## **EHW Series**

Hot Water - Electric Powered - Electric Heated



# **Operator's Manual**

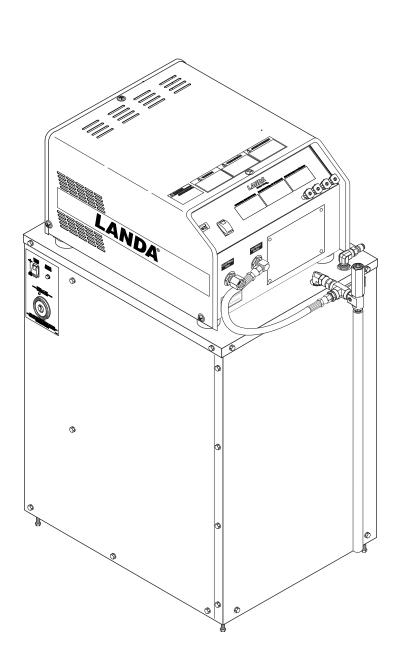
## **Pressure Washer**

MODELS: EHW4-2000C 1.109-500.0 EHW4-2000F

1.109-954.0

EHW4-3000C 1.109-501.0

EHW4-3000F 1.109-955.0



For the Landa Dealer nearest you, consult our web page at www.landa.com









## Machine Data Label

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

#### 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.

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

The model and serial number will be found on a decal attached to the pressure washer.

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:

- Storage
- Maintenance
- Troubleshooting

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

Thank you for purchasing a Landa Pressure Washer.

This manual covers the operation and maintenance of the EHW4-20024C, EHW4-30024C, EHW4-20024F and EHW4-30024F washers. All information in this manual is based on the latest product information available at the time of printing.

Landa, Inc. reserves 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 Landa pressure washer. 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.

## Important Safety Instructions

WARNING: When using this machine basic precautions should always be followed, including the following:

AVERTISSEMENT: En utilisant cette machine, des précautions de base devraient toujours être observées, y compris ce qui suit :



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.

 Read the owner's manual thoroughly. Failure to follow instruc-

tions could cause malfunction of the machine and result in death, serious bodily injury and/or property damage.

- 2. Know how to stop the machine and bleed pressures quickly. Be thoroughly familiar with the controls.
- 3. Stay alert watch what you are doing.
- All installations must comply with local codes.
   Contact your electrician, plumber, utility company or the selling dealer for specific details.
- 5. This machine requires that it be installed by a qualified electrician. This product shall only be connected to a power supply receptacle protected by a ground fault circuit interrupter.



DANGER: Keep wand, hose, and water spray away from electric wiring or fatal electric shock may result.

DANGER: Garder la lance, le boyau et le jet d'eau à l'écart de tout câblage électrique ou des chocs électriques mortels pourraient survenir.

6. 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 UL grounded Receptacle of proper voltage and amperage ratings. Do not spray water near electrical components. Do not touch machine with wet hands or while standing in water. Always disconnect power before servicing.



CAUTION: Spray gun kicks back — hold with both hands.

ATTENTION: Le pistolet pulvérisateur peut présenter un risque de retour; le tenir avec les deux mains.

 Grip spray-gun and wand securely before starting this machine. Failure to do this could

result in bodily injury from a whipping wand.



WARNING: Flammable liquids can create fumes which can ignite causing property damage or severe injury.

AVERTISSEMENT: Des liquides inflammables peuvent produire des vapeurs qui peuvent s'enflammer, causant ainsi des dommages à la propriété ou des blessures graves.

WARNING: Risk of fire. Do not install or operate near any flammable liquids.

AVERTISSEMENT: Le pistolet pulvérisateur peut présenter un risque de retour; le tenir avec les deux mains.

WARNING: Before obtaining access to electric terminals, all supply circuits must be disconnected.

AVERTISSEMENT: Avant d'accéder aux bornes électriques, déconnecter tous les circuits d'alimentation.

 Electrical appliances shall be installed only in locations where combustible dusts and flammable gases or vapors are not present. Do not store or use gasoline near this machine.



WARNING: High pressure stream of fluid that this equipment can produce can pierce skin and its underlying tissues, leading to serious injury and possible amputation.

AVERTISSEMENT: Le jet d'eau haute pression produit par cet équipement peut percer la peau et ses tissus sous-jacents, causant

ainsi des blessures graves et possiblement une amputation.



WARNING: Risk of injection or severe injury. Keep clear of nozzle. Do not direct discharge stream at persons or animals. This equipment is to be used only by trained operators.

AVERTISSEMENT: Risque d'injection ou de blessures graves. Se tenir à l'écart de la buse. Ne pas diriger le débit de décharge vers

des personnes ou des animaux. Cet équipement doit être utilisé uniquement par des opérateurs formés.

9. Never make adjustments on machine while it is in operation.

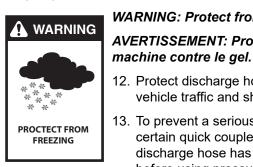
WARNING: High pressure spray can cause paint chips or other particles to become airborne and fly at high speeds. To avoid personal injury, eye, hand and foot safety devices must be worn.

AVERTISSEMENT: Un jet haute pression peut écailler la peinture ou provoquer l'émission d'autres particules dans l'air et leur projection à hautes vitesses.

10. Always wear properly rated eye protection such as safety goggles or face shield while spraying.

#### (Safety glasses do not provide full protection)

11. Machines with spray guns should not be operated with the spray gun in the off position for extended periods of time as this may cause damage to the pump.



WARNING: Protect from freezing. AVERTISSEMENT: Protéger la

- 12. Protect discharge hose from vehicle traffic and sharp objects.
- 13. To prevent a serious injury, be certain quick coupler on discharge hose has locked before using pressure washer.
- 14. Before disconnecting discharge hose from hot water outlet, disconnect power supply, open spray gun to relieve back pressure in hose and use protective gloves.
- 15. Do not allow acids, caustic or abrasive fluids to pass through the pump.
- 16. Inlet water supply must be cold and clean fresh water and not hotter than 145°F.

- 17. The best insurance against an accident is precaution and knowledge of the machine.
- 18. Landa will not be liable for any changes made to our standard machines, or any components not purchased from Landa.
- 19. To reduce the risk of injury, close supervision is necessary when a machine is used near children. Do not allow children to operate the pressure washer. This machine must be attended during operation.
- 20. Do not overreach or stand on unstable support. Keep good footing and balance at all times.
- 21. Follow the maintenance instructions specified in the manual.
- 22. When making repairs disconnect from electrical source.
- 23. Do not operate this product when fatigued or under the influence of alcohol or drugs. Keep operating area clear of all persons.

WARNING: Electric products incorporate parts that tend to produce sparks and therefore, when located in a garage, it should be in a room or enclosure for the purpose, or should be 18" (45cm) or more above the floor.

**AVERTISSEMENT:** Les produits électriques comportent des pièces qui ont tendance à produire des étincelles et, par conséquent, lorsqu'ils se trouvent dans un garage, il devrait s'agir d'une pièce ou d'une enceinte conçue à cette fin ou devraient se situer à 18" (45cm) ou plus au-dessus du sol.



WARNING: If connection is made to potable water supply, a back flow device must be provided.

AVERTISSEMENT: Si une connexion est établie avec un approvisionnement en eau potable, un dispositif de protection contre le retour d'eau doit être fourni.



WARNING: Do not spray machine or any people, animals or electrical parts.

AVERTISSEMENT: Ne pas vaporiser sur la machine ou les gens, les animaux ou les pièces électriques.

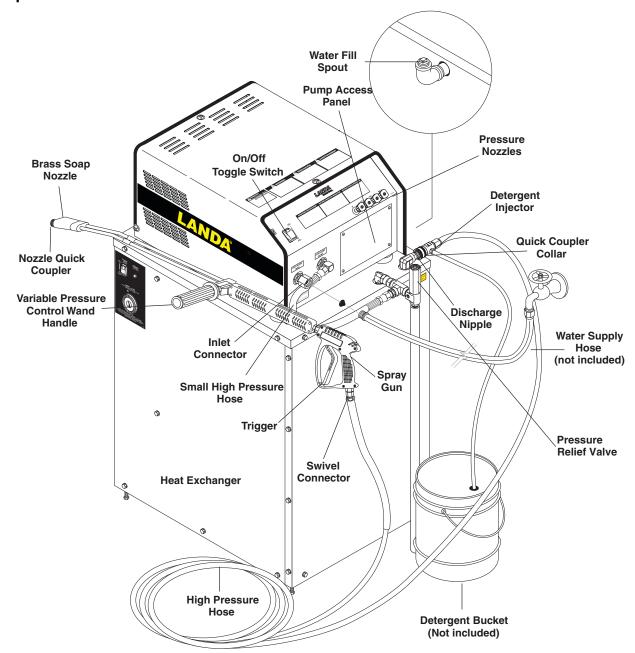
## **Pre-operation Check**

- Heat module water level
- Pump oil (SAE 10W-40 non-foaming oil)
- Cold water supply (6 gpm 5/8" 20 psi)
- · Proper power supply
- Hose, wand, nozzles (nozzle sizes per serial plate)
- Water filter (intact, non restrictive)
- Read installation and operation instructions



Follow the maintenance instructions specified in the manual.

## **Component Identification**



**Pump** — Delivers a specific gpm to the high pressure nozzle which develops pressure.

**Spray Gun** — Controls the application of water and detergent onto cleaning surface with trigger device. Includes safety latch.

**Detergent Injector** — Allows you to siphon and mix detergents.

Wand — Must be connected to the spray gun.

**Heat Exchanger** — Has a stainless steel coil suspended into an 80 gallon water tank that is heated to 200° by heating elements.

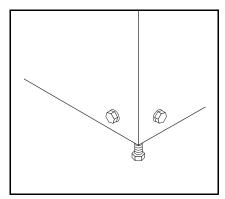
**Pressure Relief Valve -** Safety device to protect from excessive pressure.

**High Pressure Hose** — Connect one end to water pump high pressure discharge nipple and the other end to spray gun.

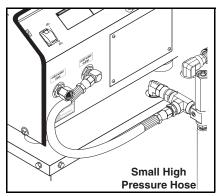
**Unloader Valve** — Safety device which, when the spray gun closes, prevents over pressurization (Not Shown.)

NOTE: If trigger on spray gun is released for more than 2 minutes, water will leak from the pump protector. Warm water will discharge from pump protector onto floor. This system prevents internal pump damage.

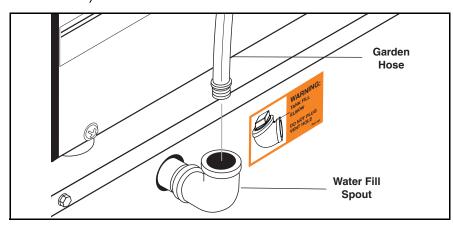
## **Assembly Instructions**



**STEP 1:** Place machine in a convenient location providing ample support, drainage and room for maintenance. Remove pallet bolts and remove pallet, then re-install bolts to level by adjusting (machine must be level).



**STEP 2:** Place the pump package on top of the heat exchange and attach the small high pressure hose to the fittings as shown.



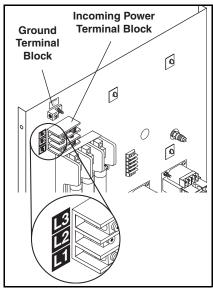
**STEP 4:** Do not turn power on to equipment until the heating module is filled with water, as severe damage may occur to heater elements.

Prior to shipping, a rust inhibitor was added to the hot water tank. This will mix with the added water to prevent rust build-up inside the tank. Rust inhibitor should be added when adding water after several hours of operation to replace evaporated water.

Install water fill spout (See Cabinet). Spout opening should be facing up. Insert water hose and fill. Do not over fill to allow for thermal expansion. (Maximum is 80 gallons). After heater tank has been filled to the top, operate for one week and then add one quart of oil to slow evaporation. Be sure to replace spout plug, hand tight only.

Turn on main power supply to unit. Set 7 day programmable timer to desired ON/OFF time and switch machine power on, Water will heat up to operating temperature in 30 to 60 minutes. The heater will turn off automatically when 200°F is reached. Water will come out of heater fill spout due to heat expansion. However, this will stop after temperature is reached.

Leave main power on to the machine to ensure hot water on pump start up.

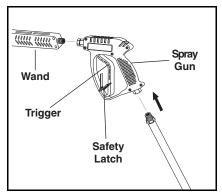


STEP 3: Remove the hex head screws from electrical access panel. NOTE: bottom right screw will only loosen; access panel is designed to pivot on this screw. Once access panel is rotated out of the way, attach the electrical harness from the pressure washer to the heating module as follows:

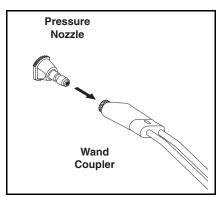
- Feed pressure washer wire harness through the upper wire hole located on the side of the machine (See Cabinet).
- On the right side of the incoming power terminal block, connect the black wire to line L1, the red wire to line L2, and the white wire to line L3.
- c. Attach the green wire to the ground terminal block.

CAUTION: Have qualified electrician attach the proper supply cord to the terminal labeled L1, L2 and L3.

ATTENTION: Demander à un électricien qualifié de raccorder le cordon d'alimentation approprié à la borne étiquetée L1, L2 et L3.

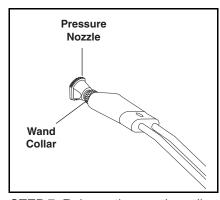


**STEP 5:** Attach variable pressure control wand to spray gun using teflon tape on threads to prevent leakage. Position safety latch to prevent trigger from being pulled.



STEP 6: Pull the spring-loaded collar of the wand coupler collar back to insert your choice of pressure nozzle. CAUTION: Never replace nozzles without engaging the safety latch on the spray gun trigger.

ATTENTION: Ne jamais remplacer les buses sans d'abord mettre le dispositif de sécurité sur la détente du pistolet pulvérisateur.

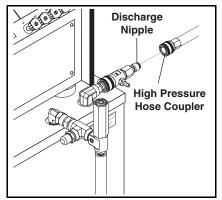


**STEP 7:** Release the coupler collar and push the nozzle until the collar clicks. Pull the nozzle to make sure it is seated properly.

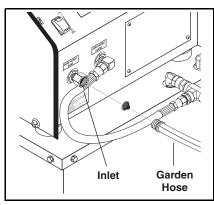
WARNING: These machines are designed for indoor use. Machine must be stored indoors when not in use.

AVERTISSEMENT: Ces machines sont conçues pour une utilisation à l'intérieur..La machine doit être entreposée à l'intérieur lorsqu'elle n'est pas utilisée.

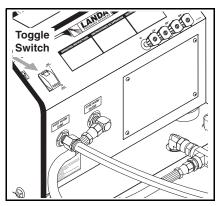
## **Operating Instructions**



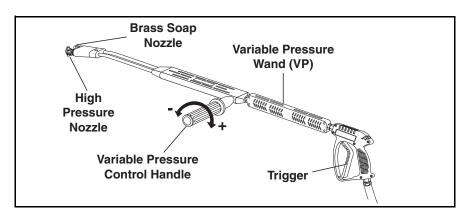
STEP 1: Connect the high pressure hose quick coupler to the discharge nipple by sliding the quick coupler collar back and inserting the quick coupler onto the discharge nipple and pushing the quick coupler collar forward to secure it. Secure desired pressure nozzle into variable pressure wand coupler.



**STEP 2:** Connect water supply hose (garden hose) to inlet connector. Do not allow acid or abrasives to be pumped through system. Turn on water.

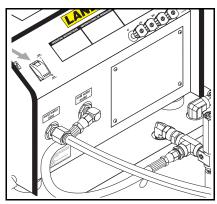


**STEP 3:** Place toggle switch in the ON position and then pull the trigger on the spray gun to activate a pressure switch which will then start the machine. The ON position is for auto shut down.



**STEP 4:** Turn the variable pressure control handle clockwise to increase pressure.

Selection of high or low pressure is accompanied by turning the handle. **NOTE:** High pressure nozzle must be inserted at end of wand to obtain high pressure. To apply soap read Detergents & General Cleaning Techniques section.



**STEP 5:** To stop machine, release the spray gun and machine will automatically stop in approximately 12 seconds. If machine is going to be unattended for long periods of time, turn water supply off and place switch in OFF position.

**NOTE:** When removing or replacing hoses, wand and nozzles, move switch to OFF position, open spray gun to release pressure before removing discharge hose.

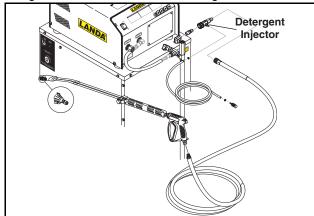


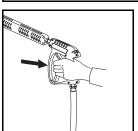
WARNING: Some detergents may be harmful if inhaled or ingested, causing severe nausea, fainting or poisoning. The harmful elements may cause property damage or severe injury.



AVERTISSEMENT: Certains détergents peuvent être dangereux s'ils sont inhalés ou ingérés, provoquant de fortes nausées, des évanouissements et l'empoisonnement. Les éléments dangereux peuvent causer des dommages à la propriété ou des blessures graves.

**STEP 1:** Use detergent designed specifically for pressure washers. Household detergents could damage the pump. Prepare detergent solution as required by the manufacturer. Fill a container with pressure washer detergent. Place the filter end of detergent suction tube into the detergent container.





**STEP 2:** Turn variable pressure control handle counterclockwise for low pressure. Observe detergent flowing in detergent line.

**NOTE:** Detergent cannot be applied during high pressure.

STEP 3: With the motor

running, pull trigger to operate machine. Liquid detergent is drawn into the machine and mixed with water. Apply detergent to work area. Do not allow detergent to dry on surface.

IMPORTANT: You must flush the detergent injection system after each use by placing the suction tube into a bucket of clean water, then run the pressure washer in low pressure for 1-2 minutes.

#### **Thermal Pump Protection**

If you run your pressure washer for 3-5 minutes without pressing the trigger on the spray gun, circulating water in the pump can reach high temperatures. When the water reaches this temperature, the pump protector engages and cools the pump by discharging the warm water onto the ground. This thermal device prevents internal damage to the pump.

## **Cleaning Tips**

Pre-rinse cleaning surface with fresh water. Place detergent suction tube directly into cleaning solution and apply to surface at low pressure (for best results, limit your work area to sections approximately 6 feet square and always apply detergent from bottom to top). Allow detergent to remain on surface 1-3 minutes. Do not allow detergent to dry on surface. If surface appears to be drying, simply wet down surface with fresh water. If needed, use brush to remove stubborn dirt. Rinse at high pressure from top to bottom in an even sweeping motion keeping the spray nozzle approximately 1 foot from cleaning surface. Use overlapping strokes as you clean and rinse any surface. For best surface cleaning action spray at a slight angle.

#### Recommendations:

- Before cleaning any surface, an inconspicuous area should be cleaned to test spray pattern and distance for maximum cleaning results.
- If painted surfaces are peeling or chipping, use extreme caution as pressure washer may remove the loose paint from the surface.
- Keep the spray nozzle a safe distance from the surface you plan to clean. High pressure wash a small area, then check the surface for damage. If no damage is found, continue to pressure washing.



#### **CAUTION - Never use:**

- Bleach, chlorine products and other corrosive chemicals
- Liquids containing solvents (i.e., paint thinner, gasoline, oils)
- Tri-sodium phosphate products
- · Ammonia products or acid-based products

These chemicals will harm the machine and will damage the surface being cleaned.

## **Operations**



#### ATTENTION: Ne jamais utiliser :

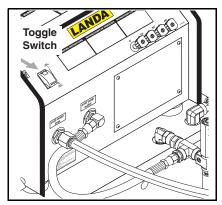
- Eau de Javel, produits à base de chlore et autres produits chimiques corrosifs
- Liquides contenant des solvants (c.-à-d. diluant à peinture, essence, huiles, etc.)
- Produits à base de tripolyphosphate de sodium
- · Ammoniac ou produits à base d'acide

Ces produits chimiques endommageront la machine et endommageront la surface étant nettoyée.

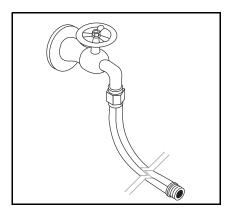
## Rinsing

It will take a few seconds for the detergent to clear. Apply safety latch to spray gun. Turn variable pressure control handle to high pressure. **NOTE:** You can also stop detergent from flowing by simply removing detergent siphon tube from bottle.

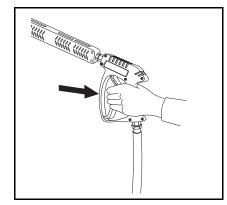
#### **Shutdown Procedures**



**STEP 1:** Rinse all lines (and injector) with clean water, to remove any soap residue then turn toggle switch off.



STEP 2: Turn off water supply.



**STEP 3:** Open spray gun to relieve remaining pressure and remove water supply hose.

In freezing conditions, disconnect water supply and open spray gun to allow water to drain, then turn off motor.

CAUTION: Do not allow pump to run longer than 5 minutes without water. Disconnect all hoses to allow water to drain.

ATTENTION: Ne pas laisser la pompe fonctionner pendant plus de 5 minutes sans eau. Débrancher tous les boyaux pour permettre l'évacuation de l'eau.

CAUTION: With machine off, open spray gun to release pressure before removing discharge hose.

ATTENTION: Avec la machine hors tension, ouvrir le pistolet pulvérisateur pour relâcher la pression avant de retirer le tuyau de refoulement.

#### Storage

## **Pump Storage**



pressure washer in a location where the temperature will not fall below 32° F (0° C). The pump in this machine is susceptible to permanent damage if frozen.

CAUTION: Always store your

CAUTION

ATTENTION: Toujours entreposer la laveuse à pression dans un endroit où la température ne sera pas inférieure à 32° F (0° C). La pompe sur cette machine est susceptible de subir des dommages si elle est exposée au gel.

FREEZE DAMAGE IS NOT COVERED BY WARRANTY.

LES DOMMAGES DUS AU GEL NE SONT PAS COUVERTS PAR LA GARANTIE.

If you must store your pressure washer in a location where the temperature is below 32° F, you can minimize the chance of damage to your machine by draining your machine as follows:

- 1. Stop the pressure washer and detach supply hose and high pressure hose. Squeeze the trigger of the spray gun to drain all water from the wand and hose.
- Restart pressure washer and let it run briefly (about 5 seconds) until water no longer discharges from the high pressure outlet.

## **Daily Maintenance**

To ensure a problem free system, simple visual checks can be performed. Check for leaks in inlet supply, pumping system, pump to heater hose, heater, spray gun(s) and high pressure hose. Check for normal operating functions and pump oil level/condition. Check nozzle condition. If badly worn or leaking conditions are found, qualified personnel should repair or replace components with new original or equivalent manufacturers parts.

Check equipment for proper operation. Nozzle spray should be uniform in flow, angle, and pressure. Clean if nozzle is plugged and replace if worn. If a heavy pulsation in the hose or spray is observed, repair of the pumping system is required.

## **Weekly Maintenance**

After the first week of operation, it is recommended 1 quart (1 litre) of motor oil be added to the heat exchanger tank through the 1-1/4" fill pipe. This oil creates a vapor barrier and slows evaporation of water in the tank.

Check heat exchanger water level. The level must be up to the filler pipe neck. Add water if necessary. If cold water has been added, heating may cause the expanding water to escape through the filler plug. This will stop after operating temperature has been reached.

#### **Monthly Maintenance**

Check system for operation. Automatic start/stop, hot high pressure water, and smooth operation should be noted.

Change oil in pump crankcase. Note the condition of the oil when drained. If found to be creamy, water seals in pump may have to be removed and replaced.

## Troubleshooting

PROBLEM POSSIBLE CAUSE		SOLUTION	
	Faulty pressure gauge	Install new gauge.	
	Insufficient water supply	Use larger garden hose; clean filter washer at water inlet.	
	Old, worn or incorrect spray nozzle	Match nozzle number to machine and/or replace with new nozzle.	
	Plumbing or hose leak	Check plumbing system for leaks. Retape leaks with teflon tape.	
LOW OPERATING PRESSURE	Faulty or misadjusted unloader valve (where applicable)	Adjust unloader for proper pressure. Install repair kit when needed.	
	Worn packing in pump	Install new packing kit.	
	Fouled or dirty inlet or discharge valves in pump	Clean inlet and discharge valves.	
	Worn inlet or discharge valves	Replace with valve kit.	
	Leaking pressure control valve (where applicable)	Rebuild or replace as needed.	
	Valves worn	Check and replace if necessary.	
FLUCTUATING	Blockage in valve	Check and clean out if necessary.	
PRESSURE	Pump sucking air	Check water supply and suction line for air seepage at joints.	
	Worn piston packing	Check and replace if necessary.	
	Nozzle worn	Check and replace if necessary.	
PRESSURE LOW AFTER PERIOD OF NORMAL USE	Inlet or discharge valves blocked or worn	Check and clean or replace if necessary.	
	Unloader valve seat worn	Check and replace if necessary.	
	Air in suction line	Check water supply connections on suction line.	
PUMP NOISY	Broken or weak inlet or discharge valve springs	Check and replace if necessary.	
	Foreign matter in valves	Check and clean if necessary.	
	Worn bearings	Check and replace if necessary.	
PRESENCE OF	Water sprayed at machine	Change oil. Direct spray away from machine.	
WATER IN PUMP OIL	High humidity in air	Check and change oil twice as often.	
	Piston packing worn Oil seal worn	Check and replace if necessary.	

PROBLEM	POSSIBLE CAUSE	SOLUTION	
OIL SQUIRTS OUT OF OIL CAP ON PUMP	Pump overfilled with oil	Maintain oil level at red dot on sight glass at rear of pump or at top of notch on dipstick (where applicable).	
WATER DRIPPING FROM	Piston packing worn	Check and replace if necessary.	
UNDER PUMP	O-Ring plunger retainer worn	Check and replace if necessary.	
SHEET SIM	Cracked piston	Check and replace if necessary.	
OIL DRIPPING	Oil seal worn	Check and replace if necessary.	
EXCESSIVE VIBRATION IN DELIVERY LINE	Irregular functioning of the valves	Check and replace if necessary.	
	Power, water, auto switch not on	Check and turn on.	
SYSTEM WILL	Motor overload tripped	Check and reset.	
NOT START	Control fuse blown (2 or 3 amp)	Check and replace.	
NOTOTAKI	Pressure switch faulty	Check, clean or replace.	
	Timer faulty	Check and replace.	
	Water leak in discharge line	Repair water leak.	
SYSTEM WILL NOT STOP	Pressure switch faulty	Disconnect at timer. If unit stops, replace pressure switch.	
	Timer resistor faulty	Replace timer.	
SYSTEM STOPS AFTER	Faulty pressure switch	Check and replace.	
APPROXIMATELY 10 SECONDS AND THEN RESTARTS	Leak in system	Fix leak.	
WATER IS	Tank water low	Check for leaks and fill.	
NOT HOT	Temperature or level controls faulty	Check and replace.	
MOTOR "HUMS" BUT DOES NOT TURN	Electric motor single phasing	Check for blown fuse or loose power line connections.	
	Air leak in inlet	Check water supply and possibility of air entering water connections.	
PUMP RUNNING NORMALLY BUT LOW WATER PRESURE	Faulty pressure unloader	Bypass pressure unloader by wiring spray gun open. If good PSI, turn machine off and replace regulator. DO NOT RELEASE SPRAY GUN WHILE BY PASSING UNLOADER.	

PROBLEM	POSSIBLE CAUSE	SOLUTION
WATER ESCAPING FROM FILL PIPE ON HEAT	Cold water added to heat exchanger	Will stop once at operating temperature.
EXCHANGER	Ruptured coil or leaking	Check, repair or replace fittings.
	Spray gun or hose is leaking to atmosphere	Check and repair all leaks.
UNLOADER DOES NOT GO INTO BYPASS OR	Check plunger either did not move or did not seal	Remove discharge port. Clean and inspect the check plunger. Replace the O-ring if needed.
WILL CYCLE ITSELF	Actuator O-ring failure	Remove actuator plunger assembly and inspect O-ring and back-up rings. Replace if necessary.
	Slow moving actuator; this may be caused by bad O-rings either on the plunger or inside the actuator fitting	Remove the actuator assembly to inspect the O-ring and back-up rings. The actuator assembly will have to be disassembled to inspect and/or replace the O-rings in the actuator fitting.
SPIKES TOO HIGH	Spring tension	Adjustment should stop when pressure is no longer affected by further compression of the spring.
	Hose length	Hose length can affect the amount of spike pressure. Long lengths of hose may cause high spike pressures.
	Water is leaking between ball and seat	Disassemble inlet fitting and check for contaminates or worn parts. Clean or replace as needed.
	Cs on actuator plunger are bad	Remove actuator assembly and inspect O-ring and back-up rings. Replace if necessary.
SYSTEM WON'T COME UP TO PRESSURE	Locknut may be improperly set	Readjust locknut.  NOTE: The locknut is inside the spring on models that have the stem exposed above the spring.
	Tip/GPM combination is incorrect	Check actual GPM on unrestricted pump and size tip accordingly.
	Tip worn- the GPM may be greater than expected with a worn tip	Replace tip.
	Bad gauge - the pressure may be higher than the gauge shows	Replace gauge.

#### **Preventative Maintenance**

This pressure washer was produced with the best available materials and quality craftsmanship. However, you as the owner have certain responsibilities for the correct care of the equipment. Attention to regular preventative maintenance procedures will assist in preserving the performance of your equipment. Contact your Landa, dealer for maintenance. Regular preventative maintenance will add many hours to the life of your pressure washer. Perform maintenance more often under severe conditions.

Pump Oil	Inspect	Daily inspect the oil level	
SAE 10W-40(non-foaming)	Change	After first 50 hours, then every 500 hours or annually	
Replace High Pressure Nozzle		Every 6 months	
Replace Quick Connect		Annually	
Clean Water Screen/Filter		Weekly	
Replace HP Hose		Annually if there is any sense of wear	
Grease Motor		Every 10,000 hours	
Inspect Heater Module Tank Water Level		Weekly	

## Oil Change Record

DateOilChanged Month/Day/Year	Estimated Operating Hours Since Last Oil Change

DateOilChanged Month/Day/Year	Estimated Operating Hours Since Last Oil Change

# **Parts**

EHW4-2000C

1.109-500.0

EHW4-2000F

1.109-954.0

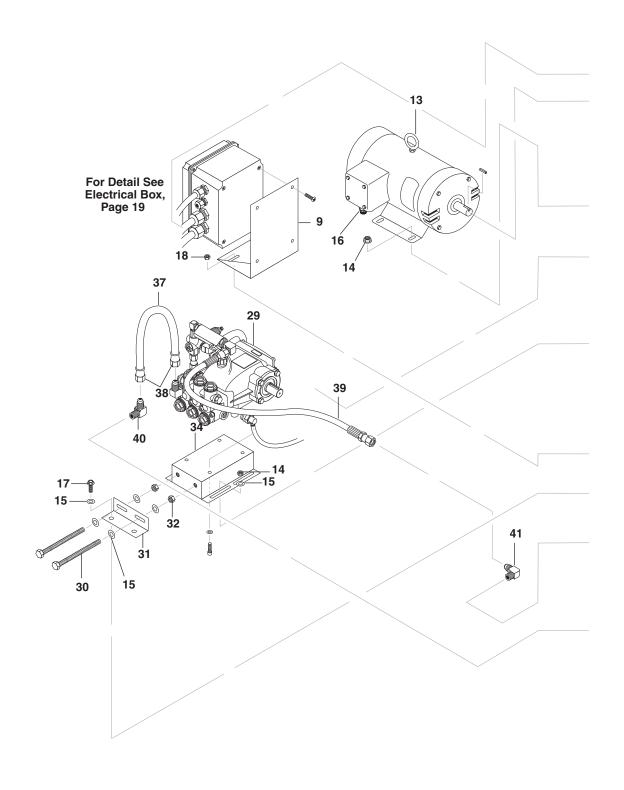
EHW4-3000C

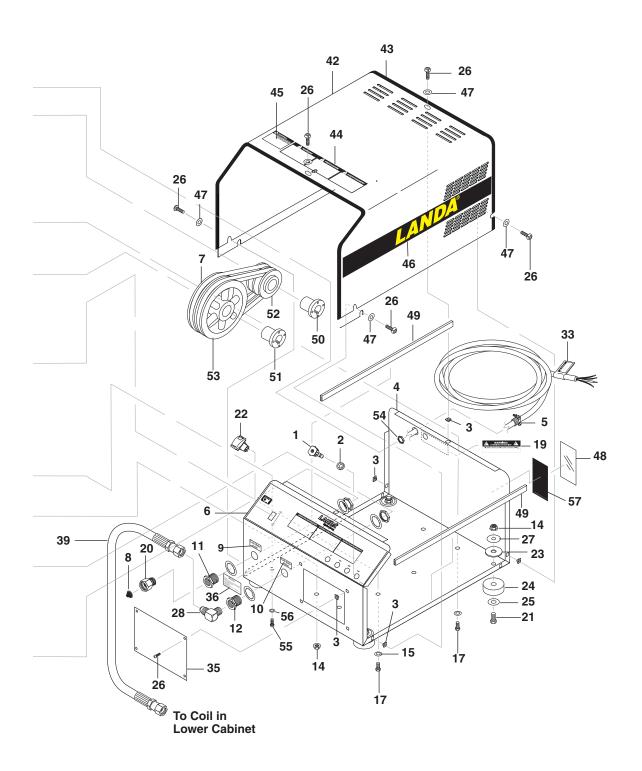
1.109-501.0

EHW4-3000F

1.109-955.0

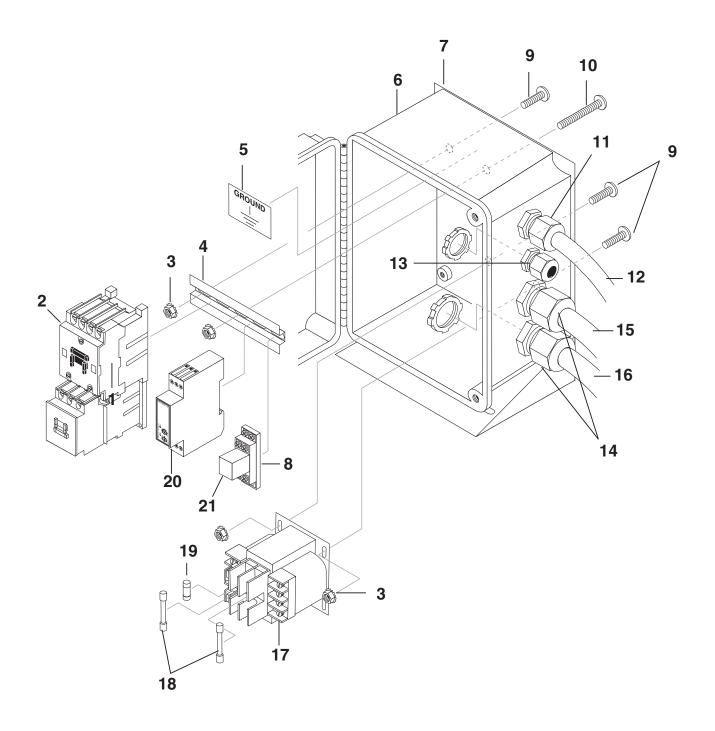
**LANDA EHW** 



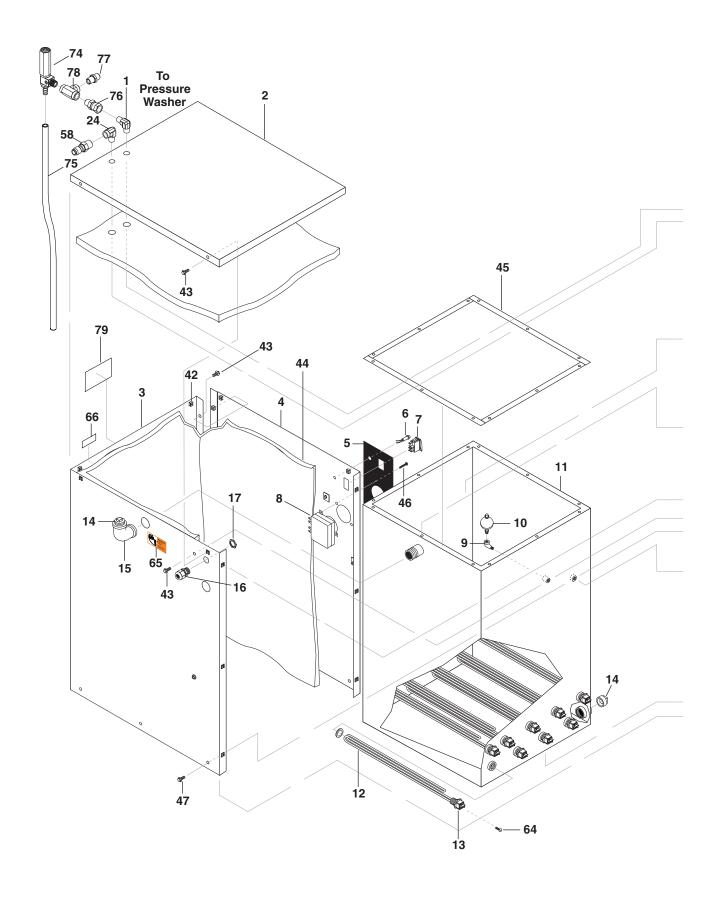


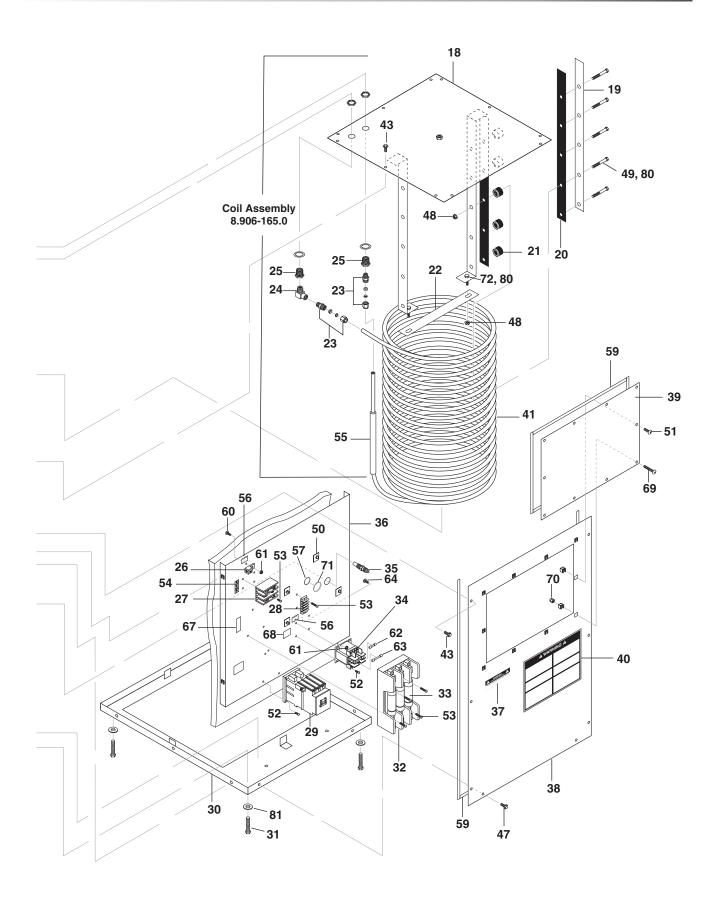
REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.712-346.0	1	NOZZLE, SAQCMEG 1504, YELLOW	(4-3000F)
-	8.712-347.0	1	NOZZLE, SAQCMEG 2504, GREEN	(4-3000F)
-	8.712-348.0	1	NOZZLE, SAQCMEG 4004, WHITE	(4-3000F)
-	8.712-350.0	1	NOZZLE SAQCMEG 15045, YELLOW	(4-3000C)
-	8.712-351.0	1	NOZZLE, SAQCMEG 25045, GREEN	(4-3000C)
-	8.712-352.0	1	NOZZLE, SAQCMEG 4004.5, WHITE	(4-3000C)
-	8.712-354.0	1	NOZZLE, SAQCMEG 1505, YELLOW	(4-2000F)
-	8.712-355.0	1	NOZZLE, SAQCMEG 2505, GREEN	(4-2000F)
_	8.712-356.0	1	NOZZLE, SAQCMEG 4005, WHITE	(4-2000F)
-	8.712-362.0	1	NOZZLE, SAQCMEG 1506, YELLOW	(4-2000C)
-	8.712-363.0	1	NOZZLE, SAQCMEG 2506, GREEN	(4-2000C)
-	8.712-364.0	1	NOZZLE, SAQCMEG 4006, WHITE	(4-2000C)
2	9.802-064.0	4	GROMMET, RUBBER, NOZZLE HOLDER	
3	9.802-794.0	12	NUT, CAGE, 1/4" X 12 GA	
4	8.930-524.0	1	BASE WLMT SEA STAINLESS	
5	9.803-279.0	1	STRAIN RELIEF,CG100-750,1" YEL(10-4COR	
6	8.758-395.0	1	LABEL SEA EHW CONTROL PANEL	
7	-	2	BELT	SEE SPECIFICATIONS PAGES
8	9.804-016.0	1	FILTER SCREEN WASHER, GARDEN HOSE/ 30MESH	
9	8.758-333.0	1	LABEL COLD WATER INLET	
10	8.758-352.0	1	LABEL COLD WATER OUTLET	
11	8.707-000.0	1	CONNECTOR, 1/2" ANCHOR	
12	8.755-033.0	1	BULKHEAD, 3/8" FXF NPT, STEEL	
13	-	1	MOTOR	SEE SPECIFICATIONS PAGES
14	9.802-788.0	14	NUT, 3/8" WHIZ LOC SS	
15	9.802-808.0	14	WASHER, 3/8", SAE, SS	
16	8.758-002.0	1	STRAIN RELIEF CG75-750 3/4" YELLOW	(EHW 4-2000C,F)
-	9.802-523.0	1	LOCKNUT, 3/4" CONDUIT	NOT SHOWN (EHW 4-2000C,F)
-	9.803-279.0	1	STRAIN RELIEF,CG100-750,1" YEL(10-4COR	(EHW 4-3000C,F)
-	9.803-280.0	1	LOCKNUT, 1" CONDUIT	NOT SHOWN (EHW 4-3000C,F)
17	9.802-721.0	10	BOLT, 3/8" X 1" SS	
18	9.802-774.0	2	NUT, 1/4" ESNA, NC, SS	
19	8.758-331.0	1	LABEL DISCONNECT POWER SUPPLY	
20	8.757-203.0	1	SWIVEL, 1/2" M-NPTF x 3/4" GHF	
21	9.802-724.0	4	BOLT, 3/8" X 1-1/2", HH NC, SS	
22	9.802-452.0	1	SWITCH, ROCKER, CARLING, M-CIRCUIT, RED	
-	9.802-451.0	1	SWITCH, ROCKER, CARLING,W/GREEN LIGHT	(AUTO START/STOP OPTION)
23	9.802-067.0	4	BUMPER PAD, ENGINE	
24	9.802-066.0	4	PAD, SOFT RUBBER, DURO 50	
25	9.802-818.0	4	WASHER, 3/8" X 1", SS	

REF	PART NO.	QTY	DESCRIPTION	NOTES
26	9.802-760.0	10	SCREW, 1/4" X 1/2", BH SOL C/S SS	
27	9.802-812.0	4	WASHER, 7/16" X 2-1/2", ZINC	
28	8.757-509.0	1	ELBOW, 3/4"-16 SAE X 3/8" NPTF(M), STEEL	
29	-	1	PUMP	SEE SPECIFICATIONS PAGES
30	8.718-682.0	2	BOLT, 3/8" X 3-1/2", TAP, SS	
31	8.930-527.0	1	BRACKET PUMP TENSIONER SEA STAINLESS	
32	9.802-827.0	2	NUT, 3/8", SS	
33	8.758-338.0	1	LABEL WARNING SERVICE CORD	
34	9.803-131.0	1	RAIL, PUMP	
35	9.803-127.0	1	COVER, ACCESS HOLE, SEA	
36	8.758-335.0	1	LABEL MANUFACTURER'S CLEANING SOLUTION	
37	9.802-259.0	15"	HOSE, 1/2" PUSH-ON	
38	9.802-151.0	2	SWIVEL, 1/2" JIC FEM, PUSH-ON, BRASS	
39	8.918-422.0	2	HOSE, 3/8" X 20", 2 WIRE, PRESSURE LOOP	
40	8.757-391.0	1	ELBOW, 1/2" M SAE x 1/2" NPTF (M)	
41	8.757-509.0	1	ELBOW, 3/4"-16 SAE X 3/8" NPTF(M), STEEL	-
42	8.930-526.0	1	COVER, SEA, STAINLESS	
43	9.802-071.0	8.25 ft	TRIM, 1/16", BLACK	
44	8.758-393.0	1	LABEL SEA EHW WARNING	
45	8.758-329.0	1	LABEL WARNING EXPOSED PULLEYS	
46	8.758-357.0	2	LABEL LANDA STRIPE	
47	8.719-002.0	6	WASHER, 5/16" X 1-1/4", FENDER SS	
48	8.758-330.0	1	LABEL CLEAR LEXAN 4.30" X 5.50"	
49	9.802-073.0	3.5 ft.	WEATHER-STRIP, 1/8" X 1/2"	
50	-	1	MOTOR BUSHING	SEE SPECIFICATIONS PAGES
51	-	1	PUMP BUSHING	SEE SPECIFICATIONS PAGES
52	-	1	MOTOR PULLEY	SEE SPECIFICATIONS PAGES
53	-	1	PUMP PULLEY	SEE SPECIFICATIONS PAGES
54	9.803-280.0	1	LOCKNUT, 1" CONDUIT	
55	8.718-603.0	4	BOLT, 1/4-20 X 3/4", HH SS	
56	8.718-965.0	8	WASHER, 1/4"", FLAT, SAE, SS"	
57	8.758-332.0	1	LABEL ASSEMBLED IN USA INDOOR USE	



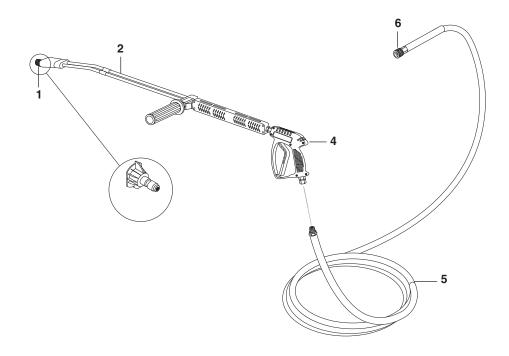
REF	PART NO.	QTY	DESCRIPTION	NOTES
1	-	1	CONTACTOR	SEE SPECIFICATIONS PAGES
2	-	1	OVERLOAD	SEE SPECIFICATIONS PAGES
3	9.802-695.0	6	NUT, 10/32" KEPS	
-	-	1	NUT, 10/32" KEPS	(AUTO START/STOP OPTION)
4	9.802-457.0	6"	DIN RAIL	
-	-	4"	DIN RAIL	(AUTO START/STOP OPTION)
5	8.758-327.0	1	LABEL, GROUND SYMBOL	
6	9.802-476.0	1	BOX, PLASTIC 10" X 8" X 6" W/LID	
7	9.803-038.0	1	BRACKET, SUPPORT ELEC BOX	
8	9.802-467.0	1	BASE, RELAY, SH2B-05, IDEC	
9	9.802-759.0	3	SCREW, 10/32 X 1/2 BH SOC BLK	
10	9.802-762.0	1	SCREW, 10/32" X 1-1/4" RH SC BLK	
-	-	1	SCREW, 10/32" X 1-1/4" RH SC BLK	(AUTO START/STOP OPTION)
11	9.802-514.0	1	STRAIN RELIEF, LT, STR, 1/2 NPT,.2345D	
12	9.802-424.0	38"	CORD, SERVICE, SEO 16/4	
13	9.802-514.0	1	STRAIN RELIEF, 1/2" SMALL	
14	9.802-518.0	2	STRAIN RELIEF, 3/4" ST. LARGE	
15	8.925-722.0	1	HARNESS CORD POWER 1700/SEA/HD 12/4	
16	8.925-714.0	1	HARNESS CORD MOTOR 1700/SEA/HD 12/4	
17	-	1	TRANSFORMER	SEE SPECIFICATIONS PAGES
18	-	2	PRIMARY FUSE	SEE SPECIFICATIONS PAGES
19	-	1	SECONDARY FUSE	SEE SPECIFICATIONS PAGES
20	8.751-306.0	1	TIMER, MULTI-FUNCTION 24V-120/240V 5A	
21	9.802-468.0	1	RELAY, 120VRH28-UL-AG120	



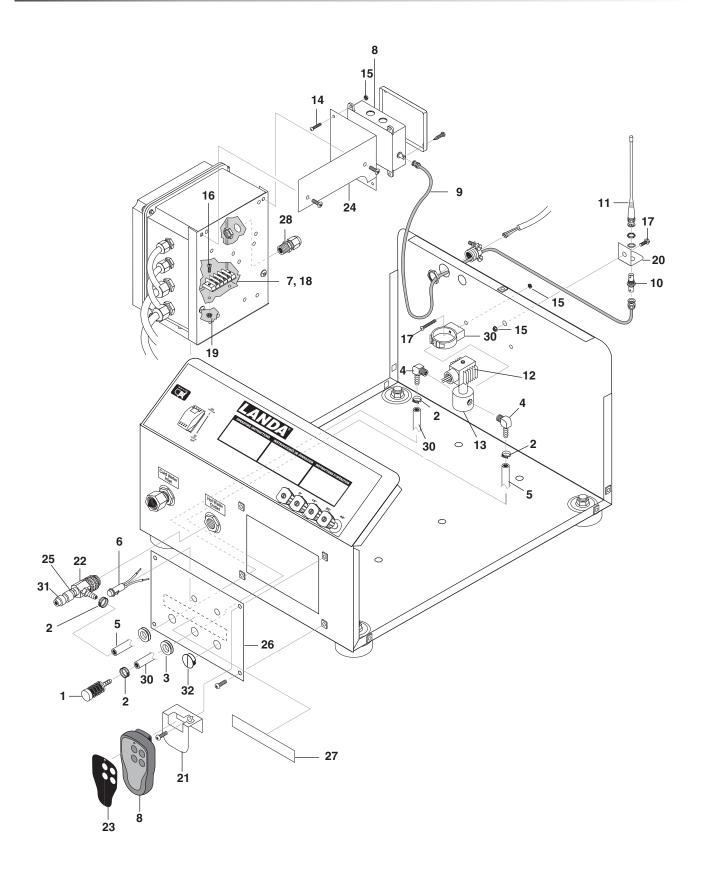


REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.757-509.0	1	ELBOW, 3/4"-16 SAE X 3/8" NPTF(M), STEEL	
2	8.913-216.0	1	LID, TOP COVER	
3	8.913-218.0	1	OUTER WRAP, FILL SIDE	
4	8.913-219.0	1	OUTER WRAP, POWER SIDE	
5	8.758-427.0	1	LABEL, HEATING UNIT POWER	
6	9.802-455.0	1	LIGHT, GREEN 125V	
7	9.802-451.0	1	SWITCH, ROCKER CARLING W/GREEN LENS	
8	8.716-254.0	1	TIMER, 7 DAY PIN, 120V, 20A PB873MKZ	
9	8.757-339.0	1	ELBOW, 1/4" STREET 90 DEG, STEEL W/SLNT	
10	8.716-633.0	1	SWITCH, LIMIT W/CLAMP	
11	8.913-211.0	1	TANK ASSEMBLY	
12	8.716-650.0	9	GASKET, 6000W HEATER, 2500 SERIES	
13	8.716-645.0	9	HEATER, 4500W 480V #055994-091	
-	8.751-252.0	9	HEATER, 1" SCREW PLUG 575/600V 4500W	(575 VOLTS MODELS)
14	8.913-222.0	2	PLUG, 1.5" PIPE, BLACK	
15	8.913-221.0	1	ELBOW, 1-1/2" FEMALE, BLACK 90°	
16	9.802-518.0	1	STRAIN RELIEF, LARGE	
17	9.802-526.0	1	LOCKNUT, 3/4" 8465	
18	8.913-212.0	1	TANK ASSEMBLY LID	
19	8.913-213.0	2	BRACKET, COIL	
20	8.706-542.0	4	PAD, 1/4" RUBBER, COIL	
21	8.711-785.0	10	HOSE, 3/8" X 1/2" PUSH-ON	
22	8.913-214.0	1	BRACKET, COIL SPACER	
23	8.706-322.0	2	TUBE FITTING, PARKER 8MSC6N-316 1/2" SS A-LOK	
24	8.757-340.0	2	ELBOW 3/8", STREET 90 DEG, STEEL, W/SLNT	
25	8.755-033.0	2	BULKHEAD, 3/8" FXF NPT, STEEL	
26	8.716-461.0	1	TERMINAL, GROUNDING LUG, 1/0-6 COPPER WIRE	
27	8.716-122.0	1	BLOCK, POWER DISTR, 3 POL, GO63133	
28	9.802-491.0	1	BLOCK, TERMINAL, 4 POLE	
29	8.724-284.0	1	CONTACTOR, DP, C25FNY44AL, 60 AMP	
30	8.913-210.0	1	TANK BASE ASSEMBLY	
31	8.718-696.0	4	BOLT, 1/2" X 3" NC, SS	
32	8.716-225.0	1	HOLDER, FUSE BLOCK, BUSS R60060-3CR	
33	8.730-762.0	3	FUSE, BUSS FRS-R-50, 600V 50 AMP	
34	8.716-883.0	1	TRANSFORMER, 208/230/460V- 24/115V, .050KVA	
_	9.803-668.0	1	TRANSFORMER, 550V/575/600V-115V,. 050KVA	(575V MODELS)
35	8.712-179.0	1	SWITCH TH HI 84°C NC 1/2 X 1/2 SP	
36	8.913-220.0	1	ELECTRICAL PANEL	
37	8.758-331.0	1	LABEL DISCONNECT POWER SUPPLY	
38	8.913-215.0	1	PLATE, BACK COVER	
39	8.913-217.0	1	PLATE, ELECTRICAL ACCESS	
40	8.758-426.0	1	LABEL, WARNING	

			DESCRIPTION	
REF	PART NO.	QTY		NOTES
41	8.912-251.0	1	COIL, 1/2" O.D. SS TUBING	
42	9.802-793.0	30	NUT, CAGE 1/4" X 16 GA	
43	9.802-754.0	32	SCREW, 1/4" X 1/2" HH NC WHIZ LOCK	
44	8.717-480.0	4	INSULATION, 1" X 24" X 48" FIBERGLASS	FOIL ONE SIDE
45	8.706-569.0	8 ft	GASKET, NEOP	
46	8.718-755.0	2	SCREW, 8/32" X 1-1/2", SS PHIL PH	
47	9.803-551.0	10	SCREW, 5/16" X 3/4" WHIZ	
48	8.718-887.0	12	NUT, WHIZ LOC, 5/16 FLANGE SS	
49	8.718-639.0	10	BOLT, 5/16" X 2 1/2" NC HH SS	
50	8.716-533.0	9	CLAMP, TIE WRAP ADHESIVE	
51	9.802-765.0	9	SCREW, 1/4" X 1/2" BH SOC CS	
52	8.718-937.0	10	SCREW, #8 X 3/4" PHILLIPS ZINC, HEK	
53	8.718-936.0	7	SCREW, #8 X 1/2" PHILLIPS ZINC, TEK	
54	8.758-422.0	1	LABEL INCOMING LINE	
55	9.802-259.0	1 ft.	HOSE, 1/2" PUSH-ON	
56	8.758-327.0	3	LABEL, GROUND SYMBOL	
57	9.802-103.0	1	BUSHING, SNAP 5/8	
58	9.802-171.0	1	NIPPLE, 1/2" HEX STEEL	
59	9.802-073.0	13.375 ft.	WEATHERSTRIP, 1/8" X 1/2"	
60	8.718-803.0	1	SCREW, 10/32" X 3/4" BHSOC	
61	9.802-695.0	3	NUT, 10/32" KEPS	
62	9.802-464.0	1	FUSE, PAPER BUSS 8/10 250V	
63	8.713-081.0	2	FUSE, CLASS R 1/2 AMP	
64	9.802-759.0	19	SCREW, 10/32" X 1/2" BH SOC	
65	8.758-423.0	1	LABEL VENT ELBOW	
66	8.758-334.0	1	LABEL HOT WATER OUTLET	
67	8.758-424.0	1	LABEL CLASS RK5 50 AMP	
68	8.758-425.0	1	LABEL PRIMARY AND SECONDARY FUSE	
69	9.802-770.0	1	SCREW, 1/4" X 1", BH SOC CS	
70	9.802-773.0	1	NUT, 1/4" ESNA, NC	
71	9.802-065.0	1	GROMMET, 1-5/16" RUBBER	
72	8.718-621.0	2	BOLT 5/16" X 1" SS	
73	8.716-707.0	30"	3/8" SHRINK TUBING	NOT SHOWN
74	8.902-433.0	1	PRESSURE RELIEVE VALVE	
75	8.711-785.0	36"	3/8" PUSH-ON HOSE	
76	8.757-656.0	1	ADAPTER SWIVEL STEEL 1/2 JICX3/8 NPTF(M)	
77	8.757-655.0	1	ADAPTER STEEL 1/2" JIC X 3/8" NPTF(M)	
78	8.757-944.0	1	TEE STEEL 3/8 NPTF (F)	
79	8.758-332.0	1	LABEL ASSEMBLED IN USA INDOOR USE	
80	9.802-805.0	12	WASHER, 5/16" FLAT, SS	
81	9.802-809.0	4	WASHER, 1/2" FLAT SAE	

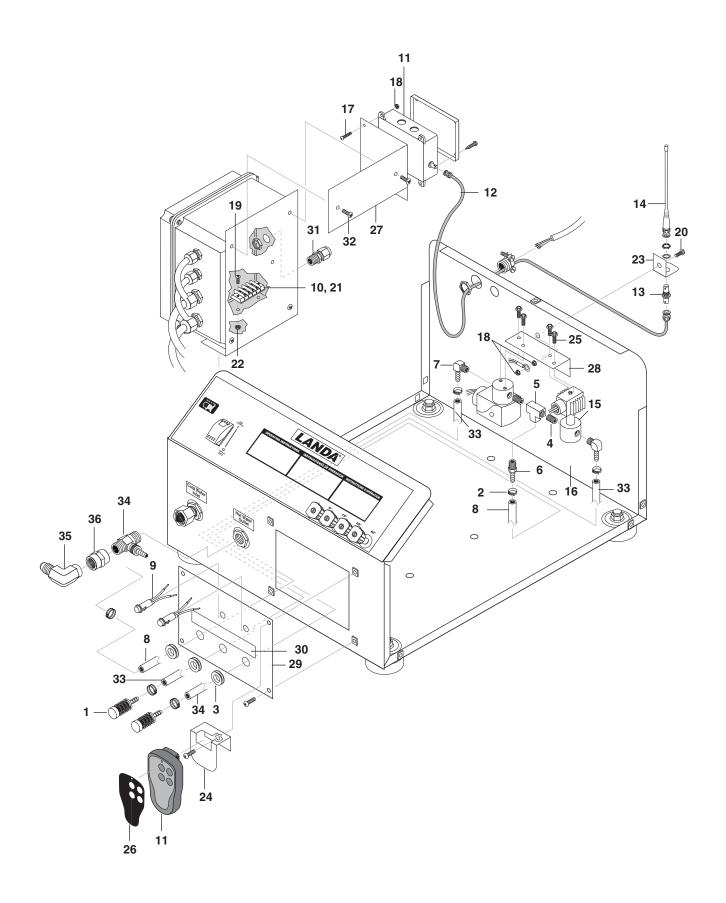


REF	PART NO.	QTY	DESCRIPTION	NOTES
1	9.802-165.0	1	COUPLER, 1/4" MALE	
-	9.802-096.0	1	QUICK COUPLER, O-RING, SMALL	NOT SHOWN
2	8.711-293.0	1	WAND, VP ZINC 1/4" (AL 344) W/CPLR, W/SOAP NOZZLE	
-	8.710-722.0	1	WAND ONLY, SS, VP, AR (AL 344)	
-	-	1	83-SSVPKIT KIT, REPAIR, AR SS, SEAT	
3	9.802-286.0	1	NOZZLE ONLY, 1/8", BRASS, SOAP	NOT SHOWN
4	8.751-234.0	1	GUN, LANDA, L1050, 5000 PSI, 10.4 GPM	
5	8.739-072.0	1	HOSE 3/8" X 50', 2 WIRE, TUFF-SKIN	
6	9.802-166.0	1	COUPLER, 3/8" FEMALE	
-	9.802-100.0	1	QUICK COUPLER, O-RING	NOT SHOWN LARGE
7	8.707-139.0	1	COUPLER, 1/4"PLUG, MALE, STEEL/ZINC	NOT SHOWN
8	9.802-164.0	1	COUPLER, 1/4"SOCKET, FEMALE, BRASS	NOT SHOWN

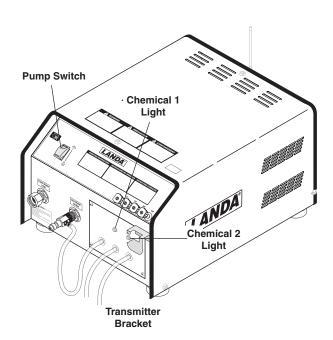


REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.707-057.0	2	STRAINER, PLASTIC 1/4" HOSE BARB	
2	6.390-126.0	4	CLAMP, HOSE, .46-, .54 ST	
3	8.706-538.0	3	GROMMET, 1.375 OD X .75 ID X 3/8"	
4	8.757-205.0	2	HOSE BARB, 1/4" BARB x 1/4" M-NPTF, 90°	
5	9.802-251.0	6 ft.	TUBE, 1/4" X 1/2", CLEAR VINYL	
6	9.802-455.0	1	LIGHT, INDICATOR, GREEN 125V	
7	9.802-491.0	1	BLOCK, TERMINAL, 4 POLE	
8	8.716-442.0	1	WIRELESS, TRANSMITTER-RECEIVER,4 RELAY	
9	8.716-444.0	1	CABLE, RADIO REMOTE, COAXIAL CABLE	
10	8.716-445.0	1	CONNECTOR, RADIO REMOTE, BULKHEAD BNC-BNC	
11	8.716-446.0	1	ANTENNA, RADIO REMOTE, BNC CONNECTION	
12	8.725-433.0	1	VALVE, SOLENOID DEMA 482-2-C-6, 120V 04F20C2118AAF	
13	9.802-533.0	1	SOLENOID COIL, 120V AF4C05	
14	8.718-569.0	4	SCREW, 10-32 X 1/2 PL RDH PH	
15	9.802-695.0	5	NUT, 10/32" KEPS	
16	8.718-749.0	2	SCREW, 8/32" X 3/4" SS PHIL	
17	9.802-764.0	2	SCREW, 10/32" X 3/4" HH	
18	9.802-494.0	2	BAR, JUMPER	NOT SHOWN
19	9.802-785.0	2	NUT, 8/32", KEPS	
20	8.912-674.0	1	BRACKET, ANTENNA MOUNT WIRELESS REMOTE	
21	8.912-675.0	1	BRACKET, TRANSMITTER, WIRELESS REMOTE	
22	8.904-203.0	1	AMERIMAX 24" ACID INS. 3-5 GPM	
23	8.758-556.0	1	LABEL LANDA SEA/EHW WIRELESS REMOTE	
24	8.930-164.0	1	BASE, LANCOM RECEIVER, -07	
25	8.706-136.0	1	COUPLING, 3/8" ", PIPE-P/N-C3309X6"	
26	8.930-166.0	1	COVER, ACCESS HOLE, LANCOM, -07	
27	8.758-640.0	1	LABEL CHEMICAL WIRELESS	
28	9.802-514.0	1	STRAIN RELIEF, SMALL	
29	8.706-423.0	1	HANGER PIPE 1"	
30	9.802-251.0	10 ft	TUBE, 1/4" X 1/2" CLEAR VINYL	
31	9.802-171.0	1	COUPLER, 3/8" PLUG, MALE, STEEL/ZINC	
32	8.706-744.0	1	PLUG, PLASTIC 1'	

NOTE: NOT AVAILABLE FOR THE SEA 3, 120V, 1 PHASE MODEL.



REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.707-057.0	2	STRAINER, PLASTIC 1/4" HOSE BARB	
2	6.390-126.0	6	CLAMP, HOSE, .46-, .54 ST	
3	8.706-538.0	3	GROMMET, 1.375 OD X .75 ID X 3/8"	
4	8.757-195.0	2	NIPPLE, 1/4" CLOSE, BRASS	
5	8.757-943.0	1	TEE BRASS 1/4 NPTF (F)	
6	8.757-199.0	1	HOSE BARB, 1/4" BARB x 1/4" M-NPTF, BRASS	
7	8.757-205.0	2	HOSE BARB, 1/4" BARB x 1/4" M-NPTF, 90°	
8	9.802-251.0	6 ft.	TUBE, 1/4" X 1/2", CLEAR VINYL	
9	9.802-455.0	2	LIGHT, INDICATOR, GREEN 125V	
10	9.802-491.0	1	BLOCK, TERMINAL, 4 POLE	
11	8.716-442.0	1	WIRELESS, TRANSMITTER-RECEIVER, 4 RELAY	
12	8.716-444.0	1	CABLE, RADIO REMOTE, CC58C-5 COAXIAL CABLE	
13	8.716-445.0	1	CONNECTOR, RADIO REMOTE, BULKHEAD BNC-BNC	
14	8.716-446.0	1	ANTENNA, RADIO REMOTE, BNC CONNECTION	
15	8.725-433.0	2	VALVE, SOLENOID DEMA 482-2-C-6, 120V	
16	9.802-533.0	2	SOLENOID COIL, 120V AF4C05	
17	8.718-569.0	4	SCREW, 10-32 X 1/2 PL RDH PH	
18	9.802-695.0	4	NUT, 10/32" KEPS	
19	8.718-749.0	2	SCREW, 8/32" X 3/4" SS PHIL	
20	9.802-764.0	1	SCREW, 10/32" X 3/4" HH	
21	9.802-494.0	2	S BAR, JUMPER	NOT SHOWN
22	9.802-785.0	2	NUT, 8/32", KEPS	
23	8.912-674.0	1	BRACKET, ANTENNA MOUNT WIRELESS REMOTE	
24	8.912-675.0	1	BRACKET, TRANSMITTER, WIRELESS REMOTE	
25	9.802-772.0	4	SCREW, 10/32" X 1/4" HWH	
26	8.758-556.0	1	LABEL LANDA SEA/EHW WIRELESS REMOTE	
27	8.930-164.0	1	BASE, LANCOM RECEIVER, -07	
28	8.930-165.0	1	BRACKET, SOLENOID MOUNT, -07	
29	8.930-166.0	1	COVER, ACCESS HOLE, LANCOM, -07	
30	8.758-640.0	1	LABEL CHEMICAL WIRELESS	
31	9.802-514.0	1	STRAIN RELIEF, SMALL	
32	9.802-698.0	2	SCREW, 10/32 X 1/2 SLOT PAN	
33	9.802-251.0	20 ft	TUBE, 1/4" X 1/2" CLEAR VINYL	
34	8.904-203.0	1	INJECTOR	
35	8.757-509.0	1	ELBOW STEEL 1/2 SAE (M) X 3/8 NPTF (M)	
36	8.706-136.0	1	COUPLING, 3/8"", PIPE-P/N-C3309X6"	



When machine is not in use, push control panel pump switch to the "OFF" position. Store transmitter on the transmitter bracket.

**NOTE:** Normal operating range for the transmitter is about 500 feet interference-fee (line of site); 300 feet light interference (inside warehouse, pallet shelves); and 100 feet heavy interference (through concrete/ stone walls, metal doors). If greater range is desired, the antenna can be mounted at a separate location. This requires a longer cable - RG-58-U coaxial with BNC end connectors.

#### For Wireless Remote Control Operation

**Step 1:** Push the control panel pump switch to the "ON" position (first click). With the switch in this position the wireless remote is ready for use.



Transmitter

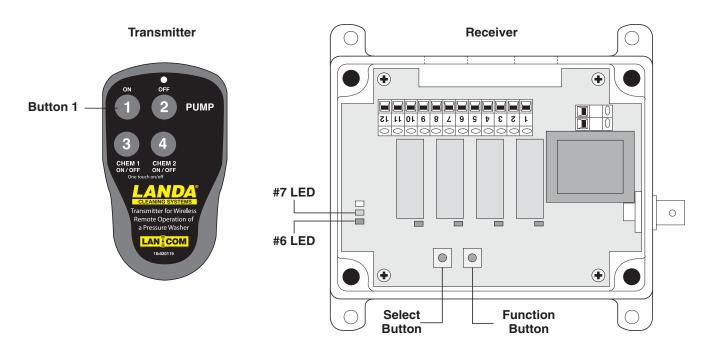
Step 2: To control pressure washer in remote mode, press transmitter button 1 to turn pump "ON". Press transmitter button 2 to turn pump "OFF". Pump can also be controlled manually by pressing the control panel pump ON/OFF switch.

Chemical 1: To start chemical 1 flow, press transmitter button 3. The green indicator light will illuminate when chemical 1 is in use. Press button 3 again to stop chemical 1 flow.

**Chemical 2:** To start chemical 2 flow, press transmitter button 4. The green indicator light will illuminate when chemical 2 is in use. Press button 4 again to stop chemical 2 flow.

#### Transmitter/Receiver Communication Set-up at Factory

Programming communication between the receiver and transmitter requires the removal of the receiver enclosure lid. The receiver must have 120V power. This process utilizes the Function/Select buttons on the main panel control board (PCB) of the receiver (See Figure below). A number of colored LED's are used to indicate various steps in the programming process (See Figure below). It is recommended that this process is not done while wired to the machine.



### **Receiver Programming LED's and Programming Switches**

The T60-04CRV receiver programming process is as follows: While programming, make sure there are no other transmitters are transmitting in the area.

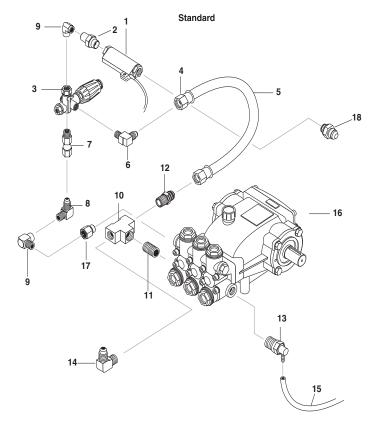
- 1. Press the **Function** button once to select the "Learn Code" mode. (#6 Red LED lights, you have approximately 5 seconds to make the next selection.)
- 2. Press the **Select** button once and then press any button on the transmitter and hold. (#6 Red LED will blink on/ off three times and go out. After releasing the transmitter button, the relays will respond to the appropriate buttons (Button 1/R1; Button 2/R2; Button 3/R3; Button 4/R4); and the #6 red LED will blink on/off indicating that one or more adjustable codes have been learned by this receiver.
- 3. Press and hold the **Select** button for 6-8 seconds so the yellow LED is on solid. (#7 Yellow LED lights)

**NOTE**: This step is only completed when establishing the first transmitter communication.

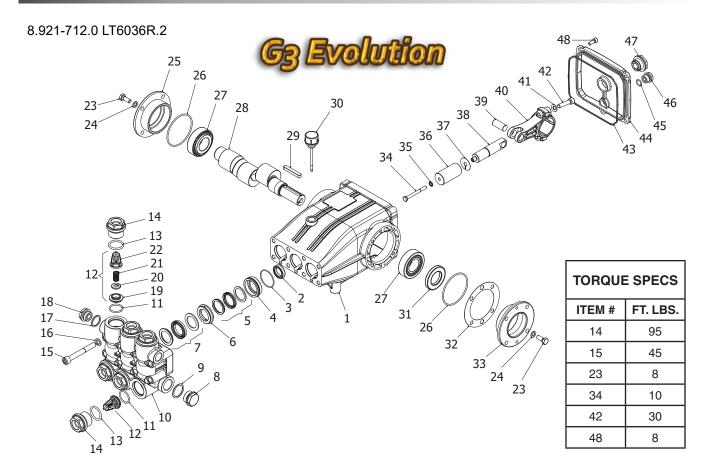
The receiver is now programmed to the desired transmitter.



REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.756-797.0	1	INJECTOR, CHEMICAL, NON ADJ 0.083(2.1MM)	



REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.933-006.0	1	SWITCH, FLOW MV60	
-	8.724-844.0	1	SWITCH, REED REPLACEMENT, MV-60	
2	8.757-653.0	1	NIPPLE STEEL HEX 3/8" NPTF X 3/8" BSPP	
3	8.750-298.0	1	UNLOADER, VRT3, 8 GPM @3630 PSI	
4	9.802-151.0	2	SWIVEL, 1/2" BARB x 1/2"JIC, FEM/BRASS	
5	9.802-259.0	18"	HOSE, 1/2" PUSH-ON	
6	8.757-262.0	1	ELBOW, 1/2" 45° SAE X 3/8" M-NPTF, BRASS	
7	8.757-656.0	1	ADAPTER SWIVEL STEEL 1/2 JICX3/8 NPTF(M)	
8	8.757-509.0	2	ELBOW, 3/4"-16 SAE X 3/8" NPTF(M), STEEL	
9	8.757-340.0	2	ELBOW 3/8", STREET 90 DEG, STEEL, W/SLNT	
10	8.757-485.0	1	TEE, 1/2", BRASS	
11	8.757-619.0	1	ADAPTER 1/2 BSPP (M) X 1/2 NPTF (M)	
12	8.757-200.0	1	ADAPTER, 1/2" 45° SAE x 1/2" M-NPTF BRASS	
13	8.757-771.0	1	PUMP PROTECTOR 1/2 BSPP X 1/4 BARB 145°	
14	8.757-391.0	1	ELBOW, 1/2" M SAE x 1/2" NPTF (M)	
15	9.802-254.0	19.5 in	HOSE, 1/4" PUSH-ON	
16	8.921-712.0	1	PUMP, LT6036R.2	
17	8.757-184.0	1	ADAPTER, M-BSPP X F-NPTF, 06-06	
18	8.756-875.0	1	ADAPTER STEEL 1/2 JIC (M) X 3/8 BSPP (M)	



REF	PART NO.	QTY	DESCRIPTION	NOTES
1	8.752-825.0	1	CRANKCASE	
2	-	3	PLUNGER OIL SEAL	SEE KITS TABLE
3	-	3	O-RING Ø1.78 X 37.82	SEE KITS TABLE
4	-	3	PRESSURE RING, 18MM	SEE KITS TABLE
5	-	3	U-SEAL, 18MM	SEE KITS TABLE
6	-	3	INTERMEDIATE RING, 18MM	SEE KITS TABLE
7	-	3	U-SEAL, 18MM	SEE KITS TABLE
8	9.802-926.0	1	BRASS PLUG, G1/2	
9	9.803-199.0	1	COPPER WASHER 1/2	
10	8.753-816.0	1	MANIFOLD HOUSING	
11	9.804-498.0	6	O-RING Ø2.62 X 25.1	SEE KITS TABLE
12	-	6	VALVE ASSEMBLY	SEE KITS TABLE
13	9.803-193.0	6	O-RING 3068	SEE KITS TABLE
14	9.802-928.0	6	VALVE PLUG	
15	8.753-817.0	8	MANIFOLD STUD BOLT	
16	9.802-890.0	8	LOCK WASHER	
17	8.719-008.0	1	COPPER WASHER 3/8	
18	8.707-262.0	1	BRASS PLUG 3/8	
19		6	VALVE SEAT	SEE KITS TABLE
20	-	6	VALVE PLATE	SEE KITS TABLE

REF	PART NO.	QTY	DESCRIPTION	NOTES	
21	-	6	VALVE SPRING	SEE KITS TABLE	
22	-	6	VALVE CAGE SEE KITS TABLE		
23	8.752-830.0	8	HEX SCREW		
24	9.802-884.0	8	WASHER		
25	9.803-182.0	1	CLOSED BEARING HOUSING		
26	9.803-186.0	2	O-RING Ø2.62 X 71.12		
27	9.803-160.0	2	ROLLER BEARING		
28	8.753-818.0	1	CRANKSHAFT Ø25 (4540)		
-	8.752-827.0	1	CRANKSHAFT Ø25 (6036)		
29	9.803-167.0	1	CRANKSHAFT KEY		
30	8.752-834.0	1	OIL DIP STICK		
31	9.803-139.0	1	CRANKSHAFT SEAL		
32	9.803-177.0	2	SHIM		
33	9.803-181.0	1	BEARING HOUSING		
34	8.752-841.0	3	PLUNGER BOLT	SEE KITS TABLE	
35	8.752-820.0	3	BONDED SEAL	SEE KITS TABLE	
36	8.753-819.0	3	PLUNGER, 18MM	SEE KITS TABLE	
37	8.752-823.0	3	COPPER SPACER	SEE KITS TABLE	
38	8.753-820.0	3	PLUNGER ROD		
39	8.752-822.0	3	CONNECTING ROD PIN		
40	8.752-821.0	3	CONNECTING ROD		
41	9.802-889.0	6	SPRING WASHER		
42	9.802-937.0	6	CONNECTING ROD SCREW		
43	9.803-194.0	1	O-RING Ø2.62 X 152.07		
44	8.752-826.0	1	CRANKCASE COVER		
45	9.803-906.0	1	O-RING Ø1.78 X 14.00		
46	8.707-262.0	1	BRASS PLUG G3/8		
47	9.803-202.0	1	SIGHT GLASS G3/4		
48	8.752-824.0	5	COVER SCREW		

KIT NUMBERS	8.753-821.0	8.753-822.0	8.753-823.0	8.753-824.0	8.752-825.0
KIT DESCRIPTION	Plunger Seals 18 mm	Seal Packing 18 mm	Plunger 18 mm	Complete Valve	Plunger Oil Seals
ITEM NUMBERS INCLUDED	3, 5, 7	3, 4, 5, 6, 7	34, 35, 36, 37	11, 12, 13	2
NUMBER OF CYLINDERS KIT WILL SERVICE	3	1	1	6	3

# **Specifications**

# Landa Pump

Machine Model	Model Part #		Pulley	Pulley Part #	Bushing	Bushing Part #
EHW4- 20024C	LT6036R	8.921-712.0	2AK84H	9.802-375.0	25 MM	9.802-403.0
EHW4- 30024C	LT6036R	8.921-712.0	2BK90H	8.715-593.0	25 MM	9.802-403.0
EHW4- 20024F	LT6036R	8.924-712.0	2AK84H	9.802-375.0	25 MM	9.802-403.0
EHW4- 30024F	LT6036R	8.921-712.0	2BK90H	8.715-593.0	25 MM	9.802-403.0

### Motor

Machine Model	Size	Voltage/ PH/ Hertz	Part #	Pulley	Pulley Part #	Bushing	Bushing Part #	Belt Size/Qty	Part #	Contactor
EHW4- 20024C	6HP	460V/3PH/60	8.751-004.0	2AK51H	8.715-549.0	HX1-1/8"	9.802-400.0	AX34 (2)	9.802-407.0	8.724-268.0
EHW4- 30024C	7.5HP	460V/3PH/60	8.755-604.0	2AK50H	8.715-583.0	HX1-3/8"	9.802-401.0	BX41 (2)	8.715-702.0	8.724-268.0
EHW4- 20024F	5HP	575V/3PH/60	8.751-009.0	2AK44H	8.715-546.0	HX1-1/8"	9.802-400.0	AX34 (2)	9.802-407.0	8.724-268.0
EHW4- 30024F	7.5HP	575V/3PH/60	8.759-061.0	2AH50H	8.715-583.0	HX1-3/8"	9.802-401.0	BX36 (2)	8.715-697.0	8.724-268.0

### Controls

Machine Model	Overload	Stepdown Transformer	Primary Fuse	Primary Fuse Part #	Secondary Fuse	Secondary Fuse Part #
EHW4- 20024C	8.724-312.0	8.716-883.0	1/2 Amp (2)	9.802-462.0	1/2 AMP (1)	9.802-463.0
EHW4- 30024C	8.724-312.0	8.716-883.0	1/2 Amp (2)	9.802-462.0	1/2 AMP (1)	9.802-463.0
EHW4- 20024F	8.724-303.0	9.803-668.0	1/2 Amp (2)	9.802-462.0	1/2 AMP (1)	9.802-463.0
EHW4- 30024F	8.724-303.0	9.803-668.0	1/2 Amp (2)	9.802-462.0	1/2 AMP (1)	9.802-463.0
LANCOM OPTION	SAME AS BASE MODEL	9.803-662.0	1.5 Amp (2)	8.716-177.0	2.5 Amp (1)	9.803-977.0



8.941-114.0 • Printed in U.S.A.