.8 x 65 (945 x 1370 x 1650)	37.2 x 53.8 x 65 (945 x 1370 x 1650)
Slat Crate shipping weight, lb. (kg)	1190 (340)	1230 (558)
Slat Crate shipping volume, ft ³ (m ³)	97.0 (3)	97.0 (3)
Slat Crate shipping dimensions, WxDxH, in. (mm)	41.7 x 56.8 x 70.8 (1060 x 1440 x 1800)	41.7 x 56.88 x 70.8 (1060 x 1440 x 1800)
Wash Cylinder Information		
Cylinder diameter, in. (mm)	31 (787)	31 (787)
Cylinder depth, in. (mm)	16.5 (419)	22 (559)
Cylinder volume, ft ³ (l)	7.35 (208)	9.75 (276)
Perforation size, in. (mm)	0.1875 (4.8)	0.1875 (4.8)
Perforation open area, %	21.3	21.3
Door Opening Information		
Door opening size, in. (mm)	17.8 (452)	17.8 (452)
Height of door bottom above floor, in. (mm)	28.09 (713)	28.09 (713)
Drive Train Information		
Number of motors in. drive train	1	1
Drive motor power, hp (kW)	5.0 (3.7) (Variable-speed models)	5.0 (3.7) (Variable-speed models)

Specifications		45	65
Cylinder Speeds / Centrifugal Force Data			
1/2 Wash/reverse, rpm (g)		30 (0.4)	30 (0.4)
Wash/reverse, rpm (g)		42 (.78)	42 (.78)
Distribution, rpm (g)		75 (2.5)	75 (2.5)
Very Low extract, rpm (g)		248 (27)	248 (27)
Low extract, rpm (g)		477 (100)	477 (100)
Medium extract, rpm (g)		674 (200)	674 (200)
High extract, (V-speed) rpm (g)		754 (250)	754 (250)
Very High extract, (V-speed) rpm (g)		826 (300)	826 (300)
Ultra High extract, (V-speed) rpm (g)		954 (400)	954 (400)
Balance Detection			
Out-of-balance switch installed		STD	STD
Direct Steam Heating (Optional)			
Steam inlet connection size, in. (mm)		0.5 (13)	0.5 (13)
Number of steam inlets		1	1
Steam required to raise bath temperature, 10°F, lb. (10°C, kg)	LOW	2.5 (1.1)	3.3 (1.5)
	MED	2.7 (1.2)	3.7 (1.7)
	HIGH	3.1 (1.4)	4.1 (1.9)
Average consumption per cycle, BHP (kg)		1.6	2.1 (33.4)
Electrical Heating (Optional)			
Total electrical heating capacity, kW	200V	19.1	19.1
	240V	27.4	27.4
	380V	17.2	17.2
	415V	20.5	20.5
	480V	27.4	27.4
Number of electrical heating elements		6	6
Electrical heating element size, kW		4.2	4.2
Time required to raise bath temperature, 10°F, min (5°C, min)	LOW	1.7 (2.6)	2.4 (3.7)
	MED	1.9 (2.8)	2.7 (4.1)
	HIGH	2.1 (3.2)	3.0 (4.6)
Noise Emission, dB	Max Extract	80	80
	Med Extract	73	73
	Agitate	61	61

Specifications and Dimensions

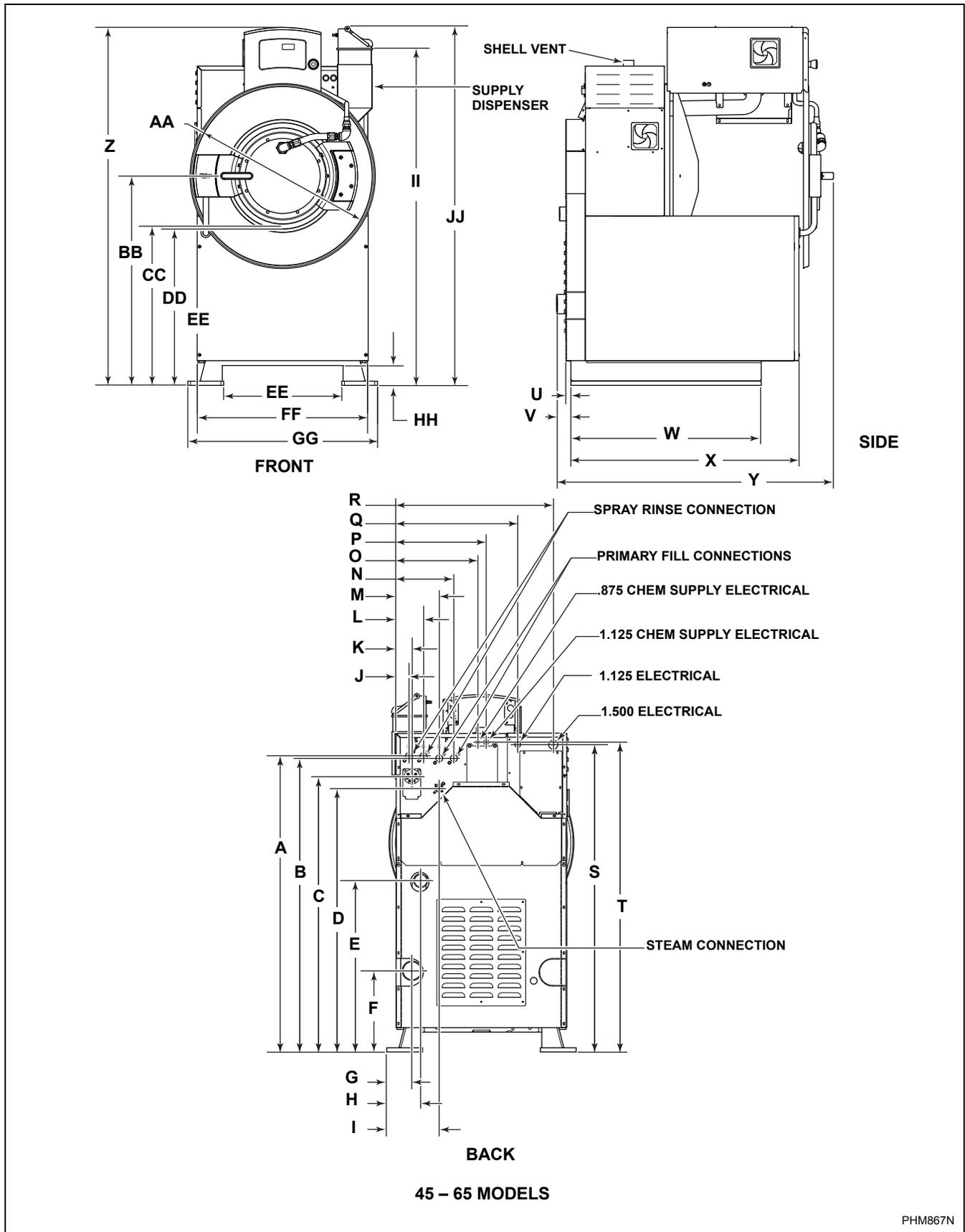


Figure 1

Machine Dimensions

Dimensional Clearances

	45	65
A	53.37 in. (1356 mm)	53.37 in. (1356 mm)
B	52.99 in. (1346 mm)	52.99 in. (1346 mm)
C	49.68 in. (1262 mm)	49.68 in. (1262 mm)
D	47.62 in. (1210 mm)	47.62 in. (1210 mm)
E	30.88 in. (784 mm)	30.88 in. (784 mm)
F	14.65 in. (372 mm)	14.65 in. (372 mm)
G	2.9 in. (74 mm)	2.9 in. (74 mm)
H	4.46 in. (113 mm)	4.46 in. (113 mm)
I	7.71 in. (196 mm)	7.71 in. (196 mm)
J	2.31 in. (59 mm)	2.31 in. (59 mm)
K	2.83 in. (72 mm)	2.83 in. (72 mm)
L	4.93 in. (125 mm)	4.93 in. (125 mm)
M	7.79 in. (198 mm)	7.79 in. (198 mm)
N	10.41 in. (264 mm)	10.41 in. (264 mm)
O	14.64 in. (372 mm)	14.64 in. (372 mm)
P	16.12 in. (409 mm)	16.12 in. (409 mm)
Q	21.93 in. (557 mm)	21.93 in. (557 mm)
R	28.81 in. (732 mm)	28.81 in. (732 mm)
S	55.43 in. (1408 mm)	55.43 in. (1408 mm)
T	55.84 in. (1418 mm)	55.84 in. (1418 mm)
U	1.01 in. (26 mm)	1.01 in. (26 mm)
V	2.49 in. (63 mm)	2.49 in. (63 mm)
W	34.24 in. (870 mm)	34.24 in. (870 mm)
X	35.63 in. (905 mm)	41.13 in. (1045 mm)
Y	44.33 in. (1126 mm)	49.83 in. (1266 mm)
Z	64.43 in. (1637 mm)	64.43 in. (1637 mm)
AA	33.69 in. (856 mm)	33.69 in. (856 mm)
BB	37.69 in. (957 mm)	37.69 in. (957 mm)
CC	28.94 in. (735 mm)	28.94 in. (735 mm)
DD	28.09 in. (713 mm)	28.09 in. (713 mm)
EE	20.88 in. (530 mm)	20.88 in. (530 mm)
FF	30.77 in. (782 mm)	30.77 in. (782 mm)

	45	65
GG	34.12 in. (867 mm)	34.12 in. (867 mm)
HH	3.57 in. (91 mm)	3.57 in. (91 mm)
II	60.94 in. (1548 mm)	60.94 in. (1548 mm)
JJ	64.63 in. (1642 mm)	64.63 in. (1642 mm)

Table 1

Mounting Bolt Hole Location

NOTE: For single machine installations or two machines installed back to back, use the outside bolt holes marked “A”. For multiple machines installed side by side with minimum clearance, use the inside bolt holes marked “B”.

Refer to *Table 2*.

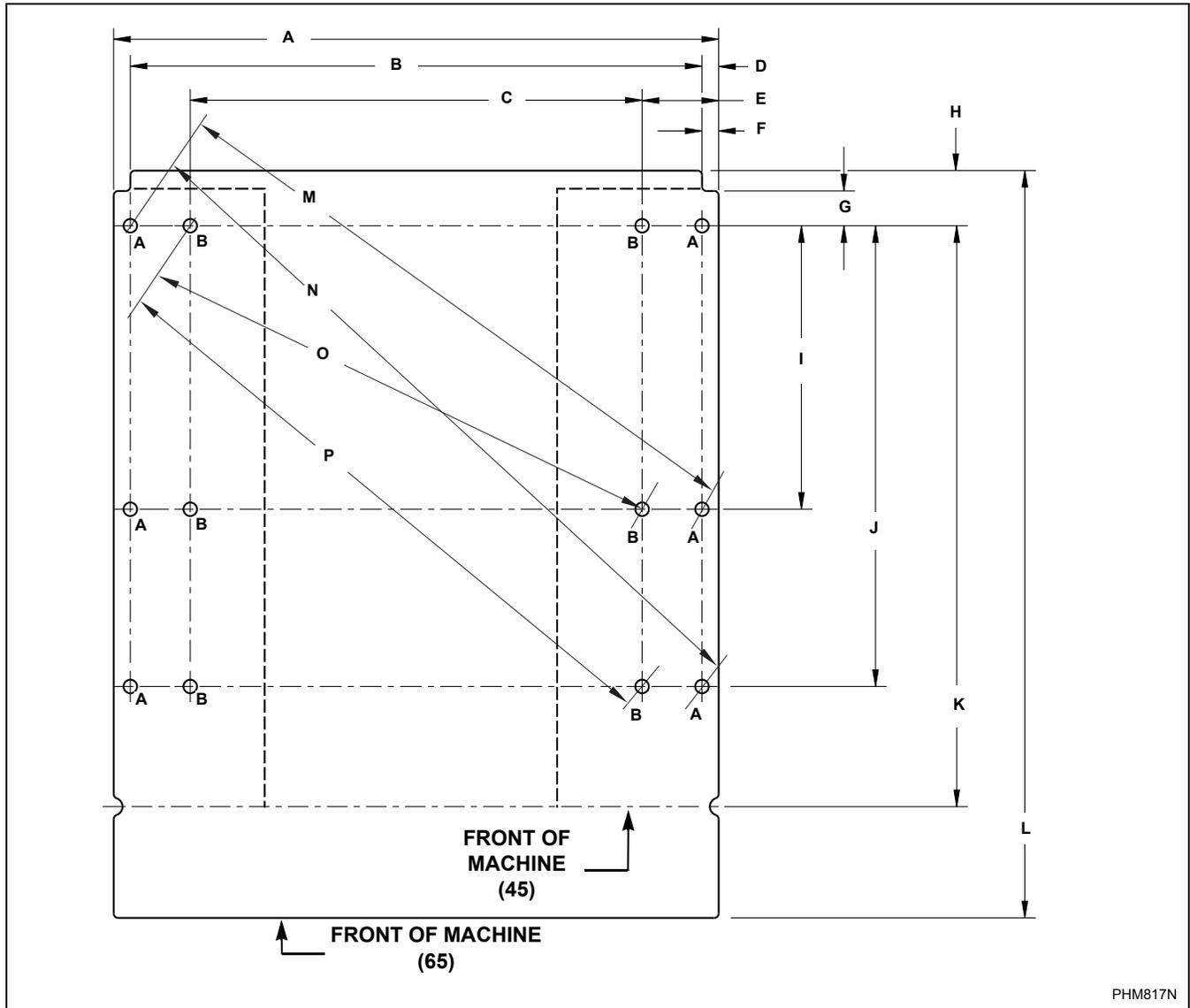


Figure 2

PHM817N

Specifications and Dimensions

		45	65
A		34.12 in. (867 mm)	34.12 in. (867 mm)
B		32.24 in. (819 mm)	32.24 in. (819 mm)
C		25.48 in. (647 mm)	25.48 in. (647 mm)
D		.94 in. (24 mm)	.94 in. (24 mm)
E		4.32 in. (110 mm)	4.32 in. (110 mm)
F		.94 in. (24 mm)	.94 in. (24 mm)
G		1.96 in. (50 mm)	1.96 in. (50 mm)
H		3.11 in. (79 mm)	3.11 in. (79 mm)
I		16 in. (406 mm)	16 in. (406 mm)
J		26 in. (660 mm)	26 in. (660 mm)
K		32.28 in. (820 mm)	Not Applicable
L		Not Applicable	42.17 in. (1071 mm)
M	Outside	35.99 in. (914 mm)	35.99 in. (914 mm)
N		41.41 in. (1051 mm)	41.41 in. (1051 mm)
O	Inside	30.08 in. (764 mm)	30.08 in. (764 mm)
P		36.4 in. (924 mm)	36.4 in. (924 mm)

Table 2

Specifications and Dimensions

Floor Layout

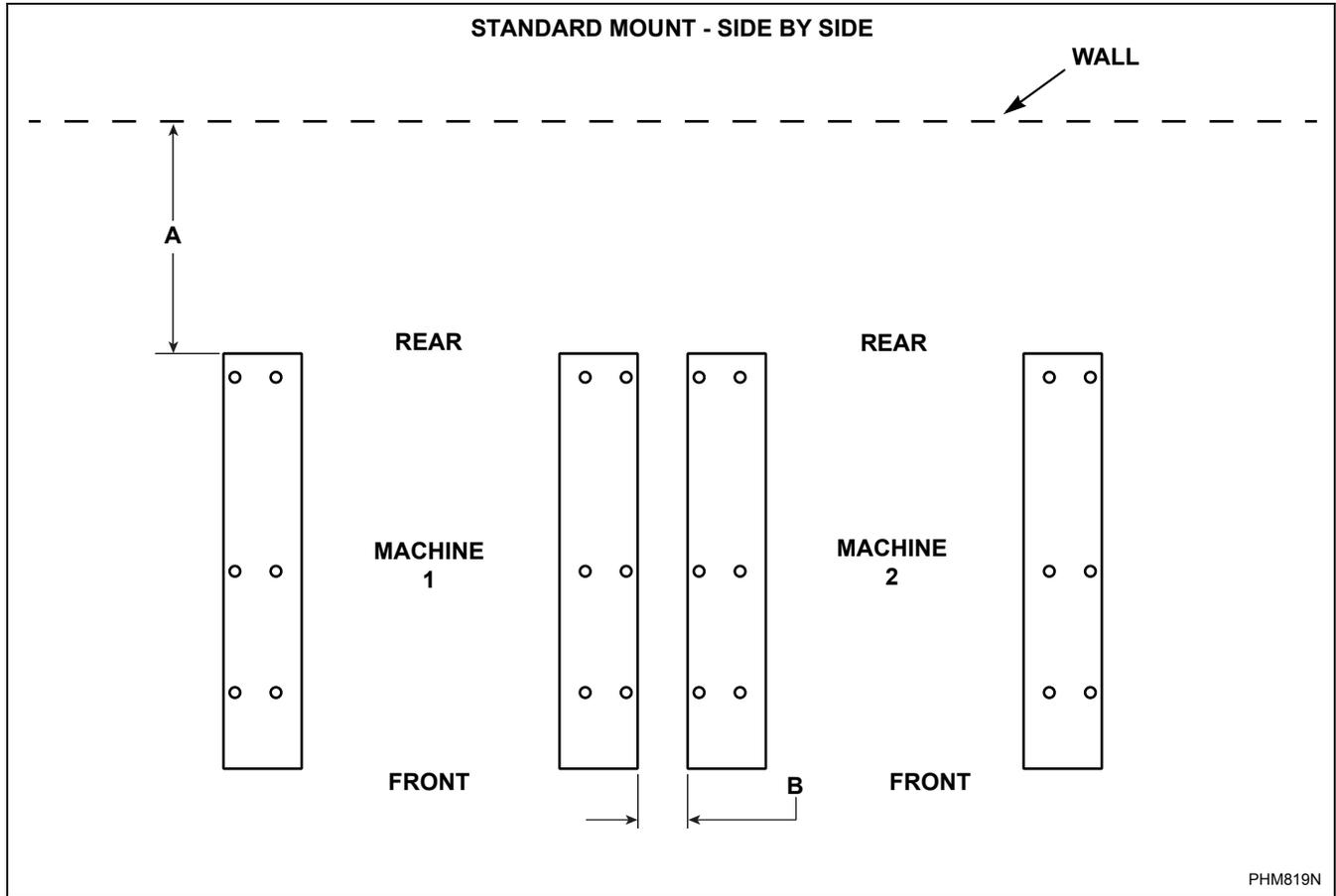
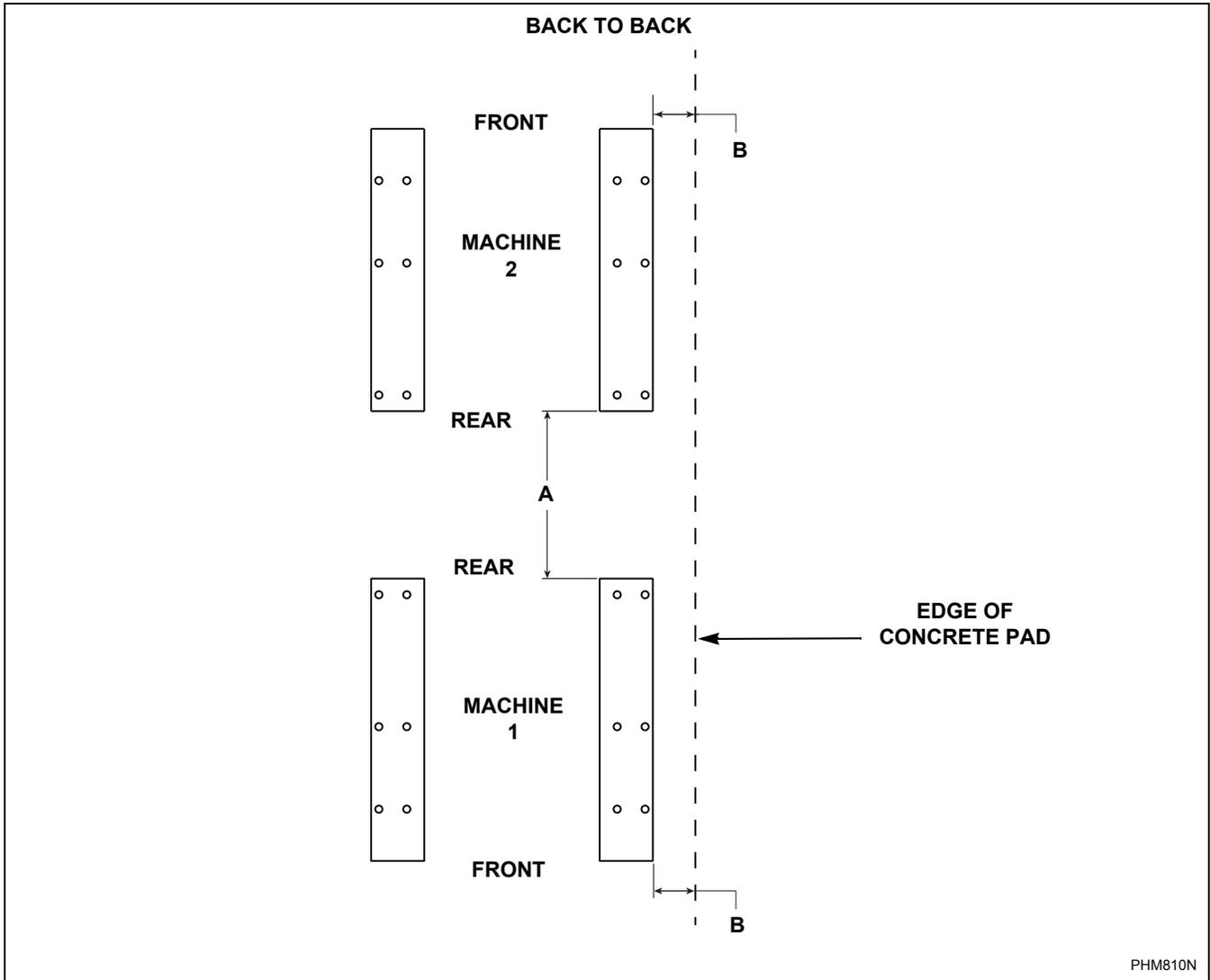


Figure 3

Floor Layout Specifications		
Specifications	45	65
A (Distance to wall)	20 in. minimum (508 mm)	20 in. minimum (508 mm)
B*	6 in. minimum (153 mm)	6 in. minimum (153 mm)

* Minimum adjacent unit spacing



PHM810N

Figure 4

Floor Layout Specifications		
Specifications	45	65
A (Distance to Back edge of machine 2)	20 in. minimum (508 mm)	20 in. minimum (508 mm)
B*	12 in. minimum (305 mm)	12 in. minimum (305 mm)

* Minimum adjacent unit spacing

Single Machine Foundation Requirements

A minimum 3500 psi (refer to rating per supplier) reinforced concrete set on a prepared bed is required for all new machine installations.

NOTE: Do not mount on metal base frames, wooden floors, tile floors, elevated floor levels, or over basements or crawl spaces because of the high extract speed and the G-forces exerted.

Thoroughness of detail must be stressed with all foundation work to ensure a stable unit installation, eliminating possibilities of excessive vibration during extract.

	WARNING
To reduce the risk of fire, serious injury, property damage and/or death, install the machine on a level (within 3/8 inch), uncovered concrete floor of sufficient strength at grade.	
<small>W787</small>	

For new foundations a mounting bolt template is available at extra cost or use machine base if available.

The machine must be anchored to a smooth level surface so that the entire base of the machine is supported and rests on the mounting surface.

IMPORTANT: Do not permanently support the machine on only four points with spacers. Grouting is required and spacers must be removed.

Machine Installation on Existing Floor

The existing floor slab must be 12 in. (305 mm) thick reinforced concrete without voids under slab. If the floor meets these requirements and an elevated pad is NOT desired, refer to *Figure 5* and proceed to *Machine Mounting and Grouting* section.

Elevated Pad Installation on Existing Floor

The existing floor slab must be 12 in. (305 mm) thick reinforced concrete without voids under slab. If the slab meets these requirements and an elevated pad is desired, refer to *Figure 6* and proceed to *Machine Foundation and Pad Installation* section.

New Foundation

If the existing floor slab does not meet the single machine foundation requirements, refer to *Figure 7* and proceed to *Machine Foundation and Pad Installation* section.

Isolated Pad Installation

This type of installation is NOT recommended. Installer MUST consult a Structural Engineer for concrete specifications and requirements for installations that will not be tied into adjacent foundations.

IMPORTANT: The above instructions and recommendations are conservative specifications for a typical installation based on consultations with a structural engineer. Alliance Laundry Systems stands behind all installations meeting these specifications. For alternate installation specifications based on your soil type, location, building structure, unique floor geometry, machine types, and utilities consult a structural engineer in your local area.

Machine Foundation and Pad Installation

A concrete pad may be constructed to elevate a machine. Care must be exercised in the design of the pad due to the force exerted by the machine during extract. This concrete pad, recommended not to exceed 8 inches (203 mm) above existing floor, must be placed, reinforced with rebar and tied to the existing floor. Refer to *Table 3* and *Figure 5* through *Figure 7* for multiple machine installations.

Model		45-65
Minimum Foundation		
Thickness	L-speed models	6 in. (152 mm)
	45 pound M-speed models	6 in. (152 mm)
	65 pound M-speed models	8 in. (203 mm)
	V-speed models	12 in. (305 mm)
Minimum Excavation		
Depth	L-speed models	12 in. (305 mm)
	45 pound M-speed models	12 in. (305 mm)
	65 pound M-speed models	14 in. (356 mm)
	V-speed models	18 in. (457 mm)
Minimum Pad Size, in. (mm)		
Single machine*		60 in. x 60 in. (1524 mm x 1524 mm)
Two machines, Side-by-side		98 in. x 60 in. (2489 mm x 1524 mm)
Two machines, Back-to-back		60 in. x 106 in. (1524 mm x 2692 mm)
Three machines, Side-by-side		138 in. x 60 in. (3505 mm x 1524 mm)

Table 3

*For smaller areas for installations, a recommended minimum pad size of 50 in. (1270 mm) x 50 in. (1270 mm) with a thickness of 18 in. (457 mm) is an option.

IMPORTANT: Do NOT install a pad on top of the existing floor. The foundation and pad must be constructed and tied together as one piece.

If the existing floor is not reinforced concrete at least 12 inches (305 mm) thick, an elevated pad is desired or multiple machines are to be installed, the following steps must be performed (refer to *Figure 5* through *Figure 7*):

1. Cut a hole larger on all sides than the machine base through the existing floor, refer to *Table 3*.
2. Excavate to a depth as indicated in *Table 3* from the top of the existing floor.
3. If installing a foundation with elevated pad, prepare a form for the above-ground portion of the foundation. Verify that the top of the foundation is level. The height of the foundation pad must not exceed 8 inches (203 mm) above the existing floor.
4. Backfill with clean fill dirt.
5. Compact backfill, making sure to allow for correct concrete thickness.
6. Drill holes (refer to manufacturer's requirements for drill hole size) for the perimeter reinforcing bar at a depth of 2.5 inches (64 mm) into the existing floor. The reinforcing should be 12 inches (305 mm) on center each way around entire perimeter.
7. Clean out debris from each reinforcing bar hole.
8. Fill half the hole depth with acrylic adhesive.
9. Using #4 (60 ksi) reinforcing bar, tie new pad to existing floor making sure to tie reinforcing bars at the intersections and using proper reinforcing bar supports to hold bars at the proper depth in the pad.
10. Allow adhesive around reinforcing bar to cure properly, refer to adhesive manufacturer for recommended cure times.

Specifications and Dimensions

11. Completely fill with 3500 psi concrete up to the existing foundation level plus any added level (maximum of 8 inch [203 mm]) for the desired elevated pad. The concrete must be poured so that the entire foundation and pad cures as one piece.
12. Allow concrete to cure, refer to manufacturer's recommended cure times.
13. Using a mounting bolt template or machine base, mark where the holes should be drilled to mount the machine.

NOTE: As an alternate method, cast in the Grade 5 (minimum SAE rating), 3/4 inch (19 mm) anchor bolts as the concrete is poured, refer to *Figure 15*. Ensure that the bolt threads extend a minimum of 2.5 inches (64 mm) above floor level and a minimum of 6 inches (152 mm) of the bolt is embedded in concrete.

14. Proceed to *Machine Mounting and Grouting* section.

Machine Installation – L-speed and 45 pound M-speed Models

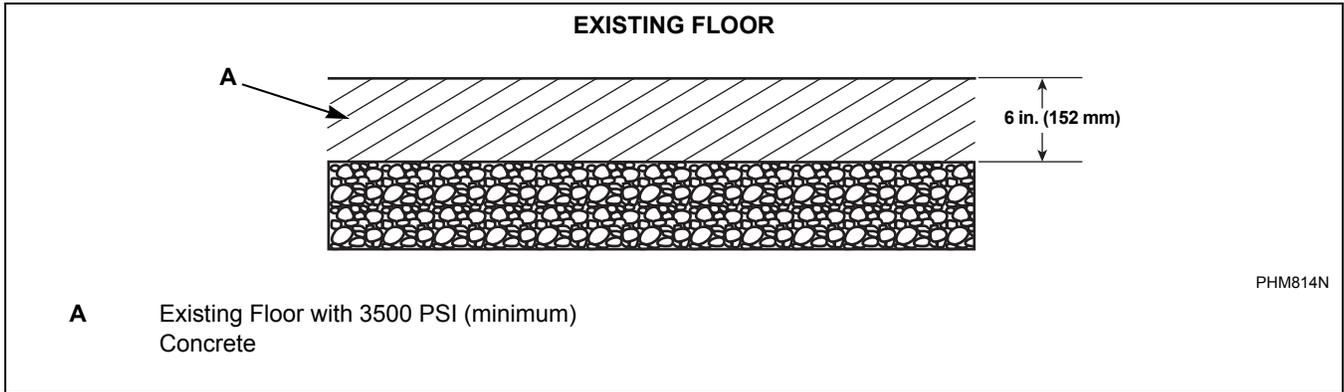


Figure 5

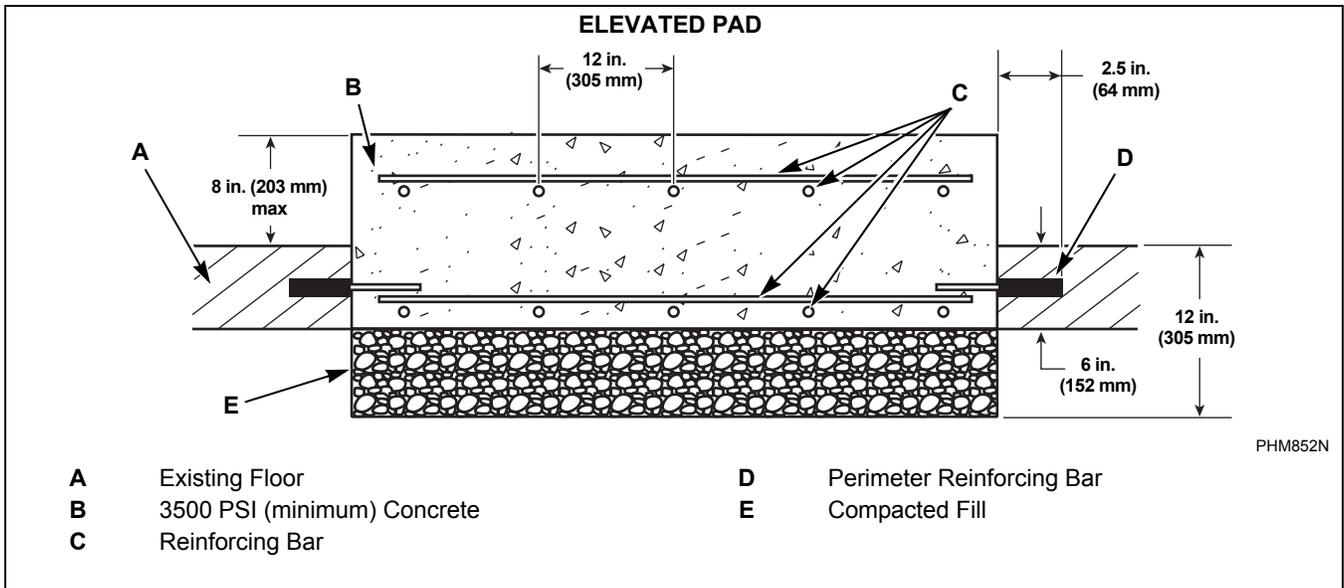


Figure 6

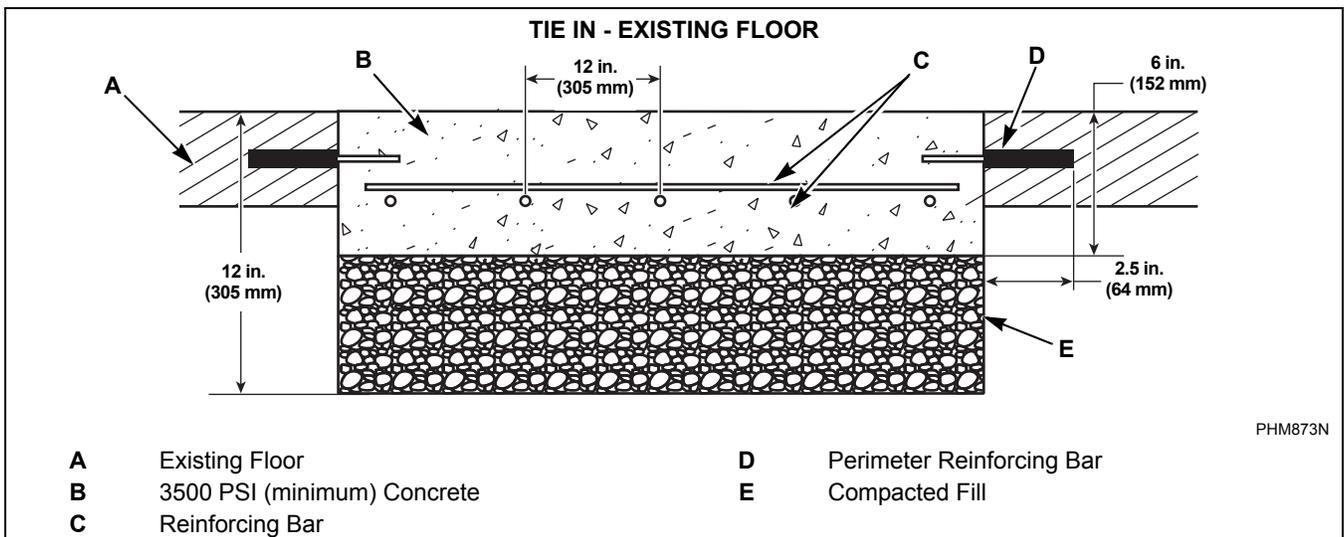


Figure 7

Machine Installation – 65 pound M-speed Models

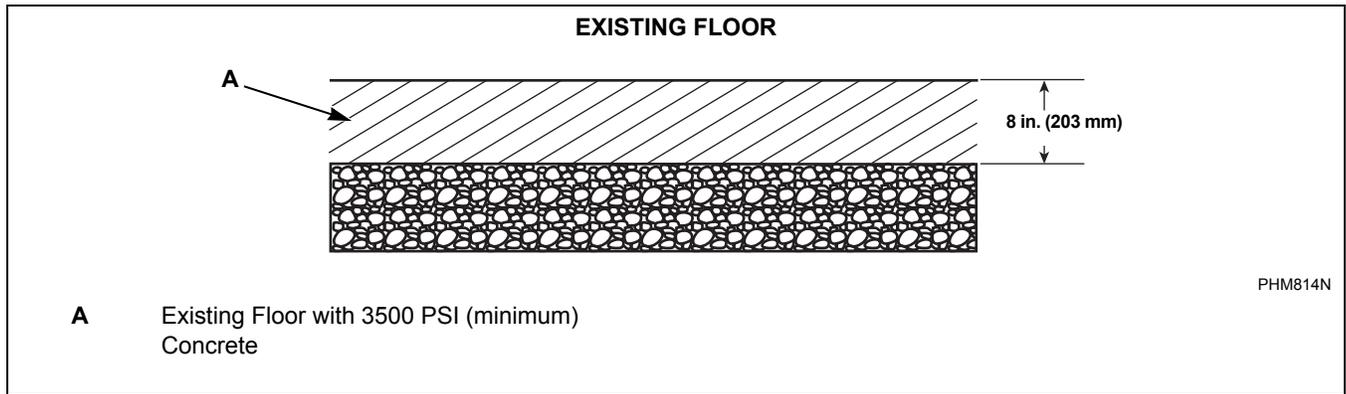


Figure 8

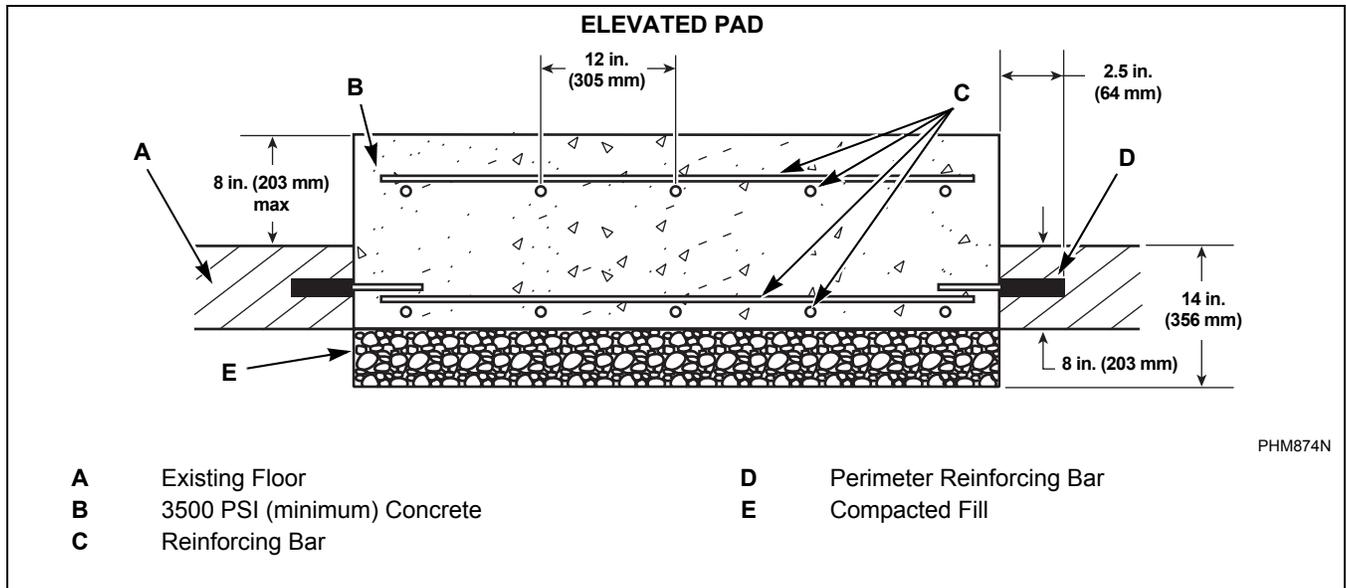


Figure 9

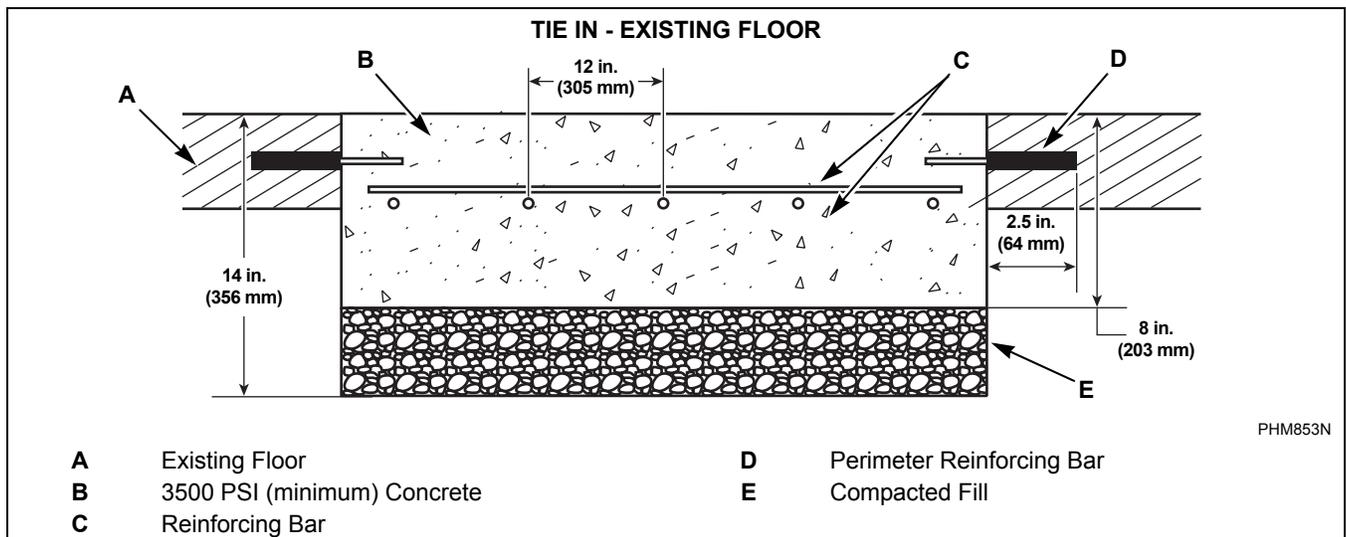


Figure 10

Machine Installation – V-speed Models

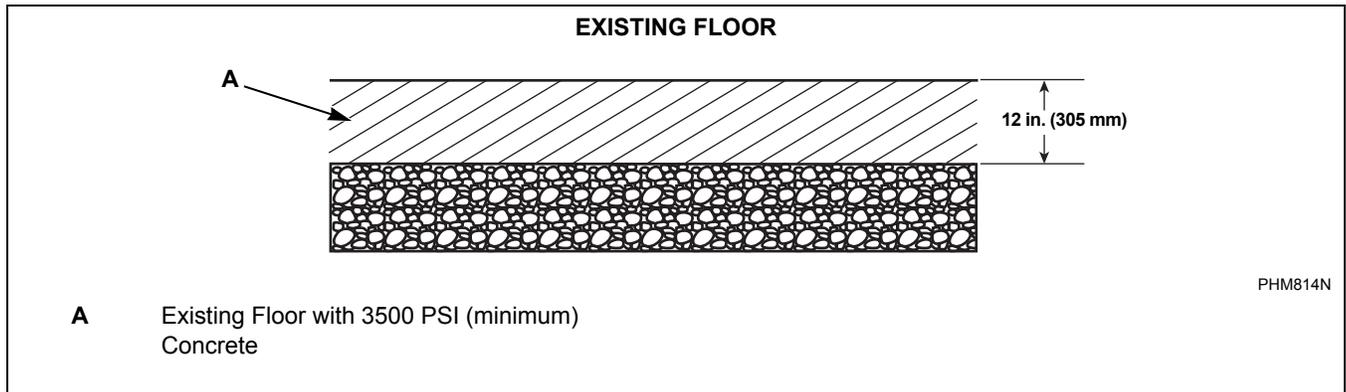


Figure 11

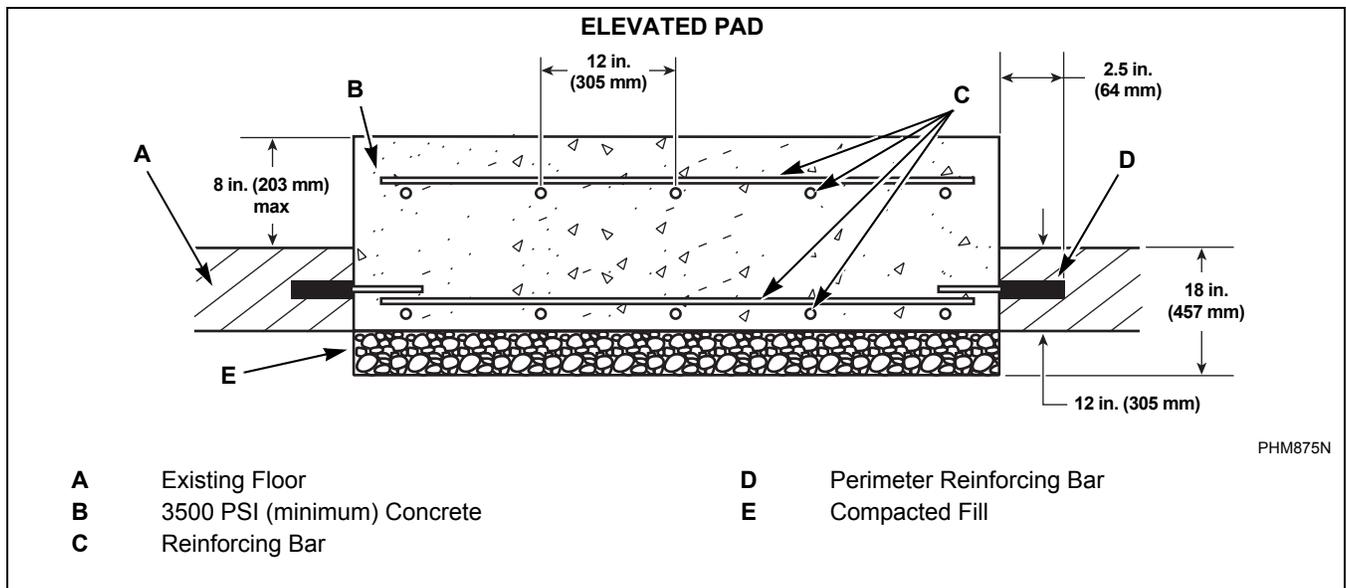


Figure 12

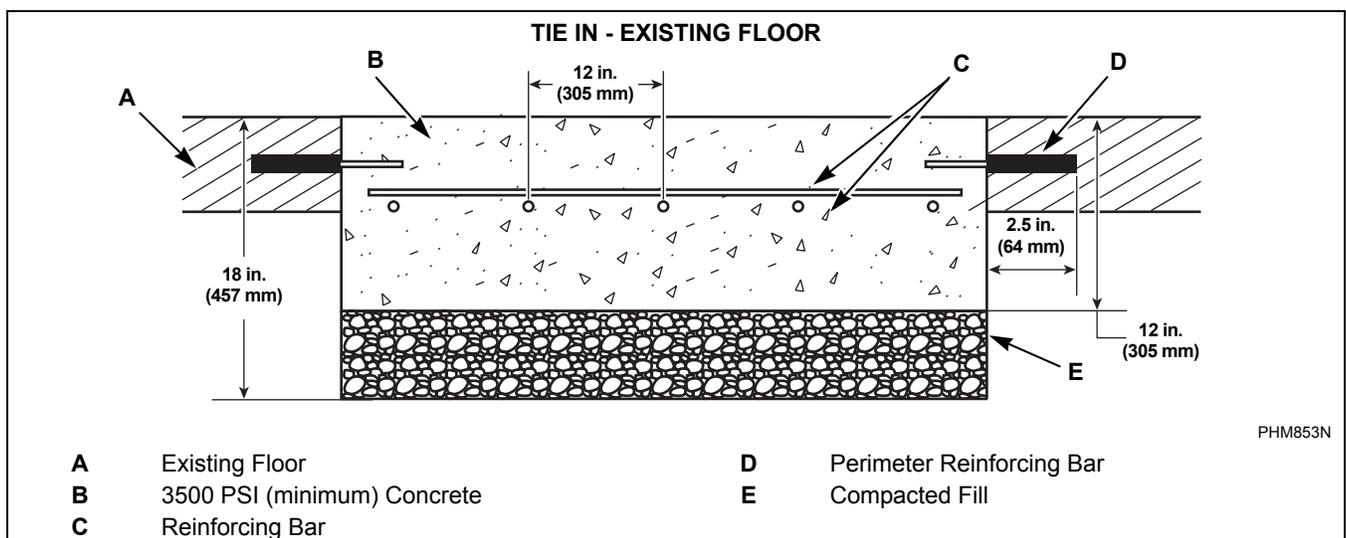


Figure 13

Specifications and Dimensions

Machine Mounting and Grouting

NOTE: After the concrete has cured completely and the cast-in-place method was used, refer to *Figure 15* and proceed to step 7. If acrylic adhesive anchors are desired, refer to *Figure 14* and proceed with step 1 after concrete has cured completely.

1. Refer to *Figure 14* to set the drill depth gauge.

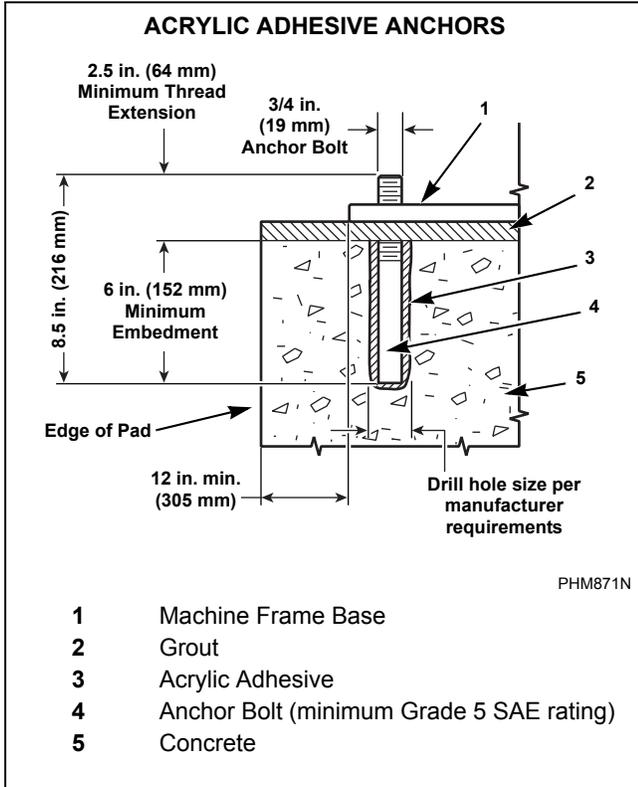


Figure 14

2. Drill the holes to the set depth.
3. Use compressed air or squeeze bulb to clean out debris from each hole.
4. Fill half the hole depth with an industry-accepted adhesive anchoring system.
5. Insert anchor bolt until it reaches the bottom and a minimum of 2.5 in. (64 mm) extends above surface and a minimum of 6 in. (152 mm) is embedded in concrete.
6. Ensure all air pockets are removed from adhesive surrounding the bolt.
7. Allow adhesive around bolt to cure completely.

IMPORTANT: Refer to bolt manufacturer's recommended adhesive cure times.

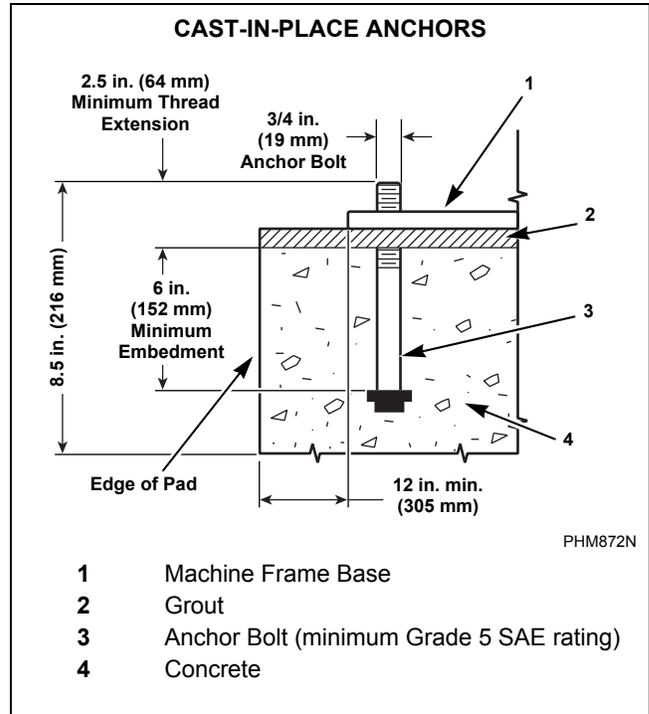


Figure 15

8. Remove shipping materials and place the machine carefully over the bolts. Never attempt to lift the machine by the door handle or by pushing on the cover panels. Always insert a pry bar or other lifting device under the bottom frame of the machine to move it.
9. Raise and level the machine 0.5 inch (1.27 cm) off the floor on four corners, using spacers such as nut fasteners.

WARNING

Crush hazard.
To avoid personal injury and/or property damage, do not tip the machine more than 25 degrees in any direction.

W793

10. Completely fill the space between the machine base and the floor with a good quality **non-shrinking machinery precision grout** to ensure a stable installation. Grout completely under frame. (If bolted with inside pattern, remove front panel and back panel to gain access to **all** frame members.) Refer to *Figure 16*. Force grout under machine base until all voids are filled.

IMPORTANT: Minimum Grade 5, SAE rating, flat washers and minimum Grade 5, SAE rating, serrated hex flange locknuts are the recommended hardware for anchoring machine to bolts.

11. Position the flat washers and locknuts on the anchor bolts and finger-tighten to machine base.
12. Allow machine grout to set, but not cure.
13. Remove the spacers carefully, allowing the machine to settle into the wet grout.
14. After the grout is completely cured, torque the locknuts to 160 ft-lbs – one after the other – until all are tightened evenly and the machine is fastened securely to the floor.

IMPORTANT: Refer to recommended grout cure times from manufacturer before torquing locknuts.

NOTE: Check and retighten the locknuts after five to ten days of operation and every month thereafter.

Specifications and Dimensions

Floor Load Data

Floor Load Data		
Specifications	45	65
Static load, lb (kN)	1240 (5.5)	1320 (5.9)
Static pressure, lb/ft ² (kN/m ²)	153 (7.3)	163 (7.8)
Maximum dynamic load, lb (kN)	2700 (12)	2700 (12)
Maximum dynamic pressure, lb/ft ² (kN/m ²)	470 (22.5)	480 (23.0)
Dynamic load frequency, Hz	L-Speed	7.95
	M-Speed	11.25
	V-Speed	15.9
¹ Maximum vertical load, lb (kN)	3810 (16.9)	3890 (17.3)
Maximum base moment, lb-ft. (kN-m)	8480 (37.7)	8480 (37.7)

¹ Acting in the downward direction against the floor.

Table 4

Drain Connection Requirements

IMPORTANT: Machine must be installed in accordance with all local codes and ordinances.

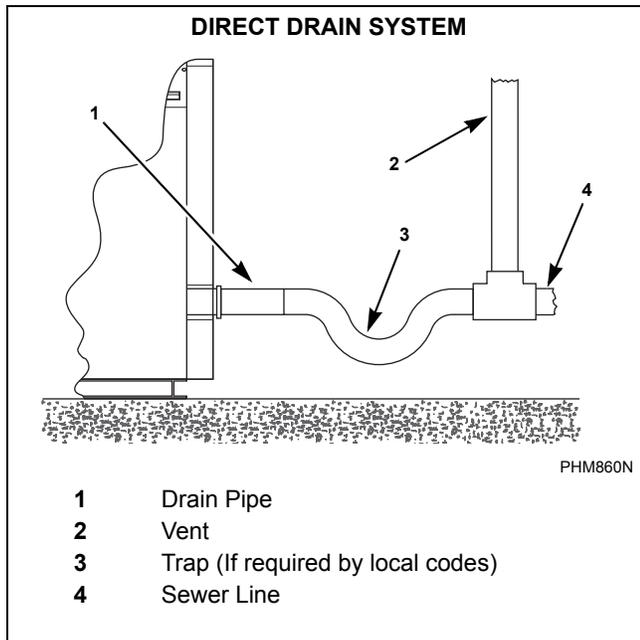


Figure 16

All drain systems must be vented to prevent an air lock and siphoning. Refer to *Figure 16*.

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.

Increasing the drain hose length, installing elbows, or causing bends will decrease drain flow rate and increase drain times, impairing machine performance.

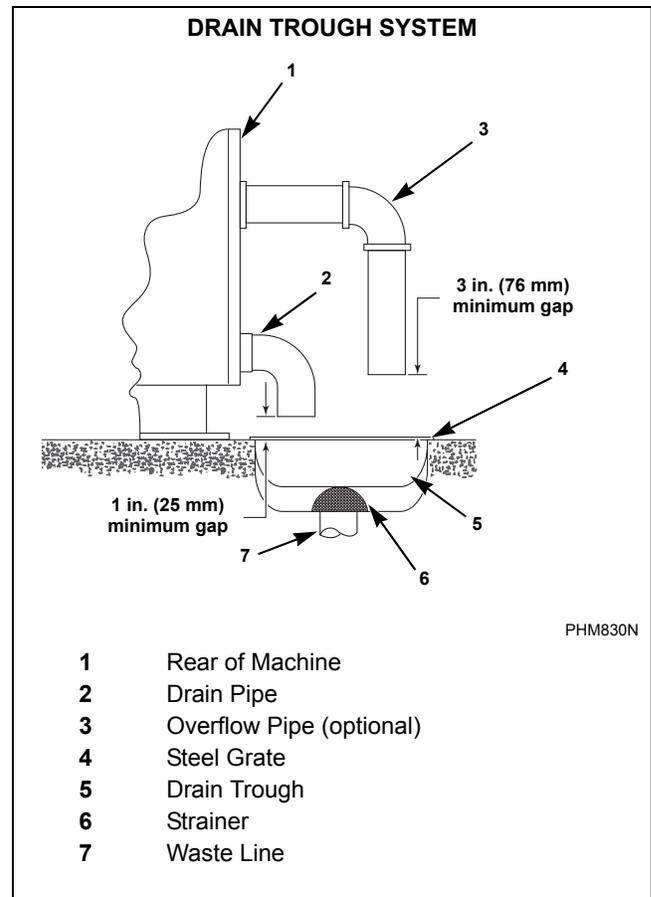


Figure 17

Refer to *Table 5* for capacity-specific drain information.

NOTE: Installation of additional machines will require proportionately larger drain connections. Refer to *Table 6*.

Specifications and Dimensions

IMPORTANT: Do not block the overflow opening.

If water or suds flow from the machine overflow vent and the machine has been verified to be operating properly with proper water levels and correct amount of laundry chemicals, a drain line may be added to the machine overflow vent and routed to a drain trough.

1. Route the drain pipe from the machine overflow vent to a drain trough. As an option, the drain pipe can instead be routed straight across or down and be suspended above drain trough by at least 3 inches (76 mm).
2. Secure the drain pipe with the hose clamp.

IMPORTANT: Do not route the machine overflow vent to a direct drain system.

Drain Information	
Specifications	45 - 65
Drain connection size, O.D., in. (mm) with second drain:	3 (76)
Number of drain outlets	1
Drain flow capacity, gal/min. (l/min.)	55 (208)
Recommended drain pit size, ft ³ (l) †	6 (170)

†Sized for one machine using overflow level.

Table 5

Drain Line Sizing Minimum Drain I.D., in. (mm)				
Model	Number of Machines			
	1	2	3	4
45 - 65	3 (76)	4 (102)	6 (152)	6 (152)

Table 6

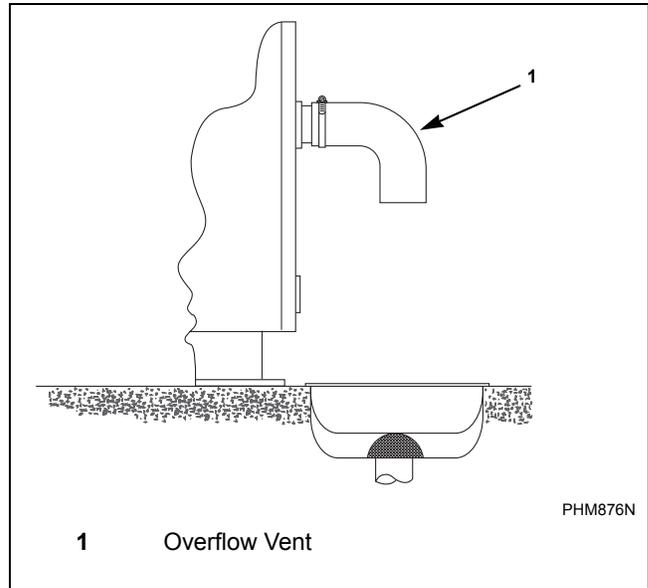


Figure 18

Water Connection

	WARNING
<p>To prevent personal injury, avoid contact with inlet water temperatures higher than 125° Fahrenheit (51° Celsius) and hot surfaces.</p>	
W748	

Maximum water inlet temperature is 190° Fahrenheit (88° Celsius).

Water Supply Information		
Specifications		45 - 65
Number of main fill water inlets		2
Main fill and spray rinse inlet size at machine, in. (mm)		3/4 (19)
End of factory supplied hose	Size, in. (mm)	3/4 (19)
	Thread Pitch, GHT (BSPP)	3/4 x 11.5 (3/4 x 14)
Number of spray rinse water inlets		2
Spray rinse water inlet size, in. (mm)		3/4 (19)
Recommended pressure, psi (bar)		20 – 85 (1.4 – 5.7)
Inlet flow capacity for main fill (85 psi), gal/min (l/min)		45 (170)
Inlet flow capacity for spray rinse (85 psi), gal/min (l/min)		22 (83)

Table 7

Connections should be supplied by hot and cold water lines of at least the sizes shown in the Water Supply Line Sizing table. Installation of additional machines will require proportionately larger water supply lines. Refer to *Table 8*.

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 the hoses in a large loop; do not allow them to kink.

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

Lower pressures will increase fill times.

Suitable air cushions (risers) should be installed in supply lines to prevent “hammering.” Refer to *Figure 19*.

For machines labeled with the CE mark, backsiphon protection devices must be installed previous of all machine water inlet valves in accordance with accepted European standards.

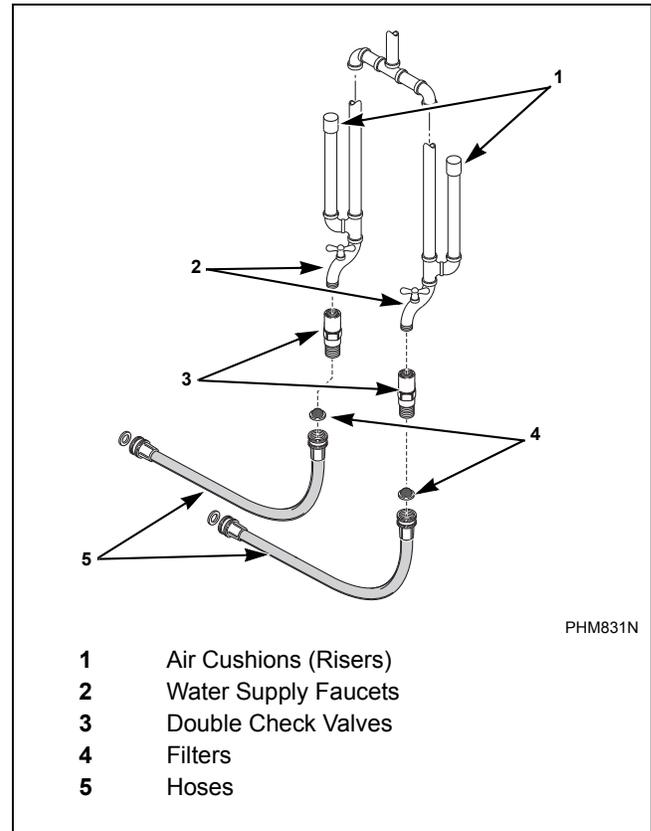


Figure 19

Water Supply Line Sizing			
Model	Number of Machines	Supply Line Size, in. (mm)	
		Main	Hot/Cold
45 - 65	1	1.25 (32)	1 (25)
	2	2 (50)	1.25 (32)
	3	2 (50)	1.5 (38)
	4	2.5 (64)	2 (50)

Table 8

Electrical Installation Requirements

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

	WARNING
Electrical shock hazard will result in death or serious injury. Disconnect electric power and wait five (5) minutes before servicing.	
W810	

	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.	
W736	

	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.	
W360	

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 Conversion label located on the back of the machine near the electrical service input for machine electrical requirements.

AC inverter drives require a clean power supply free from voltage spikes and surges. Use voltage monitor to check incoming power.

The following conditions require corrective action, contact the local utility to adjust the voltage.

- If the local utility cannot adjust the input voltage, install a buckboost transformer to lower the input voltage.
- Input voltage is above 240V or 480V, phase to ground voltage exceeds 125% of normal line to line voltage, or 240V open delta configuration (stinger leg). Contact the distributor or the manufacturer for assistance.

On variable-speed models, the AC drive provides thermal overload protection for the drive motor. However, a separate three-phase circuit breaker must be installed for complete electrical overload protection. This prevents damage to the motor by disconnecting all legs if one should be lost accidentally. Check the nameplate on the back of the machine for recommended circuit breaker requirements size.

IMPORTANT: Do NOT use fuses in place of a circuit breaker.

	CAUTION
Do not use a phase adder on machine.	
<small>W801</small>	

The machine should be connected to an individual branch circuit not shared with lighting or other equipment.

The connection should be shielded in a liquid-tight or approved flexible conduit with proper conductors of correct size installed in accordance with the National Electric Code or other applicable codes. The connection must be made by a qualified electrician using the wiring diagram provided with the machine, or according to accepted European standards for equipment labeled with the CE mark.

Refer to serial plate for recommended circuit breaker size and determine wire size based on local code requirements.

Refer to serial plate for recommended wire sizes for runs up to 50 feet (15.24 meters). Use next larger size for runs of 50 to 100 feet (15.24 to 30.48 meters). Use 2 sizes larger for runs greater than 100 feet (30.48 meters).

For personal safety and for 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, article 250 (current edition) or accepted European standards for equipment labeled with the CE mark. The ground connection must be made to a proven earth ground, not to conduit or water pipes. Refer to *Figure 20* and *21*.

	WARNING
Electrically heated machines DO NOT require dual power sources. Do not connect customer power or customer load to the Internal Load Distribution terminal block. Refer to the machine electrical schematic for details.	
<small>W759</small>	

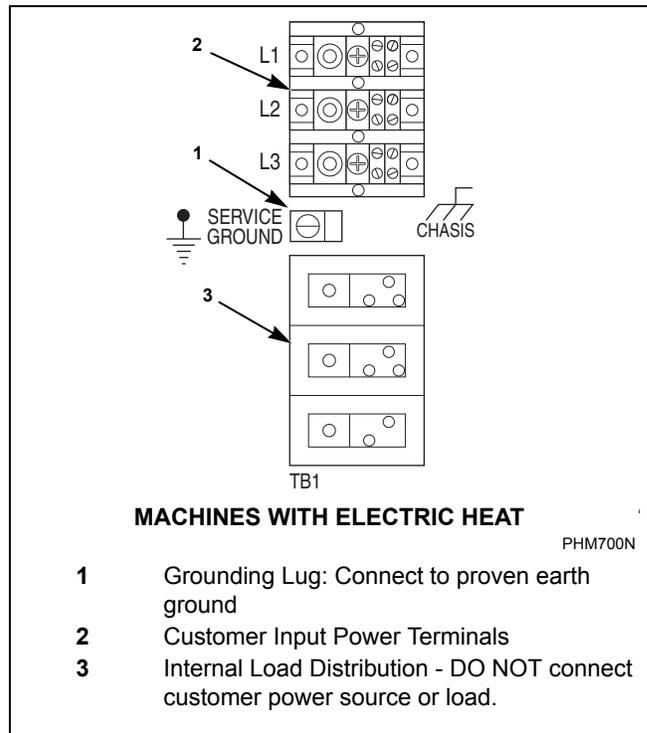


Figure 20

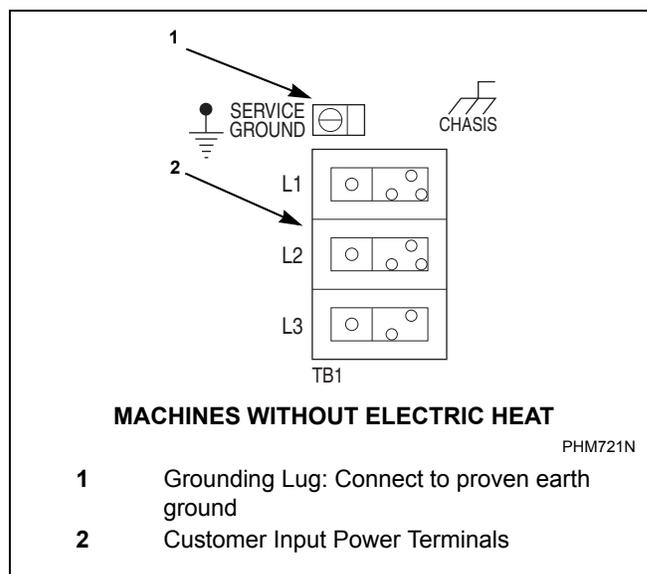


Figure 21

Specifications and Dimensions

Machines can be converted for lower voltage operation and/or 50 Hz operation. Refer to conversion label by nameplate for details.

Non-CE Models

Electrical Specifications 45 Pound Capacity Models												
Voltage Designation					Standard				Electric Heat			
Codes	Voltage	Cycle	Phase	Wire	Full Load Amps	Circuit Breaker	*AWG	*mm ²	Full Load Amps	Circuit Breaker	*AWG	*mm ²
L-Speed Models												
X	200 – 240	50/60	1/3	2/3	8/6	15	14	2.5	Not Available			
M-Speed Models												
Q	200 – 240	50/60	3	3	Not Available				71	80	4	25.0
N	440 – 480	50/60	3	3	5	15	14	2.5	36	40	8	10.0
P	380 – 415	50/60	3	3	6	15	14	2.5	32	40	8	10.0
X	200 – 240	50/60	1/3	2/3	11/8	15	14	2.5	Not Available			
Variable-Speed Models												
Q	200 – 240	50/60	3	3	9	15	14	2.5	71	80	4	25.0
N	440 – 480	50/60	3	3	6	15	14	2.5	36	40	8	10.0
P	380 – 415	50/60	3	3	7	15	14	2.5	32	40	8	10.0
X	200 – 240	50/60	1/3	2/3	15/9	20/15	12/14	4.0/2.5	Not Available			

NOTE: Wire sizing listed in this table is based on Article 310, Table 310.16 of the NEC; at 104°F (40°C) ambient temperature. Follow your local electrical codes. Use only copper conductors, rated for 194°F (90°C) or higher, type THHN or better. No more than three current carrying conductors per raceway. Contact your local Authority having jurisdiction if you have questions. Circuit breakers should be UL 489 listed or better. Single phase circuit breakers for single phase machines only; three phase circuit breakers for all others.

Table 9

Electrical Specifications 65 Pound Capacity Models												
Voltage Designation					Standard				Electric Heat			
Codes	Voltage	Cycle	Phase	Wire	Full Load Amps	Circuit Breaker	*AWG	*mm ²	Full Load Amps	Circuit Breaker	*AWG	*mm ²
L-Speed Models												
X	200 – 240	50/60	1/3	2/3	12/7	15	14	2.5	Not Available			
M-Speed Models												
Q	200 – 240	50/60	3	3	Not Available				71	80	4	25.0
N	440 – 480	50/60	3	3	6	15	14	2.5	37	40	8	10.0
P	380 – 415	50/60	3	3	7	15	14	2.5	33	40	8	10.0
X	200 – 240	50/60	1/3	2/3	16/9	20/15	12/14	4.0/2.5	Not Available			
Variable-Speed Models												
Q	200 – 240	50/60	3	3	10	15	14	2.5	71	80	4	25.0
N	440 – 480	50/60	3	3	7	15	14	2.5	37	40	8	10.0
P	380 – 415	50/60	3	3	8	15	14	2.5	33	40	8	10.0
X	200 – 240	50/60	1/3	2/3	16/10	20/15	12/14	4.0/2.5	Not Available			

NOTE: Wire sizing listed in this table is based on Article 310, Table 310.16 of the NEC; at 104°F (40°C) ambient temperature. Follow your local electrical codes. Use only copper conductors, rated for 194°F (90°C) or higher, type THHN or better. No more than three current carrying conductors per raceway. Contact your local Authority having jurisdiction if you have questions. Circuit breakers should be UL 489 listed or better. Single phase circuit breakers for single phase machines only; three phase circuit breakers for all others.

Table 10

Specifications and Dimensions

Machines can be converted for lower voltage operation and/or 50 Hz operation. Refer to conversion label by nameplate for details.

CE Models

Electrical Specifications 45 Pound Capacity Models										
Voltage Designation					Standard			Electric Heat		
Codes	Voltage	Cycle	Phase	Wire	Full Load Amps	Circuit Breaker	*mm ²	Full Load Amps	Circuit Breaker	*mm ²
L-Speed Models										
X	200 – 240	50	1/3	2/3	11/7	16/10	2.5	Not Available		
M-Speed Models										
Q	220 – 240	50	3	3	Not Available			71	80	25.0
N	440 – 480	60	3	3	5	15	2.5	36	40	10.0
P	380 – 415	50	3	3	7	10	2.5	32	40	4.0
X	200 – 240	50	1/3	2/3	11/8	16/10	2.5	Not Available		
Variable-Speed Models										
Q	220 – 240	50	3	3	11	16	2.5	71	80	25.0
N	440 – 480	60	3	3	6	15	2.5	36	40	10.0
P	380 – 415	50	3	3	7	15	2.5	32	40	4.0
X	200 – 240	50	1/3	2/3	17/11	20/16	2.5	Not Available		

NOTE: Wire sizing listed in this table is based on Article 310, Table 310.16 of the NEC; at 104°F (40°C) ambient temperature. Follow your local electrical codes. Use only copper conductors, rated for 194°F (90°C) or higher, type THHN or better. No more than three current carrying conductors per raceway. Contact your local Authority having jurisdiction if you have questions. Circuit breakers should be UL 489 listed or better. Single phase circuit breakers for single phase machines only; three phase circuit breakers for all others.

Table 11

Electrical Specifications 65 Pound Capacity Models										
Voltage Designation					Standard			Electric Heat		
Codes	Voltage	Cycle	Phase	Wire	Full Load Amps	Circuit Breaker	*mm ²	Full Load Amps	Circuit Breaker	*mm ²
L-Speed Models										
X	200 – 240	50	1/3	2/3	12/7	16/10	2.5	Not Available		
M-Speed Models										
Q	220 – 240	50	3	3	Not Available			71	80	25.0
N	440 – 480	60	3	3	6	15	2.5	37	40	10.0
P	380 – 415	50	3	3	7	10	2.5	33	40	4.0
X	200 – 240	50	1/3	2/3	17/9	20/10	2.5	Not Available		
Variable-Speed Models										
Q	220 – 240	50	3	3	11	16	2.5	71	80	25.0
N	440 – 480	60	3	3	7	15	2.5	37	40	10.0
P	380 – 415	50	3	3	8	10	2.5	33	40	4.0
X	200 – 240	50	1/3	2/3	17/11	20/16	2.5	Not Available		

NOTE: Wire sizing listed in this table is based on Article 310, Table 310.16 of the NEC; at 104°F (40°C) ambient temperature. Follow your local electrical codes. Use only copper conductors, rated for 194°F (90°C) or higher, type THHN or better. No more than three current carrying conductors per raceway. Contact your local Authority having jurisdiction if you have questions. Circuit breakers should be UL 489 listed or better. Single phase circuit breakers for single phase machines only; three phase circuit breakers for all others.

Table 12

Steam Requirements (Steam Heat Option Only)

	WARNING
<p>Hot Surfaces. Will cause severe burns. Turn steam off and allow steam pipes, connections and components to cool before touching.</p>	
W505	

For machines equipped with optional steam heat, install piping in accordance with approved commercial steam practices. Steam requirements are shown in *Table 13*.

NOTE: Failure to install the supplied steam filter may void the warranty.

Steam Supply Information	
	45 - 65
Steam inlet connection, in. (mm)	1/2 (DN13)
Number of steam inlets	1
Recommended pressure, psi (bar)	30 - 85 (2.0 - 5.9)
Maximum pressure, psi (bar)	85 (5.9)

Table 13

Chemical Injection Supply System

	WARNING
<p>Dangerous Chemicals. May damage eyes and skin. Wear eye and hand protection when handling chemicals; always avoid direct contact with raw chemicals. Read the manufacturer's directions for accidental contact before handling chemicals. Ensure an eye-rinse facility and an emergency shower are within easy reach. Check at regular intervals for chemical leaks.</p>	
W363	

IMPORTANT: Undiluted chemical dripping can damage the machine. Therefore, all chemical injector supply dispenser pumps and dispenser tubing should be mounted below the machine's injection point. Loops do not prevent drips if these instructions are not followed.

IMPORTANT: Failure to follow these instructions could damage the machine and void the warranty.

A connection has been placed at the back of the machine. There are eight ports in this connection, through each of which a liquid supply hose can be connected.

Ports must be drilled through with a 3/16 inch diameter drill bit before connecting chemical lines. Refer to *Figure 22*.

	CAUTION
<p>Drill out plugs and nipples before making supply hose connection. Failure to do so can cause buildup of pressure and risk a tubing rupture.</p>	
W491	

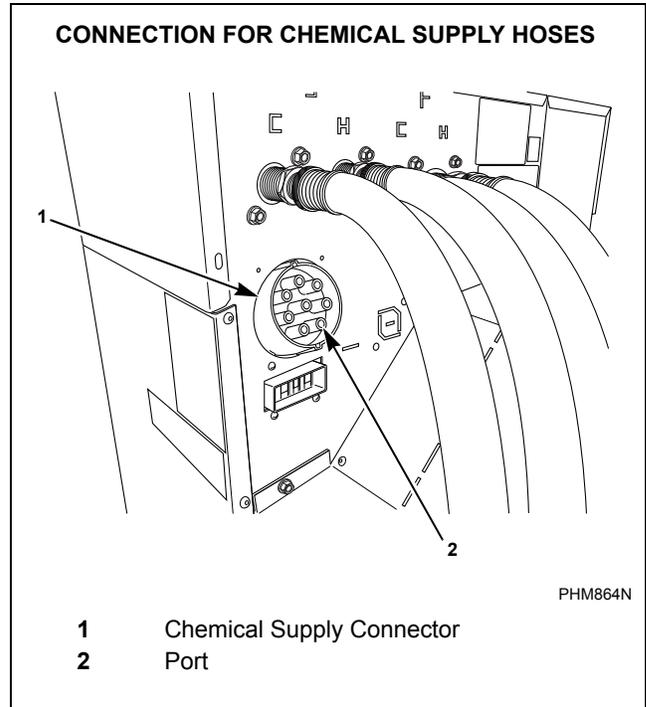


Figure 22

Chemical Injection Supply System	
Number of external liquid supply connections	8
Liquid supply connection size, in. (mm)	5/8 (15.9)

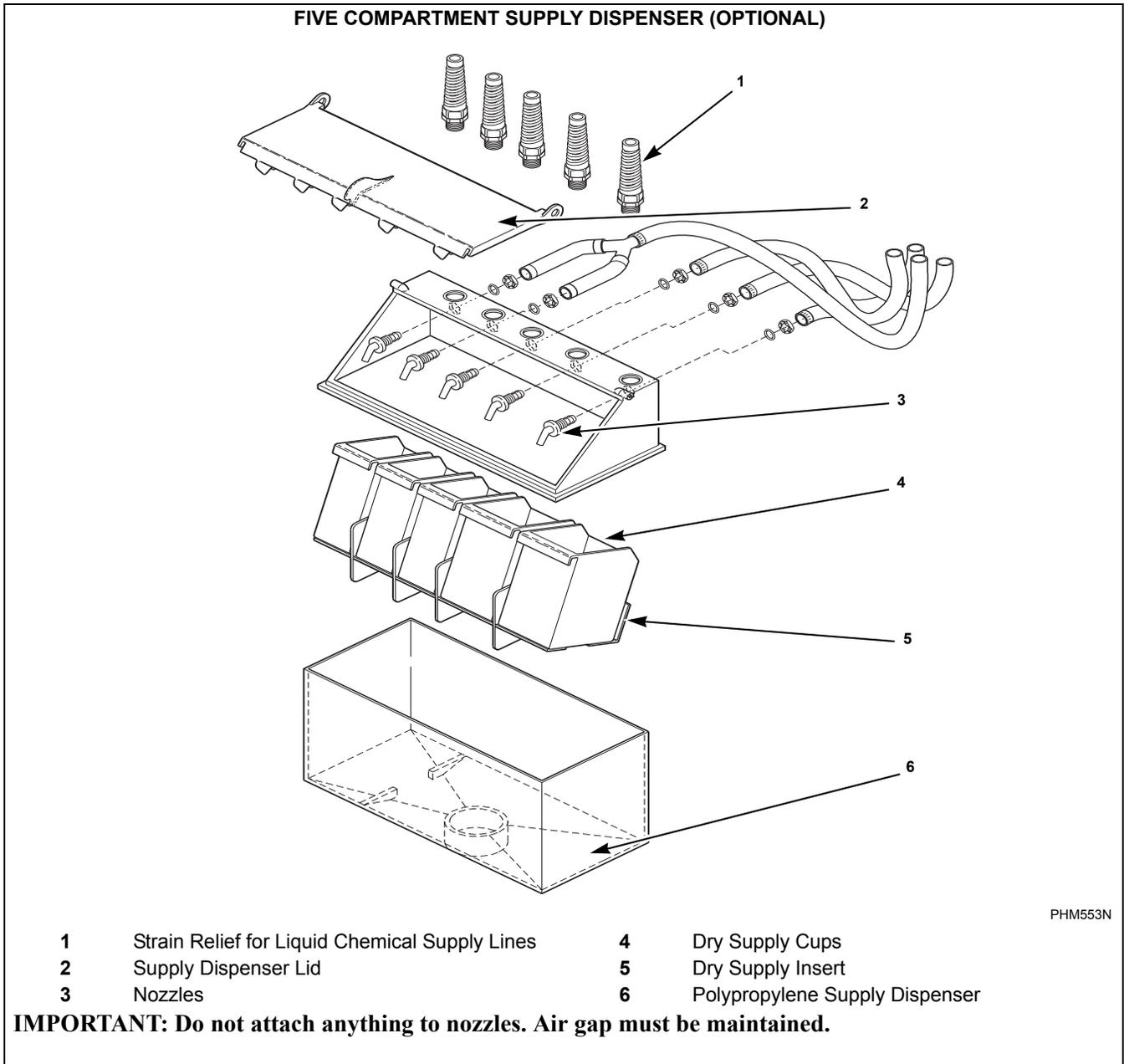


Figure 23

Connecting External Liquid Supplies to the Machine with Optional Five Compartment Supply Dispenser

1. Remove knockout from supply dispenser. Refer to *Figure 23*. Plugs are assembled inside the tubing ring.
2. Install PG connector in hole with strain reliefs, included in the seal nut.

3. Insert tubes through PG base. Do not remove cups. Tube should extend into the plastic cup, with the exception of the softener tube, which should be routed to the outside of the cup.
4. Tighten the seal nut to prevent tubing from escaping the assembly.
5. Before operating machine, confirm lid is completely closed.

Do not attempt to make chemical injection electrical connections to points other than those provided specifically for that purpose by the factory.

External Supplies

For proper communication between the machine and an external chemical supply system, it is important for the low-voltage signal power to be connected properly. The included wiring diagram shows several different options for safe and correct wiring of this interface.

The preferred method for connecting the wiring from the external chemical supply system to the machine is to use the 300mA power of the machine's 24VAC control transformer, which is intended strictly for this purpose. Other voltage and current options are available, but require some wiring changes and must be provided with an external power source. Under no circumstances should the high-voltage machine supply connections or source be used for the communication wiring.

Communication wiring connections, which include a single row of identified terminal blocks, can be found under a service panel at the upper back of the machine.

Chemical Injection Using Internal 24VAC Control Transformer

NOTE: Using the Internal 24VAC 300 Milliamp Control Transformer is recommended by Alliance Laundry Systems.

IMPORTANT: DO NOT remove the red jumper wire from the terminal strip.

- Terminal "24VAC COM" is used to connect one side of the internal control transformer to the external dispenser input signals common.
- The other terminal is used to connect the other side of the control transformer to the washer-extractor output signals common through a red jumper wire between "24VAC" and "RELAY COM". Refer to *Figure 24*.

IMPORTANT: Do not use the transformer terminals if an external power supply is used.

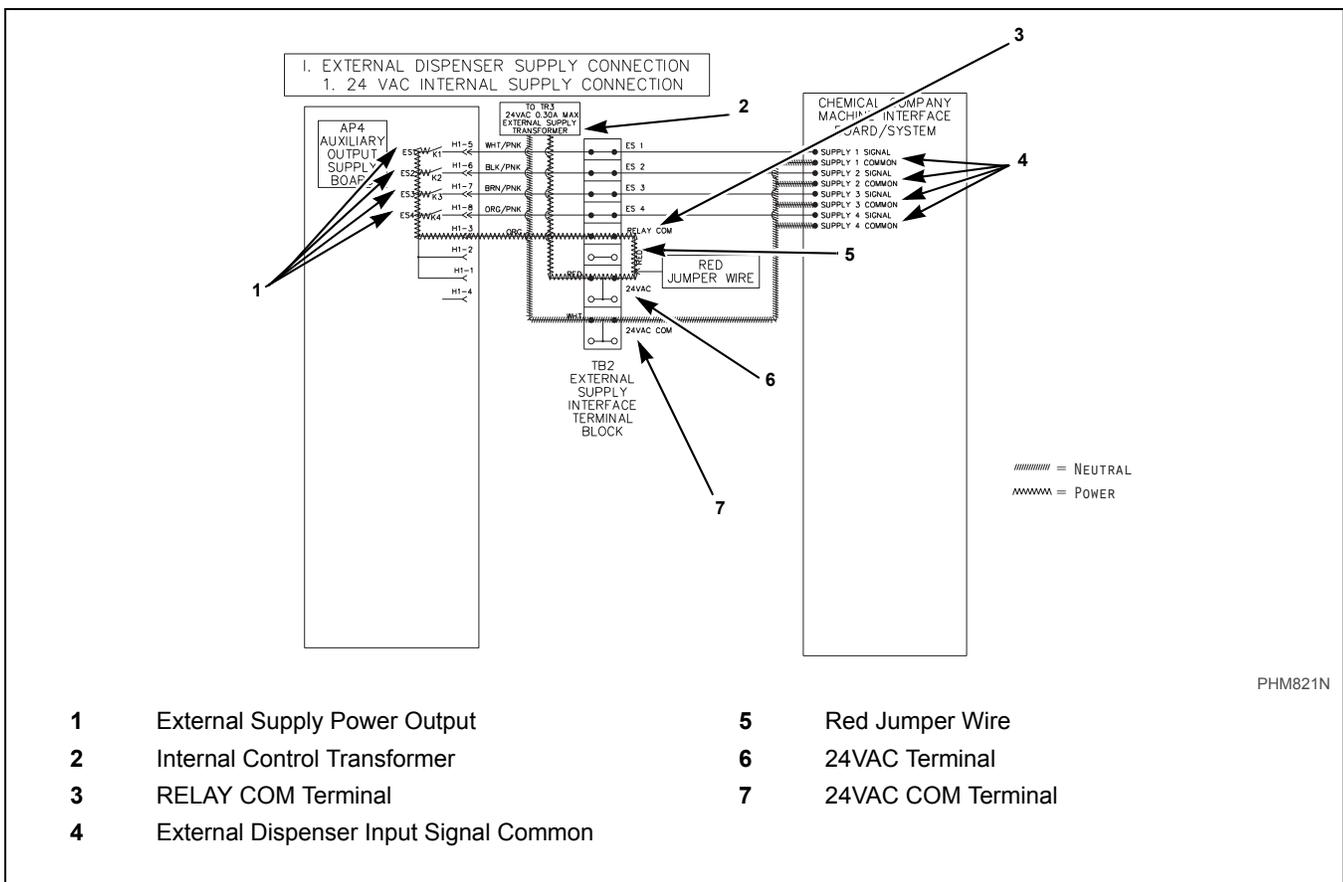


Figure 24

Specifications and Dimensions

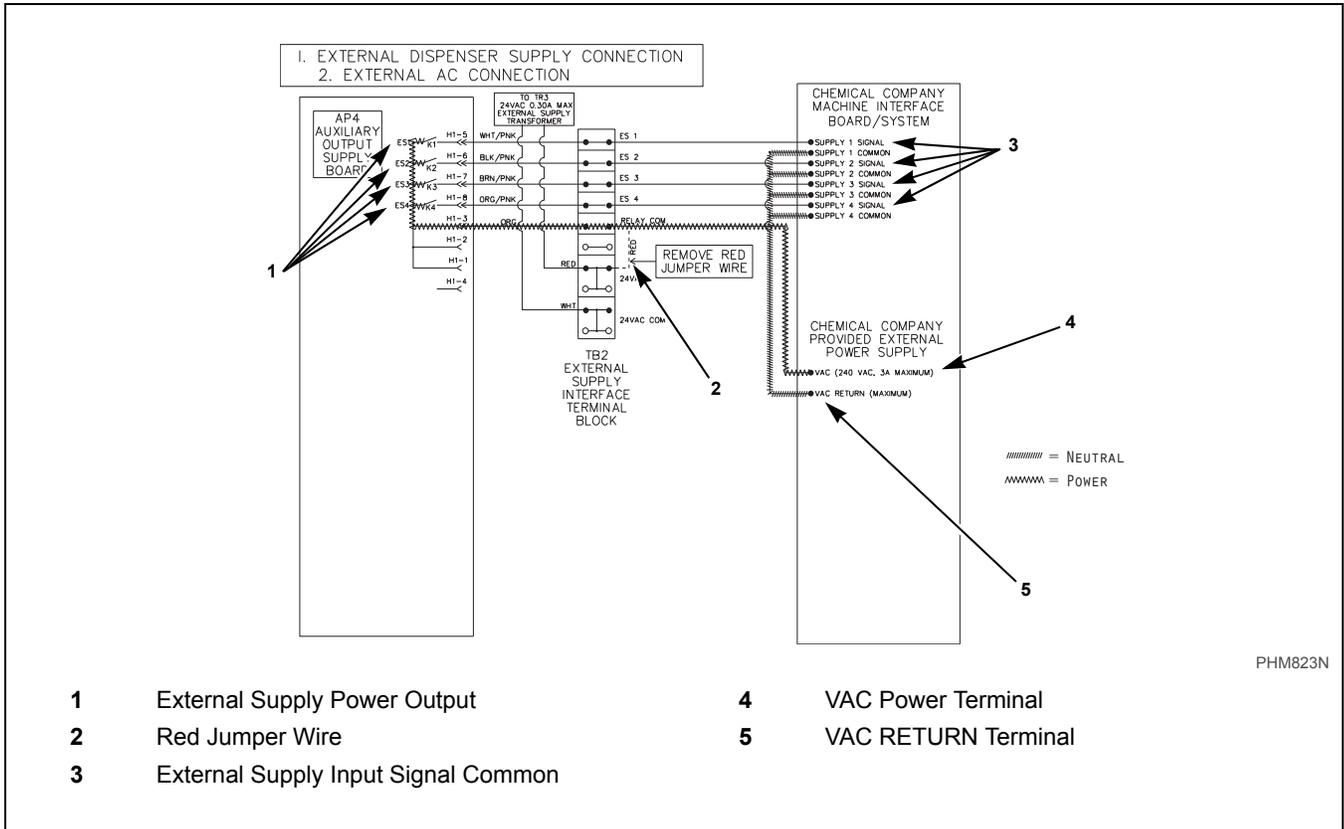
Chemical injection Using External AC Power Source

NOTE: An External AC Power Source is NOT provided by Alliance Laundry Systems.

NOTE: Power for external supplies must not be derived from the high-voltage main power connection point.

IMPORTANT: The external power must supply power of 240VAC or less and be protected at 3 Amps or less.

1. Remove the red jumper wire installed by the factory between “24VAC” and “RELAY COM”.
2. Connect one side of the external power to the “RELAY COM” and the other to the external dispenser input signals common. Refer to *Figure 25*.



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Figure 25

CAUTION

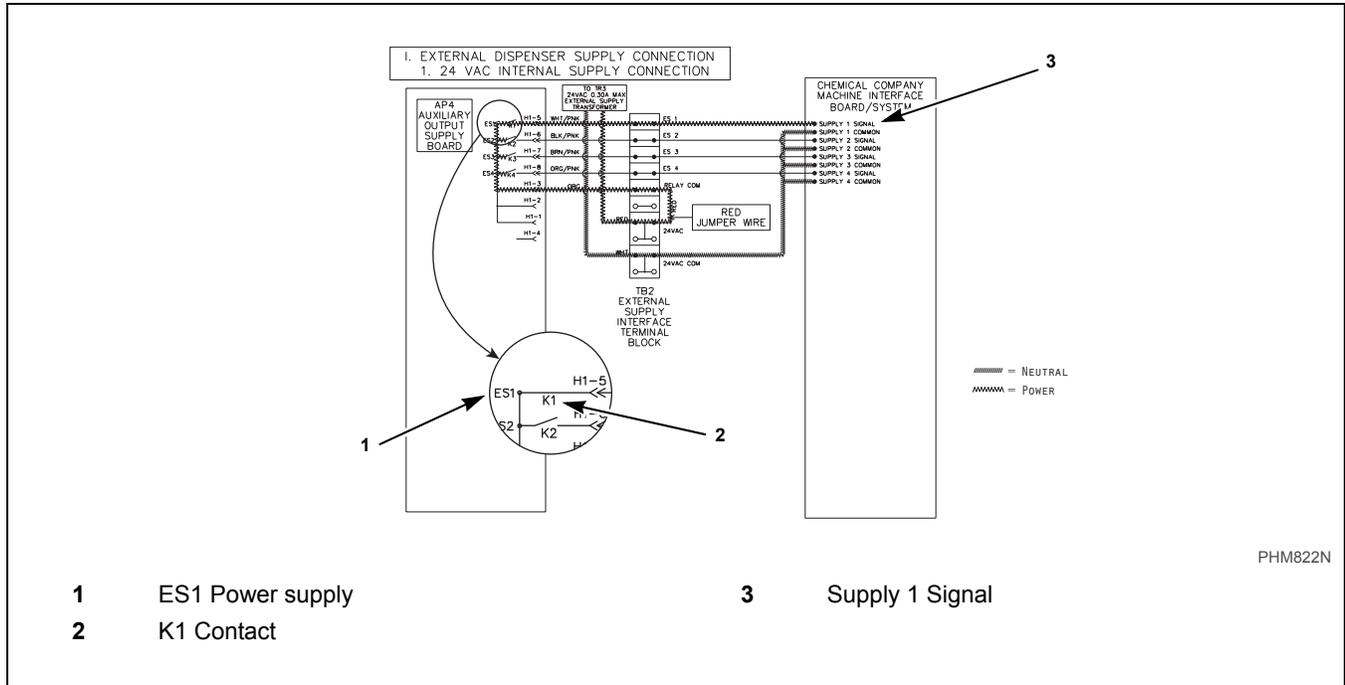
Do not attempt to increase fuse rating or alter wiring of external chemical supply terminal strip in such a way that may conflict with the suggested methods provided on the Optional External Supply Wiring Diagram.

W699

External Supply Signals

Wash-cycle signals are provided to the external chemical supply equipment and a “wait for the next step” signal can be received from the supply equipment.

For example, if ES1 is selected the K1 contact will close and power will be supplied to Supply 1 Signal. The contact will remain closed for the amount of time programmed in control. Refer to *Figure 26* for Internal Supply Connection or *Figure 27* for External AC Connection.



PHM822N

Figure 26

Specifications and Dimensions

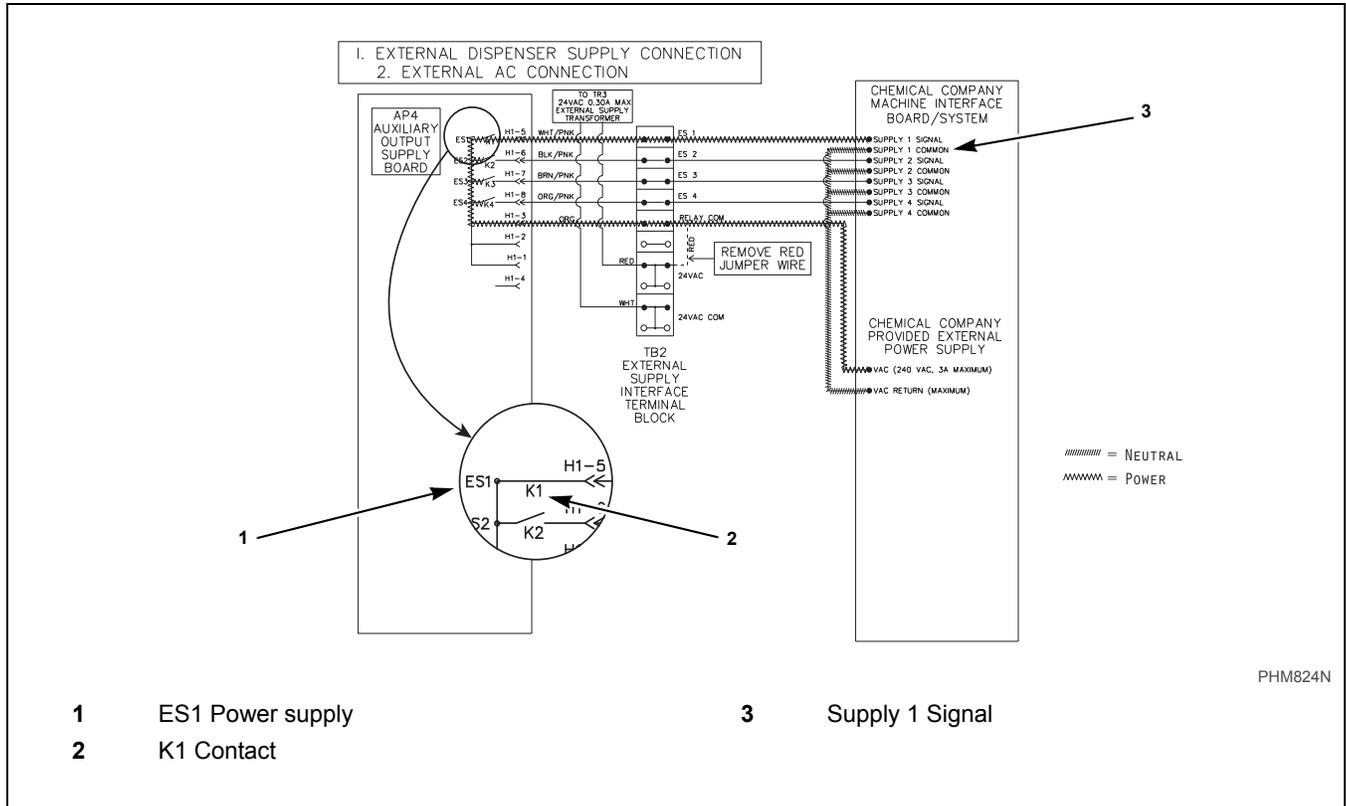


Figure 27

Operation

Operating Instructions for UniLinc Control

1. Verify display shows the Cycle Menu Screen.

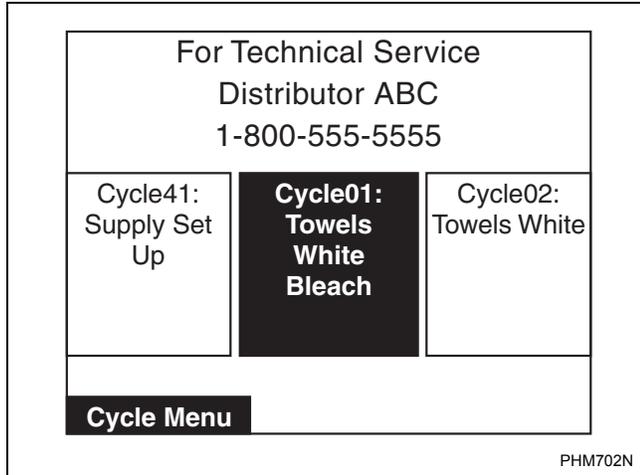


Figure 28

2. Turn door handle clockwise and open door.

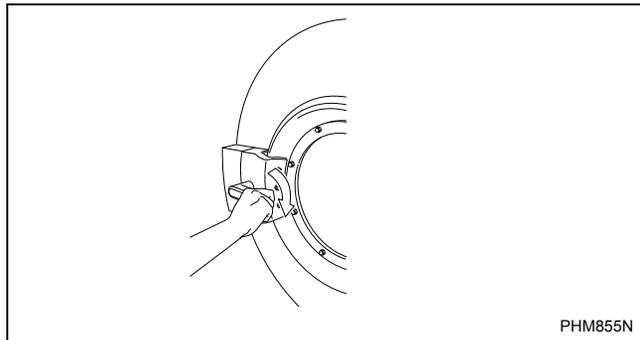


Figure 29

3. Load to capacity whenever possible. **DO NOT OVERLOAD.**

Underloading can cause out-of-balance conditions that can shorten machine life.

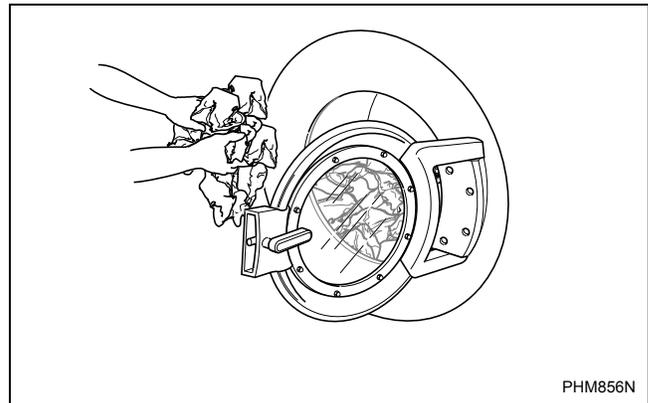
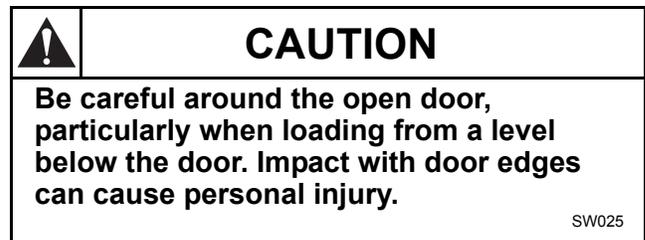


Figure 30



NOTE: When washing items which may disintegrate or fragment, such as mop heads or sponges, use laundry nets to prevent drain blockage.

IMPORTANT: To prevent out-of-balance conditions, premature wear or damage to machine when using laundry nets, use several small nets in a load.

4. Close the door.
5. Add dry supplies to the supply dispenser compartment cups prior to the start of each cycle.

Liquid supplies can be injected directly into the supply dispenser by an external chemical supply system.

NOTE: Supply dispenser compartment cups must *not* be removed when an external chemical injection supply system is attached to the machine.

6. Press  or  keypads to select desired wash cycle.
7. Press  to start the selected cycle.

Operation

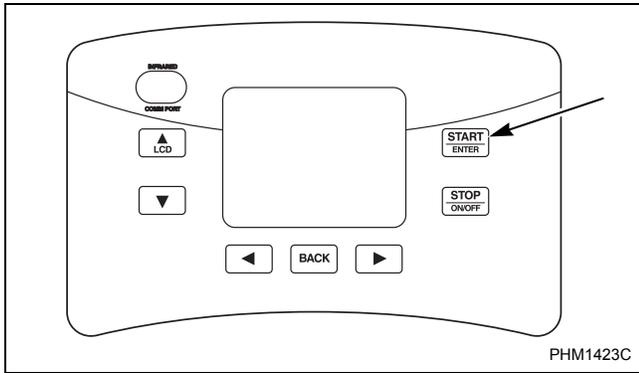


Figure 31

As the cycle proceeds, the display will show a summary of the cycle occurring.

To begin the cycle at any step other than the first step, press the **START ENTER** keypad to advance through the cycle to the desired starting point. Refer to *Programming Manual* for information to disable Rapid Advance.

If the door is open, the display will indicate that the door needs to be closed. Refer to *Figure 32*.

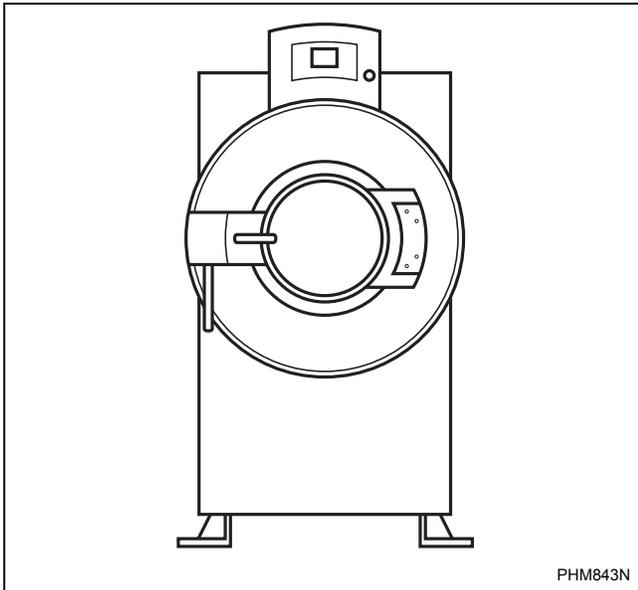


Figure 32

8. Close door to start cycle or press **BACK** keypad to return to Cycle Menu.

The cycle will continue until its completion. Then the display will show the door is ready to be opened.

NOTE: Since the machine **MUST** drain and balance during the drain step before it can extract, the control will only Rapid Advance to a drain step that occurs before an extract or spray rinse extract step.

Shakeout Routine

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

A Shakeout agitation step is programmed at the end of every cycle and will help prevent tangling of the load.

The Shakeout time is set at the factory to agitate for 40 seconds. Refer to *Programming Manual* to disable or change the time of the Shakeout.

Operating Instructions for M30 Control

1. Verify display shows a cycle number.

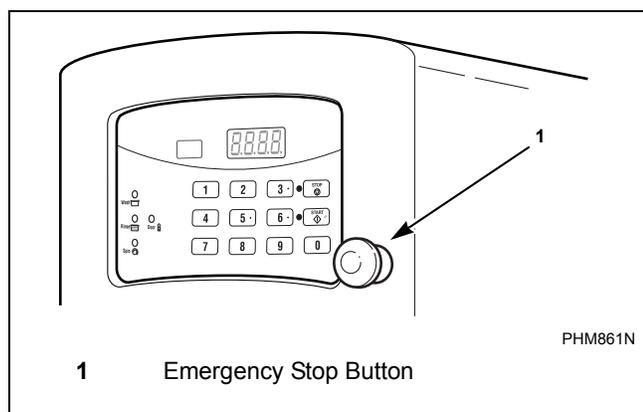


Figure 33

2. Turn the door handle clockwise and swing the door left to open it. Refer to *Figure 34*.

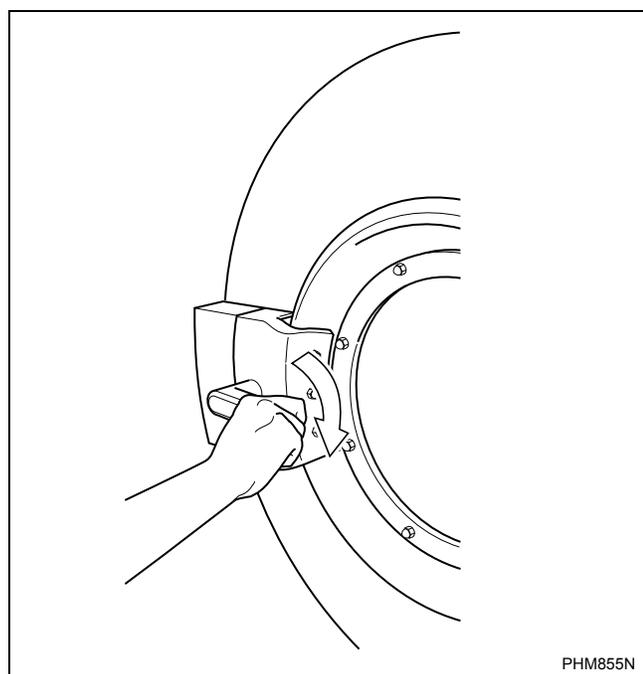


Figure 34

3. Load to capacity whenever possible. DO NOT OVERLOAD

Underloading can cause out-of-balance conditions that can shorten machine life.

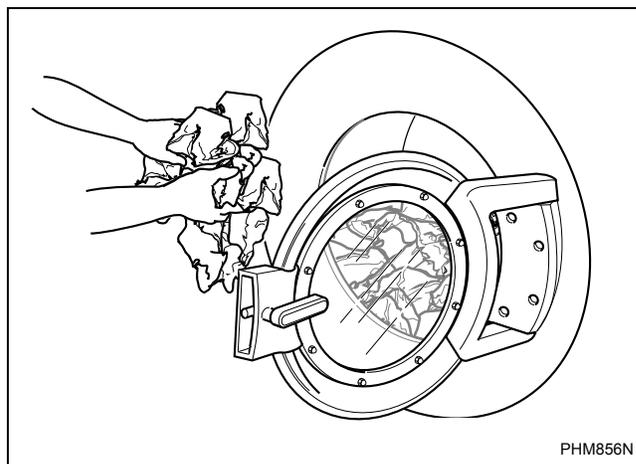


Figure 35

	CAUTION
<p>Be careful around the open door, particularly when loading from a level below the door. Impact with door edges can cause personal injury.</p>	
SW025	

NOTE: When washing items which may disintegrate or fragment, such as mop heads or sponges, use laundry nets to prevent drain blockage.

IMPORTANT: To prevent out-of-balance conditions, premature wear or damage to machine when using laundry nets, use several small nets in a load.

4. Close the door.
5. Add dry supplies into the supply dispenser compartment cups (if equipped) prior to the start of each cycle.

Liquid supplies can be injected directly into supply dispenser by an external chemical supply system.

NOTE: Supply dispenser compartment cups must *not* be removed when an external chemical injection supply system is attached to the machine.

Operation

- Press the numeric keypads to select the desired wash cycle. Refer to *Table 14*.

Cycle Number	Cycle Name
1	Permanent Press Light Soil
2	Light Soil
3	Permanent Press Medium Soil
4	Medium Soil
5	Permanent Press Heavy Soil
6	Heavy Soil
7	Rags
8	Reclaim
9	Delicates
10	90°C
11	60°C
12	40°C
13	90°C Permanent Press
14	60°C Permanent Press
15	40°C Permanent Press
16	70°C Permanent Press
17	50°C Gentle
18	30°C Gentle
19	Custom #1
20	Custom #2
21	Custom #3
22	Custom #4
23	Custom #5
24	Custom #6
25	Custom #7
26	Custom #8
27	Custom #9
28	Custom #10
29	Custom #11
30	Custom #12

Table 14

- Press the START keypad to start the selected cycle.

As the cycle proceeds, the display will show and count down the remaining cycle time.

To begin the cycle at any step other than the first step, press the START keypad to advance through the cycle to the desired starting point. Refer to the ***Programming Manual*** for information to disable Rapid Advance.

If the door is open, the display will indicate that the door needs to be closed and locked.

- Close the door to start a cycle.

The cycle will continue until its completion. Then the display will show the door is ready to be unlocked and opened.

NOTE: Since the machine MUST drain and balance before it can extract, the control will only Rapid Advance to a drain step that occurs before an extract or spray rinse extract step.

Shakeout Routine

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

A shakeout agitation step is programmed at the end of every cycle and will help prevent tangling of the load.

The shakeout time is set at the factory to agitate for 32 seconds.

Start Up

Basket Rotation

After installation is complete, run the machine through a test cycle and check that basket rotation is counter clockwise in the extract step.

1. If rotation is not counter clockwise, disconnect power to machine.
2. Have a qualified electrician reverse any two motor leads at the motor.

Safety Out-of Balance Switch Operation

After machine is properly installed, the safety Out-of-Balance Switch operation must be verified.

1. Locate the green-colored switch on the rear, left-side of the frame.
2. Place a large magnet above the normally-closed ball switch to verify switch operation.

IMPORTANT: Machines are manufactured with a normally-closed ball switch and should not require any adjustment. To avoid nuisance tripping, machine must be level with a summed value of 3/8 inch (9.5 mm) front to back and right to left to the earth. If switch is tripped, check if machine is level and then for poor grouting and broken anchor bolts. DO NOT BYPASS SAFETY SWITCH. Contact a qualified service technician for further assistance.

Maintenance

Routine maintenance maximizes operating efficiency and minimizes downtime. The maintenance procedures described below will prolong the life of the machine and help prevent accidents.

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

	CAUTION
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.	
SW019	

Follow local codes for proper advise on laundering infected garments.

On UniLinc Control models, maintenance checklists are also displayed on the control. Press **BACK** to enter Service Schedule Menu. Refer to *Figure 36*

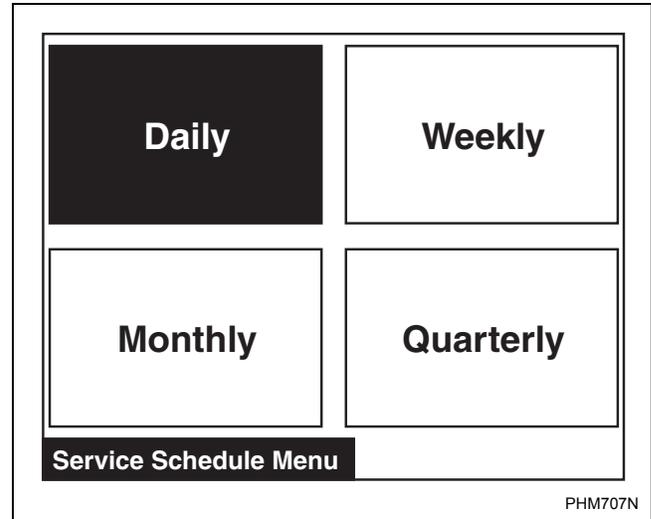


Figure 36

Press **BACK** from Cycle Menu to enter Service Menu. The Service Menu provides a user with a time based service reminder list. The list is broken up into “DAILY”, “WEEKLY”, “MONTHLY” and “QUARTERLY”.

The following maintenance procedures must be performed regularly at the required intervals.

Daily

	WARNING
<p>Do not spray the machine with water. Short circuiting and serious damage may result.</p> <p style="text-align: right;">W782</p>	

Beginning of Day

1. Check door interlock before starting operation:
 - a. Attempt to start the machine with the door open. The machine should not start.
 - b. Close the door without locking it and attempt to start the machine. The machine should not start.
 - c. Attempt to open the door while a cycle is in progress. The door should not open.

If the door lock and interlock are not functioning properly, disconnect power and call a service technician.

IMPORTANT: Door lock should be checked daily to ensure proper operation. Also, check that all safety and instruction stickers are on the machine. Replace as necessary.

2. Inspect water inlet valve hose connections on the back of the machine for leaks.
3. Inspect steam hose connections for leaks (where applicable).

	WARNING
<p>To reduce the risk of electrical shock, serious injury or death, disconnect the electrical power to washer-extractor before examining the wiring.</p> <p style="text-align: right;">W636</p>	

4. Inspect all chemical inlets, lines and connections for leaks.
5. Verify that insulation is intact on all external wires and that all connections are secure. If bare wire is evident, call a service technician.

End of Day

1. Clean the AC drive filter:
 - a. Remove the external plastic cover which contains the filter.
 - b. Remove the foam filter from the cover.
 - c. Wash the filter with warm water and allow to air dry. Filter can be vacuumed clean.

IMPORTANT: The control module and drive box cover and fan filter must be in place for the fan to properly cool the AC inverter drive and front end control. Failure to observe this warning will void the warranty and could lead to expensive AC inverter drive repair or front end control replacement.

2. Clean the door gasket of residual detergent and all foreign matter.
3. Clean automatic supply dispenser and lid (where applicable) inside and out with mild detergent. Rinse with clean water.
4. Clean machine's top, front, and side panels with mild detergent. Rinse with clean water.

NOTE: Unload the machine promptly after each completed cycle to prevent moisture buildup. Leave loading door open at the end of each completed cycle to allow moisture to evaporate.

Weekly

1. Check the machine for leaks.
 - a. Start an unloaded cycle to fill the machine.
 - b. Verify that door and door gasket do not leak.
 - c. Verify that the drain valve is operating and that the drain system is free from obstruction. If water does not leak out during the prewash segment, drain valve is closed and functioning properly.

Maintenance

Monthly

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

1. Clean the AC Drive fins.
2. Each month OR after every 200 hours of operation, lubricate bearings. (Locate the bearing lubrication decal at the rear of the right side of the machine, as viewed from the front.)

The grease must have the following characteristics:

- NLGI Grade 2
- Lithium-based
- Water-insoluble
- Anti-rusting
- Anti-oxidizing
- Mechanically stable

The grease must have adequate base oil viscosity with one of the following ratings:

- ISO VG 150 (135 – 165 cSt at 40°C or 709 – 871 SUS at 100°F)
- ISO VG 220 (198 – 242 cSt at 40°C or 1047 – 1283 SUS at 100°F)
- An SAE 40 rating is also acceptable as long as the cSt or SUS values are within the specified ranges.

Pump the grease gun slowly, permitting only 2 strokes.

3. Use the following procedures to determine if V-belts require replacement or adjustment. Call a qualified service technician in either case.
 - a. Check V-belts for uneven wear and frayed edges.
 - b. After disconnecting power to the machine and removing all panels necessary for access to the drive belt, use one of the following methods to verify that the V-belt is properly tensioned.
 - **Frequency Gauge.** Tighten eyebolt top nut until a frequency of 58 Hz (± 2 Hz) is obtained mid-span. Tighten jam nut to spring bracket. Refer to *Figure 37*.

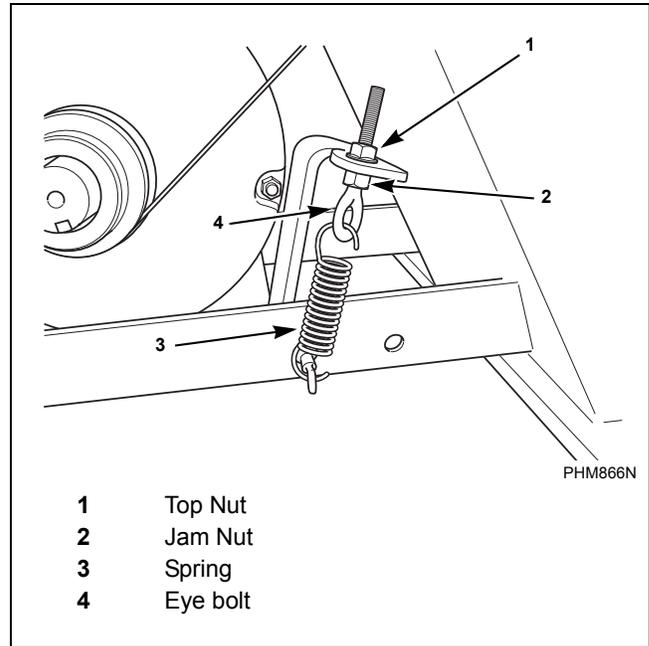


Figure 37

- **Tension Gauge.** Loosen motor mounting bolts and slide motor along motor plate to change belt span length. The belt tension should be 108 pounds (± 8 pounds).
- **Deflection.** Refer to *Figure 38*. Belt tension measurements should be taken as close to the center of the belt span as possible. For every inch of span length, the belt should deflect 0.40 mm ($1/64$ inch). Thus, a belt with span length of 25 inches should deflect 9.9 mm ($25/64$ inch).

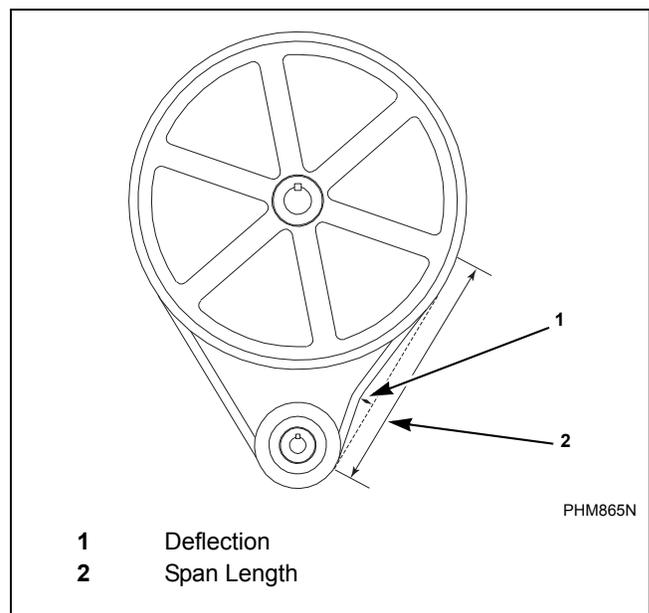


Figure 38

- c. Verify that V-belts are properly aligned by checking pulley alignment. Motor pulley should align with end of motor shaft to align belts.
 1. Install belt on basket sheave.
 2. Install belt on motor pulley.
 3. Insert belt in appropriate motor pulley grooves so belt rides on the center of the basket sheave.
4. Check overflow hose and drain hose for leaks.
5. Check the supply dispenser hoses and hose connections.
6. 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.
7. Tighten motor mounting bolt locknuts and bearing bolt locknuts, if necessary.
8. Use compressed air to clean lint from motor.
9. Clean interior of machine, both basket and shell, by wiping with a water-soaked sponge or cloth.
10. Use compressed air to ensure that all electrical components are free of moisture and dust.
11. Remove chemical supply components (where applicable) and check for residual chemicals. Clean or replace as necessary.

Quarterly

NOTE: Disconnect power to the machine before performing the quarterly maintenance procedures.

1. Tighten door hinges and fasteners, if necessary.
2. Tighten anchor bolts, if necessary.
3. Verify that the drain motor shield is in place and secure.
4. Check all painted surfaces for bare metal. (Matching gray paint is available from the manufacturer.)
 - If bare metal is showing, paint with primer or solvent-based paint.
 - If rust appears, remove it with sandpaper or by chemical means.

Then paint with primer or solvent-based paint.
5. Clean steam filter, where applicable.
 - a. Turn off steam supply and allow time for the valve to cool.
 - b. Unscrew nut.
 - c. Remove element and clean.
 - d. Replace element and nut.
6. Place a large magnet over the normally-closed ball switch to verify the out-of-balance safety switch operation.

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.
 - 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.
 - Remove discoloration or heat tint from overheating by scouring with a powder or by employing special chemical solutions.
- Do not leave sanitizers or 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 with the machine. Damage of this kind is not covered by the manufacturer’s warranty. Locate the pump below the machine’s injection point to prevent siphoning of chemicals into the machine.
 - If the stainless steel appears to be rusting the source of the rust may actually be an iron or steel part not made of stainless steel, such as a nail or screw.

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 39*. 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.

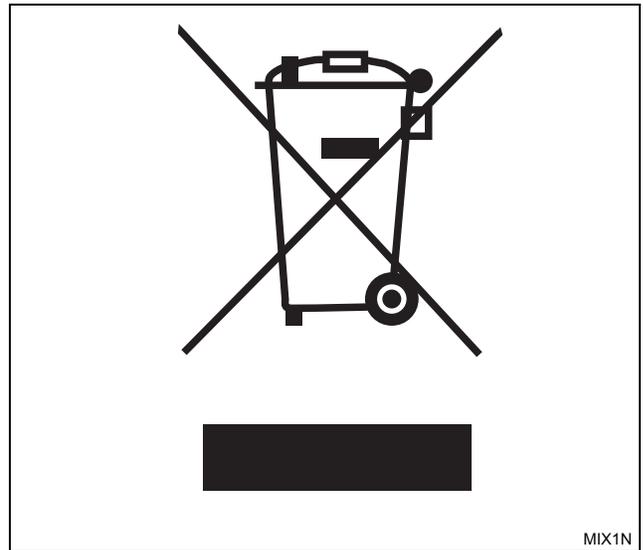


Figure 39

