



## **OWNERS MANUAL X5, X7, ProX17, ProX19, ProX21** 3A4416A



#### FIRE AND EXPLOSION HAZARD

X5/X7 Models:

- Use only non-flammable or water-based materials, or non-flammable paint thinners. Do not use
  materials having flash points lower than 100° F (38° C). This includes, but is not limited to, acetone,
  xylene, toluene, or naphtha. For more information about your material, request Safety Data Sheet
  (SDS) from the supplier.
- Spraying flammable or combustible materials in a factory or fixed location must comply with NFPA 33 and OSHA 1910.94(c) requirements in the USA and with all similar local regulations in other countries.

#### Not approved for use in explosive atmospheres or hazardous locations. For portable airless spraying of architectural paints and coatings.

#### Important Safety Instructions

Read all warnings and instructions in this manual, related manuals, and on the unit. Be familiar with the controls and the proper usage of the equipment. Save these instructions.

# *Before You Spray* Before You Spray

### **Review Warnings for Important Safety Information**

Important! Read carefully and practice good safety habits.

#### **Related Manuals**

Gun: 312830 (SG) ProXChange™ Pump: 3A3172 (ProX only)

Quick Guide:

3A4469 English3A4470 Spanish3A4471 Portuguese (Portugal)3A4473 Korean3A4474 Chinese

# Models

3000 psi (207 bar, 20.7 MPa) Maximum Working Pressure

	VAC	Model	Stand (Series)	Cart (Series)
		X5	16W120 (B)	
		X7	16W121 (B)	
CE		ProX17	17H203 (A)	
	230	ProX19		17H210 (A)
	Schuko	ProX21		17H217 (B)
		X5	17N433 (A)	
		X7	17N434 (A)	
	120V	ProX17	17H202 (A)	
		ProX19		17H209 (A)
		ProX21		17H216 (B)

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# *Warnings* Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

# **WARNING**



#### GROUNDING

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.

- Improper installation of the grounding plug is able to result in a risk of electric shock.
- When repair or replacement of the cord or plug is required, do not connect the grounding wire to either flat blade terminal.
- The wire with insulation having an outer surface that is green with or without yellow stripes is the grounding wire.
- Check with a qualified electrician or serviceman when the grounding instructions are not completely understood, or when in doubt as to whether the product is properly grounded.
- Do not modify the plug provided; if it does not fit the outlet, have the proper outlet installed by a qualified electrician.
- This product is for use on a nominal 120V or 230V circuit and has a grounding plug similar to the plugs illustrated below.





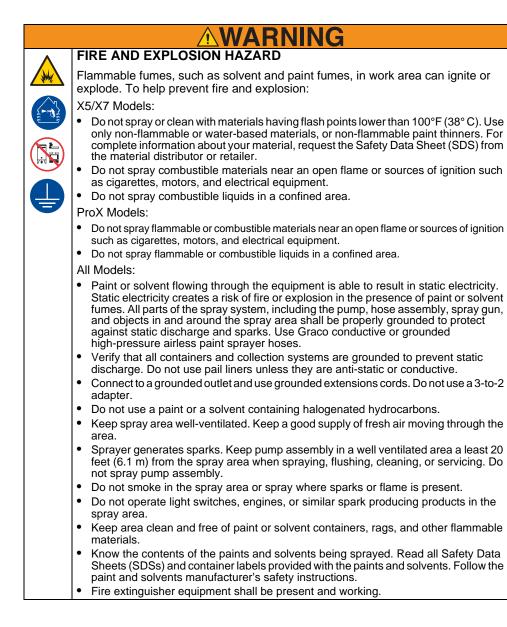
- Only connect the product to an outlet having the same configuration as the plug.
- Do not use an adapter with this product.

#### Extension Cords:

- Use only a 3-wire extension cord that has a grounding plug and a grounding receptacle that accepts the plug on the product.
- Make sure your extension cord is not damaged. If an extension cord is necessary use 12 AWG (2.5mm<sup>2</sup>) minimum to carry the current that the product draws.
- An undersized cord results in a drop in line voltage and loss of power and overheating.

Conductor Size		Length
AWG (American Wire Gauge)	Metric	Maximum
16	1.5 mm <sup>2</sup>	25 ft. (8 m)
12	2.5 mm <sup>2</sup>	50 ft. (15 m)







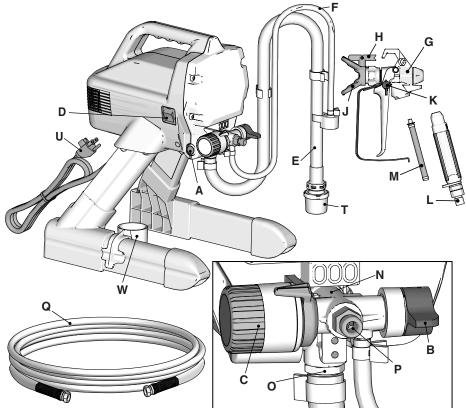
$\wedge$	SKIN INJECTION HAZARD
	High-pressure spray is able to inject toxins into the body and cause serious bodily injury. In the event that injection occurs, <b>get immediate surgical treatment</b> .
	<ul> <li>Do not aim the gun at, or spray any person or animal.</li> <li>Keep hands and other body parts away from the discharge. For example, do not try to stop leaks with any part of the body.</li> <li>Always use the nozzle tip guard. Do not spray without nozzle tip guard in place.</li> <li>Use Graco nozzle tips.</li> <li>Use caution when cleaning and changing nozzle tips. In the case where the nozzle tip clogs while spraying, follow the <b>Pressure Relief Procedure</b> for turning off the unit and relieving the pressure before removing the nozzle tip to clean.</li> <li>Equipment maintains pressure after power is shut off. Do not leave the equipment energized or under pressure while unattended. Follow the <b>Pressure Relief Procedure</b> when the equipment is unattended or not in use, and before servicing, cleaning, or removing parts.</li> <li>Check hoses and parts for signs of damage. Replace any damaged hoses or parts.</li> <li>This system is capable of producing 3000 psi (207 bar, 20.7 MPa). Use Graco replacement parts or accessories that are rated a minimum of 3000 psi (207 bar, 20.7 MPa).</li> <li>Always engage the trigger lock when not spraying. Verify the trigger lock is functioning properly.</li> <li>Verify that all connections are secure before operating the unit.</li> <li>Know how to stop the unit and bleed pressure quickly. Be thoroughly familiar with the controls.</li> </ul>
	EQUIPMENT MISUSE HAZARD
	Misuse can cause death or serious injury.
NPar / Pet	<ul> <li>Always wear appropriate gloves, eye protection, and a respirator or mask when painting.</li> <li>Do not operate or spray near children. Keep children away from equipment at all times.</li> <li>Do not overreach or stand on an unstable support. Keep effective footing and balance at all times.</li> <li>Stay alert and watch what you are doing.</li> </ul>
	<ul> <li>Do not operate the unit when fatigued or under the influence of drugs or alcohol.</li> <li>Do not kink or over-bend the hose.</li> <li>Do not expose the hose to temperatures or to pressures in excess of those specified by Graco.</li> </ul>
	<ul> <li>Do not use the hose as a strength member to pull or lift the equipment.</li> <li>Do not spray with a hose shorter than 25 feet.</li> <li>Do not alter or modify equipment. Alterations or modifications may void agency approvals and exacts a status based on the status of the</li></ul>
	<ul><li>and create safety hazards.</li><li>Make sure all equipment is rated and approved for the environment in which you are using it.</li></ul>

# Warnings

	<b>AWARNING</b>
	ELECTRIC SHOCK HAZARD
4	This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.
	Turn off and disconnect power cord before servicing equipment.
	<ul> <li>Connect only to grounded electrical outlets.</li> <li>Use only 3-wire extension cords.</li> </ul>
	<ul> <li>Ensure ground prongs are intact on power and extension cords.</li> </ul>
	Do not expose to rain. Store indoors.
	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.
	<ul> <li>Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents.</li> </ul>
	<ul> <li>Do not use chlorine bleach.</li> <li>Many other fluids may contain chemicals that can react with aluminum. Contact your material supplier for compatibility.</li> </ul>
	MOVING PARTS HAZARD
	Moving parts can pinch, cut, or amputate fingers and other body parts.
	Keep clear of moving parts.
	<ul> <li>Do not operate equipment with protective guards or covers removed.</li> </ul>
In the second se	<ul> <li>Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the <b>Pressure Relief Procedure</b> and disconnect all power sources.</li> </ul>
	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.
	<ul> <li>Read MSDSs to know the specific hazards of the fluids you are using.</li> </ul>
	<ul> <li>Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.</li> </ul>
	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. This protective equipment includes but is not limited to:
	<ul> <li>Protective eyewear, and hearing protection.</li> </ul>
	<ul> <li>Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.</li> </ul>

# **Know Your Sprayer**

### **X5 Stand Models**

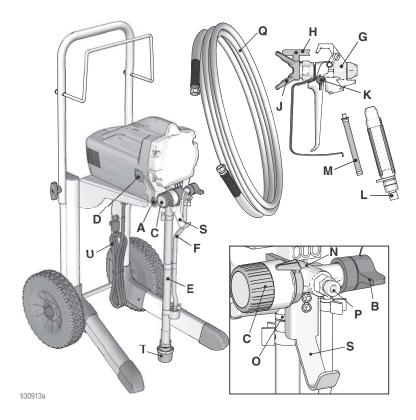


ti30912a

Α	PushPrime <sup>™</sup> Button
В	Prime/Spray Valve
С	Pressure Control Knob
D	ON/OFF Switch
Е	Suction Tube
F	Drain Tube (with diffuser)
G	Airless Spray Gun
Н	Reversible Spray Tip
J	Tip Guard
Κ	Gun Trigger Lock
L	Gun Fitting

М	Gun Filter (inside handle)	
Ν	Pump	
Р	Outlet Valve (airless hose connection)	
0	Inlet Valve	
Q	Airless Hose	
Т	Inlet Strainer	
U	Power Cord	
	Model/Serial Tag (Not shown, located	
	on bottom of unit.)	
W	Suction Tube Drip Cup	
	See Quick Reference, page 32 for more	
information.		

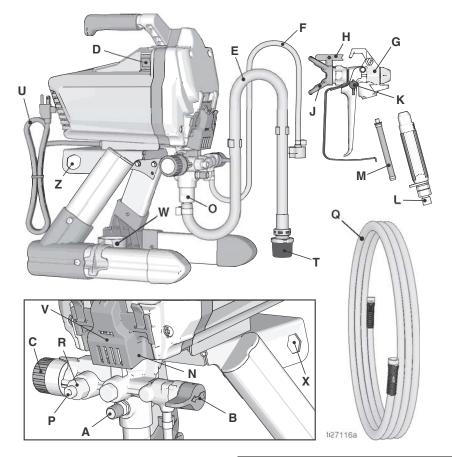
### **X7 Cart Model**



Α	PushPrime <sup>™</sup> Button
В	Prime/Spray Valve
С	Pressure Control Knob
D	ON/OFF Switch
E	Suction Tube
F	Drain Tube (with diffuser)
G	Airless Spray Gun
Н	Reversible Spray Tip
J	Tip Guard
Κ	Gun Trigger Lock
L	Gun Fitting
М	Gun Filter (inside handle)

Ν	Pump		
0	Inlet Valve		
Ρ	Outlet Valve (airless hose connec-		
	tion)		
Q	Airless Hose		
S	Pail Hanger		
Т	Inlet Strainer		
U	Power Cord		
	Model/Serial Tag (Not shown, located		
	on bottom of unit.)		
	See Quick Reference, page 32 for more		
information.			

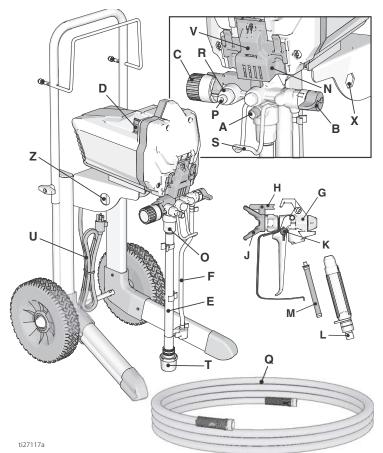
### **ProX Stand Models**



Α	PushPrime <sup>™</sup> Button
В	Prime/Spray Valve
С	Pressure Control Knob
D	ON/OFF Switch
Е	Suction Tube
F	Drain Tube (with diffuser)
G	Airless Spray Gun
Н	Reversible Spray Tip
J	Tip Guard
Κ	Gun Trigger Lock
L	Gun Fitting
М	Gun Filter (inside handle)
Ν	ProXChange™ Pump (behind Easy Access Door)

0	Inlet Valve	
Ρ	Outlet Valve (airless hose connection)	
Q	Airless Hose	
R	InstaClean™ Fluid Filter (inside fluid outlet)	
Т	Inlet Strainer	
U	Power Cord	
V	Easy Access Door	
W	Suction Tube Drip Cup	
Х	Pump Removal Tool	
Ζ	Inlet Valve Removal Tool	
	Model/Serial Tag (Not shown, located on bottom of unit.)	
See <b>Quick Reference</b> , page 32 for more information.		

### **ProX Cart Models**



Α	PushPrime Button
В	Prime/Spray Valve
С	Pressure Control Knob
D	ON/OFF Switch
E	Suction Tube
F	Drain Tube (with diffuser)
G	Airless Spray Gun
Н	Reversible Spray Tip
J	Tip Guard
Κ	Gun Trigger Lock
L	Gun Fitting
М	Gun Filter (inside handle)
Ν	ProXChange Pump (behind Easy Access Door)

0	Inlet Valve	
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U	Power Cord	
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Х	Pump Removal Tool	
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	Model/Serial Tag (Not shown, located on bottom of unit.)	
See <b>Quick Reference</b> , page 32 for more information.		

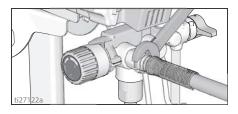


# Setup

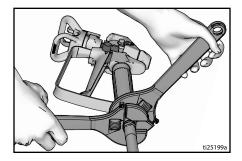
When unpacking sprayer for the first time or after long term storage perform setup procedure.

#### Assemble Your Sprayer

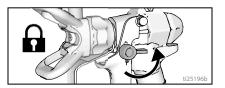
 Connect Graco airless hose to outlet valve fitting. Use wrench to tighten securely.



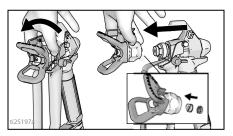
2. Connect other end of hose to gun.



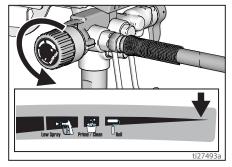
- 3. Use two wrenches to tighten securely. If hose is already connected, make sure connections are tight.
- 4. Engage trigger lock.



5. Remove tip guard. Be careful tip seal may fall out when tip guard is removed.



6. Turn pressure control knob all the way left (counter-clockwise) to lowest setting.



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

#### Strain the Paint

Previously opened paint may contain dried paint or other debris. To avoid priming problems and spray tip clogs it is recommended to strain the paint before using. Paint strainers are available where paint is sold. Stretch a paint strainer over a clean pail and pour the paint through the strainer to capture any dried paint and debris before spraying.



# Start Up

## Start Up



#### **Pressure Relief Procedure**



Follow the Pressure Relief Procedure whenever you see this symbol.

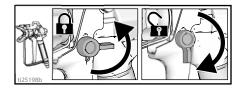


This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection or splashed fluid, follow the **Pressure Relief Procedure** whenever sprayer is stopped and before sprayer is cleaned or checked, and before equipment is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

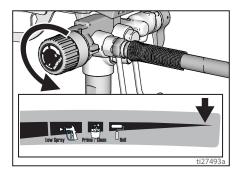
1. Turn ON/OFF switch to the **OFF** position.



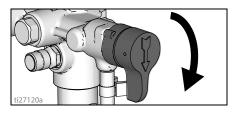
2. Engage the trigger lock. Always engage the trigger lock when sprayer is stopped to prevent the gun from being triggered accidentally.



3. Turn pressure control knob to lowest setting.



4. Put drain tube into a waste pail and turn Prime/Spray valve in PRIME position to relieve pressure.



 Hold the gun firmly to a pail. Point gun into pail. Disengage the trigger lock and trigger the gun to relieve pressure.



6. Engage the trigger lock.

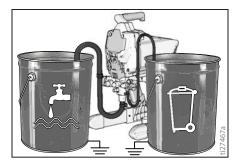
# Start Up

- If you suspect the spray tip or hose is clogged or that pressure has not been fully relieved:
  - a. VERY SLOWLY loosen the tip guard retaining nut or the hose end coupling to relieve pressure gradually.
  - b. Loosen the nut or coupling completely.
  - c. Clear airless hose or spray tip obstruction. See Clear Tip Clog, page 21.

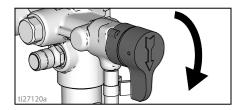
### Flush Storage Fluid

This sprayer arrives from the factory with a small amount of test material in the system. It is important that you flush this material from the sprayer before using it. See Cleaning Fluid Compatibility, page 30 and Static Grounding Instructions (Oil-Based materials), page 30 for additional information when using oil-based materials.

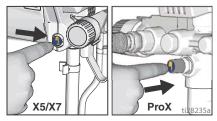
- 1. Perform **Pressure Relief Procedure**, page 13.
- 2. Make certain ON/OFF switch is OFF.
- 3. Separate drain tube (smaller) from suction tube (larger).
- 4. Place drain tube in a waste pail.
- Submerge suction tube in a pail partially filled with water or flushing fluid. If spraying oil-based materials, submerge the suction tube in mineral spirits, or compatible cleaning solvent. If spraying water-based materials, submerge the suction tube in water.



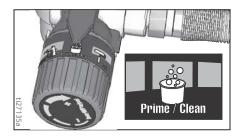
6. Turn Prime/Spray valve down to PRIME position.



- 7. Plug power supply cord into a properly grounded electrical outlet.
- 8. Press PushPrime button twice to loosen inlet valve ball.



9. Align setting indicator with Prime/Clean setting on pressure control knob.



10. Turn ON/OFF switch to **ON** position.

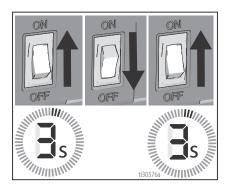




- 11. When sprayer starts pumping, flushing fluid and air will be purged from the sprayer. Allow fluid to flow out of drain tube, into waste pail, for 30 to 60 seconds.
- 12. Turn ON/OFF switch to **OFF** position.

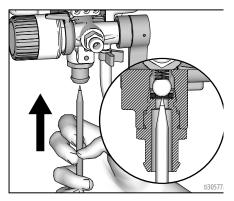
If flushing fluid fails to come out of the drain tube, perform the steps below until flushing fluid flows up the suction tube and out the drain tube.

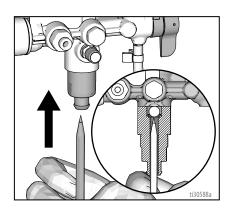
 Some fluids prime faster if the ON/OFF switch is toggled on and off so the pump can slow and stop. Turn ON/OFF switch ON for three seconds, then OFF until motor stops, then ON again for three seconds, then OFF until motor stops. Continue until sprayer is primed. If flushing fluid does not flow up suction tube, see next step.



2. Remove suction tube. Insert pointed end of a pencil into the inlet and push up to free inlet valve ball.

Install suction tube and repeat **Flush Storage Fluid**, page 14.

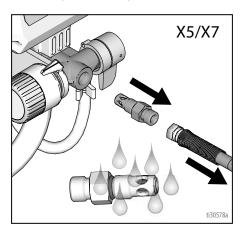


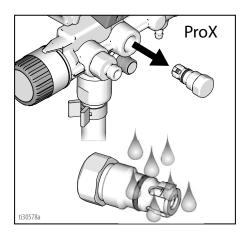


# Start Up

3. Remove outlet valve and clean. Make certain outlet ball moves free in the housing.

Install outlet valve and repeat **Flush Storage Fluid**, page 14.



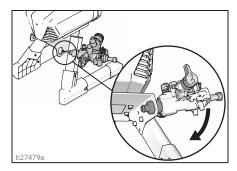


4. Remove suction tube. Remove inlet valve and clean. Make certain the spring is facing up when the inlet ball and valve are installed.

Install inlet valve and suction tube and repeat **Flush Storage Fluid**, page 14.

#### **ProX Inlet Valve Removal**

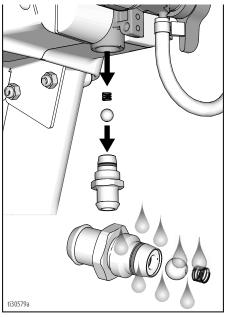
An integrated tool is included in the frame to remove the inlet valve assembly from the pump. If you suspect that the inlet valve is clogged or stuck, remove the valve assembly and clean or replace. Insert pump inlet into frame and loosen the inlet valve. Remove inlet valve.

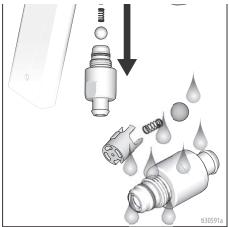


#### NOTICE

Do not lose the ball and spring inside the inlet valve assembly. It may fall out when the inlet valve is removed. Pump will not prime without the ball and spring.







5. Perform a power flush. See Cleanup with Power Flush Adapter, page 23.

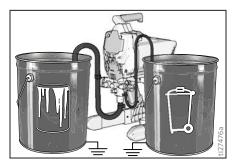


High-pressure spray is able to inject toxins into the body and cause serious bodily injury. Do not stop leaks with hand or rag.

Inspect for leaks. If leaks occur, perform **Pressure Relief Procedure**, page 13, then tighten all fittings and repeat **Start Up**. If there are no leaks continue with the next step.

### Fill Pump (Prime Pump)

1. Move suction tube to paint pail and submerge suction tube in paint.



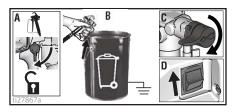
- 2. Turn ON/OFF switch to ON position.
- Wait to see paint coming out of drain tube.
- 4. Turn ON/OFF switch to OFF position.

**NOTE:** If paint does NOT flow up the suction tube and out the drain tube, follow the **Flush Storage Fluid**, steps 1 - 5, in this section.

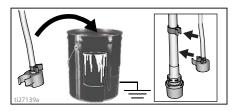
## Start Up

### Fill Gun and Hose

- 1. Hold gun against waste pail. Point gun into waste pail.
  - a. Disengage trigger lock.
  - b. Pull and hold gun trigger.
  - c. Turn Prime/Spray valve horizontal to SPRAY position.
  - d. Turn ON/OFF switch to **ON** position.



- 2. Trigger gun into waste pail until only paint comes out of the gun.
- 3. Release trigger. Engage trigger lock.
- 4. Transfer drain tube to paint pail and clip to suction tube.



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

# How to Spray

# How to Spray

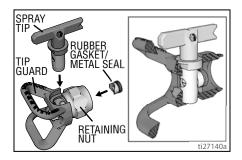


To avoid serious injury from skin injection do not put your hand in front of the spray tip when installing or removing the spray tip and tip guard.

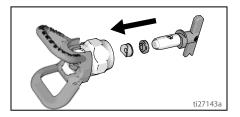
### Spray Tip Installation

To prevent spray tip leaks make certain spray tip and tip guard are installed properly.

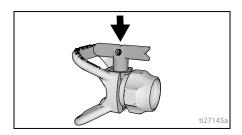
- 1. Perform **Pressure Relief Procedure**, page 13.
- 2. Engage trigger lock.
- 3. Verify spray tip and tip guard parts are assembled in the order shown.



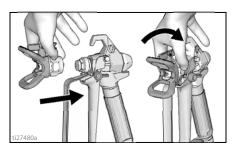
a. Use spray tip to align gasket and seal in the tip guard.



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 and tip guard assembly onto the gun and tighten.



# How to Spray

### **Adjust Pressure Control**

The pressure control knob allows for infinite pressure adjustment. To reduce overspray, always start at the lowest pressure setting and increase pressure to the minimum setting that results in an acceptable spray pattern.



To select function, align symbol on pressure control knob with setting indicator on sprayer.

### **Tip and Pressure Selection**

See table for recommended spray pressure for your material. Refer to paint (material) can for manufacturer's recommendations.

Maximum tip hole sizes supported by the sprayer:

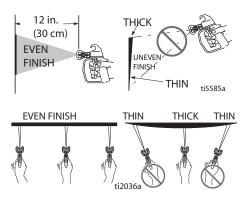
- X5: 0.015 in. (0.38 mm) X7: 0.017 in. (0.43 mm)
- ProX17: 0.017 in. (0.43 mm) ProX19: 0.019 in. (0.48 mm) ProX21: 0.021 in. (0.53 mm)

	Coatings				
	Interior Stains/ Interior & Exterior Clears	Exterior Solid Stains	Primers	Interior Latex Paints	Exterior Latex Paints
Spray Pressure	Low Spray	High Spray	High spray	High Spray	High Spray
Tip hole Size					
0.011 in. (0.28 mm)	~				
0.013 in. (0.33 mm)	~	~	~	$\checkmark$	
0.015 in. (0.38 mm)		~	~	~	~
0.017 in. (0.43 mm)			~	~	~
0.019 in. (0.48 mm)					~
0.021 in. (0.53 mm)					~

### Spray Techniques

Use a piece of scrap cardboard to practice these basic spraying techniques before you begin spraying the surface.

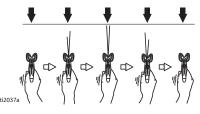
- Hold gun 12 in. (30 cm) from surface and aim straight at surface. Tilting gun to direct spray angle causes an uneven finish.
- Flex wrist to keep gun pointed straight. Fanning gun to direct spray at angle causes uneven finish.



How to Spray

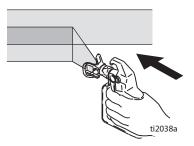
## **Triggering Gun**

Pull trigger after starting stroke. Release trigger before end of stroke. Gun must be moving when trigger is pulled and released.



## **Aiming Gun**

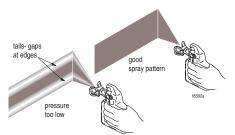
Aim center of spray of gun at bottom edge of previous stroke, overlapping each stroke by half.



## Spray Pattern Quality

A good spray pattern is evenly distributed as it hits the surface.

• Spray should be atomized (evenly distributed, no gaps at edges).



If tails persist when spraying at the highest spray pressure:

• Spray tip may be worn. See **Tip and Pressure Selection**, page 20.

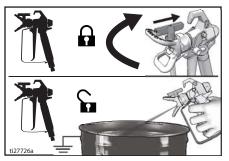
- A smaller spray tip may be needed.
- Material may need to be thinned. If material needs to be thinned follow manufacturer's recommendations.

## **Clear Tip Clog**

In the event that particles or debris clog the spray tip, this sprayer is designed with a reversible spray tip that quickly and easily clears the particles without disassembling the sprayer. See **Strain the Paint**, page 12 for additional information.

 Engage trigger lock. Rotate spray tip to unclog position. Disengage trigger lock. Trigger gun at waste area to clear clog.

UNCLOG



**NOTE:** If spray tip is difficult to rotate when turning to the unclog position perform, **Pressure Relief Procedure**, page 13, then turn Prime/Spray valve to spray position and repeat step 1.

 Engage trigger lock. Rotate spray tip back to spray position. Disengage trigger lock and continue spraying.

SPRAY



## Cleanup

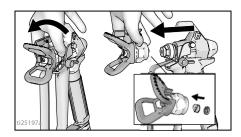
# Cleanup

Cleaning the sprayer after each use results in a trouble free start up the next time the sprayer is used.

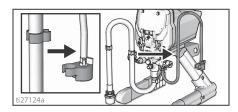


### Cleaning from a Pail

- For short term shutdown periods (overnight to two days) refer to Short Term Storage, page 27.
- See Cleaning Fluid Compatibility, page 30 for information on flushing/cleaning fluids and Static Grounding Instructions (Oil-Based materials), page 30.
- 1. Perform **Pressure Relief Procedure**, page 13.
- 2. Remove spray tip and tip guard assembly from gun and place in waste pail.



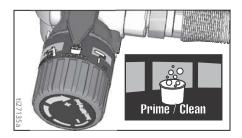
- 3. Lift suction tube and drain tube from paint pail. Let paint drain into the pail.
- 4. Separate drain tube (smaller) from suction tube (larger).



- 5. Place empty waste and flushing fluid pails side by side.
- 6. Place suction tube in flushing fluid. Use water for water based paint and mineral spirits or compatible oil-based flushing solvent for oil-based paint. Place drain tube in waste pail.

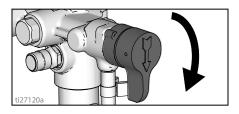


7. Turn pressure control knob to the Prime/Clean setting.



8. Turn Prime/Spray valve down to PRIME position.

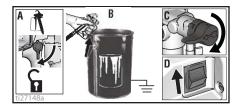




- 9. Turn ON/OFF switch to ON position.
- 10. Flush until approximately 1/3 of the flushing fluid is emptied from the pail.
- 11. Turn ON/OFF switch to OFF position.

**NOTE:** Step 12 is for returning paint in hose to paint pail. One 50 ft (15 m) hose holds approximately 1 quart (1 liter) of paint.

- To recover paint in hose, point gun into paint pail while holding gun firmly to the pail.
  - a. Disengage trigger lock.
  - b. Pull and hold gun trigger.
  - c. Turn Prime/Spray valve horizontal to SPRAY position.
  - d. Turn ON/OFF switch to ON position.
  - e. Continue to hold gun trigger until you see paint diluted with flushing fluid starting to come out of gun.



13. While continuing to trigger gun, quickly move gun to redirect spray into waste pail. Continue triggering gun into waste pail until flushing fluid dispensed from gun is relatively clear.



- 14. Turn pressure control knob to the lowest setting.
- 15. Stop triggering gun. Engage the trigger lock.



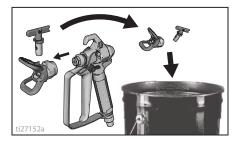
- 16. Turn Prime/Spray valve down to PRIME position.
- 17. Turn ON/OFF switch to OFF position.
- Clean outlet filter. ProX only: See Cleaning InstaClean<sup>™</sup> Fluid Filter (ProX only), page 25.
- 19. Fill unit with Pump Armor<sup>™</sup> fluid. See Long Term Storage, page 27.

#### Cleanup with Power Flush Adapter

(Water-based materials only)

Power flushing is a faster method of cleanup. It can only be used after spraying water-based coatings.

- 1. Perform **Pressure Relief Procedure**, page 13.
- Remove spray tip and tip guard assembly from gun and place in waste pail.



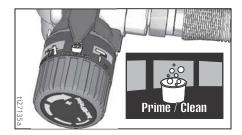
- Place empty waste and paint pails side by side.
- Lift suction tube and drain tube from paint pail. Let paint drain into the pail.

## Cleanup

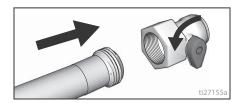
5. Place suction and drain tube in waste pail.



6. Turn pressure control knob to the Prime/Clean setting.



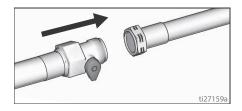
7. Screw Power Flush attachment valve to garden hose. Close valve.



- 8. Turn on water. Open valve. Rinse paint off suction tube, drain tube and inlet strainer. Close valve.
- 9. Unscrew inlet strainer from suction tube. Place inlet strainer in waste pail.



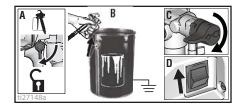
 Connect garden hose to suction tube with Power Flush attachment valve. Leave drain tube in waste pail.



- 11. Turn ON/OFF switch to ON position.
- 12. Open Power Flush attachment valve.
- 13. Circulate water through sprayer, into waste pail, for 20 seconds.
- 14. Turn ON/OFF switch to **OFF** position.

**NOTE:** Step 15 is for returning paint in hose to paint pail. One 50 ft (15 m) hose holds approximately 1 quart (1 liter) of paint.

- To recover paint in hose, point gun into paint pail while holding gun firmly to the pail.
  - a. Disengage trigger lock.
  - b. Pull and hold gun trigger.
  - c. Turn Prime/Spray valve horizontal to SPRAY position.
  - d. Turn ON/OFF switch to **ON** position.
  - e. Continue to hold gun trigger until you see paint diluted with flushing fluid starting to come out of gun.



16. While continuing to trigger gun, quickly move gun to redirect spray into waste pail. Continue triggering gun into waste pail until flushing fluid dispensed from gun is relatively clear.

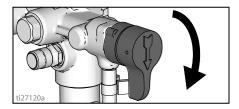




- 17. Turn pressure control knob to the lowest setting.
- Stop triggering gun. Engage the trigger lock.



19. Turn Prime/Spray valve down to PRIME position.

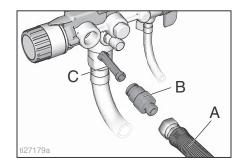


20. Turn ON/OFF switch to OFF position.

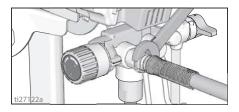
### Cleaning InstaClean<sup>™</sup> Fluid Filter (ProX only)

The InstaClean Fluid Filter prevents particles from entering paint hose. After each use, remove and clean it to ensure peak performance.

- 1. Perform **Pressure Relief Procedure**, page 13.
- 2. Disconnect airless spray hose (A) from sprayer.
- 3. Unscrew outlet fitting (B).
- 4. Remove InstaClean Fluid Filter (C).



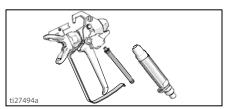
- Check InstaClean Fluid Filter (C) for debris. If needed, clean filter with water or flushing fluid and a soft brush.
  - Install closed (square) end of InstaClean Fluid Filter (C) in sprayer.
  - b. Screw outlet fitting (B) into sprayer.
- Tighten outlet fitting and reconnect hose (A) to sprayer. Use a wrench to tighten securely.



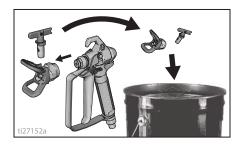
Cleanup

### **Clean the Gun**

 Clean gun filter with water or flushing fluid and a brush every time you flush the system. Replace gun filter if damaged.



2. Remove spray tip and tip guard and clean with water or flushing fluid and a brush.



3. Wipe paint off outside of gun using a soft cloth moistened with water or flushing fluid.



# Storage

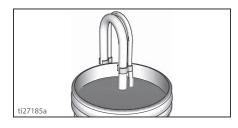
With proper storage, the sprayer will be ready to use the next time it is needed.



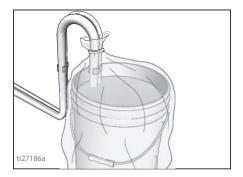
### Short Term Storage

(up to 2 days)

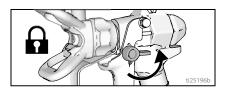
- 1. Perform **Pressure Relief Procedure**, page 13.
- 2. Leave suction tube and drain tube in paint pail.



3. Cover paint and pail tightly with plastic wrap.



4. Engage trigger lock.



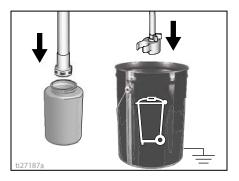
- 5. Leave gun attached to hose.
- 6. Remove tip and guard and clean with water or flushing fluid and a brush.
- Wipe paint off outside of gun using a soft cloth moistened with water or flushing fluid.

### Long Term Storage

(more than 2 days)

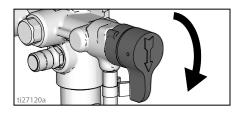
Pump Armor fluid protects the sprayer against freezing and corrosion.

- Before storing sprayer make sure all water is drained out of sprayer.
- Do not allow water to freeze in sprayer.
- Do not store sprayer under pressure.
- Store sprayer indoors.
- 1. Perform **Pressure Relief Procedure**, page 13.
- 2. Place suction tube in Pump Armor fluid bottle and drain tube in waste pail.

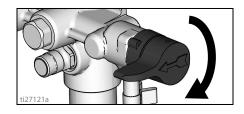


# Storage

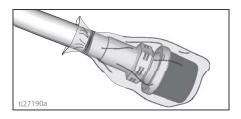
3. Turn Prime/Spray valve down to PRIME position.



- 4. Turn ON/OFF switch to ON position.
- 5. Turn pressure control knob clockwise until the pump turns on.
- When storage fluid comes out of drain tube (5-10 seconds) turn ON/OFF switch to OFF position.
- 7. Turn Prime/Spray valve horizontal to SPRAY position to keep storage fluid in sprayer during storage.



- 8. Leave gun attached to hose.
- 9. Remove tip and guard and clean with water or flushing fluid and a brush.
- 10. Wipe paint off outside of gun using a soft cloth moistened with water or flushing fluid.



11. Secure a plastic bag around suction and drain tube to catch any drips.



### **Spray Tip Selection**

#### Selecting Tip Size

Spray tips come in a variety of hole sizes for spraying a range of fluids. Your sprayer includes a tip for use in most paint spraying applications. Use the coatings table on page 20 to determine the range of recommended tip hole sizes for each fluid type. If you need a tip other than the one supplied, see the **Reversible Spray Tip Selection Chart**, page 29.

#### 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 sprayer.
- 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

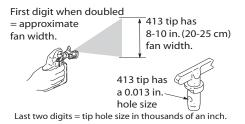
Fan width is the size of the spray pattern, which determines the area covered with each stroke.

#### Hints:

- Select a fan width best suited to the surface being sprayed.
- Wider fans allow 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 (i.e.: 286<u>413</u>) contain information about hole size and fan width on surface when gun is held 12 in. (30.5 cm) from surface being sprayed.



# Reversible Spray Tip Selection Chart

Tip	Fan	Width *	Hole Size	
Part #	Inches mm		Inch	mm
286311	6 – 8	152 – 203	0.011	0.28
286411	8 – 10	203 – 254	0.011	0.28
286313	6 – 8	152 – 203	0.013	0.33
286413	8 – 10	203 – 254	0.013	0.33
286415	8 – 10	203 – 254	0.015	0.38
286515	10 – 12	254 – 305	0.015	0.38
286417	8 – 10	203 – 254	0.017	0.43
286517	10 – 12	254 – 305	0.017	0.43
286519	12 – 14	305 – 356	0.019	0.48
286521	10 – 12	254 – 305	0.021	0.53
* – 12 in. (305 mm) from surface				

**Example**: For an 8 to 10 in. (203 to 254 mm) fan width and 0.013 (0.33 mm) hole size, order Part No. 286413.

#### Lacquer Conversion Kit

To spray lacquers with the ProX17 or ProX19, you must purchase a lacquer conversion kit, and follow **Static Grounding Instructions (Oil-Based materials)**, page 30, when using oil-based materials. See ProX17 and ProX19 parts list, page 45 or 47. The X5 and X7 must not be used with lacquers.

#### Cleaning Fluid Compatibility



#### **Oil- or Water-Based Materials**

- When spraying water-based materials, flush the system thoroughly with water.
- When spraying oil-based materials, flush the system thoroughly with mineral spirits or compatible, oil-based flushing solvent.
- To spray water-based materials after spraying oil-based materials, flush the system thoroughly with water first. The water flowing out of drain tube should be clear and solvent-free before you begin spraying the water-based material.
- To spray oil-based materials after spraying water-based materials, flush the system thoroughly with mineral spirits or a compatible oil-based flushing solvent first. The solvent flowing out of the drain tube should not contain any water. When flushing with solvents always follow Static Grounding Instructions (Oil-Based materials), page 30.
- To avoid fluid splashing back on your skin or into your eyes, always aim gun at inside wall of pail.

#### Static Grounding Instructions (Oil-Based materials)



The equipment must be grounded to reduce the risk of static sparking and electric shock. An electric or static spark can cause fumes to ignite or explode. An improper ground can cause electric shock. A good ground provides an escape wire for the electric current.

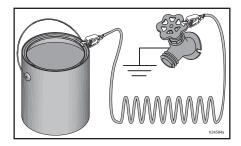
Always use a metal pail for oil-based materials requiring flushing with compatible oil-based flushing solvents when sprayer is flushed or pressure is relieved.

Follow local code. Use only conductive metal pails, placed on a grounded surface such as concrete.

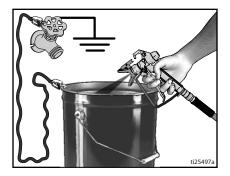
Do not place pail on a non-conductive surface such as paper or cardboard which interrupts grounding continuity.



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.



### **Quick Reference**

Page 10	Name	Description	
A	Prime/Spray Valve	In PRIME position directs fluid to drain tube.	
		In SPRAY position directs pressurized fluid to paint	
		hose.	
		<ul> <li>Automatically relieves system pressure in automatically relieves</li> </ul>	
В	PushPrime Button	overpressure situations. Taps the inlet ball when pushed to loosen it.	
C	Pressure Control Knob	Increases (clockwise) and decreases (counter-clockwise)	
		fluid pressure in pump, hose, and spray gun. To select function, align symbol on pressure control knob with set- ting indicator, page 13.	
D	ON/OFF Switch	Turns sprayer ON and OFF.	
Е	Suction Tube	Draws fluid from paint pail into pump.	
F	Drain Tube	Drains fluid in system during priming and pressure relief.	
G	Airless Spray Gun	Dispenses fluid.	
Н	Reversible Spray Tip	<ul> <li>Atomizes fluid being sprayed, forms spray pattern and controls fluid flow according to hole size.</li> </ul>	
		<ul> <li>Reverse position unclogs plugged tips without disassembly.</li> </ul>	
J	Tip Guard	Reduces risk of fluid injection injury.	
K	Gun Trigger Lock	Prevents accidental triggering of spray gun.	
L	Gun Fitting	Threaded connection for paint hose.	
М	Gun Filter	Filters fluid entering spray gun to reduce tip clogs.	
Ν	Pump	Pumps and pressurizes fluid and delivers it to paint hose.	
0	Inlet Valve	Allows paint to flow from paint bucket into the sprayer.	
Р	Outlet Valve	Threaded connection for airless hose. Allows paint to flow from the sprayer to the gun.	
Q	Airless Hose	Transports high-pressure fluid from pump to spray gun.	
R	InstaClean <sup>™</sup> Fluid Filter (ProX only)	<ul> <li>Filters fluid coming out of pump to reduce tip plugging and improve finish.</li> <li>Self cleans only during pressure relief.</li> </ul>	
S	Pail Hanger	For transporting pail by its handle.	
T	Inlet Strainer	Prevents debris from entering pump.	
U	Power Cord	Plugs into power source.	
V	Easy Access Door	Easy Access Door permits guick access to the pump.	
	(ProX only)	Open pump door by pulling out on the tabs while sliding door up.	
W	Suction Tube Drip Cup	Holds the suction tube during transport to catch drips.	
Х	Pump Removal Tool	A cutout in the frame provides a tool to quickly remove the	
_	(ProX only)	pump packing without additional tools.	
Z	Inlet Valve Removal Tool (ProX only)	A cutout in the frame provides a tool to quickly remove the inlet valve without additional tools.	
	Power Flush Attachment	Connects garden hose to suction tube for power flushing water-based fluids.	

# Maintenance

Routine maintenance is important to ensure proper operation of your sprayer.



Activity	Interval
Inspect motor shroud openings for blockage.	Daily or each time you spray
Inspect/clean InstaClean filter (ProX only), fluid inlet strainer, and gun filter.	Daily or each time you spray

#### NOTICE

**Protect the internal drive parts of this sprayer from water.** Openings in shroud allow cooling of mechanical parts and electronics inside. If water gets into these openings, the sprayer could malfunction or be permanently damaged.

### **Airless Hoses**

Check hose for damage every time you spray. Do not attempt to repair hose if hose jacket or fittings are damaged. Do not use hoses shorter than 25 ft (7.6 m). Wrench tighten, using two wrenches.

### Spray Tips

- Always clean tips with compatible cleaning fluid and brush after spraying.
- Tips may require replacement after 15 gallons (57 liters) or they may last through 60 gallons (227 liters) depending on abrasiveness of paint.

## Pump Repair (ProX Only)

When pump packings wear, paint will begin to leak down outside of pump. Each time the pump kit is replaced, check pump inlet and outlet valves for wear or damage. Replace if worn or damaged. Always replace inlet and outlet valves every second time the pump kit is replaced.

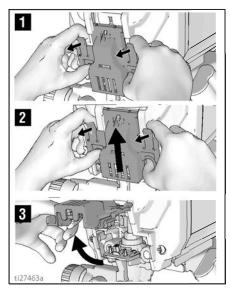
 See ProXChange Pump (ProX only), page 50 or consult a Graco/MAGNUM authorized retailer, distributor, or service center.  Purchase a pump repair kit and install according to instructions provided with kit, before your next job.

#### Pump Removal

Remove airless hose, suction tube, and drain tube.

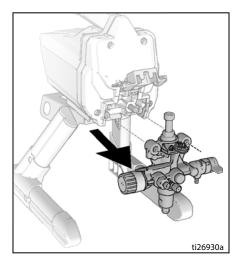
Always perform **Pressure Relief Procedure**, page 13 before starting any pump repairs and unplug the sprayer.

- 1. Unplug the sprayer from the power source.
- 2. Pull tabs on sides of the easy access door towards you while pushing the entire door up.
- 3. Now lift the door so that it swings out of the way.



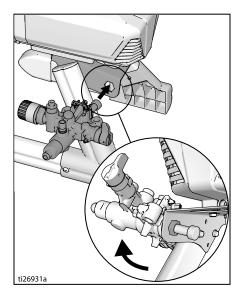
# Maintenance

4. Slide pump assembly off the mounting pins.



#### ProXChange Removal Tool

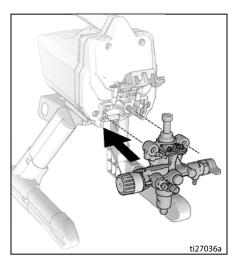
An integrated tool is included in the frame to remove the ProXChange packing assembly. See Pump repair manual for complete repair instructions.



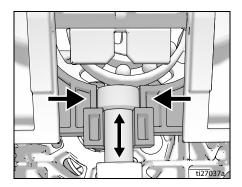
5. Clean any debris and dried paint from the cavity and replace the ball and spring. Tighten inlet valve to pump using integrated tool on the frame.

#### **Pump Installation**

1. Slide pump assembly onto the mounting pins.



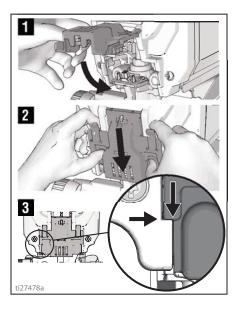
a. Move pump rod up or down until cap is level with the opening in the yoke.



b. Push on pump rod to slide pump assembly back on to mounting pins.

Maintenance

2. Swing easy access door closed while pushing the entire door down.

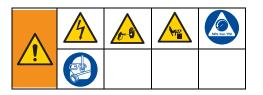


- 3. Install hose, suction tube, and drain tube.
- 4. Plug sprayer into power source.

**NOTE:** Door must be fully closed and latched before sprayer will operate.

# Troubleshooting

# Troubleshooting



- 1. Follow **Pressure Relief Procedure**, page 13, before checking or repairing.
- 2. Solutions at the beginning of each problem listed are the most common.
- 3. Check everything in this Troubleshooting Table before you bring the sprayer to an authorized service center.

Problem	Cause	Solution
Motor does not run: (verify sprayer is plugged in, and	ProX only: Easy access door not fully closed.	Verify that easy access door is closed and latched. See page 34.
ON/OFF switch is on)	Pressure control is set at zero pressure.	Turn pressure control knob clockwise to increase pressure setting.
	Electric outlet is not providing power.	Test outlet with known working device.
		Reset circuit breaker or replace fuse.
		Find working outlet.
		Reset building circuit breaker or replace fuse.
	Extension cord is damaged.	Replace extension cord. See page 4.
	Sprayer electric cord is damaged.	Check for broken insulation or wires. Replace electric cord if damaged.
	Pump is seized (Paint has hardened in pump	Turn ON/OFF switch off and unplug sprayer from outlet.
	or Water is frozen in pump.)	If frozen do NOT try to start sprayer until it is completely thawed or it may damage the motor, control board and/or drive train.
		Place sprayer in warm area for several hours. Check for free moving pump by removing shroud and spinning fan.
		If not frozen, check for hardened paint in pump. If paint has hardened in pump. See page 33.
		If motor does not turn with pump removed, consult a Graco/Magnum authorized retailer, distributor, or service center.
	Motor or control is damaged.	Consult a Graco/ Magnum authorized retailer, distributor, or service center.

### Troubleshooting

Problem	Cause	Solution
Sprayer runs, but pump does not prime or looses prime while in use. (Pump cycles but does not pump	Prime/Spray valve is in SPRAY position.	Lift Prime/Spray valve to PRIME position until paint exits drain tube. The pump is now primed.
paint or build pressure.)	Inlet strainer is clogged or suction tube is not immersed in paint.	Clean debris off inlet strainer and make sure suction tube is immersed in paint.
	Inlet valve ball is stuck or dirty.	Remove suction tube and place a pencil into the inlet section to dislodge the ball, see page 15. Clean inlet valve ball, see page 16, OR Power Flush Sprayer, see page 23.
	Thick or "sticky" paint.	Some fluids may prime faster if the ON/OFF switch is momentarily turned off so the pump can slow and stop. Turn ON/OFF switch on and off several times if necessary, see page 15.
	Suction tube is leaking.	Inspect suction tube connection for cracks or vacuum leaks.
	Outlet valve ball is stuck.	Unscrew outlet valve, remove, and clean assembly, see page 15.
	Debris in paint.	Strain the paint. See page 12.
	Prime/Spray valve is worn or obstructed with debris.	Take sprayer to Graco/MAGNUM authorized service center.

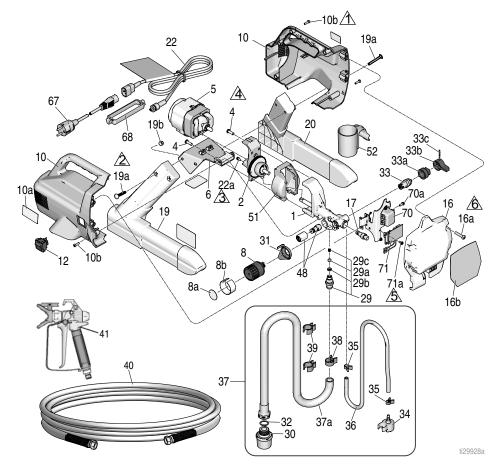
### Troubleshooting

Problem	Cause	Solution
Pump is primed, but can not achieve	Spray tip may be partially clogged.	Clear spray tip clog. See page 21.
good spray pattern.	Reversible spray tip is in UNCLOG position.	Rotate arrow-shaped handle on spray tip so it points forward to SPRAY position. See page 21.
	Debris in paint.	Strain the paint. See page 30.
	Pressure is set too low.	Align pressure control knob setting indicator to desired spray setting. See page 20.
	ProX only: InstaClean fluid filter is clogged.	Clean or replace InstaClean fluid filter. See page 25.
	Spray gun filter is clogged.	Clean or replace gun fluid filter. See page 26.
	Spray tip selected is too large for capability of sprayer.	Replace tip. See page 20.
	Spray tip is worn beyond the capability of sprayer.	Replace tip. See page 20.
	Spray tip gasket and seal worn or missing.	Replace gasket and seal. See page 19.
	Inlet strainer is clogged or suction tube is not immersed in paint.	Clean debris off inlet strainer and make sure suction tube is immersed in paint.
	Extension cord is too long or not heavy enough gauge.	Replace extension cord. See page 4.
	Inlet valve or outlet valve is worn or clogged with debris.	Check for worn or contaminated inlet valve or outlet valve.
		- Prime sprayer with paint
		- Trigger gun momentarily
		<ul> <li>When trigger is released, pump should cycle momentarily and stop</li> </ul>
		- If pump continues to cycle, valves may be worn or contaminated with debris
		- Clean and reinstall valves
		<ul> <li>ProX only: Replace valves with appropriate kits. See page 50.</li> </ul>
	Material is too thick.	Thin material. Follow manufacturers recommendations.
	Airless hose is too long (if extra section was added).	Remove section of airless hose.
Spray gun stopped spraying while trigger is pulled.	Spray tip is clogged.	Clear spray tip clog. See page 21.
ungger is pulled.	Sprayer lost prime.	See troubleshooting section "Sprayer runs, but pump does not prime or looses prime while in use." on page 37.

### Troubleshooting

Problem	Cause	Solution
When paint is sprayed, it runs down	Material is going on too thick.	Move gun faster.
the wall or sags.		Choose a spray tip with smaller hole size.
		Choose spray tip with wider fan.
		Make sure gun is far enough from surface.
When paint is sprayed, coverage is inadequate.	Material is going on too thin.	Move gun slower.
inauequate.		Choose spray tip with larger hole size.
		Choose spray tip with narrower fan.
		Make sure gun is close enough to surface.
Fan pattern varies dramatically while spraying.	Pressure control switch is worn and causing excessive pressure variation.	Take sprayer to Graco/MAGNUM authorized service center.
Cannot trigger spray gun.	Spray gun trigger lock is engaged.	Rotate trigger lock to disengage trigger lock. See page 12.
Paint is coming out of pressure control switch.	Pressure control switch is worn.	Take sprayer to Graco/MAGNUM authorized service center.
Paint is leaking through drain tube.	Sprayer is over pressurizing.	Take sprayer to Graco/MAGNUM authorized service center.
Paint leaks down outside of pump.	Pump packings are worn.	Replace pump packings
		ProX only: Replace pump packings with new ProXChange module. See page 33.
Motor is hot and runs intermittently. Motor automatically shuts off due to excessive heat. Damage can occur if	Vent holes in enclosure are plugged or sprayer is covered.	Keep vent holes clear of obstructions and overspray and keep sprayer open to air.
cause is not corrected.	Extension cord is too long or not a heavy enough gauge.	Replace extension cord. See page 4.
	Unregulated electrical generator being used has excessive voltage.	Use electrical generator with a proper voltage regulator.
	Motor needs to be replaced.	Take sprayer to Graco/Magnum authorized retailer, distributor, or service center.

## X5: 16W120, 17N433 Stand Sprayer Parts X5: 16W120, 17N433 Stand Sprayer Parts



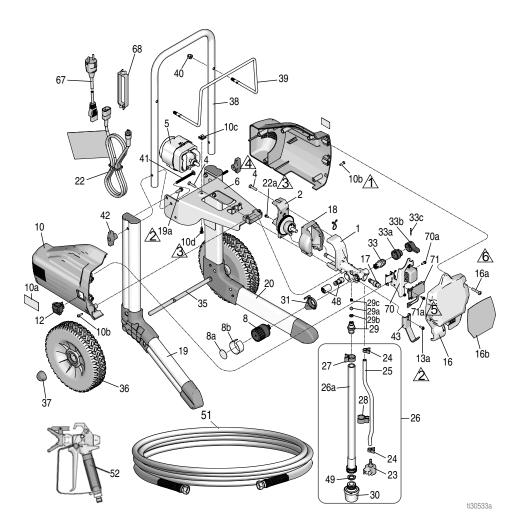
Ref.	Torque	Ref.	Torque
	20-25 in-lb (2.3-2.8 N•m)	4	80-90 in-lb (9.0-10.0 N•m)
Â	26-32 in-lb (2.9-3.6 N•m)	<u>گ</u>	12-16 in-lb (1.4-1.8 N•m)
<u>\$</u>	25-35 in-lb (2.8-4.0 N•m)	<u>⁄6</u>	36-42 in-lb (4.0-4.7 №m)

#### X5: 16W120, 17N433 Stand Sprayer Parts

#### 16W120, 17N433 Stand Sprayer Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	17L079	KIT, pump <i>includes 4,</i>	1	32	115099	WASHER, hose	1
•		8, 17, 29, 33, 48		33	235014	KIT, drain valve	1
2	16E835	DRIVE	1		<b>-</b>	includes 33a, 33b, 33c	
4	112689	SCREW, button, thd	4	33a	24E578	BASE, valve	1
_		form		33b	187625	HANDLE, valve, drain	1
5		KIT, motor		33c	111600	PIN, grooved	1
	17L282	120V	1	34 35	244035 115489	DEFLECTOR, barbed CLAMP, drain tube	1 2
~	16G228	230V	1	35 36	195084	TUBE, drain	2 1
6	16D682 244267	BRACKET, motor	1 1	30	24V074	KIT, tube, suction	1
8		KIT, pressure control includes 8a, 8b	-	57	240074	includes 30, 32, 34, 35,	1
8a	15A464	LABEL, control	1	270	107607	36, 37a, 38, 39, 61	
8b	15K530	LABEL, control	1	37a	197607	TUBE, suction <i>includes</i> 32	
10	17K541	KIT, enclosure, X5	1	38	116295	CLAMP, tube	1
10b	115477	includes 10a, 10b, 16a SCREW, mach, torx,	4	39	195400	CLIP, spring	2
100	115477	pan hd	4	40	247339	HOSE, cpld,	1
12	118899	SWITCH, rocker, spdt	1			1/4 in. x 25 ft	
16	17L085	KIT, housing cover	1	41	243011	GUN, spray, SG2	
		includes 16a, 16b		48	17L086	KIT, push prime	1
16a	120724	SCREW	4	51	16W319	COVER, gear	1
16b	17J963	LABEL, Magnum X5,	1	52	17H422	CUP, inlet drip	1
17	16E845	front KIT, outlet valve, X5	1	61	115648	VALVE, power flush (not shown)	1
		and X7		62	244168	FLUID, pump armor, 8	1
19	24K632	KIT, right leg, X5	1			oz (not shown)	
		includes 2 screws, 19a, 19b		63▲		CARD, medical wallet (not shown)	
19a	125116	BOLT, carriage	4		222385	English, Spanish,	1
19b	102040	NUT, lock, hex	4			French	
20	24K633	KIT, left leg, X5 includes 2 screws, 19a,	1		17A134	English, Chinese, Korean	1
22		19b KIT, power cord, X5			17R476	English, Spanish, Portuguese	1
22		includes 22a, 22b		67		CORDSET	
	16E842	120V	1	0.	242001	EU	1
	16X876	230V	1		242005	Australia	1
22a	115498	SCREW, grounding	1		129547	Brazil	1
22b	•	LABEL, Magnum,		68	195551	RETAINER, plug	1
	17K627	warning (not shown) English, Spanish,	1	70	16W318	KIT, filter EMI <i>includes</i>	1
	-	French		70a	115492	SCREW, mach, slot,	2
	16T398	English, Chinese, Korean	1	71		HWH KIT, control board	
	17R828	English, Spanish,	1		17L104	120V includes 71a	1
		Portuguese			16G223	230V includes 71b	1
29	16E844	KIT, pump, inlet valve	1	71a	115477	SCREW, mach, torx	1
		includes 29a, 29b, 29c		71b	115492	SCREW, mach, slot	2
29a	124249	BALL, intake	1			hex	
29b	103338	O-RING	1				
29c	123849	SPRING, inlet	1			Danger and Warning labe	els,
30	288716	KIT, strainer	1	tags,	and cards	are available at no cost.	
31	15Y296	COVER, wire	1				

## X7: 16W121, 17N434 Cart Sprayer Parts X7: 16W121, 17N434 Cart Sprayer Parts



Ref.	Torque	Ref.	Torque
Â	20-25 in-lb (2.3-2.8 N•m)	<u>A</u>	80-90 in-lb (9.0-10.0 N•m)
Â	45-55 in-lb (5.0-6.2 N•m)	∕Ŝ∖	12-16 in-lb (1.4-1.8 N•m)
∕3∖	25-35 in-lb (2.8-4.0 N•m)	<u></u>	36-42 in-lb (4.0-4.7 N•m)

### X7: 16W121, 17N434 Cart Sprayer Parts

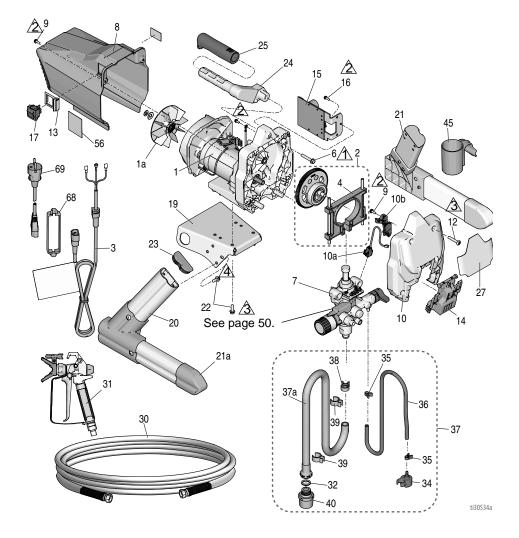
#### 16W121, 17N434 Cart Sprayer Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	17L079	KIT, pump <i>includes 4, 8,</i> 17, 29, 33, 48	1	29	16E844	KIT, pump, inlet valve (includes 29a, 29b, 29c)	1
2	16E835	KIT, drive	1	29a	124249	BALL, intake	1
4	112689	SCREW, button, thd form		29b	103338	O-RING	1
5		KIT, motor	•	29c	123849	SPRING, inlet	1
Ũ	17L282	120V	1	30	288716	KIT, strainer	1
	16G228	230V	1	31	15Y296	COVER, wire	1
6	16D683	BRACKET, motor	1	33	235014	KIT, drain valve includes	1
8	244267	KIT, pressure control	1	33a	24E578	<i>33a, 33b, 33c</i> BASE, valve	1
8a	15A464	<i>includes 8a, 8b</i> LABEL. control	1	33b	187625	HANDLE, valve, drain	1
8b	15K530	LABEL, control	1	33c	111600	PIN, grooved	1
10	17K542	KIT. enclosure. X7	1	35	15R602	AXLE, cart	1
10	171042	includes 10a, 10b, 10c,	I.	36	115095	WHEEL, 9 in.	2
		10d, 16a		37	112612	CAP, hub	2
10b	115477	SCREW, mach, torx, pan	4	38	16H354	HANDLE, cart	1
		hd		39	16H350	RACK, hose	1
10c 10d	121481 120093	NUT, U-type, tinnerman SCREW, self drilling	1 1	40	120689	NUT, hex, acorn, 5/16-18 nickel	2
12	118899	SWITCH, rocker, spdt	1	41	120788	SCREW, carriage	2
13a	115477	SCREW, mach, torx	1	42	115480	KNOB, t-handle	2
13b	115492	SCREW, mach, slot hex	2	43	16D907	HANGER, pail	1
16	17L085	KIT, housing cover	1	48	17L086	KIT, push prime	1
		includes 16a, 16b	•	49	115099	WASHER, hose	1
16a	120724	SCREW	4	51	247339	HOSE, cpld,	1
16b	17J966	LABEL, Magnum X7,	1	•		1/4 in. x 25 ft	
		front		52	243011	GUN, spray, SG2	1
17	16E845	KIT, outlet valve	1	61	115648	VALVE, power flush (not	1
18	16W319	COVER, gear	1			shown)	
19	17L088	KIT, right leg, X7 includes 3 screws, 19a	1	62	17A000	FLUID, pump armor, 8 oz (not shown)	1
19a	260212	SCREW, hex washer	4	63▲		CARD, medical wallet	
20	17L087	KIT, left leg, X7	1			(not shown)	
_0		includes 3 screws, 19a	•		222385	English, Spanish, French	1
22		KIT, power cord, X7			17A134	English, Chinese, Korean	1
		includes 22a, 22b			17R476	English, Spanish,	1
	16E843	120V	1			Portuguese	
	16X876	230V	1	67		CORDSET	
22a	115498	SCREW, grounding	1		242001	EU	1
22b▲	17K627	LABEL, Magnum,	1		242005	Australia	1
	470000	warning (not shown)	4		129547	Brazil	1
	17R828	English, Spanish, Portuguese	1	68	195551	RETAINER, plug	1
23	244035	DEFLECTOR, barbed	1	70	16W318	KIT, filter EMI <i>includes</i>	1
23	115489	CLAMP, drain tube	2	70a	115492	70a SCREW, mach, slot,	2
25	195108	TUBE. drain	1	70a	115492	HWH	2
26	24V073	KIT, suction tube <i>includes</i>	-	71		KIT, control board	
20	211010	23, 24, 25, 26a, 27, 28,			17L104	120V includes 13a	1
		30, 49, 61			16G223	230Vincludes 13b	1
26a	16H348	TUBE, suction includes	1	71a	115477	SCREW, mach, torx	3
		49			-	Danger and Warning labels,	-
27	116295	CLAMP, tube	1			ailable at no cost.	0-7
28	195400	CLIP, spring	2				

# ProX17: 17H202, 17H203 Stand Sprayer Parts

# ProX17: 17H202, 17H203 Stand Sprayer Parts

Ref.	Torque	Ref.	Torque
	140-160 in-lb (16-18 N•m)	<u>À</u>	110-120 in-lb (12-14 N•m)
Â	30-35 in-lb (3.5-4.0 N•m)	4	45-55 in-lb (5-6 N•m)



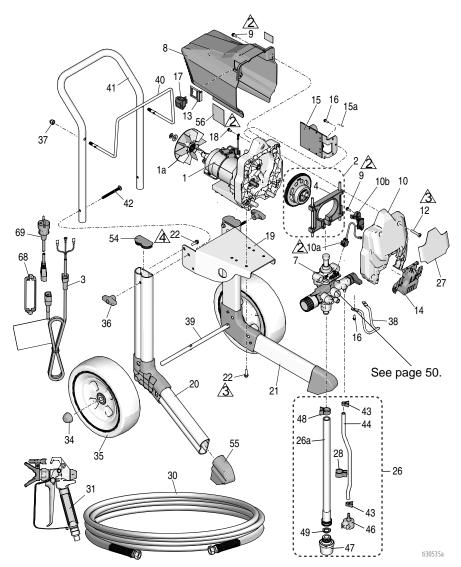
### ProX17: 17H202, 17H203 Stand Sprayer Parts

#### 17H202, 17H203 Stand Sprayer Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1		KIT, repair, motor,	-	31	243012	GUN, spray, SG3	1
		includes 1a		32	115099	WASHER, hose	1
	17K285	120V	1	34	244035	DEFLECTOR, barbed	1
	17F758	230V	1	35	115489	CLAMP, drain tube	2
1a		FAN		36	195084	TUBE, drain	1
	287770	120V	1	37	17K715	KIT, tube, suction includes 32, 34, 35, 36,	1
2	16X980	230V	1			37a, 38, 39, 40	
2 3	17J863	KIT, gear and yoke CORD, power	1	37a	17D155	TUBE, suction <i>includes</i> 32	1
	17J173	120V	1	38	116295	CLAMP, tube	1
4	17J405	230V	1 1	39	195400	CLIP, spring	2
4 6	17J864 117493	KIT, yoke SCREW, mach, hex,	1	40	288716	KIT, strainer	1
0	117495	washer head	1	45	17H422	CUP, suction/drain	1
7	17K842	KIT, pump complete	1	56▲		LABEL, warning	
8	17J865	SHIELD, motor, blue includes 9 and labels	1		17J027	English, Spanish, French	1
9	118444	SCREW, mach, hwhd	3		17K017	English, Chinese, Korean	1
10	17 1066	10-24 x 0.5 in.	1		17S455	English, Spanish,	1
10	17J866	COVER, front <i>includes 9, 10a, 10b, 12, 14</i>	I			Portuguese	
10a	128551	CABLE, jumper, PC	1	57▲		CARD, medical wallet	
10b	17F262	COVER, wire	1		000005	(not shown)	4
12	115478	SCREW, mach, Torx, pan hd	4		222385	English, Spanish, French	1
13	17X737	SWITCH, bracket	1		17A134	English, Chinese,	1
14	17F233	COVER, pump, locking	1			Korean	
15		KIT, control board			17R476	English, Spanish,	1
		includes 15a, 16		~ 1		Portuguese	
	17J867	120V	1	61	115648	VALVE, power flush	1
150	17J885	230V	1	~~	474000	(not shown)	4
15a	110076	FUSE (not shown) 120V, 12.5A, slow blow	1	62	17A000	FLUID, pump armor, 8	1
	119276 129882	230V, 6.3A, slow blow	1	~~	405554	oz (not shown)	4
16	129662	SCREW, plastite	1	68 69	195551	RETAINER, plug CORDSET	1
17	24Y329	KIT, switch, repair	1	69	242001	EU	1
.,	241020	includes 13			242001	Australia	1
18	115498	SCREW, mach, slot,	1		129547	Brazil	1
		hex whd		70	16W318	KIT, filter EMI includes	1
19	17G328	PLATE, motor mount	1			70a	•
20	16E836	KIT, right leg <i>includes</i> 21a, 22, 23	1	70a	115492	SCREW, mach, slot, HWH	2
21	16E837	KIT, left leg includes 21a, 22, 23	1				
21a	15J695	CAP, tube	2		17L305	KIT, conversion, lacquer	,
22	260212	SCREW, hwh, thread	12			stand (sold separate)	
22	200212	forming	12		nloomont	Danger and Warning Jaha	
23	15J699	CAP, tube	2			Danger and Warning labe are available at no cost.	13,
24	276864	HANDLE, sprayer	1	iugo,			
25	116139	GRIP, handle	1				
27	17J031	LABEL, front	1				
30	247340	HOSE, cpld, 1/4 in. x 50 ft	1				

### ProX19: 17H209 17H210 Cart Sprayer Parts ProX19: 17H209 17H210 Cart Sprayer Parts

Ref.	Torque
Â	30-35 in-lb (3.5-4.0 N•m)
⚠	110-120 in-lb (12-14 N•m)
	45-55 in-lb (5-6 N•m)



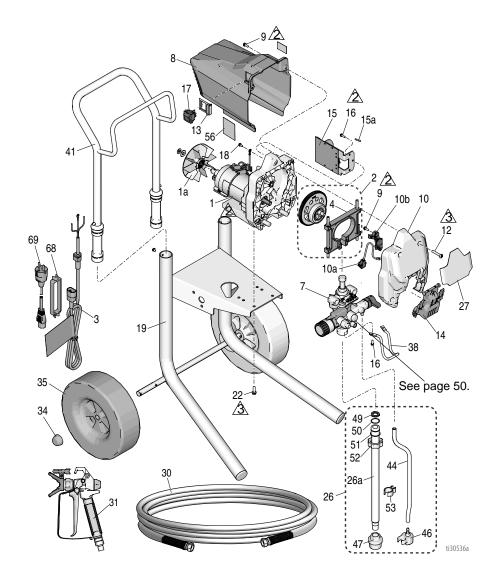
### ProX19: 17H209 17H210 Cart Sprayer Parts

#### 17H209, 17H210 Cart Sprayer Parts List

Pof	Part	Description	Qty.	Ref.	Part	Description 0	Qty.
	ran	-	QLY.	35	17K546	WHEEL includes 34	2
1	17F756	MOTOR 120V	1	36	115480	KNOB, T-handle	2
	16G228	230V	1	37	120689	NUT, hex, acorn, 5/16-18	2 2
1a	100220	FAN		38	17J430	HOOK, pail	1
	287770	120V	1	39	16W362	AXLE, cart	1
	16X980	230V	1	40	16H350	RACK, hose	1
2 3	17J863	KIT, gear and yoke	1	41 42	16H353 120788	HANDLE, cart	1 2
3	47 1470	CORD, power		42 43	120788	SCREW, carriage CLAMP, drain tube	2
	17J173 17J405	120V 230V	1 1	44	195108	TUBE, drain	1
4	17J864	KIT, yoke	1	45	195400	CLIP, spring	1
7	17K842	KIT, pump complete	1	46	244035	DEFLECTOR, barbed	1
8	17J865	SHIELD, motor, blue	1	47	288716	STRAINER, inlet	1
		includes 9 and labels		48	116295	CLAMP, tube	1
9	118444	SCREW, mach, hwhd	3	49	115099	WASHER, hose	1
4.0	47 1000	10-24 x 0.5 in.		54 55	15J699	CAP, tube CAP, tube	2
10	17J866	COVER, front includes 9,	, 1	55	16W505	ProX19, right	1
10a	128551	<i>10a, 10b, 12, 14</i> CABLE, jumper, PC	1		16W517	ProX19, left	1
10b	17F262	COVER, wire	1	56▲		LABEL, warning	
12	115478	SCREW, mach, Torx,	•		17J027	English, Spanish, French	1
		pan hd			17K017	English, Chinese, Korean	1
13	17X737	SWITCH, bracket	1		17S455	English, Spanish,	1
14	17F233	COVER, pump, locking	1			Portuguese	
15		KIT, control board		57▲		CARD, medical wallet	
	17J867	<i>includes 15a, 16</i> 120V	1		222385	(not shown)	1
	17J885	230V	1		222305 17A134	English, Spanish, French English, Chinese, Korean	1
15a	173003	FUSE (not shown)	1		17R476	English, Spanish,	1
iou	119276	120V, 12.5A, slow blow	1			Portuguese	•
	129882	230V, 6.3A, slow blow	1	61	115648	VALVE, power flush (not	1
16	117501	SCREW, plastite	3	•••		shown)	•
17	24Y329	KIT, switch, repair	1	62	17A000	FLUID, pump armor, 8 oz	1
10	115100	includes 13				(not shown)	
18	115498	SCREW, mach, slot, hex whd	1	68	195551	RETAINER, plug	1
19	17G541	PLATE, motor, mount	1	69	242004	CORDSET	4
20	17K185	LEG, right <i>includes 54</i>	1		242001 242005	EU Australia	1 1
21	17K186	LEG, left includes 55	1		129547	Brazil	1
22	260212	SCREW, hwh, thread	8	70	16W318	KIT, filter EMI <i>includes</i>	1
	_	forming				70a	•
26	24Z880	TUBE, suction, assembly		70a	115492	SCREW, mach, slot,	2
		includes 26a, 43, 44, 47,				HWH	
26a	17K256	<i>48, 49, 61</i> TUBE, suction	1		47 1070		
20a	17 1250	includes 49	I		17J873	KIT, conversion, lacquer, c	cart
27	17J033	LABEL, front	1			(sold separate)	
30	247340	HOSE, cpld,	1	<b>▲</b> R	eplacemen	t Danger and Warning labels	S.
		1/4 in. x 50 ft				s are available at no cost.	<i>.</i> ,
31	243012	GUN, spray, SG3	1		,		
34	112612	CAP, hub	2				

### *ProX21: 17H216, 17H217 Cart Sprayer Parts* ProX21: 17H216, 17H217 Cart Sprayer Parts

Ref.	Torque
Â	30-35 in-lb (3.5-4.0 №m)
<u>\$</u>	110-120 in-lb (12 -14 N•m)



#### ProX21: 17H216, 17H217 Cart Sprayer Parts

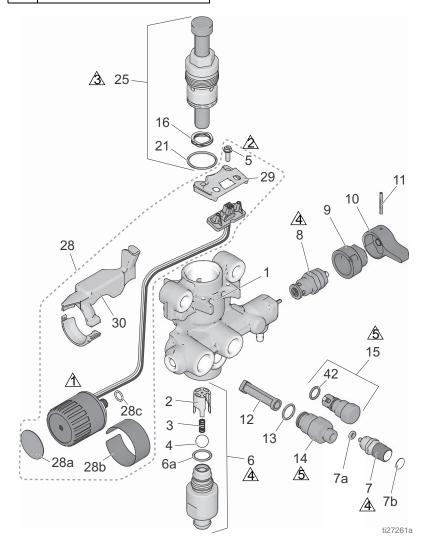
#### 17H216, 17H217 Cart Sprayer Parts List

	Dent	Description		Def	Part	Description	4
	Part	Description	Qty.			-	ty.
1		KIT, repair, motor		26	17J871	TUBE, suction, intake includes 26a 47, 49, 50	1
	471/004	includes 1a	4			51, 52	
	17K684	120V, Model 17H216 Series A	1	26a	17L281	TUBE, suction	1
	17F757	120V, Model 17H216	1	27	17J034	LABEL, front, ProX21	1
		Series B	•	30	247340	HOSE, cpld,	1
	17L083	230V, Model 17H217	1			1/4 in. x 50 ft	
		Series A		31	243012	GUN, spray,SG3	1
	17F758	230V, Model 17H217	1	34 35	119452 119451	CAP, hub WHEEL.	2 2
4.	402/000	Series B		35	119451	semi-pneumatic	2
1a	16X980	FAN	1	38	17J430	HOOK, pail	1
2 3	17J869	KIT, gear and yoke CORD, power	I	41	287489	HANDLE, assembly,	1
5	17J173	120V	1			Hi-cart	
	17J405	230V	1	42	109032	SCREW, machine, pnh	4
4	17J864	KIT, yoke	1	44	15K092	TUBE, drain	1
7	17J875	KIT, pump complete	1	46	244035	DEFLECTOR, barbed	1
8		SHIELD, motor, blue		47 49	288716 115099	STRAINER, inlet WASHER, hose	1 1
	471/000	includes 9, 56	4	49 50	103413	PACKING, O-ring	1
	17K688	Model 17H216, 17H217 Series A	1	51	15B652	WASHER, suction	1
	17K688	Model 17H216, 17H217	1	52	15E813	NUT, jam	1
	171000	Series B	1	53	195400	CLIP, spring	1
9	118444	SCREW, mach, hwhd	3	56▲		LABEL, warning	
		10-24 x 0.5 in.			17J027	English, Spanish, French	1
10	17J866	COVER, front includes 9,	1		17K017	English, Chinese, Korean	1 1
40-	400554	10a, 10b, 12, 14	4		17S455	English, Spanish,	I
10a 10b	128551 17F262	CABLE, jumper, PC COVER, wire	1	57▲		Portuguese CARD, medical wallet	
12	115478	SCREW, mach, Torx,	I	57		(not shown)	
12	110470	pan hd			222385	English, Spanish, French	1
13	15X737	SWITCH, bracket	1		17A134	English, Chinese, Korean	1
14	17F233	COVER, pump, locking	1		17R476	English, Spanish,	1
15		KIT, control board				Portuguese	
	47 1007	includes 15a, 16	4	62	17A000	FLUID, pump armor,	1
	17J867 17J885	120V 230V	1 1			8 oz (not shown)	
15a	173003	FUSE (not shown)	I	67		CORDSET	
150	119276	120V, 12.5A, slow blow	1		242001	EU	1
	129882	230V, 6.3A, slow blow	1		242005	Australia	1 1
16	117501	SCREW, plastite	3	68	129547 195551	Brazil RETAINER, plug	1
17	24Y329	KIT, switch, repair	1	70	16W318	KIT, filter EMI <i>includes</i>	1
40	445400	includes 13		10	1000010	70a	•
18	115498	SCREW, mach, slot, hex	1	70a	115492	SCREW, mach, slot,	2
20	17C485	whd FRAME	1			HWH	
20	260212	SCREW, hwh, thread	8				
		forming	Ŭ			t Danger and Warning labels	,
				tags	, and cards	s are available at no cost.	

### ProXChange Pump (ProX only)

### ProXChange Pump (ProX only)

Ref.	Torque
$\Lambda$	140-160 in-lb (16-18 N•m)
Â	30-35 in-lb (3.4-4.0 №m)
⚠	30-35 ft-lb (40-48 N•m)
4	220-250 in-lb (25-28 N•m)
<u>Ś</u>	320-380 in-lb (36-43 N•m)



### ProXChange Pump (ProX only)

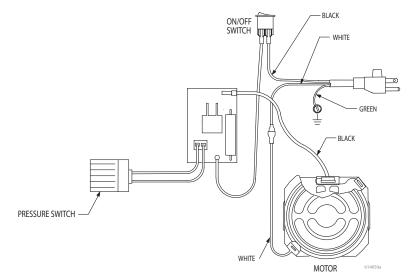
#### **Pump Parts List**

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	17G447	HOUSING, pump	1	13	120776	PACKING, O-ring	1
2	17D364	GUIDE, ball	1	14	24Y327	KIT, repair outlet	1
3	128336	SPRING, compression	1			includes 12.13	
4	105445	BALL, 0.5 in.	1	15	17J880	KIT, outlet valve repair	1
5	117501	SCRÉW, mach, slot	2			includes 42	
		HWH		16	128323	SPRING, valve	1
6		KIT, inlet housing		21	16D531	PACKING, O-ring	1
	17J876	ProX17, ProX19	1	25	24Y472	KIT, repair, piston pump	1
	17J877	ProX21	1	28	17J881	KIT, pressure control	1
6a	124582	O-ring	1			includes 5, 28a, 28b,	
7	17J878	KIT, PushPrime	1	28a	15A464	28 <i>c, 29, 30</i> LABEL, control	1
		includes 7a, 7b		20a 28b	15K530	LABEL, control	1
7a	16P303	PACKING, O-ring	1		106555	O-ring	1
7b	17G540	LABEL, PushPrime	1	200	17F227	BRACKET, electrical	1
8	235014	VALVE, drain, assy	1	29	1/1 221	connector	1
9	224807	BASE, valve	1	30	17F229	KIT, shield, wire	1
10	187625	HANDLE, valve, drain	1	42	122486	PACKING, O-ring	1
11	111600	PIN, grooved	1				
12	288747	KIT, filter	1				

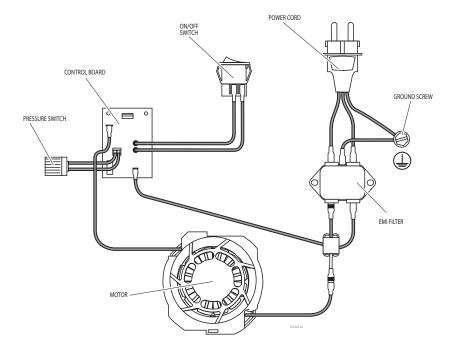
#### Wiring Diagrams

### Wiring Diagrams

#### X5/X7 120V:

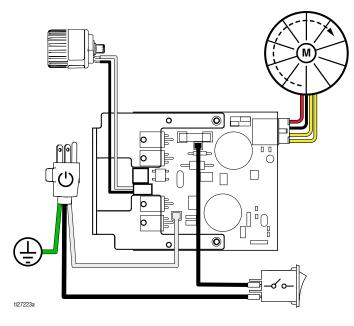


X5/X7 230V:

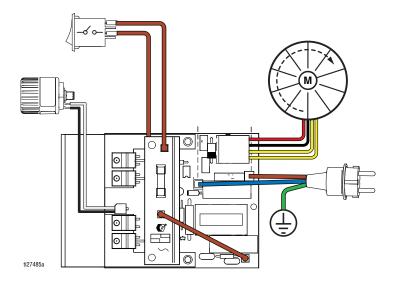


#### Wiring Diagrams

#### ProX 110/120V:



#### ProX 230V:



### Technical Specifications

#### **Technical Specifications**

	US	Metric
Sprayer		
Maximum fluid working pressure	3000 psi	207 bar, 20.7 MPa
Maximum Delivery		
X5	0.27 gpm	1.0 lpm
Х7	0.31 gpm	1.2 lpm
ProX17	0.34 gpm	1.3 lpm
ProX19	0.38 gpm	1.4 lpm
ProX21	0.47 gpm	1.8 lpm
Maximum Tip Size	-	
X5	0.015 in.	0.38 mm
X7	0.017 in.	0.43 mm
ProX17	0.017 in.	0.43 mm
ProX19	0.019 in.	0.48 mm
ProX21	0.021 in.	0.53 mm
Fluid Outlet npsm	1/4 in.	1/4 in.
Generator Minimum	2	500 W
Power Requirements		
X5, X7	110–12	20V, 9 A, 1Ø
ProX17, ProX19		20V, 8 A, 1Ø
ProX21	110–12	0V, 12 A, 1Ø
X5, X7	220-24	40V, 9 A, 1Ø
ProX17, ProX19		40V, 8 A, 1Ø
ProX21	220–24	0V, 12 A, 1Ø
Dimensions		
Height		
X5	17.9 in.	45.5 cm
X7	37.0 in.	94.0 cm
ProX17 Stand	21.2 in.	53.9 cm
ProX17 Cart	37.0 in.	94.0 cm
ProX19 Cart	36.7 in.	93.0 cm
ProX21 Cart	38.5 in.	97.8 cm
Length		
X5	14.5 in.	36.8 cm
Х7	19.3 in,	49.0 cm
ProX17 Stand	15.1 in.	38.4 cm
ProX17 Cart	19.6 in.	49.8 cm
ProX19 Cart	20.2 in.	51.3 cm
ProX21 Cart	20.8 in.	52.8 cm

### Technical Specifications

	US	Metric
Width		
X5	12.4 in.	31.5 cm
Х7	15.3 in.	38.9 cm
ProX17 Stand	13.2 in.	33.5 cm
ProX17 Cart	15.2 in.	38.6 cm
ProX19 Cart	17.2 in.	43.7 cm
ProX21 Cart	20.6 in.	52.3 cm
Weight		
X5	16.5 lb.	7.5 kg
Х7	26.5 lb.	12.0 kg
ProX17 Stand	27.3 lb.	12.4 kg
ProX17 Cart	37.5 lb.	17.0 kg
ProX19 Cart	41.2 lb.	18.7 kg
ProX21 Cart	49.5 lb.	22.5 kg
Storage temperature range +*	–30° to 160°F	–35° to 71°C
Operating temperature range 🗸	40° to 115°F	4° to 46°C
Materials of Construction		
Wetted materials on all models		er, ultra-high molecular weight arbide, nylon, aluminum, PVC, ner, plated steel
Notes		
* Startup pressures and displace	ment per cycle may yany base	ad on suction condition

\* Startup pressures and displacement per cycle may vary based on suction condition, discharge head, air pressure, and fluid type.

- When pump is stored with non-freezing fluid. Pump damage will occur if water or latex paint freezes in pump.
- Damage to plastic parts may result if impact occurs in low temperature conditions.
- ✔ Changes in paint viscosity at very low or very high temperatures can affect sprayer performance.

Notes

#### Notes




#### Notes


Notes

#### Notes


#### Graco Standard Warranty

#### **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.

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Original instructions. This manual contains English. MM 3A4416

Graco Headquarters: Minneapolis International Offices: Belgium, China, Japan, Korea

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