

LEMMER



Part Diagram DC-5900



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1 SAFETY REGULATIONS FOR AIRLESS SPRAYING

1.1 EXPLANATION OF SYMBOLS USED

This manual contains information that must be read and understood before using the equipment. When you come to an area that has one of the following symbols, pay particular attention and make certain to heed the safeguard.



→ This symbol indicates a potential hazard that may cause serious injury or loss of life. Important safety information will follow.



Attention

→ This symbol indicates a potential hazard to you or to the equipment. Important information that tells how to prevent damage to the equipment or how to avoid causes of minor injuries will follow.



→ Danger of skin injection



→ Danger of fire from solvent and paint fumes



→ Danger of explosion from solvent, paint fumes and incompatible materials



→ Danger of injury from inhalation of harmful vapors



→ Danger of electric shock



→ Notes give important information which should be given special attention.

1.2 GROUNDING INSTRUCTIONS

This product must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This product is equipped with a cord having a grounding wire with an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

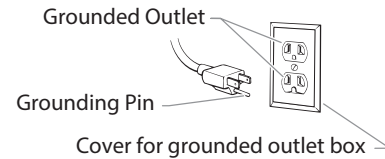


WARNING - Improper installation of the grounding plug can result in a risk of electric shock.

If repair or replacement of the cord or plug is necessary, do not connect the green grounding wire to either flat blade terminal. The wire with insulation having a green outer surface with or without yellow stripes is the grounding wire and must be connected to the grounding pin.

Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided. If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician.

This product is for use on a nominal 120 volt circuit and has a grounding plug that looks like the plug illustrated below. Make sure that the product is connected to an outlet having the same configuration as the plug. No adapter should be used with this product.



1.3 SAFETY HAZARDS



WARNING: INJECTION INJURY

A high pressure stream produced by this equipment can pierce the skin and underlying tissues, leading to serious injury and possible amputation.

Do not treat a spraying injury as a harmless cut. In case of injury to the skin through coating materials or solvents, consult a doctor immediately for quick and expert treatment. Inform the doctor about the coating material or solvent used.

PREVENTION:

- Do not aim the gun at, or spray any person or animal.
- Keep hands and other body parts away from the discharge. For example, do not try to stop leaks with any part of the body.
- NEVER put your hand in front of the gun. Gloves will not provide protection against an injection injury.
- ALWAYS keep the tip guard in place while spraying. The tip guard provides some protection but is mainly a warning device.
- Only use a nozzle tip specified by the manufacturer.
- Use caution when cleaning and changing nozzle tips. In the case where the nozzle tip clogs while spraying, ALWAYS lock gun trigger, shut pump off, and release all pressure before servicing, cleaning tip or guard, or changing tip. Pressure will not be released by turning off the motor. The PRIME/SPRAY valve or pressure bleed valve must be turned to their appropriate positions to relieve system pressure. Refer to PRESSURE RELIEF PROCEDURE described in the pump manual.
- Do not leave the unit energized or under pressure while unattended. When the unit is not in use, turn off the unit and relieve the pressure in accordance with the manufacturer's instructions.
- High-pressure spray is able to inject toxins into the body and cause serious bodily injury. In the event that injection occurs, seek medical attention immediately.
- Check hoses and parts for signs of damage, a leak can inject material into the skin. Inspect hose before each use. Replace any damaged hoses or parts. Only use Lemmer original-high-pressure hoses in order to ensure functionality, safety and durability.
- This system is capable of producing 3300 PSI / 228 Bar. Only use replacement parts or accessories that are specified by the

manufacturer and that are rated a minimum of 3300 PSI. This includes spray tips, nozzle guards, guns, extensions, fittings, and hoses.

- Always engage the trigger lock when not spraying. Verify the trigger lock is functioning properly.
- Verify that all connections are secure before operating the unit.
- Know how to stop the unit and bleed pressure quickly. Be thoroughly familiar with the controls. Pressure will not be released by turning off the motor. The PRIME/SPRAY valve or pressure bleed valve must be turned to their appropriate positions to relieve system pressure. Refer to PRESSURE RELIEF PROCEDURE described in the pump manual.
- Always remove the spray tip before flushing or cleaning the system.



NOTE TO PHYSICIAN: Injection into the skin is a traumatic injury which can lead to possible amputation. It is important to treat the injury as soon as possible. DO NOT delay treatment to research toxicity. Toxicity is a concern with some coatings injected directly into the blood stream. Consultation with a plastic surgeon or reconstructive hand surgeon may be advisable.



WARNING: HIGH PRESSURE HOSE

The paint hose can develop leaks from wear, kinking and abuse. A leak can inject material into the skin. Inspect the hose before each use.

PREVENTION:

- Avoid sharp bending or kinking of the high-pressure hose. The smallest bending radius amounts to about 8" (20 cm).
- Do not drive over the high-pressure hose. Protect against sharp objects and edges.
- Replace any damaged high-pressure hose immediately.
- Never repair damaged high-pressure hoses yourself!
- Electrostatic charging of spray guns and the high-pressure hose is discharged through the high-pressure hose. For this reason the electric resistance between the connections of the high-pressure hose must be equal to or lower than 1MΩ.
- For reasons of function, safety and durability use only original Lemmer high-pressure hoses.
- Before each use, check all hoses for cuts, leaks, abrasion or bulging of cover. Check for damage or movement of couplings. Immediately replace the hose if any of these conditions exist. Never repair a paint hose. Replace it with another earthed high-pressure hose.
- Make sure power cord, air hose and spray hoses are routed in such a manner to minimize slip, trip and fall hazard.



WARNING: EXPLOSION OR FIRE

Flammable vapors, such as solvent and paint vapors, in work area can ignite or explode.



PREVENTION:

- Do not spray flammable or combustible materials near an open flame, pilot lights or sources of ignition such as hot objects, cigarettes, motors, electrical equipment and electrical appliances. Avoid creating sparks from connecting and disconnecting power cords.
- Use extreme caution when using materials with a flashpoint below 100°F (38°C). Flashpoint is the temperature that a fluid can produce enough vapors to ignite.
- Paint or solvent flowing through the equipment is able to result in static electricity. Static electricity creates a risk of fire or explosion in the presence of paint or solvent fumes. All parts of the spray system, including the pump, hose assembly, spray gun and objects in and around the spray area shall be properly grounded to protect against static discharge and sparks. Use only conductive or grounded high-pressure airless paint sprayer hoses specified by the manufacturer.
- Verify that all containers and collection systems are grounded to prevent static discharge.
- Do not use a paint or solvent containing halogenated hydrocarbons. Such as chlorine, bleach mildewcide, methylene chloride and trichloroethane. They are not compatible with aluminum. Contact the coating supplier about compatibility of material with aluminum.
- Keep spray area well ventilated. Keep a good supply of fresh air moving through the area to keep the air within the spray area free from accumulation of flammable vapors. Keep pump assembly in well ventilated area. Do not spray pump assembly.
- Do not smoke in the spray area.
- Do not operate light switches, engines, or similar spark producing products in the spray area.
- Keep area clean and free of paint or solvent containers, rags, and other flammable materials.
- Know the contents of the paint and solvents being sprayed. Read all material Safety Data Sheets (SDS) and container labels provided with the paints and solvents. Follow the paint and solvent manufacture's safety instructions.
- Place pump at least 20 feet (6.1 meters) from the spray object in a well ventilated area (add more hose if necessary). Flammable vapors are often heavier than air. Floor area must be extremely well ventilated. The pump contains arcing parts that emit sparks and can ignite vapors.
- Plastic can cause static sparks. Never hang plastic to enclose spray area. Do not use plastic drop cloths when spraying flammable material.
- Fire extinguisher equipment shall be present and working.



WARNING: HAZARDOUS VAPORS

Paints, solvents, and other materials can be harmful if inhaled or come in contact with body. Vapors can cause severe nausea, fainting, or poisoning.

PREVENTION:

- Wear respiratory protection when spraying. Read all instructions supplied with the mask to be sure it will provide the necessary protection.

- All local regulations regarding protection against hazardous vapors must be observed.
- Wear protective eyewear.
- Protective clothing, gloves and possibly skin protection cream are necessary for the protection of the skin. Observe the regulations of the manufacturer concerning coating materials, solvents and cleaning agents in preparation, processing and cleaning units.



WARNING: GENERAL

This product can cause severe injury or property damage.

PREVENTION:

- Always wear appropriate gloves, eye protection, clothing and a respirator or mask when painting.
- Do not operate or spray near children. Keep children away from equipment at all times.
- Do not overreach or stand on an unstable support. Keep effective footing and balance at all times.
- Stay alert and watch what you are doing.
- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not kink or over-bend the hose. Airless hose can develop leaks from wear, kinking and abuse. A leak can inject material into the skin.
- Do not expose the hose to temperatures or pressures in excess of those specified by manufacturer.
- Do not use the hose as a strength member to pull or lift the equipment.
- Use lowest possible pressure to flush equipment.
- Follow all appropriate local, state and national codes governing ventilation, fire prevention and operation.
- The United States Government Safety Standards have been adopted under the Occupational Safety and Health Act (OSHA). These standards, particularly part 1910 of the General Standards and part 1926 of the Construction Standards should be consulted.
- Before each use, check all hoses for cuts, leaks, abrasion or bulging of cover. Check for damage or movement of couplings. Immediately replace hose if any of those conditions exist. Never repair a paint hose. Replace with a conductive high-pressure hose.
- Do not spray outdoors on windy days.
- Always unplug cord from outlet before working on equipment (electric models only).

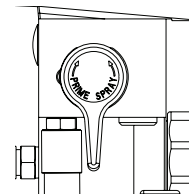
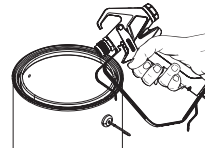
2 MAINTENANCE

2.1 PRESSURE RELIEF PROCEDURE



Be sure to follow the Pressure Relief Procedure when shutting down the sprayer for any purpose, including servicing or adjusting any part of the spray system, changing or cleaning spray tips, or preparing for cleanup.

1. Lock the gun by pushing the gun trigger lock to the locked position.
2. Turn off the sprayer by moving the ON/OFF switch to the OFF position.
3. Turn the pressure control knob counterclockwise to its OFF position in the black zone.
4. Unlock the gun by pushing the gun trigger lock to the unlocked position.
5. Hold the metal part of the gun firmly to the side of a metal container to ground the gun and avoid a build up of static electricity.
6. Trigger the gun to remove any pressure that may still be in the hose.
7. Lock the gun by pushing the gun trigger lock to the locked position.
8. Move the PRIME/SPRAY valve down to the PRIME position.



2.1 GENERAL REPAIR AND SERVICE NOTES

The following tools are needed when repairing this sprayer:

Phillips Screwdriver	3/8" Hex Wrench
Needle Nose Pliers	5/16" Hex Wrench
Adjustable Wrench	1/4" Hex Wrench
Rubber Mallet	3/16" Hex Wrench
Flat-blade Screwdriver	5/32" Hex Wrench
5/64" Hex Wrench	

1. Before repairing any part of the sprayer, read the instructions carefully, including all warnings.



Never pull on a wire to disconnect it. Pulling on a wire could loosen the connector from the wire.

2. Test your repair before regular operation of the sprayer to be sure that the problem is corrected. If the sprayer does not operate properly, review the repair procedure to determine if everything was done correctly. Refer to the Troubleshooting Charts to help identify other possible problems.
3. Make certain that the service area is well ventilated in case solvents are used during cleaning. Always wear protective eyewear while servicing. Additional protective equipment may be required depending on the type of cleaning solvent. Always contact the supplier of solvents for recommendations.

2.2 REPLACING THE MOTOR

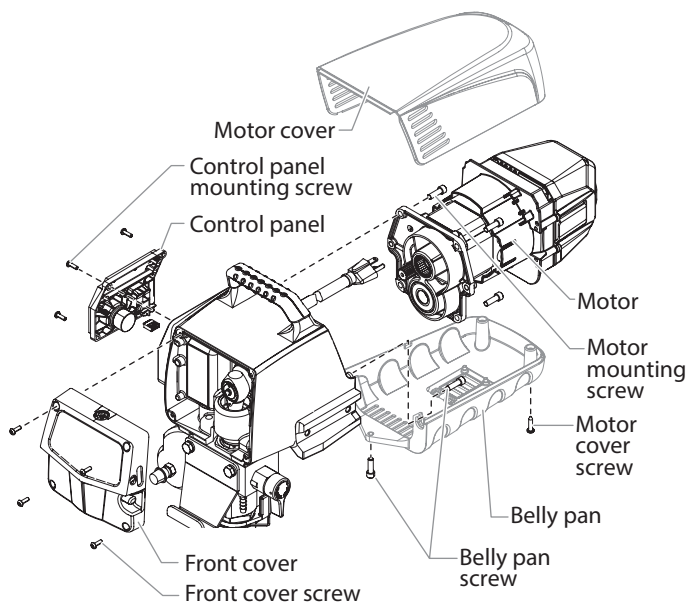
1. Perform the Pressure Relief Procedure and unplug the sprayer.
2. Loosen and remove the two motor cover screws. Remove the motor cover. For I/AI models, disconnect the wires that are attached to the control board on the underside of the motor cover/enclosure assembly.
3. Loosen and remove the three belly pan screws. Remove the belly pan.
4. On the back of the motor, disconnect the wire coming from the potentiometer and the wire coming from the transducer. Also, disconnect the two wires coming from the control panel board (refer to the electrical schematic in the Parts List section of this manual).
5. Remove the four control panel mounting screws. Pull back the control panel for access to the control panel board.
6. At the the control panel board, disconnect the two wires coming from the motor (refer to the electrical schematic in the Parts List section of this manual).
7. Loosen and remove the four motor mounting screws.
8. Pull the motor out of the pump housing.



If the motor will not dislodge from the pump housing:

- Remove the front cover plate.
- Using a rubber mallet, carefully tap on the front of the motor crankshaft that extends through the slider assembly.

9. With the motor removed, inspect the gears in the pump housing for damage or excessive wear. Replace the gears, if necessary.
10. Install the new motor into the pump housing.
11. Secure the motor with the four motor mounting screws.
12. Reconnect the wires (refer to the electrical schematic in the Parts List section of this manual).
13. Position the control panel on the pump housing and secure in position using the four control panel mounting screws.
14. Replace the belly pan. Secure with the three belly pan screws.
15. For I/AI models, reconnect the wires to the control board on the underside of the motor cover/enclosure assembly. Slide the motor cover over the motor. Secure the motor cover with the two motor cover screws.



2.3 REPLACING THE GEARS

1. Perform the Pressure Relief Procedure and unplug the sprayer.
2. Loosen and remove the two motor cover screws. Remove the motor cover.
3. Loosen and remove the three belly pan screws. Remove the belly pan.
4. On the back of the motor, disconnect the wire coming from the potentiometer and the wire coming from the transducer. Also, disconnect the two wires coming from the control panel board (refer to the electrical schematic in the Parts List section of this manual).
5. Remove the four control panel mounting screws. Pull back the control panel for access to the control panel board.

6. At the the control panel board, disconnect the two wires coming from the motor (refer to the electrical schematic in the Parts List section of this manual).
7. Loosen and remove the four motor mounting screws.
8. Pull the motor out of the pump housing.



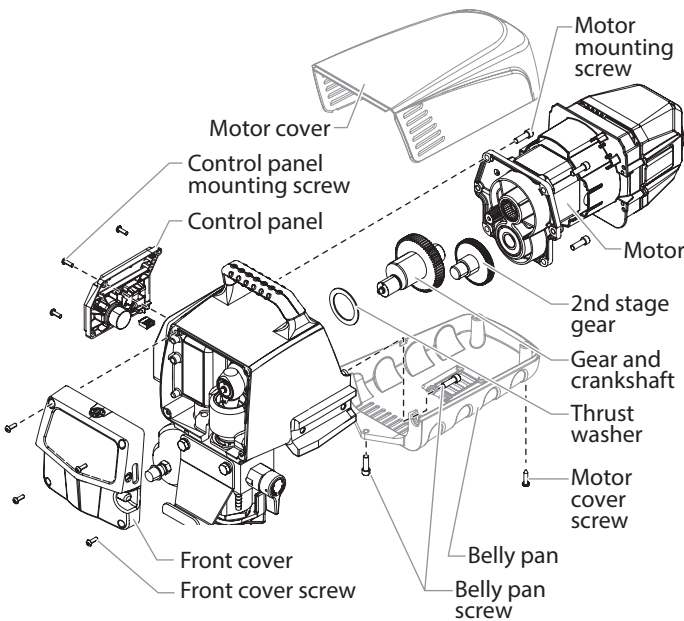
If the motor will not dislodge from the pump housing:

- **Remove the front cover plate.**
- **Using a rubber mallet, carefully tap on the front of the motor crankshaft that extends through the slider assembly.**

9. Inspect the armature gear on the end of the motor for damage or excessive wear. If this gear is completely worn out, replace the entire motor.
10. Remove and inspect the 2nd stage gear for damage or excessive wear. Replace if necessary.
11. Remove and inspect the gear and crank assembly for damage or excessive wear. Replace if necessary.
12. Reassemble the pump by reversing the above steps. During reassembly, make sure the thrust washer is in place.

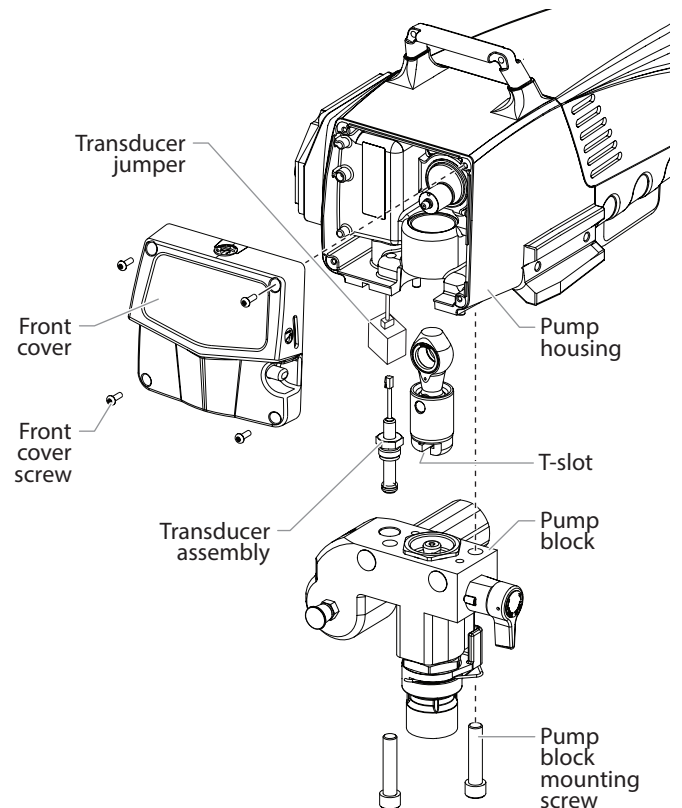


Refill the gear box in the pump housing with five ounces of Lubriplate L045-479.



Before proceeding, follow the Pressure Relief Procedure outlined previously in this manual. Additionally, follow all other warnings to reduce the risk of an injection injury, injury from moving parts or electric shock. Always unplug the sprayer before servicing!

4. Tilt the pump back for easy access to the fluid section.
5. Using a 3/8" hex wrench, loosen and remove the two pump block mounting screws.
6. Pull the pump block down approximately 1/2" from the pump housing to clear the transducer.
7. Slide the pump block and piston rod forward until the piston rod is out of the T-slot on the slider assembly.
8. Carefully pull the transducer wire out of the pump housing until the connection to the transducer jumper is exposed. Unplug the wire from the transducer jumper (refer to the electrical schematic in the Parts List section of this manual).
9. Using a wrench, remove the transducer assembly from the pump block.
10. Thread the new transducer assembly into the pump block. Tighten securely with a wrench.
11. Plug the new transducer wire into the transducer jumper (refer to the electrical schematic in the Parts List section of this manual).
12. Reassemble the pump by reversing steps 1–7.



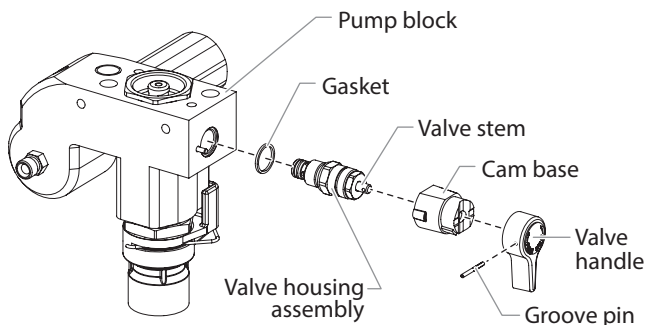
2.4 REPLACING THE TRANSDUCER

1. Loosen and remove the four front cover screws. Remove the front cover.
2. Stop the sprayer at the bottom of its stroke so that the piston is in its lowest position.
3. Perform the Pressure Relief Procedure and unplug the sprayer.

2.5 REPLACING THE PRIME/SPRAY VALVE

Perform the following procedure using PRIME/SPRAY valve replacement kit L045-862

1. Push the groove pin out of the valve handle.
2. Remove the valve handle and the cam base.
3. Using a wrench, loosen and remove the valve housing assembly.
4. Make sure the gasket is in place and thread the new valve housing assembly into the pump block. Tighten securely with wrench.
5. Place the cam base over the valve housing assembly. Lubricate the cam base with grease and line up the cam with the pump block.
6. Line up the hole on the valve stem with the hole in the valve handle.
7. Insert the groove pin into the valve handle and through the valve stem to secure the valve handle in position.



2.6 SERVICING THE FLUID SECTION

Use the following procedures to service the valves and repack the fluid section. Perform the following steps before performing any maintenance on the fluid section.

1. Loosen and remove the four front cover screws. Remove the front cover.
2. Stop the sprayer at the bottom of its stroke so that the piston is in its lowest position.
3. Perform the Pressure Relief Procedure and unplug the sprayer.



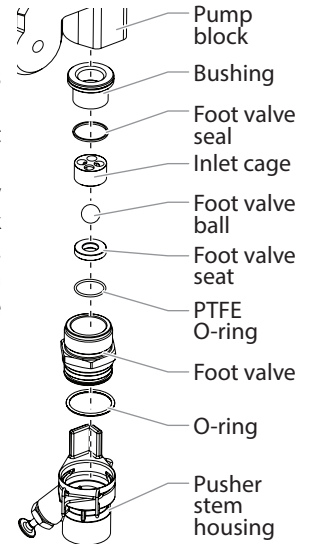
Before proceeding, follow the Pressure Relief Procedure outlined previously in this manual. Additionally, follow all other warnings to reduce the risk of an injection injury, injury from moving parts or electric shock. Always unplug the sprayer before servicing!

4. Unscrew the return hose assembly from the pump block. Remove the retaining clip from the bottom of the foot valve housing. Remove the siphon assembly.
5. Tilt the sprayer back for easy access to the fluid section.

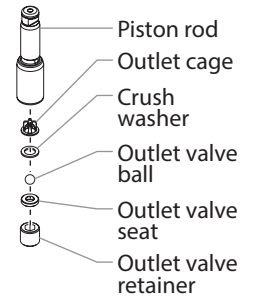
SERVICING THE VALVES

The design of the fluid section allows access to the foot valve and seat as well as the outlet valve and seat without completely disassembling the fluid section. It is possible that the valves may not seat properly because of debris stuck in the foot valve seat or outlet valve seat. Use the following instructions to clean the valves and reverse or replace the seats.

1. Remove the pusher stem clip and slide the pusher stem housing from the foot valve housing.
2. Using a wrench, loosen and remove the foot valve housing from the pump block.
3. Clean out any debris in the foot valve housing and examine the valve housing and seat. If the seat is damaged, reverse or replace the seat.
4. Using a 5/16" hex wrench, loosen and remove the outlet valve retainer from the piston rod.



Always service the outlet valve with the piston rod attached to the pump. This will prevent the piston rod from rotating during disassembly of the outlet valve.



5. Clean out any debris and examine the outlet valve housing and seat. If the seat is damaged, reverse or replace the seat.
6. Remove, clean, and inspect the outlet cage, crush washer, and outlet valve ball. Replace if they are worn or damaged.



The outlet cage always must be used with the crush washer.

7. Reassemble the valves by reversing the steps above.



During reassembly of the outlet valve, apply one drop of Loctite (included in the repacking kit) to the threads of the outlet valve retainer before threading it into the piston rod. Then, torque the retainer to 144 in./lbs. (12 ft./lbs.).

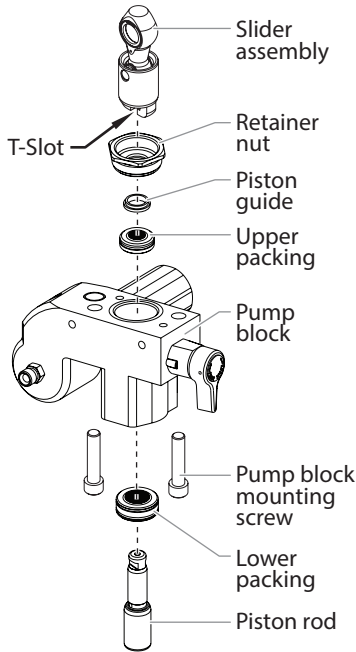
REPACKING THE FLUID SECTION

1. Remove the foot valve assembly using the steps in the "Servicing the Valves" procedure above.



The outlet valve does not need to be disassembled from the piston rod for this procedure.

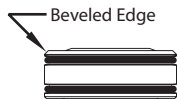
2. Using 3/8" a hex wrench, loosen and remove the two pump block mounting screws.
3. Pull the pump block down approximately 1/2" from the pump housing.
4. Slide the pump block and piston rod forward until the piston rod is out of the T-slot on the slider assembly.
5. Slide the piston rod out through the bottom of the pump block.
6. Loosen and remove the retainer nut and piston guide from the pump block.
7. Remove the upper and lower packings from the pump block.
8. Clean the pump block and install the new upper and lower packings. Refer to the illustration below for proper packing orientation.



Install upper packing with raised lip and O-ring facing down.



Install lower packing with the beveled edge facing up.



9. Inspect the piston rod for wear and replace if necessary.
10. Reassemble the outlet valve assembly into the piston rod. Tighten the outlet valve retainer with a wrench until secure.



Use the T-slot on the slider assembly to hold the piston rod in position while securing the outlet valve retainer.



Never use a wrench on the piston itself. This could cause damage to the piston and cause leakage.

11. Insert the piston guide into the retainer nut. Thread the retainer nut into the pump block until it is hand tight.
12. Slide the piston guide tool (included in the repacking kit) over the top of the piston rod and insert the piston rod through the bottom of the pump block. Using a rubber mallet, tap the bottom of the piston rod lightly until the piston rod is in position in the pump block.



Coat the piston guide tool and the piston rod with grease before inserting them into the pump block.

13. Using a wrench, tighten the retainer nut securely.
14. Slide the top of the piston rod into the T-slot on the slider assembly.
15. Position the pump block underneath the pump housing and push up until it rests against the pump housing.
16. Thread the pump block mounting screws through the pump block and into the pump housing. Tighten securely.
17. Reassemble the foot valve assembly into the pump block.
18. For High Rider cart units, thread the siphon tube into the foot valve and tighten securely. Make sure to wrap the threads on the siphon tube with PTFE tape before assembly. Replace the return hose into the hose clip on the siphon tube.
19. For Skid and Low Rider units, insert the elbow on the siphon assembly into the bottom of the foot valve housing. Push the retaining clip up into the groove inside the foot valve housing to secure the siphon assembly in position. Thread the return hose into the pump block and tighten securely.
20. Place the front cover on the pump housing and secure in position using the four front cover screws.
21. Turn on the sprayer by following the procedure in the "Operation" section of this manual and check for leaks.



Repacking kit L046-702 is available. For best results use all parts supplied in this kit.

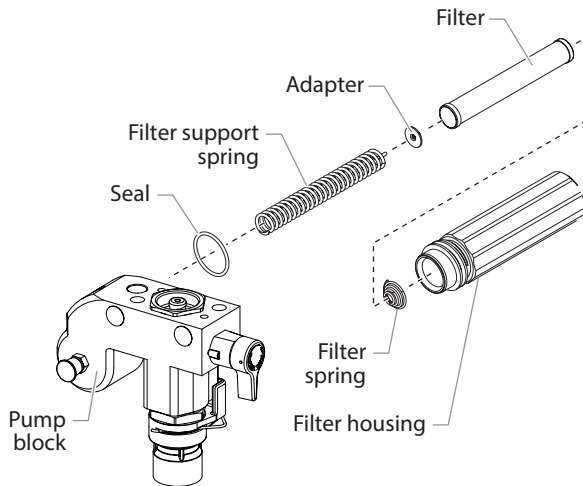
2.6 REPLACING THE FILTERS

PUMP FILTER

1. Loosen and remove the filter housing by hand.
2. Slip the filter off of the filter support spring.
3. Inspect the filter. Based on inspection, clean or replace the filter.
4. Inspect the seal. Based on inspection, clean or replace the seal.
5. Slide the new or cleaned filter over the filter support spring with the adapter in place over the pin on the spring. Push the filter into the center of the pump block.
6. Slide the filter housing over the filter and thread it into the pump block until secure.

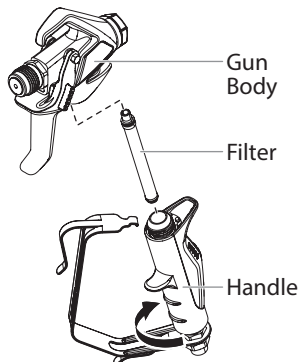


The filter housing should be hand-tightened, but make sure the filter housing is seated fully into the pump block.



GUN FILTER

1. Unclip the top of the trigger guard from the gun body.
2. Using the bottom of the trigger guard as a wrench, loosen and remove the handle assembly from the gun head.
3. Pull the old filter out of the gun body. Clean or replace.
4. Slide the new filter, tapered end first, into the gun head.
5. Thread the handle assembly into the gun head. Tighten with the trigger wrench.
6. Snap the trigger guard back onto the gun body.



3 TROUBLESHOOTING

Problem	Cause	Solution
A. The unit will not run.	<ol style="list-style-type: none"> 1. The unit is not plugged in. 2. Tripped breaker. 3. The pressure is set too low (pressure control knob set at minimum setting does not supply power to unit). 4. Faulty or loose wiring. 5. Excessive motor temperature. 6. ON/OFF switch is defective. 	<ol style="list-style-type: none"> 1. Plug the unit in. 2. Reset the breaker. 3. Turn the pressure control knob clockwise to supply power to the unit and increase the pressure setting. 4. Inspect or take to a Lemmer service center. 5. Allow motor to cool. 6. Replace the ON/OFF switch.
B. The unit will not prime.	<ol style="list-style-type: none"> 1. Inlet valve is stuck. 2. The PRIME/SPRAY valve is in the SPRAY position. 3. Air leak in the siphon tube/suction set. 4. The pump filter and/or inlet screen is clogged. 5. The siphon tube/suction set is clogged. 	<ol style="list-style-type: none"> 1. Insert pusher stem. 2. Rotate the PRIME/SPRAY valve clockwise to the PRIME position. 3. Check the siphon tube/suction set connection and tighten or re-tape the connection with PTFE tape. 4. Remove the pump filter element and clean. Remove the inlet screen and clean. 5. Remove the siphon tube/suction set and clean.
C. The unit will not build or maintain pressure.	<ol style="list-style-type: none"> 1. The spray tip is worn. 2. The spray tip is too large. 3. The pressure control knob is not set properly. 4. The pump filter, gun filter, or inlet screen is clogged. 5. Material flows from the return hose when the PRIME/SPRAY valve is in the SPRAY position. 6. Air leak in the siphon tube/suction set. 7. There is external fluid leak. 8. There is an internal fluid section leak (packings are worn and/or dirty, valve balls are worn). 9. Worn valve seats 10. Motor powers but fails to rotate 	<ol style="list-style-type: none"> 1. Replace the spray tip following the instructions that came with the spray gun. 2. Replace the spray tip with a tip that has a smaller orifice following the instructions that came with the spray gun. 3. Turn the pressure control knob clockwise to increase the pressure setting. 4. Remove the pump filter element and clean. Remove the gun filter and clean. Remove the inlet screen and clean. 5. Clean or replace the PRIME/SPRAY valve. 6. Check the siphon tube/suction set connection and tighten or re-tape the connection with PTFE tape. 7. Check for external leaks at all connections. Tighten connections, if necessary. 8. Clean the valves and service the fluid section following the "Servicing the Fluid Section" procedure in the Maintenance section of this manual. 9. Reverse or replace the valve seats following the "Servicing the Fluid Section" procedure in the Maintenance section of this manual. 10. Take unit to a Titan authorized service center.
D. Fluid leakage at the upper end of the fluid section.	<ol style="list-style-type: none"> 1. The upper packing is worn. 2. The piston rod is worn. 	<ol style="list-style-type: none"> 1. Repack the pump following the "Servicing the Fluid Section" procedure in the Maintenance section of this manual. 2. Replace the piston rod following the "Servicing the Fluid Section" procedure in the Maintenance section of this manual.
E. Excessive surge at the spray gun.	<ol style="list-style-type: none"> 1. Wrong type of airless spray hose. 2. The spray tip worn or too large. 3. Excessive pressure. 	<ol style="list-style-type: none"> 1. Replace hose with a minimum of 50' of 1/4" grounded textile braid airless paint spray hose. 2. Replace the spray tip following the instructions that came with the spray gun. 3. Rotate the pressure control knob counterclockwise to decrease spray pressure.
F. Poor spray pattern.	<ol style="list-style-type: none"> 1. The spray tip is too large for the material being used. 2. Incorrect pressure setting. 3. Insufficient fluid delivery. 4. The material being sprayed is too viscous. 	<ol style="list-style-type: none"> 1. Replace the spray tip with a new or smaller spray tip following the instructions that came with the spray gun. 2. Rotate the pressure control knob to adjust the pressure for a proper spray pattern. 3. Clean all screens and filters. 4. Add solvent to the material according to the manufacturer's recommendations.
G. The unit lacks power.	<ol style="list-style-type: none"> 1. The pressure adjustment is too low. 2. Improper voltage supply. 	<ol style="list-style-type: none"> 1. Rotate the pressure control knob clockwise to increase the pressure setting. 2. Reconnect the input voltage for 120V AC.

3.1 DIGI-TRAC™ CONTROL SYSTEM ERROR MESSAGES



The following error message screens appear whenever the Digi-Trac™ Control System detects a problem with the sprayer. Once a problem occurs and the error message appears, the sprayer will shut down.



Before proceeding, follow the Pressure Relief Procedure outlined previously in this manual. Additionally, follow all other warnings to reduce the risk of an injection injury, injury from moving parts or electric shock. Always unplug the sprayer before servicing!

CHECK TRANSDUCER SCREEN

The Check Transducer screen appears when the transducer has become disconnected or is defective. Take the sprayer to a Lemmer service center for repair.

CHECK TRANSDUCER

CHECK POTENTIOMETER SCREEN

The Check Potentiometer screen appears when the potentiometer has become disconnected or is defective. Take the sprayer to a Lemmer service center for repair.

CHECK POTENTIOMETER

LOW VOLTAGE SCREEN

The Low Voltage screen appears when the sprayer shuts down because of low input voltage. Check the power supply and correct the problem. Restart the sprayer by following the “Painting” procedure in the Operation section of this manual.

LOW VOLTAGE

HIGH MOTOR TEMPERATURE SCREEN

The High Motor Temperature screen appears when the temperature of the motor has risen too high. Take the sprayer to a Lemmer service center for repair.

HIGH MOTOR TEMPERATURE

HIGH MECHANICAL LOAD

The High Mechanical Load screen appears when the sprayer shuts down because of high current or when the sprayer goes into current fold back mode. Take the sprayer to a Lemmer service center for repair.

HIGH MECHANICAL LOAD

HIGH CONTROL TEMPERATURE

Indicates the Digi-Trac is shut down due to excessive heat. Take the sprayer to a Lemmer service center for repair.

HIGH CONTROL TEMPERATURE

CHECK MOTOR

Indicates the motor or motor hall affect sensors are defective. Take the sprayer to a Lemmer service center for repair.

CHECK MOTOR

BAD HALL CYCLE POWER

Indicates the motor is shut down due to connection problems between the motor and controller. Take the sprayer to a Lemmer service center for repair.

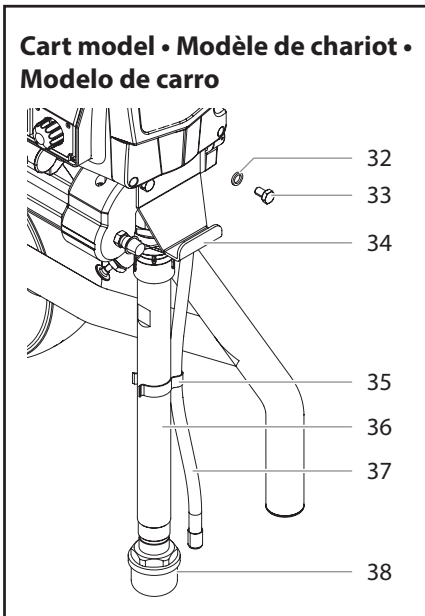
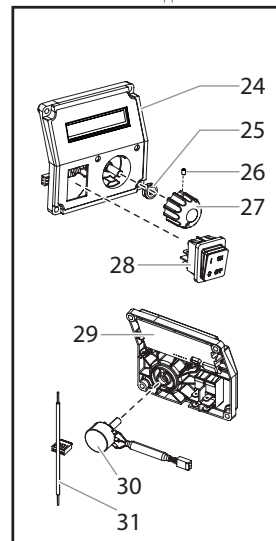
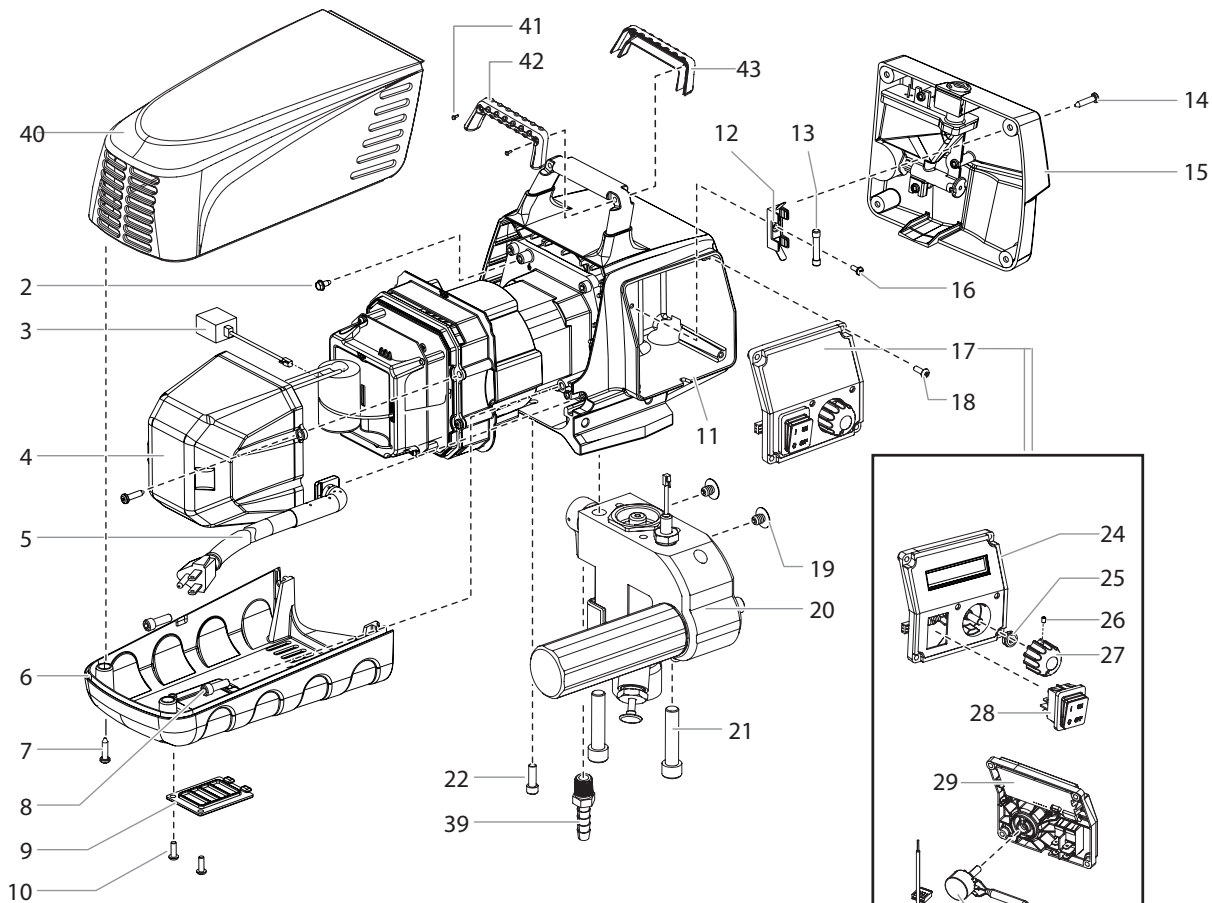
BAD HALL CYCLE POWER

CUADRO DE PIEZAS DE RECAMBIO

EN MAIN ASSEMBLY

F ENSEMBLE PRINCIPAL

ES CONJUNTO PRINCIPAL

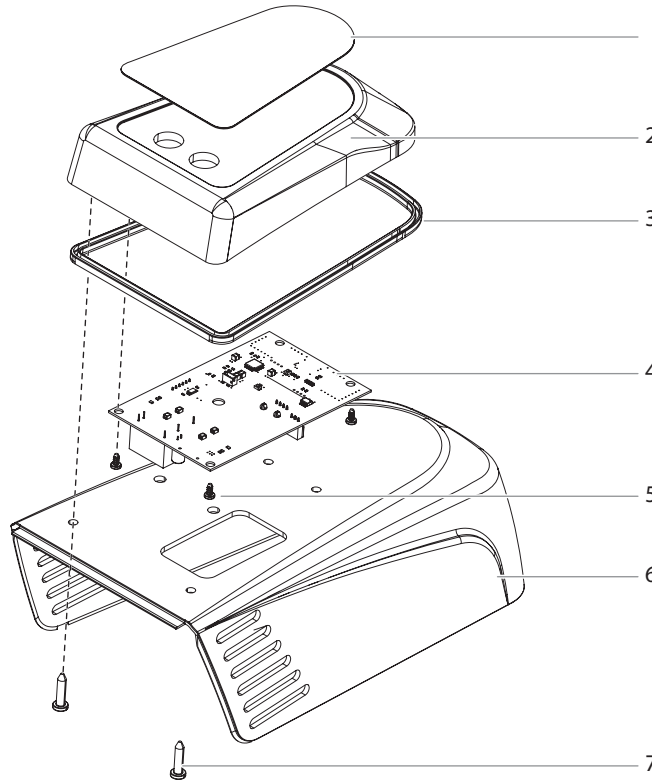


#		# parts		English Description	Français Description	Español Descripción	Qty. Qté. Cant.
1		2419744		Motor shroud	Carter du moteur	Cubierta del motor	1
2		9800340		Ground screw	Vis de terre	Tornillo a tierra	1
3		704-548		Transducer jumper	Transducteur de cavalier	Transductor puente	1
4		805-462		Motor cover	Couvercle de moteur	Tapa de motor	1
5		805-363A		Power cord assembly (skid)	Cordon d'alimentation (support)	Cable de alimentación (soporte)	1
		805-404A		Power cord assembly (cart)	Cordon d'alimentation (chariot)	Cable de alimentación (carro)	1
6		805-489		Belly pan	Ventre pan	Vientre pan	1
7		9802266		Belly pan screw	Vis de ventre pan	Tornillo de vientre pan	2
8		700-681		Screw	Vis	Tornillo	2
9		805-490		Belly pan cover	Couvercle de ventre pan	Tapa de vientre pan	1
10		700-139		Belly pan screw	Vis de ventre pan	Tornillo de vientre pan	2
11		-----		Drive assembly	Boîte d'engrenages	Ensamblaje de la caja de engranajes	1
12		522210		Fuse block	Bloc de fusible	Bloque de fusible	1
13		L045-897		Fuse, 15A	Fusible, 15A	Fusible, 15A	1
14		700-139		Face plate screw	Vis de couvercle	Tornillo de la cubierta frontal	4
15		805-215A		Face plate / oiler assembly	Ensemble de couvercle / graisseur	Ensamblaje de cubierta frontal / lubricador	1
16		9804916		Fuse block screw	Vis de bloc de fusible	Tornillo de bloque de fusible	1
17		805-225A		Control panel assembly, complete includes items 24-31)	Ensemble de panneau de contrôle, complète (comprend les articles 24-31)	Ensamblaje de panel de control, completa (incluye artículos 24-31)	1
		-----		Control panel assembly, complete includes items 24-28 and 30-31)	Ensemble de panneau de contrôle, complète (comprend les articles 24-28 et 30-31)	Ensamblaje de panel de control, completa (incluye artículos 24-28, y 30-31)	1
18		700-139		Control panel screw	Vis de panneau de contrôle	Tornillo de panel de control	4
19		704-358		Plug	Capuchon	Tapa	2
20		805-207A		Fluid section assembly (skid and low rider)	Ensemble de section des liquides (support et basse chariot)	Ensamblaje de sección de líquidos (soporte y bajo carro)	1
		805-233A		Fluid section assembly (cart)	Ensemble de section des liquides (chariot)	Ensamblaje de sección de líquidos (carro)	1
21		704-117		Fluid section screw	Vis de section des liquides	Tornillo de sección de líquidos	2
22		700-681		Screw	Vis	Tornillo	1
23		0558672A		Siphon assembly (skid and low rider)	Ensemble d'aspiration (support et basse chariot)	Juego de succión (support y bajo carro)	1
24		805-844		Control panel cover with label	Couvercle de panneau de contrôle avec étiquette	Tapa de panel de control con etiqueta	1
25		700-176		Nut with seal	Écrou avec joint	Tuerca con sello	1
26		L046-724		Set screw	Vis	Tornillo	1
27		L046-725		Control knob	Bouton de contrôle	Botón de control	1
28		L046-726		Switch	Interrupteur	Interruptor	1
29		805-401		Digi-Trac™ display	Afficher de Digi-Trac™	Exponer de Digi-Trac™	1
30		L046-727		Potentiometer	Potentiomètre	Potenciómetro	1
31		522007		LED assembly	Ensemble de LED	Ensamblaje de LED	1
32		763-552		Washer	Rondelle	Arandela	2
33		710-033		Pail bracket bolt	Boulon de support de seau	Perno del soporte de cubo	2
34		704-304		Pail bracket	Support de seau	Soporte de cubo	1
35		730-334		Clip	Agrafe	Sujetador	1
36		805-408		Siphon tube	Tube d'aspiration	Tubo de succión	1
37		702-239		Return tube	Tube de retour	Tubo de retorno	1
38		L045-860		Inlet filter	Filtre d'entrée	Filtro de entrada	1
39		193-200		Return tube fitting	Raccord du tube de retour	Conexión del tubo de retorno	1
					produits)		
41		9805317		Screw	Vis	Tornillo	2
42		805-332		Handle cover, back	Couvre-poignée, dos	Cubierta de la manilla, posterior	1
43		805-333		Handle cover, front	Couvre-poignée, face	Cubierta de la manilla, delantera	1
		551972		Surge protector (not pictured)	Protection contre les surtensions (ne sont pas représentés)	Protección de los aumentos repentinos (que no están representado)	1

CUADRO DE PIEZAS DE RECAMBIO

EN COMPLETE INTELLISYNC® HOUSING,
 ES CARCASA COMPLETA INTELLISYNC®,

F BOÎTIER INTELLISYNC® COMPLET,



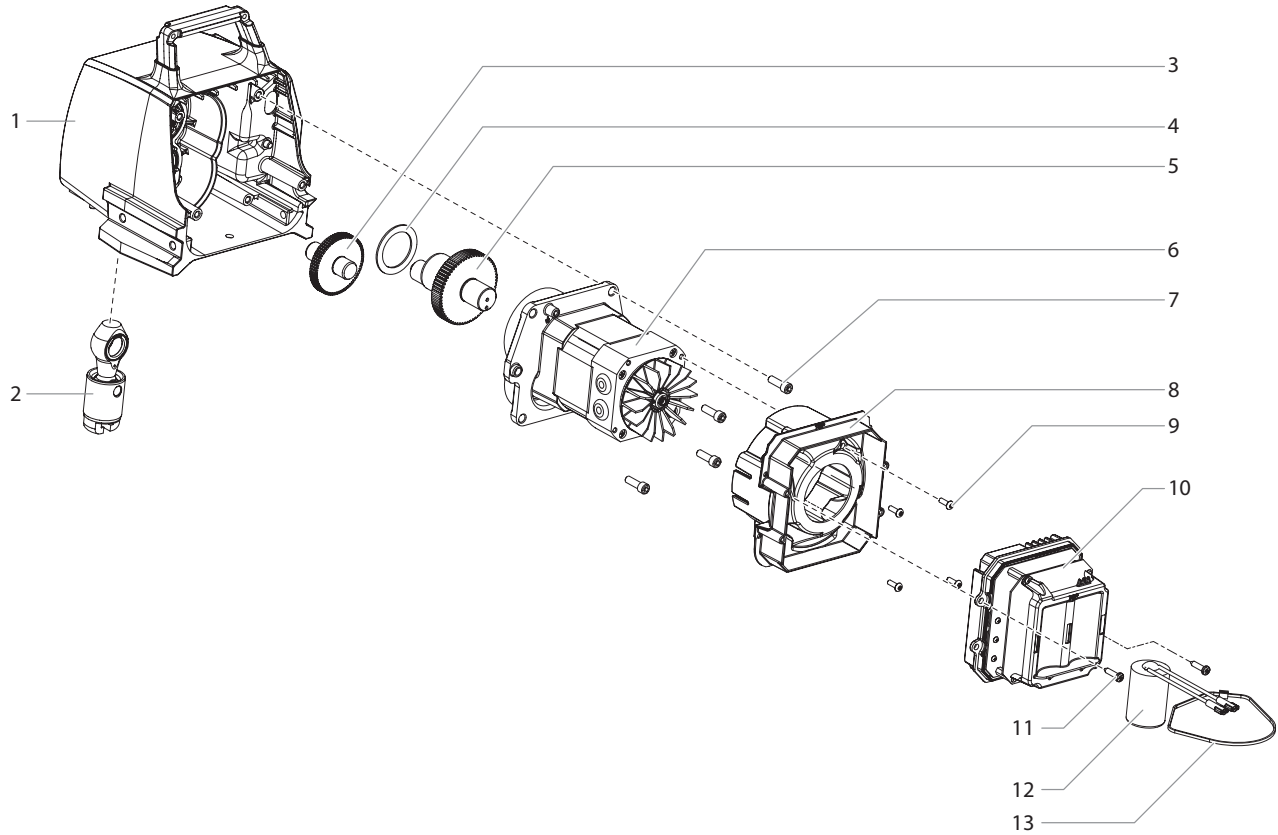
#		English Description	Français Description	Español Descripción	Qty. Qté. Cant.
					1
2	-----	Cover	Couvercle	Tapa	1
3	2411137A	Enclosure gasket	Joint de boîtier	Empaquetadura de la caja	1
4	-----	Controller	Contrôleur	Controlador	1
5	-----	Controller screw	Vis de contrôleur	Tornillo de controlador	4
6	-----	Motor shroud	Carter du moteur	Cubierta del motor	1
7	-----	Screw	Vis	Tornillo	4
8	2411140	Power cable (not pictured, see schematic)	Câble d'alimentation (ne sont pas représentés, voir schéma)	Cable de alimentación (que no están representado, consulte el esquema)	1
9	2411194	Wire assembly (not pictured, see schematic)	Assemblage de fils (ne sont pas représentés, voir schéma)	Conjunto de conductores (que no están representado, consulte el esquema)	1

CUADRO DE PIEZAS DE RECAMBIO

EN DRIVE ASSEMBLY

F ENSEMBLE MOTEUR

ES CONJUNTO DEL MECANISMO IMPULSOR



All electrical work should be performed by an authorized service center.



Tous les travaux d'électricité doivent être effectués par le personnel d'un centre de service autorisé.



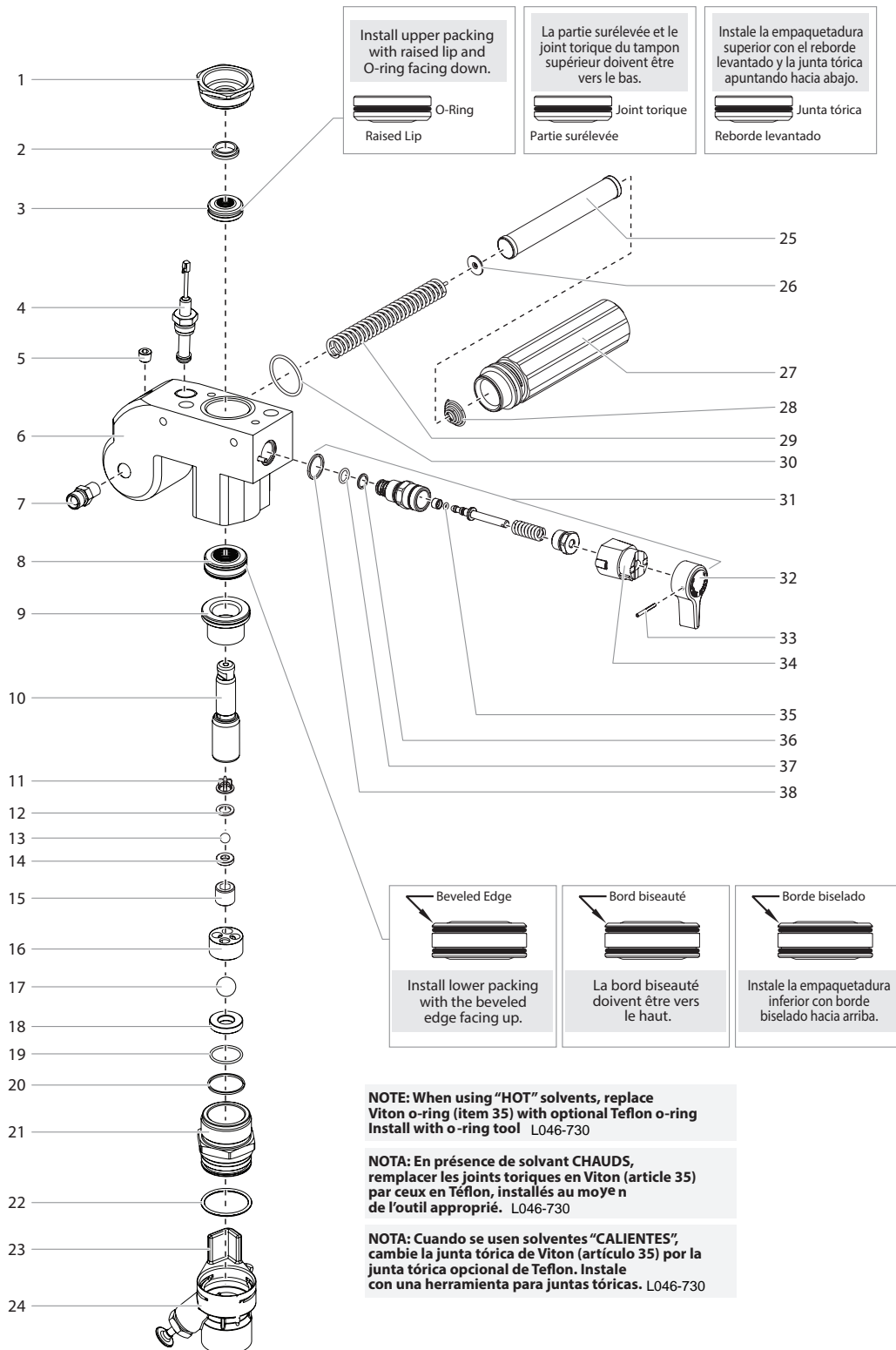
Todo trabajo eléctrico debe realizarlo un centro de servicio autorizado.

#		English Description	Français Description	Español Descripción	Qty. Qté. Cant.
1	805-204A	Housing assembly	Logement de la pompe	Caja de la bomba	1
2	L045-319	Slider assembly	Bielle	Vara conectora	1
3	704-176	2nd stage gear	Second embragage	Engranaje de 2da etapa	1
4	704-174	Thrust washer	Rondelle de butée	Arandela de empuje	1
5	704-173A	Crankshaft / gear assembly	Ensemble vilebrequin/engrenages	Ensamblaje cigüeñal/engranaje	1
6	805-264A	Motor assembly	Ensemble de moteur	Ensamblaje del motor	1
7	700-681	Screw	Vis	Tornillo	4
8	805-474	Motor baffle	Joint d'étanchéité	Empaquetadura	1
9	700-139	Screw	Vis	Tornillo	4
10	L046-729	Motor controller	Contrôleur de moteur	Controlador de motor	1
	2419746	Motor controller, I/IA	Contrôleur de moteur, I/IA	Controlador de motor, I/IA	1
11	9802266	Screw	Vis	Tornillo	1
12	522023	Capacitor	Condensateur	Condensador	1

CUADRO DE PIEZAS DE RECAMBIO

EN FLUID SECTION
ES ZONA DE PINTURA

F POMPE À PEINTURE



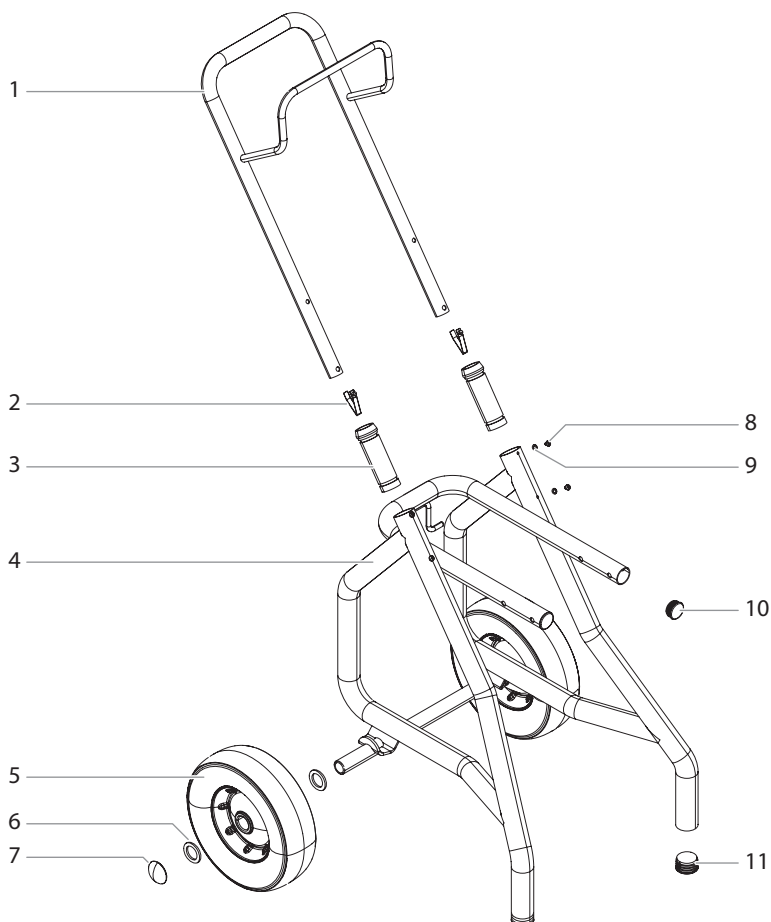
#		English Description	Français Description	Español Descripción	Qty. Qté. Cant.
1	730-508	Retainer	Rondelle de retenue	Retén	1
2	700-587	Piston guide	Guide-piston	Guía de pistón	1
3	-----	Upper packing	Tampon graisseur supérieur	Empaquetadura superior	1
4	L046-703	Pressure sensor assembly	Ensemble de capteur de pression	Ensamblaje de sensor de presión	1
5	227-028	Pipe plug	Fiche	Tapón	1
6	L046-722	Pump block	Bloc pompe	Bloque de la bomba	1
7	L036-001	Fitting	Raccord	Conector	1
8	-----	Lower packing	Tampon graisseur inférieur	Ampaquetadura inferior	1
9	L046-704	Bushing	Manchon	Buje	1
10	704-551A	Piston rod	Tige de piston	Vara del pistón	1
11	L045-317	Upper cage	Cage supérieur	Jaula superior	1
12	L045-318	Crush washer	Rondelle d'encrasement	Arandela de aplastar	1
13	L060-519	Outlet valve ball	Clapet de soupape de sortie	Bola de la válvula de salida	1
14	L045-628	Outlet valve seat	Siège de soupape de sortie	Asiento de la válvula de salida	1
15	L045-428	Outlet valve retainer	Rondelle de retenue de soupape de sortie	Retén de la válvula de salida	1
16	L045-431	Lower cage	Cage inférieur	Jaula superior	1
17	L045-432	Foot valve ball	Clapet de soupape de retenue	Bola de la válvula de pie	1
18	L045-433	Foot valve seat	Siège de soupape de retenue	Asiento de la válvula de pie	1
19	L060-531	O-ring, PTFE	Joint torique, PTFE	Junta tórica, PTFE	1
20	L046-708	Foot valve seal	Joint de soupape de retenue	Junta de la válvula de pie	1
21	L046-709	Foot valve	Soupape de retenue	Válvula de pie	1
22	L045-856	O-ring	Joint torique	Junta tórica	1
23	L046-710	Pusher assembly (includes item 22, skid and low rider)	Ensemble de poussoir (comprend les article 22, support et bas chariot)	Ensamblaje de vástago impulsor (incluye artículo 22, soporte y bajo carro)	1
	L046-711	Pusher assembly (includes item 22, cart)	Ensemble de poussoir (comprend les article 22, chariot)	Ensamblaje de vástago impulsor (incluye artículo 22, carro)	1
24	L046-712	Pusher assembly clip	Agrafe de ensemble de poussoir	Agrafe de ensamblaje de vástago impulsor	1
25	L045-496	Filter	Filtre	Filtro	1
26	L045-498	Adapter	Adaptateur	Adaptador	1
27	L045-499	Filter housing	Logement de filtre	Caja del filtro	1
28	L045-497	Filter spring	Ressort du filtre	Resorte de filtro	1
29	L045-495	Filter support spring	Ressort du support de filtre	Resorte del soporte del filtro	1
30	L045-494	O-ring	Joint torique	Junta tórica	1
31	L045-862	PRIME/SPRAY valve assembly	Ensemble de soupape de PRIME/SPRAY	Ensamblaje de la válvula de PRIME/SPRAY	1
32	L045-863	Valve handle	Manette de soupape	Mango de la válvula	1
33	L045-864	Groove pin	Goupille	Pasador de surco	1
34	L045-865	Cam base	Base à came	Base de leva	1
35	L045-868	O-ring, Viton	Joint torique, Viton	Junta tórica, Viton	1
	L045-894	O-ring, PTFE (optional)	Joint torique, PTFE (facultatif)	Junta tórica, PTFE (opcional)	1
36	L045-873	O-ring, PTFE	Joint torique, PTFE	Junta tórica, PTFE	1
37	L004-571	O-ring, Viton	Joint torique, Viton	Junta tórica, Viton	1
38	L045-874	Gasket	Joint d'étanchéité	Empaquetadura	1

L046-702	Repacking kit (includes items 2-3, 8, 11-13, 17, 19-20 and 22. Also included are packing grease P/N 700-203 and piston guide tool P/N 700-793.)	Trousse de tampon graisseurs (comprend les articles 2-3, 8, 11-13, 17, 19-20 et 22. Sont également inclus les lubrifiants de tampon graisseurs P/N 700-203 et outil de piston de guide P/N 700-793.)	Juego de empaquetaduras (incluye artículos 2-3, 8, 11-13, 17, 19-20 y 22. También de incluyen la lubricador de empaquetaduras P/N 700-203 et herramienta de guía del pistón P/N 700-793.)		

EN CART ASSEMBLY

F ENSEMBLE DE CHARIOT

ES ENSAMBLAJE DE CARRO

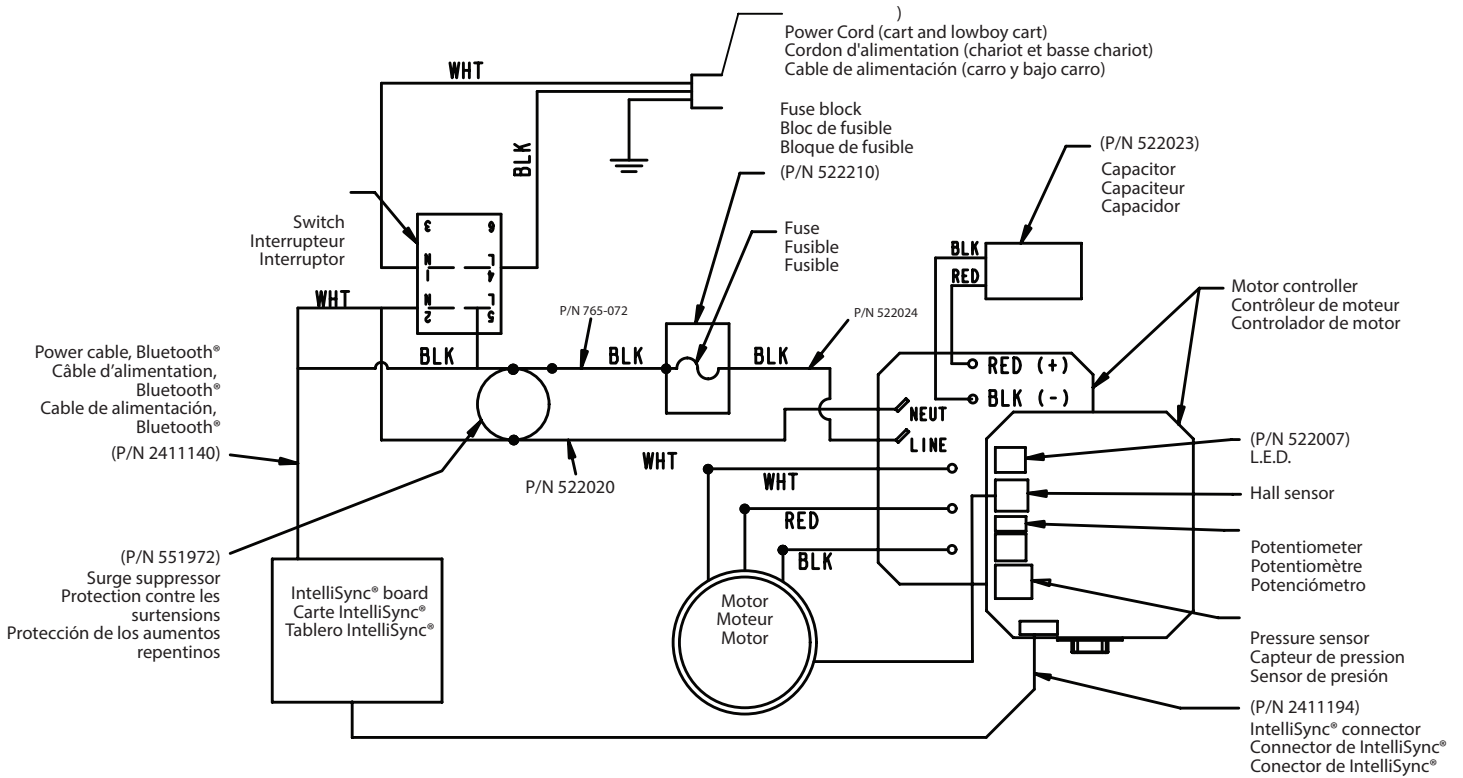


#		English Description	Français Description	Español Descripción	Qty. Qté. Cant.
1	805-278	Handle	Poignée	Mango	1
2	9841504	Spring button	Bouton d'enclenchement	Botón, a presion	2
3	590-504	Handle sleeve	Manche	Manga de asa	2
4	805-281	Cart	Chariot	Carro	1
5	278373	Wheel	Roue	Rueda	2
6	294534	Wheel spacer	Espaceur de roue	Separador de rueda	4
7	9890104	Axle cap	Chapeau	Tapa	2
8	856-921	Screw	Vis	Tornillo	4
9	856-002	Washer	Rondelle	Arandella	4
10	294635	Plug	Capuchon	Tapa	2
11	9885571	Plug	Capuchon	Tapa	2

EN ELECTRICAL SCHEMATIC

F SCHÉMA DE RACCORDEMENT ÉLECTRIQUE

ES ESQUEMA ELÉCTRICO



All electrical work should be performed by an authorized service center.



Todo trabajo eléctrico debe realizarlo un centro de servicio autorizado.



Tous les travaux d'électricité doivent être effectués par le personnel d'un centre de service autorisé.