

Operating Instructions



Zip-Spray™

- For portable spray application of architectural paints and coatings -

1900 Plus™ Airless Paint Sprayer

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



Important Safety Instructions

Read all warnings and instructions in this manual.
Save these instructions.



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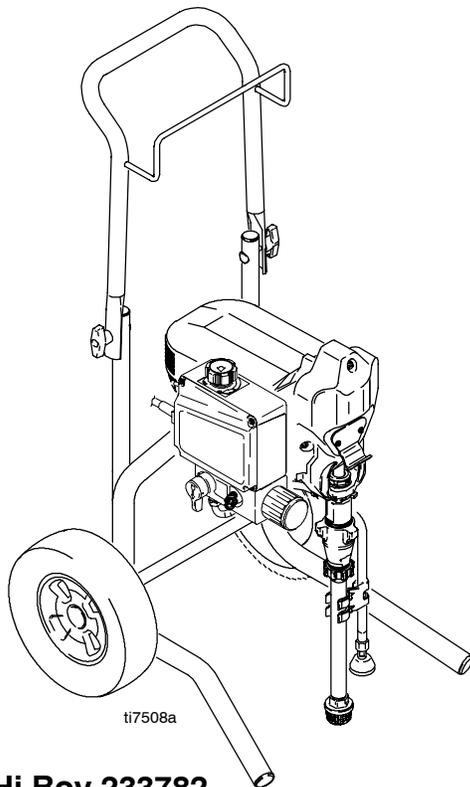


..... 309428

Model 233782 (Series A, B)
Model 246649 (Series A, B, C, D)

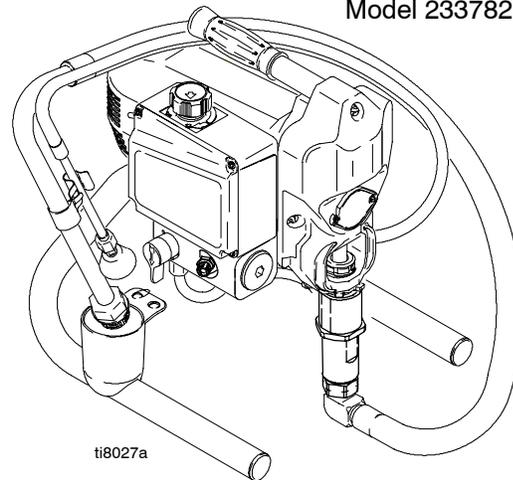
..... 311062

Model 233782 (Series C, D, E, F)



ti7508a

Hi Boy 233782
Series A, B, C, D, E, F



ti8027a

Stand 246649
Series A, B, C, D



Specifications

This equipment is not intended for use with flammable or combustible materials used in places such as cabinet shops or other “factory” or fixed locations. If you intend to use this equipment in this type of application, you must comply with NFPA 33 and OSHA requirements for the use of flammable and combustible materials.

The following Warnings are for the safe 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. Refer back to these Warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

WARNING



FIRE AND EXPLOSION HAZARD

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

- Use equipment only in well ventilated area.
- Sprayer generates sparks. When flammable liquid is used in or near sprayer for flushing or cleaning, keep sprayer at least 20 feet (6 m) away from explosive vapors.
- Do not clean with materials having flash points lower than 70°F (21°C). Use water-based materials or mineral spirit-type material only. For complete information about your fluid, request the MSDS from the fluid distributor or retailer.
- Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop clothes (potential static arc).
- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords or turn lights on or off when flammable fumes are present.
- Ground equipment and conductive objects in work area. Read Grounding instructions.
- Use grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail.
- If there is static sparking or you feel a shock, **stop operating immediately**. Do not use equipment until you identify and correct the problem.
- Keep a fire extinguisher in the work area.



SKIN INJECTION HAZARD

High pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. **Get immediate surgical treatment.**

- Do not point gun at anyone or any part of the body.
- Do not put your hand over the spray tip.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Do not spray without tip guard and trigger guard installed.
- Engage trigger lock when not spraying.
- Follow **Pressure Relief Procedure** in this manual, when you stop spraying and before cleaning, checking or servicing equipment.

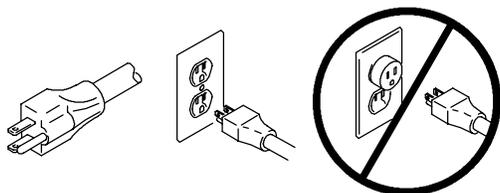
WARNING

	<p>ELECTRIC SHOCK HAZARD</p> <p>Improper grounding, setup, or usage of the system can cause electric shock.</p> <ul style="list-style-type: none">• Turn off and disconnect power cord before servicing equipment.• Use only grounded electrical outlets• Use only 3-wire extension cords.• Ensure ground prongs are intact on sprayer and extension cords.• Do not expose sprayer to rain. Store indoors.
<p>INSTRUCTIONS</p> 	<p>EQUIPMENT MISUSE HAZARD</p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none">• Do not operate the unit when fatigue or under the influence of drugs or alcohol.• Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See Technical Data in all equipment manuals.• Use fluids and solvents that are compatible with equipment wetted parts. See Technical Data in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS from the fluid distributor or retailer.• Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.• Do not alter or modify equipment.• Use equipment only for its intended purpose. Call your distributor for information.• Route hoses and cables away from traffic areas, sharp edges, moving parts and hot surfaces.• Do not kink or over bend hoses or use hoses to pull equipment.• Keep children and animals away from work area.• Comply with all applicable safety regulations.
	<p>PRESSURIZED ALUMINUM PARTS HAZARD</p> <p>Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in this equipment. Such use could result in a serious chemical reaction, with the possibility of explosion, which could cause death, serious injury and/or substantial property damage.</p>
	<p>TOXIC FLUID HAZARD</p> <p>Toxic fluid or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.</p> <ul style="list-style-type: none">• Read MSDS's to know the specific hazards of the fluids you are using.• Store hazardous fluid in approved containers and dispose of it according to all applicable guidelines.
	<p>PERSONAL PROTECTIVE EQUIPMENT</p> <p>You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. This equipment includes, but is not limited to:</p> <ul style="list-style-type: none">• Protective eye wear.• Clothing and respirator as recommended by the fluid and solvent manufacturer.• Gloves.• Hearing protection.

Grounding and Electric Requirements



The sprayer must be grounded. Grounding reduces the risk of static and electric shock by providing an escape wire for the electrical current due to static build up or in the event of a short circuit.



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- **The sprayer requires** a 120V AC, 60 Hz, 15A circuit with grounding receptacle. Never use an outlet that is not grounded or an adapter.



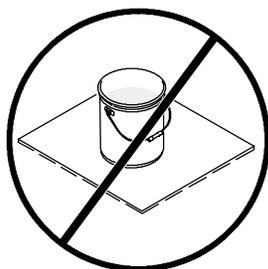
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- Do not use the sprayer if the electrical cord has a damaged ground prong. Only use a 3-wire **extension cord** with an undamaged, 3-prong plug.
- **Recommended extension cords** for use with this sprayer:
 - 25 ft (7.6 m) 18 AWG
 - 50 ft (15.2 m) 16 AWG
 - 100 ft (30.5 m) 14 AWG
 - 150 ft. (45.7 m) 12 AWG

Smaller gauge or longer extension cords may reduce sprayer performance.

- **Ground sprayer gun** through connection to a properly grounded fluid hose and pump.

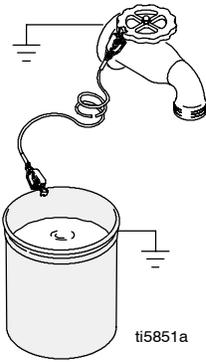
- **Ground fluid supply container.** Follow local code.



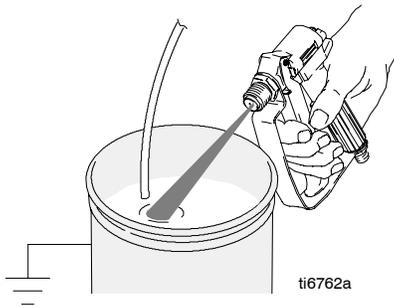
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- **Ground solvent pails used when flushing.** Follow local code. Use only conductive, metal pails, placed on a grounded surface such as concrete. Do not place the pail on a non-conductive surface such as paper or cardboard, which interrupts the grounding continuity.

Grounding and Electric Requirements



- **Ground the metal pail** by clamping one end of ground wire to pail and the other end to ground, such as a water pipe.



- **Maintain grounding continuity** when flushing or relieving pressure by holding metal part of spray gun firmly to side of a grounded metal pail, then trigger gun.

Thermal Overload

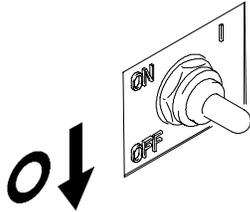


- Motor has a thermal overload switch to shut itself down if overheated.
- To reduce risk of injury from motor starting unexpectedly when it cools, always turn power switch OFF if motor shuts down.

Pressure Relief Procedure



Follow Pressure Relief Procedure when you stop spraying and before cleaning, checking, servicing or transporting equipment.

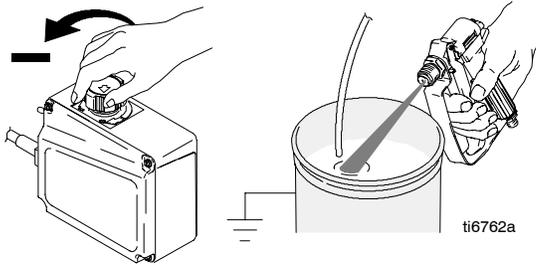


1. Turn power switch OFF and unplug power cord.

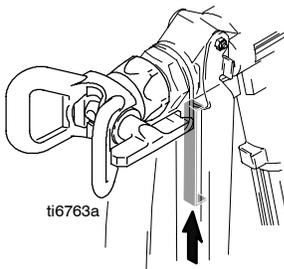


PRIME

2. Turn Spray-Prime/Drain valve to PRIME/DRAIN to relieve pressure.



3. Turn pressure to lowest setting. Hold metal part of gun firmly to a grounded metal pail. Trigger gun to relieve pressure.



4. Engage trigger lock.



PRIME

- Leave Spray-Prime/Drain valve in PRIME/DRAIN position until you are ready to spray again.
- *If you suspect the spray tip is clogged or that pressure has not been fully relieved after following the above steps, VERY SLOWLY loosen tip guard retaining nut or hose end coupling to relieve pressure gradually. Then loosen completely. Clear hose or tip obstruction.*

Component Identification

Power Switch

TI3183a

Pressure Control

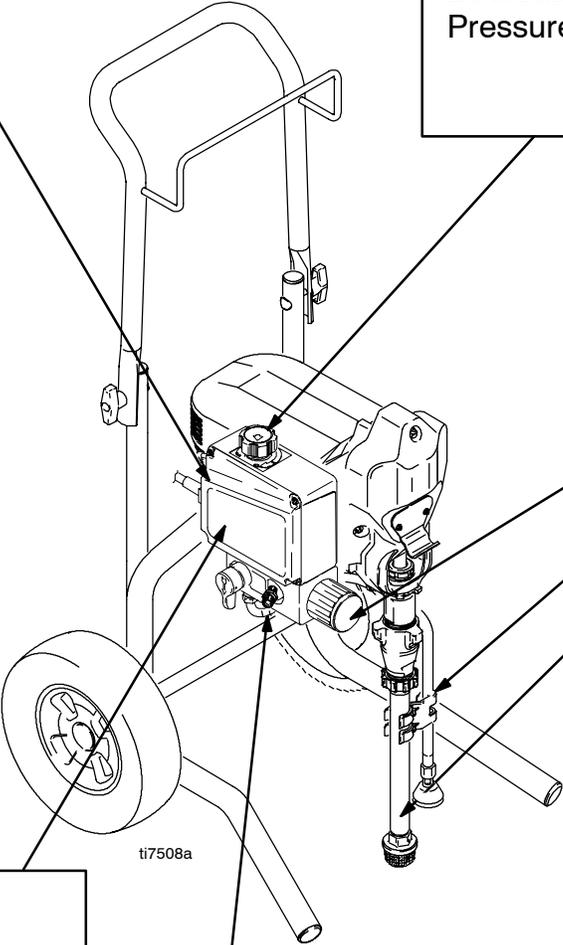
PSI/bar/MPa PSI/bar/MPa

Decrease Pressure Increase Pressure

Filter

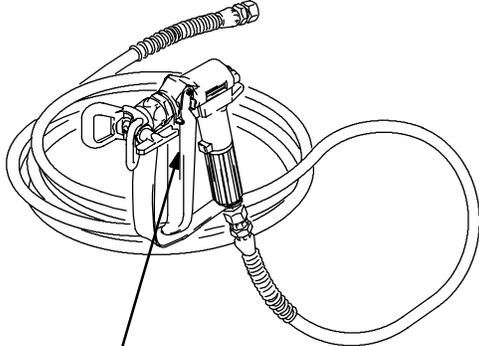
Drain Tube
Suction Tube

Suction tube + drain tube = Siphon tube set



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Fluid Outlet
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Prime Valve

Prime/drain position

Paint position

⚠ Spray Gun Trigger Safety

safety ON

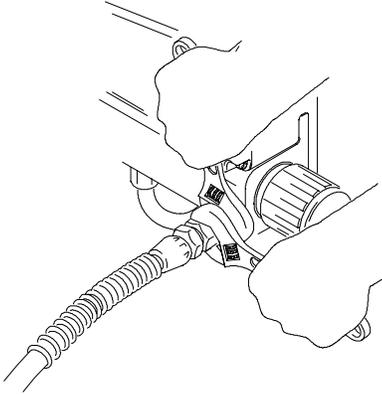
Set trigger safety ON when not spraying.

safety OFF

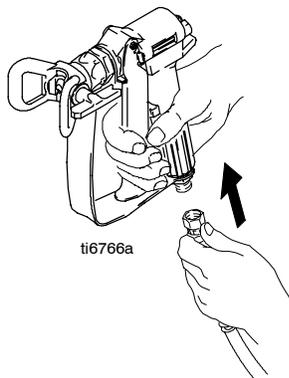
Take trigger safety OFF before triggering gun.

Setup

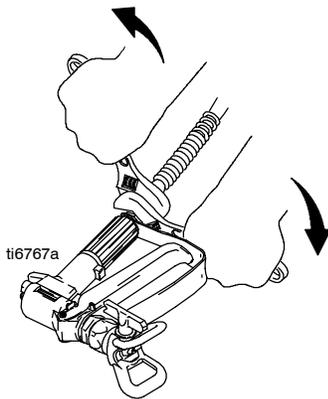
1. Connect airless hose to sprayer. Tighten securely.



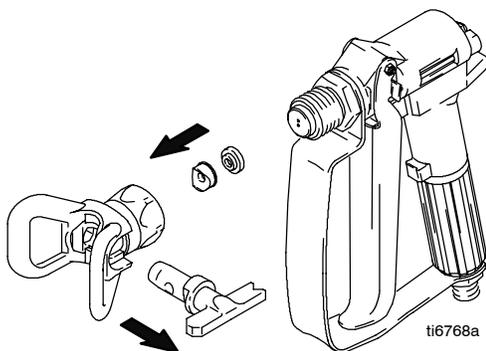
2. Connect other end of hose to gun.



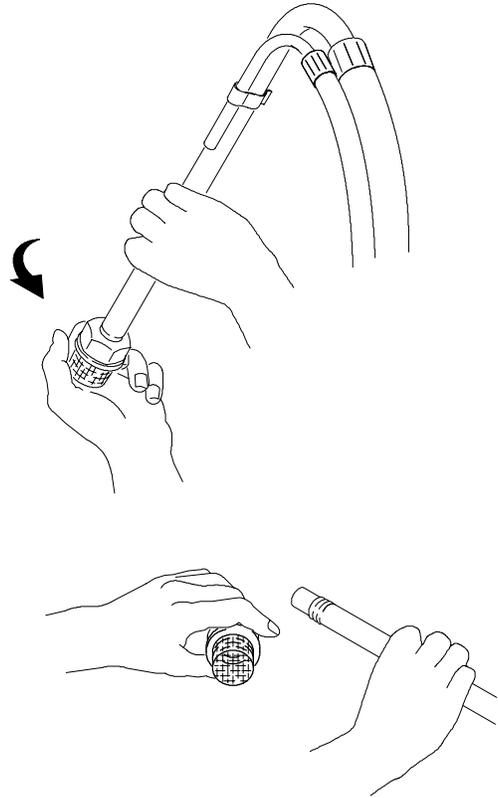
3. Tighten securely.



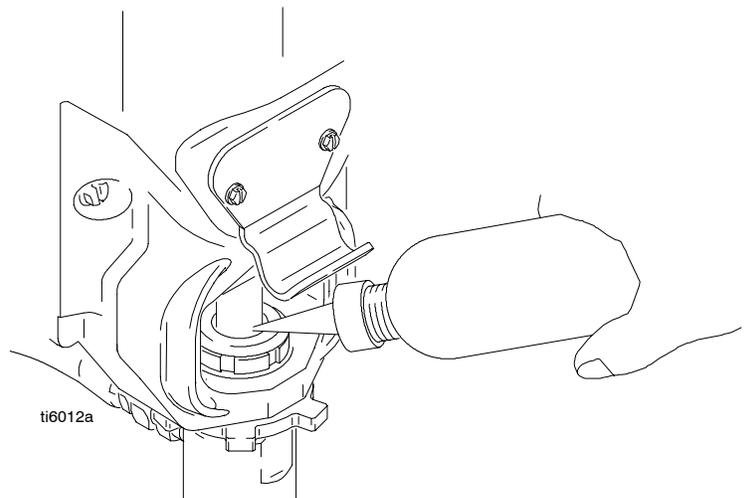
4. Remove tip guard.



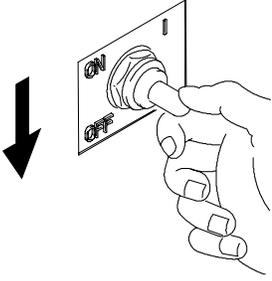
-
5. Check inlet strainer for clogs and debris.



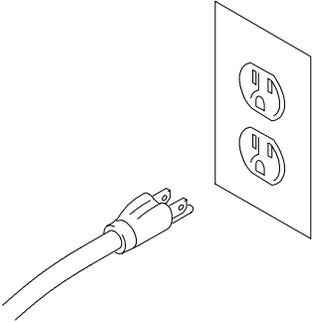
-
6. Fill throat packing nut with ASM Packing Seal to prevent premature packing wear.
Do this each time you spray.



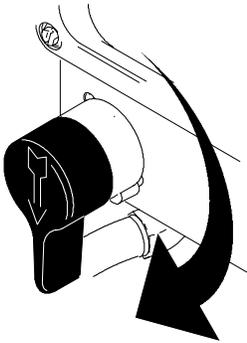
7. Turn power **OFF**.



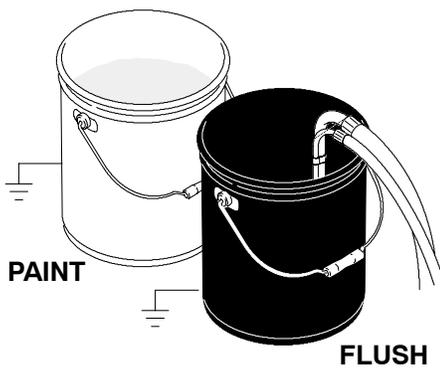
8. Plug power supply cord into a properly grounded electrical outlet.



9. Turn prime valve down.

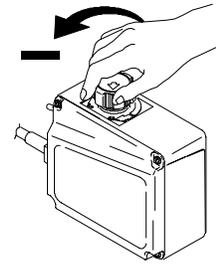


10. Place siphon tube set in grounded metal pail partially filled with flushing fluid. Attach ground wire to pail and to true earth ground. Do 1 - 5 of Startup to flush out storage oil shipped in sprayer. Use water to flush water-base paint and mineral spirits to flush oil-base paint and storage oil.

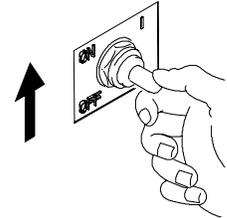


Startup

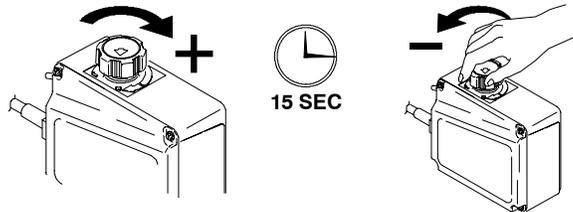
1. Turn pressure control to lowest pressure.



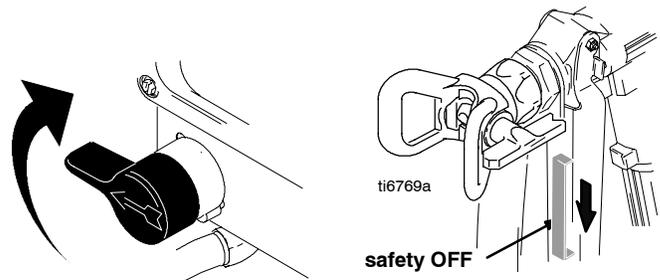
2. Turn power ON.



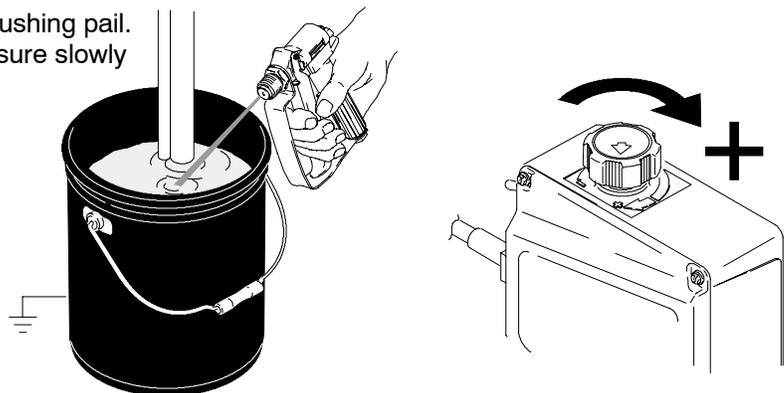
3. Increase pressure enough to start motor and allow fluid to circulate through drain tube for 15 seconds; turn pressure down.



4. Turn prime valve horizontal.
Take trigger safety OFF.



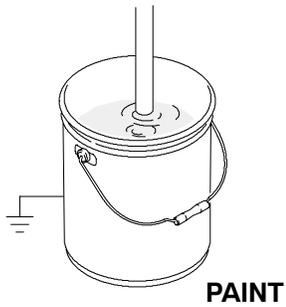
5. Hold gun against grounded metal flushing pail.
Trigger gun and increase fluid pressure slowly until pump runs smoothly.



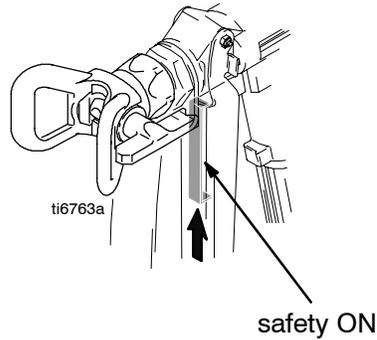
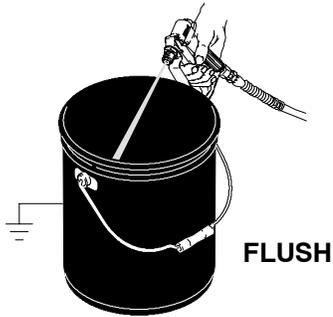
FLUSH



Note: Inspect fittings for leaks. Do not stop leaks with your hand or a rag! If leaks occur, **relieve pressure, page 6**. Tighten leaky fittings. Repeat Startup, 1. – 5. If no leaks, continue to trigger gun until system is thoroughly flushed. Proceed to 6.



6. Place siphon tube in paint pail.



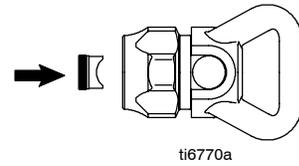
7. Trigger gun again into flushing fluid pail until paint appears.
Set trigger safety ON.
Assemble tip and guard, page 13.

General Surfaces Tip Recommendations Chart

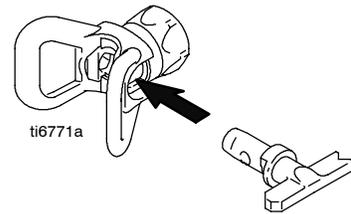
Surfaces	Materials	Filter Mesh	Fan Width (in.) at 12 in.				Orifice Size (in.)
			6-8	8-10	10-12	12-14	
Wood Interior Cabinets, Paneling	Stain, Sanding Sealer, Lacquer, Varnish, Shellac	100	•	•			.011
			•	•			.013
Interior Walls or Ceilings Drywall, Plaster	Latex, Vinyl, Acrylic	60		•	•	•	.015
				•	•	•	.017
				•	•	•	.019
Over Hang	Primers, Enamels	60	•	•	•		.015
				•	•		.017
						•	.019
Masonry Block, Stucco, Concrete	Vinyl, Acrylic, Latex, Oil Base Alkyds	60		•	•		.017
					•		.019
Wood Exterior Shingle, Siding	Exterior Stains, Latex, Vinyl, Acrylic	60			•		.017
					•		.019

Tip and Guard Assembly

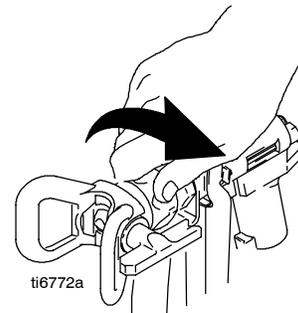
1. Insert tip seal and gasket. Make sure curvature of tip seal mates with curvature of tip cylinder.



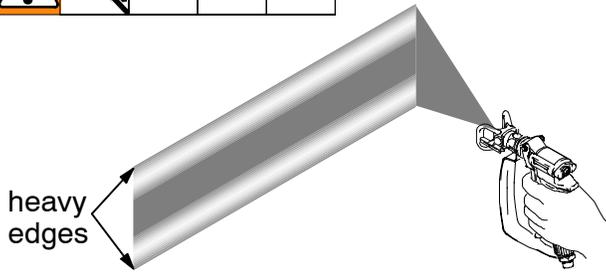
-
2. Insert tip.



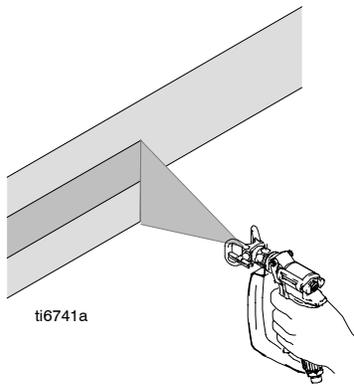
-
3. Screw assembly onto gun.
Hand tighten.
Repeat Startup 4 and 5.



Spray Test Pattern

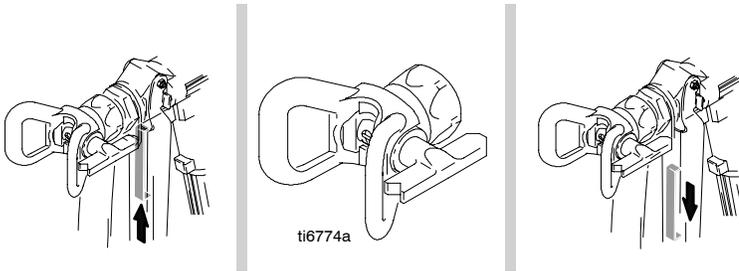


1. Trigger gun and spray test pattern. Slowly adjust pressure to eliminate heavy edges. Use smaller tip size if pressure adjustment can not eliminate heavy edges.



2. Hold gun perpendicular, 10–12 in. (25–30 cm) from surface. Spray back and forth. Use strokes overlapped by 50%. Start gun movement before triggering gun and release trigger before stopping gun movement.

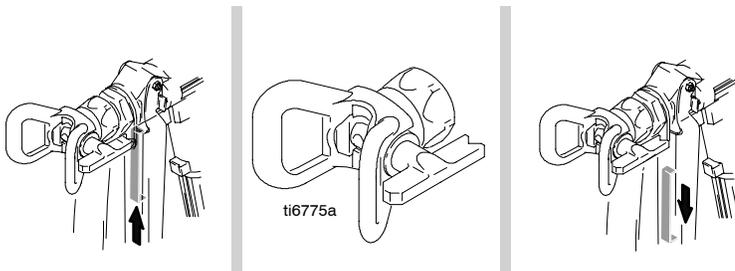
Clearing Tip Clogs



1. Release trigger, set trigger safety ON. Rotate Uni-tip. Take trigger safety OFF and trigger gun to clear the clog.



Never point gun towards your hand or into a rag!

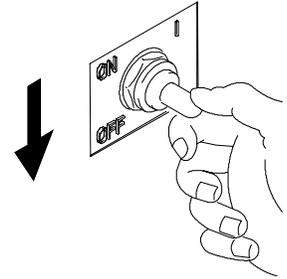


2. Set trigger safety ON. Return Uni-tip to original position. Take trigger safety OFF and continue spraying.

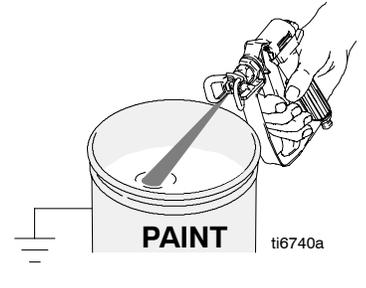
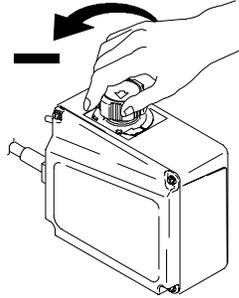
Cleanup



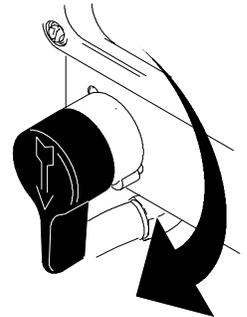
1. Turn power OFF.



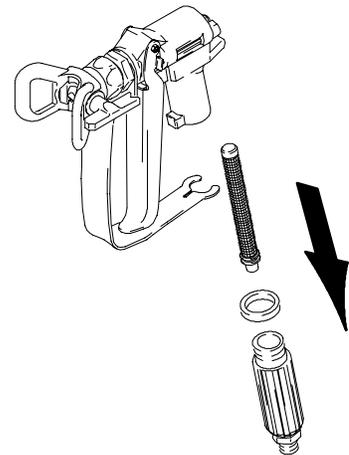
2. Turn pressure to lowest setting.
Trigger gun to relieve pressure.

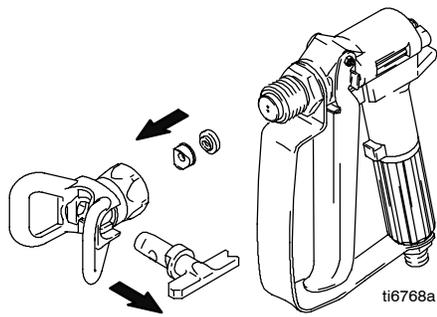


3. Turn prime valve down to prime position.

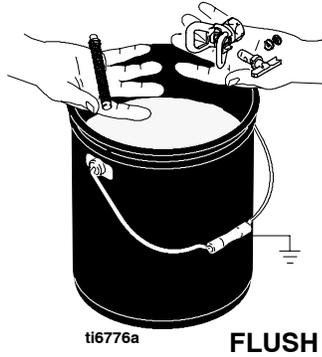


4. Remove filter assembly and assemble gun without filter.

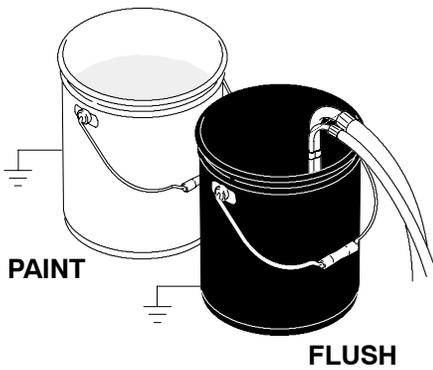




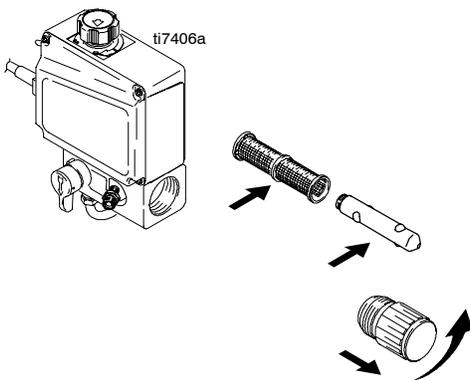
5. Remove guard and Uni-tip.



6. Clean filter, guard and Uni-tip in flushing fluid.

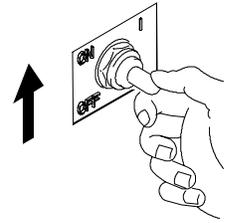


7. Remove siphon tube set from paint and place in flushing fluid. Use water for water base paint and mineral spirits for oil base paint.

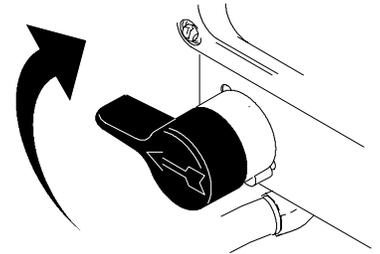


8. Unscrew bowl, remove filter assembly. Assemble bowl without filter. Clean filter. (Hi-Boy model only.)

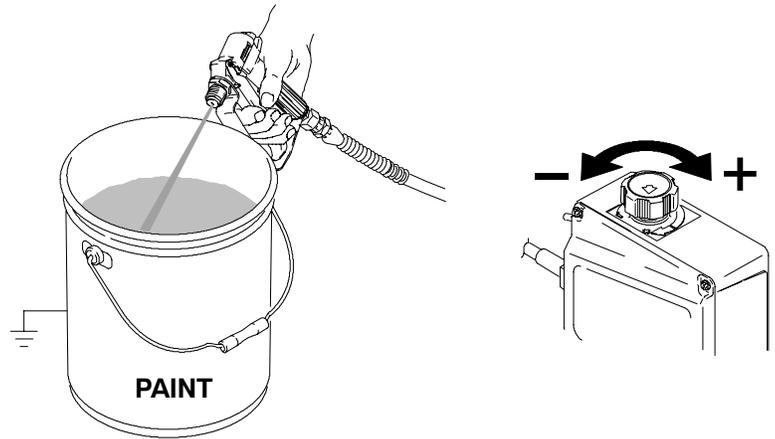
9. Turn power ON.



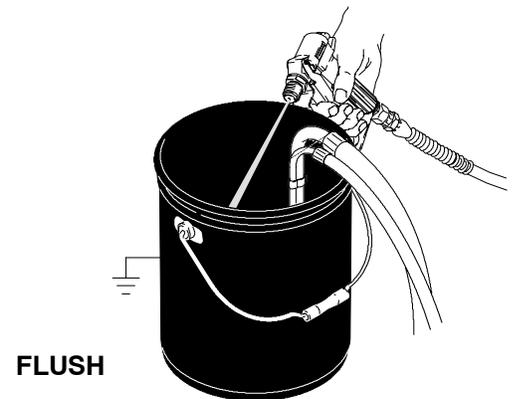
10. Turn prime valve horizontal to spray position.



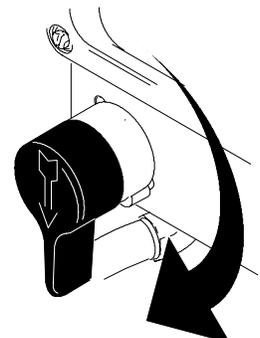
11. Hold gun against paint pail. Take trigger safety OFF. Trigger gun and increase pressure until flushing fluid appears.

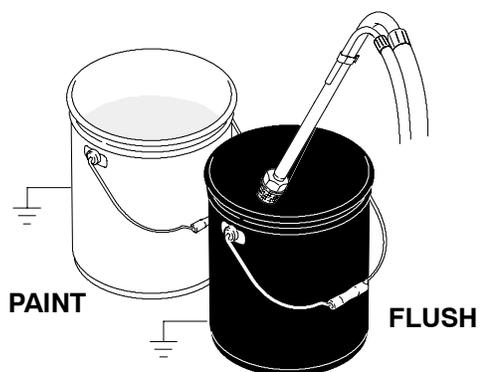


12. Move gun to flushing pail, hold gun against pail, trigger gun to thoroughly flush system. Release trigger and set trigger safety ON.



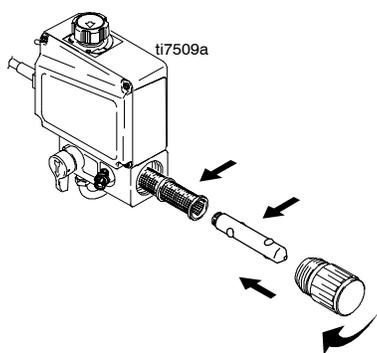
13. Turn prime valve down and allow flushing fluid to circulate for 1 to 2 minutes to clean drain tube.





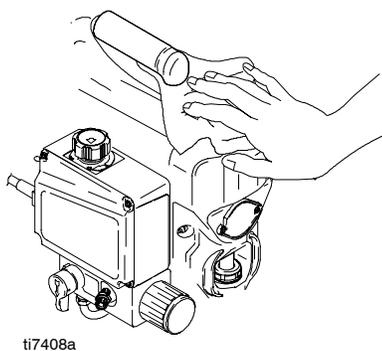
14. Raise siphon tube above flushing fluid and run sprayer for 15 to 30 seconds to drain fluid. Turn power OFF.

Note: If flushing with water, flush again with mineral spirits or Pump Shield, but do not repeat step 8 or 14. This leaves a protective coating in the system to help prevent freezing or corrosion.



15. Install filter bowl and filter assembly. Hand tighten filter bowl. (Hi-Boy model only.)

Install filter assembly into gun. Hand tighten gun handle.



16. Wipe sprayer, hose and gun with a rag soaked in water or mineral spirits.



17. Clean tip, guard and gasket with a soft bristle brush. Assemble parts and attach loosely onto gun.

Maintenance

Storage

Daily:

Inspect, clean and replace as needed

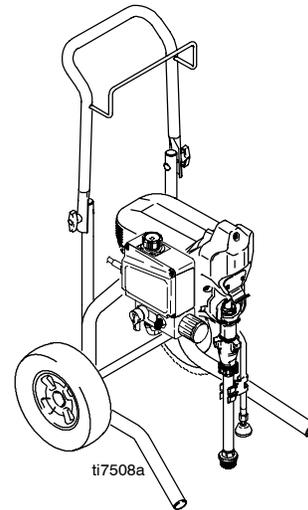
- Manifold filter (Hi-Boy model only), gun filter and inlet stainer.
- Wet cup for leakage, tighten if needed.
- ASM Packing Seal level.
- Gun trigger safety.
- Tip wear, replace if necessary.
- Electric cord and plug.

Weekly:

- Check tightness of wet cup.
- Inspect all high pressure paint hoses.

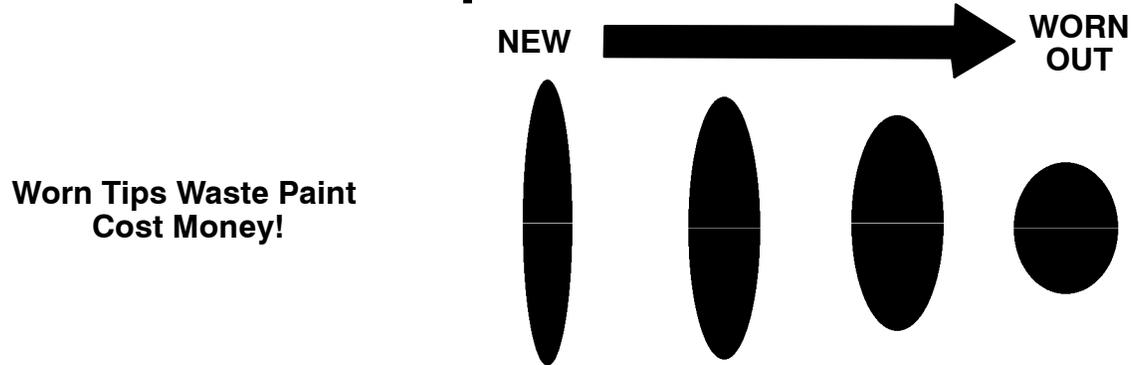
Annually:

- Schedule maintenance check at an authorized ASM repair center.



1. Perform Cleanup, page 15.
2. Wrap cord, place siphon tube set in holder.

Tip Wear



SPRAY PATTERN WIDTH in inches (millimeters)	12 (305)	11 (280)	9 (229)	5.5 (140)
TIP OPENING ENLARGEMENT	New Tip .015	Worn to .017	Worn to .019	Worn to .021
FLOW RATE in gpm (lpm)	1/4 (.87)	1/3 (1.14)	3/8 (1.4)	1/2 (1.74)

Note: A 515 tip produces a 10 in. pattern width when measured 12 in. from tip to work surface; spraying paint with viscosity of 20 sec #4 Zahn cup and at 1600 psi (110 bar, 11 MPa).

ASM Standard Warranty

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

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

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

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