



OPERATION MANUAL

MANUAL NUMBER X038591 | REVISION C | ENGLISH (US)

LineLazer® ES 3400 Airless Line Striper

For the application of line striping materials. For professional use only.

Not approved for use in explosive atmospheres or hazardous (classified) locations.



Important Safety Instructions

Read all warnings and instructions in this manual before using the equipment. Be familiar with the proper control and usage of the equipment. Save these instructions.



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MODELS

The part numbers reflect distinct features and characteristics of the LineLazer® ES 3400 Airless Line Striper.

LINELAZER® ES 3400 AIRLESS LINE STRIPER MODELS AND APPROVALS

Maximum Working Pressure: 3300 psi (22.8 MPa, 228 bar)

MODEL	BATTERY VOLTAGE VDC	CHARGER VOLTAGE VAC	
26U000	60 USA/CA	120 USA/CA	
26U001	54 EMEA/UK	230 EMEA/UK	
26U002	54 ANZ/AP	230 ANZ/AP	

The LineLazer ES3400 is compatible with the following DEWALT® FLEXVOLT® 54 V and 60 V batteries:

- DCB609 - 60 V/3 Ah (20 V/9 Ah)
- DCB547 - 54 V/3 Ah (18 V/9 Ah)
- DCB548 - 54 V/4 Ah (18 V/12 Ah)
- DCB612 - 60 V/4 Ah (20 V/12 Ah)

RELATED DEWALT MANUALS

MANUAL	DESCRIPTION	REGION
N463494	DEWALT DCB118 Fast Charger Manual	USA/CA
N463510 N463511	DEWALT DCB118-QW Fast Charger Manual (Part 1 and 2)	EMEA
N501136	DEWALT DCB118-XE Fast Charger Manual	ANZ/AP

RELATED MANUALS

Additional documents are available to support the operation, repair, and maintenance of the LineLazer® ES 3400 Airless Line Striper. Find English manuals and any available translations at www.graco.com.

Table 2-1: Related Manuals for LineLazer® ES 3400 Airless Line Striper Operation Manual X038591

ENGLISH MANUAL	DESCRIPTION
311254	Silver Plus, Silver Plus HP, and Flex Plus™ Airless Spray Guns, Instructions
334599	ProConnect® Endurance Displacement Pump, Repair

TRANSLATED MANUALS

Additional language documents are available to support all regions where the LineLazer® ES 3400 Airless Line Striper is sold. Find any available translations at www.graco.com.

Table 2-2: Translations for LineLazer® ES 3400 Airless Line Striper Operation Manual


LANGUAGE	MANUAL NUMBER
Croatian	X038591HR
Danish	X038591DA
Dutch	X038591NL
English	X038591EN
French	X038591FR
German	X038591DE
Hungarian	X038591HU
Italian	X038591IT
Japanese	X038591JA
Korean	X038591KO
Norwegian	X038591NO
Polish	X038591PL
Portuguese	X038591PT
Romanian	X038591RO
Spanish	X038591ES
Swedish	X038591SV

IMPORTANT GROUNDING INFORMATION

The following information is intended to help you understand when to use the Grounding Wire and Clamp provided with your stripper. It is required when flushing or cleaning with flammable materials.

Please read the information on the material container label to determine if it is flammable. Ask for a Safety Data Sheet (SDS) from your supplier. The container label and SDS will explain the contents of the material and the specific precautions related to it.




Flushing and clean-up materials generally fit into one of the following **3 basic types**:

GROUNDING WIRE AND CLAMP REQUIRED?	TYPE OF FLUSHING OR CLEANING MATERIAL
YES 	FLAMMABLE: This type of material contains flammable solvents such as xylene, toluene, naphtha, MEK, lacquer thinner, acetone, denatured alcohol, and turpentine. The container label should indicate that this material is FLAMMABLE . Use flammable materials outdoors or in a well-ventilated area with a flow of fresh air. Follow Grounding Instructions when using this type of material.
NO	OIL-BASED: The container label should indicate that the material is COMBUSTIBLE and can be cleaned up with mineral spirits or nonflammable paint thinner.
NO	WATER-BASED: The container label should indicate that the material can be cleaned up with soap and water.

SAFETY SYMBOLS

The following safety symbols appear throughout this manual and on warning labels. Read the table below to understand what each symbol means.

SYMBOL	MEANING
	Equipment Misuse Hazard
	Fire and Explosion Hazard
	Moving Parts Hazard
	Safety Alert Hazard
	Skin Injection Hazard
	Skin Injection Hazard
	Splatter Hazard
	Toxic Fluid or Fumes Hazard
	Do Not Place Hands or Other Body Parts Near Fluid Outlet

SYMBOL	MEANING
	Do Not Put Hand in Front of Spray Tip
	Do Not Stop Leaks with Hand, Body, Glove or Rag
	Eliminate Ignition Sources
	Follow Pressure Relief Procedure
	Ground Equipment
	Read Manual
	Ventilate Work Area
	Wear Personal Protective Equipment



Safety Alert Symbol

This symbol indicates: Attention! Become Alert! Look for this symbol throughout the manual to indicate important safety messages.

WARNINGS

The following warnings apply throughout this manual. Read, understand, and follow the warnings before using this equipment. Failure to follow these warnings can result in serious injury.

WARNING



FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, **in work area** can ignite or explode. To help prevent fire and explosion:



- Do not spray flammable or combustible materials near an open flame or sources of ignition such as cigarettes, motors, and electrical equipment.



- 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 Graco conductive or grounded high-pressure airless paint sprayer hoses.



- Verify that all containers and collection systems are grounded to prevent static discharge. Do not use pail liners unless they are anti-static or conductive.
- Do not use a paint or a solvent containing halogenated hydrocarbons.
- Keep spray area well-ventilated. Keep a good supply of fresh air moving through the area.
- Sprayer generates sparks. Keep pump assembly in a well-ventilated area when spraying, flushing, cleaning, or servicing. Do not spray pump assembly.
- Do not smoke in the spray area or spray where sparks or flame is present.
- 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 paints and solvents being sprayed. Read all Safety Data Sheets (SDSs) and container labels provided with the paints and solvents. Follow the paint and solvent manufacturer's safety instructions.
- Keep a working fire extinguisher in the work area.



WARNING



SKIN INJECTION HAZARD

High-pressure spray is able to inject toxins into the body and cause serious injury that can result in amputation. In the event that injection occurs, **get immediate surgical treatment.**



- 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.
- Always use the spray tip guard. Do not spray without spray tip guard in place.
- Use Graco spray tips.
- Use caution when cleaning and changing spray tips. In the case where the spray tip clogs while spraying, follow the **Pressure Relief Procedure** for turning off the unit and relieving the pressure before removing the spray tip to clean.
- Equipment maintains pressure after power is turned off. Do not leave the equipment energized or under pressure while unattended. Follow the **Pressure Relief Procedure** when the equipment is unattended or not in use, and before servicing, cleaning, or removing parts.
- Check hoses and parts for signs of damage. Replace any damaged hoses or parts.
- This system is capable of producing 3300 psi (228 bar, 22.8 MPa). Use Graco parts or accessories that are rated a minimum of 3300 psi (228 bar, 22.8 MPa).
- 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.



WARNING



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.



- Always wear appropriate gloves, eye protection, 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 overbend the hose.
- Do not expose the hose to temperatures or to pressures in excess of those specified by Graco.
- Do not use the hose as a strength member to pull or lift the equipment.
- Do not spray with a hose shorter than 25 feet (7.6 m).
- Always replace cracked, broken or missing parts immediately with genuine Graco parts. See **LineLazer® ES3400 Airless Line Striper Parts**.
- Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
- Use only in dry locations. Do not expose to water or rain.
- Use in well-lit areas.
- Make sure all equipment is rated and approved for the environment in which you are using it.



PRESSURIZED ALUMINUM PARTS HAZARD

Use of fluids that are incompatible with aluminum in pressurized equipment can cause serious chemical reaction and equipment rupture. Failure to follow this warning can result in death, serious injury, or property damage.

- Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents.
- Do not use chlorine bleach.
- Many other fluids may contain chemicals that can react with aluminum. Contact your material supplier for compatibility.

 **WARNING**



BATTERY AND CHARGER COMPATIBILITY HAZARD

- Only use DEWALT brand 54V Max or 60V Max batteries and battery chargers with this tool.
- READ ALL INSTRUCTIONS included with this tool regarding the safety and usage of DEWALT batteries and battery chargers.
- Do not wash or spray down batteries.
- Do not clean the battery with anything other than a cloth moistened with water.



MOVING PARTS HAZARD

Moving parts can pinch, cut, or amputate fingers and other body parts.

- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** and disconnect all power sources.



TOXIC FLUID OR FUMES HAZARD

Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.

- Read Safety Data Sheets (SDSs) to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.



PERSONAL PROTECTIVE EQUIPMENT

Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. Protective equipment includes but is not limited to:

- Protective eyewear and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

TECHNICAL SPECIFICATIONS

The table provides important information related to the LineLazer® ES 3400 Airless Line Striper, including product attributes, measurements, and performance characteristics that support the use of the equipment.

Table 6-1: Technical Specifications for LineLazer® ES 3400 Airless Line Striper

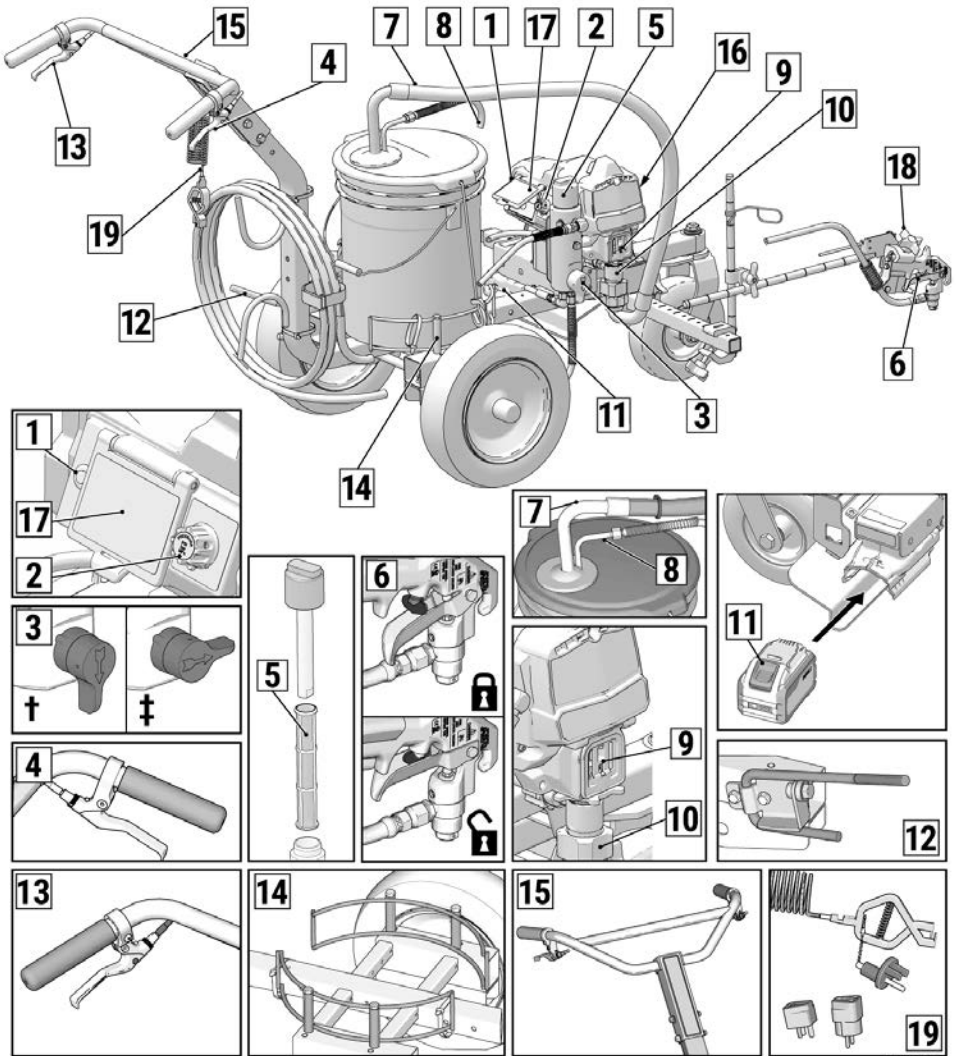
	US	METRIC
Maximum Working Pressure	3300 psi	22.8 MPa, 228 bar
Maximum Delivery	0.75 gpm	2.84 lpm
Maximum Tip Size	1 gun with 0.027 in. tip	
Inlet Paint Strainer	12 mesh (893 micron) stainless steel screen, reusable	
Outlet Paint Strainer	60 mesh (250 micron) stainless steel, reusable	
Pump Inlet Size	1 in. diameter	
Fluid Outlet	0.25 in. npsm	
Dimensions		
Height		
Handles Down	39.4 in.	100 cm
Handles Up	41.3 in.	104.8 cm
Length		
Handles Down	66.3 in.	168.4 cm
Handles Up	68 in.	172.7 cm
Width	26 in.	66 cm
Weight (with Battery)	140 lb	64 kg
Noise** (dBa) @ 70 psi (0.48 MPa, 4.8 bar)		
Sound Pressure	90 dBa*	
Sound Power	100 dBa*	
Vibration, per ISO 5349		
Left-hand	<98 in./s ²	<2.5 m/s ²
Right-hand	<98 in./s ²	<2.5 m/s ²
Material of Construction		

TECHNICAL SPECIFICATIONS

	US	METRIC
Wetted Materials on all Models	Zinc- and nickel-plated carbon steel, nylon, stainless steel, PTFE, acetal, leather, UHMWPE, aluminum, tungsten carbide, polyethylene, fluoroelastomer, urethane	
Notes		
<p><i>* Startup pressures and displacement per cycle may vary based on suction condition, discharge head, air pressure, and fluid type.</i></p> <p><i>** Sound pressure measured 3 feet (1 meter) from equipment.</i></p> <p><i>Sound power measured per ISO-3744.</i></p> <p>All trademarks or registered trademarks are the property of their respective owners.</p>		

COMPONENT IDENTIFICATION

The diagram highlights the controls and features on the LineLazer® ES 3400 Airless Line Striper that are used during typical operation.



ti04945a

Figure 7-1: Component Identification for LineLazer® ES 3400 Airless Line Striper



COMPONENT IDENTIFICATION

KEY

- | | |
|----|------------------------------|
| 1 | ON/OFF Button |
| 2 | Pressure Control |
| 3 | Prime/Spray Valve |
| † | Prime |
| ‡ | Spray |
| 4 | Spray Gun Trigger |
| 5 | Filter |
| 6 | Trigger Lock |
| 7 | Siphon Hose |
| 8 | Drain Hose |
| 9 | Finger Guard |
| 10 | Pump |
| 11 | Battery |
| 12 | Park Brake |
| 13 | Front Wheel Lock/Unlock |
| 14 | Adjustable Pail Holder |
| 15 | Adjustable Handle |
| 16 | Serial Label (on front side) |
| 17 | Digital Display |
| 18 | Gun Retainer Knob |
| 19 | Grounding Wire and Clamp |

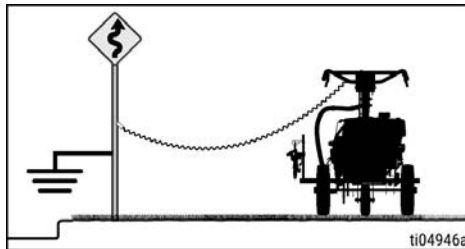
GROUNDING INSTRUCTIONS (FLAMMABLE FLUSHING AND CLEANING MATERIALS)

Properly ground the LineLazer® ES 3400 Airless Line Striper to help ensure correct operation.

⚠ WARNING				
				
<p>The equipment must be grounded to reduce the risk of static sparking. A static spark can cause fumes to ignite or explode causing serious injury. A good ground provides an escape wire for the electric current.</p>				

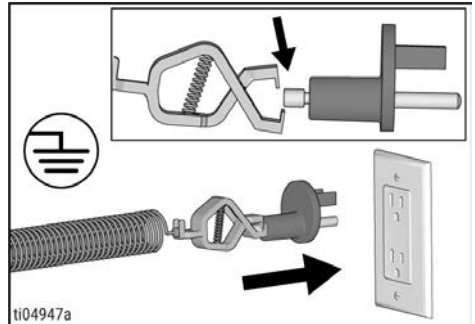
Position the striper so the wheels are on a true ground surface, and not on pavement.

The striper is equipped with a Grounding Wire and Clamp. The clamp must be connected to a true earth ground when flushing with flammable materials. See **Important Grounding Information**.



A metal signpost can be used as a true earth ground. Connect the Grounding Wire and Clamp to a metal post. A properly grounded electrical outlet can also be used as a true earth ground. Use the provided adapter.

Plug the adapter in to a grounded outlet. Connect the Grounding Wire and Clamp to the metal stud on the adapter. If the ground wire is not long enough to reach a grounded electrical outlet, use a three wire grounded extension cord between the adapter and outlet.



Fluid hoses: Use only electrically conductive hoses with a maximum of 300 ft (91 m) combined hose length to ensure grounding continuity.

Spray gun: Ground through connection to a properly grounded fluid hose and Pump.

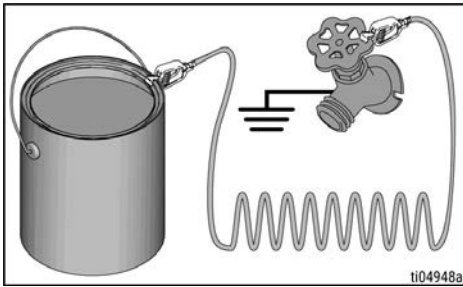
PAILS

Flammable and oil-based materials: Follow local code and regulations. Use only conductive metal pails, placed on a grounded surface, such as concrete.

Do not place pail on a non-conductive surface such as paper or cardboard which interrupts grounding continuity.



Always ground a metal pail: Connect a ground wire to the pail. Clamp one end to the pail and the other end to a true earth ground, such as a water pipe.



To maintain ground continuity when sprayer is flushed or pressure is relieved: Hold metal part of spray gun firmly to the side of a grounded metal pail then trigger the gun.



PRESSURE RELIEF PROCEDURE

Relieve pressure on the LineLazer® ES 3400 Airless Line Striper when operation is stopped, and before cleaning, checking, or servicing the equipment.



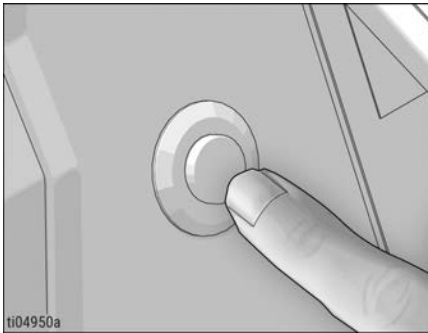
Follow the Pressure Relief Procedure whenever you see this symbol.

WARNING

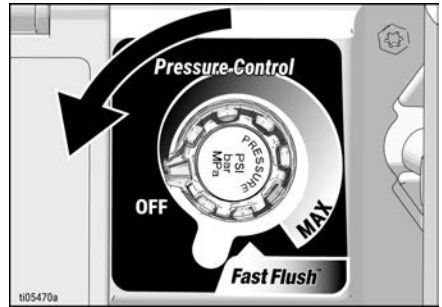


This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashed fluid and moving parts, follow the **Pressure Relief Procedure** whenever striper is stopped and before striper is cleaned or checked, and before equipment is serviced.

1. Follow the **Grounding Instructions** if using flammable materials.
2. Turn ON/OFF Button to the **OFF** position. Power button is NOT illuminated when OFF.



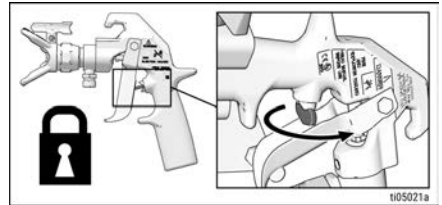
3. Turn the Pressure Control knob to lowest setting. Disengage Trigger Lock.



4. Hold a metal part of the gun firmly to a grounded metal pail. Trigger the gun to relieve pressure.

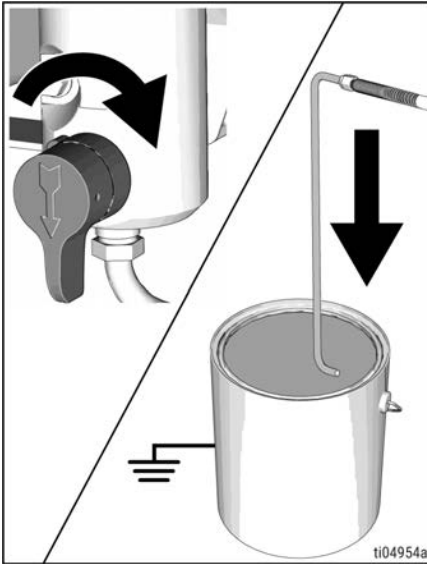


5. Engage Trigger Lock.



PRESSURE RELIEF PROCEDURE

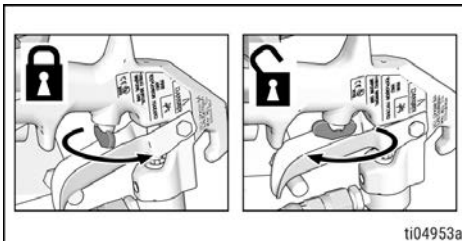
6. Put the Drain Hose in a pail and turn the Prime/Spray Valve down. Leave the Prime/Spray Valve in down (drain) position until you are ready to spray again.



7. If you suspect the spray tip or hose is clogged or that pressure has not been fully relieved:
 - a. Using a wrench VERY SLOWLY loosen the tip guard retaining nut or the hose end coupling to relieve pressure gradually.
 - b. Using a wrench loosen the nut or coupling completely.
 - c. Clear hose or tip obstruction.

TRIGGER LOCK

Always engage the Trigger Lock on the LineLazer® ES 3400 Airless Line Striper when spraying is stopped to prevent the gun from being triggered accidentally by hand or if dropped or bumped.



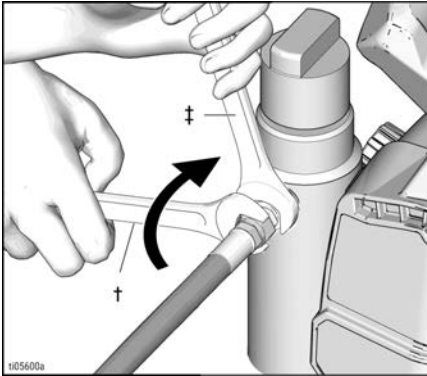
SETUP

When using the equipment for the first time or after long-term storage, follow the steps to prepare the LineLazer® ES 3400 Airless Line Striper for operation.



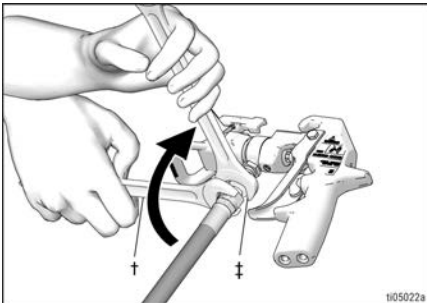
When unpacking sprayer for the first time or after long-term storage, perform setup procedure. When first setup is performed, remove shipping plug from fluid outlet. Sprayer is equipped with Pump Armor™ in the system.

1. Connect Graco airless hose to fluid outlet. Use two wrenches to tighten securely.



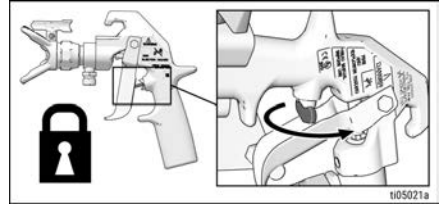
† 11/16 in. wrench ‡ 5/8 in. wrench

2. Connect other end of hose to gun. Use two wrenches to tighten securely.

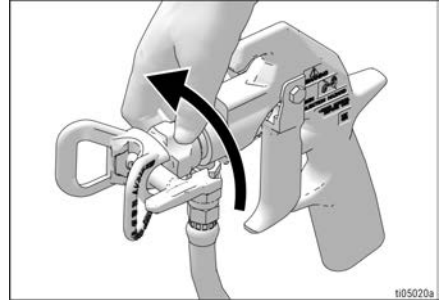


† 11/16 in. wrench ‡ 3/4 in. wrench

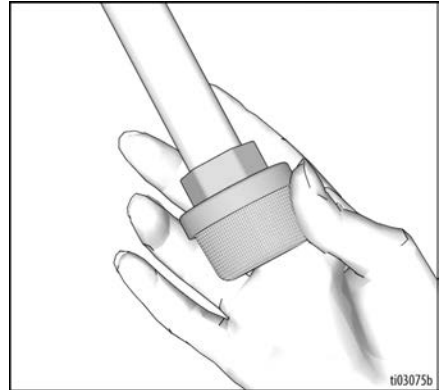
3. Engage Trigger Lock.



4. Remove tip guard.



5. After long-term storage check inlet strainer for clogs and debris.

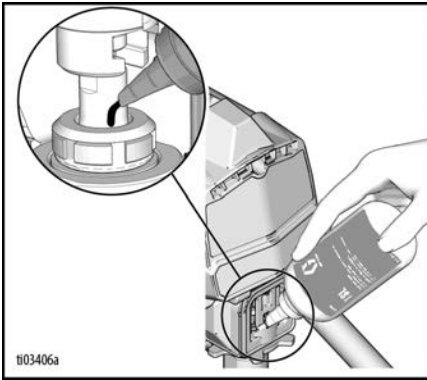


6. Fill throat packing nut with Throat Seal Liquid (TSL™) to prevent premature packing wear. Do this daily or each time you spray.

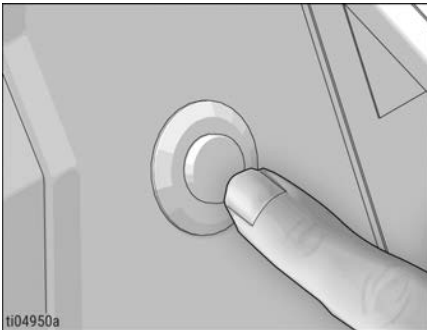
- a. Place the TSL bottle nozzle into the top center opening in the grill at the front of the sprayer.

SETUP

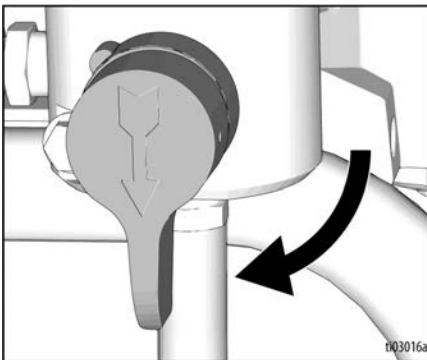
b. Squeeze bottle to dispense enough TSL to fill the space between the pump rod and packing nut seal.



7. Make certain ON/OFF Button is **OFF**, and Pressure Control knob is at the lowest setting.



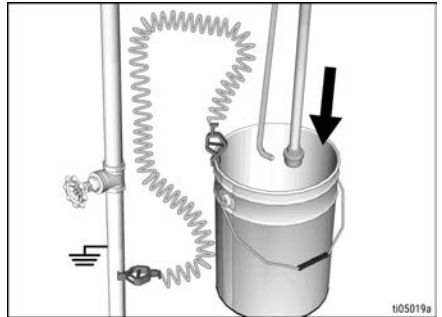
8. Turn Prime/Spray Valve down to the Prime position.



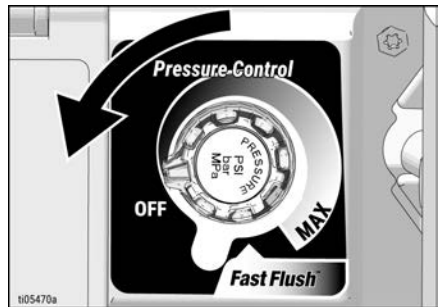
9. Place Siphon Hose with Drain Hose in grounded metal pail partially filled with flushing fluid. See **Grounding Instructions**.

NOTE:

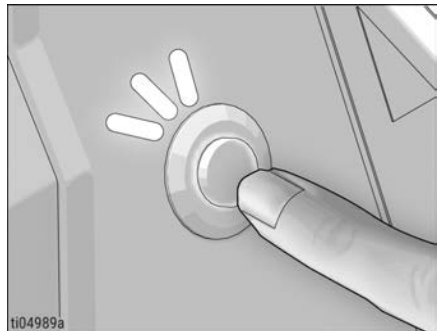
Check flushing fluid for compatibility with material that is to be sprayed. A secondary flush with a compatible fluid may be necessary. Use water for latex paint or compatible fluid for oil-based paint.



10. Turn the Pressure Control knob to lowest setting.

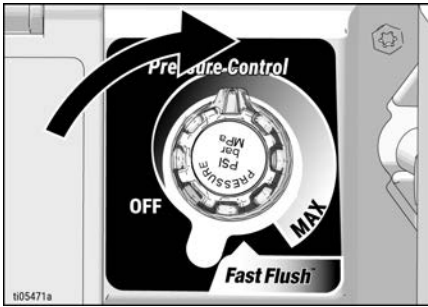


11. Turn the ON/OFF Button to **ON** position.

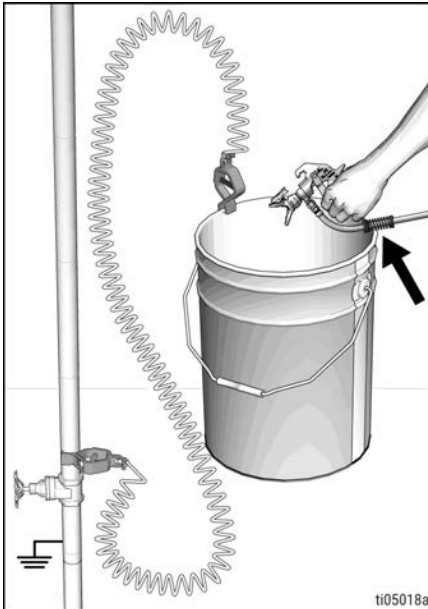


SETUP

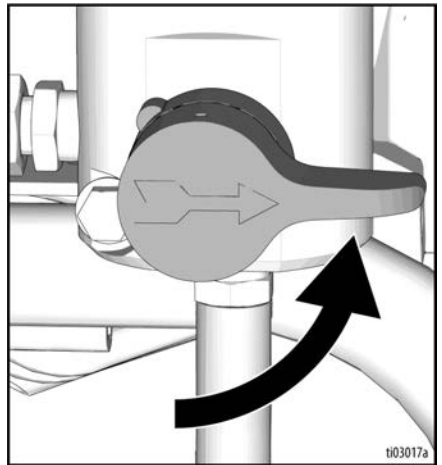
12. Increase pressure 1/2 turn to start motor. Allow fluid to flush through Drain Hose for one minute.



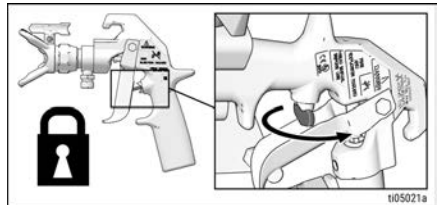
13. Hold a metal part of the gun firmly to a grounded metal pail. Disengage Trigger Lock and trigger gun.



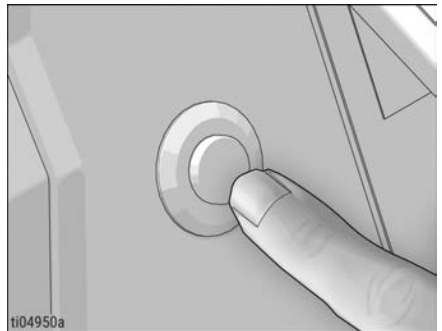
14. While holding gun trigger, turn Prime/Spray Valve horizontal to the spray position. Flush until clean.



15. Release gun trigger and engage Trigger Lock.



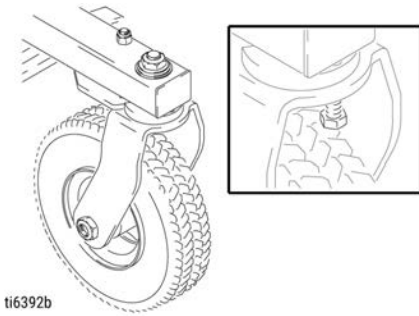
16. Turn the ON/OFF Button to OFF position.



17. If the initial flushing is not compatible with the paint that is to be sprayed, a second flush is needed. Repeat steps 11-18.

FRONT WHEEL ALIGNMENT

1. Loosen cap screw.

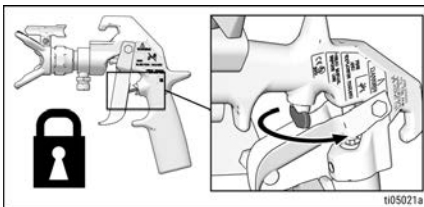


2. Position front wheel left or right, as necessary, to straighten alignment.
3. Tighten cap screw. Gently push striper and tip guard roll without holding on to the striper.

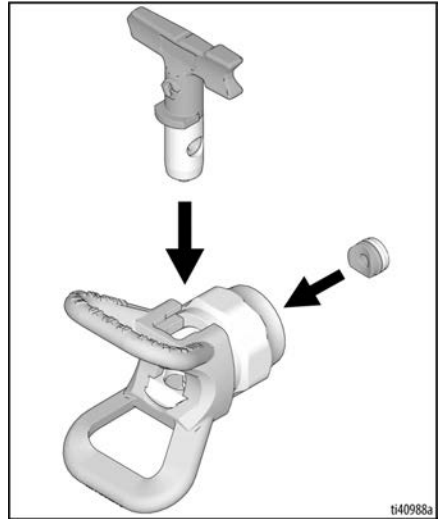
SPRAY TIP INSTALLATION

 WARNING			
			
<p>To avoid serious injury from skin injection, do not put your hand in front of the spray tip when installing or removing the spray tip and spray tip guard.</p>			

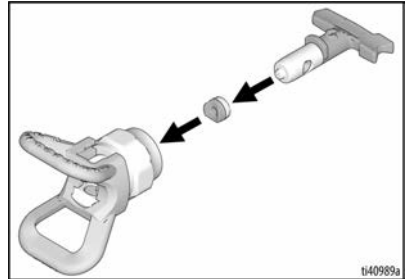
1. Perform **Pressure Relief Procedure**.
2. Engage Trigger Lock.



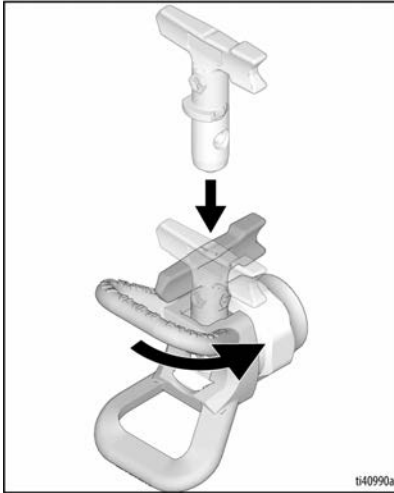
3. Verify spray tip and tip guard parts are assembled in the order shown.



- a. Use spray tip to align gasket and seal in the tip guard.

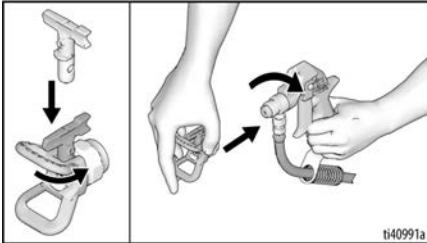


- b. Spray tip must be pushed all the way into the tip guard. Turn spray tip to push down.



- c. Turn the arrow-shaped handle on the spray tip forward to the spray position.



4. Screw spray tip assembly onto the gun and tighten.



5. Return spray to holder.
6. Place trigger guard in front of nut on gun holder. Tighten knob.

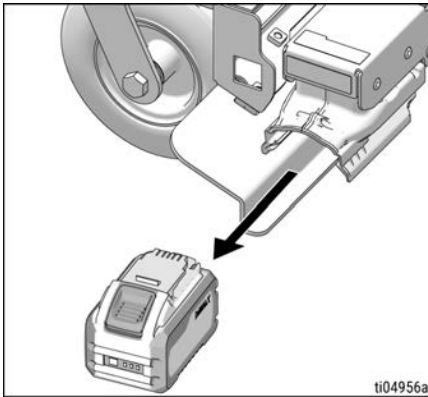
BATTERY INSTALLATION AND REMOVAL

Always start with a fully charged Battery. Do not splash or immerse Battery or charger in water. See Battery and charger information shipped with the sprayer.

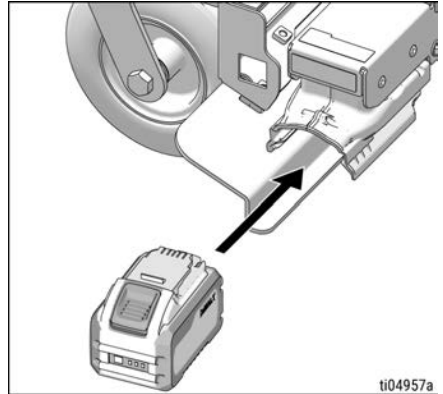
⚠ WARNING				
				
<p>Replace and charge Battery only in a well-ventilated area and away from flammable or combustible materials, including paints or solvents.</p>				

Remove and install the Battery into the striper as follows:

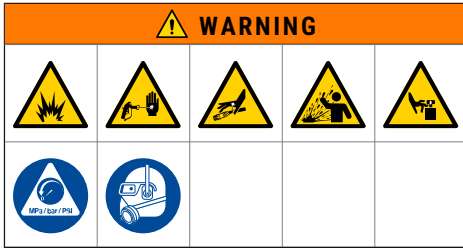
1. Remove the used Battery, if in place.



2. Install Battery by aligning the battery pack with the rails inside the sprayer and sliding it in until the battery pack is firmly seated. Ensure that it does not disengage.



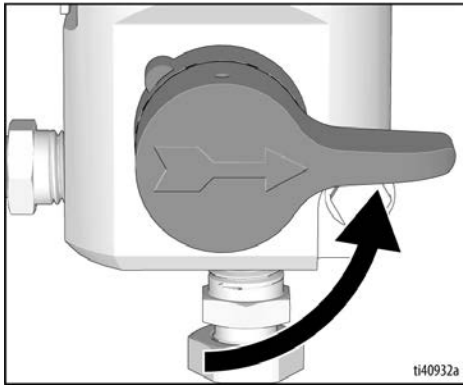
STARTUP



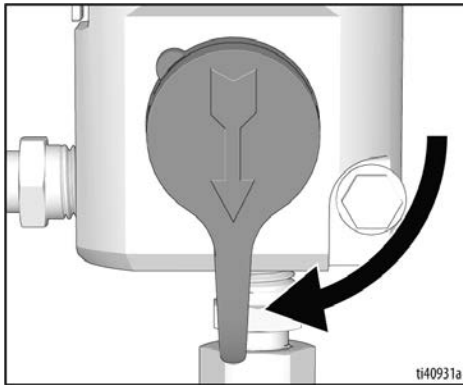
PRIME / SPRAY VALVE

The Prime/Spray Valve uses a lever that is flipped between the Prime and Spray position.

SPRAY POSITION



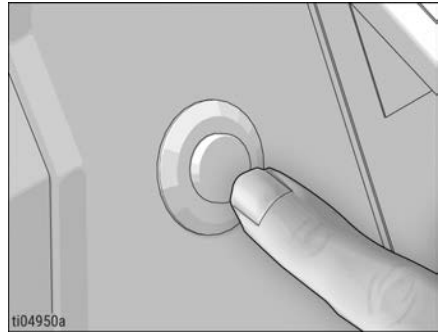
PRIME POSITION



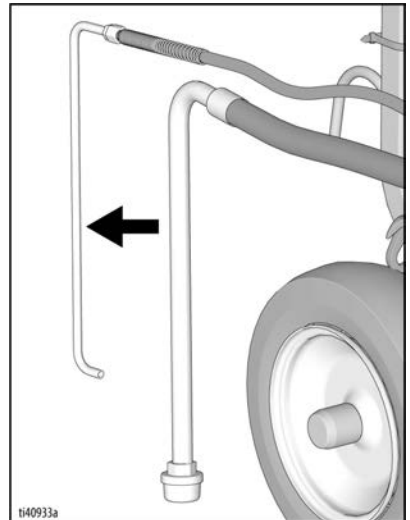
FLUSH STORAGE FLUID

This striper arrives from the factory with a small amount of test material in the system. **It is important that you flush this material from the striper before using it for the first time.**

1. When flushing with flammable materials, follow **Grounding Instructions**.
2. Follow **Cleaning and Flushing Fluid Compatibility**.
3. Perform **Pressure Relief Procedure**.
4. Make certain ON/OFF Button is **OFF**. Power button is NOT illuminated when OFF.

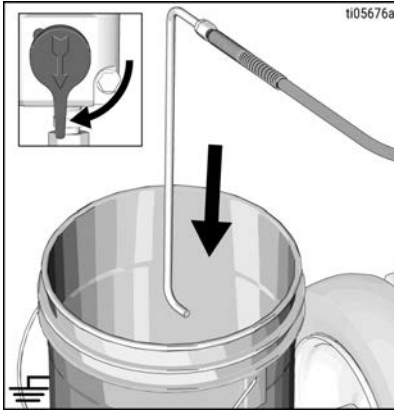


a. Separate Drain Hose (smaller) from Siphon Hose (larger).

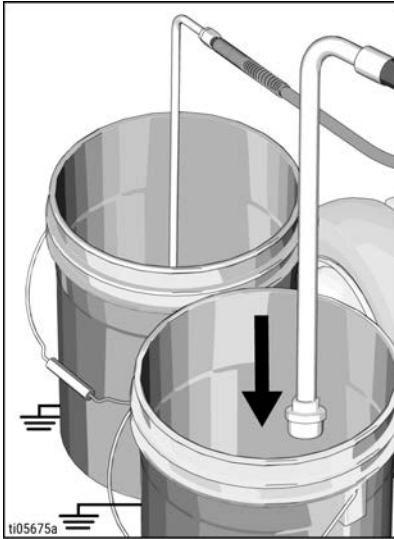


STARTUP

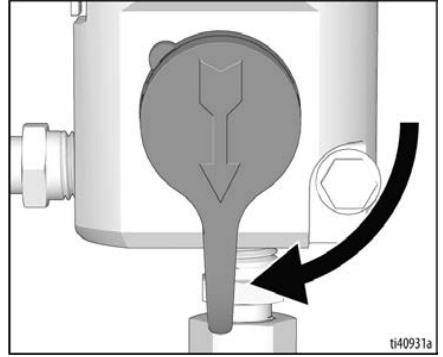
b. Place Drain Hose in a grounded waste pail.



c. Submerge Siphon Hose in a grounded pail partially filled with water or flushing fluid.

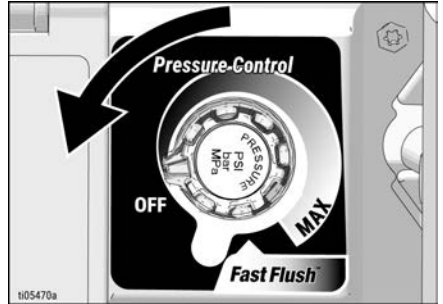


5. Place Prime/Spray Valve in Prime position.

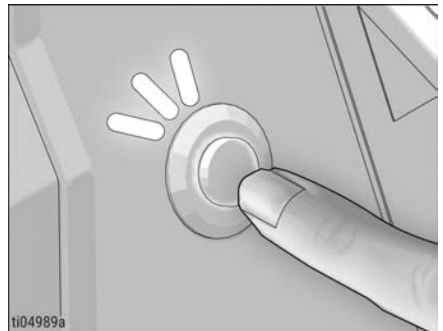


6. Install Battery, see **Battery Installation and Removal**.

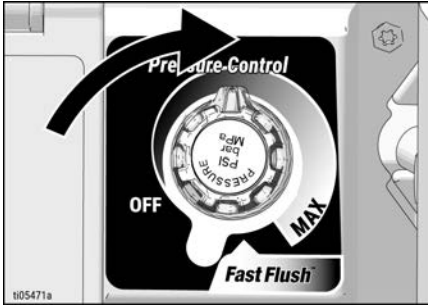
7. Turn Pressure Control knob to lowest setting.



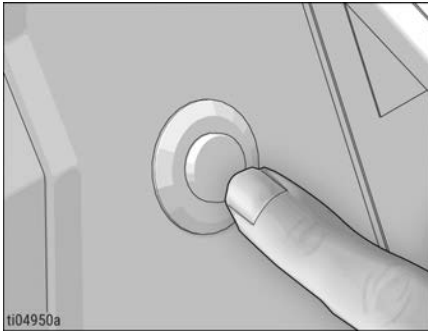
8. Turn ON/OFF Button to **ON** position. Power button is illuminated when ON.



- Increase pressure 1/2 turn to start motor. Allow paint or other material to circulate through sprayer until material flows out of the Drain Hose.



- When sprayer starts pumping, flush fluid and air bubbles will be purged from system. Allow fluid to flow out of Drain Hose into waste pail for 30 to 60 seconds.
- Turn ON/OFF Button to **OFF** position. Power button is NOT illuminated when OFF.

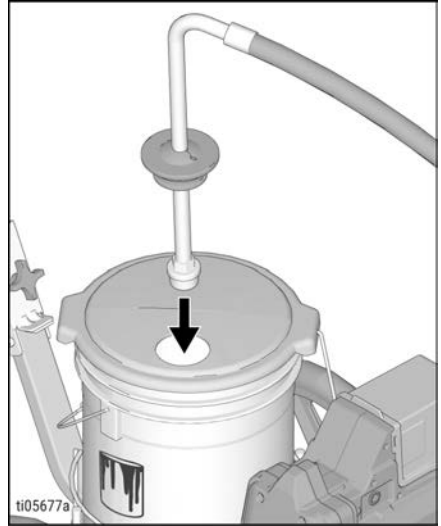


 WARNING			
			
High-pressure spray is able to inject toxins into the body and cause serious bodily injury. Do not stop leaks with hand or rag.			

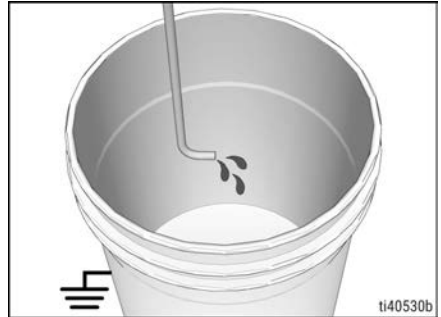
- Inspect for leaks. If leaks occur, perform **Pressure Relief Procedure** then tighten all fittings. If there are no leaks, continue with the next step.

FILL PUMP

- Move Siphon Hose to paint pail and submerge Siphon Hose in paint.



- Turn ON/OFF Button to **ON** position. Power button is illuminated when ON.
- Wait to see paint coming out of the Drain Hose.



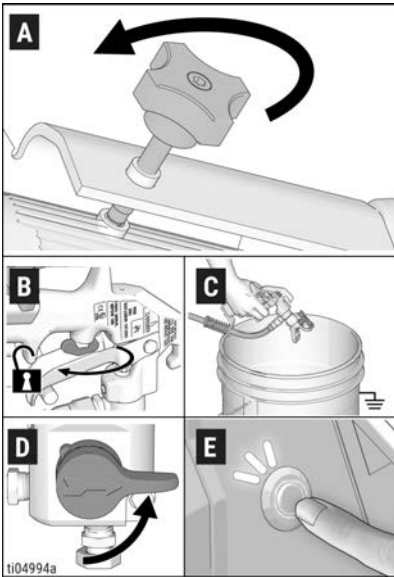
- Turn ON/OFF Button to **OFF** position. Power button is NOT illuminated when OFF.

NOTE:

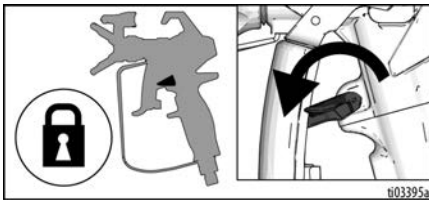
Some fluids may prime faster if the ON/OFF Button is momentarily turned off so the Pump can slow and stop. Turn ON/OFF Button on and off several times if necessary.

F I L L G U N A N D H O S E

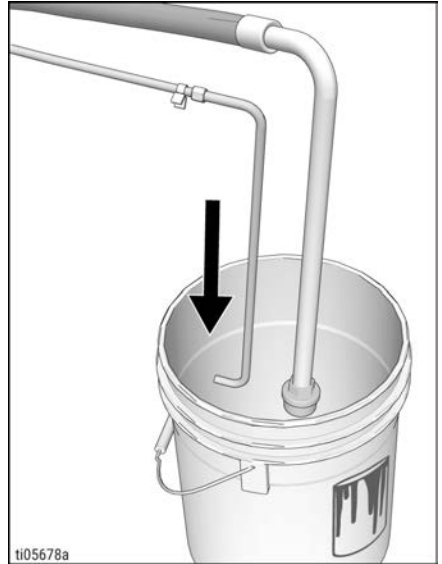
1. Hold gun against a grounded waste pail. Point gun into waste pail.
 - a. Loosen Gun Retainer Knob and remove spray gun from holder.
 - b. Disengage Trigger Lock.
 - c. Pull and hold gun trigger.
 - d. Turn Prime/Spray Valve to Spray position.
 - e. Press ON/OFF Button to **ON** position. Button is illuminated when ON.



2. Trigger gun into waste pail until only paint comes out of the gun.
3. Release trigger. Engage Trigger Lock.



4. Transfer Drain Hose to paint pail and clip to Siphon Hose.



5. Return gun to gun holder.

NOTE:
 When motor stops, sprayer is ready to paint. If motor continues to run, sprayer is not properly primed. Repeat **Fill Pump** and **Fill Gun and Hose**.

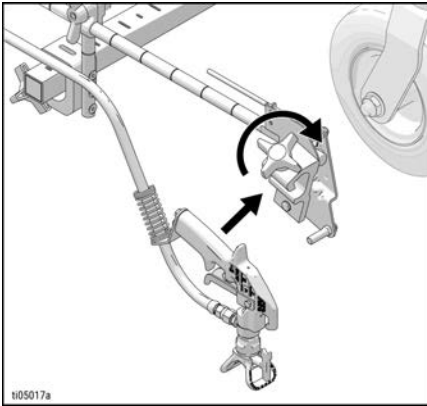
OPERATION

The instructions provide guidance on how to use the LineLazer® ES 3400 Airless Line Striper.

HOW TO SPRAY

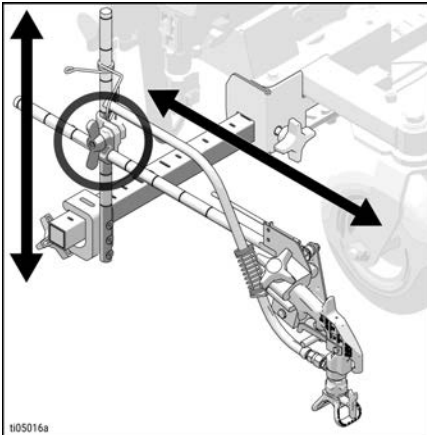
INSTALL GUN

1. Insert gun into gun holder with hose guard pressed against the holder assembly bracket. Tighten gun into clamp.

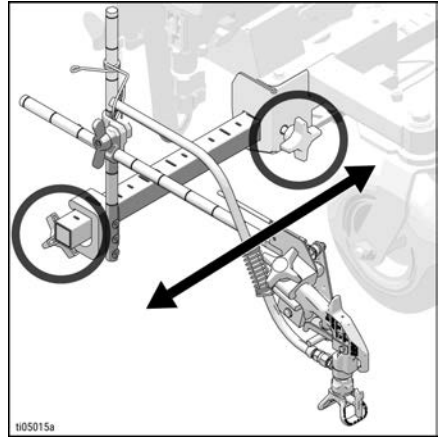


POSITION GUN

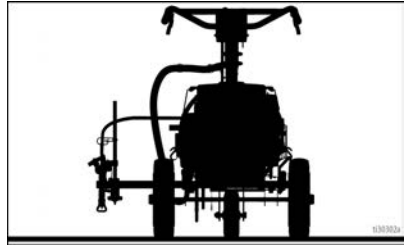
1. Position gun up/down and forward/reverse.



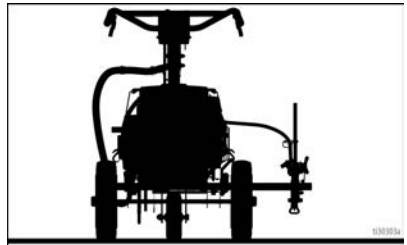
2. Position gun left/right.



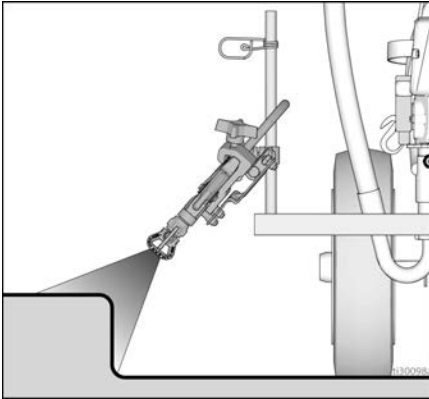
- a. **Right-side gun position:** Place gun and related hardware on right-hand side.



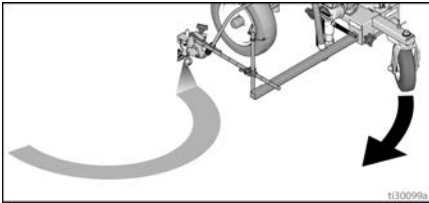
- b. **Left-side gun position:** Place gun and related hardware on left-hand side.



3. For **Curb Position**, place gun at 45° angle.



4. For **Gun Arc Spray Position**, place gun at rear of striper. Rear position improves arc quality.



NOTE:

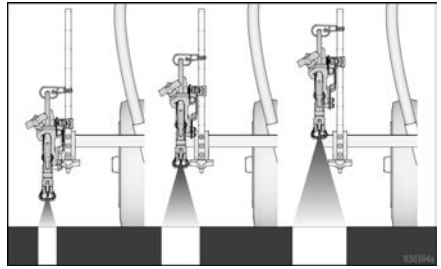
Verify that the gun can still be triggered and that the Trigger Lock can still be engaged after installation. Make adjustments if necessary.

NOTE:

When first removing from storage or switching paints/colors, consult **Cleaning and Flushing Fluid Compatibility**.

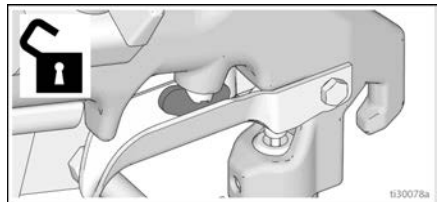
PAINT STRIPE WIDTH

1. Adjust gun up or down to change paint stripe width. If desired width cannot be attained, change tip.

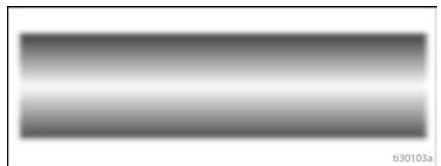


SPRAY TEST STRIPE

1. Disengage Trigger Lock.



2. Trigger gun and spray test pattern. Slowly adjust pressure to eliminate heavy edges. Use smaller tip size if pressure adjustments cannot eliminate heavy edges.



STENCIL SPRAYING

1. Loosen Gun Retainer Knob.
2. Remove gun from holder.
3. Trigger spray gun over stencil pattern.
4. Return gun to holder.
5. Tighten Gun Retainer Knob.

NOTE:

When using the spray gun by hand, static buildup and static shocks can occur. If you cannot position the striper on a grounded surface or connect the Grounding Wire and Clamp to a metal post, try the following to help reduce static buildup:

- Stand on a true grounded surface when spraying, such as grass.
- Try wearing a different type of shoes.

SPRAY TIP SELECTION**SELECTING TIP SIZE**

Spray tips come in a variety of sizes for spraying a range of fluids. Your sprayer includes a tip for use in most paint spraying applications.

Hints:

- As you spray, the tip wears and enlarges. Starting with a tip hole size smaller than the maximum will allow you to spray within the rated flow capacity of the striper.
- Use larger tip hole sizes with thicker coatings and smaller tip hole sizes with thinner coatings.
- Tips wear with use and need periodic replacement.
- Tip hole size controls flow rate - the amount of paint that comes out of the gun.

FAN WIDTH

Fan width is the size of the spray pattern, which determines the area covered with each stroke.

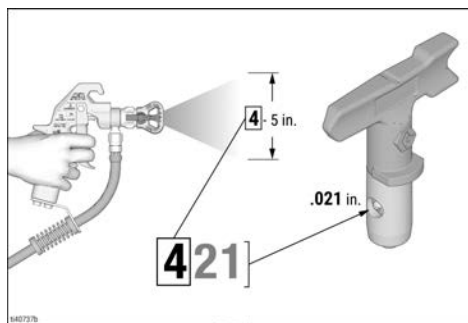
Hints:

- Select a fan width best suited to the surface being sprayed.
- Wider fans provide better coverage on broad, open surfaces.
- Narrower fans provide better control on small, confined surfaces.

UNDERSTANDING TIP NUMBER





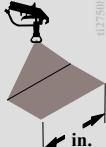

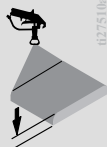
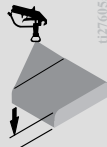
The last three digits of tip number (e.g., LL5421) contain information about hole size and fan width on surface when gun is held 6 in. (15.2 cm) from surface being sprayed.

Rac5 tips are measured at 6 in. (15.2 cm) from surface.



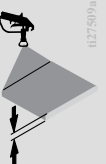
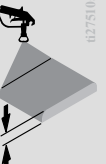
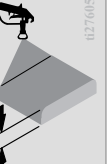


TIP SELECTION

The table shows the tip size needed based on the desired line width sprayed.

 027610	 027500 in. (cm)	 027504 in. (cm)	 027507 in. (cm)	 027508 in. (cm)	 027509a	 027510a	 027605a
LL5213*	2 (5)				✓		
LL5215*	2 (5)					✓	
LL5217		4 (10)				✓	
LL5219		4 (10)					✓
LL5315		4 (10)			✓		
LL5317		4 (10)			✓		
LL5319		4 (10)				✓	
LL5321		4 (10)				✓	
LL5323		4 (10)				✓	
LL5325		4 (10)					✓
LL5327		4 (10)					✓
LL5329		4 (10)					✓
LL5331		4 (10)					✓
LL5333		4 (10)					✓
LL5335		4 (10)					✓
LL5355		4 (10)					✓
LL5417			6 (15)		✓		
LL5419			6 (15)		✓		
LL5421			6 (15)		✓		
LL5423			6 (15)			✓	

OPERATION

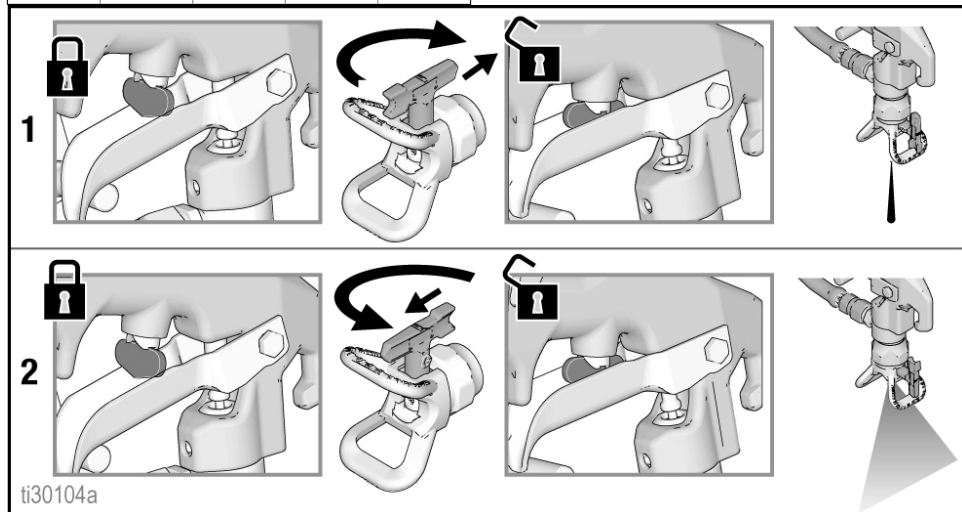
							
LL5425			6 (15)			✓	
LL5427			6 (15)			✓	
LL5429			6 (15)			✓	
LL5431			6 (15)				✓
LL5435			6 (15)				✓
LL5621				12 (30)	✓		
LL5623				12 (30)	✓		
LL5625				12 (30)	✓		
LL5627				12 (30)	✓		
LL5629				12 (30)	✓		
LL5631				12 (30)		✓	
LL5635				12 (30)		✓	
LL5639				12 (30)			✓

*Use 100 mesh filter to reduce tip clogs.

CLEAR TIP CLOG



1. Release trigger. Engage Trigger Lock. Rotate spray tip. Disengage Trigger Lock. Trigger gun at waste area to clear clog.
2. Engage Trigger Lock. Return spray tip to original position. Disengage Trigger Lock and continue spraying.



ti30104a

DIGITAL DISPLAY

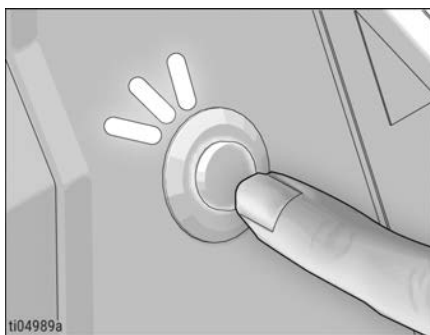


OPERATION MAIN MENU

A short press of the display button moves to the next display. Press and hold display button for 10 seconds to change units or 2 seconds to reset data.

1. Perform **Pressure Relief Procedure**.

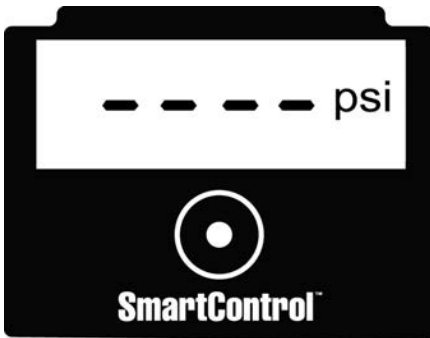
2. Plug sprayer into grounded outlet. Turn ON/OFF Button to **ON** position.



ti04989a

OPERATION

3. Pressure display appears. Dashes appear when pressure is less than 200 psi (1.4 MPa, 14 bar).

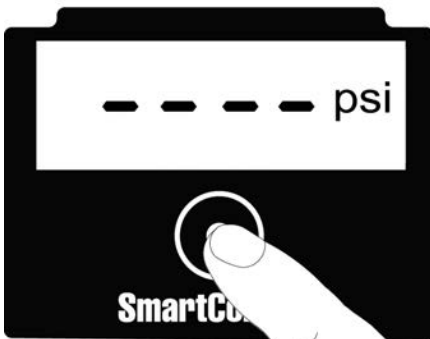


ti03424a

4. Short press display button to move to Job Gallons (or Liters x 10).

NOTE:

JOB displays briefly, then the number of gallons sprayed outside of FastFlush™.

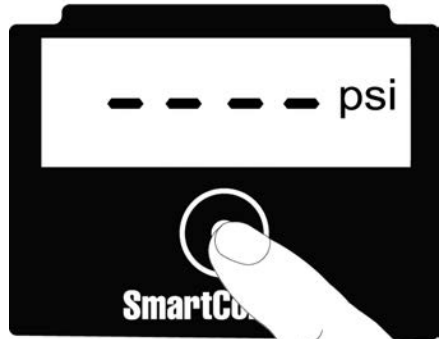


ti03425a

5. Press and hold display button to reset to zero, or short press button to move to Lifetime Gallons (or Liters x 10).

NOTE:

LIFE displays briefly, then the number of gallons sprayed outside of FastFlush.



ti03426a

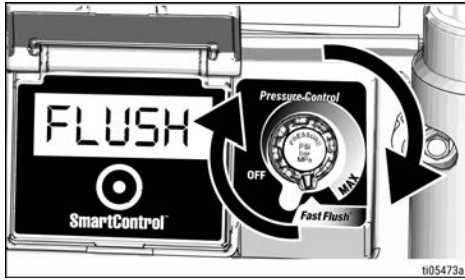
6. To change pressure units (psi, MPa, or bar), press and hold display button for 10 seconds until desired units appear. Selection of MPa or bar changes gallons to Liter x 10.

NOTE:

This only works when pressure is displayed. Pressure units are displayed on right side of display.

FASTFLUSH

The models are equipped with FastFlush, a high-flow cleaning system that lets you clean your sprayer twice as fast while using half of the cleaning fluid. To activate FastFlush, turn the Pressure Control knob to the FastFlush setting. You will feel a noticeable detent in the knob, and FLUSH will flash on the display when FastFlush is engaged.



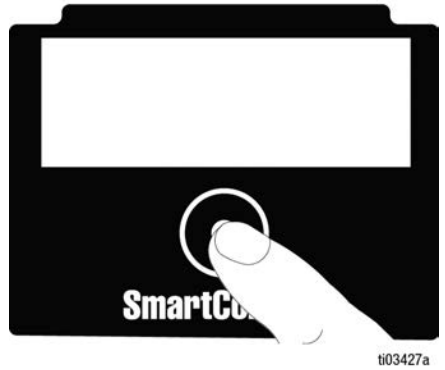
NOTE:
FastFlush is specifically designed to clean the internal components of the sprayer and should only be used with flushing fluids, such as water or mineral spirits. When in FastFlush, the sprayer will not spray paint or other materials.

STORED DATA DISPLAY

The Stored Data Display provides information about the sprayer and sprayer usage.

1. Perform **Pressure Relief Procedure**.

2. Press and hold display button while turning ON/OFF Button to **ON** position.



NOTE:
SERIAL CODE displays briefly, then the serial number.



3. Short press display button to see motor data.

NOTE:
MOTOR displays briefly, then the total motor run hours is displayed.



ti03493a



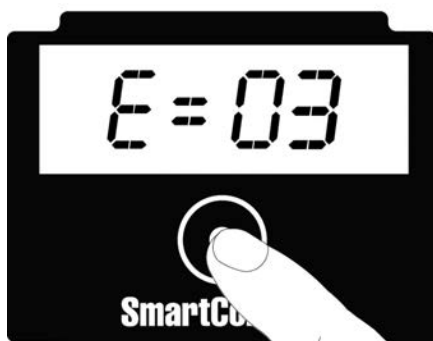
ti03480a

4. Short press display button and the last error code is displayed: e.g., **E=03**. See **Electrical** for troubleshooting information.



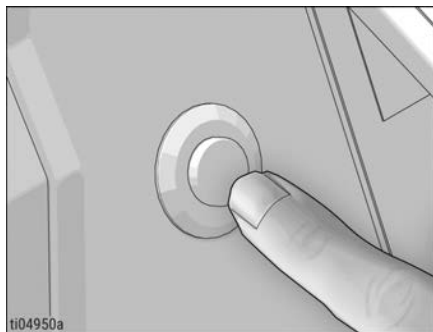
ti03429a

5. Press and hold display button to clear error code to NONE.



ti03430a

6. Short press display button to move to motor controller software rev.
 7. Short press display button to move to display software rev.
 8. Short press display button to move to sprayer ID.
 9. Short press display button to move to **Knob Calibration** and **Transducer Calibration**.
 10. Turn ON/OFF Button to **OFF** position to exit Stored Data.



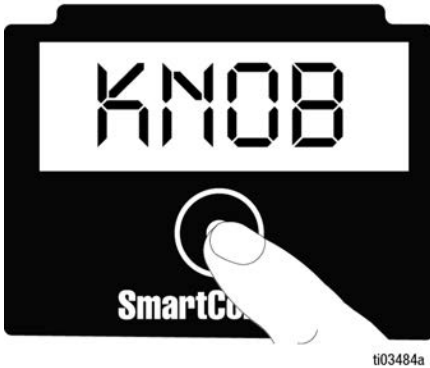
ti04950a

KNOB CALIBRATION

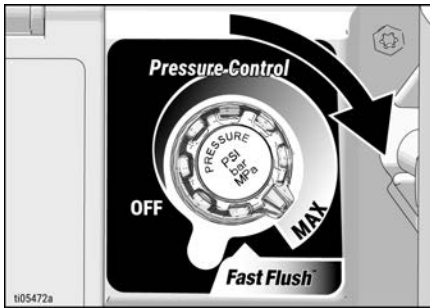
Knob calibration should be performed whenever a new Pressure Control knob is installed or the control board is replaced.

OPERATION

1. To perform knob calibration, enter secondary menu by holding menu button while the sprayer is powered on.
2. Use display button to navigate to knob calibration screen.



3. Set Pressure Control knob to max spray position, just before FastFlush.



4. Press and hold display button until display shows PASS.



5. Turn Pressure Control knob back to **OFF** position before restarting and reusing the sprayer.

TRANSDUCER CALIBRATION

Transducer calibration should be performed whenever a new transducer is installed or the control board is replaced.

1. Perform **Pressure Relief Procedure**.
2. To perform transducer calibration, enter secondary menu by holding display button while the sprayer is powered on.
3. Use display button to navigate to 0 (zero) calibration screen.

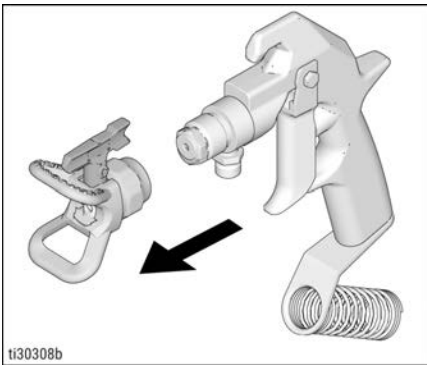


4. Make sure Prime/Spray Valve is down to the Prime position and there is no pressure in the sprayer.
5. Press and hold display button until display shows PASS.

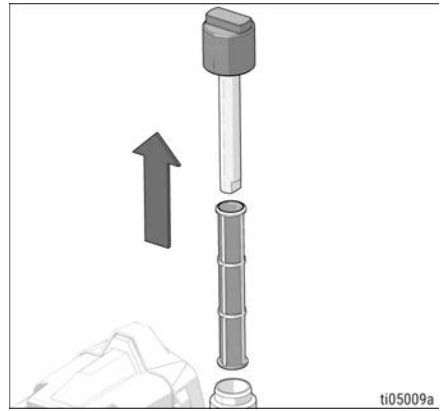


WARNING				
				
<p>To avoid serious injury from fire and explosion when using flammable materials:</p> <ul style="list-style-type: none"> • Do not spray solvents through the spray tip. Always remove tip guard and spray tip before flushing. Clean tip guard and spray tip in a bucket of compatible solvent. • Clean in a well-ventilated area. Keep a good supply of fresh air moving through the area. • When flushing with solvents, always ground the striper and waste container. 				

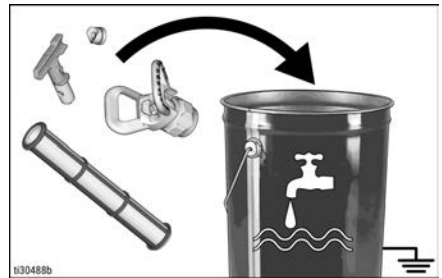
1. When using flammable material, follow **Grounding Instructions**.
2. Follow **Clean and Flushing Fluid Compatibility**.
3. Remove Battery, see **Battery Installation and Removal**.
4. Perform **Pressure Relief Procedure**.
5. Remove Rac Guard and Rac Tip. For additional information, see separate gun manual.



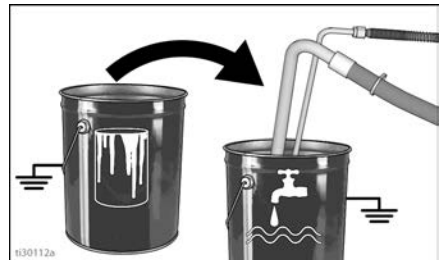
6. Unscrew cap, remove Filter. Assemble without Filter. Clean Filter.



7. Clean gun Filter (if installed), Rac Guard and Rac Tip in flushing fluid. See **Cleanup**.

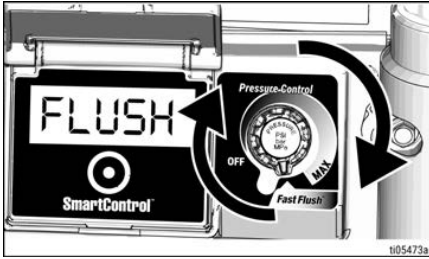


8. Remove Siphon Hose set from paint and place in flushing fluid. Use water or pump conditioner for water-based paint and mineral spirits for oil-based paint.



9. Install Battery, see **Battery Installation and Removal**.

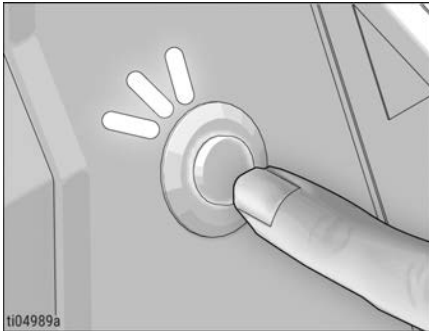
10. Turn the Pressure Control knob to the FastFlush setting.



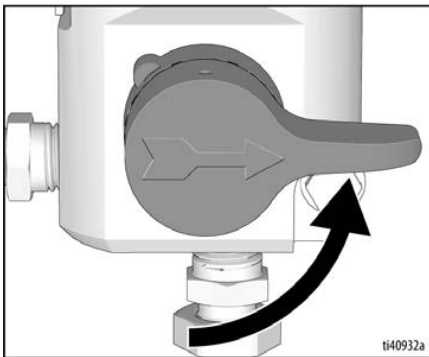
NOTE:

You will feel noticeable detent in the knob, and FLUSH will flash on the display when FastFlush is engaged. See FastFlush, for additional information.

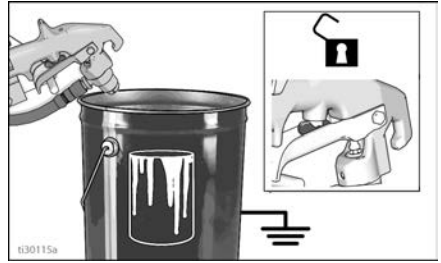
11. Switch ON/OFF Button to ON position. Button is illuminated when ON.



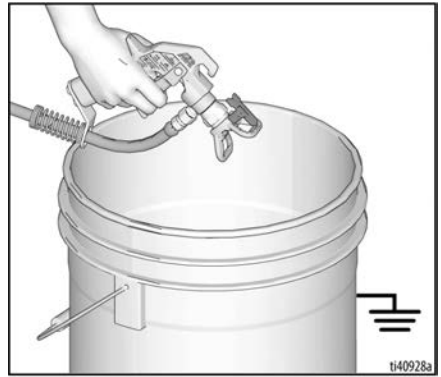
12. Close Prime/Spray Valve.



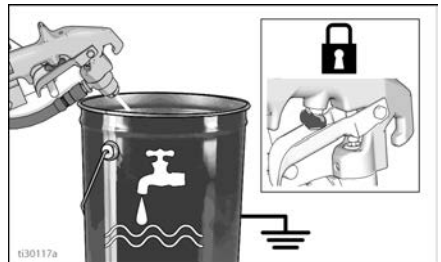
13. Hold gun against a grounded paint pail. Disengage gun Trigger Lock.



14. Gradually turn Pressure Control knob up until motor begins to drive pump. Trigger gun until flushing fluid appears.

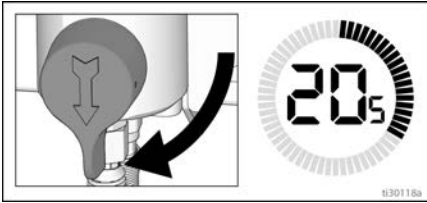


15. Move gun to flushing pail, hold gun against a grounded pail, trigger gun to thoroughly flush system. Release trigger and engage Trigger Lock.



CLEANUP

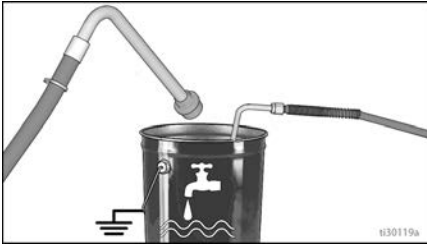
16. Open Prime/Spray Valve and allow flushing fluid to circulate for 20 seconds to clean Drain Hose.



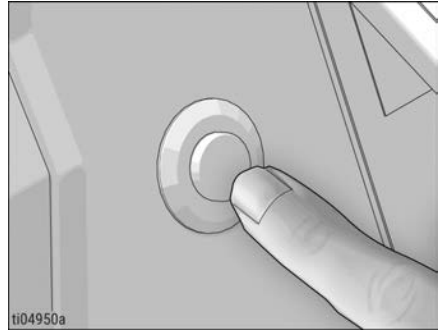
NOTICE

DO NOT run Pump without fluid flow.
Damage to packings can occur.

17. Raise Siphon Hose above flushing fluid and run striper for 15 to 30 seconds to drain fluid.



18. Switch ON/OFF Button to **OFF**. Power button is NOT illuminated when OFF.



NOTICE

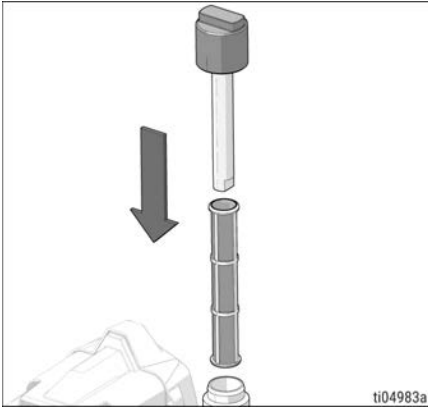
If flushing with water, do not leave water in striper for extended periods. Flush again with Pump Armor and leave protective coating in the striper to prevent freezing or corrosion and to increase striper life.



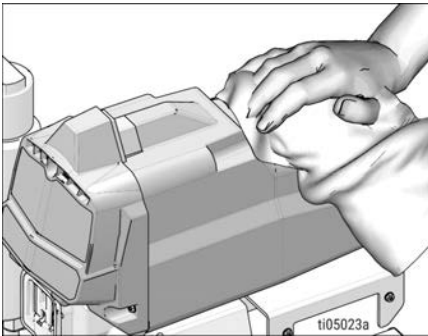
19. Close Prime/Spray Valve. Trigger gun into flushing pail to purge fluid from hose. Open Prime/Spray Valve.



20. Install Filter into filter bowl. Make sure plastic center tube is tightened securely.



21. Clean Rac Tip, Rac Guard, and gasket with a soft bristle brush to prevent part failure due to dried materials. Assemble parts and attach loosely onto gun.
22. Wipe striper, hose, and gun with a rag soaked in water or mineral spirits.



CLEANING AND FLUSHING FLUID COMPATIBILITY

When flushing with flammable materials, always follow **Grounding Instructions**.

IF YOU ARE GOING TO:	FLUSH WITH:	PRIME WITH:	CLEAN WITH:	STORE WITH:
Spray with new striper or striper that has been stored	Compatible fluid such as water or mineral spirits	Compatible paint, such as water-based or oil-based	Compatible fluid such as water or mineral spirits	Mineral spirits
Spray water-based paint	Warm, soapy water, then clean water	Water-based paint	Warm, soapy water, then clean water	Mineral spirits
Spray oil-based paint	Mineral spirits	Oil-based paint	Mineral spirits	Mineral spirits
Change water-based to oil-based paint	Warm, soapy water, then clean water	Mineral spirits	Mineral spirits	Mineral spirits
Change oil-based to water-based paint	Mineral spirits, soapy water, then clean water	Water-based paint	Warm, soapy water, then clean water	Mineral spirits
Change colors, same base	Compatible fluid such as water or mineral spirits	---	---	---

MAINTENANCE

Follow the service schedule to keep the LineLazer® ES 3400 Airless Line Striper in good condition for optimal use.

Routine maintenance is important to ensure proper operation of your sprayer. Maintenance includes performing routine actions that keep your sprayer in operation and prevents trouble in the future.



ACTIVITY	INTERVAL
Inspect/clean sprayer filter, fluid inlet strainer, and gun filter.	Daily or each time you spray
Inspect motor shield vents for blockage.	Daily or each time you spray
Fill TSL by adding through TSL fill point.	Daily or each time you spray
<p>Check sprayer stall.</p> <p>With spray gun NOT triggered, sprayer motor should stall and not restart until gun is triggered again.</p> <p>If sprayer starts again with gun NOT triggered, inspect pump for internal/external leaks and check Prime/Spray Valves for leaks.</p>	Every 1000 gallons (3785 liters)
<p>Throat packing adjustments.</p> <p>When pump packing begins to leak after extended use, tighten packing nut down until leakage stops or lessens. This allows approximately 100 gallons of additional operation before a repacking is required. Packing nut can be tightened without removing o-ring.</p>	As necessary based on usage

TROUBLESHOOTING

When problems occur, use the table to identify potential causes and solutions to repair the LineLazer® ES 3400 Airless Line Striper.

2. Check all possible problems and causes before disassembling the unit.

MECHANICAL/FLUID FLOW



1. Follow **Pressure Relief Procedure** before checking or repairing.

PROBLEM	CAUSE	SOLUTION
Pump output is low.	Spray tip worn.	Follow Pressure Relief Procedure then replace tip. See separate gun or tip manual.
	Spray tip clogged.	Follow Pressure Relief Procedure . Check and clean spray tip.
	Paint supply.	Refill and reprime pump.
	Intake strainer clogged.	Remove and clean, then reinstall.
	Intake valve ball and piston ball are not seating properly.	Remove intake valve and clean. Check balls and seats for nicks; replace if necessary. See pump manual. Strain paint before using to remove particles that could clog Pump.
	Fluid filter or tip filter is clogged or dirty.	Clean Filter.
	Prime/Spray Valve leaking.	Follow Pressure Relief Procedure then repair Prime/Spray Valve.
	Verify Pump does not continue to stroke when gun trigger is released. (Prime/Spray Valve not leaking.)	Service Pump. See pump manual.
	Leaking around throat packing nut, which may indicate worn or damaged packings.	Reaplace packings. See pump manual. Also check piston valve seat for hardened paint or nicks and replace if necessary. Tighten packing nut/wet-cup.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
	Battery has insufficient charge.	Charge Battery.
	Pump rod is damaged.	Repair Pump. See pump manual.
	Low stall pressure (pressure setting too low.)	Turn pressure knob fully clockwise. Make sure Pressure Control knob is properly installed to allow full clockwise position. If problem persists, replace Pressure Control.
	Piston packings are worn or damaged.	Replace packings. See pump manual.
	O-ring in pump is worn or damaged.	Replace o-ring. See pump manual.
	Intake valve ball is packed with material.	Clean intake valve. See pump manual.
	Large pressure drop in hose with heavy materials.	Reduce overall length of hose.
Motor runs but pump does not stroke.	Connecting rod assembly is damaged. See pump manual.	Replace connecting rod assembly. See pump manual.
	Gears or drive housing is damaged.	Inspect drive housing assembly and gears for damage and replace if necessary.
Excessive paint leakage into throat packing nut.	Throat packing nut is loose.	Remove throat packing nut spacer. Tighten throat packing nut just enough to stop leakage.
	Throat packings are worn or damaged.	Replace packings. See pump manual.
	Displacement rod is worn or damaged.	Replace rod. See pump manual.
Fluid is spitting from gun.	Air in Pump or hose.	Check and tighten all fluid connections. Cycle Pump as slowly as possible during priming.
	Spray tip is partially clogged.	Clear tip. See Clear Tip Clog .
	Fluid supply is low or empty.	Refill fluid supply. Prime Pump. See pump manual. Check fluid supply often to prevent running Pump dry.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
Pump is difficult to prime.	Air in Pump or hose.	Check and tighten all fluid connections. Cycle Pump as slowly as possible during priming.
	Intake valve is leaking.	Clean intake valve. Be sure ball seat is not nicked or worn and that ball seats well. Reassemble valve.
	Pump packings are worn.	Replace pump packings. See pump manual.
	Paint is too thick.	Thin the paint according to supplier recommendations.
Sprayer operates for 5 to 10 minutes then stops.	Pump packing nut is too tight. When pump packing nut is too tight the packings on the pump rod restrict pump action and overload the motor.	Loosen pump packing nut. Check for leaks around throat. If necessary, replace pump packings. See pump manual.
	Battery has insufficient charge.	Charge Battery.
Sprayer makes no sound when Pressure Control knob is ON and ON/OFF Button is ON (illuminated).	ON/OFF Button light blinks two times when Pressure Control is ON. Indicates incorrect voltage.	Replace Battery with a charged Battery.
		Battery has reached end of life. Replace Battery.
	ON/OFF Button light blinks three times when Pressure Control is ON. Indicates Battery temperature is too hot or too cold.	Allow Battery to cool down or warm up to room temperature.
	ON/OFF Button light blinks four times when Pressure Control knob is ON. Indicates locked rotor condition.	Replace Pump and/or motor assembly.
	ON/OFF Button light blinks five times when Pressure Control knob is ON. Indicates motor temperature is too hot.	Allow motor to cool down to room temperature.
ON/OFF Button does not illuminate when pressed.	Indicates Battery is not installed, has insufficient charge, or is damaged.	Install Battery correctly, ensure Battery is fully charged, or replace Battery.
	Control board is damaged.	Replace control board.

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
	Power button is damaged.	Replace power button.
ON/OFF Button is constantly illuminated (does not turn off).	Control board is damaged.	Replace control board.

ELECTRICAL

Use the table to identify potential causes and solutions when the sprayer does not run, stops running, or will not shut off.

1. Perform **Pressure Relief Procedure**.
2. Turn the ON/OFF Button to **OFF**, wait 30 seconds and then turn power back **ON** again.
3. Turn Pressure Control knob clockwise 1/2 turn.

WARNING				
<p>To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid, and moving parts, follow the Pressure Relief Procedure when you stop spraying and before cleaning, checking, or servicing the equipment.</p> <p>Keep clear of moving parts during troubleshooting procedures.</p>				

PROBLEM	CAUSE	SOLUTION
Motor does not run: Verify Battery is correctly installed and fully charged, and ON/OFF Button is on.	Battery has insufficient charge.	Charge Battery.
	Battery is defective.	Replace Battery.
	Motor control is damaged.	Consult a Graco authorized retailer, distributor, or service center.
Sprayer does not run at all.	Check Pressure Control connections.	Make certain connector is clean and firmly connected.
	Check Pressure Control.	Connect known good Pressure Control. If the motor runs, replace Pressure Control.
	Check motor leads.	Make certain terminals are clean and firmly connected.
Sprayer has an error.	Check Sprayer Error Code Messages .	See Sprayer Error Code Messages .
Pressure reading is erratic.	Transducer connection may be wet.	Unplug transducer and allow transducer to dry.
Battery Management System has an error.	Check error code messages for Battery Management System.	See Error Code Messages - Battery Management System .

TROUBLESHOOTING

SPRAYER ERROR CODE MESSAGES

CODE	MESSAGE	ACTION
02	Code 02 - High pressure detected	Relieve pressure. Check for clogs in filters and hoses. Use minimum 25 ft (8 m) of Graco hose. Check transducer.
03	Code 03 - Pressure transducer not detected	Turn sprayer OFF and remove Battery from the sprayer. Remove shroud. Check transducer cable and connection to control board. Check transducer.
04	Code 04 - High Voltage	Turn sprayer OFF and remove the Battery from the sprayer. Locate fully charged approved Battery to prevent damage to electronics.
05	Code 05 - Motor not spinning due to high mechanical load	Turn sprayer OFF and remove Battery from the sprayer. Attempt to spin motor. Motor should spin freely. If motor does not spin easily, remove Pump and recheck by spinning motor again. If motor spins easily, check control board.
06	Code 06 - Motor thermal protection enabled	Allow time to cool. This may take up to an hour. Check vents in bottom and top of sprayer for blockage. Remove Battery from the sprayer and check to make sure the motor spins freely.
09	Code 09 - Connection to hall board failed	Turn sprayer OFF and remove Battery from the sprayer and wait 5 minutes. Remove shroud. Check cables and connections. Check motor.
12	Code 12 - Excessive current protection enabled	Cycle power ON and OFF . If problem persists, check motor.
15	Code 15 - Motor not spinning, no motor current detected	Turn sprayer OFF and remove Battery from the sprayer and wait 5 minutes. Remove shroud. Check cables and connections. Check control board. Check motor.
18	Code 18 - Communication to expansion/display board failed	Turn sprayer OFF and remove Battery from the sprayer and wait five minutes. Remove shroud. Check cables and connections.
21	Code 21 - Control board thermal protection enabled	Allow time to cool. This may take up to an hour. Check vents in bottom and top of sprayer for blockage. Remove Battery from the sprayer and check to make sure the motor spins freely.
LOBAT	LOBAT - Incoming voltage too low for sprayer operation	Turn sprayer OFF and remove Battery from the sprayer. Locate fully charged approved Battery to prevent damage to electronics.

ERROR CODE MESSAGES - BATTERY MANAGEMENT SYSTEM

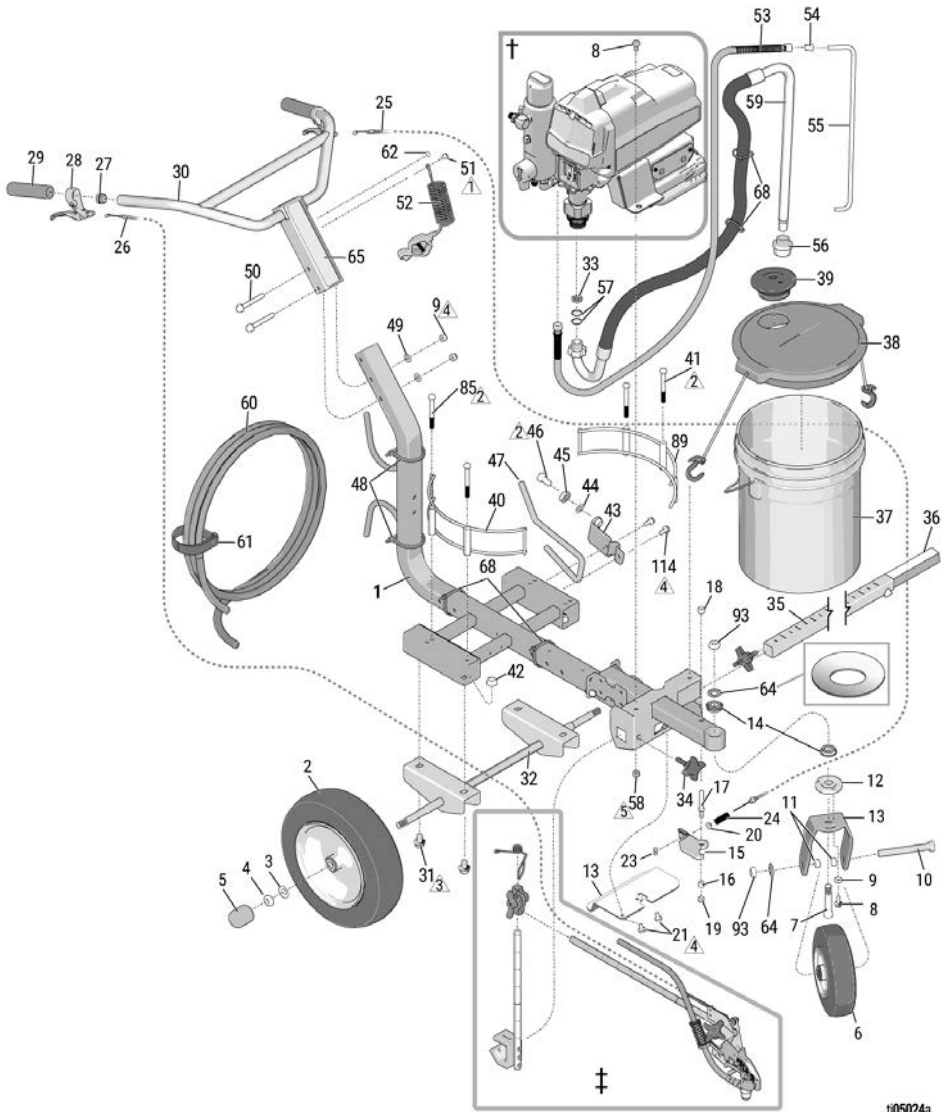
The LineLazer ES 3400 Airless Line Striper includes a Battery Management System (BMS), which is an electronic device to monitor and control use of the Battery while power to the sprayer is ON. At any time the BMS may determine that the Battery is operating outside of the allowed limits, in which case an error code consisting of a specific number of blink sequences will flash on the ON/OFF Button one time before the BMS turns off the power to the sprayer. One blink sequence consists of half a second off followed by half a second on blink of the ON/OFF Button. Count the number of blink sequences to identify the BMS error code (shown in the table).

TROUBLESHOOTING

CODE (# OF BLINK SEQUENCES)	MESSAGE	ACTION
1	ON/OFF Button is mechanically stuck or electrically shorted in the ON state.	<p>Remove Battery, then:</p> <ol style="list-style-type: none"> 1. Check for debris (dried paint, dirt, etc) that may be on the ON/OFF Button and gently clean if necessary. 2. Press ON/OFF Button two or three times to free it if stuck. 3. Replace ON/OFF Button if step 1 or 2 does not remedy the problem.
2	At least one cell of the Battery is below the minimum allowed voltage.	Replace Battery with a fully-charged Battery, and place the original Battery on an approved charger.
3	Battery temperature is too high.	Replace Battery with a fully-charged Battery, and let the original Battery naturally cool.
4	Battery current draw is too high.	<ol style="list-style-type: none"> 1. Check for errors displayed for the sprayer (See Sprayer Error Code Messages). 2. Remove Battery. Check for any obvious signs of damage to the sprayer, such as pinched wiring.
5	BMS self-test has failed.	Wait 10 seconds and retry. If multiple retries do not work, remove battery and check for any obvious signs of damage to the sprayer, such as pinched wiring. If no obvious problem is found, and the self-test failure persists, the BMS should be replaced.
None (ON/OFF Button cannot turn machine ON and button never illuminates).	- - -	<ol style="list-style-type: none"> 1. Remove Battery. 2. Replace with a fully charged Battery, and try ON/OFF Button again. 3. If problem still persists with second Battery, the BMS fuse has likely blown and BMS should be replaced (fuse is not serviceable; must replace entire BMS).

LINELAZER® ES 3400 AIRLESS LINE STRIPER PARTS

The parts illustration and list show the components of the LineLazer® ES 3400 Airless Line Striper and the connections that are required for assembly, repair, and maintenance.



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† See **Motor Module Parts**

‡ See **Gun Arm Parts**

Figure 17-1: LineLazer® ES 3400 Airless Line Striper Parts Diagram

LINELAZER® ES 3400 AIRLESS LINE STRIPER PARTS

REF.	PART	DESCRIPTION	QTY.
1	19D570	FRAME, LL	1
2	119543	WHEEL, large	2
3	119563	WASHER, belleville	4
4	119554	NUT, lock, nylon, thin, 5/8-11 x 25/64 thick	4
5	15C871	CAP	2
6	119542	WHEEL, small	1
7	15E780	PIN, fork	1
8	110963	SCREW, cap, flange hd, 5/16-18 x 0.75 in.	5
9	122669	WASHER, flat	1
10	113665	SCREW, cap, hex hd, 5/8-11 x 5 in.	1
11	15E996	SPACER, wheel	2
12	15E773	DISK, adjuster	1
13	15F127	FORK, painted	1
14	119532	BEARING, flanged	2
15	287682	KIT, repair, caster lever, <i>includes 16</i>	1
16	111016	BEARING, flanged	1
17	15E792	PIN, lever	1
18	101566	NUT, lock, 3/8-16	3
19	111040	NUT, lock, insert, nylock, 5/16-18	1
20	111025	GASKET, polypropylene	1
21	111801	SCREW, cap, hex hd, 5/16-18 x 0.5 in.	2
22	2014307	KIT, plate, skid, ES 3400	1
23	114802	STOP, wire	1

REF.	PART	DESCRIPTION	QTY.
24	114682	SPRING, compression	1
25	241445	KIT, repair, cable, <i>includes 23</i>	1
26	15E992	CABLE, gun	1
27	120151	PLUG, tire	2
28	194310	LEVER, actuator	2
29	116139	GRIP, handle	2
30	24Z284	BAR, handle, weldment	1
31	111802	SCREW, cap, hex hd, 1/2-13 x 0.75 in.	4
32	24Z605	AXLE, weldment, assembly	1
33	110838	NUT, lock, 5/16-18	2
34	108471	KNOB, pronged	1
35	17J407	ARM, extension, bar, weldment	1
36	2014913	KIT, weight, arm	1
37	115077	PAIL, plastic	1
38	24U241	KIT, pail cover	1
39	278723	GASKET, pail	1
40	17N536	HOLDER, bucket	2
41	867517	SCREW, hex hd, 3/8-16 x 3.5 in.	4
42	112731	NUT, hex, flanged, 1/2-13	4
43	198891	BRACKET	1
44	195134	SPACER, ball, guide	1
45	198931	BEARING	1
46	113961	SCREW, cap, hex hd, 1/2-13 x 1 in.	1

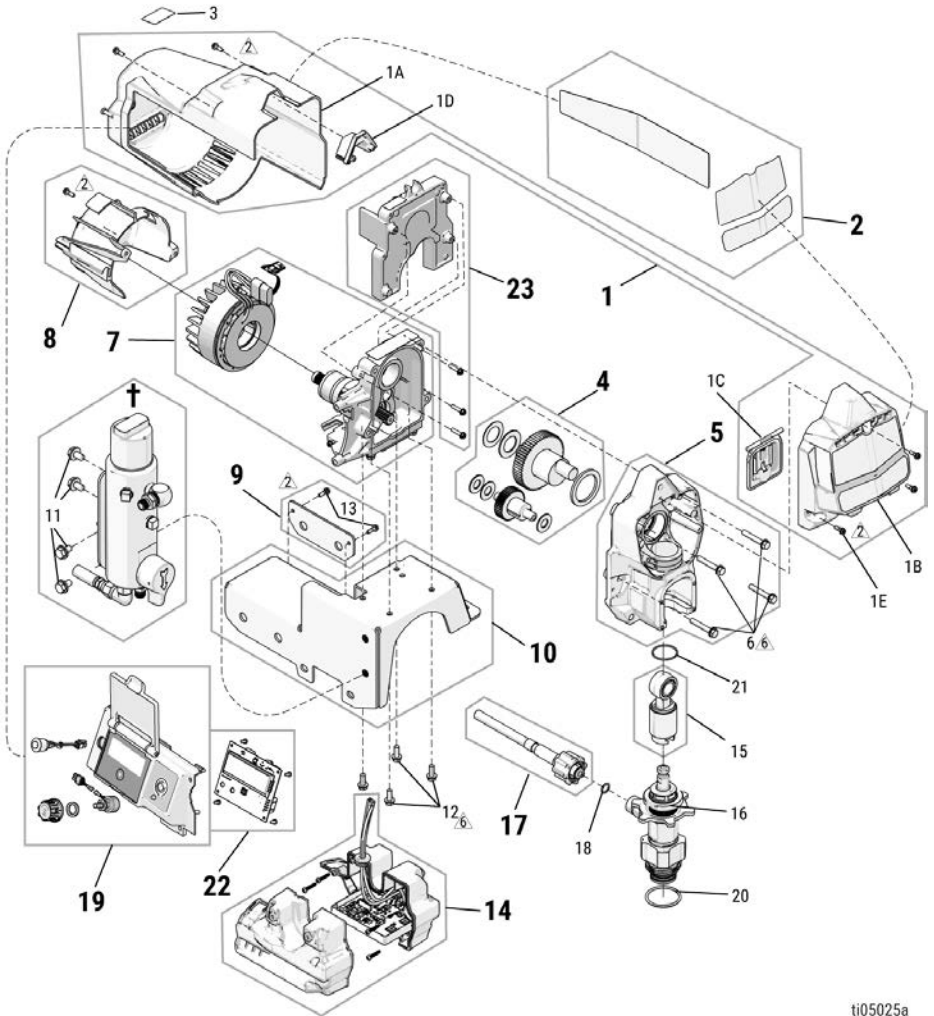
LINELAZER® ES 3400 AIRLESS LINE STRIPER PARTS

REF.	PART	DESCRIPTION	QTY.
47	15E993	ROD, brake	1
48	404989	STRAP, tie	6
49	100731	WASHER	2
50	125626	SCREW, flanged, hex hd, 3/8-16 x 3 in.	2
51	112798	SCREW, thread forming, hex hd, 1/4-20 x 0.375 in.	1
52	237686	WIRE, ground assembly w/ clamp	1
53	249232	HOSE, cpld, 1/4 in. x 3 ft	1
54	196180	BUSHING	1
55	16X071	TUBE, drainline	1
56	17M875	KIT, hose, suction, female, <i>includes 59, 60</i>	1
57	117559	O-RING	2
58	115099	WASHER, garden hose	1
59	246385	KIT, repair, strainer	1
60	249080	HOSE, cpld, 1/4 in. x 50 ft	1
61	114271	STRAP, retaining	1
62▲	16W503	LABEL, safety, ground symbol	1
63▲	222385	LABEL, warning, medical alert (not shown) <i>for models 26U000, 26U001</i>	1
64▲	17A134	LABEL, warning, medical alert (not shown) <i>for model 26U002</i>	1

REF.	PART	DESCRIPTION	QTY.
65	2015166	LABEL, LineLazer handle	1

▲ *Replacement safety labels, tags, and cards are available at no cost.*

MOTOR MODULE PARTS



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† See **Filter Manifold Parts**

Figure 17-2: Motor Module Parts Diagram

LINELAZER® ES 3400 AIRLESS LINE STRIPER PARTS

REF.	PART	DESCRIPTION	QTY.
1	2014289	KIT, shrouds, ES 3400	1
1a		COVER, motor, painted	1
1b		COVER, front, painted	1
1c		COVER, pump rod	1
1d		COVER, insert, handle, shroud, painted	1
1e		SCREW, thread forming, torx pan hd, #8-32 x 0.5 in.	7
2	2014292	KIT, branding labels, LineLazer ES 3400	1
2a		LABEL, branding, LineLazer ES 3400, side	1
2b		LABEL, branding, LineLazer ES 3400, front bottom	1
2c		LABEL, branding, LineLazer ES 3400, front top	1
3▲	2014228	LABEL, warning, safety label	1
4	2011669	KIT, drive	1
5	24W817	KIT, replacement, drive	1
6	117493	SCREW, mach, hex washer hd, 1/2-20 x 1.5 in., <i>includes 6</i>	4
7	2014718	KIT, motor	1
8	2008855	KIT, component holder, <i>includes screw</i>	1

REF.	PART	DESCRIPTION	QTY.
9	2014310	KIT, plate, retainer, bms	1
10	2014311	KIT, shelf, motor, ES 3400	1
11	111801	SCREW, cap, hex hd, 5/16-18 x 0.5 in.	4
12	112774	SCREW, mach, sltd hex wash hd, 1/4-20 x 0.625 in.	4
13	2001659	SCREW, thread forming, torx pan hd, #8-23 x 0.5 in.	2
14	2014720	KIT, clamshell, bms	1
15	2014305	KIT, connecting rod	1
16	19D289	PUMP, displacement	1
17	20A939	KIT, replacement, hose, <i>includes 18</i>	1
18	16H137	O-RING	1
19	2014719	KIT, side shroud, assembly	1
20	117117	O-RING	1
21	16N901	O-RING	2
22	2008840	KIT, display board, <i>includes screws</i>	1
23	2014453	KIT, control board, ES 3400	

▲ Replacement safety labels, tags, and cards are available at no cost.

FILTER MANIFOLD PARTS

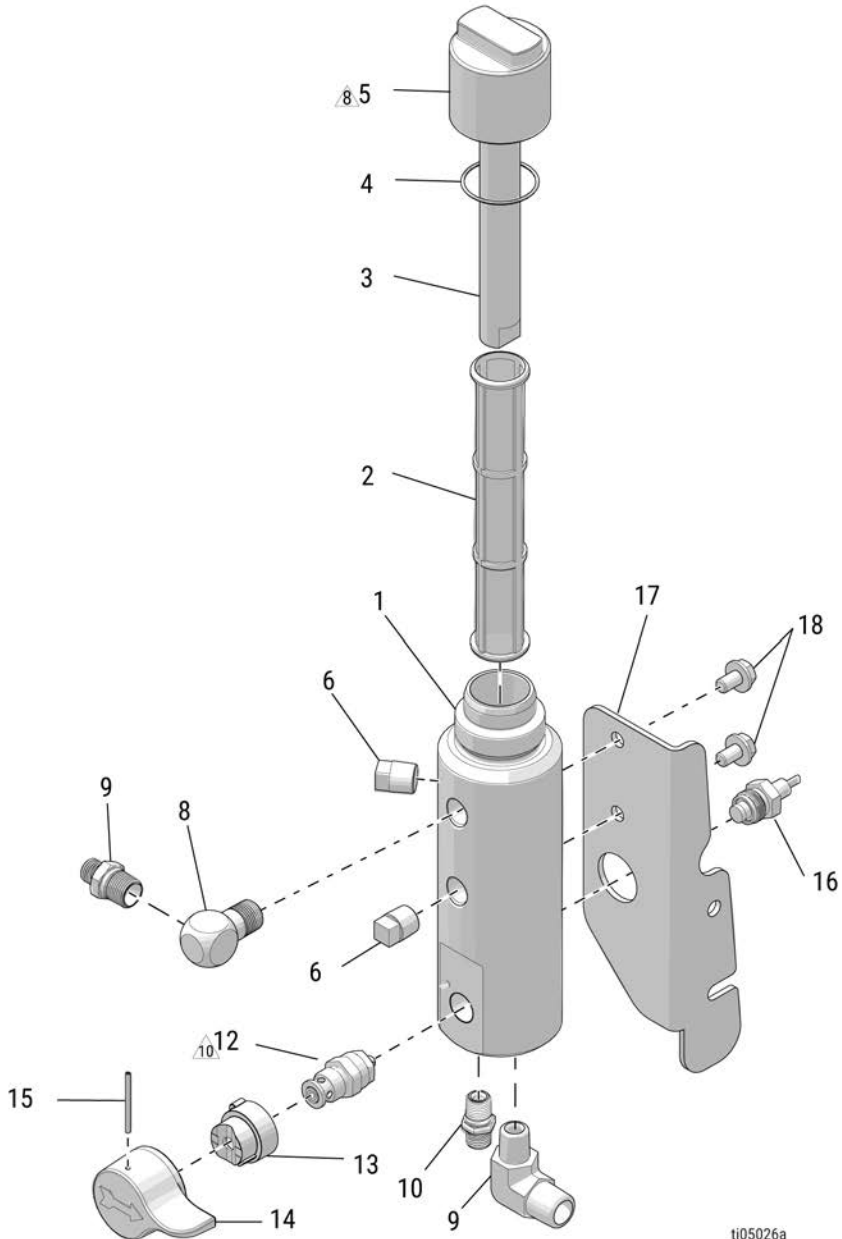


Figure 17-3: Filter Manifold Parts Diagram

LINELAZER® ES 3400 AIRLESS LINE STRIPER PARTS

REF.	PART	DESCRIPTION	QTY.
1	17K166	MANIFOLD, filter	1
2	243984	FILTER, fluid	1
3	15C766	TUBE, diffusion	1
4	117285	PACKING, o-ring	1
5	15C765	CAP, filter	1
6	15G331	PLUG, pipe	2
8	196179	FITTING, elbow, street	1
9	2015303	FITTING, elbow, 3/8 npt x 1/4 npt	2
10	196181	FITTING, nipple	1
12	239914	VALVE, drain	1
13	224807	BASE, valve	1
14	15C780	HANDLE	1
15	15C972	PIN, string	1
16	289672	TRANSDUCER, pressure control	1
17	2013804	BRACKET, manifold, ES 3400	1
18	111801	SCREW, cap, hex hd, 5/16-18 x 0.5 in.	2

GUN ARM PARTS

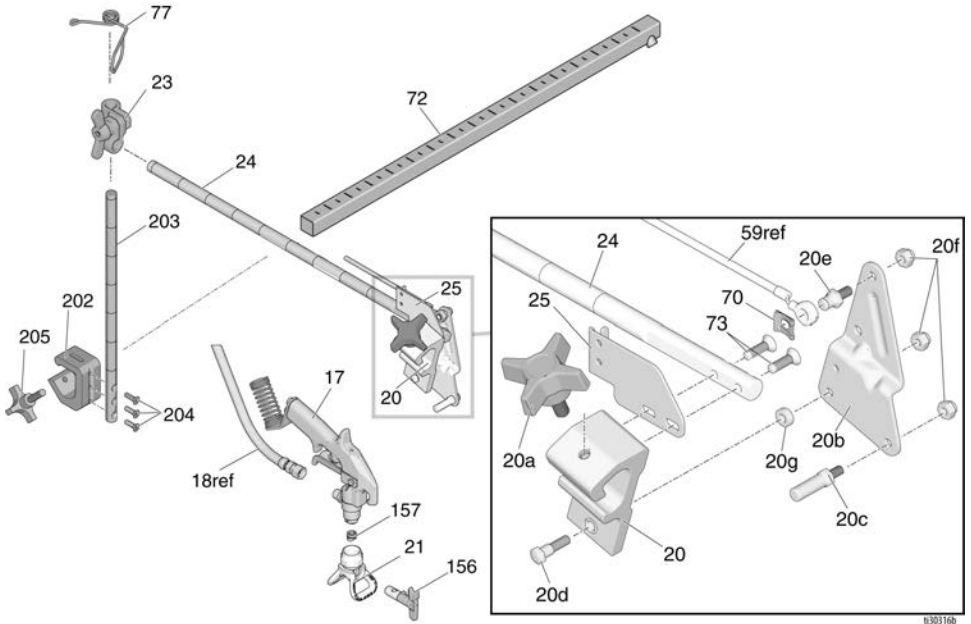


Figure 17-4: Gun Arm Parts Diagram

LINELAZER® ES 3400 AIRLESS LINE STRIPER PARTS












REF.	PART	DESCRIPTION	QTY.
10*	119664	BEARING, sleeve	1
17	248157	GUN, flex	1
20*	15F216	HOLDER, gun	1
20a*	15F750	KNOB, holder, gun	1
20b*	15F214	LEVER, actuator	1
20c*	15F209	STUD, pull trigger	1
20d* †	17J575	FASTENER, special	1
20e*	17H673	STUD, cable	1
20f* †	102040	NUT, lock	3
20g* †	17J576	SPACER, special	1
21	243161	GUARD, Rac V	1
23	287566	KIT, clamp	1
24	17J145	ARM, holder, gun	1
25*	15F213	BRACKET, cable	1
70	*126111	RETAINER, Circle Clip, external, 8mm	1
72	17J407	BRACKET, support gun	1
73	119647	SCREW, cap, socket, flathead	2
77	188135	GUIDE, cable	1
156	LL5317	TIP, spray, striping, includes 157	1
	LL5419	TIP, spray, striping, includes 157	1
157	243281	GASKET, seal, tip, 5 pack (included w/ 156)	1
202	17J424	BAR, height, adjustment, assy, includes 203, 204, 205	1

REF.	PART	DESCRIPTION	QTY.
203*	17J139	BAR, gun, holder	1
204*	113428	SCREW, machine	3
205	108471	KNOB, pronged	1
210*	17H720	STRAP, tie, 5 in.	3

* Included in Gun Holder Repair Kit 25A528

† Included in 4-finger Gun Kit 24Y991

TORQUE SPECIFICATIONS

	80 - 90 on-lbs (9 - 10.2 N·m)
	23 - 27 in-lbs (2.6 - 3.1 N·m)
	25 - 35 in-lbs (2.8 - 4 N·m)
	190 - 210 in-lbs (21.5 - 28.7 N·m)
	17 - 23 ft-lbs (23 - 31 N·m)
	140 - 160 in-lbs (15.8 - 18.1 N·m)
	8 - 10 in-lbs (0.9 - 1.13 N·m)
	10 - 20 in-lbs (1.13 - 2.26 N·m)
	40 - 50 in-lbs (4.5 - 5.6 N·m)
	130 - 140 in-lbs (14.7 - 16.9 N·m)
	48 - 72 in-lbs (5.4 - 8.1 N·m)

ELECTRICAL SCHEMATIC

The wiring diagram illustrates the electronic connections that are useful for troubleshooting and repairing the electrical components of the LineLazer® ES 3400 Airless Line Striper.

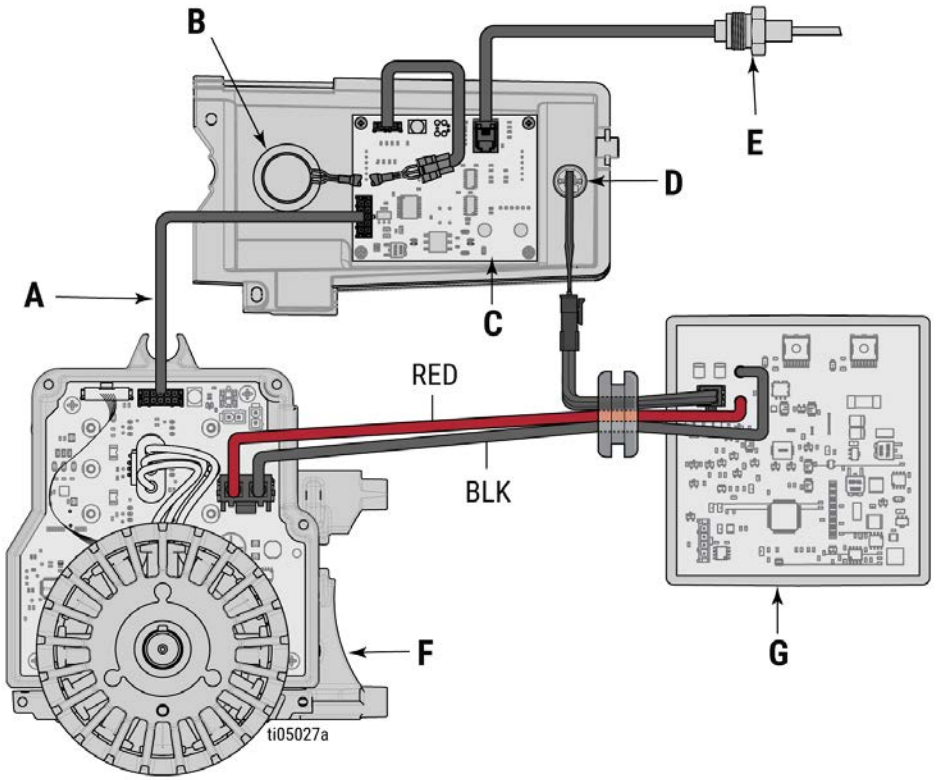


Figure 18-1: Wiring Diagram for LineLazer® ES 3400 Airless Line Striper

KEY

A	Motor Controller to Display Board Communication Cable
B	Pressure Control
C	Display Board
D	Power Button
E	Pressure Transducer
F	Motor Controller
G	Battery Management System (BMS)
BLK	Black
RED	Red

CALIFORNIA PROPOSITION 65

CALIFORNIA RESIDENTS



WARNING Cancer and reproductive harm – www.P65warnings.ca.gov.

GRACO STANDARD WARRANTY

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

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