

# 3648 Series

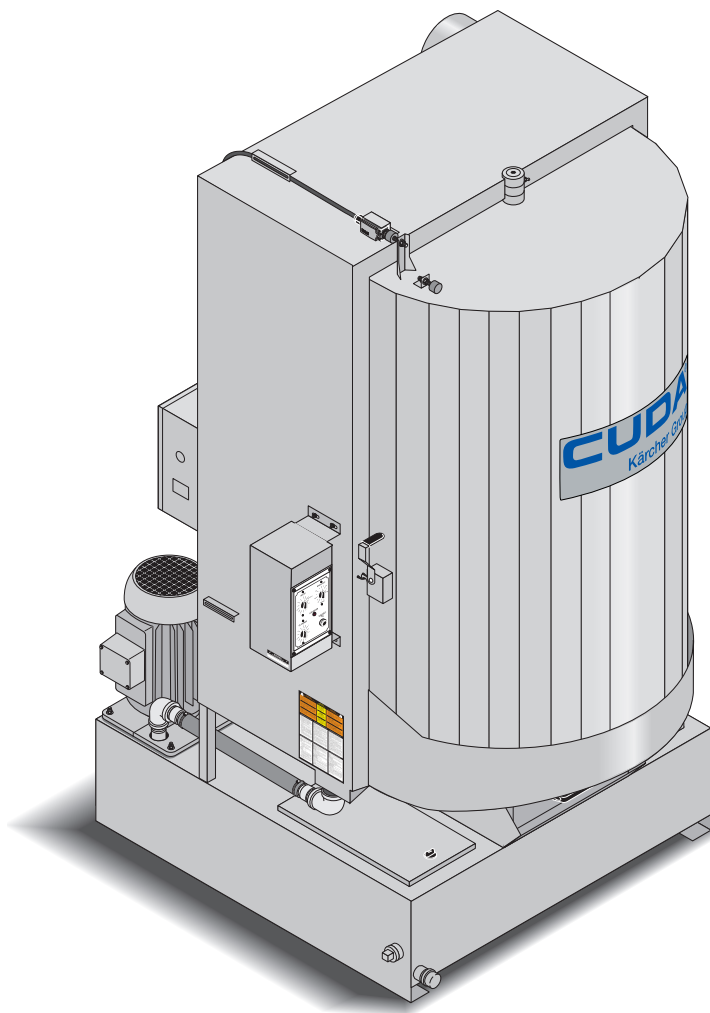
# CUDA®

Kärcher Group

## Operator's Manual

**Automatic Parts Washer  
Front-Load**

**MODELS:**            1.043-477.0  
                             1.043-478.0  
                             1.043-479.0  
                             1.043-505.0  
                             1.043-506.0  
                             1.043-507.0



For the Cuda Dealer nearest  
you, consult our web page at  
**[www.CudaUSA.com](http://www.CudaUSA.com)**



9.801-627.0-AM 07/19/19

## **Machine Data Label**

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Model: \_\_\_\_\_

Date of Purchase: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Dealer: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Sales Representative: \_\_\_\_\_

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## How To Use This Manual

This manual contains the following sections:

- How to Use This Manual
- Safety
- Operations
- Maintenance
- Parts List

The HOW TO USE THIS MANUAL section will tell you how to find important information for ordering correct repair parts.

Parts may be ordered from authorized dealers. When placing an order for parts, the machine model and machine serial number are important. Refer to the MACHINE DATA box which is filled out during the installation of your machine. The MACHINE DATA box is located on the inside of the front cover of this manual.

Model: _____
Date of Purchase: _____
Serial Number: _____
Dealer: _____
Address: _____
Phone Number: _____
Sales Representative: _____

The model and serial number of your machine is located on the back of the machine.

The SAFETY section contains important information regarding hazardous or unsafe practices of the machine. Levels of hazards are identified that could result in product damage, personal injury, or severe injury resulting in death.

The OPERATIONS section is to familiarize the operator with the operation and function of the machine.

The MAINTENANCE section contains preventive maintenance to keep the machine and its components in good working condition. They are listed in this general order:

- Maintenance And Repair
- Maintaining The Machine
- Daily Maintenance
- Weekly Maintenance
- Monthly Maintenance
- Semi-Annual Maintenance
- Cleaning And Aligning The Spray Nozzles
- Using the Oil Skimmer System
- Cleaning Out The Slump
- Filtration And Slump Clean Out
- Manual Slump Clean Out
- Cleaning The Filters
- Repairing The Machine
- Heating Elements
- Thermostat
- Turntable Motor
- Timers And Switches On The Control Panel
- Oil Skimmer Motor
- Troubleshooting
- Troubleshooting The Electrical System
- Testing Individual Components

The PARTS LIST section contains assembled parts illustrations and corresponding parts list. The parts lists include a number of columns of information:

- **REF** – column refers to the reference number on the parts illustration.
- **PART NO.** – column lists the part number for the part.
- **QTY** – column lists the quantity of the part used in that area of the machine.
- **DESCRIPTION** – column is a brief description of the part.
- **NOTES** – column for information not noted by the other columns.

*NOTE: If a service or option kit is installed on your machine, be sure to keep the KIT INSTRUCTIONS which came with the kit. It contains replacement parts numbers needed for ordering future parts.*

*NOTE: The manual part number is located on the lower right corner of the front cover.*

## **Introduction & Safety Information**

This manual is intended as a guide for safely installing, operating and maintaining your Automatic Parts Washer.

We reserve the right to make changes at any time without incurring any obligation.

### **Owner/User Responsibility:**

The owner and/or user must have an understanding of the manufacturer's operating instructions and warnings before using this machine. Warning information should be emphasized and understood. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents.

Owner and/or user must study and maintain for future reference the manufacturers' instructions.

### **Save these Instructions**

**This manual should be considered a permanent part of the machine and should remain with it if machine is resold.**

**When ordering parts, please specify model and serial number. Use only identical replacement parts.**

**This machine is to be used only by trained operators.**

## General Safety Information



**WARNING:** To reduce the risk of injury, read operating instructions carefully before using.

**AVERTISSEMENT:** Pour réduire le risque de blessures, lire attentivement les instructions de fonctionnement avant l'utilisation.

1. Read the owner's manual thoroughly. Failure to follow instructions could cause a malfunction of the parts washer and result in death, serious bodily injury and/or property damage.



**WARNING:** This is a heated parts cleaner. Use only nonflammable, noncombustible, water-based cleaning compounds in this machine. Do not fill or contaminate with any flammable or combustible material such as gasoline, alcohol, mineral spirits, etc. Drain parts to be cleaned of any combustible or flammable

material before placing inside cabinet. Failure to observe this warning will create an extremely hazardous condition.

**AVERTISSEMENT:** Ceci est un nettoyant pour les pièces chauffées. Utiliser uniquement des produits de nettoyage à base d'eau, ininflammable et non combustible dans cette. Ne pas remplir ou contaminer avec une substance inflammable ou combustible comme de l'essence, de l'alcool, de l'essence minérale, etc. Drainer les pièces à nettoyer de toute substance combustible ou inflammable avant de les placer à l'intérieur de l'armoire. Le non-respect de cet avertissement créera une condition extrêmement dangereuse.



**DANGER:** Keep water away from electric wiring or fatal electric shock may result.

**DANGER:** Garder le jet d'eau à l'écart de tout câblage électrique ou des chocs électriques mortels pourraient survenir.

2. All installations must comply with local codes. Contact your

electrician, plumber, utility company or the selling dealer for specific details.

Install the machine in compliance with the National Electric Code. Connect to a properly sized lockable disconnect and ground machine using the grounding stud inside the main electrical panel.

3. Do not locate this machine in the vicinity of any flammable vapor, liquids or solids.
4. To protect the operator from electrical shock, the machine must be electrically grounded. It is the responsibility of the owner to connect this machine to a grounded receptacle of proper voltage and amperage ratings. Do not touch machine with wet hands or while standing in water. Always disconnect the power before servicing.
5. Do not touch machine with wet hands or while standing in water. Always disconnect the power before servicing.
6. Never make adjustments on machine while it is in operation except those prescribed in this manual.



**WARNING:** Use extreme caution when opening the door of this parts washer. Hot water/detergent vapors will be emitted. Stand Back! Hot cleaning solution could cause serious injury.

**AVERTISSEMENT:** Faire preuve d'extrême prudence au moment d'ouvrir le volet de cette partie de la laveuse. De l'eau chaude/des vapeurs de détergent seront émises. Se tenir à l'écart! Une solution de nettoyage chaude haute pression pourrait causer des blessures graves.

7. Before servicing the machine, refer to all safety data sheets (SDS's) on the material identified in the waste stream. You must comply with all warnings and wear all protective clothing stated on the SDS.

**WARNING:** Slips and falls from wet surfaces could cause serious injury.

**AVERTISSEMENT:** Les chutes et les trébuchements causés par des surfaces humides pourraient causer des blessures graves.

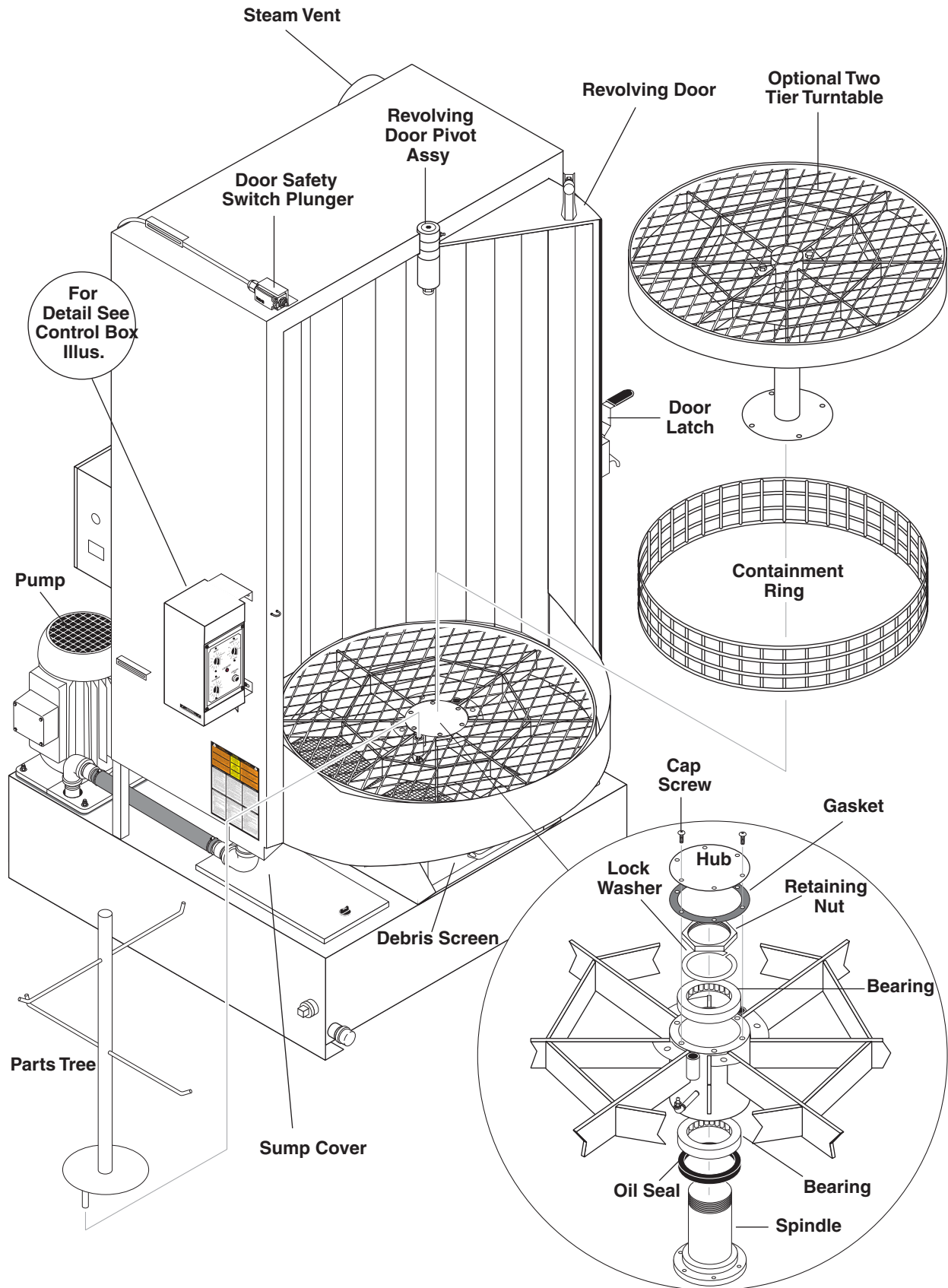
8. Use caution when lifting items in and out of parts basket to prevent back injuries.

9. When the machine is working, do not cover or place in a closed space where ventilation is insufficient. Avoid installing machines in small confined areas.
10. In cold climates, this parts washer will freeze if not in operation and must be located in a heated enclosure.
11. Maintain an unobstructed work area around the machine and keep the floor free of water, oil, grease or other foreign substances.
12. Always ensure that your parts washer is clean. Pump and heating elements could be damaged by continued build-up of sludge.
13. Check water level daily. Never allow water level to drop below pump inlet screen or heating elements.
14. Before discarding the spent washing solution, check with your local EPA or sewer district for disposal regulations.
15. Do not operate the machine with the lid or door open and do not override the safety switch.
16. After the machine stops, wait 10 seconds before opening the lid or door.

This automatic parts washer is designed to operate safely and efficiently. Before you begin to install and use the machine, please familiarize yourself with the major components.

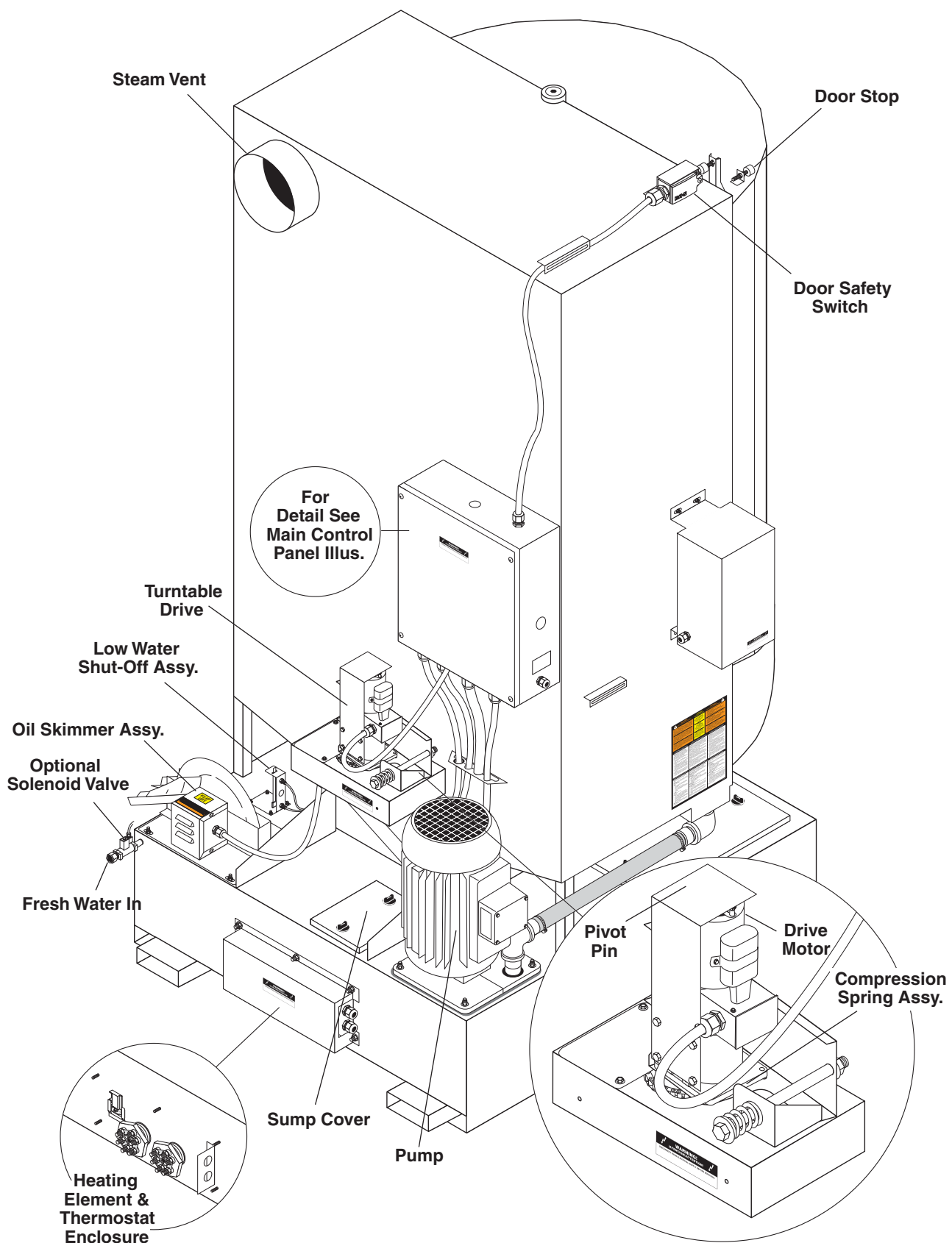
# Operations

## Component Identification - Front





**Component Identification - Rear**



## Operations

### Installation

#### Before You Begin

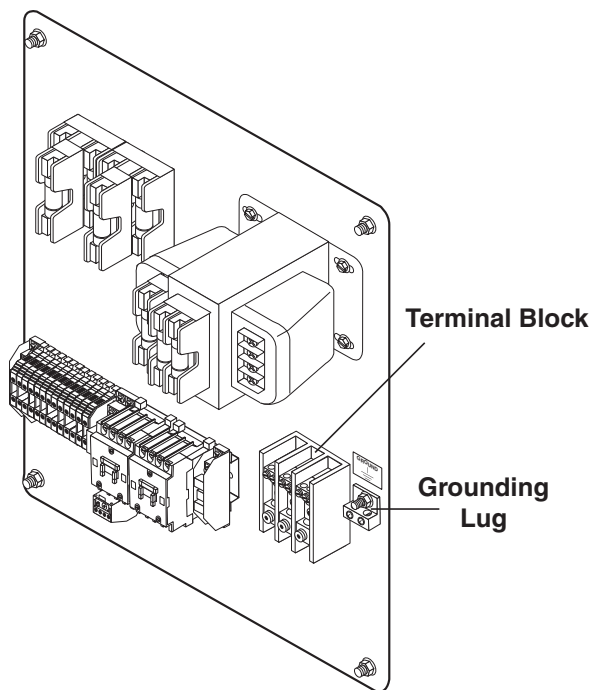
To prepare to install the machine, choose an unobstructed, level site that allows convenient access for operators and maintenance personnel. Sources for water and electrical power should be located near the installation site.

If you have any questions regarding the installation, please contact your distributor or call a customer service representative. When contacting customer service please refer to the machine identification tag inside the front cover of this manual for detailed machine specifications.

#### Step 1: Make Electrical Connections

**NOTE: All electrical installation tasks must be performed by a licensed, professional electrician to ensure safe and proper operation. The installation must comply with the National Electric Code and all applicable state and local codes.**

The machine can only operate on the type of electrical power indicated on the electrical specifications tag. Read and understand the electrical specifications tag to determine the electrical power requirements before installing the machine.

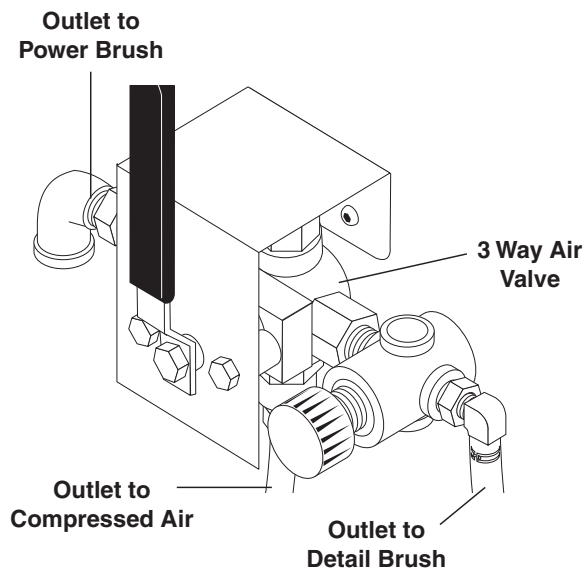


#### Step 2: Connect A Compressed-Air Line And Accessories

This step is required for machines equipped with the optional power brush and hand detail brush. If your machine does not have these options, skip the following procedure.

**NOTE: To ensure proper operation and to minimize the possibility of premature component failure, make sure the compressed air is supplied at 75 to 90 psi. Manufacturer also recommends an in-line moisture trap and an in-line lubricator on the main air supply line. Refer to the documentation provided with the power brush for more information.**

1. Remove the power brush from the box, install the wire brush in the chuck, and connect the air hose.
2. Familiarize yourself with the three-way air flow valve, then install a fitting to accommodate a connection to your compressed-air supply.



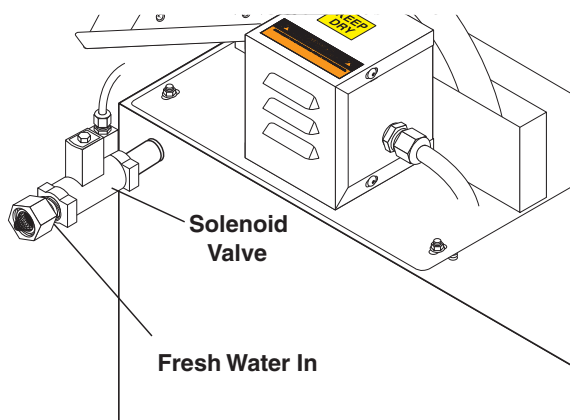
3. Connect the shop compressed-air line to the machine.
4. Connect the hose from the power brush to the air flow valve.
5. Hang the power brush on the bracket mounted on the right side of the machine.

#### Step 3: Connect A Water Line

This step is required for machines equipped with the optional automatic water fill system. If your machine does not have this option, skip this step.

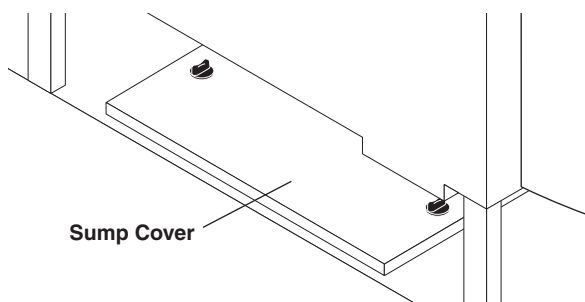
The optional automatic water fill system automatically maintains the correct water level in the sump. The system requires that you connect the machine to a dedicated water supply line.

To connect the machine to a water supply line, install a 1/2" NPT (male) by 5/8" (female) connection to the automatic water fill solenoid assembly, then connect to a nearby water spigot using a suitable burst proof hose.



### Step 4: Fill The Machine With Water And Add Detergent

1. Familiarize yourself with sump cover.



2. Fill the sump with water. If your machine is equipped with the automatic water fill system, simply open the water inlet valve; if not, add water through the wash chamber. The sump capacity is 160 gallons.
3. When the water level indicator indicates that the sump is full, shut off the water. If your machine is equipped with the automatic water fill system the water will shut off automatically when the sump is full.

**NOTE: Monitor the water level carefully – do not overfill the machine.** If you overfill the machine, remove excess water using a small submersible pump or a suitable container. The correct water level is two inches from the top of the sump tank when the pump is off.

4. Turn the heater timer to the 2-hour position. The sump water will reach operating temperature (160–180°F) in approximately one to two hours.
5. While the sump water is heating, add the appropriate quantity of factory approved detergent to the wash chamber. We recommend mixing the detergent with warm water in a separate bucket/ container and then pouring the dissolved detergent into the sump.

**NOTE: Factory approved detergent is the only detergent approved for use with this automatic parts washer. It is specially formulated with rust inhibitors and anti-foaming agents to optimize performance and minimize maintenance. The use of any other detergent during the warranty period will void the warranty. In addition, using factory detergents will extend your 90 day labor warranty to 1 year. Vapor corrosion inhibitor is also sold separately to control rust due to condensation, which can occur under some usage and environmental conditions.**

6. Close and latch the door.
7. Turn the wash cycle timer to 2 hours for the first time and allow the machine to complete the cycle to thoroughly dissolve the detergent into the water.

When the machine stops, and after the wash water reaches operating temperature, it is ready for use.

## Operations

### Operation

#### Main Operating Components

Familiarize yourself with the main operating components before operating the machine.

#### Control Panel

#### Wash Cycle Control

The wash cycle control is a 60-minute timer switch with a hold feature. When set between 1 and 60 minutes, the timer automatically shuts off the pump and turntable when the wash cycle is complete. When set to **Hold**, the pump and turntable run continuously until manually shut off.

#### Heater Control

The heater control is a 12-hour timer switch. It controls the heating element in the sump chamber. The heating system is thermostatically set at the factory to reach a high temperature of 180°F. The temperature is adjustable using the thermostat (See **Adjusting the Thermostat**). The 3-phase units have an adjustable temperature knob-check temperature setting prior to use.

#### Skimmer Control

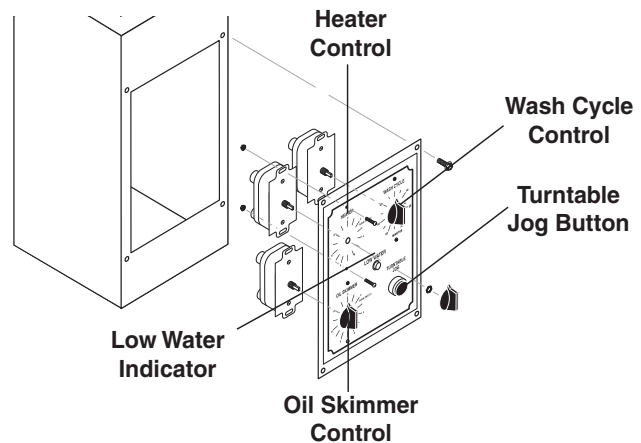
The skimmer control is a 30-minute timer switch. It controls the automatic oil skimmer. (See **Using the Oil Skimmer section** for details on use).

#### Turntable Jog Button

The turntable jog button enables you to manually rotate the turntable with the door open. This feature is useful for loading and unloading the machine; instead of reaching to the rear of the wash chamber while loading and unloading, you can rotate the turntable to easily add or remove parts.

#### Low Water Indicator

The low water indicator light illuminates if the wash solution in the sump is low. For more information see **Low Water Shut-off**.

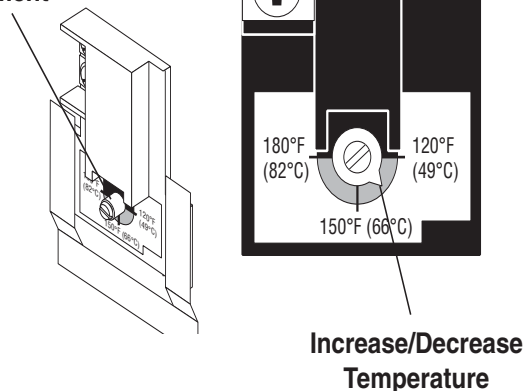


#### Thermostat

The thermostat is located on the right side of the heating element and thermostat enclosure. The thermostat is factory-set to heat the wash solution to a maximum temperature of 180°F.

#### Adjusting the Thermostat

##### Thermostat Adjustment



To adjust the thermostat, rotate the control knob clockwise to increase the temperature, or counterclockwise to decrease the temperature.

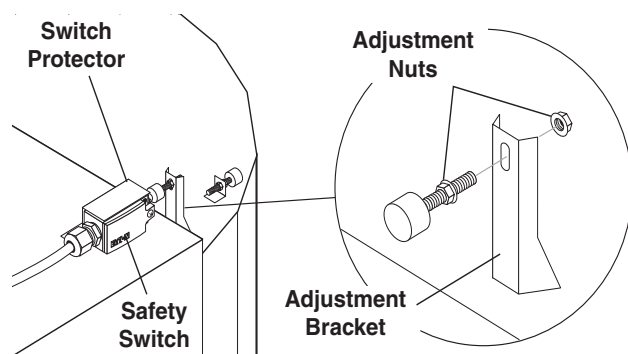
## Door Safety Switch

The door safety switch is located on the front of the machine, just above the latch side of door.

The switch is activated with a safety switch. The switch disconnects power to the water pump and turntable motor if the wash chamber door is opened during a wash cycle. The water pump and turntable motor will not operate if the door is not closed and latched correctly.

## Adjusting the door Safety Switch

1. Disconnect power to the machine.
2. Loosen the adjustment nuts on both sides of the switch bracket.

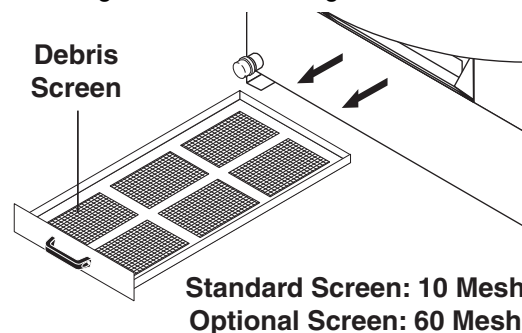


3. Adjust the switch accordingly.
4. Tighten the adjustment nuts.
5. Replace the cover.

When properly adjusted, you should hear a slight “click” as the door latch engages and compresses the door seal and the door closure safety switch.

## Debris Screen

The debris screen is located just below the wash chamber, and is accessible from the front of the machine. The debris screen continuously filters debris particles from the cleaning solution to ensure blockage-free spray nozzle operation, and also provides a safeguard against small parts that might accidentally be washed through from the cleaning chamber.



The frequency at which you must clean the debris screen depends on machine usage. In general, you should clean the screen before operating the machine each day.

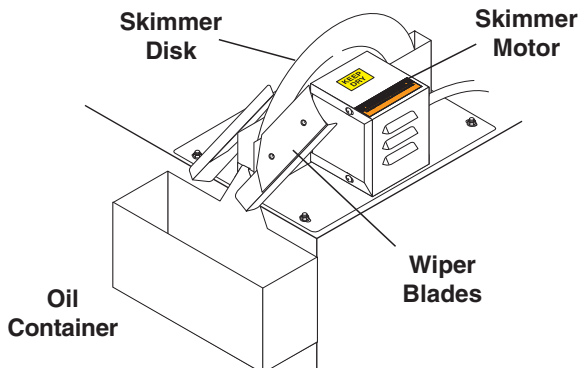
*NOTE: Never operate the machine without the debris screen in place, and never remove the screen while the machine is operating. The screen is specially sized to filter particles that could clog the spray nozzles or damage the water pump.*

Operating the machine without the debris screen could cause spray nozzle clogging or water pump failure.

## Operations

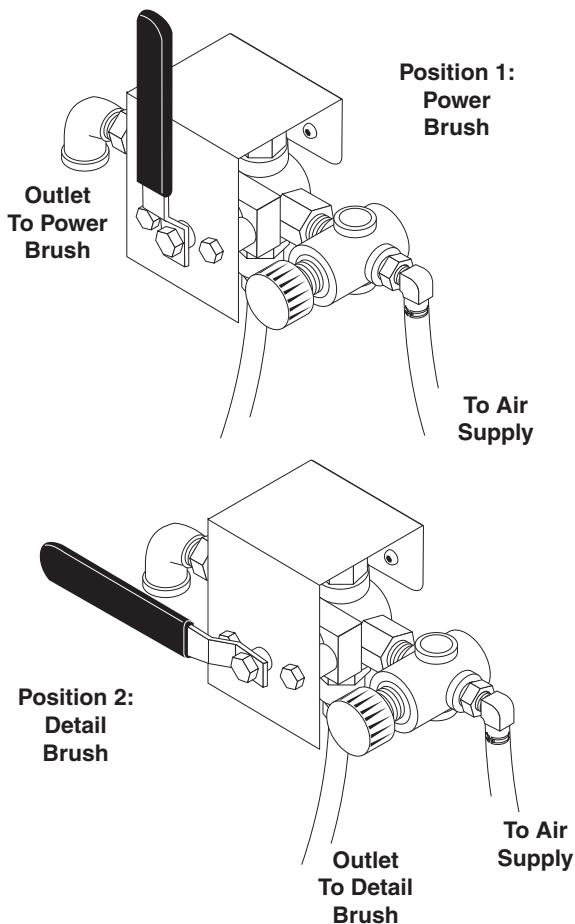
### Oil Skimmer System

The oil skimmer system is located on the right rear corner of the machine. It automatically removes oil from the wash solution to prolong its useful life. Refer to **Using the Oil Skimmer** for detailed operating instructions.



### Air Flow Valve (Optional)

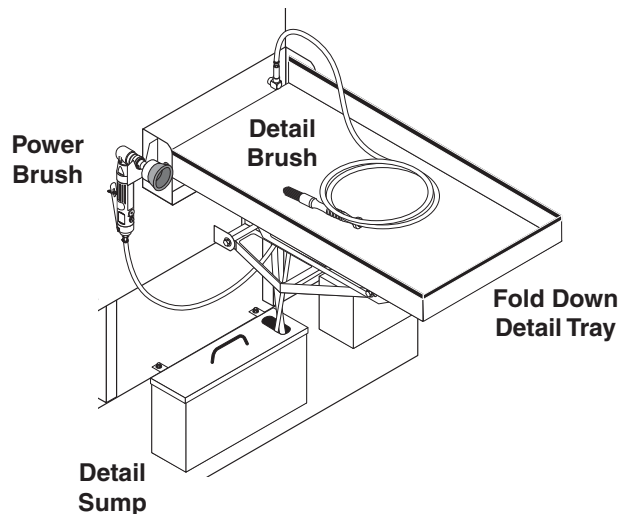
The air flow valve is located on the right rear corner of the machine. It is a three-way ball valve that controls the flow of compressed air to the power brush and the hand detail brush.



### Detail Tray and Sump Assembly (Optional)

#### Detail Tray

The detail tray is located on the right side of the machine. The tray folds down to provide a convenient work area for using the power brush and hand detail brush. The weight capacity of the detail tray is 75 pounds.



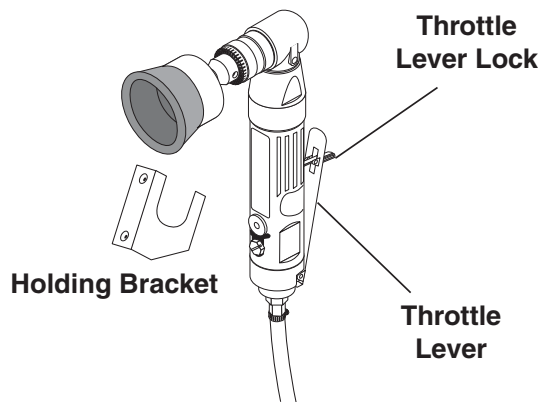
#### Detail Sump

The detail sump is located below the accessory tray on the right side of the machine. It provides wash solution for the detail brush. The detail sump will hold approximately two gallons of wash solution.

### Power Brush (Optional)

The power brush is located on the right front corner of the machine. Refer to for detailed installation information.

#### Power Brush



## Using the Power Brush

**WARNING:** *Particles dislodged by the power brush could cause serious injury to your eyes. Always wear approved eye protection when using the power brush. With stiff stainless steel bristles turning at 1800 RPM, the power brush easily removes carbon deposits, old gasket material, or other tightly-adhered materials from parts before washing.*

**AVERTISSEMENT:** *Les particules délogées par la brosse motorisée pourraient causer des blessures graves aux yeux. Toujours porter une protection oculaire approuvée lors de l'utilisation de la brosse motorisée. Avec des poils durs en acier inoxydable tournant à 1800 tr/min, la brosse motorisée déloge facilement les dépôts de carbone, le vieux joint d'étanchéité ou toute autre substance adhérant solidement des pièces avant de les laver.*

To turn on the power brush, position the air flow valve appropriately, then push the power brush lever lock forward with your thumb and squeeze the throttle lever to control the speed of the brush.

## Using the Oil Skimmer System

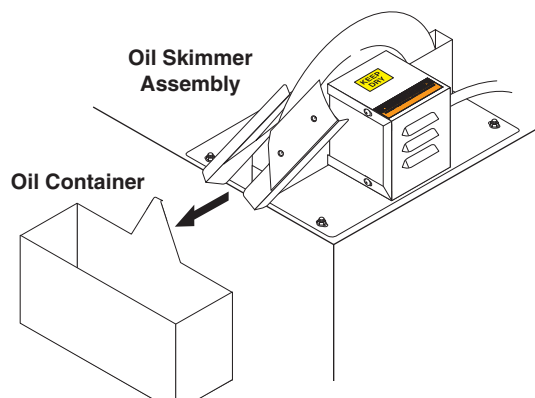
The oil skimmer system is most effective if used when the cleaning solution in the sump is cool. The frequency at which you must remove the oil from the wash solution will depend on machine usage. Under typical operating conditions you may need to remove the oil every day. If the oil skimmer runs longer than 10-15 minutes, the detergent and vapor rust inhibitor content in the sump should be checked. The detergent and inhibitor can be removed with extensive use of the skimmer, so be certain to check chemical levels after running the skimmer to determine if you require a higher frequency chemical maintenance cycle than weekly.

**IMPORTANT:** The skimmer motor is equipped with a thermal overload switch which protects the skimmer from overheating. If you attempt to use the oil skimmer system when the wash solution is hot, the thermal overload will probably trip and the motor will shut off until it cools. Under normal skimming conditions (when the wash solution is cool) the thermal overload should not trip.

To remove oil from the cleaning solution, perform the following procedure:

1. Allow the machine to sit idle for at least 30 minutes to allow the oil to float to the surface of the wash solution.

2. Ensure that the oil collection container is in place, then turn the skimmer switch to the "ON" position.



3. Allow the oil skimmer to operate until it is no longer extracting oil from the cleaning solution.

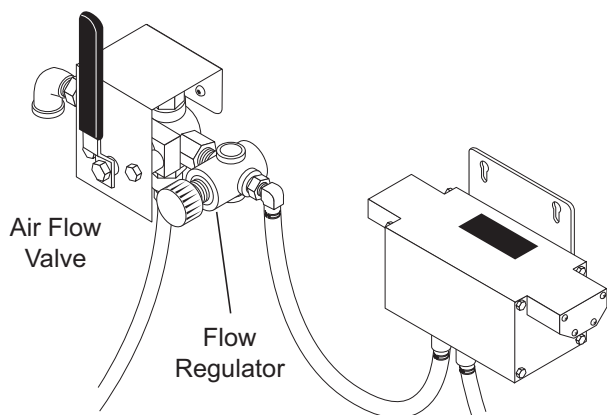
**Tip:** While extracting oil from the cleaning solution, oil will flow off the wiper blades in a fine continuous stream. Water will flow off the blades in droplets. Once droplets begin to flow off the wiper blades, stop the skimmer motor.

4. Dispose of the oil in the collection container in accordance with local and state regulations, then replace the container.

## Operations

### Detail Brush and Flow Regulator (Optional)

The detail brush is located on the right inside wall of the detail tray. The flow regulator is located on the right rear corner of the machine. The detail brush uses a continuous flow of hot cleaning solution through its nylon bristles to help you clean delicate or lightly soiled parts. The flow regulator controls the flow of cleaning solution through the detail brush.



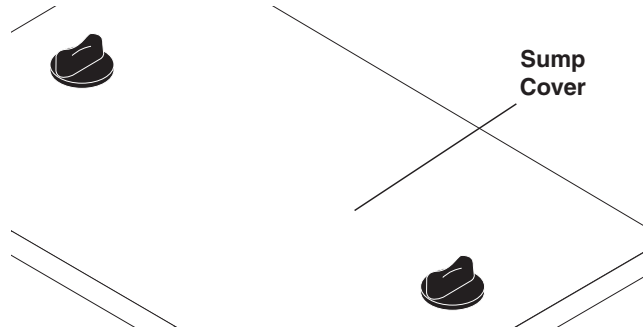
**WARNING:** Hot, high-pressure cleaning solution could cause serious injury. Always wear rubber gloves and approved eye protection when handling hot cleaning solution.

**AVERTISSEMENT:** Une solution de nettoyage chaude haute pression pourrait causer des blessures graves. Toujours porter des gants en caoutchouc et une protection oculaire approuvée lors du chargement et du déchargement de la machine.



### Adjusting the Flow of Cleaning Solution

The flow of cleaning solution through the detail brush is pre-set at the factory. If you need to adjust the flow, pull out the flow regulator knob, then rotate it clockwise to decrease the flow or counter-clockwise to increase the flow. After adjusting, push the knob back in to lock it.



### Water Level

Under typical operating conditions the machine loses 3-5 gallons of water per day to evaporation.

It is important that you monitor and maintain the water level daily to minimize the risk of burning out the heating element or ruining the pump.

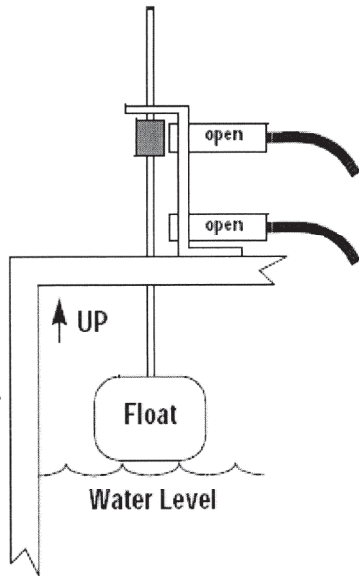
*NOTE: Water evaporates from the sump chamber, but the detergent does not. It is not necessary to add detergent each time you add water. Only add detergent after you clean the sump chamber each month, or if you notice specific low-detergent indicators (See **Detergent Concentration**).*

## Operations

### Automatic Water Fill Diagram

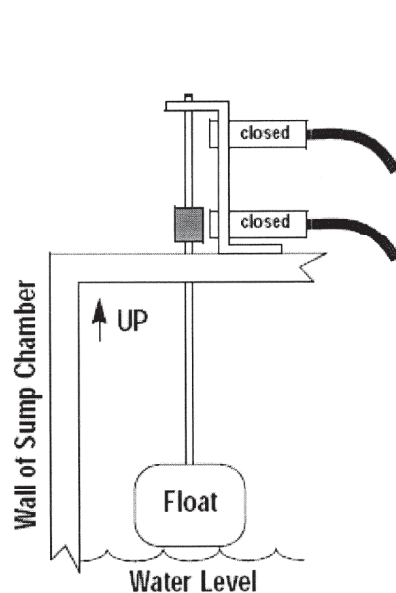
#### WATER LEVEL OK:

Both switches OPEN, Automatic Water Fill Valve (if installed) CLOSED, Heating Element ON.



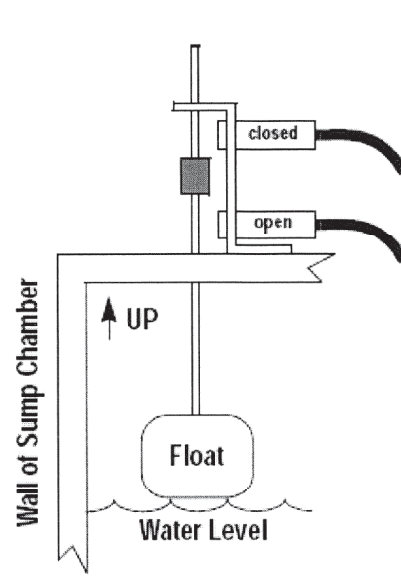
#### LOW WATER LEVEL:

Top switch CLOSED, Bottom Switch CLOSED, Automatic Water Fill Valve (if installed) OPEN, Heating Element OFF.



#### SUMP FILLING:

Top switch CLOSED, Bottom Switch OPEN, Automatic Water Fill Valve (if installed) OPEN, Heating Element OFF.



### Water Level

Under typical operating conditions the machine loses 3 to 5 gallons of water per day to evaporation. It is important that you monitor and maintain the water level daily to minimize the risk of burning out the heating element or ruining the pump.

*NOTE: Add detergent each time you add water. Add detergent after you clean the sump chamber each month, and more frequently if your cleaning cycle maintenance period is more frequent, and if you notice specific low-detergent indicators (See **Detergents and Additives**).*

### Automatic Water Fill (Optional)

The automatic water fill system automatically maintains a proper water level in the sump. It is available as an option on this machine.

The automatic water fill system uses the low water shut-off proximity switches to open and close a water solenoid valve, which automatically maintains a proper water level in the sump. The figures above demonstrate the operation of the automatic water fill system.

### Filtration And Sump Sweep Systems (Optional)

The filtration and sump sweep systems are options on this machine. The filtration and sump sweep systems reduce the need to manually clean out the sump. The filtration system continuously filters solid particles from the wash solution, and then you can use the sump sweep system to periodically remove waste build up from the bottom of the sump chamber.

#### Filtration System

The filtration system uses a single or multiple-canister configuration with nylon or polyester felt filter bags to continuously filter solid particles from the wash solution. The filter system includes pressure gauges which allow you to monitor the condition and performance of the filter bag(s) inside the canister(s). Under typical operating conditions, the inlet and outlet pressure gauges read approximately 45 psi. As the filter system becomes clogged, the outlet pressure decreases.

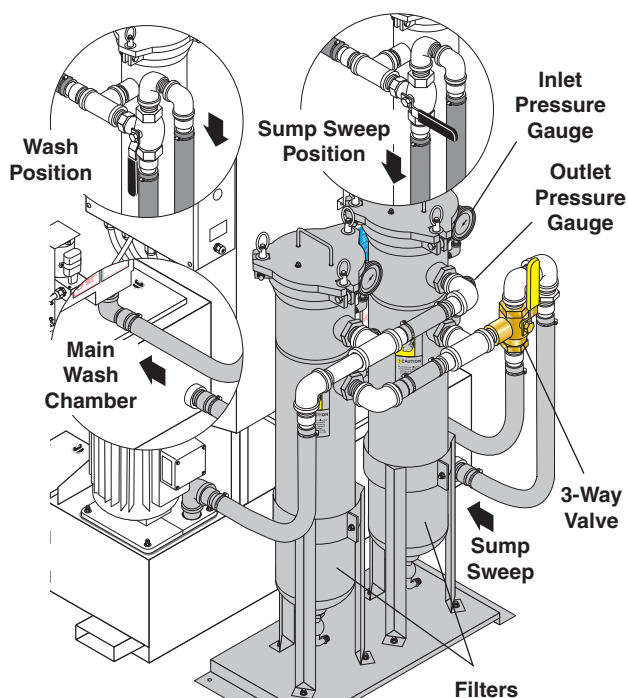
When the outlet pressure drops to 30 psi or less, stop the machine and clean or replace the filter bag(s) (See **Cleaning the Filters**). Check filters daily.

**WARNING:** Operating the machine with a clogged filter system could damage the filter bag. **STOP THE MACHINE IMMEDIATELY** if the outlet pressure drops to 30 psi or less.

**AVERTISSEMENT:** Utiliser la machine alors que le système de filtration est obstrué risquerait d'endommager le sac du filtre. **ARRÊTER IMMÉDIATEMENT LA MACHINE** si la pression de sortie chute en deçà de 30 psi.

### Sump Sweep System

The sump sweep system uses a three-way valve to divert solution from the wash chamber to a spray bar on bottom of the sump chamber. The spray bar generates a high-pressure spray pattern that agitates the sump solution and suspends solid particles. The solution then flows through the filtration system which removes the solid particles (See **Filtration and Sump Sweep System**).



### Detergent Concentration

Manufacturer's detergents are the only detergents approved for use with our automatic parts washers. They are specially formulated with rust inhibitors and anti-foaming agents to optimize performance and minimize maintenance. The use of any other detergent during the warranty period will void the warranty.

To monitor the approximate concentration of detergent in the wash solution, periodically examine the wash solution in the sump chamber for the following indicators:

- **Rust inside the machine:** not enough detergent
- **Excessive foaming:** not enough detergent
- **Thick, white residue on parts after washing:** too much detergent.

To maintain proper concentration under typical conditions, add detergent each month after cleaning the sump chamber. Follow recommended detergent quantities. Use a pH kit to determine the proper amount of detergent to use. If you need help interpreting test results, contact customer service.

### Rust Inhibitor Additive

Factory detergents protect the entire inside of your machine against the degenerative effects of water evaporation. A rust inhibitor additive actually evaporates with the water and continuously coats and protects metal surfaces, even while your machine is sitting idle. For more information, contact your distributor or call customer service.

### Preparing The Machine For Use

Before you begin to wash parts, it is important that you properly prepare the machine. Before you begin to use the machine each day:

- Check the water level and add water to the sump tank if necessary;
- Check sump water cleanliness and run skimmer as-needed to clean sump water surface
- Heat the water to operating temperature (recommend 160° to 180°F)
- Add detergent if necessary (see **Detergent Concentration**);
- Verify that none of the spray nozzles are clogged; and
- Clean the debris screen.

## Operations

### Washing Parts

The following procedure assumes that the heater is on and the sump water is at operating temperature.

To wash parts, perform the following procedure.

**WARNING: Hot, high-pressured cleaning solution could cause serious injury. Always wear rubber gloves and approved eye protection when loading and unloading the machine.**

**AVERTISSEMENT: Une solution de nettoyage chaude haute pression pourrait causer des blessures graves. Toujours porter des gants en caoutchouc et une protection oculaire approuvée lors du chargement et du déchargement de la machine.**

1. Load parts into the machine.

Load large, heavy parts directly onto the turntable.

If a part extends beyond the edge of the turntable and could impede turntable rotation, flip the turntable switch **OFF**.

Secure large, light parts (valve covers for example) to the turntable using suitable rubber tie-downs.

Load small, light parts into the small parts basket.

*NOTE: For optimum cleaning performance, provide a slight clearance between parts to allow adequate flow of cleaning solution around and between them.*

2. Close and latch the door.
3. Set the wash cycle timer to between 1 and 60 minutes for a timed wash cycle, or set it to **Hold** for a continuous wash.

*NOTE: If your machine is equipped with an optional filtration system, monitor the outgoing pressure to ensure that it does not drop below 30 psi. If the pressure drops below 30 psi, immediately stop the machine and either clean or replace the filter bag(s) (See **Cleaning the Filters**).*

4. When the machine automatically stops (or after you manually stop the wash cycle), open the door and wait a few moments to allow the parts to cool and dry before removing them. Most parts will flash-dry in seconds.

### Shutting Down The Machine

To shut down the machine at the end of the day:

- Set the wash cycle timer to **OFF**;
- Set the heater timer to **OFF**; and
- Shut off the compressed air at the supply line (if installed).

**WARNING: If the heater is left on unattended, the wash solution could evaporate and the oil and grease in the sump chamber could catch fire.**

**AVERTISSEMENT: Si le chauffe-eau est laissé sous tension sans surveillance, l'eau pourrait s'évaporer et l'huile et la graisse dans la chambre de lavage pourrait prendre feu.**

- For periods of extended shut-down, disconnect all power to the machine.  
*Note: Perform rust preventative treatment on mild steel units prior to extended storage.*
- If your machine is equipped with an optional programmable heater timer, periodically verify the settings to prevent inadvertent unattended operation.

## Maintaining The Machine

To ensure optimum performance and trouble-free operation, observe the following maintenance schedule consistently.

### Daily Maintenance

- Check the water level; add water if necessary.
- Clean the debris screen.
- Remove oil from the wash solution using the oil skimmer system (See **Using the Oil Skimmer System**).

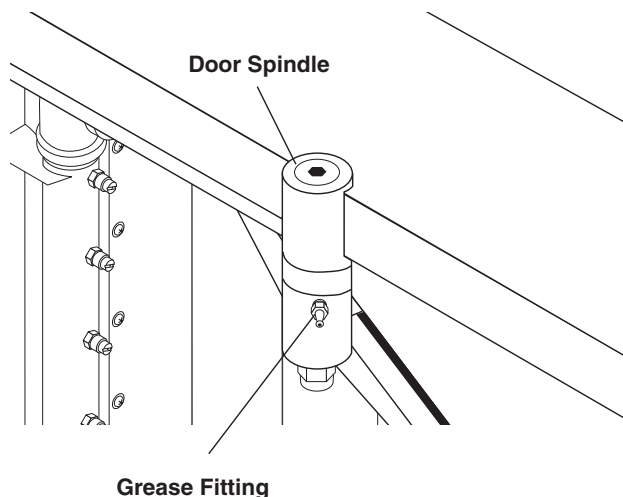
### Weekly Maintenance

- Examine the spray nozzles; clean and align if necessary (See **Cleaning and Aligning the Spray Nozzles**).
- Wipe down the exterior of the machine using spray degreaser and a soft, damp cloth. **TO PREVENT ELECTRICAL COMPONENT FAILURE, DO NOT SPRAY THE MACHINE WITH WATER.**

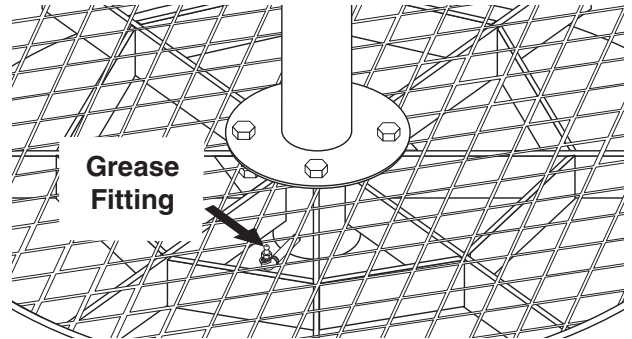
*NOTE: Spray degreaser and a damp cloth will usually remove all dirt and grime from the machine. For particularly stubborn soap deposits, use a soft cloth dampened with warm solution from the wash chamber.*

### Monthly Maintenance

- Clean out the sump chamber and detail sump (See **Cleaning out the Sump**).
- Lubricate the door spindle using high-quality automotive grease. Add grease until it begins to flow out of the joint beneath the grease fitting, then wipe excess grease from the fitting and the joint.

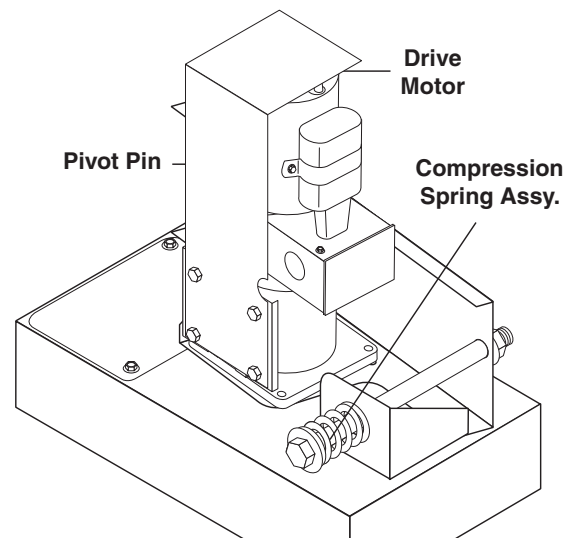


- Lubricate the turntable bearing using high-quality automotive grease. The grease fitting is accessible through the turntable deck. Add 1–2 strokes of grease, then wipe excess grease from the fitting.



### Semi-Annual Maintenance

- Lubricate the pivot pin on the turntable motor assembly with machine oil or anti-seize.

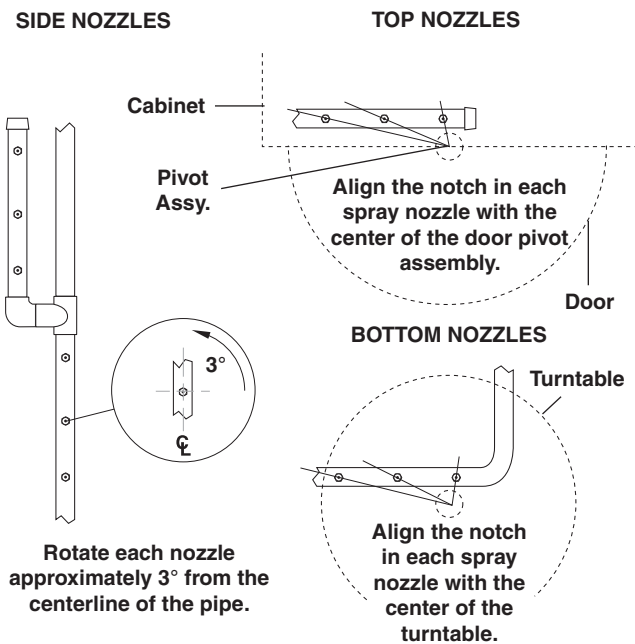


## Maintenance

### Cleaning And Aligning The Spray Nozzles

To ensure optimum cleaning performance, it is important that you examine the spray nozzles periodically and clean and align them if necessary. To clean a plugged nozzle, remove it from the spray pipe and use a small wire brush to free the nozzle of any obstructions. When you replace the nozzle on the spray pipe, make sure you align it according to the figures to maintain a proper spray pattern.

**NOTE:** The spray nozzles are sized and positioned to optimize the distribution of cleaning solution in the wash chamber. If you remove the nozzles make sure you replace them in the correct position on the appropriate pipe.



### Cleaning Out The Sump

#### Filtration And Sump Sweep System

**NOTE:** The effectiveness of the filtration and sump sweep system for cleaning out the sump will depend on the type of filter bag(s) you use in the filter canister(s). If you find that the filtration and sump sweep systems do not adequately clean the sump on your machine, contact your distributor or customer service for other filter bag recommendations.

To clean out the sump using the optional filtration and sump sweep system, perform the following procedure:

1. If your machine is equipped with a detail sump, dump the contents of the detail sump into the main sump chamber.
2. Remove oil and grease from the cleaning solution using the oil skimmer system (See **Using the Oil Skimmer System**).
3. Position the three-way wash solution valve as shown.
4. Close and latch the door.
5. Run the machine through a 30-minute wash cycle.

**NOTE:** While the sump sweep is operating, monitor the outlet pressure on the filter system to ensure that it does not drop below 30 psi. If the pressure drops below 30 psi, immediately stop the machine and either clean or replace the filter bag(s) (See **Cleaning the Filters**).

6. After the machine stops, position the three-way wash solution valve as shown.
7. Add the appropriate amount of detergent and run the machine through a 30-minute wash cycle. Use a pH kit to determine the proper amount of detergent to add.

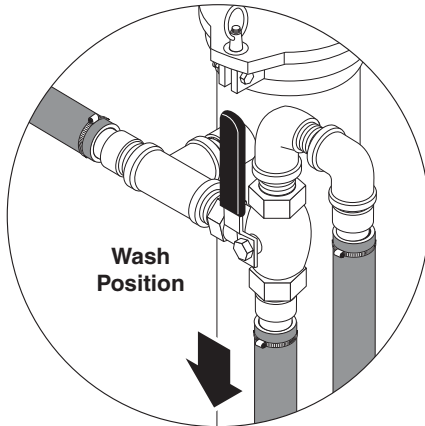
**NOTE:** Manufacturers detergent is the only detergent approved for use with our automatic parts washers. It is specially formulated with rust inhibitors and anti-foaming agents to optimize performance and minimize maintenance. The use of any other detergent during the warranty period will void the warranty.

#### Manual Sump Clean Out

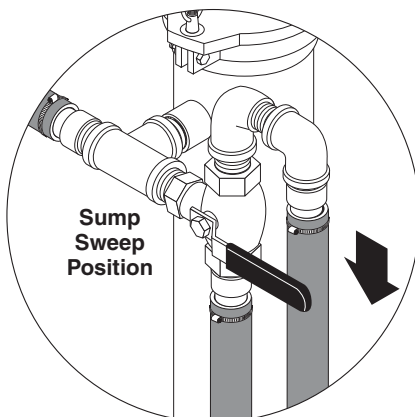
To manually clean out the sump, perform the following procedure:

1. If your machine is equipped with a detail sump, dump the contents of the detail sump into the main sump chamber.
2. Remove oil and grease from the cleaning solution using the oil skimmer system (See **Using the Oil Skimmer System**).
3. If your machine is equipped with the Auto-Fill feature, turn off the water at the supply line.
7. Replace the sump covers and heat the wash water to operating temperature.
8. Add the appropriate amount of detergent and run the machine through a 30-minute wash cycle. Use a pH kit to determine the proper amount of detergent to use.

*NOTE: Manufacturers detergent is the only detergent approved for use with our automatic parts washers. It is specially formulated with rust inhibitors and anti-foaming agents to optimize performance and minimize maintenance. The use of any other detergent during the warranty period will void the warranty.*



4. Remove both sump covers, then drain the wash solution from the sump chamber. To drain the solution either use the sump drain or a small submersible pump.
5. Remove sand and other debris from the bottom of the sump chamber and the detail sump. To remove the debris, either flush it out through the sump drain or vacuum it out using a wet/dry vac. Dispose of the debris in accordance with applicable local, state, and federal regulations.



*NOTE: Take special care to ensure that the heating element is free of debris. A buildup of debris around the element will decrease heating performance and may cause the element to overheat and fail.*

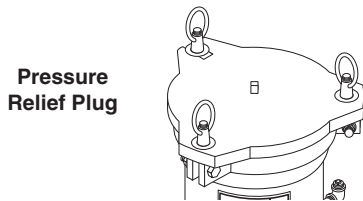
6. Refill the sump with fresh clean water..

## Maintenance

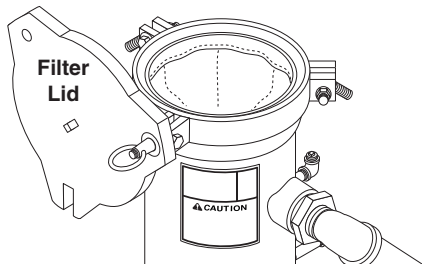
### Cleaning The Filters

Our filtration systems are available in single or multiple canister configurations. Each canister uses a nylon or polyester felt filter bag to remove solid particles from the wash solution. Nylon bags are reusable; polyester felt bags are designed for a single use. To clean or replace the filters, perform the following procedure:

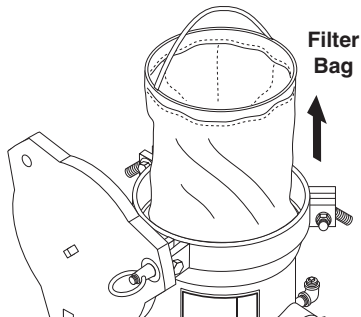
1. Turn off the machine and open the door.
2. If your machine is equipped with the Auto-Fill feature, turn off the water at the supply line.
3. Slowly unscrew the pressure-release plug on the lid of the filter canister to release the pressure in the filtration system.



4. Loosen the three lid nuts, then swing the lid free of the canister.



5. Remove and empty the filter bag and screen.



6. If you are using a nylon filter bag, you can clean and reuse it several times before replacing it. If you are using a polyester felt filter bag, you must replace it. Contact your distributor or call customer

service for filter bag recommendations and ordering information.

7. Replace screen and filter bag in the filter canister.
8. Install and tighten the lid.
9. Tighten the pressure-release plug.
10. Turn on machine and continue washing.

### Repairing The Machine

The following procedures outline the steps necessary to replace specific items on the machine that could wear out or otherwise fail.

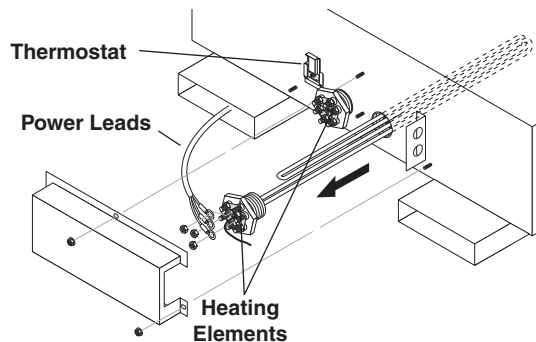
### Heating Elements

#### Required Tools and Equipment

- 5/16" wrench or socket
- 2" socket and breaker bar
- sealing tape or compound
- medium phillips-head screwdriver

#### Replacement Procedure

1. Disconnect power to the machine.
2. Drain the wash solution from the sump.
3. Remove the cover from the heating element and thermostat enclosure (four 5/16" screws).
4. Detach the power leads from the heating elements, taking care to mark them for reassembly.



5. Using a 2" socket and breaker bar, unscrew the heating element(s) from the machine.

**NOTE:** Since the heating element is in continuous contact with the cleaning solution the threads may corrode slightly. The element may be difficult to remove. When you install a new heating element, use sealing tape or compound on the threads to deter corrosion.



6. Install the new heating element(s). Installation is the reverse of removal.

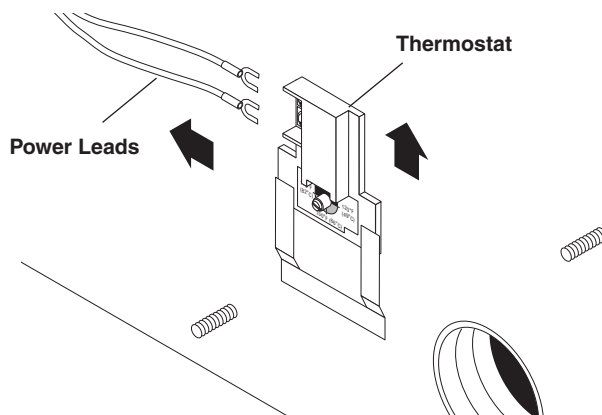
## Thermostat

### Required Tools and Equipment

- 5/16" wrench or socket
- medium phillips-head screwdriver
- large flat-head screwdriver

### Replacement Procedure

1. Disconnect power to the machine.
2. Remove the cover from the heating element and thermostat enclosure (four 5/16" screws).
3. Detach the electrical leads from the thermostat.



4. Remove the thermostat from the machine.
5. Install the new thermostat. Installation is the reverse of removal.

## Turtable Motor

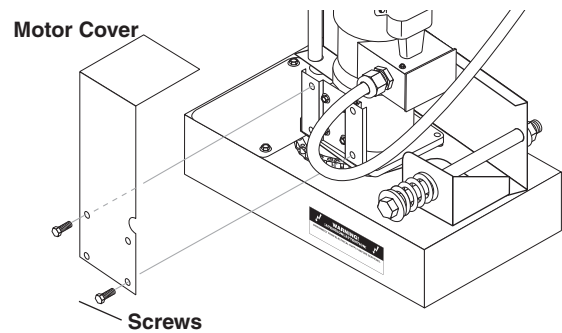
### Required Tools and Equipment

- 5/16" wrench or socket
- 1/2" wrench or socket
- 1/8" hex key
- medium phillips-head screwdriver

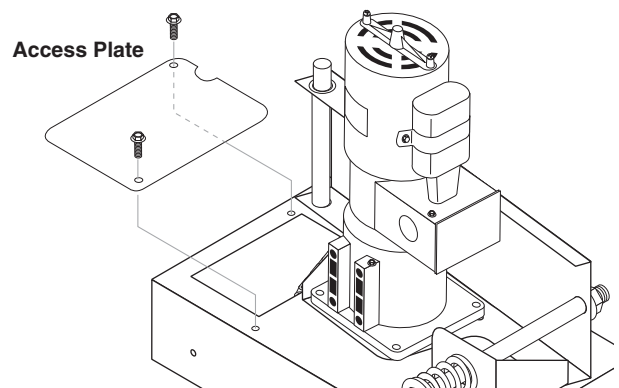
### Replacement Procedure

1. Disconnect power to the machine.
2. Disengage the drive chain from the turntable.
3. Taking care not to kink or tangle the chain, place it on the turntable.

4. Remove the turntable motor cover (two 5/16" screws).

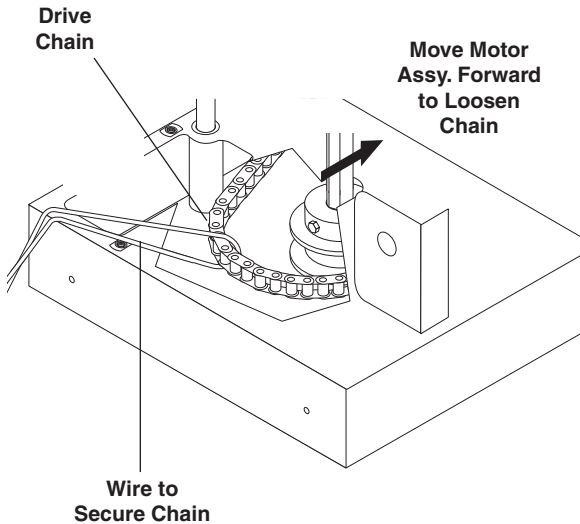


5. Remove compression springs between the motor and the rear wall of the wash chamber.
6. Remove the drive pulley access plate (two 5/16" screws).

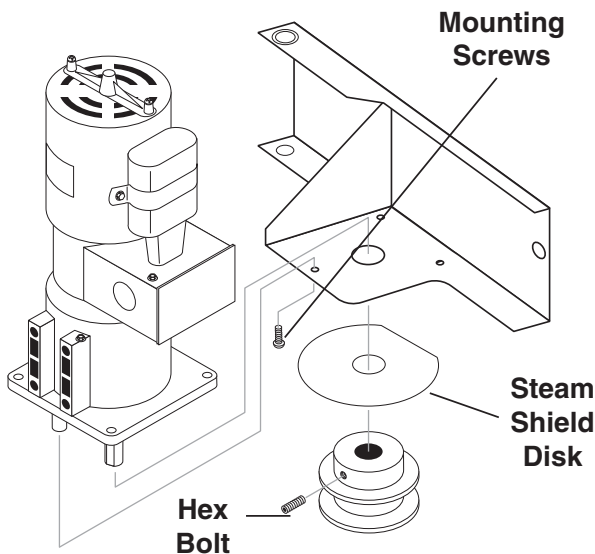


## Maintenance

- Reach into the drive pulley access hole with your fingers to remove the chain from the drive sprocket. Take care not to let the chain slip into the wash chamber. Use a piece of wire to secure the chain while you replace the motor.



- Disconnect all power leads from the motor, taking care to mark them for reassembly.
- Raise the motor and bracket to remove the assembly from the pivot pin.
- Use a 1/8" hex key to remove the pulley and steam shield disk from the drive motor shaft, then remove the 1/2" bolts holding the motor to the mounting bracket.



- Install the new motor. Installation is the reverse of removal.
- Reconnect the drive chain to the turntable.

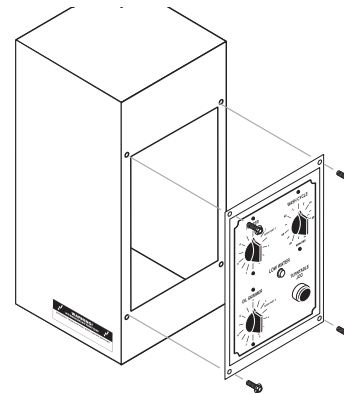
## Timers And Switches On The Control Panel

### Required Tools and Equipment

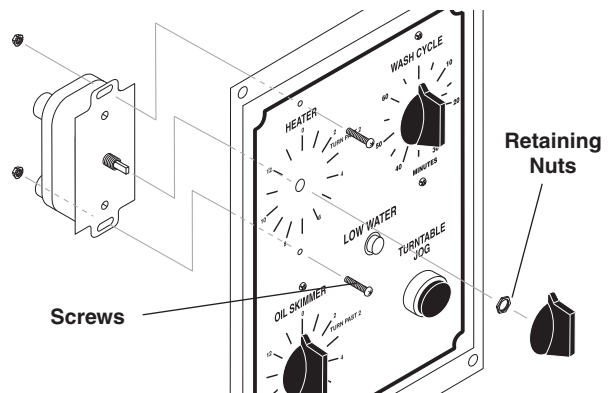
- 5/16" wrench or socket
- 1/2" wrench or deep socket
- small phillips-head screwdriver
- small flat-head screwdriver

### Replacement Procedure

- Disconnect power to the machine.
- Remove control panel face plate (four 5/16" screws).



- Disconnect the wiring harness from the rear of the face plate.
- Remove the knob from the timer you wish to remove.



- Remove the two screws, retaining nut, and o-ring that hold the timer switch to the control panel.
- Detach the power leads from the timer.
- Attach the power leads to the new timer.
- Install the new timer. Installation is the reverse of removal.

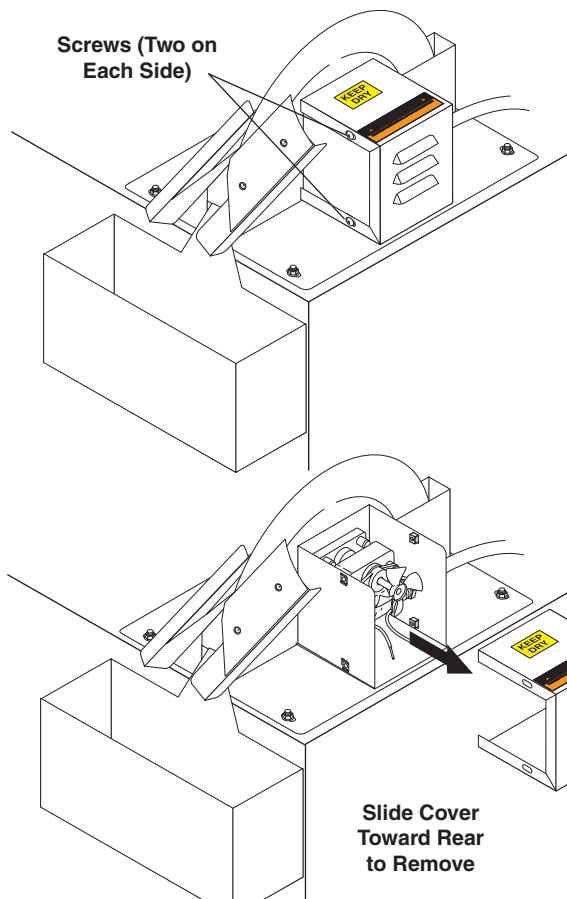
## Oil Skimmer Motor

### Required Tools and Equipment

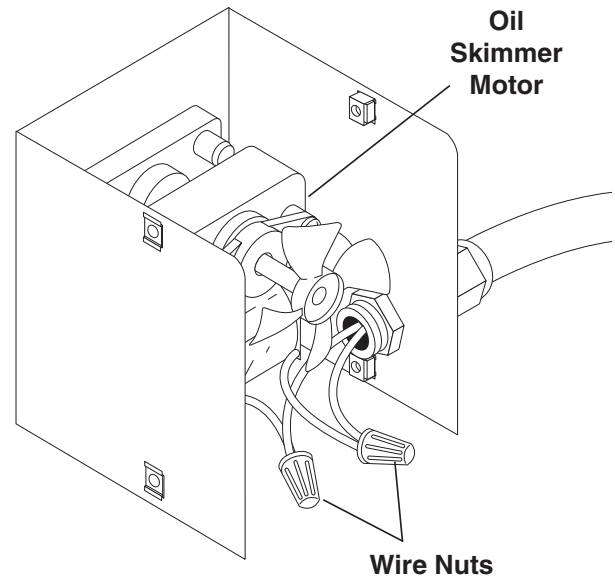
- 5/16" wrench or socket
- 1/2" wrench or socket
- small phillips-head screwdriver

### Replacement Procedure

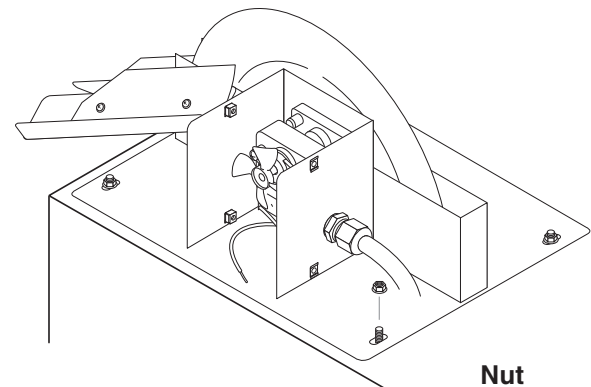
1. Disconnect power to the machine.
2. Remove four 5/16" screws to remove the skimmer motor cover.



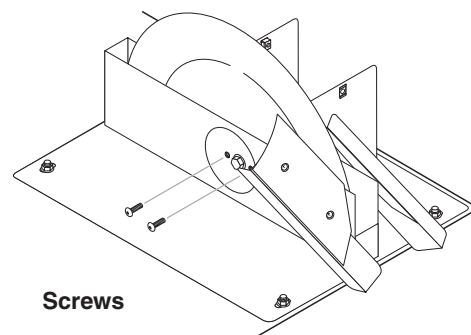
3. Remove the two wire nuts from the power leads to disconnect the leads from the motor, and disconnect the conduit from the motor housing.



4. Remove the four 5/16" nuts from the skimmer assembly mounting plate to remove the skimmer assembly from the machine.

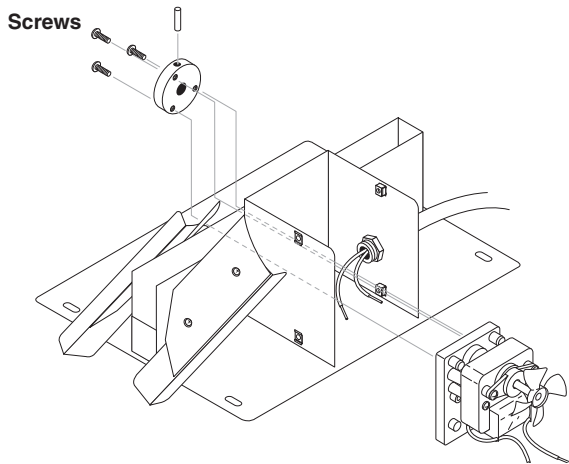


5. Remove the two screws from the center of the skimmer disk to detach the disk from the skimmer assembly. To remove the disk, disengage it from the center pin, then slide it down.



## Maintenance

- Remove the three screws from the skimmer motor mounting plate to remove the motor from the skimmer assembly. Also remove roll pin from skimmer disk hub.



- Reassemble the skimmer assembly and replace it on the machine. Assembly is the reverse of removal.

## Troubleshooting

### Troubleshooting The Electrical System

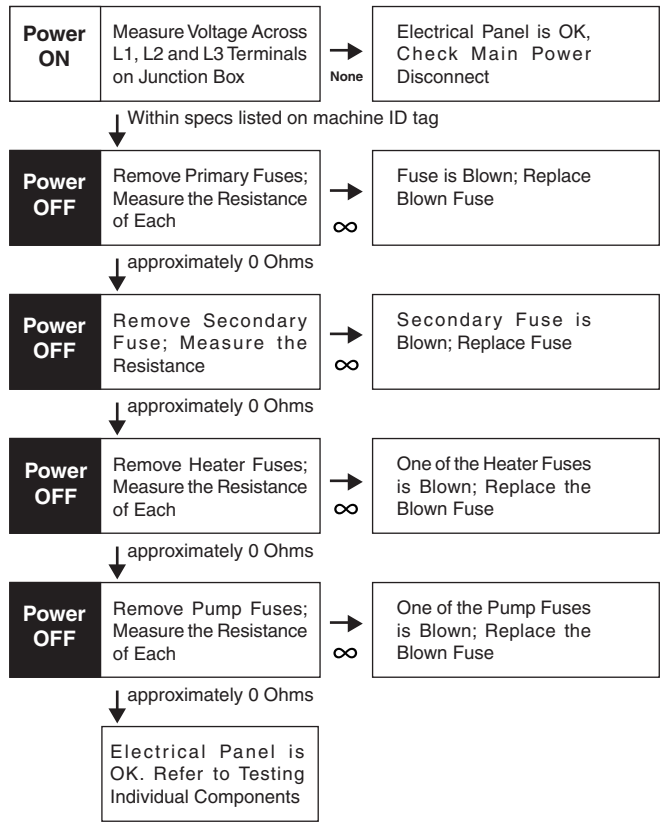
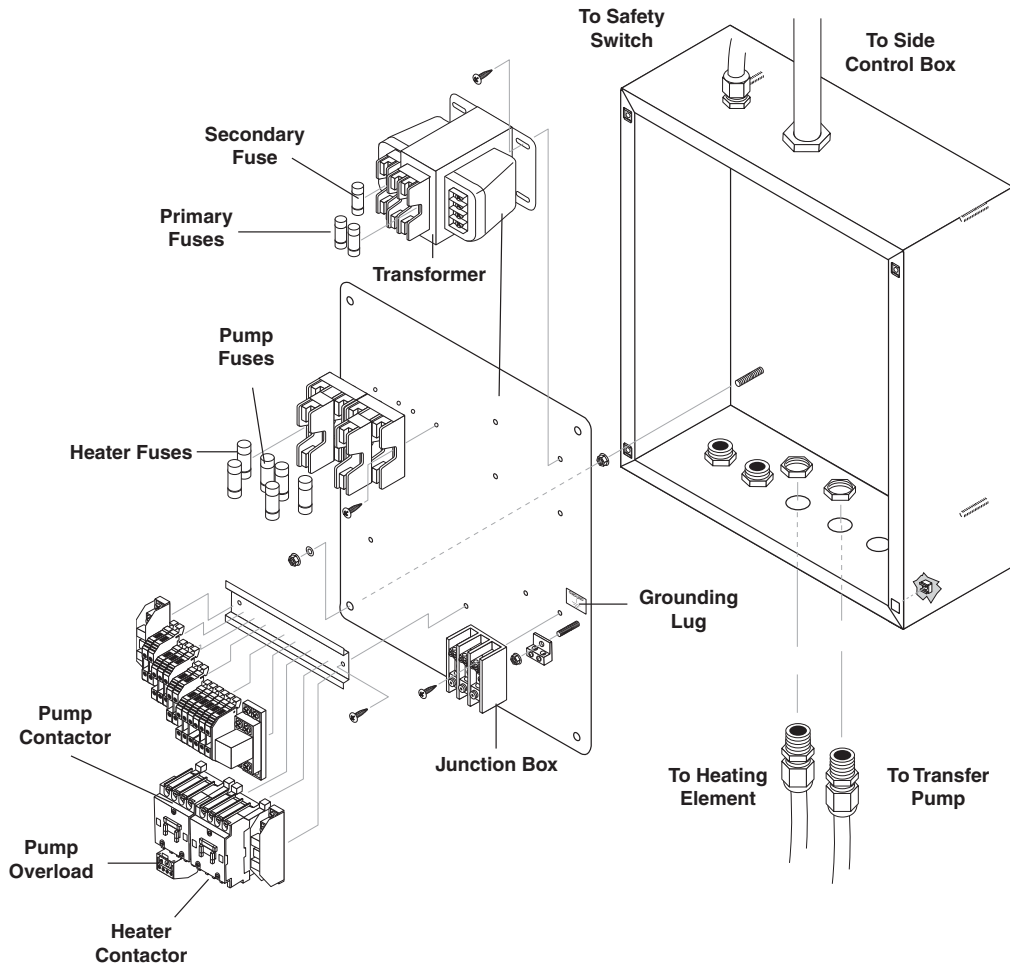
To troubleshoot the electrical system use the following diagrams to eliminate the possibility of a blown fuse or a bad connection, then refer to Testing Individual Components to determine which component is causing the problem.



**DANGER:** Keep water away from electric wiring or fatal electric shock may result.

**DANGER:** Garder le d'eau à l'écart de tout câblage électrique ou des chocs électriques mortels pourraient survenir.

- Electrical troubleshooting should be performed by qualified personnel only.
- Avoid contact with power leads, terminals, and fuses when power is connected.
- Disconnect power to machine before removing fuses or other electrical components.



## Maintenance

### Testing Individual Components

*NOTE: The following troubleshooting procedures require the use of a volt/ohm meter. If you are not familiar with using a volt/ohm meter do not attempt to perform the following troubleshooting procedures. If you need assistance please contact your distributor or call a customer service representative.*

### Wash Cycle and Heater Timers

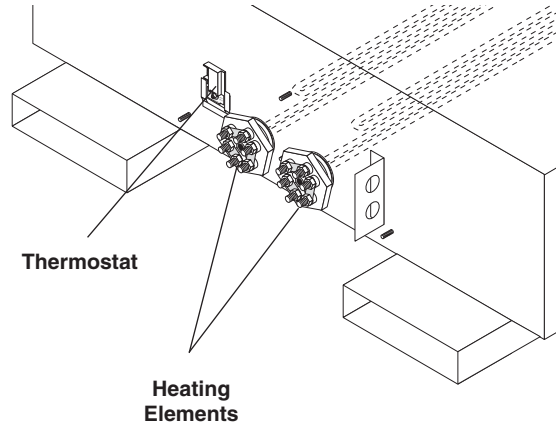
1. Disconnect power to the machine.
2. Remove the timer from the control panel and disconnect all wires (See **Timers and Switches on the Control Panel**).
3. With the timer in the **OFF** position, test for continuity using an ohm meter.  
  
If there **is** continuity the timer is no longer functional; replace the timer.
4. With the timer in the **ON** position, test for continuity using an ohm meter.  
  
If there **is not** continuity, the timer is no longer functional; replace the timer.

### Door Safety Switch

1. Disconnect power to the machine.
2. Remove the switch from the rear of the machine and disconnect all wires (See **Door Safety Switch**).
3. With the switch fully open (not depressed), test for continuity.  
  
If there **is** continuity, the switch is no longer functional; replace the switch.
4. With the switch fully closed (depressed), test for continuity.  
  
If there **is not** continuity, the switch is no longer functional; replace the switch.

### 18 KW Heating Elements

These machines use two three-phase heating elements. Three-phase heating elements are complex components; they are difficult to test in the field. Please contact your customer service representative for testing instructions.

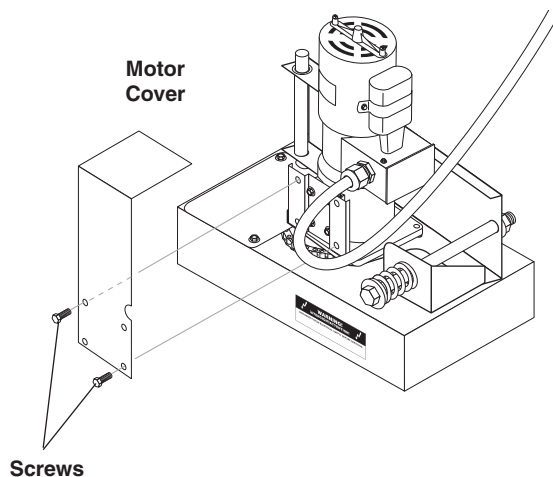


### Thermostat

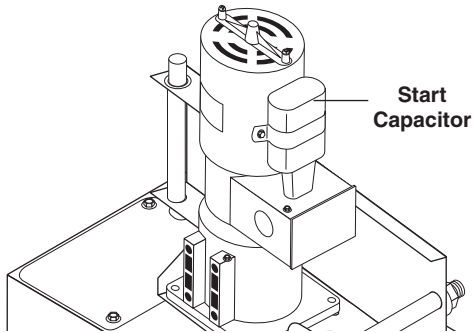
This machine uses a three-phase thermostat. A three-phase thermostat is a complex component; it is difficult to test in the field. Please contact your customer service representative for testing instructions.

### Start Capacitor

1. Disconnect power to the machine.
2. Remove the turntable motor cover (two 5/16" screws).



3. Inspect the start capacitor. If it appears swollen or deformed, it is no longer functional; replace the start capacitor.



4. If the start capacitor has not visibly failed, remove it from the motor bracket, disconnect the wires, and test it for shorts using an ohm meter.

If the ohm meter reads infinity, the start capacitor is no longer functional; replace it.

## Maintenance

The following tables list common operating problems and possible solutions. If your machine exhibits problems not listed here, or if the suggested solution does not solve your problem, contact your distributor or a customer service representative. When contacting factory customer service please refer to the machine identification tag inside the front cover of this manual for detailed machine specifications.

PROBLEM	POSSIBLE CAUSE	SOLUTION
<b>POOR CLEANING PERFORMANCE</b>	Parts are obstructing each other	Check the position of parts on turntable; position parts to allow flow of cleaning solution around and between them.
	Low water level in sump	Check sump water level; add water if necessary.
	Clogged or improperly aligned spray nozzles	Check spray nozzles for obstructions and alignment; clean and align if necessary.
	Low detergent concentration less than 9 pH. Should be 10-11 pH	Add 1-2 scoops of detergent and observe cleaning performance; add 1-2 scoops more if necessary.
	Wash solution is not properly heated	See <b>wash solution is not heating</b> below.
	Pump is not operating properly	See <b>pump does not operate properly</b> .
<b>WASH SOLUTION NOT HEATING</b>	Blown fuse	Refer to <b>Troubleshooting the Electrical System</b> .
	Thermostat is incorrectly set	Check thermostat setting; set to 150° - 180°.
	Excess debris is built up around heating element	Check for debris build up around heating element; clean out if necessary.
	Line voltage is too low	Contact a licensed electrician to verify that the incoming line voltage meets unit requirements.
	Failed heater timer	Test the heater timer; replace if necessary.
	Failed thermostat Failed heating element	Test the thermostat; replace if necessary. Test the heating element; replace if necessary.
<b>FOAMING</b>	Machine operating with cold water	Bring water up to correct temperature.
	Grease, high detergent motor oils, transmission oil, gear lubes, synthetic oils	Do not place oil pan or transmission pan into machine without pouring oil out of it.
	Not enough detergent	Add more detergent, check pH level. Use de-foamer.
<b>WHITE POWDER ON PARTS</b>	Solution is old	Change sump water and recharge with fresh detergent and vapor corrosion inhibitor.
	Water hardness and TDS (totally dissolved residue)	Use a water softener and/or change your sump water more frequently.
	Large parts can dry before solution runs off, leaving powdery residue	Monitor soap concentration, and correct as-needed.
<b>WASH SOLUTION TOO HOT</b>	Failed thermostat	Replace the thermostat.



<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
<b>MACHINE FAILS TO START WHEN "WASHING PARTS" PROCEDURE IS FOLLOWED</b>	Main power disconnect is off	Verify that no service is being performed on the machine, then turn the main power disconnect on.
	Door is not closing properly	Check the door latch and door closure safety switch; adjust if necessary (See <b>Adjusting the Door Safety Switch</b> ).
	Failed door closure safety switch	Test the door closure safety switch; replace if necessary (See <b>Adjusting the Door Safety Switch</b> ).
	Failed washer cycle timer	Test the wash cycle timer; replace if necessary (See <b>Wash Cycle, Heater and Skimmer Timers</b> ).
	Pump is not operating properly	See <b>pump does not operate properly</b> section below.
<b>TURNTABLE DOES NOT OPERATE PROPERLY</b>	Parts are obstructing turntable rotation	Check for parts obstructing rotation of the turntable; rearrange if necessary.
	Drive chain is not on the drive pulley	Check drive chain; realign on drive pulley if necessary.
	Turntable motor compression springs are not installed	Check the turntable motor compression springs; install if necessary (See <b>Turntable Motor Assembly</b> ).
	Blown fuse	Check electrical panel for blown fuse; replace if necessary.
	Failed wash cycle timer	Test the wash cycle timer; replace if necessary (See <b>Wash Cycle, Heater, and Skimmer Timers</b> ).
	Failed start capacitor	Test the start capacitor; replace if necessary (See <b>Start Capacitor</b> ).
	Failed turntable motor	Contact a licensed electrician to test the motor; replace if necessary (See <b>Turntable Motor</b> ).
<b>PUMP DOES NOT OPERATE PROPERLY</b>	Low water level in sump	Check sump water level; add water if necessary.
	Pump intake is plugged	Check pump intake for obstructions; clean out if necessary.
	Pump overload relay is tripped	Reset the motor overload relay.
	Blown fuse	Check electrical panel for a blown fuse; replace if necessary.
	Line voltage is too low	Contact a licensed electrician to verify that the incoming line voltage meets unit requirements.
	Pump is failed	Contact a licensed electrician to test the pump; replace if necessary.
<b>INTERIOR OF MACHINE IS RUSTING</b>	Low detergent concentration/ vapor corrosion inhibitor or improper detergent usage	Factory approved detergents, when used at the proper concentration, contain adequate rust inhibitors to prevent rust. Check vapor corrosion inhibitor concentration instructions on chemical bottle for correct amount to add. Verify that you are using the detergent at the correct concentrations (See <b>Detergent Concentration</b> ).
	Condensation collecting on door and inside of cabinet during long idle times.	Leave door open if wash solution is cold and unit is not in use. Add rust inhibitor solution.

## Maintenance

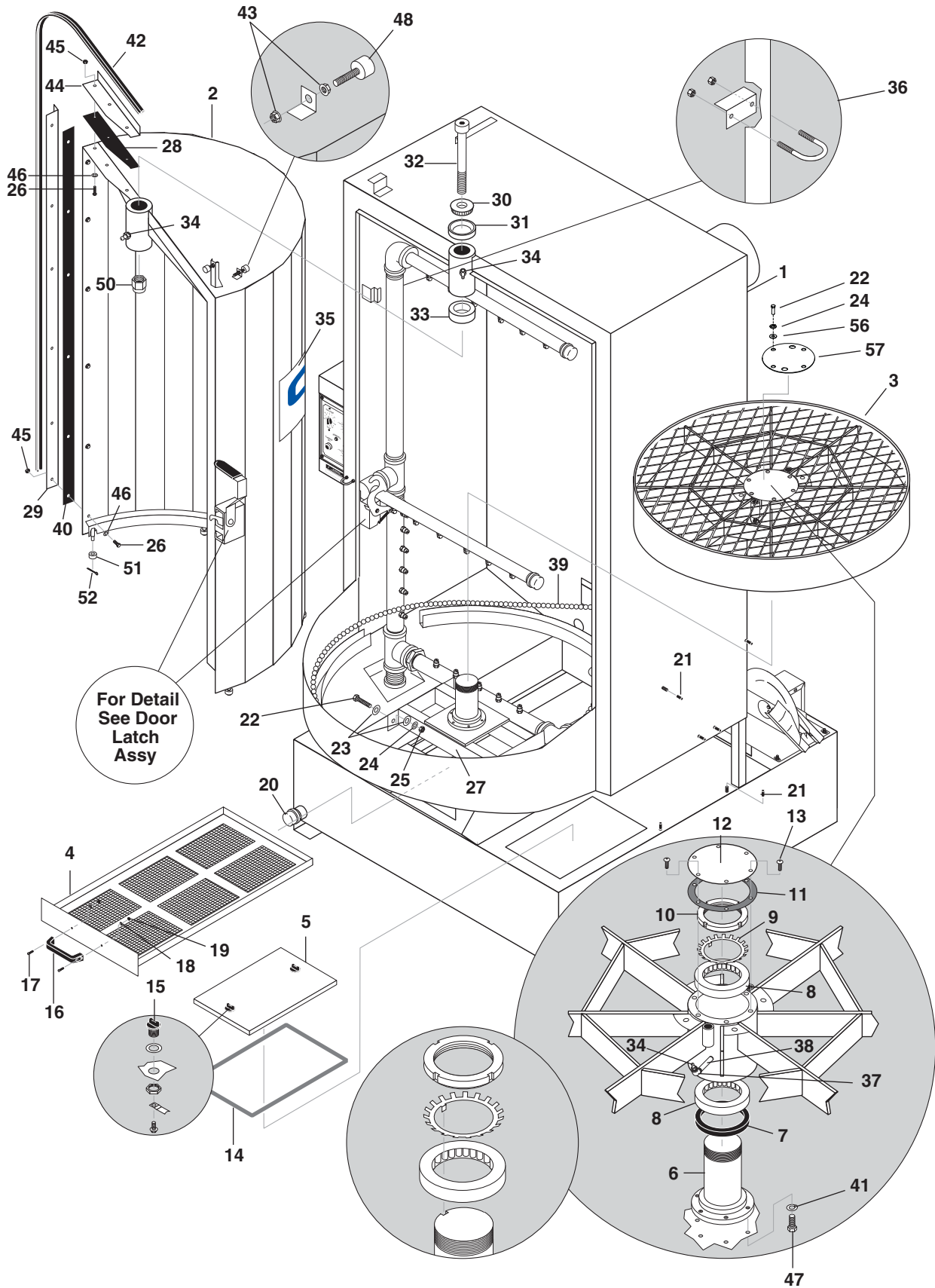
PROBLEM	POSSIBLE CAUSE	SOLUTION
<b>OIL SKIMMER DOES NOT OPERATE PROPERLY</b>	Blown fuse	Check for a blown fuse; replace if necessary.
	Skimmer blades are too tight	Turn on the skimmer motor and observe the contact between the skimmer blades and the skimmer disk. If the blades skip, bind, or leave a significant scratch on the disk, they are too tight. To loosen the blades, gently bend them away from the skimmer disk.
	Cooling fan on skimmer motor is jammed	Turn off power to the machine, remove the skimmer motor housing, and ensure that the cooling fan is free of obstructions.
	Failed skimmer timer	Test the skimmer timer; replace if necessary (See <b>Wash Cycle, Heater and Skimmer Timers</b> ).
	Failed skimmer motors	Contact a licensed electrician to test the motor; replace if necessary (See <b>Oil Skimmer Motor</b> ).

# Parts

**1.043-477.0, 1.043-478.0, 1.043-479.0,  
1.043-505.0, 1.043-506.0, 1.043-507.0**

**CUDA 3648**

# Cuda 3648 Front



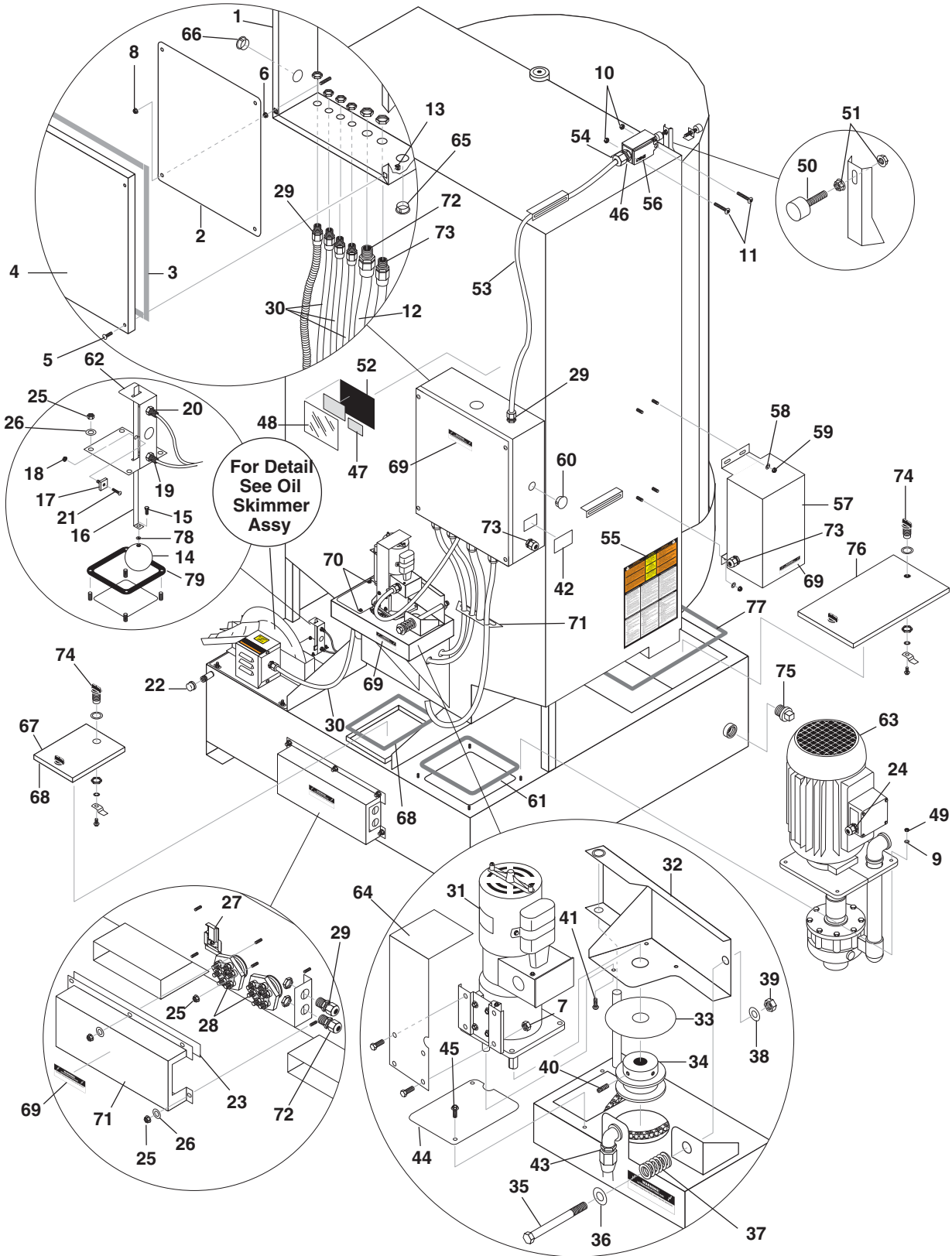
REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.922-093.0	1	WELDMENT, CABINET 3648	
-	8.922-562.0	1	WLMT, 3648, SS	
2	8.922-074.0	1	WELDMENT, DOOR 3648	
-	8.922-593.0	1	WLMT, 36 X 48 DOOR, SS	
3	8.922-055.0	1	ASSY, TURNTABLE 3648	
-	8.922-602.0	1	WLMT, TURNTABLE 36", SS	
4	8.916-245.0	1	WELDMENT, DEBRIS TRAY	
-	8.922-133.0	1	WLMT, DEBRIS TRAY, SS	
5	8.921-957.0	1	COVER, SUMP 10" X 16.5"	
6	8.749-436.0	1	SPINDLE, TURNTABLE	
-	8.753-838.0	1	SPINDLE, TURNTABLE, SS	
7	8.713-238.0	1	OIL SEAL, TURNTABLE	
8	8.712-920.0	2	BEARING, TURNTABLE LG MACHINES	
9	8.749-418.0	1	WASHER, LOCKING, TURNTABLE	
10	8.749-420.0	1	NUT, RETAINING, TURNTABLE	
11	8.749-437.0	1	GASKET, TURNTABLE HUB 4860	
12	8.749-459.0	1	PLATE, TURNTABLE HUB COVER APW	
-	8.753-839.0	1	COVER, TURNTABLE HUB, SS	
13	8.749-430.0	6	SCREW, 10-24 X 5/8" FLSCCKTHD SS	
14	8.713-761.0	46"	SEAL, BULB TYPE (7GA) EPDM, SIDE PROFILE	
15	8.916-278.0	2	LATCH, SUMP COVER (7G), THUMB TURN	
16	9.804-203.0	1	HANDLE, DOOR/STRAINER (SMALL)	
17	8.713-246.0	2	SCREW, 5/16"-18 X 1" SOCKET HEAD	
-	8.754-316.0	2	SCREW, 5/16" X 1", SCH, SS	
18	8.718-980.0	2	WASHER, 5/16", FLAT, SAE	
-	9.802-805.0	2	WASHER, 5/16", 18-8, FLAT, SAE, SS	
19	9.802-776.0	2	NUT, 5/16", ESNA, NC	
-	8.754-314.0	2	NUT, 5/16"-18, FLAT, SAE, SS	
20	8.706-349.0	1	PIPE, CAP, 1-1/2" GALV.	
-	8.749-821.0	1	PIPE, CAP, 1-1/2" STAINLESS STEEL	
21	8.713-265.0	7	CAP, VINYL BLACK 1/4" DIA X 3/4" LG	
22	9.802-736.0	8	BOLT, 1/2 X 1-1/2" NC HH ZINC	
-	8.725-201.0	8	BOLT, 1/2 X 1-1/2, HH, SS	
23	8.718-998.0	8	WASHER, 7/8" FLAT SAE, SS	
24	9.803-517.0	8	WASHER, 1/2", SPLIT RING LOCK	
-	8.719-021.0	8	WASHER, 1/2", SPLIT RING LOCK, SS	
25	9.802-790.0	4	NUT, 1/2", HEX, NC	
-	8.718-893.0	4	NUT, 1/2", HEX, NC, SS	
26	8.718-794.0	9	SCREW, 10-32 X 3/4" HEX, SL	
-	8.754-306.0	9	SCREW, 10-32 X 3/4", HEX WASHER HEAD, SS	
27	8.922-094.0	1	WELDMENT, HUB MOUNT	
-	8.922-608.0	1	WLMT, HUB MOUNT, SS	
28	8.712-951.0	16.5"	FOAM STRIP-1/8" X 1" ADHESIVE BACK	

## Cuda 3648 Front

REF	PART NO.	QTY	DESCRIPTION	NOTES
29	8.922-041.0	1	ANGLE, DOOR SIDE, 3648	
-	8.922-610.0	1	ANGLE, DOOR SIDE, 3648, SS	
30	8.749-421.0	1	BEARING, DOOR	
31	8.749-419.0	1	BEARING RACE, DOOR	
32	8.916-233.0	1	SPINDLE, DOOR	
-	8.753-788.0	1	SPINDLE, DOOR, SS	
33	8.916-248.0	1	SPACER, DOOR	
-	8.754-669.0	1	SPACER, DOOR, APW, S/S	
34	8.712-952.0	3	GREASE FITTING	
-	-	3	GREASE FITTING 1/8-27, SS	
35	8.756-447.0	1	LABEL, CUDA KARCHER GROUP LOGO, M	
36	9.802-719.0	6	U-BOLT, 5/16 X 1-1/2", PIPE	
-	8.754-664.0	6	U-BOLT, 5/16-18 X 1-1/2, SS	
37	8.749-425.0	1	ELBOW, 1/8" NPT 90° BLACK	
-	8.754-662.0	1	ELBOW, 1/8" NPT 90°, SS	
38	8.916-280.0	1	NIPPLE, 1/8" X 3" LG SCH 40 BLACK	
-	8.754-661.0	1	NIPPLE, 1/8 X 3, SCH 40, 304, S/S	
39	8.753-793.0	1	CHAIN, #35NP X 339P	
-	8.923-116.0	1	CHAIN, #35NP X 339P, SS	
40	8.712-951.0	55"	FOAM STRIP-1/8" X 1" ADHESIVE BACK	
41	8.731-143.0	6	WASHER, 5/8" LOCKING	MILD STEEL MODELS
-	8.757-437.0	6	WASHER SPLIT RING LOCK SS 5/8"	STAINLESS STEEL MODELS
42	9.804-350.0	77"	SEAL, BULB TYPE EPDM, FOR 12 G THK, EPDM, SIDE PROFILE	
43	9.802-781.0	2	NUT, 3/8" WHIZ LOC	
44	8.922-040.0	1	ANGLE, DOOR TOP 3648	
-	8.922-611.0	1	ANGLE, DOOR TOP, 3648, SS	
45	9.804-567.0	9	NUT, 10-32, ESNA	
-	8.754-307.0	9	NUT, 10-32, ESNA, SS	
46	9.802-802.0	9	WASHER, 1/4" FLAT	
-	8.718-965.0	9	WASHER, 1/4" FLAT SAE, SS	
47	8.749-424.0	6	BOLT, 5/8"-11 X 1-1/4" GRADE 5	MILD STEEL MODELS
-	8.757-436.0	6	BOLT HEX SS 5/8"-11 X 1-1/4" GRADE 18-8	STAINLESS STEEL MODELS
48	9.802-058.0	1	BUMPER, W/BOLT 5/16" X 1-1/4"	
49	8.924-172.0	1	BUCKET, OIL	NOT SHOWN
50	8.749-415.0	1	NUT, NYLOC 1"-14	
-	8.754-660.0	1	NUT, NYLOC 1"-14, S/S	
51	8.713-038.0	6	WHEEL, TRACK	
-	8.753-682.0	6	WHEEL, TRACK, SS	
52	8.753-731.0	6	PIN, COTTER, 1/16" X 3/4" SS	
53	8.731-254.0	1	PARTS BASKET - SMALL 8 X 8 X 4	NOT SHOWN

<b>REF</b>	<b>PART NO.</b>	<b>QTY</b>	<b>DESCRIPTION</b>	<b>NOTES</b>
54	8.749-396.0	1	PARTS TREE, 4 HOOK, 34" X 30"	NOT SHOWN
55	8.753-767.0	1	CONTAINMENT RING, 36", MARKED YELLOW	NOT SHOWN
56	8.718-988.0	4	WASHER, 7/16" FLAT SAE, ZINC	
-	8.751-823.0	4	WASHER, 7/16" FLAT SAE, SS	
57	8.924-491.0	1	COVER, EXPANDED CUTOUT	
-	8.925-504.0	1	COVER, EXPANDED CUTOUT, SS	

# Cuda 3648 Rear





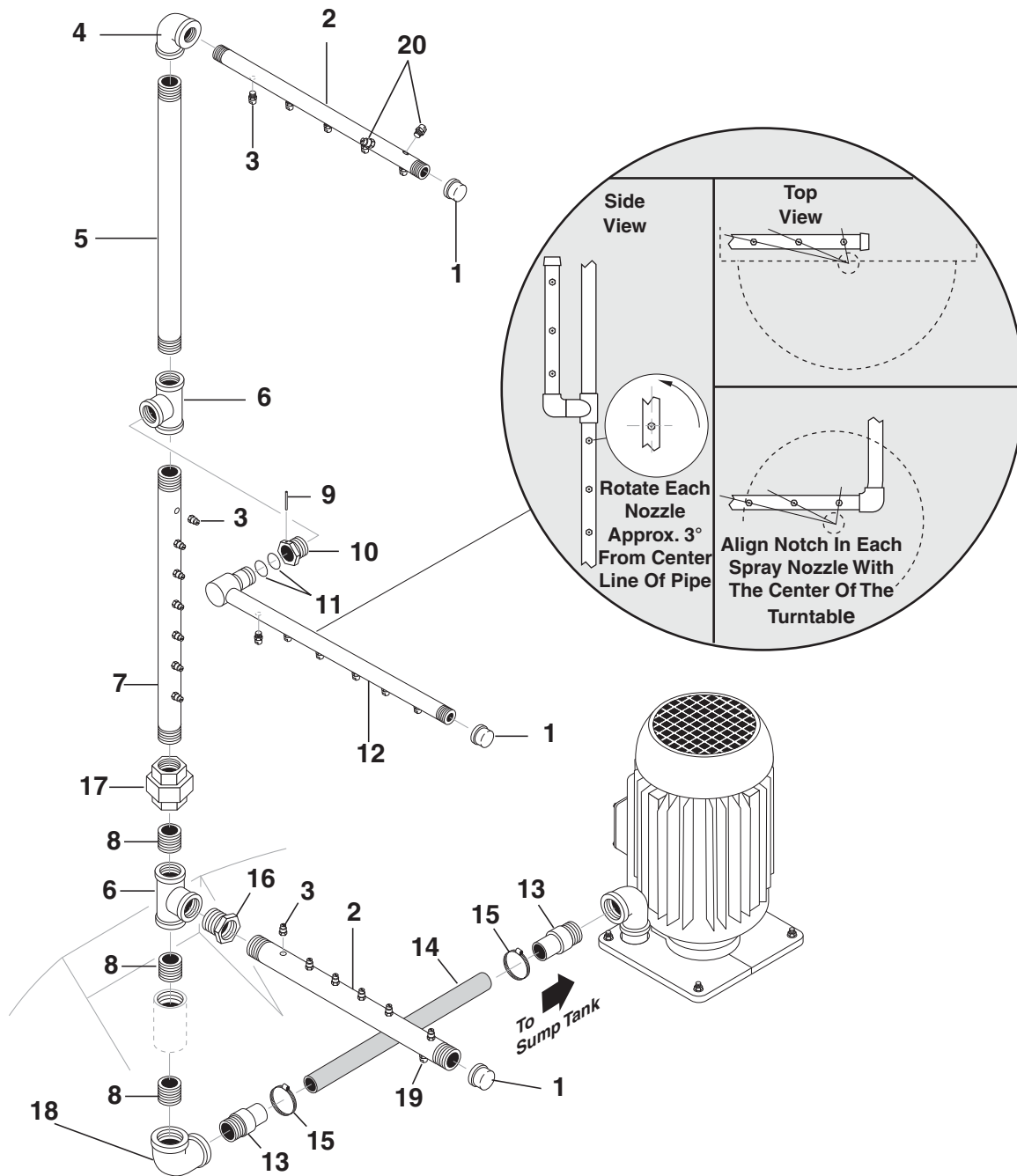
REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.922-118.0	1	WELDMENT, ELECTRICAL BOX,	
2	8.922-302.0	1	PANEL, ELECTRIC, ALUM	
3	9.804-094.0	81"	FOAM STRIP 1/8" X 1/2" ADHESIVE BACK	
4	8.921-981.0	1	COVER, ELECTRICAL BOX	
5	8.718-794.0	4	SCREW, 10/32 X 3/4", HEX WAS, SL, MS, SS	
6	9.802-778.0	4	NUT, WHIZ LOC 5/16" FLANGE	
7	9.802-775.0	1	NUT, 1/4" FLANGE, ZN	
8	9.802-778.0	4	NUT, WHIZ LOC 5/16" FLANGE	
9	9.802-807.0	4	WASHER, 3/8", SAE, FLAT	
10	9.802-785.0	2	NUT, 8/32", KEPS	
-	8.718-866.0	2	NUT, 8/32', KEPS, SS	
11	8.718-755.0	1	SCREW, 8/32" X 1-1/2", SS	
12	9.803-832.0	54"	CONDUIT, WATER TIGHT, FLEX 3/4"	
13	8.753-255.0	4	NUT, EXTRUDED U-NUT 1/4"-20	
14	8.754-718.0	1	FLOAT, 2-1/2" BALL STEEL, SS	
15	8.718-806.0	1	SCREW, 1/4 - 20 X 1/2", SHCS, SS	
16	8.922-155.0	1	FLOAT, ROD, SS	
17	9.804-120.0	1	MAGNET, REED SENSOR TARGET	
18	8.718-847.0	1	NUT, 4-40 KEPS, ZINC	
19	9.804-118.0	1	SWITCH, MAGNETIC REED SENSOR, NO	
20	9.804-119.0	1	SWITCH, MAG. REED SENSOR, NC	
21	8.731-134.0	1	SCREW, 4-40 X 1/2" SLOTTED P/H M/S ZINC	
22	8.706-350.0	1	PIPE, CAP, 1/2" GALV.	
-	8.753-615.0	1	CAP, 1/2" THREADED, 304 SS, SCH 40	
23	8.712-951.0	46"	FOAM STRIP-1/8" X 1" ADHESIVE BACK	
24	8.753-364.0	1	STRAIN RELIEF LT, 1" NPT	
25	9.802-773.0	9	NUT, 1/4-20 ESNA NC	
26	9.802-802.0	9	WASHER, 1/4" FLAT, SAE	
27	8.713-593.0	1	THERMOSTAT. SNAP, DISK 180° F	
28	8.712-954.0	2	HEATING ELEMENT, 9 KW 230V/3PH	(1.043-477.0)
-	8.713-179.0	2	HEATING ELEMENT, 9 KW 480V/3PH	(1.043-478.0)
-	8.713-178.0	2	HEATING ELEMENT, 9 KW 575V/3PH	(1.043-479.0)
29	9.802-514.0	5	STRAIN RELIEF, LT, STR 1/2" NPT .23-.45D	
30	9.802-423.0	72"	CORD, SERVICE, SEO, 16/3	
31	8.713-730.0	1	GEARMOTOR, TURNTABLE AC 1/15 HP 110/220V 50/60 HZ	
32	8.916-251.0	1	WELDMENT, GEAR MOTOR SWING RRM 4860	
33	8.916-406.0	1	WASHER, GEARMOTOR	
34	8.714-009.0	1	TORQUE LIMITER, LARGE SIZE	
-	8.754-200.0	1	TORQUE LIMITER, LARGE SIZE, SS	
35	8.753-738.0	1	BOLT, 3/8" X 8" FULL THREAD	
36	9.802-811.0	1	WASHER, 3/8" X 1-1/2", FENDER, SAE	

**Cuda 3648 Rear**

REF	PART NO.	QTY	DESCRIPTION	NOTES
37	8.749-423.0	1	SPRING, COMPRESION 1.25" OD X 3" L X .148 9.25 COIL	
38	9.802-817.0	1	WASHER, 3/8"	
39	9.802-779.0	1	NUT, 3/8", ESNA, NC	
40	9.804-511.0	1	SCREW, SET 1/4"-28 X 3/8" CUP POINT SS	
41	8.718-582.0	3	SCREW, 1/4" X 1/2" HH NC	
42	9.804-297.0	1	LABEL, HOUR METER	
43	9.802-517.0	1	CONNECTOR, 1/2" L/T, 90°, BLACK	
44	8.921-980.0	1	COVER, GEAR MOTOR ACCESS	
45	9.802-798.0	2	SCREW, #10 X 1/2", TEK HEX HEAD	
46	8.755-186.0	1	ADAPTER, CONDUIT, M20 TO 1/2" NPT	
47	9.804-361.0	1	LABEL, PATENT NUMBER	
48	9.800-034.0	1	LABEL, CLEAR LEXAN	
49	9.802-779.0	4	NUT, 3/8", ESNA, NC	
50	9.802-058.0	1	BUMPER, W/BOLT	
51	9.802-781.0	2	NUT, 3/8" FLG WHIZ LOC	
52	9.800-013.0	1	LABEL, ASSEMBLED USA	
53	8.716-015.0	26"	CONDUIT, WATER TIGHT, FLEX 1/2"	
54	8.716-547.0	2	CONNECTOR, 1/2" L/T, STR, BLK	
55	8.922-402.0	1	LABEL, OPERATOR INSTALL	
56	8.753-709.0	1	SWITCH, LIMIT PLASTIC, NC/NO	
57	8.922-117.0	1	ASSY, CONTROL BOX	
58	8.718-980.0	4	WASHER, 5/16", FLAT, SAE	
59	9.802-776.0	4	NUT, 5/16", ESNA, NC	

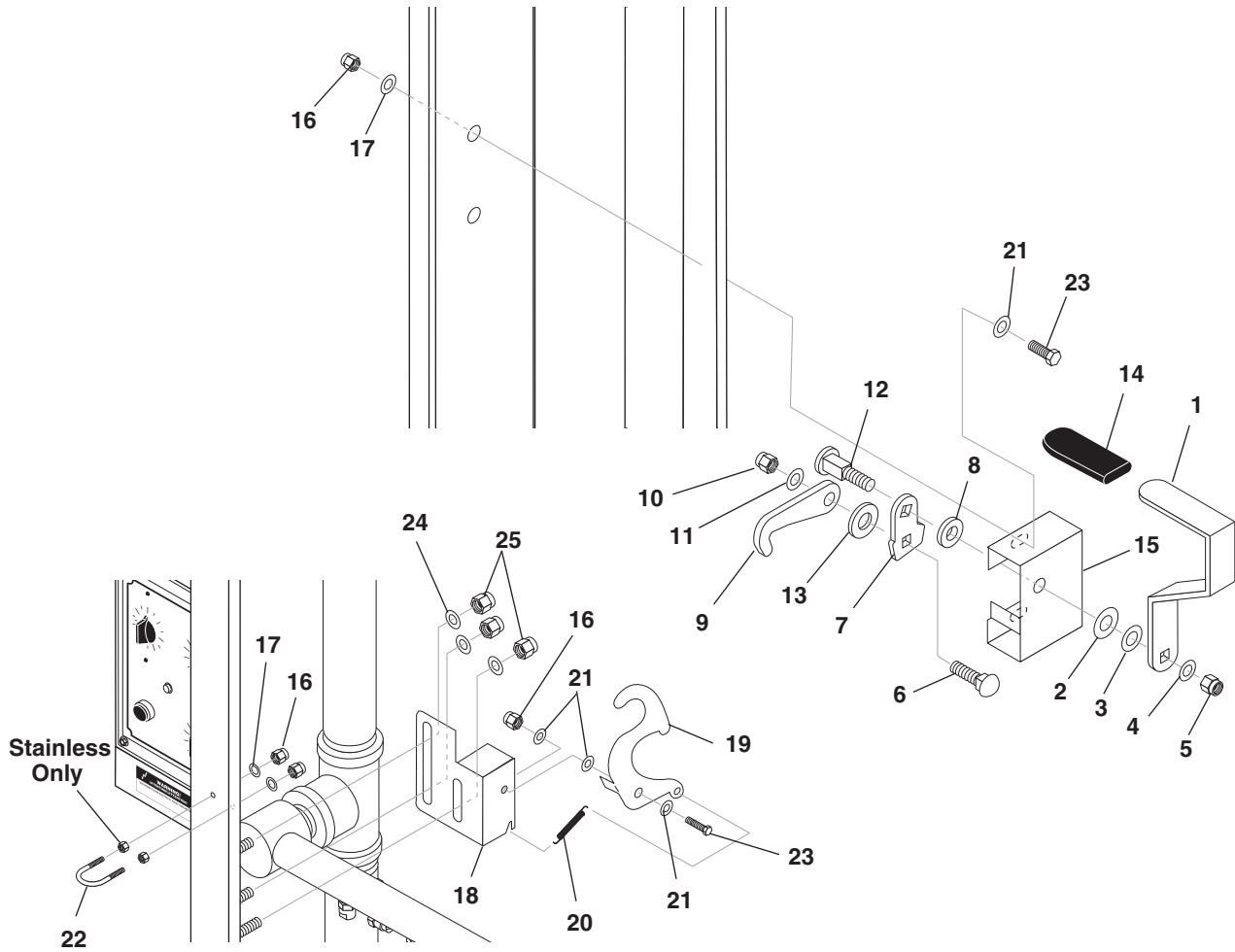
REF	PART NO.	QTY	DESCRIPTION	NOTES
60	8.725-300.0	1	PLUG, PLASTIC 1.125"	
61	9.804-375.0	1	GASKET, PUMP PLATE	
62	8.922-039.0	1	MOUNT, BRACKET, FLOAT	
63	8.753-693.0	1	PUMP, 7.5HP, 230/460V 3PH	(1.043-477.0, 1.043-478.0)
-	8.753-694.0	1	PUMP, 7.5HP, 575V 3PH	(1.043-479.0)
64	8.922-105.0	1	COVER, GEARMOTOR	
65	9.802-105.0	1	PLUG, 7/8 HOLE	
66	8.706-744.0	1	PLUG, PLASTIC 1.25" 2740	
67	8.922-146.0	1	COVER, REAR, ACCESS	
68	8.713-761.0	39"	SEAL, BULB, TYPE (7 GA) EPDM SIDE PROFILE	
69	9.800-016.0	4	LABEL, DISCONNECT POWER SUPPLY	
70	9.802-798.0	2	SCREW, #10 X 1/2", TEK HEX HEAD	
71	8.922-046.0	1	WLDMET,COVER HEATER, APW	
72	8.716-549.0	2	CONNECTOR, 3/4" L/T, STRAIGHT, BLACK	
73	9.802-518.0	3	STRAIN RELIEF, LT, STR 3/4" NPT	
74	8.916-278.0	4	LATCH, SUMP COVER (7G), THUMB TURN	
75	8.749-552.0	1	PLUG, 2", PIPE, GALV	
-	8.754-663.0	1	PLUG, HEX, 2" NPT, 304 S/S 1	
76	8.921-982.0	1	COVER, SUMP W/O GAUGE, SS	
77	8.713-761.0	72"	SEAL-BULB TYPE (7 GA) EPDM, SIDE PROFILE	
78	8.921-274.0	1	SPACER, BRAKE LINK, 800	
79	8.755-014.0	1	GASKET, 1/8" THK, R426	

# Spray Arm



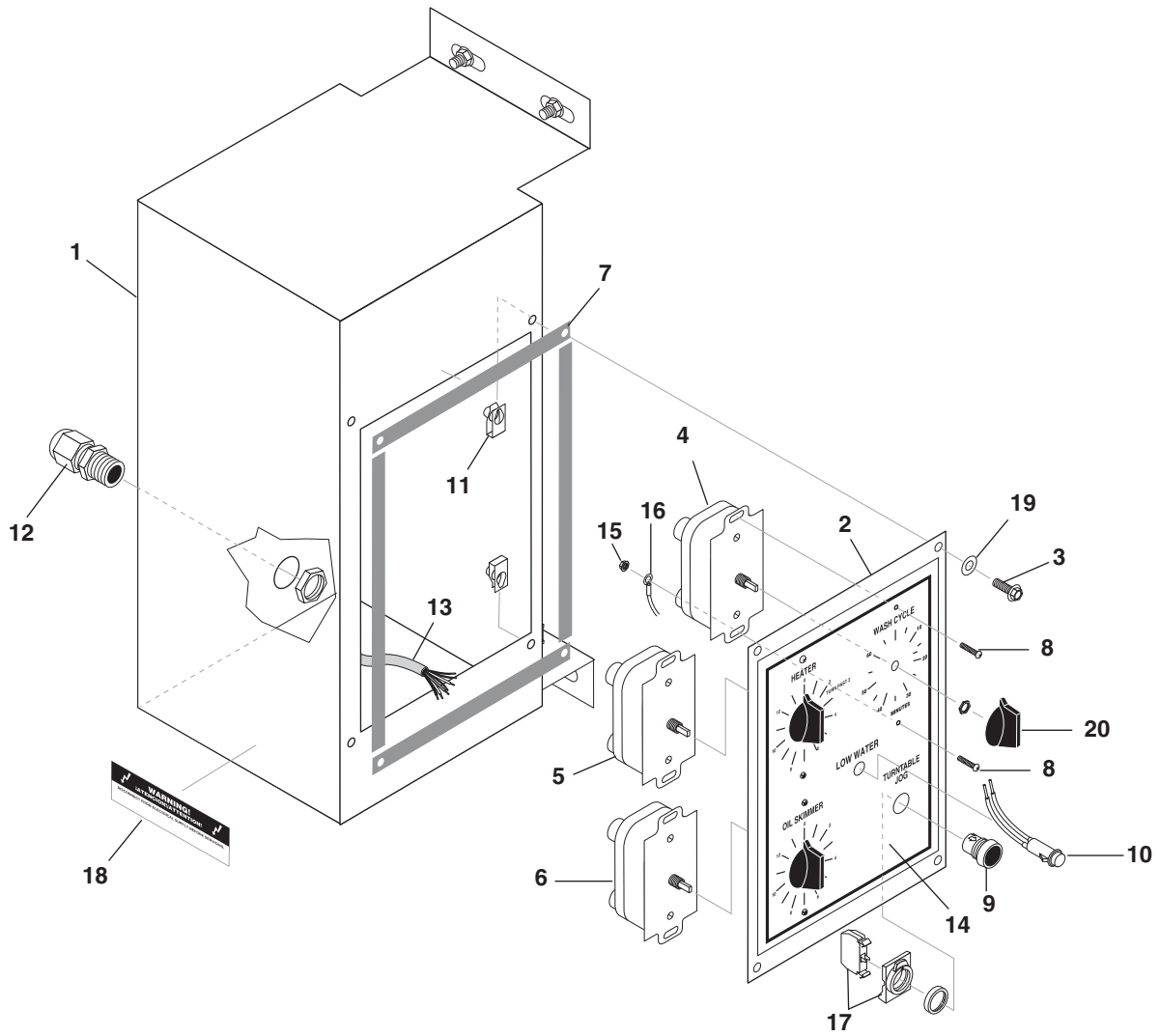
REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.706-081.0	3	CAP, PIPE 1" NPT	
-	8.753-614.0	3	CAP, 1" THREADED, 304 SS, SCH 40	
2	8.922-369.0	2	PIPE, UPPER SPRAY MANIFOLD	
-	8.922-651.0	2	MANIFOLD, SPRAY BAR, 3648, SS	
3	8.712-973.0	23	NOZZLE, 50° #6 STEEL	
-	8.749-638.0	23	NOZZLE, 50° #6 STEEL, SS	
4	8.712-996.0	1	PIPE, ELL 90° 1-1/2" X 1" REDUCING BLACK	
-	8.706-192.0	1	ELBOW, 1-1/2", SS-304, 90°	
-	8.753-737.0	1	BUSHING, 1-1/2" X 1" NPT, HEX S/S	
5	8.922-043.0	1	NIPPLE, 1-1/2" X 25 1/2" LG SCH 40	
-	8.922-613.0	1	NIPPLE, 1.5 X 25.5", SCH 40, SS	
6	8.706-219.0	2	TEE, 1-1/2", FEMALE, PIPE, BLK	
-	8.706-220.0	2	TEE, 1-1/2", FEMALE, PIPE, 304 SS	
7	8.922-045.0	22"	MANIFOLD, LOWER VERT. SPRAY	
-	8.922-612.0	1	MANIFOLD, LOWER VERT. SPRAY, 3648 SS	
8	8.706-014.0	3	NIPPLE, 1-1/2" CLOSE	
-	8.706-012.0	3	NIPPLE, 1-1/2" X CLOSE, 316L SS	
9	8.724-360.0	1	PIN, ROLL 3/16" X 1-5/8"	
-	8.754-308.0	1	SPRING PIN, 3/16" X 1-5/8", SLOTTED, SS	
10	8.713-239.0	1	SWIVEL BUSHING, (5677) FRONT LOADERS HEX BUSHING	
-	9.804-435.0	1	BUSHING, SWIVEL HEX FRONT LOADERS SS	
11	9.804-367.0	2	O-RING #125 BUNA PIPE SWIVEL, 1.299" ID X 1.505 OD	
12	8.915-444.0	1	ASSY, SWING ARM SPRAY ARM	
-	8.921-944.0	1	WLMT, SWING ARM SPRAY ARM 2848 EXT HT, SS	
13	8.706-343.0	2	PIPE-BARBED/MALE 1-1/2"	
-	8.753-963.0	2	PIPE, BARBED/MALE NPT 1-1/2" STAINLESS	
14	8.749-190.0	16"	HOSE, 1-1/2", 14 BAR	
15	8.753-729.0	2	CLAMP, T-BOLT 1-7/8" X 2-1/8"	
16	8.752-193.0	1	BUSHING, 1-1/2" X 1" NPT, HEX STEEL	
-	8.753-737.0	1	BUSHING, 1-1/2" X 1" NPT, HEX, SS	
17	8.713-136.0	1	UNION, 1-1/2"	
-	8.706-332.0	1	UNION, 1.5', 304 SS	
18	8.724-258.0	1	ELBOW, STREET, 1-1/2" GALV	
-	8.753-719.0	1	ELBOW, STREET, 1-1/2" NPT, 90, STREET, S40 S/S	
19	8.706-328.0	2	PIPE PLUG 1/4, GALV	
-	8.753-897.0	2	PLUG, PIPE, 1/4, 304SS	
20	8.708-075.0	2	NOZZLE, 1x65 1/4' VEE JET SS	

# Latch and Door



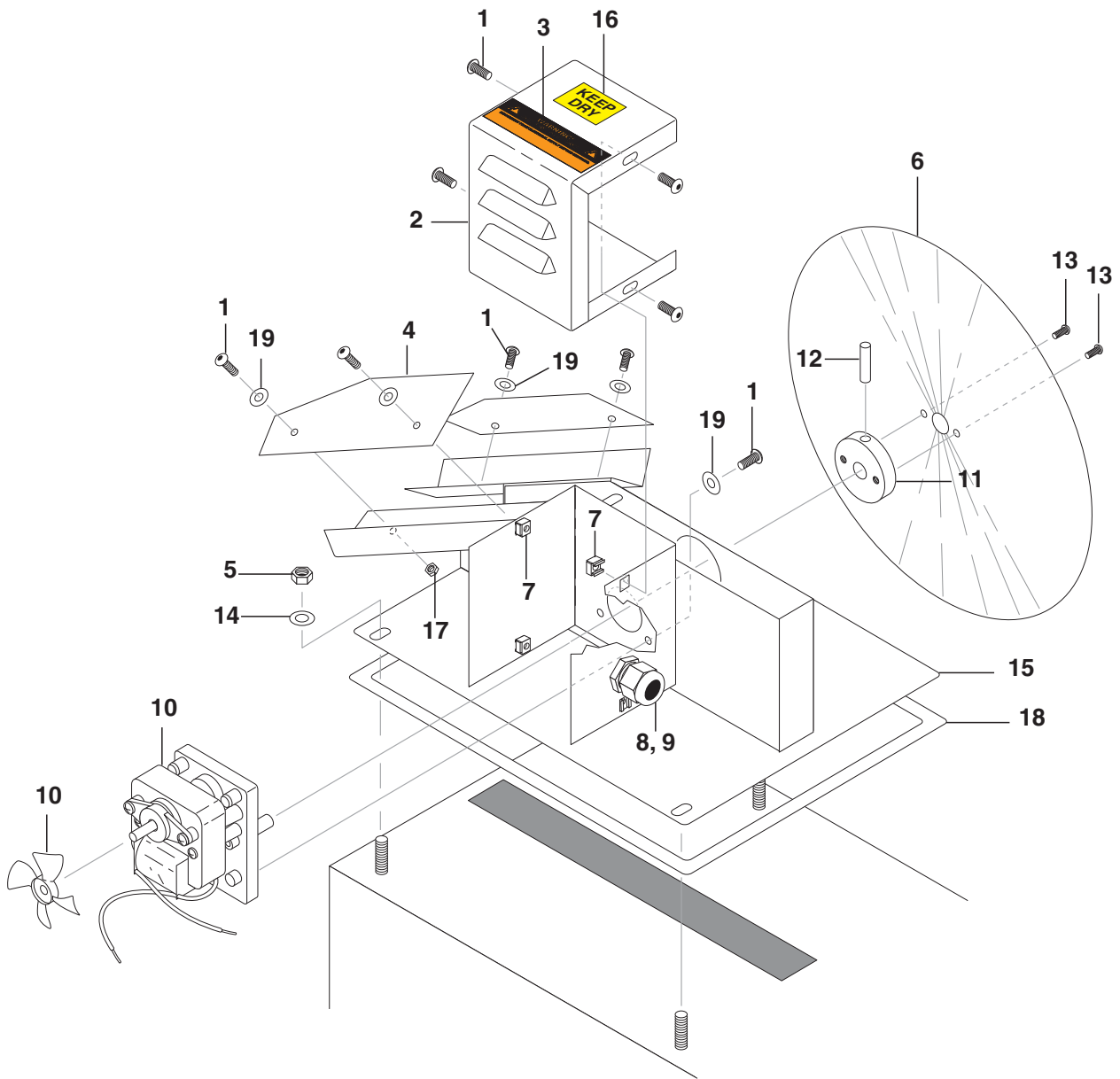
REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.922-114.0	1	HANDLE, LATCH, SS	
2	8.753-733.0	1	WASHER, 7/16" BRASS	
3	8.751-823.0	1	WASHER, 7/16" FLAT SS	
4	9.802-805.0	1	WASHER, 5/16" FLAT SS	
5	9.802-777.0	1	NUT, 5/16-18, ESNA, SS	
6	8.753-710.0	1	BOLT, CARRIAGE, 1/4 X 1" SS	
7	8.922-111.0	1	LINK, LATCH, SS	
8	8.921-274.0	1	SPACER, BRAKE LINK, 80	
9	8.922-113.0	1	HOOK, DOOR, LATCH, SS	
10	8.802-774.0	1	NUT, 1/4" ESNA, SS	
11	8.718-965.0	1	WASHER, 1/4" FLAT SS	
12	8.753-722.0	1	BOLT, 5/16-18, FH CARRIAGE CUSTOM, S/S	
13	8.922-110.0	1	WASHER, 1.125' X .1875, SS	
14	9.804-370.0	1	SLEEVE, LATCH HANDLE, VINYL	
15	8.923-685.0	1	FRAME, DOOR LATCH, HD	
16	9.802-773.0	3	NUT, 1/4"-20 ESNA, NC	
-	8.754-303.0	3	NUT, HEX, 1/4"-20, ESNA, SS	
17	8.718-568.0	4	WASHER, 1/4" FLAT SS SEALING RUBBER	
18	8.930-307.0	1	STOP, SPRAY PIPE	
-	8.921-959.0	1	STOP, SPRAY PIPE, SS	
19	8.921-304.0	1	LATCH, SPRAY PIPE	
-	8.921-955.0	1	LATCH, SPRAY PIPE, SS	
20	8.713-020.0	1	SPRING, EXTENSION .440" DIA X 2", 6.5 LB/IN	
21	8.718-965.0	7	WASHER, 1/4", FLAT, SS	
22	9.804-373.0	1	U-BOLT-1/4"-20 PLATED	
-	8.754-305.0	1	U-BOLT, 1/4" X 3/8" PIPE, SS	
-	8.718-817.0	2	NUT, 1/4-20, WHIZ LOC FLANGE, SS STAINLESS UNITS ONLY	
23	8.718-603.0	3	BOLT, 1/4" X 3/4", NC HH SS	
24	9.802-807.0	3	WASHER, 3/8", SAE, FLAT ZINC	
25	9.802-779.0	3	NUT, 3/8", ESNA, NC	

# Control Panel



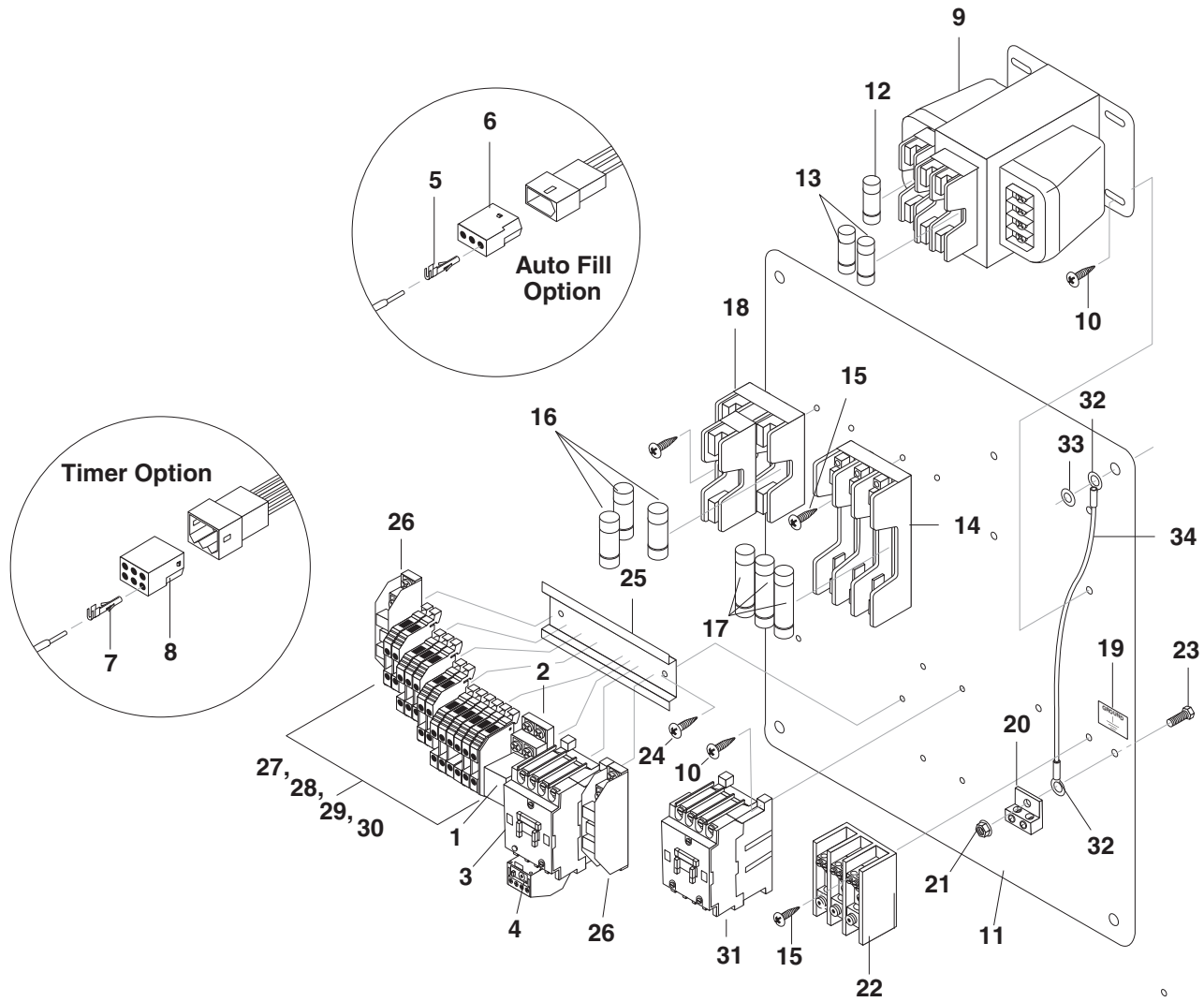


REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.922-117.0	1	CONTROL BOX, APW	
2	8.922-042.0	1	CONTROL BOX COVER	
3	9.802-700.0	4	BOLT, 1/4" X 3/4"	
4	8.756-489.0	1	TIMER, 60 MIN, SPRING WOUND	
5	8.756-490.0	1	TIMER, 12 HOUR, SPRING WOUND	
6	8.756-488.0	1	TIMER, 30 MIN, SPRING WOUND	
7	9.804-094.0	36"	FOAM STRIP 1/8" X 1/2" ADHESIVE BACK	
8	9.802-748.0	6	SCREW, 6/32" X 3/8" RND, HD	
9	8.749-433.0	1	SWITCH, TURNTABLE JOG	
10	8.716-408.0	1	LIGHT, INDICATOR AMBER 125V	
11	8.753-255.0	4	EXTRUDED U-NUT, 1/4"-20	
12	9.802-518.0	1	STRAIN RELIEF, LT, STR 3/4" NPT .49-.71D	
13	8.714-176.0	24"	CORD, 16/9 SOOW BLACK RUBBER JACKET	
14	8.922-403.0	1	LABEL, CONTROL PANEL, CUDA	
15	9.802-784.0	1	NUT, 6-32 KEPS	
16	8.716-377.0	1	TERMINAL, RING TONGUE, 14 AB-10	
17	8.749-434.0	1	CONTACT, CART. TURNTABLE JOG	
18	9.800-016.0	1	LABEL, DISCONNECT POWER SUPPLY	
19	9.802-802.0	4	WASHER, 1/4" FLAT	
20	8.756-586.0	3	KNOB, TIMER, SPRING WOUND	



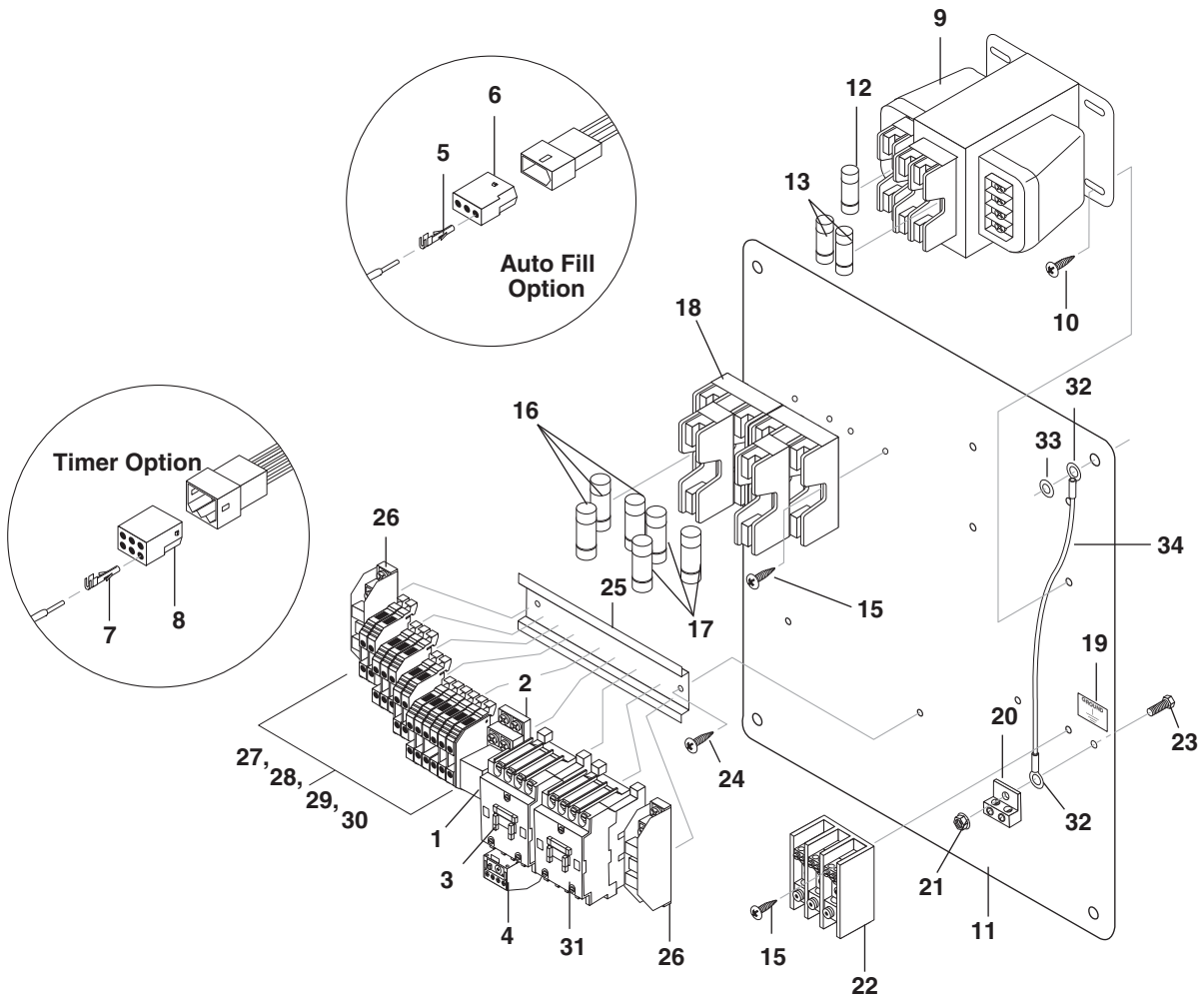
REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.718-810.0	11	SCREW, WHIZ LOC FLANGE	
2	8.913-733.0	1	COVER, MOTOR, DISC SKIMMER SS	
3	9.800-016.0	1	LABEL, DISC. POWER SUPPLY	
4	9.804-102.0	2	BLADE, WIPER, DISC SKIMMER SS	
5	9.802-773.0	3	NUT, 1/4" ESNA	
6	8.918-672.0	1	DISC, SKIMMER SS	
7	9.802-791.0	4	NUT, CAGE, 10/32" X 16 GA	
8	9.802-514.0	1	STRAIN RELIEF, STRT, LQ TITE	
9	9.802-525.0	1	LOCKNUT, 1/2"	
10	8.904-676.0	1	MOTOR, DISC SKIMMER	
11	8.719-987.0	1	HUB, DISC MOUNT, DISC SKIMMER	
12	8.719-068.0	1	PIN, ROLL 1/8" X 1" STEEL	
13	9.804-564.0	2	SCREW, 6-22 X 1/2"	
14	9.802-802.0	3	WASHER, 1/4" FLAT	
15	8.913-732.0	1	OIL SKIMMER, SMALL	
-	8.922-839.0	1	OIL SKIMMER, SMALL, SS	
16	9.804-374.0	1	LABEL, KEEP DRY	
17	9.804-567.0	4	NUT, 10/32 ESNA	
18	9.804-137.0	1	GASKET, SKIMMER, SMALL,	
19	8.718-968.0	7	WASHER, #10 FLAT ZINC PLT	

# 230V Electrical Box



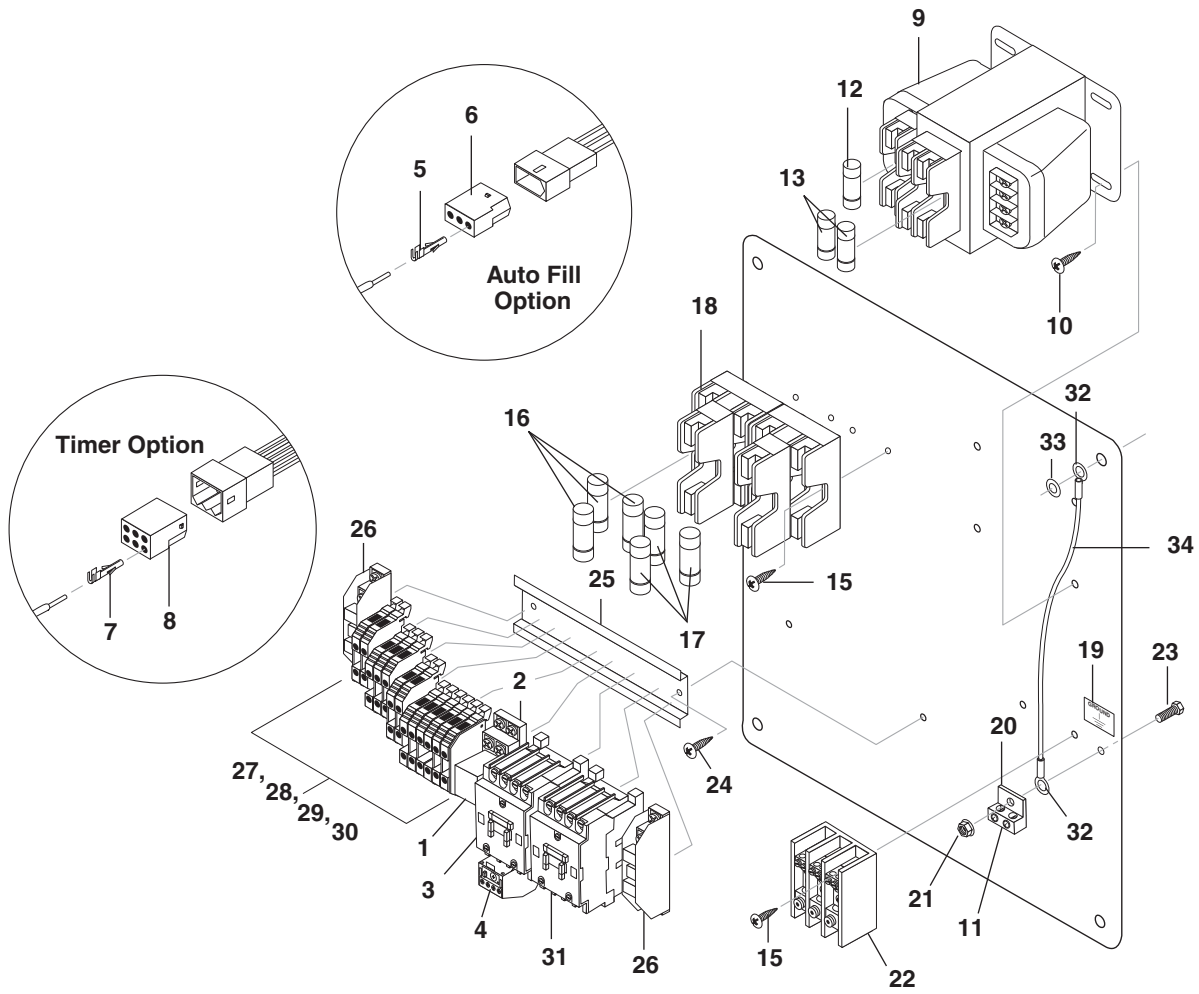
REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.753-367.0	1	RELAY, SPDT	
2	8.753-368.0	1	RELAY, BASE	
3	8.724-276.0	1	CONTACTOR, 40 AMPS	
4	8.724-304.0	1	OVERLOAD, 16-24 AMP	
5	8.713-604.0	3	CONNECTOR, ELEC. PIN FEMALE	
6	8.713-603.0	1	CONNECTOR, ELEC. 3 PIN MALE	
7	8.713-604.0	6	CONNECTOR, ELEC. PIN FEMALE	
8	8.713-697.0	1	CONNECTOR, ELEC. 6 PIN MALE	
9	8.713-911.0	1	TRANSFORMER, 300VA 230-460V/115V	
10	9.802-798.0	8	SCREW, #10 X 1/2", TEK HEX HEAD	
11	8.922-302.0	1	ELECTRIC PANEL	
12	8.713-574.0	1	FUSE, 3 AMP (FNM)	
13	8.713-920.0	2	FUSE, CLASS R 3 AMP	
14	8.749-143.0	1	FUSE BLOCK-60A 3 POLE	
15	8.718-937.0	6	SCREW, #8 X 3/4" PHILLIPS, ZINC PLATED, HEX TEK	
16	8.916-279.0	3	FUSE, CLASS J 30 AMP	
17	8.749-432.0	3	FUSE, 50 AMP	
18	8.916-232.0	1	FUSE BLOCK, 30A 600V, 3 POLE	
19	9.800-040.0	1	LABEL, GROUND SYMBOL	
20	8.713-086.0	1	GROUND, LUG 2 HOLE ALUM	
21	9.802-775.0	1	NUT, 1/4" FLANGE, ZN	
22	8.716-117.0	1	TERMINAL BLOCK, 3 POS. 175A	
23	9.802-701.0	1	BOLT, 1/4-20 X 1"	
24	8.718-936.0	2	SCREW, #8 X 1/2", PHILLIPS, ZINC PLATED	
25	9.802-457.0	7.5"	DIN RAIL, 35MM	
26	9.804-595.0	2	END BRACKET, ENTRELEC	
27	8.753-252.0	1	END COVER	
28	8.753-064.0	9	TERMINAL BLOCK, IDC	
29	8.749-977.0	4	JUMPER	
30	8.749-976.0	6	TERMINAL BLOCK, IDC X 2	
31	8.724-284.0	1	CONTACTOR, 60 AMPS	
32	8.716-375.0	2	TERMINAL, RING TONGUE, RC10-516	
33	8.718-980.0	1	WASHER, 5/16", FLAT	
34	8.715-980.0	26"	WIRE, MTW, 12 GA. GREEN	

# 460V Electrical Box



REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.753-367.0	1	RELAY, SPDT	
2	8.753-368.0	1	RELAY, BASE	
3	8.724-268.0	1	CONTACTOR, 25 AMPS	
4	8.724-312.0	1	OVERLOAD, 10-16 AMP	
5	8.713-604.0	3	CONNECTOR, ELEC. PIN FEMALE	
6	8.713-603.0	1	CONNECTOR, ELEC. 3 PIN MALE	
7	8.713-604.0	6	CONNECTOR, ELEC. PIN FEMALE	
8	8.713-697.0	1	CONNECTOR, ELEC. 6 PIN MALE	
9	8.713-911.0	1	TRANSFORMER, 300VA 230-460V/115V	
10	9.802-798.0	4	SCREW, #10 X 1/2", TEK HEX HEAD	
11	8.922-302.0	1	ELECTRIC PANEL	
12	8.713-574.0	1	FUSE, 3 AMP (FNM)	
13	8.713-686.0	2	FUSE, CLASS R 1-1/2 AMP	
15	8.718-937.0	6	SCREW, #8 X 3/4" PHILLIPS, ZINC PLATED, HEX TEK	
16	8.916-279.0	3	FUSE, CLASS J 30 AMP	
17	8.749-553.0	3	FUSE, CLASS J 25 AMP	
18	8.916-232.0	2	FUSE BLOCK, 30A 600V, 3 POLE	
19	9.800-040.0	1	LABEL, GROUND SYMBOL	
20	8.713-086.0	1	GROUND, LUG 2 HOLE ALUM	
21	9.802-775.0	1	NUT, 1/4" FLANGE, ZN	
22	8.716-117.0	1	TERMINAL BLOCK, 3 POSITION	
23	9.802-701.0	1	BOLT, 1/4-20 X 1"	
24	9.802-798.0	2	SCREW, #10 X 1/2", TEK HEX HEAD	
25	9.802-457.0	9"	DIN RAIL, 35MM	
26	9.804-595.0	2	END BRACKET, ENTRELEC	
27	8.753-252.0	1	END, COVER	
28	8.753-064.0	9	TERMINAL BLOCK, IDC	
29	8.749-977.0	4	JUMPER	
30	8.749-976.0	6	TERMINAL BLOCK, IDC X 2	
31	8.724-272.0	1	CONTACTOR, 30 AMPS	
32	8.716-375.0	2	TERMINAL, RING TONGUE, RC10-516	
33	8.718-980.0	1	WASHER, 5/16", FLAT	
34	8.715-980.0	26"	WIRE, MTW 12 GA. GREEN	

# 575V Electrical Box





REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.753-367.0	1	RELAY, SPDT	
2	8.753-368.0	1	RELAY, BASE	
3	8.724-268.0	1	CONTACTOR, 25 AMPS	
4	8.724-303.0	1	OVERLOAD, 6-10 AMP	
5	8.713-604.0	3	CONNECTOR, ELEC. PIN FEMALE	
6	8.713-603.0	1	CONNECTOR, ELEC. 3 PIN MALE	
7	8.713-604.0	6	CONNECTOR, ELEC. PIN FEMALE	
8	8.713-697.0	1	CONNECTOR, ELEC. 6 PIN MALE	
9	8.714-184.0	1	TRANSFORMER, 300VA 575V/115V	
10	9.802-798.0	4	SCREW, #10 X 1/2", TEK HEX HEAD	
11	8.922-302.0	1	ELECTRIC PANEL	
12	8.713-574.0	1	FUSE, 3 AMP (FNM)	
13	8.713-686.0	2	FUSE, CLASS R 1-1/2 AMP	
15	8.718-937.0	6	SCREW, #8 X 3/4" PHILLIPS, ZINC PLATED, HEX TEK	
16	8.749-556.0	3	FUSE, CLASS J 10 AMP	
17	8.749-555.0	3	FUSE, CLASS J 20 AMP	
18	8.916-232.0	2	FUSE BLOCK 30A 600V, 3 POLE	
19	9.800-040.0	1	LABEL, GROUND SYMBOL	
20	8.713-086.0	1	GROUND, LUG 2 HOLE ALUM	
21	9.802-775.0	1	NUT, 1/4" FLANGE, ZN	
22	8.716-117.0	1	TERMINAL BLOCK, 3 POSITION	
23	9.802-701.0	1	BOLT, 1/4-20 X 1"	
24	9.802-753.0	2	SCREW, #8 X 1/2", PHILLIPS, ZINC PLATED	
25	9.802-457.0	10"	DIN RAIL, 35MM	
26	9.804-595.0	2	END BRACKET, ENTRELEC	
27	8.753-252.0	1	END COVER	
28	8.753-064.0	9	TERMINAL BLOCK, IDC	
29	8.749-977.0	4	JUMPER	
30	8.749-976.0	6	TERMINAL BLOCK, IDC X 2	
31	8.724-272.0	1	CONTACTOR, 30 AMPS	
32	8.716-375.0	2	TERMINAL, RING TONGUE, RC10-516	
33	8.718-980.0	1	WASHER, 5/16", FLAT	
34	8.715-980.0	26"	WIRE, MTW 12 GA. GREEN	



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