



# TITAN®

## OPERATING MANUAL

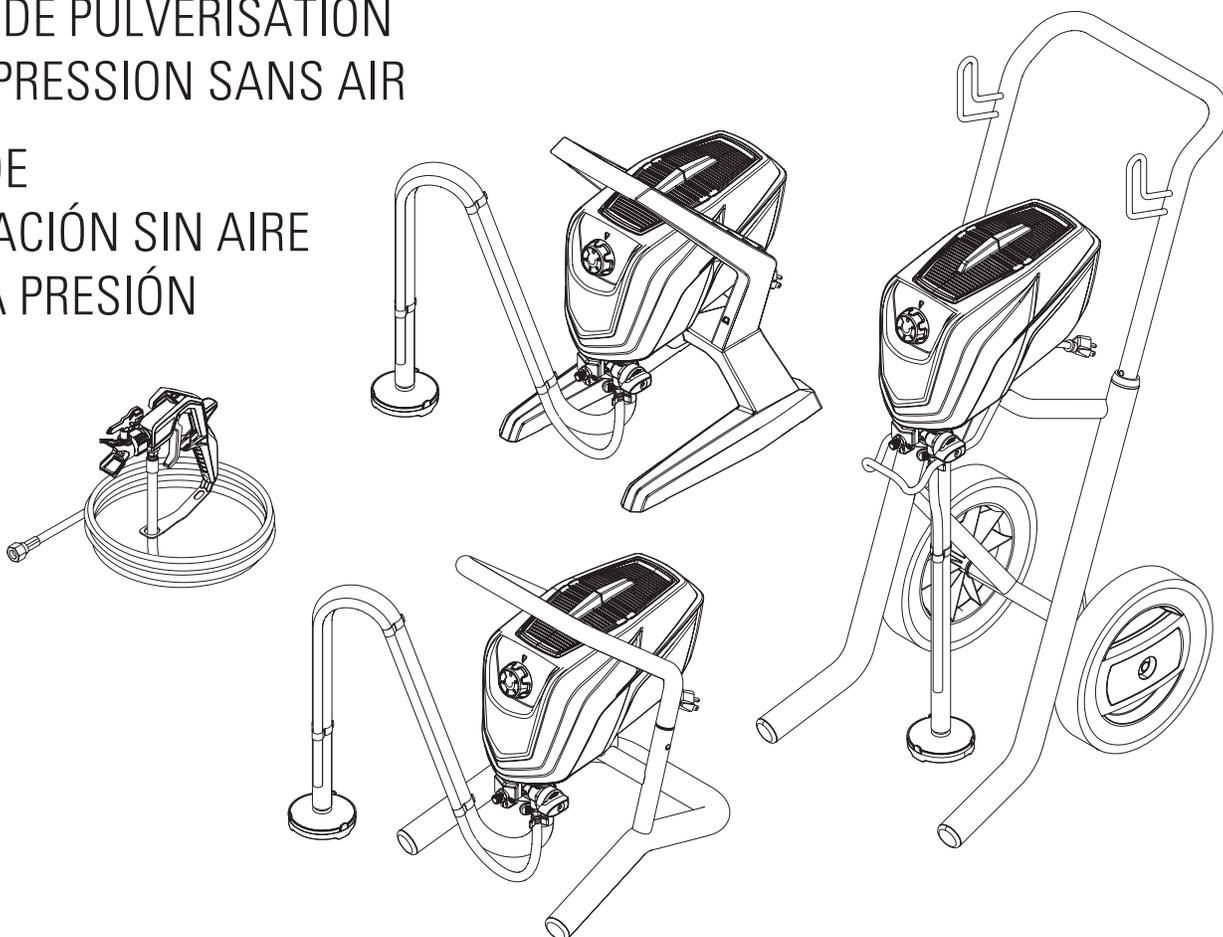
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# ControlMax™

AIRLESS, HIGH-PRESSURE  
SPRAYING UNIT

APPAREIL DE PULVÉRISATION  
À HAUTE PRESSION SANS AIR

UNIDAD DE  
PULVERIZACIÓN SIN AIRE  
Y DE ALTA PRESIÓN



# IMPORTANT SAFETY INFORMATION

Read all safety information before operating the equipment. Save these instructions.

To reduce the risks of fire or explosion, electrical shock and the injury to persons, read and understand all instructions included in this manual. Be familiar with the controls and proper usage of the equipment.

## EXPLANATION OF SYMBOLS



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



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



→ Danger of skin injection



→ Danger of fire from solvent and paint fumes



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



→ Danger of injury from inhalation of harmful vapors



→ Electric shock hazard



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

## GROUNDING INSTRUCTIONS

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

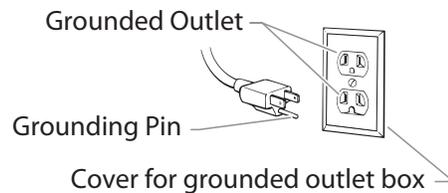


**WARNING** - Improper installation of the grounding plug can result in a risk of electric shock.

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

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

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



When the sprayer is used with a generator or uncontrolled line voltage, the use of Titan's "Line Surge Protector" (P/N 800-935) is recommended.



Make sure to check for grounding continuity after service is performed on any electrical components.

Use an ohmmeter to determine that there is continuity between accessible dead-metal parts of the product and the grounding blade of the attachment plug.

## SAFETY HAZARDS

 	<b>WARNING: EXPLOSION OR FIRE</b> Solvent and paint fumes can explode or ignite. Severe injury and/or property damage can occur.
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### PREVENTION:

- Do not spray flammable or combustible materials near an open flame, pilot lights or sources of ignition such as hot objects, cigarettes, motors, electrical equipment and electrical appliances. Avoid creating sparks from connecting and disconnecting power cords.
- Do not spray or clean with liquids having a flash point of less than 38°C (100°F). Flash point is the temperature at which a fluid can produce enough vapor to ignite.
- Paint or solvent flowing through the equipment is able to result in static electricity. Static electricity creates a risk of fire or explosion in the presence of paint or solvent fumes. All parts of the spray system, including the pump, hose assembly, spray gun and objects in and around the spray area shall be properly grounded to protect against static discharge and sparks. Use only conductive or grounded high-pressure airless paint sprayer hoses specified by the manufacturer.
- Verify that all containers and collection systems are grounded to prevent static discharge.
- Connect to a grounded outlet and use grounded extension cords (electric models only). Do not use a 3 to 2 adapter.
- Do not use a paint or solvent containing halogenated hydrocarbons. Such as chlorine, bleach mildewcide, methylene chloride and trichloroethane. They are not compatible with aluminum. Contact the coating supplier about compatibility of material with aluminum.
- Keep spray area well ventilated. Keep a good supply of fresh air moving through the area to keep the air within the spray area free from accumulation of flammable vapors. Keep pump assembly in well ventilated area. Do not spray pump assembly.
- Do not smoke in the spray area.
- Do not operate light switches, engines, or similar spark producing products in the spray area.
- Keep area clean and free of paint or solvent containers, rags, and other flammable materials.
- Know the contents of the paint and solvents being sprayed. Read all material Safety Data Sheets (SDS) and container labels provided with the paints and solvents. Follow the paint and solvent manufacture's safety instructions.
- Place pump at least 20 feet (6 meters) from the spray object in a well ventilated area (add more hose if necessary).

Flammable vapors are often heavier than air. Floor area must be extremely well ventilated. The pump contains arcing parts that emit sparks and can ignite vapors.

- Plastic can cause static sparks. Never hang plastic to enclose spray area. Do not use plastic drop cloths when spraying flammable material.
- Fire extinguisher equipment shall be present and working.

	<b>WARNING: INJECTION INJURY</b> A high pressure paint stream produced by this equipment can pierce the skin and underlying tissues, leading to serious injury and possible amputation. See a physician immediately.
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### PREVENTION:

- Do not aim the gun at, or spray any person or animal.
- Keep hands and other body parts away from the discharge. For example, do not try to stop leaks with any part of the body.
- NEVER put your hand in front of the gun. Gloves will not provide protection against an injection injury.
- ALWAYS keep the tip guard in place while spraying. The tip guard provides some protection but is mainly a warning device.
- Only use a nozzle tip specified by the manufacturer.
- Use caution when cleaning and changing nozzle tips. In the case where the nozzle tip clogs while spraying, ALWAYS lock gun trigger, shut pump off, and release all pressure before servicing, cleaning tip or guard, or changing tip. Pressure will not be released by turning off the motor. The PRIME/SPRAY valve or pressure bleed valve must be turned to their appropriate positions to relieve system pressure. Refer to PRESSURE RELIEF PROCEDURE described in the pump manual (page 9).
- Do not leave the unit energized or under pressure while unattended. When the unit is not in use, turn off the unit and relieve the pressure in accordance with the manufacturer's instructions.
- High-pressure spray is able to inject toxins into the body and cause serious bodily injury. In the event that injection occurs, seek medical attention immediately.
- Check hoses and parts for signs of damage, a leak can inject material into the skin. Inspect hose before each use. Replace any damaged hoses or parts. Only use TITAN original-high-pressure hoses in order to ensure functionality, safety and durability.
- This system is capable of producing 1600 PSI / 11.1 MPa. Only use replacement parts or accessories that are specified by the manufacturer and that are rated a minimum of 1600 PSI. This includes spray tips, nozzle guards, guns, extensions, fittings, and hose.

# IMPORTANT SAFETY INFORMATION

- Always engage the trigger lock when not spraying. Verify the trigger lock is functioning properly.
- Verify that all connections are secure before operating the unit.
- Know how to stop the unit and bleed pressure quickly. Be thoroughly familiar with the controls. Pressure will not be released by turning off the motor. The PRIME/SPRAY valve or pressure bleed valve must be turned to their appropriate positions to relieve system pressure. Refer to PRESSURE RELIEF PROCEDURE described in the pump manual (page 9).
- Always remove the spray tip before flushing or cleaning the system.

	<p><b>NOTE TO PHYSICIAN:</b></p> <p>Injection into the skin is a traumatic injury which can lead to possible amputation. It is important to treat the injury as soon as possible. <b>DO NOT</b> delay treatment to research toxicity. Toxicity is a concern with some coatings injected directly into the blood stream. Consultation with a plastic surgeon or reconstructive hand surgeon may be advisable.</p>
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	<p><b>WARNING: HAZARDOUS VAPORS</b></p> <p>Paints, solvents, insecticides, and other materials can be harmful if inhaled or come in contact with the body. Vapors can cause severe nausea, fainting, or poisoning.</p>
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**PREVENTION:**

- Use a respirator or mask if vapors can be inhaled. Read all instructions supplied with the mask to be sure it will provide the necessary protection.
- Wear protective eyewear.
- Wear protective clothing as required by coating manufacturer.

	<p><b>WARNING: GENERAL</b></p> <p>Can cause severe injury or property damage.</p>
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**PREVENTION:**

- Always wear appropriate gloves, eye protection, clothing and a respirator or mask when painting.
- Do not operate or spray near children. Keep children away from equipment at all times.
- Do not overreach or stand on an unstable support. Keep effective footing and balance at all times.
- Stay alert and watch what you are doing.

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

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# GENERAL INFORMATION

## MODELS

This pump is available in stand models (1500 / 1700) and cart models (1700 Pro / 1900 Pro).

Some of the graphics in this manual may not exactly match your sprayer and spray gun. All information and instructions given in this manual applies to all models except where noted.

The type of spray gun and length of spray hose included depends upon the pump model you have. Refer to the chart below for details.

Pump Model	Gun Model	Hose Length
ControlMax 1500	Hybrid (plastic/metal handle)	25 ft.
ControlMax 1700	Hybrid (plastic/metal handle)	30 ft.
ControlMax 1700 Pro	Metal (all metal handle)	50 ft.
ControlMax 1900 Pro	Metal (all metal handle)	50 ft.

	The ControlMax can <b>only</b> be used with spray tips, hoses or spray guns that are ControlMax compatible. Do not use any non-ControlMax accessories with this system.
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## SPECIFICATIONS

	1500	1700	1900
<b>Maximum Pressure</b>	1500 PSI (10.3 MPa)	1500 PSI (10.3 MPa)	1600 PSI (11.1 MPa)
<b>Capacity</b>	0.29 GPM (1.1 LPM)	0.33 GPM (1.25 LPM)	0.40 GPM (1.5 LPM)
<b>Max. tip</b>	0.015	0.017	0.019
<b>Horsepower</b>	0.55	0.6	0.7
<b>All models:</b>			
<b>Power Requirement</b>	15 amp minimum circuit on 115 VAC, 60 Hz current		
<b>Generator power requirement</b>	5000 Watt (disable idle-down feature)		
<b>Overheating protection</b>	This sprayer has a built-in protective device to prevent damage from overheating. The sprayer may automatically shut down after heavy use. If this happens, turn switch OFF (0), unplug the sprayer and allow to cool for 20-30 minutes and resume spraying.		

## CAPABILITY

Sprays a variety of paints (oil-based and latex), primers, stains, preservatives and other nonabrasive materials.

## DO NOT USE!

This pump should not be used with textured materials, block filler, lacquers, industrial enamels, or asphalt sealer or materials containing HHC. See coating supplier if flash point is not listed on the container.

## SAFETY FEATURES

Spray gun trigger lock and pressure diffuser; built-in tip safety guard; PRIME/SPRAY knob for safe pressure release. Conforms to UL STD 1450. Certified to CSA C22.2 NO 68.

## IMPORTANT ELECTRICAL INFORMATION

 <b>Attention</b>	Use only a 3-wire extension cord that has a 3-blade grounding plug and a 3-slot receptacle that will accept the plug on the product.
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Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.

A 14 or 12 gauge cord is recommended (see chart). If an extension cord is to be used outdoors, it must be marked with "SJW" or "SJTW". For example, a designation of SJTW would indicate that the cord would be appropriate for outdoor use.

Cord gauge	Maximum cord length
12	150 feet
14	100 feet

Titan Tool accessory extension cords recommended:

- P/N 0090241 20 foot extension cord
- P/N 0090242 35 foot extension cord

# ASSEMBLY



Do not plug in the power cord until assembly is complete.

## TOOLS NEEDED

- Two 6" adjustable wrenches

**1.** Attach the tool box doors to the top of the sprayer as shown. Snap one peg into one of the orifices, and then snap the other peg into the other orifice. The pegs on the ends will snap into the orifices on the unit.

**2. STAND MODELS -** Attach the handle:

**Metal Frame** - Line up the handle with the frame as shown. Push the snap buttons on each side and drop the handle into the frame. The snap-buttons will secure the handle into place.

**Plastic Frame** - Align the handle to the tabs on the unit and press into place until it snaps (no snap buttons).

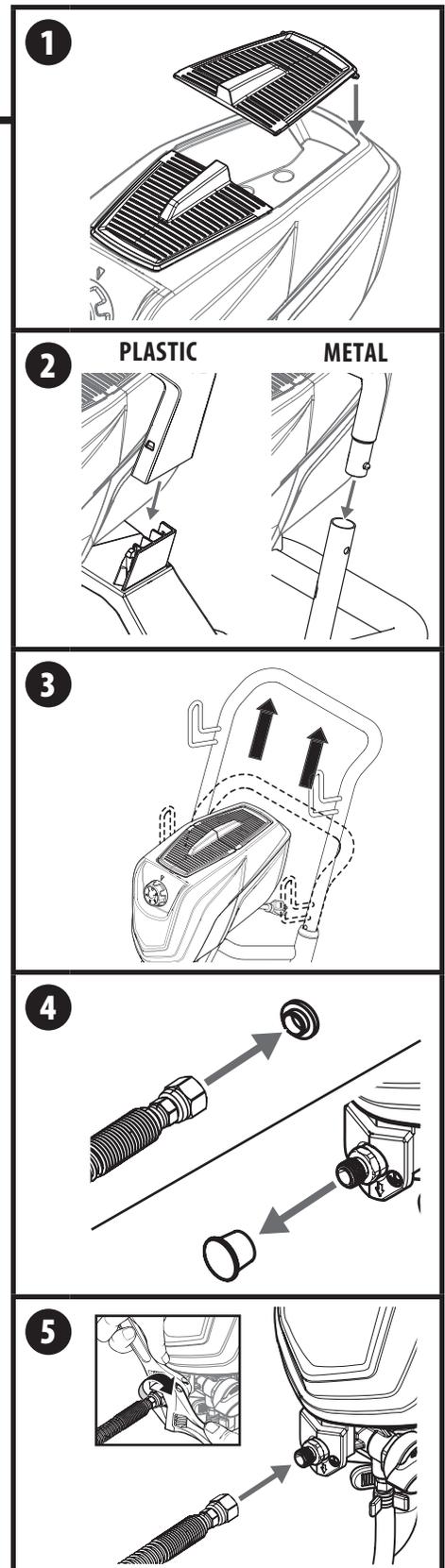


Plastic Frame - Do not attempt to remove the plastic handle. Removal can damage the snap connection.

**3. CART MODEL -** Pull out the handle from the cart frame. Once it reaches its maximum height, it will snap into place. To push it back into the frame, push the snap buttons on the back of the frame.

**4.** Remove the plug from inside the hose fittings and remove the cap on the spray hose port. Discard both.

**5.** Thread one end of the high pressure spray hose to the spray hose port. Hold the port with an adjustable wrench, and tighten the hose with the other. Do not over-tighten.





The spray gun included with the sprayer will have one of two types of hose restraint:

- 1) the "C" type where the hose is clamped, or
- 2) the circular type where the hose gets threaded through a hole in the restraint.

When attaching the hose to the spray gun, follow the appropriate steps to properly secure the spray hose.

## 6. "C" type:

- a. Spin the gun onto the male fitting on the other end of the spray hose. Turning the gun instead of the hose will make it easier to align the threads. Tighten the hose end with a wrench.
- b. Press the hose into the opening in the restraint at the bottom of the gun handle. The hose will flex slightly to fit through the smaller opening and then "pop" into place with no strain remaining on the hose.

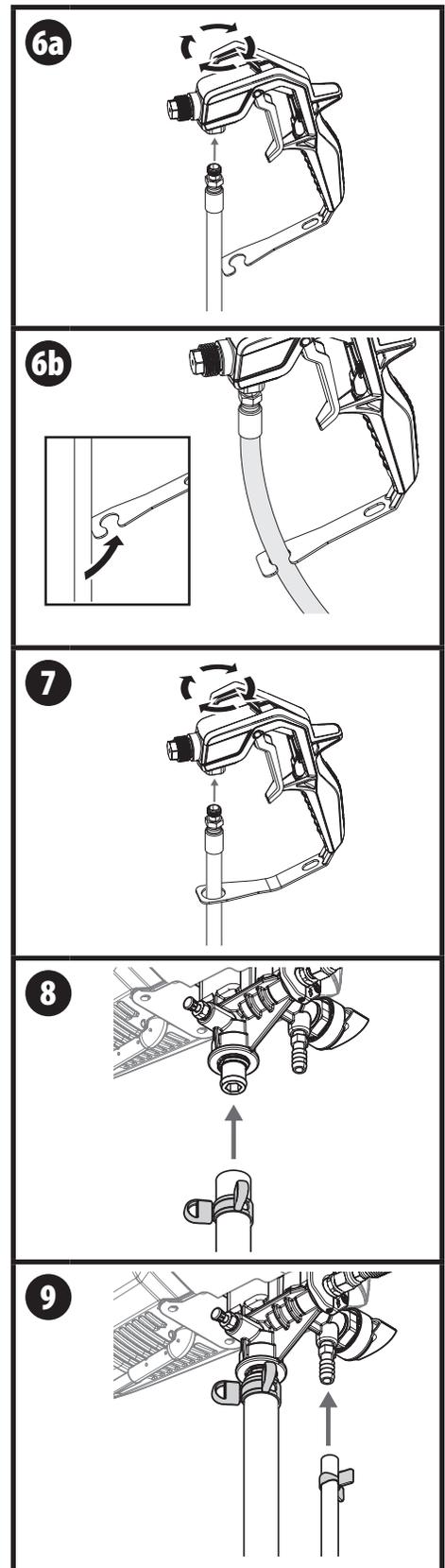


Do not kink the hose when attaching it to the gun or when placing it into the restraint.

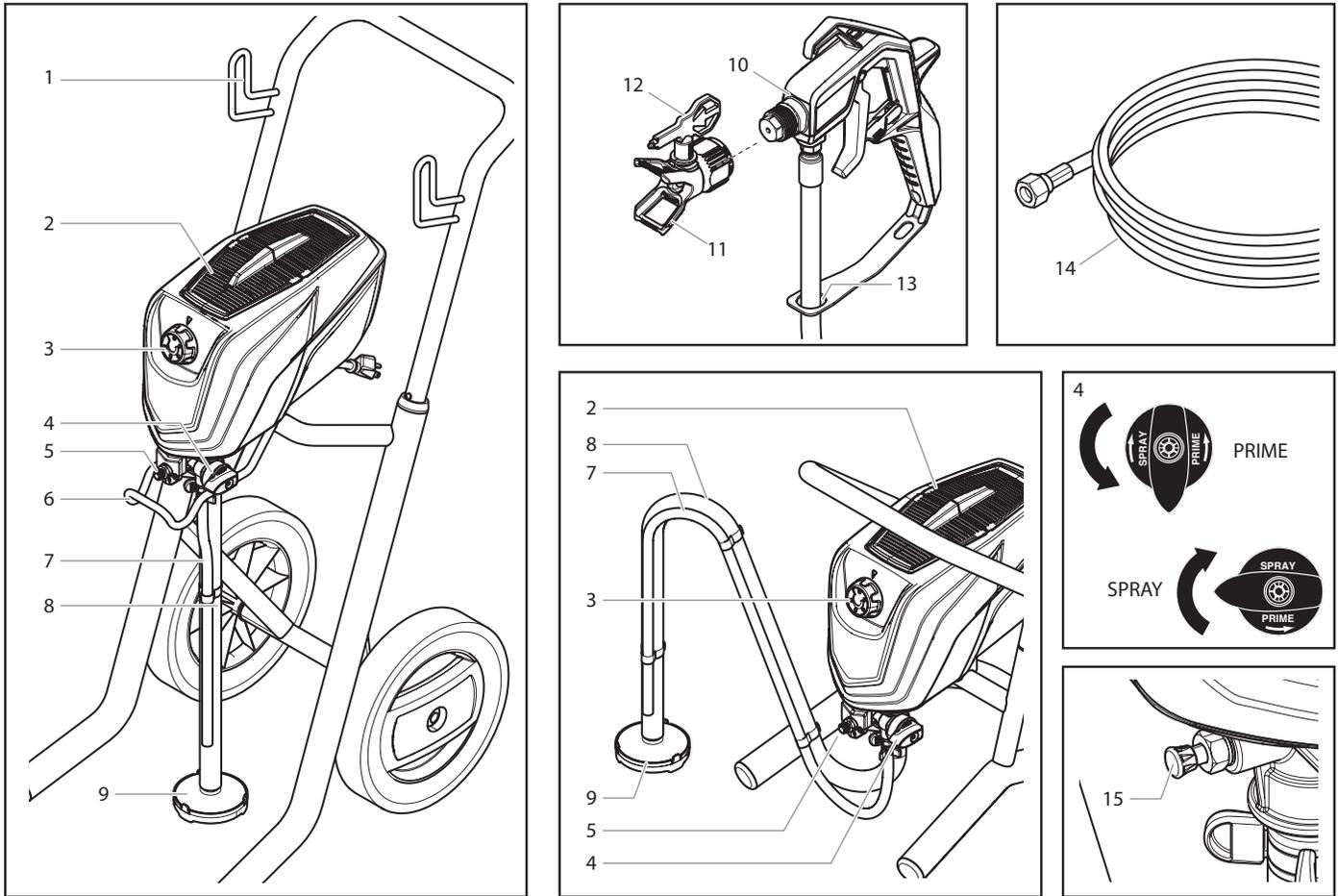
## 7. Circular type:

Thread the end of the hose through the hole in the restraint and into the bottom of the spray gun body as shown. Spin the gun onto the male fitting of the spray hose.

8. Slide the suction tube onto the inlet valve. Secure with the suction tube clamp.
9. Press the return tube onto the return tube fitting. Squeeze hose clamp over the return tube fitting to secure the return tube.



# PARTS AND COMPONENTS



#	ITEM	DESCRIPTION
1	Hose wrap	The hose wrap allows for easy storage of the spray hose (cart models only).
2	Tool box	The Tool Box provides a place for items such as extra spray tips or wrenches.
3	Pressure control knob / ON/OFF switch	The pressure control knob regulates the amount of force the pump uses to push the fluid and can be adjusted for desired spray pattern. Also used to switch the pump ON / OFF.
4	PRIME/SPRAY knob	The PRIME/SPRAY knob directs material to the material return tube when set to PRIME or to spray hose when set to SPRAY.
5	Spray hose port	The connection between the pump and the spray hose.
6	Pail bracket	The pail bracket allows for easy transport of the material container (cart models only).
7	Material return tube	Fluid is sent out through the return tube and back into the original container when the PRIME/SPRAY knob is in the PRIME position.
8	Suction tube	The suction tube draws the fluid from the original container into the pump.
9	Inlet filter	The inlet filter is designed to prevent any debris that may be in the spray material from entering the pump.
10	Spray gun	The spray gun controls the delivery of the material being pumped.
11	Tip guard	The spray guard reduces the risk of injection injury.
12	Spray tip	The spray tip atomizes the spray material and forms the spray pattern.
13	Hose restraint	This retains the hose for easier use and storage.
14	Spray hose	The spray hose connects the spray gun to the pump.
15	Pusher stem	The pusher stem is designed to free the inlet valve which may become stuck due to dried materials. The pusher stem is activated manually by the user.

## BEFORE YOU BEGIN



This section contains instructions that will be repeated throughout this manual. Read and understand this section before using the equipment.

### SPRAY GUN TRIGGER LOCK



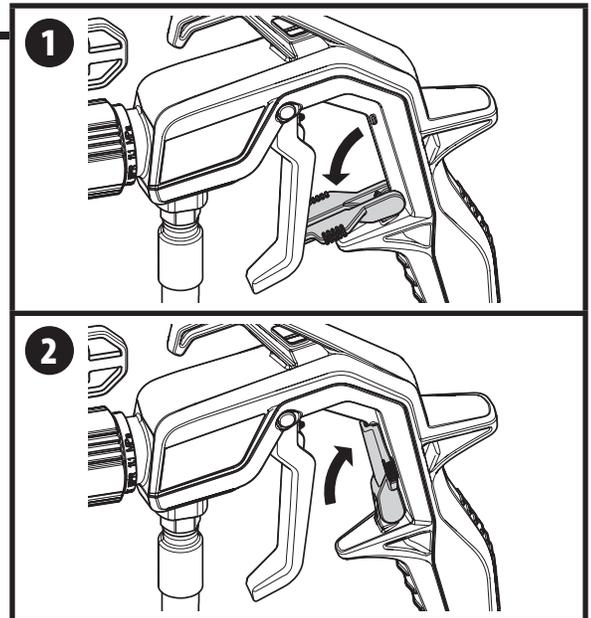
Be careful when handling the spray gun so you do not accidentally spray yourself.

The high pressure paint stream could pierce your skin causing serious injury. If an accident happens see detail procedures in the Safety Information section on pages 3-4.

See physician immediately and bring this instruction manual.

Engage the trigger lock whenever instructed.

1. To lock the trigger, flip the trigger lock down until it stops in place behind the trigger.
2. To unlock the trigger, flip the trigger lock up until it snaps into place on the gun handle.



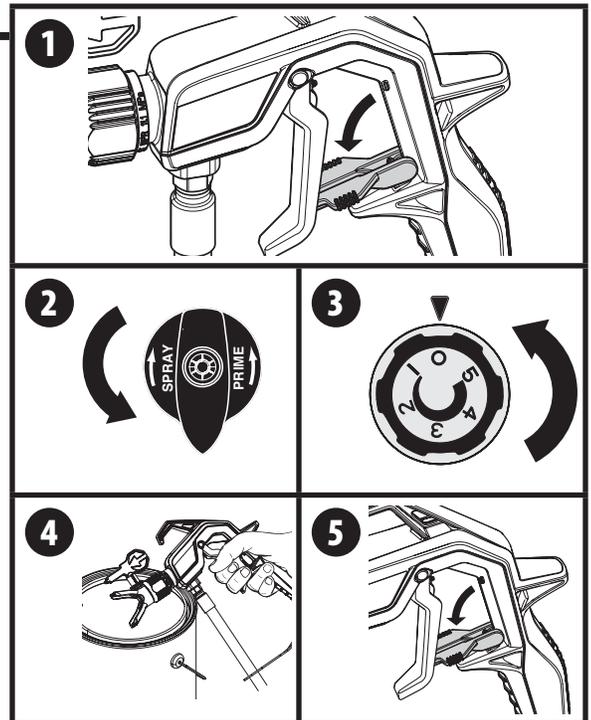
### PRESSURE RELIEF PROCEDURE



Be sure to follow the Pressure Relief Procedure when shutting the unit off for any purpose. This procedure is used to relieve pressure from the spray hose. Failure to do so could result in serious injury.

Perform the Pressure Relief Procedure whenever instructed.

1. Lock the spray gun (see "Spray Gun Trigger Lock", above).
2. Turn the PRIME/SPRAY knob to PRIME (see item 4, previous page).
3. Turn the power OFF (turn pressure control knob to "0").
4. Unlock the spray gun. Briefly pull the trigger to fully relieve pressure from the system.
5. Lock the spray gun.



# LOAD MATERIAL

**i** These steps will prime the system and get it ready to spray.

## YOU WILL NEED

- The material you plan to spray
- Extension cord
- Waste bucket

**i** **Recommendation:** It is good practice to perform the steps on this page using water to familiarize yourself with the function of the unit as well as to ensure the unit is set up properly.

**i** **Recommendation:** Always use new spray material or material that has been thoroughly strained. Old material often contains debris that can clog the system.

**Attention** Take care to prevent material spills. Make sure to use drop cloths or mask anything that is in the spraying area and could accidentally be sprayed.

1. Fully depress the pusher stem to make sure the inlet ball is free.

**i** The pusher stem will only travel approximately 1/8" and will automatically return back to its original position once released.

2. Place a full container of spraying material underneath the suction tube (A). Hold the return tube into a waste container (B).

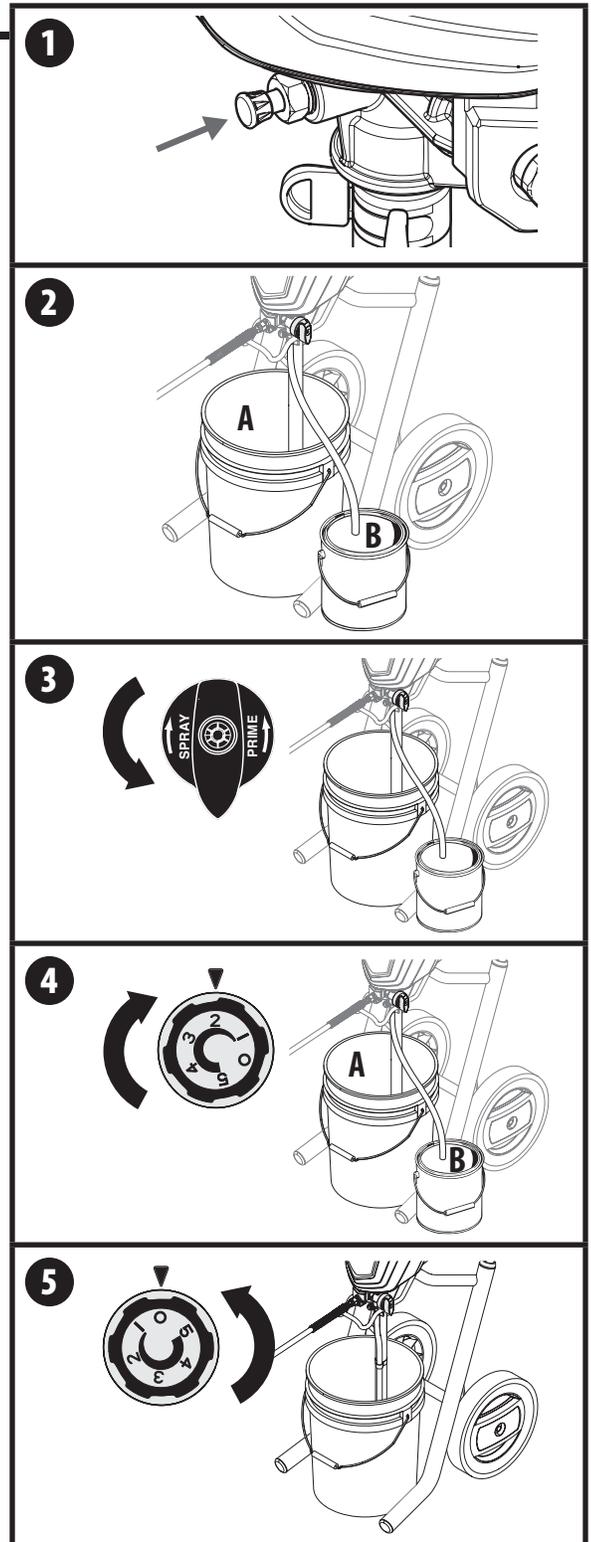
3. Turn the PRIME/SPRAY knob to PRIME.

4. Plug in the sprayer and slowly turn the pressure control knob clockwise to setting '2'.

Allow pump to run until you see spray material flowing from the return tube (B).

5. Switch the pump OFF (0) by turning the pressure control knob completely counterclockwise.

Place return tube back into material container and clip return tube and suction tube together.



# SPRAYING



Follow these steps to deliver spray material from the material container to the spray gun.

## YOU WILL NEED

- Waste bucket
- Scrap material / cardboard
- Drop cloths to protect floors and furnishings from overspray

**1. Make sure the tip guard is removed.** Point the spray gun into a separate waste container. Unlock the spray gun trigger.

**Squeeze and hold trigger for steps 2-3.**

**2.** Slowly turn the pressure control knob clockwise to setting '2'. Turn the PRIME/SPRAY knob to SPRAY.

**3.** Continue to squeeze trigger until the material is flowing freely through the spray gun.

**4.** Perform the Pressure Relief Procedure, page 9.

**5.** Make sure the spray gun trigger is locked. Thread the spray tip guard assembly onto the gun. Tighten by hand.

**6.** Make sure the spray tip is rotated forward to the spray position, with the arrow on the tip facing forward.

Unlock the spray gun trigger.

**7.** Slowly turn the pressure control knob clockwise to the maximum setting (5).

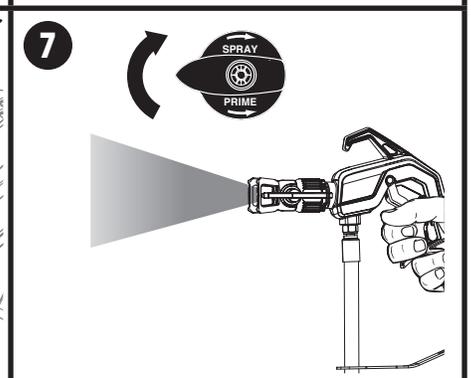
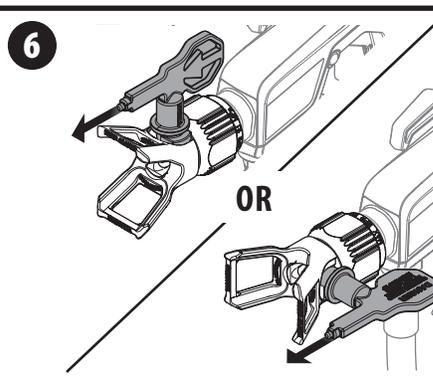
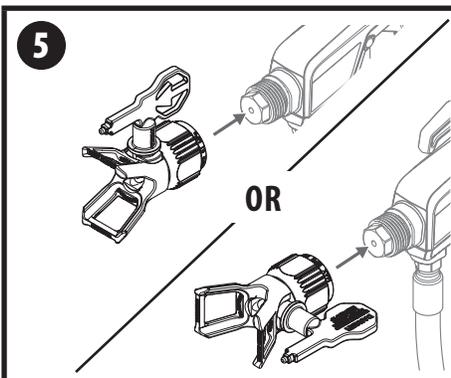
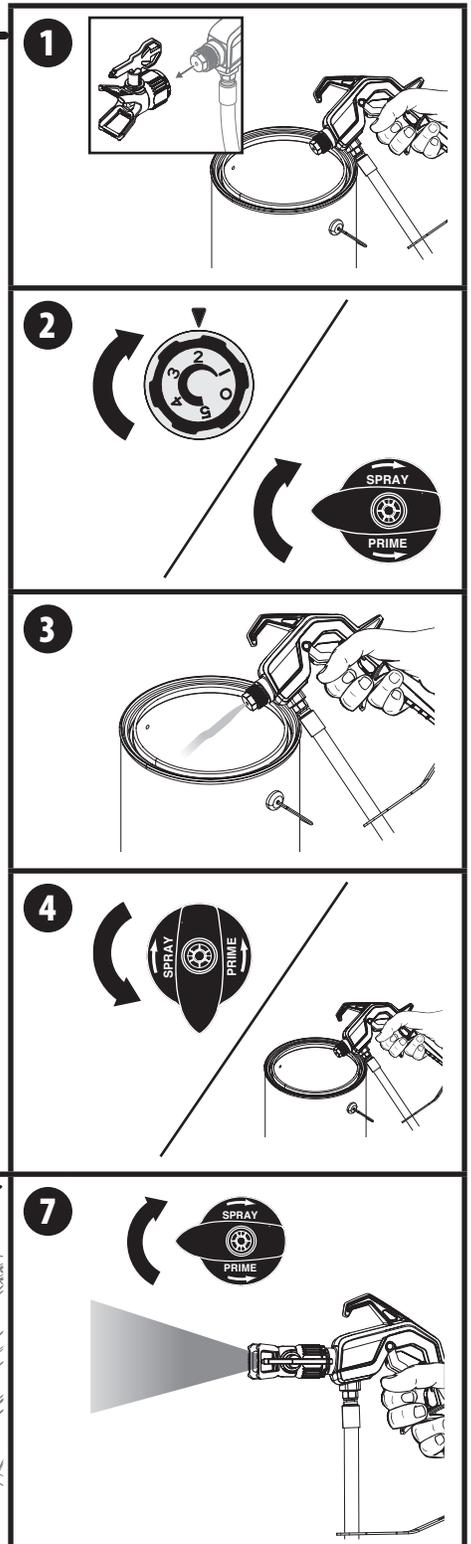
Turn the PRIME/SPRAY knob to SPRAY.

Point the spray gun at a piece of scrap material/cardboard.

Pull the trigger and practice spraying (see pages 12-13).



Motor will cycle ON and OFF while spraying to regulate pressure. This is normal.



# PRACTICE SPRAYING

**i** Prior to spraying, it is important that you are using the spray tip / spray material combination that it suitable for your spraying job.  
Refer to the chart below for a list of recommendations regarding spray tip size, spray material and pressure settings.

## CONTROLMAX TIP SELECTION CHART

				COATINGS				
1500	1700	1900	TIP SIZE	Interior stains Interior and exterior clears Water sealers	Exterior solid stains Acrylic sealers	Acrylics Enamels Polyurethanes	Latex primers Interior latex paints	Oil primers Exterior latex paints
✓	✓	✓	211	✓				
✓	✓	✓	311	✓				
✓	✓	✓	313		✓	✓		
✓	✓	✓	413		✓	✓	✓	
✓	✓	✓	515			✓	✓	✓
✓	✓	✓	517				✓	✓
		✓	619					✓
<b>SPRAY PRESSURE</b>				Low - Med (setting 1-3)	Med - High (setting 3-5)	Med - High (setting 3-5)	High (setting 5)	High (setting 5)

**i** The chart above is a general guideline. Refer to coating manufacturer’s recommendations for airless sprayer tip sizes as well as guidelines for thinning the product to be sprayed.  
The graphics below show the difference between a good spray pattern versus a spray pattern that is poor or has “tailing”, which may be caused by the improper spray tip / spray material / spray pressure combination. For further causes of a poor spray problem, refer to the Troubleshooting section.

**GOOD SPRAY PATTERN**



**POOR SPRAY PATTERN (TAILING)**



# PRACTICE SPRAYING

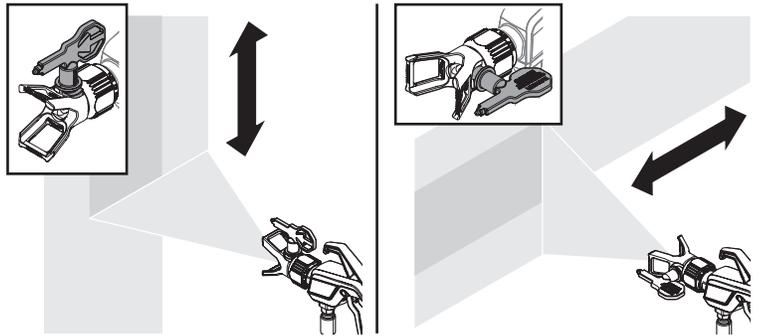
	<p>If the spray pattern becomes distorted or stops spraying completely while the gun is triggered, follow any or all the procedures listed on pages 12-13.</p> <p>If you plan to be away from your spray project for more than one hour, follow the Short Term Storage instructions on page 15.</p> <p>If you have difficulty achieving a good spray pattern, your spray tip may not be ideal for the type of material you are spraying. Refer to "Troubleshooting" page, 22.</p>
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## YOU WILL NEED

- A surface to practice spraying (wood, cardboard or scrap drywall)

While spraying, the spray guard / tip assembly can be rotated to better suit your spraying motion.

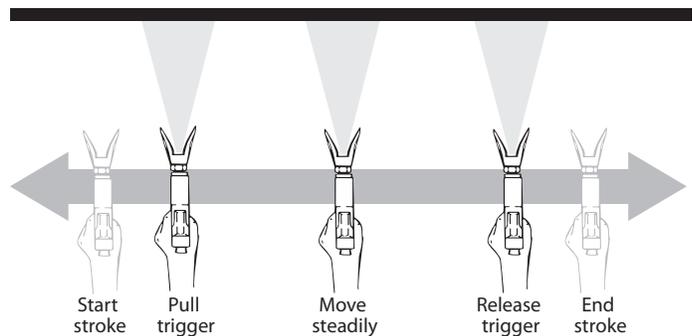
	<p>Lock the spray gun trigger prior to rotating the spray guard / tip assembly.</p> <p>Make sure the spray guard nut is not loosened after rotating.</p>
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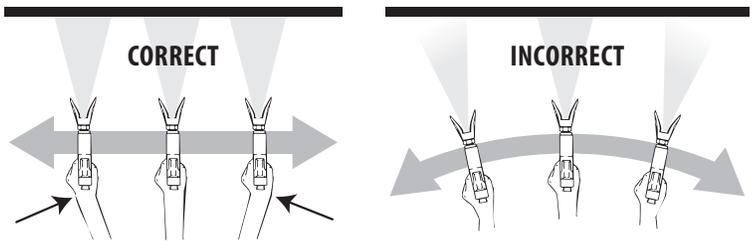
Trigger gun after starting the stroke. Release the trigger before ending the stroke.

The spray gun should be moving when the trigger is pulled and released.

Overlap each stroke by about 50%. This will ensure an even coating.

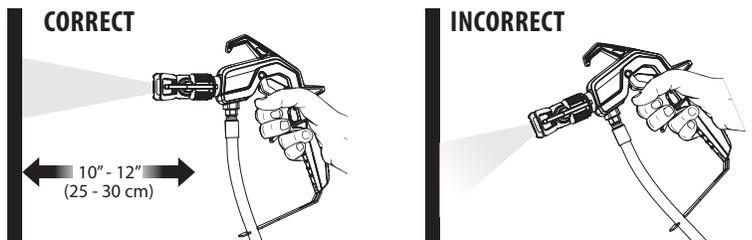


Flex your wrist as you move in order to keep gun parallel to the surface.



Hold the spray gun level.

	<p>The distance from the spray gun to the spray object should not exceed 18 inches.</p>
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## SPRAYING TROUBLESHOOTING - CLEAR THE SPRAY TIP



If the spray pattern becomes distorted or stops spraying completely while the gun is triggered, the spray tip could be clogged. Follow the steps below.

### YOU WILL NEED

- Scrap material / cardboard



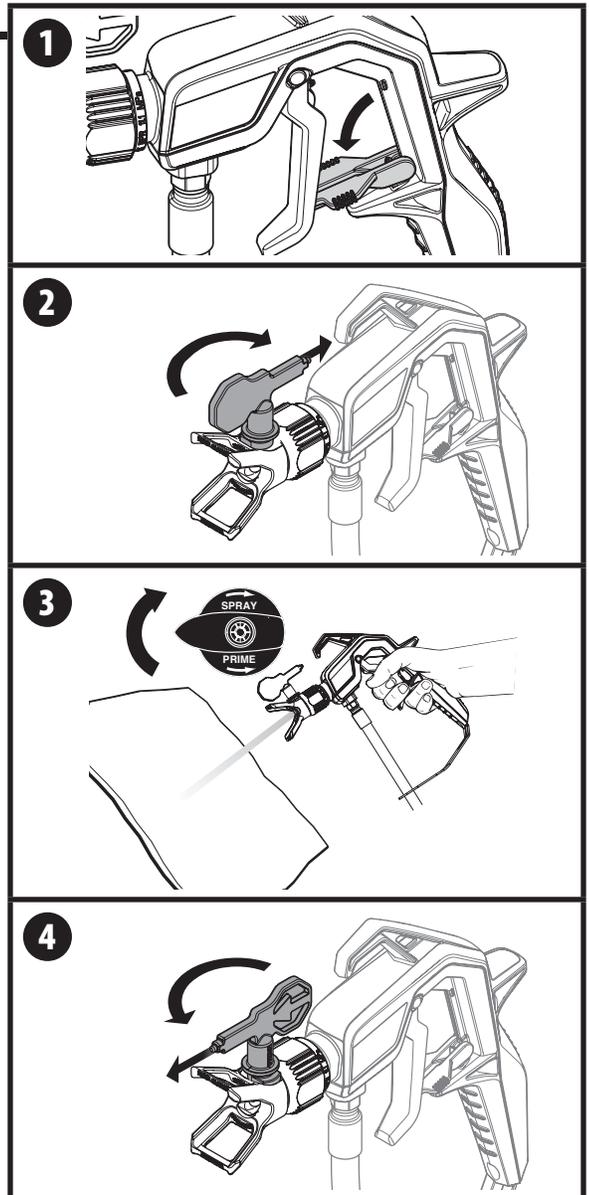
Do not attempt to unclog or clean the tip with your finger. High pressure fluid can cause injection injury.

1. Lock the spray gun.
2. Rotate spray tip 180 degrees from its current position.



If spray tip is difficult to rotate, relieve pressure by:  
1) slowly turn PRIME/SPRAY knob to PRIME,  
2) unlock the spray gun and  
3) squeeze trigger while pointing at scrap material / cardboard.  
Release trigger, lock the spray gun, and try rotating spray tip again.

3. Make sure the PRIME/SPRAY knob is turned to SPRAY.  
Unlock the spray gun.  
Point at a piece of scrap material / cardboard and squeeze trigger until material comes out in a high pressure stream. Release the trigger and lock the spray gun.
4. Rotate spray tip forward to the spray position.  
Unlock the spray gun and resume spraying.



## SPRAYING TROUBLESHOOTING - CLEAN THE INLET FILTER



If the spray pattern becomes distorted or stops spraying completely while the gun is triggered, the inlet filter could be clogged. Follow the steps below.

### YOU WILL NEED

- Warm, soapy water for latex material
- Mineral spirits for oil based materials



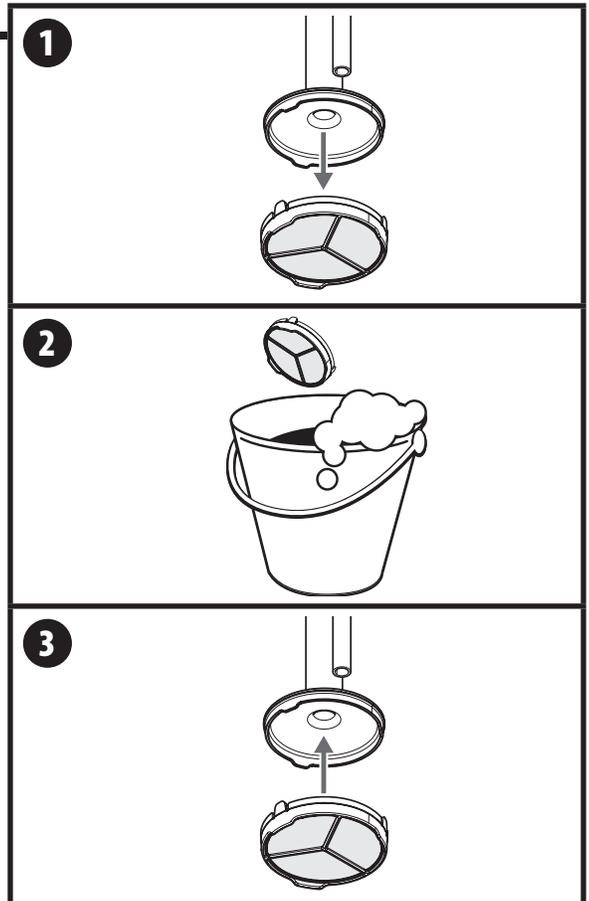
Attention

Make sure your floors and furnishings are covered with drop cloths to prevent accidental drips.

1. Remove the inlet filter by pulling it off the suction tube.
2. Clean the screen using the appropriate cleaning solution (warm, soapy water for latex materials, mineral spirits for oil-based materials).
3. Snap the inlet filter back into place.



If after completing all of the steps in Spraying Troubleshooting you are still experiencing problems spraying, refer to the Troubleshooting section (page 22).



# SHORT-TERM STORAGE



This procedure should be used when taking a short term break or when ending your project for the day. If your break is longer than 16 hours follow **Cleanup** instructions, pages 17-18.

## YOU WILL NEED

- Water
- Plastic bag
- Damp rags
- Stir stick



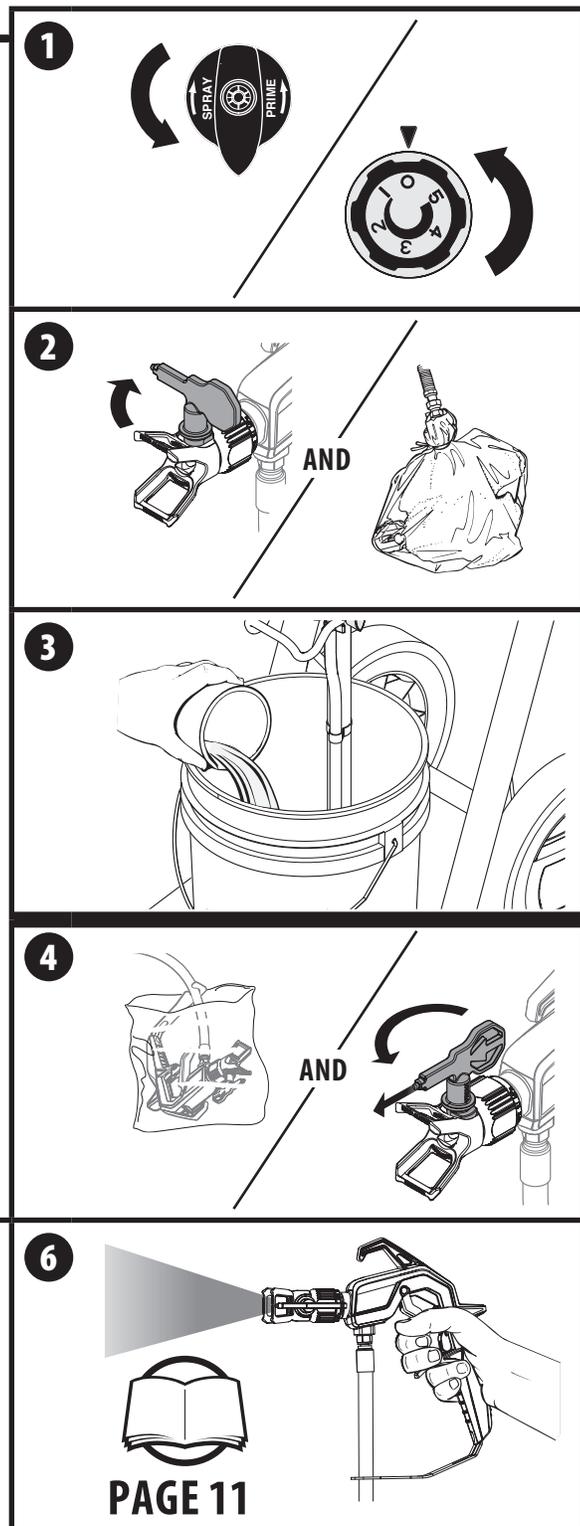
Instructions are for latex materials only! If using oil based material follow instructions for **Cleanup** on pages 17-18.

## SHUTDOWN

1. Perform the **Pressure Relief Procedure**, page 9.
2. Turn spray tip 90°. This will prevent air from drying out any spray material that may be inside the spray tip. Wrap spray tip in a damp rag and then place entire spray gun in plastic bag.
3. Pour 1/2 cup water slowly on the top of the paint to prevent the paint from drying.  
Place the entire spraying system out of the sun.

## STARTUP

4. Remove the spray gun from the plastic bag or the water. Turn the spray tip back to the spraying position.
5. If water was added during shut down, stir water into material with the stir stick.
6. Follow **Spraying** instructions, page 11.



# CLEANUP

## CLEANING NOTES - READ BEFORE CLEANING

- When using latex material, clean sprayer and components with warm, soapy water. For oil based material use mineral spirits. Never use mineral spirits with latex materials.
- NEVER use gasoline to clean sprayer.
- Dispose of used cleaning solution properly.
- Thorough cleaning and lubrication of sprayer is important to ensure proper operation after storage.
- If you flush your sprayer with mineral spirits, repeat Cleanup instructions using warm, soapy water.

## Follow these steps whenever cleaning with mineral spirits:

- If spraying or cleaning with oil-based materials, the spray gun must be grounded while preparing the spray hose or cleaning.
- Ground the gun by holding it against the edge of a metal container while purging. Failure to do so may lead to a static electric discharge which may cause a fire.
- Always flush spray gun at least one hose length from spray pump.
- If collecting flushed solvent in one gallon metal container, place it into an empty five gallon container, then flush.
- Area must be free from vapors.
- Follow all cleanup instructions.

## YOU WILL NEED

- Warm, soapy water if using latex material
- Mineral spirits if using oil-based material
- Empty waste container
- Soft-bristled brush



The suction tube may become discolored or cloudy after being used. This is normal.

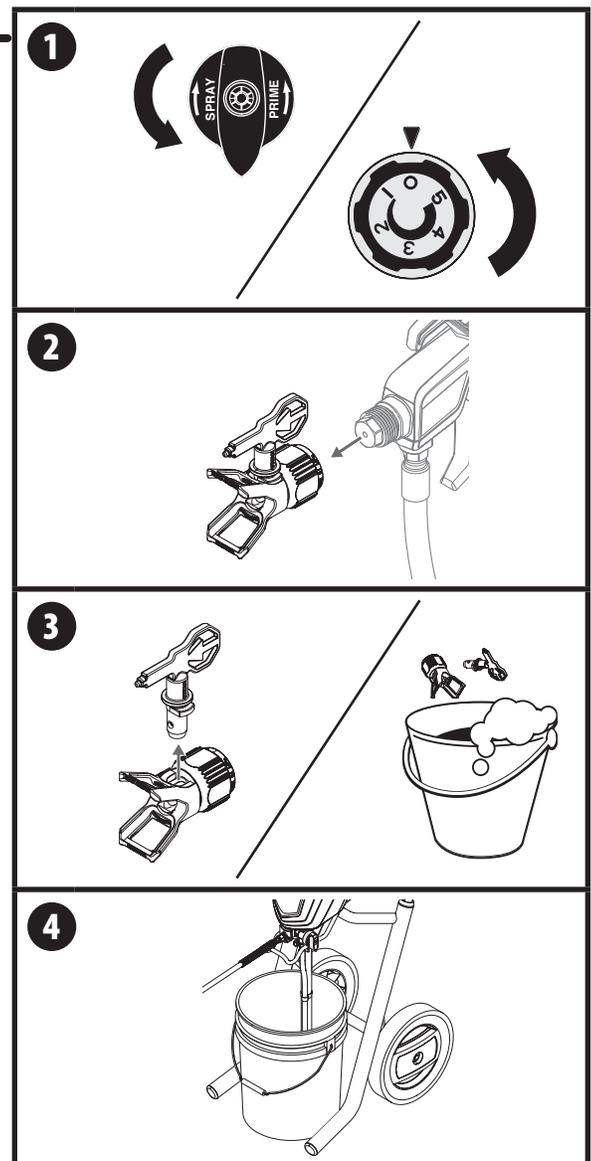
1. Perform **Pressure Relief Procedure** (page 9).
2. Remove the tip guard from the spray gun.
3. Remove the spray tip from the tip guard. Place both into a container of the appropriate cleaning solution.



It is okay to place the spray tip and tip guard in the same container of cleaning solution that you will use in the following steps.

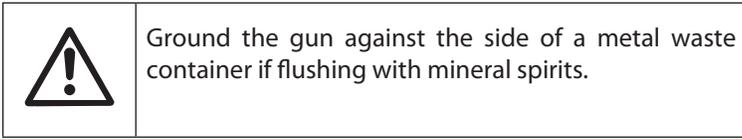
Allowing them to soak while flushing will make it easier to clean them afterwards.

4. Submerge suction set into a bucket with the appropriate cleaning solution.  
(Continued on the next page)



## CLEANUP - CONTINUED

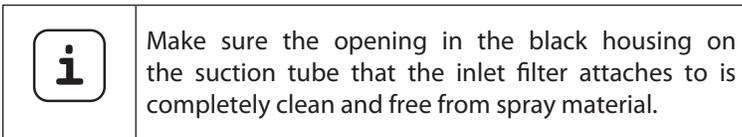
5. Point the spray gun at the side of a waste container.



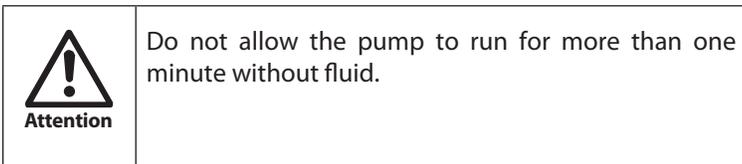
While squeezing the trigger, turn the pressure control knob to '2', and turn the PRIME/SPRAY knob to SPRAY.

6. Continue squeezing the trigger until fluid is coming out clear. You may need to get new cleaning solution.
7. Perform Pressure Relief Procedure, page 9.
8. Remove the inlet filter by pulling it off the suction tube. Clean by hand using a soft-bristled brush.

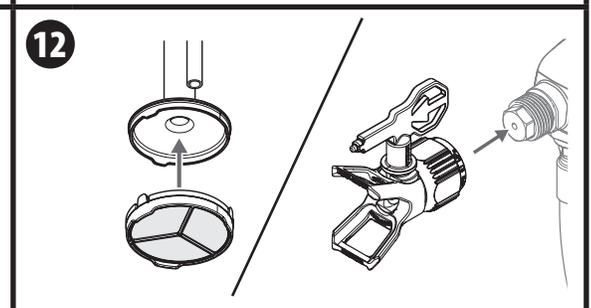
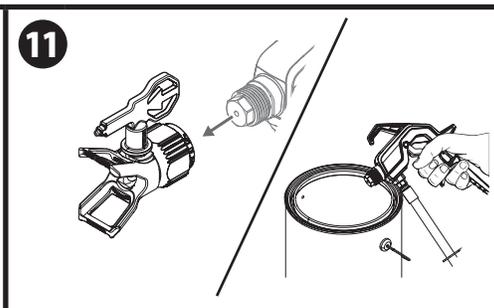
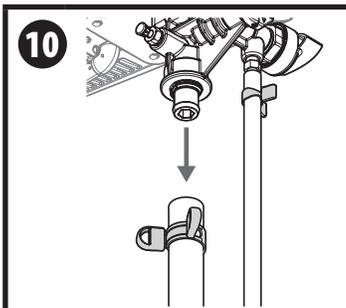
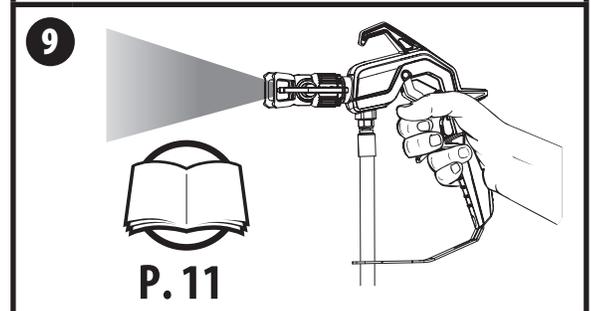
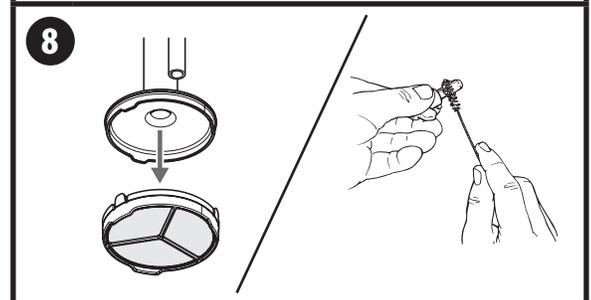
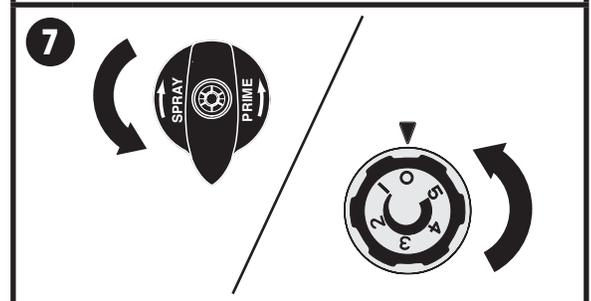
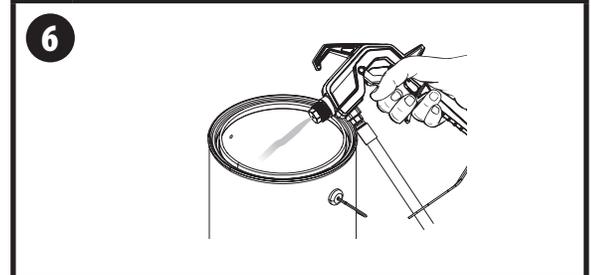
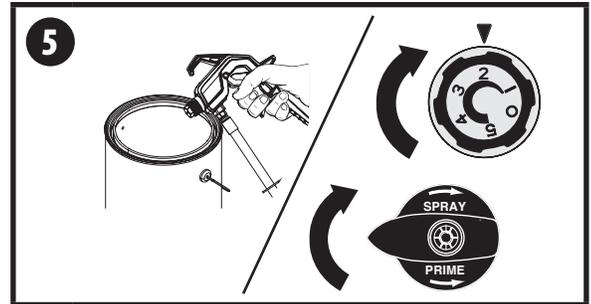
Remove the tip guard and spray tip from the cleaning solution. Clean by hand using a soft bristled brush.



9. **IMPORTANT STEP:** Fill a bucket with warm, soapy water. Following steps 5-7 in the "Spraying" section, spray at least one gallon of warm, soapy water. This will ensure that the spray tip will be completely clean for the next use.
10. Perform Pressure Relief Procedure, page 9. Remove the suction tube. Run water from a faucet through the tube to flush out any remaining material. Do not reinstall the suction tube.
11. Remove the spray tip assembly.
- Repeat step 5 from above, continuing to squeeze the trigger until no fluid comes from the gun (this will purge any remaining water in the spray hose).
- Turn PRIME/SPRAY knob to PRIME. Turn power OFF.



12. Reattach both the inlet filter and spray tip/tip guard assembly.



# LONG TERM STORAGE



Follow these steps to prepare your sprayer for long-term storage.

## YOU WILL NEED

- Light household oil / Piston Lube
- Rags
- Two adjustable wrenches



The suction tube should still be removed from the end of the previous section and the PRIME/SPRAY knob should be in the PRIME position.

1. Remove the spray hose from the spray gun. Tip the spray gun upside down and pour a few drops of Piston Lube inside the gun housing.

A light oil can be substituted (such as 10W30 motor oil or vegetable oil for example).

2. Place a wrench on the outlet valve to secure it. Using the second wrench, remove the spray hose.

3. Fill a cup or other container with two ounces of Piston Lube and submerge the inlet valve (a) into the oil.

A light oil can be substituted (such as 10W30 motor oil or vegetable oil for example).

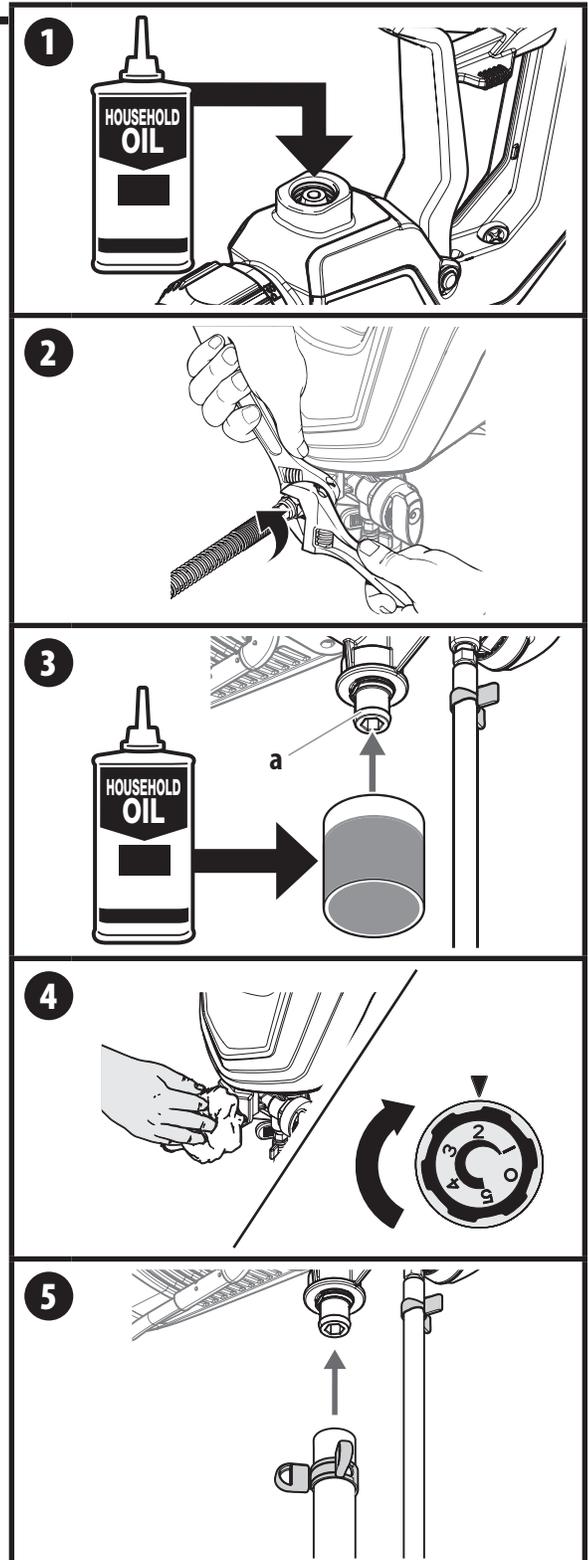
4. Cover the outlet valve with a rag. Turn the pressure control knob to '2' and let the pump run for five seconds.

Turn power OFF.

5. Replace suction tube. Wipe entire unit, hose, and spray gun to remove accumulated spray material.



Store the unit indoors with the power cord wrapped around the cart handle or stand.



# CLEANING THE INLET VALVE



Cleaning or replacing the inlet valve may be required if the unit has priming problems. Priming problems may be prevented by properly cleaning the sprayer and following the long-term storage steps.

## YOU WILL NEED

- Adjustable wrench or 10 mm allen wrench
- Warm, soapy water if using latex material
- Mineral spirits for oil based material
- Petroleum jelly

1. Remove the suction tube.
2. Place a wrench on the flats of the inlet valve fitting (a), or insert a 10 mm allen wrench into the hex opening. Unscrew the inlet valve fitting from the sprayer. Remove the inlet valve seat (b), O-ring (c) inlet valve ball (d) and spring (e). **Take care not to lose any removed parts.**

Visually inspect the removed parts, as well as the inside and outside of the inlet valve fitting. Inspect the inlet valve housing area where the inlet valve assembly was removed.

Clean any paint residue in these places with the appropriate cleaning solution.

3. Lubricate the O-ring (c) on the inlet valve with petroleum jelly. Replace all parts back into the inlet valve housing in the reverse order of how they were removed. Note the correct orientation of the inlet valve seat (b). Replace inlet valve assembly by screwing it into the sprayer. Tighten with a wrench.



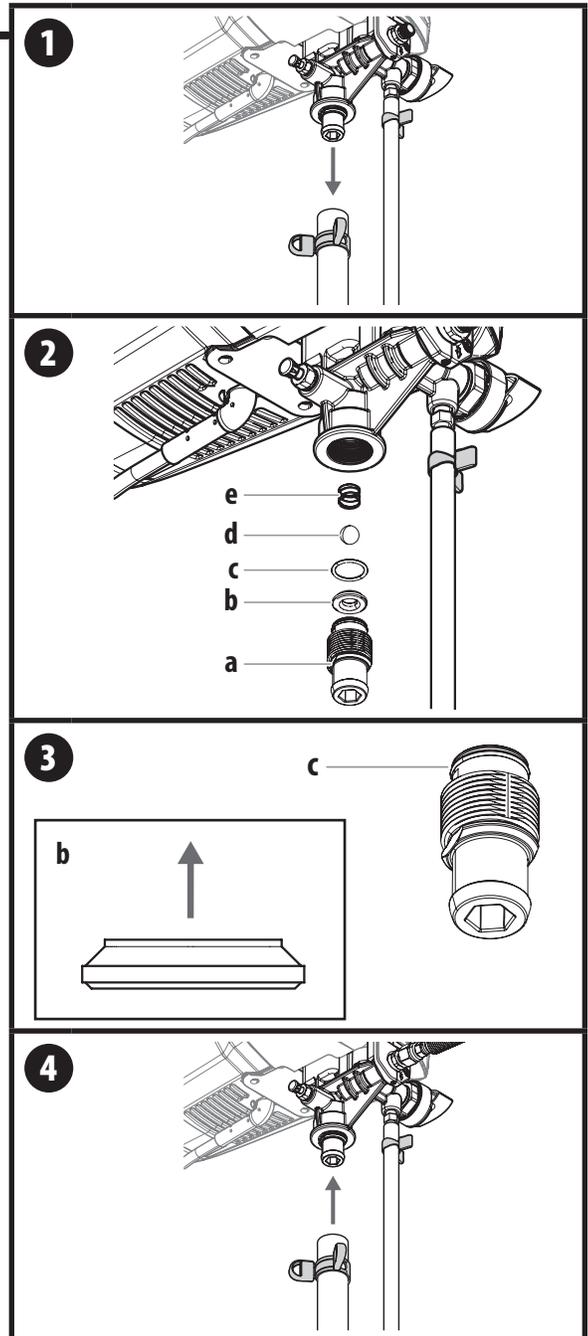
Attention

Do not overtighten the inlet valve fitting (torque to 120-150 in.-lbs).

4. Replace suction tube.



If priming problems persist, you may need to replace the inlet valve assembly. Call Technical Service (1-866-848-2698) to order a new inlet valve assembly.



# CLEANING THE OUTLET VALVE



Cleaning or replacing the outlet valve may be necessary if spray performance remains poor after following the steps in the Troubleshooting section. Call Technical Service (1-866-848-2698) to order a new outlet valve assembly.

## YOU WILL NEED

- Two 6" adjustable wrenches
- 2.5 mm allen wrench
- Warm, soapy water if using latex material
- Mineral spirits for oil based material

1. Place a wrench on the outlet valve to secure it. Using the second wrench, remove the spray hose.
2. Loosen (**but do not remove**) the set screw just underneath the outlet valve with a 2.5 mm allen wrench.
3. Unscrew outlet valve from outlet valve housing using wrench. Remove any accumulated material inside outlet valve housing using appropriate solution for material being used. Pay particular attention to the ball and seat area at the end of the outlet valve (opposite the hose end). Remove any accumulated material.

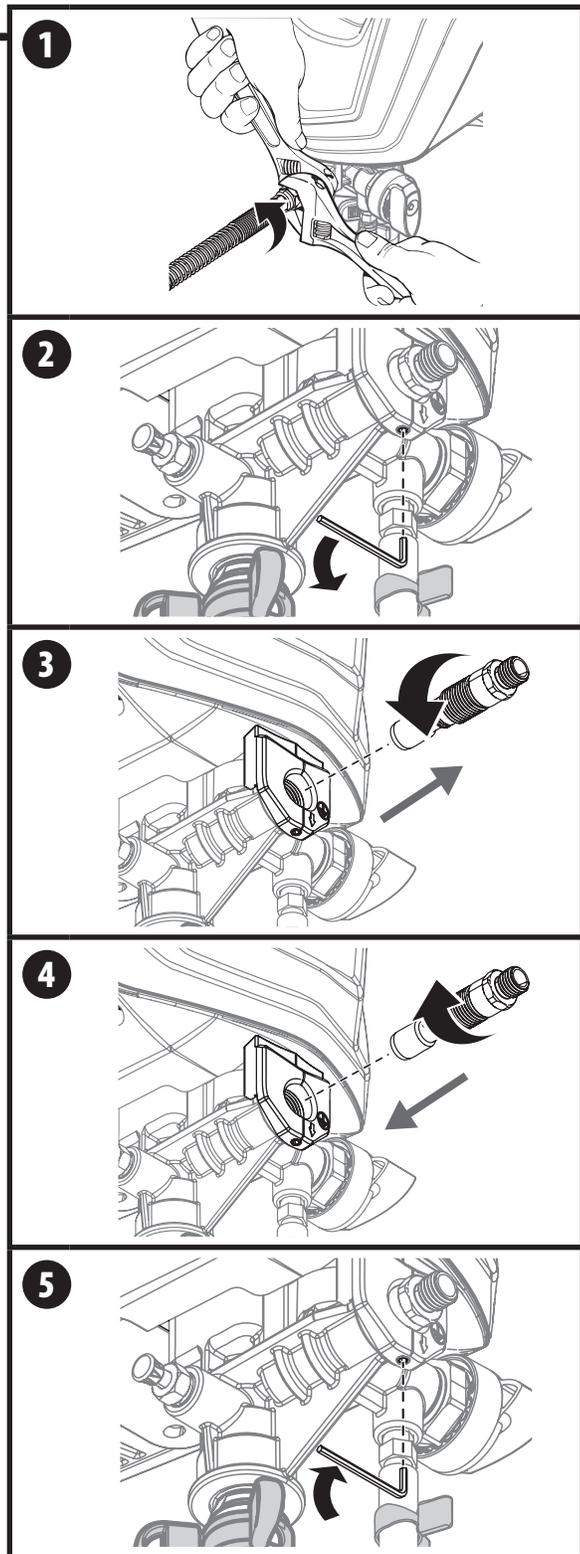


Recommendation: If used with latex-based paints, flush out the outlet valve with water from a faucet.

4. Replace with new or cleaned outlet valve and tighten with wrench. Do not over tighten. Torque to 90-110 in-lbs.
5. Tighten the set screw to secure the outlet valve. Do not over tighten. Torque to 20-25 in-lbs.



It is very important to tighten the set screw to ensure proper grounding of the hose and gun



# TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
A. The sprayer does not turn on.	<ol style="list-style-type: none"> <li>1. The sprayer is not plugged in.</li> <li>2. Pressure control knob is set to OFF.</li> <li>3. The sprayer shuts off while under pressure.</li> <li>4. No power is coming from power outlet.</li> <li>5. The extension cord is damaged or is not the proper gauge or length.</li> <li>6. There is a problem with sprayer motor.</li> <li>7. Spray tip clogged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Plug the sprayer in.</li> <li>2. Turn pressure control knob to recommended setting.</li> <li>3. Motor will cycle ON and OFF while spraying to regulate pressure. This is normal.</li> <li>4. Reset circuit breaker or find another outlet.</li> <li>5. Refer to General Information.</li> <li>6. Call Technical Service (1-866-848-2698).</li> <li>7. Refer to Clear the Spray Tip.</li> </ol>
B. The sprayer starts but does not draw material when the PRIME/SPRAY knob is set to PRIME	<ol style="list-style-type: none"> <li>1. The inlet valve is stuck from old material.</li> <li>2. There is no suction at the inlet valve.</li> <li>3. The suction tube is not properly installed.</li> <li>4. The suction tube is damaged or completely clogged.</li> <li>5. The inlet filter is clogged.</li> <li>6. The outlet valve is stuck or contains debris.</li> <li>7. The inlet valve or outlet valve is worn or damaged.</li> <li>8. The PRIME/SPRAY valve is plugged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Push pusher stem to release. If still stuck refer to Cleaning the Inlet Valve.</li> <li>2. Remove suction tube and check suction by placing finger on bottom of inlet valve. If no suction, refer to Cleaning the Inlet Valve.</li> <li>3. Reinstall the suction tube</li> <li>4. Replace with a new suction tube.</li> <li>5. Refer to Clean the Inlet filter or replace the inlet filter.</li> <li>6. Refer to Cleaning the Outlet Valve.</li> <li>7. Replace the inlet valve or outlet valve.</li> <li>8. Call Technical Service (1-866-848-2698).</li> </ol>
C. The sprayer draws up material but the pressure drops when the gun is triggered (bad spray pattern or no spray pattern)	<ol style="list-style-type: none"> <li>1. Pressure too low.</li> <li>2. The spray tip is worn.</li> <li>3. The inlet filter is clogged.</li> <li>4. The spray tip is plugged.</li> <li>5. The material is too heavy or thick.</li> <li>6. The material is too coarse.</li> <li>7. The outlet valve assembly is damaged or worn.</li> <li>8. Spray hose is too long.</li> <li>9. Filter accessory is dirty or plugged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Increase the pressure by turning the pressure control knob to a higher setting.</li> <li>2. Replace spray tip with a new one.</li> <li>3. Refer to Clean the Inlet filter, or replace with a new inlet filter.</li> <li>4. Refer to Clear the Spray Tip or replace with a new spray tip.</li> <li>5. Thin the material, or use a larger tip (see Tip Selection Chart, page 12).</li> <li>6. Strain the material or purchase the filter accessory (see Accessories, page 72).</li> <li>7. Replace the outlet valve.</li> <li>8. Remove any extra hose length that has been added.</li> <li>9. Clean or replace.</li> </ol>
D. The PRIME/SPRAY knob is set to SPRAY and there is flow through the material return tube	<ol style="list-style-type: none"> <li>1. The PRIME/SPRAY valve is dirty or worn.</li> </ol>	<ol style="list-style-type: none"> <li>1. Call Technical Service (1-866-848-2698).</li> </ol>
E. The spray gun leaks	<ol style="list-style-type: none"> <li>1. Internal parts of spray gun are worn or dirty.</li> </ol>	<ol style="list-style-type: none"> <li>1. Call Technical Service (1-866-848-2698).</li> </ol>
F. The spray tip assembly leaks	<ol style="list-style-type: none"> <li>1. The tip guard nut is loose.</li> <li>2. Tip guard was assembled incorrectly.</li> <li>3. Tip seal is worn</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten tip guard nut.</li> <li>2. Remove and assemble correctly.</li> <li>3. Replace tip seal</li> </ol>
G. The spray gun will not spray	<ol style="list-style-type: none"> <li>1. The spray tip plugged.</li> <li>2. The spray tip is in wrong position.</li> <li>3. PRIME/SPRAY knob not set on SPRAY.</li> <li>4. Filter accessory is dirty or plugged.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to Clear the Spray Tip .</li> <li>2. Rotate spray tip to SPRAY position.</li> <li>3. Turn PRIME/SPRAY knob to SPRAY.</li> <li>4. Clean or replace.</li> </ol>
H. The spray pattern is poor (tailing)	<ol style="list-style-type: none"> <li>1. Pressure too low.</li> <li>2. The spray tip is plugged.</li> <li>3. The inlet filter is clogged.</li> <li>4. The spray tip is worn.</li> <li>5. The material is too heavy or thick.</li> <li>6. Spray hose is too long.</li> </ol>	<ol style="list-style-type: none"> <li>1. Increase the pressure by turning the pressure control knob to a higher setting.</li> <li>2. Refer to Clear the Spray Tip</li> <li>3. Refer to Clean the Inlet filter or replace with a new inlet filter.</li> <li>4. Replace the spray tip.</li> <li>5. Thin material per manufacturer's recommendations.</li> <li>6. Remove any extra hose length that has been added.</li> </ol>
I. The spray tip will not turn	<ol style="list-style-type: none"> <li>1. High pressure has locked the spray tip in place.</li> </ol>	<ol style="list-style-type: none"> <li>1. Refer to Clear the Spray Tip.</li> </ol>



# WARRANTY

## AIRLESS PAINT SPRAY EQUIPMENT

This product, manufactured by Titan Tool, is warranted to the original retail purchaser against defects in material and workmanship for two years from date of purchase.

This warranty does not cover damage resulting from improper use, accidents, user's negligence or normal wear. This warranty does not cover any defects or damages caused by service or repair performed by anyone other than a Titan Authorized Service Center. This warranty does not apply to accessories.

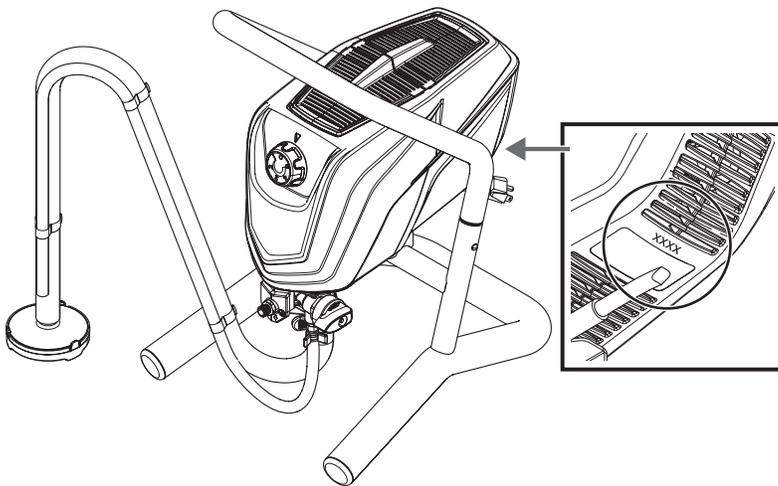
TITAN SHALL NOT IN ANY EVENT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, WHETHER FROM BREACH OF THIS WARRANTY OR ANY OTHER REASON.

If any product is defective in material and/or workmanship during the applicable warranty period, please call Titan Technical Service at 1-866-848-2698. **DO NOT RETURN THE PRODUCT TO THE ORIGINAL RETAILER.** Under Titan's Free Tool Replacement Program, Titan Technical Service will either replace the defective part, or refer you to your nearest Authorized Service Center for repair.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION AND EXCLUSION MAY NOT APPLY TO YOU.

**THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.**

## DATE CODE LOCATION (ALL UNITS)



# TITAN®

### United States Sales & Service

Phone: 1-866-848-2698

Fax: 1-763-519-3563

1770 Fernbrook Lane  
Minneapolis, MN 55447  
www.titantool.com

### International

international@titantool.com

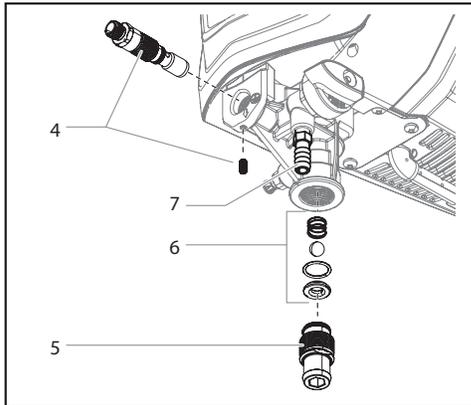
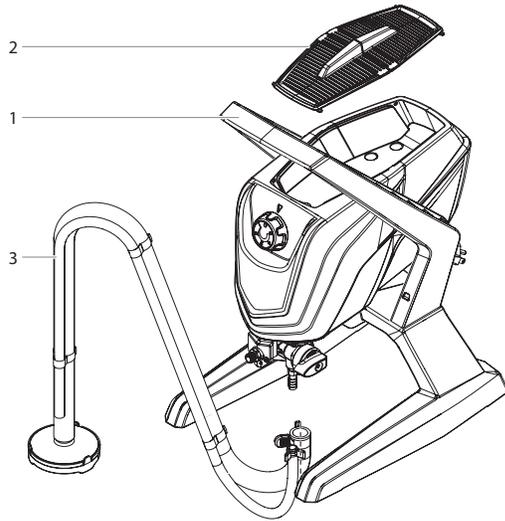
Fax: 1-763-519-3509

1770 Fernbrook Lane  
Minneapolis, MN 55447  
www.titantool-international.com

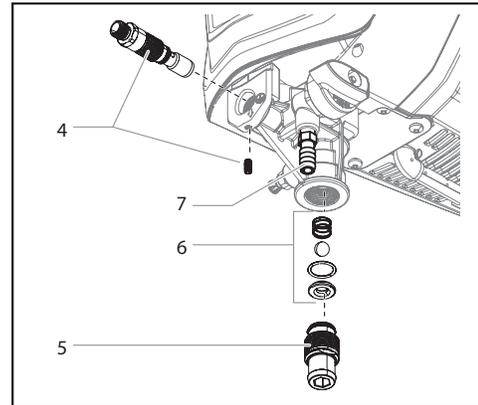
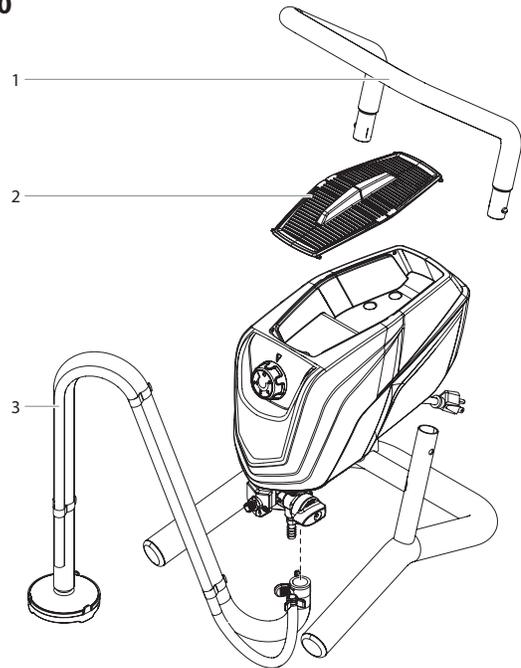
# PARTS LIST • LISTE DE PIÈCES • LISTA DE PIEZAS

## MAIN ASSEMBLY (STAND MODELS) • ENSEMBLE PRINCIPAL (MODÈLES DE SUPPORT) • MONTAJE PRINCIPAL (MODELOS DE SOPORTE)

1500



1700



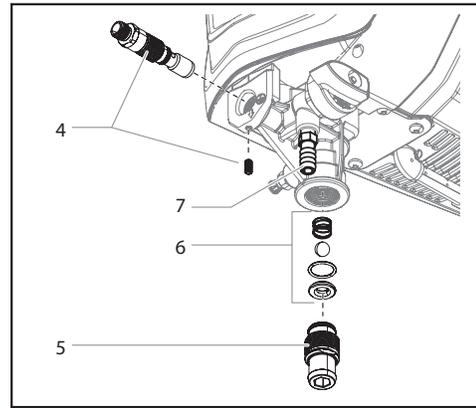
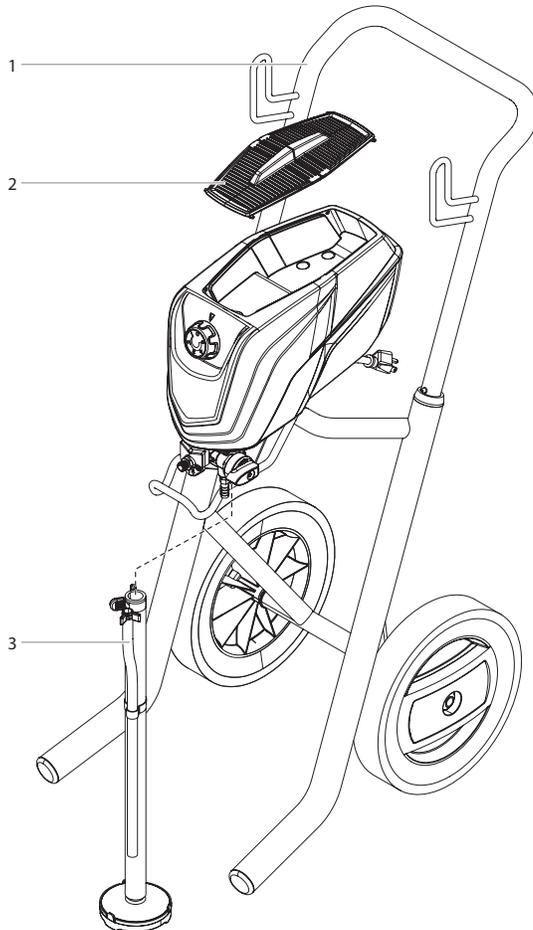
#	1500	1700	Description	Description	Descripción
1	0580389	-----	Base assembly	Ensemble de la base	Conjunto de la base
	-----	0580163	Handle assembly	Ensemble de la poignée	Conjunto de la manilla
2	0580041B	0580041B	Door (single piece)	Porte (pièce unique)	Tapa (pieza única)
3*	-----	-----	Suction set assembly	Ensemble d'aspiration	Conjunto de succión
4	0580072A	0580072A	Outlet valve assembly	Ensemble de la soupape de sortie	Conjunto de la válvula de salida
5	0580071A	0580071A	Inlet valve fitting (includes O-ring)	Raccord de la soupape d'entrée (inclut le joint torique)	Conexión de la válvula de entrada (incluye junta tórica)
6	0580391	0580391	Inlet valve kit	Trousse de la soupape d'entrée	Kit de válvula de entrada
7	9885553	9885553	Return tube fitting	Raccord de tube de retour	Conexión de tubo de retorno

\* See separate listing • Voir la liste séparée • Consulte la lista separada

# PARTS LIST • LISTE DE PIÈCES • LISTA DE PIEZAS

## MAIN ASSEMBLY (CART MODELS) • ENSEMBLE PRINCIPAL (MODÈLES DE CHARIOT) • MONTAJE PRINCIPAL (MODELOS DE CARRO)

1700 Pro / 1900 Pro



Replacement parts available by calling customer service

On peut obtenir des pièces de rechange en appelant le Service à la clientèle.

Los repuestos están disponibles llamando al servicio a clientes.

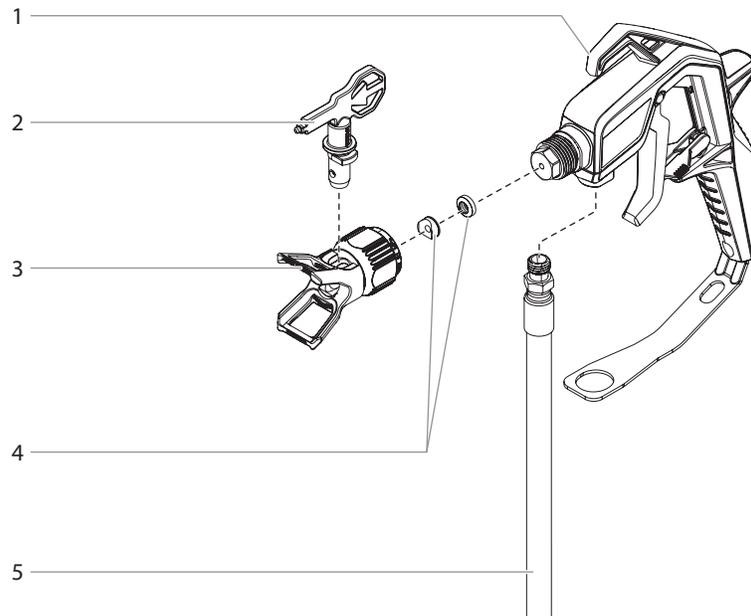
**1-866-848-2698**

#	1700 Pro	1900 Pro	Description	Description	Descripción
1	0580390	0580390	Handle assembly	Ensemble de la poignée	Conjunto de la manilla
2	0580041B	0580041B	Door (single piece)	Porte (pièce unique)	Tapa (pieza única)
3*	-----	-----	Suction set assembly	Ensemble d'aspiration	Conjunto de succión
4	0580072A	0580072A	Outlet valve assembly	Ensemble de la soupape de sortie	Conjunto de la válvula de salida
5	0580071A	0580071A	Inlet valve fitting (includes O-ring)	Raccord de la soupape d'entrée (inclut le joint torique)	Conexión de la válvula de entrada (incluye junta tórica)
6	0580391	0580391	Inlet valve kit	Trousse de la soupape d'entrée	Kit de válvula de entrada
7	9885553	9885553	Return tube fitting	Raccord de tube de retour	Conector de tubo de retorno

\* See separate listing • Voir la liste séparée • Consulte la lista separada

# PARTS LIST • LISTE DE PIÈCES • LISTA DE PIEZAS

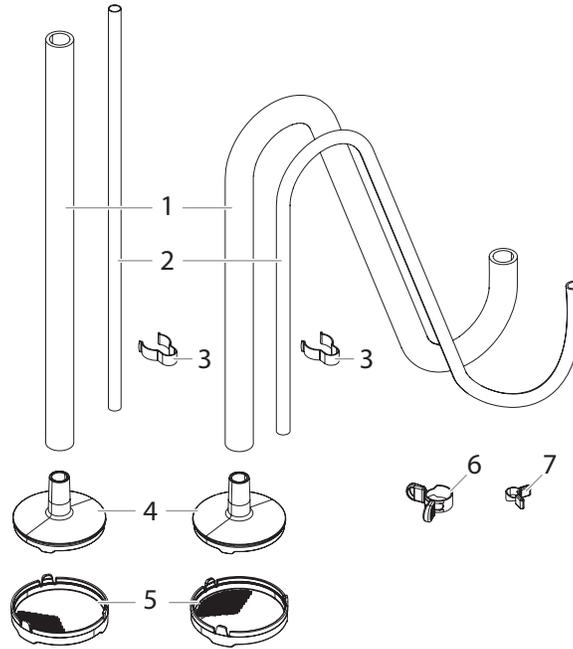
## SPRAY GUN ASSEMBLY • PISTOLET DE PULVÉRISATION • PISTOLA DE ROCIADORA



#	1500	1700	1700 Pro 1900 Pro	Description	Description	Descripción
1	353-700	-----	-----	Spray gun assembly, ControlMax (includes item 2-4)	Ensemble du pistolet de pulvérisation, ControlMax (inclut les articles 2 à 4)	Conjunto de la pistola pulverizadora, ControlMax (incluye los elementos 2 a 4)
	-----	353-701	353-701	Spray gun assembly, ControlMax Pro (includes item 2-4)	Ensemble du pistolet de pulvérisation, ControlMax Pro (inclut les articles 2 à 4)	Conjunto de la pistola pulverizadora, ControlMax Pro (incluye los elementos 2 a 4)
2	353-515	353-515	353-515	Spray tip, 515	Embout, 515	Boquilla de pulverización, 515
3	353-702	353-702	353-702	Spray guard assembly (includes item 4)	Ensemble anti-éclaboussure (inclut le article 4)	Conjunto de la protección de pulverización (incluye le elemento 4)
4	342-100	342-100	342-100	Tip seal kit	Trousse de joint de l'embout	Juego de junta de la boquilla
5	353-706	-----	-----	Spray hose (25')	Tuyau de pulvérisation (7 m)	Manguera de pulverización (7 m)
	-----	353-707	-----	Spray hose (30')	Tuyau de pulvérisation (9 m)	Manguera de pulverización (9 m)
	-----	-----	353-708	Spray hose (50')	Tuyau de pulvérisation (15 m)	Manguera de pulverización (15 m)

# PARTS LIST • LISTE DE PIÈCES • LISTA DE PIEZAS

## SUCTION SET ASSEMBLY • ENSEMBLE D'ASPIRATION • CONJUNTO DE SUCCIÓN



#	1500	1700	1700 Pro 1900 Pro	Description	Description	Descripción
1	-----	-----	-----	Suction tube	Tube d'aspiration	Tubo de succión
2	0580487	0580487	0580208	Return tube	Tuyau de retour	Tubo de retorno
3	0512390	0512390	0512390	Clip (single piece)	Agrafe (pièce unique)	Sujetador (pieza única)
4	0580154	0580154	0580154	Inlet filter housing	Boîtier du filtre d'entrée	Carcasa del filtro de entrada
5	0580155	0580155	0580155	Inlet filter	Filtre d'entrée	Filtro de entrada
6	9890222	9890222	9890222	Suction tube clamp	Agrafe du tube d'aspiration	Abrazadera del tubo de succión
7	0327226	0327226	0327226	Return tube clip	Agrafe du tube de retour	Sujetador del tubo de retorno
	0580159A	0580159A	0580206A	Suction tube assembly (includes items 1-7)	Ensemble du tube d'aspiration (inclut les articles 1 à 7)	Conjunto del tubo de succión (incluye los elementos 1 a 7)



## ACCESSORIES • ACCESSOIRES • ACCESORIOS

PART NO.	DESCRIPTION	DESCRIPTION	DESCRIPCIÓN
<b>SPRAY GUNS</b>		<b>PISTOLETS DE PULVÉRISATION</b>	<b>PISTOLAS DE PULVERIZACIÓN</b>
353-700	ControlMax spray gun	Pistolet de pulvérisation ControlMax	Pistola de pulverización de ControlMax
353-701	ControlMax Pro spray gun	Pistolet de pulvérisation ControlMax Pro	Pistola de pulverización de ControlMax Pro
<b>SPRAY TIPS AND ACCESSORIES</b>		<b>EMBOUTS DE PULVÉRISATION ET ACCESSOIRES</b>	<b>BOQUILLA DE ROCIADO Y ACCESORIOS</b>
353-211	211 ControlMax Tip	Embout de ControlMax 211	Boquilla de ControlMax 211
353-311	311 ControlMax Tip	Embout de ControlMax 311	Boquilla de ControlMax 311
353-313	313 ControlMax Tip	Embout de ControlMax 313	Boquilla de ControlMax 313
353-413	413 ControlMax Tip	Embout de ControlMax 413	Boquilla de ControlMax 413
353-515	515 ControlMax Tip	Embout de ControlMax 515	Boquilla de ControlMax 515
353-517	517 ControlMax Tip	Embout de ControlMax 517	Boquilla de ControlMax 517
353-619	619 ControlMax Tip	Embout de ControlMax 619	Boquilla de ControlMax 619
353-702	ControlMax Tip Guard	Protège-embout ControlMax	Protección de la boquilla ControlMax
<b>MISC. ACCESSORIES</b>		<b>ACCESSOIRES DIVERS</b>	<b>ACCESORIOS VARIOS</b>
353-705	ControlMax filter/swivel Combo	Combinaison filtre/pivot ControlMax	Combinación de filtro y dispositivo giratorio ControlMax
651-071	ControlMax 12" Tip Extension	Rallonge d'embout ControlMax de 30 cm	Extensión de la boquilla de 30 cm ControlMax
651-072	ControlMax 24" Tip Extension	Rallonge d'embout ControlMax de 61 cm	Extensión de la boquilla de 61 cm ControlMax
0516751	Tip Seal Kit	Trousse du joint de l'embout	Conjunto de la junta de la boquilla
314-482	Liquid Shield 1 Quart	Liquid Shield 1 l	Liquid Shield 1 l
314-480	Piston Lube (8 oz)	Piston Lube (236 ml)	Piston Lube (236 ml)
353-706	ControlMax Spray hose (25')	Tuyau de pulvérisation (7 m) ControlMax	Manguera de pulverización (7 m) ControlMax
353-708	ControlMax Spray hose (50')	Tuyau de pulvérisation (15 m) ControlMax	Manguera de pulverización (15 m) ControlMax