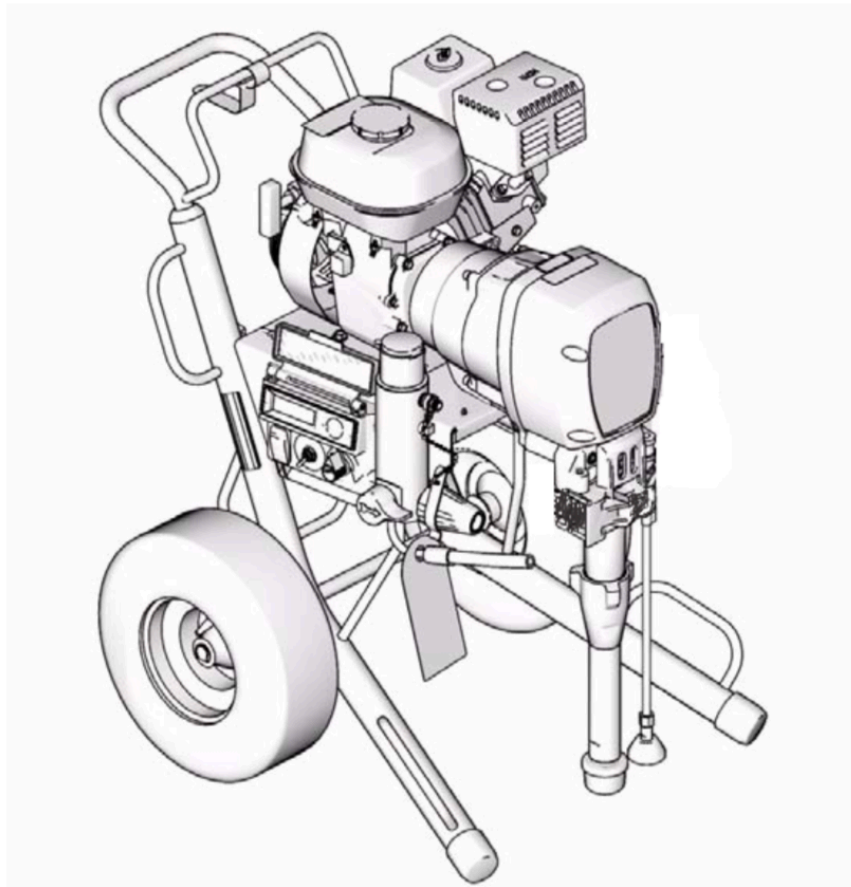


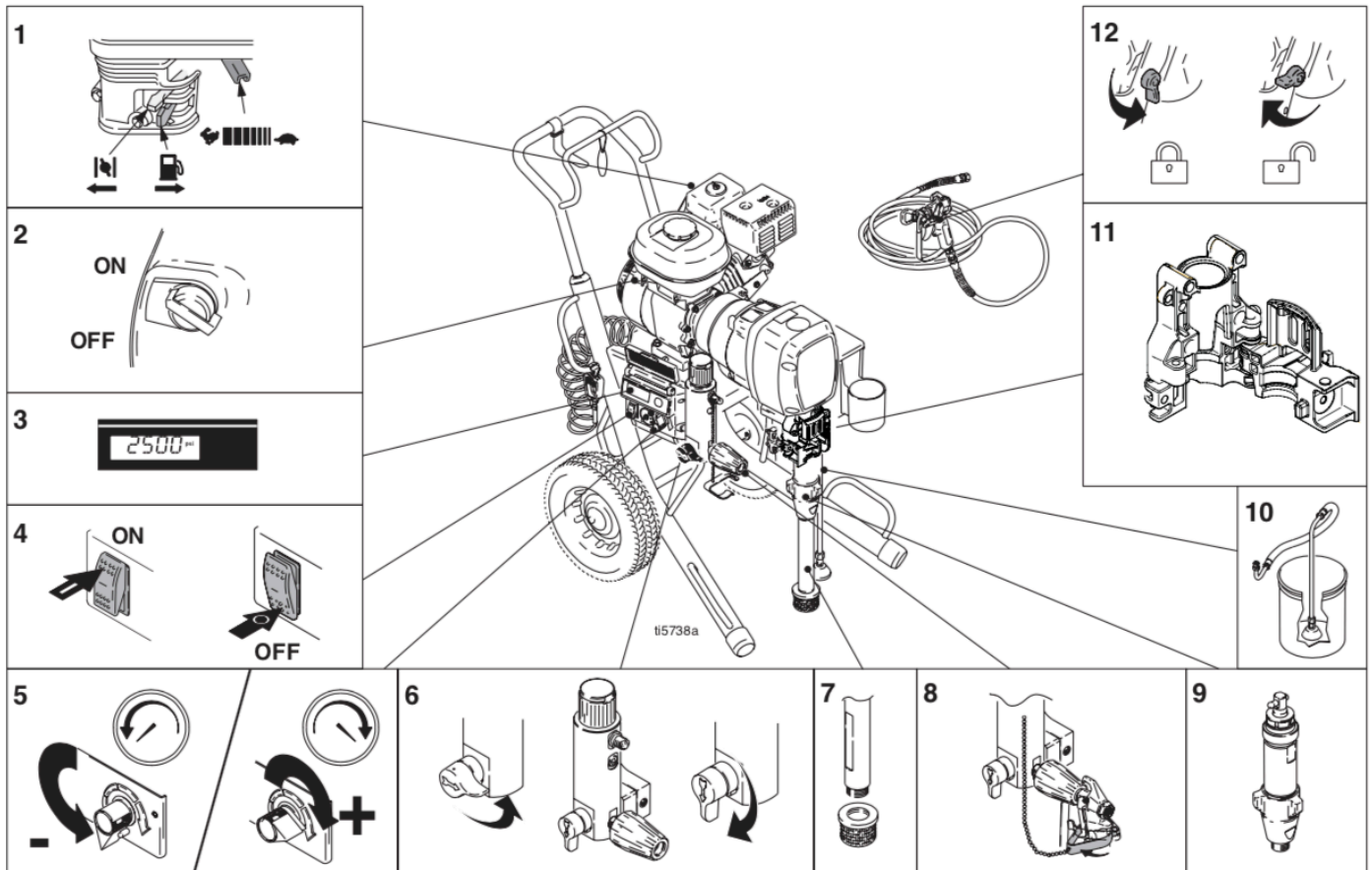
Gas Engine Airless Sprayer



Important Safety Instructions. Read all warnings and instructions in this manual. Save these instructions.









Component Identification









1	Engine controls
2	Engine ON/OFF switch
3	Premium Digital Display
4	Pump On/Off Switch
5	Pressure control
6	Prime valve & Filter
7	Suction tube & Inlet Filter
8	Premium AutoClean ₂ [™] (not available on all models)
9	Pump
10	Drain hose
11	ProConnect [™]
12	Trigger Lock

Warning


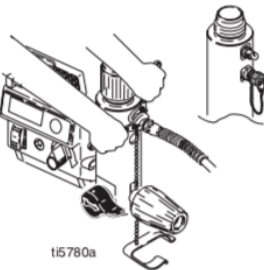

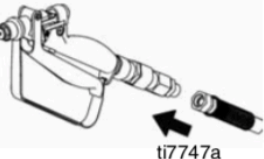
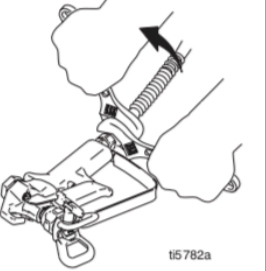

The following warnings include general safety information for this equipment. Further product specific warnings may be included in the text where applicable.

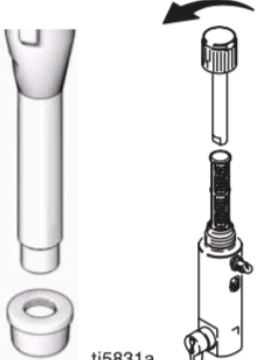
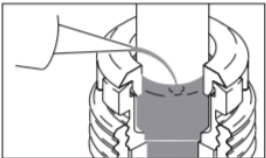
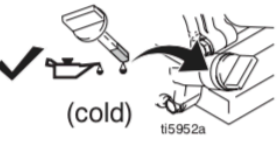

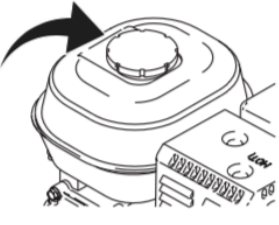

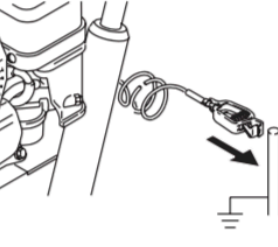
 WARNING	
	<p>FIRE AND EXPLOSION HAZARD</p> <p>Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> • Use equipment only in well ventilated area. • Do not fill fuel tank while engine is running or hot; shut off engine and let it cool. Fuel is flammable and can ignite or explode if spilled on hot surface. • When flammable liquid is sprayed or used for flushing or cleaning, keep sprayer at least 20 feet (6 m) away from explosive vapors. • Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc). • Keep work area free of debris, including solvent, rags and gasoline. • Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present. • Ground equipment and conductive objects in work area. See Grounding instructions. • Use only 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 operation immediately. Do not use equipment until you identify and correct the problem.
	<p>INJECTION HAZARD</p> <p>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.</p> <ul style="list-style-type: none"> • Do not point gun at anyone or at 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.
	<p>PRESSURIZED EQUIPMENT HAZARD</p> <p>Fluid from the gun/dispense valve, leaks, or ruptured components can splash in the eyes or on skin and cause serious injury.</p> <ul style="list-style-type: none"> • Follow Pressure Relief Procedure in this manual, when you stop spraying and before cleaning, checking, or servicing equipment. • Tighten all fluid connections before operating the equipment. • Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately.
	<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.
	<p>MOVING PARTS HAZARD</p> <p>Moving parts can pinch or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> • Keep clear of moving parts. • Do not operate equipment with protective guards or covers removed. • Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the Pressure Relief Procedure in this manual. Disconnect power or air supply.


WARNING

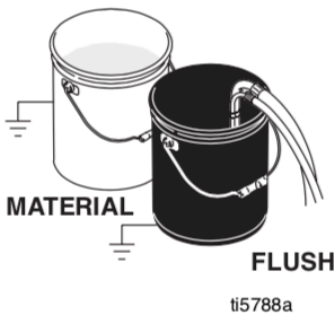
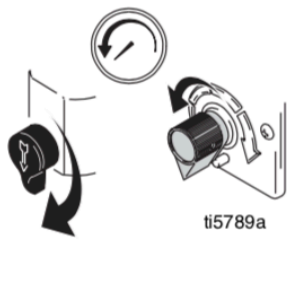

	<p>EQUIPMENT MISUSE HAZARD</p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> • Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See Technical Data in all equipment manuals. • Use fluids and solvents that are compatible with equipment wetted parts. See Technical Data in all equipment manuals. Read fluid and solvent manufacturer's warnings. • Check equipment daily. Repair or replace worn or damaged parts immediately. • Do not alter or modify equipment. • For professional use only. • Use equipment only for its intended purpose. • Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces. • Do not use hoses to pull equipment. • 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 pressurized aluminum equipment. Such use can cause serious chemical reaction and equipment rupture, and result in death, serious injury, and property damage.</p>
	<p>SUCTION HAZARD</p> <p>Never place hands near the pump fluid inlet when pump is operating or pressurized. Powerful suction could cause serious injury.</p>
	<p>CARBON MONOXIDE HAZARD</p> <p>Exhaust contains poisonous carbon monoxide, which is colorless and odorless. Breathing carbon monoxide can cause death. Do not operate in an enclosed area.</p>
	<p>TOXIC FLUID OR FUMES HAZARD</p> <p>Toxic fluids 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 applicable guidelines.
	<p>BURN HAZARD</p> <p>Equipment surfaces and fluid that's heated can become very hot during operation. To avoid severe burns, do not touch hot fluid or equipment. Wait until equipment/fluid has cooled completely.</p>
	<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 eyewear • Clothing and respirator as recommended by the fluid and solvent manufacturer • Gloves • Hearing protection
	<p>RECOIL HAZARD</p> <p>Brace yourself; gun may recoil when triggered and cause you to fall, which could cause serious injury.</p>


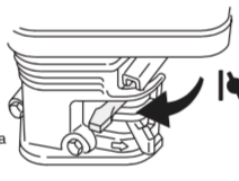
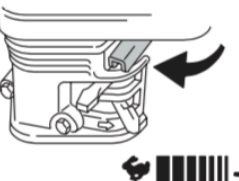

Setup

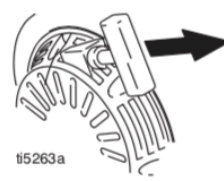
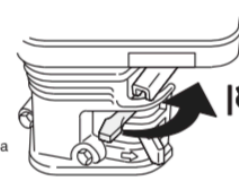
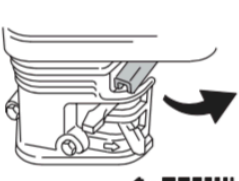
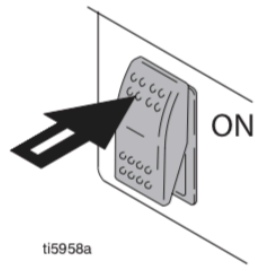
  <p>ti5780a</p>	 <p>ti7539a</p>	 <p>ti7747a</p>	 <p>ti5782a</p>	 <p>ti5783a</p>
<p>1. Connect appropriate Graco high-pressure hose to sprayer. Tighten securely.</p>	<p>2. Install adapter and 3.6m whip hose to other end of 15m airless hose.</p>	<p>3. Install whip hose to fluid inlet of spray gun.</p>	<p>4. Tighten securely.</p>	<p>5. Remove tip guard.</p>

 <p>ti5831a</p>	<p>Approximate Fill Level</p>  <p>ti7301a</p>	 <p>(cold) ti5952a</p>	  <p>ti5953a</p>	  <p>ti5787a</p>
<p>6. Remove inlet strainer and filter bowl screen when spraying plaster materials.</p>	<p>7. Fill throat packing nut with TSL to prevent premature packing wear. Do this each time you spray.</p>	<p>8. Check engine oil level. Add SAE 10W-30 (summer) or 5W-20 (winter), if necessary.</p>	<p>9. Fill fuel tank.</p>	<p>10. Attach sprayer grounding clamp to earth ground.</p>

Startup

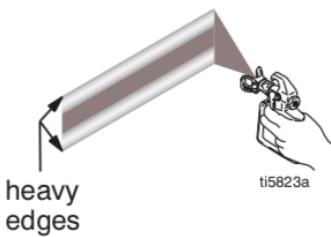
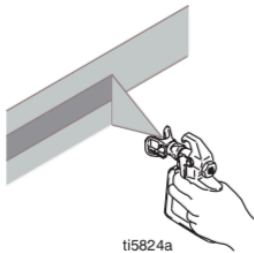

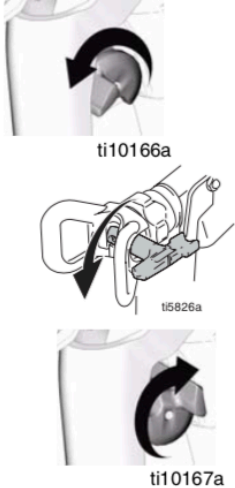
 <p>ti5788a</p>	 <p>ti5789a</p>	 <p>ti5790a</p>	
<p>1. Place suction tube and drain tube in grounded metal pail partially filled with flushing fluid. Attach ground wire to pail and to earth ground.</p>	<p>2. Turn prime valve down. Turn pressure control counterclockwise to lowest pressure.</p>	<p>3. Set pump switch OFF.</p>	

 <p>ti5248a</p>	 <p>ti5249a</p>	 <p>ti5250a</p>	 <p>ti5262a</p>
<p>4. Start engine a Move fuel valve to open.</p>	<p>b Move choke to closed.</p>	<p>c Set throttle to fast.</p>	<p>d Set engine switch to ON.</p>


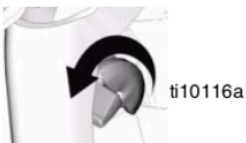
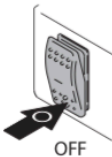







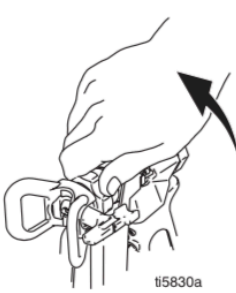
 <p>ti5263a</p>	 <p>ti5264a</p>	 <p>ti5251a</p>	 <p>ti5958a</p>
<p>e Pull starter rope.</p>	<p>f After engine starts, move choke to open.</p>	<p>g Set throttle to desired setting.</p>	<p>5. Set pump switch ON. - Pump/clutch is now active -</p>

		<p>FLUSH</p>	
<p>6. Increase pressure enough to start pump stroking and allow fluid to circulate for 15 seconds; turn pressure down and turn prime valve horizontal.</p>	<p>7. Take spray gun trigger safety OFF.</p>	<p>8. Hold gun against grounded metal flushing pail. Trigger gun and increase fluid pressure slowly until pump runs smoothly.</p>	<p>Inspect fittings for leaks. Do not stop leaks with your hand or a rag! If leaks occur, turn sprayer OFF immediately. Perform Pressure Relief steps 1 - 3 on page 23. Tighten leaky fittings. Repeat Start Up procedure steps 1 - 5. If no leaks, continue to trigger gun until system is thoroughly flushed. Proceed to step 6.</p>



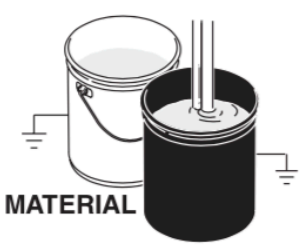
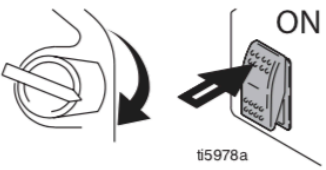

<p>MATERIAL</p>	<p>FLUSH</p>	<p>SwitchTip Seat One seal</p>	
<p>9. Place siphon tube in material pail.</p>	<p>10. Trigger gun again into flushing fluid pail until material appears. Assemble tip and guard, page 14.</p>	<p>SwitchTip and Guard Assembly</p> <p>1. Put trigger safety ON. Insert SwitchTip. Insert seat and OneSeal™.</p> <p>2. Screw assembly onto gun. Hand tighten.</p>	


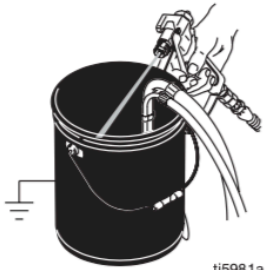
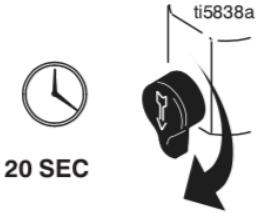

			
Clearing Tip Clogs			
<p>1. Trigger gun and spray test pattern. Slowly adjust pressure to eliminate heavy edges. Use smaller tip size if pressure adjustment can not eliminate heavy edges.</p>	<p>2. Hold gun perpendicular, 10-12 in. (25-30 cm) from surface. Spray back and forth. Use strokes overlapped by 50%. Start gun movement before triggering gun and release trigger before stopping gun movement.</p>	<p>1. Release trigger, put trigger safety ON. Rotate SwitchTip. Take trigger safety OFF and trigger gun to clear the clog.</p>	<p>2. Put trigger safety ON, return SwitchTip to original position, take trigger safety OFF and continue spraying.</p>



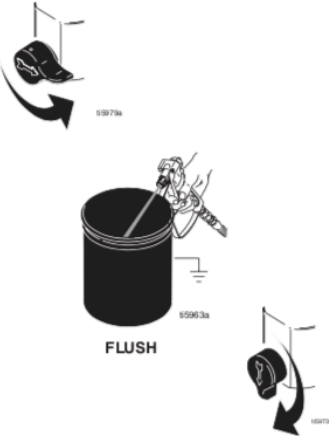
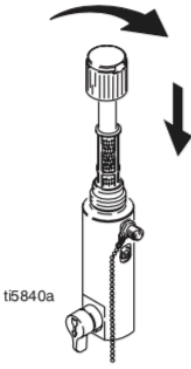
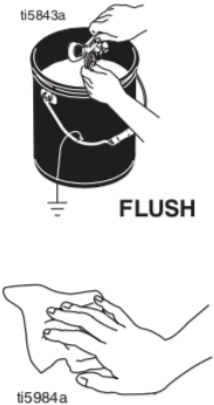
Cleanup

   	  	  	
Pressure Relief Procedure			
<p>1. Lock gun trigger safety. Set pump switch OFF. Turn engine OFF.</p>	<p>2. Unlock gun trigger safety. Turn pressure to lowest setting. Trigger gun into pail to relieve pressure.</p>	<p>3. Lock gun trigger safety. Turn prime valve down.</p>	<p>4. Remove guard and SwitchTip.</p>

If you suspect spray tip or hose is clogged or that pressure has not been fully relieved after following the steps above, VERY SLOWLY loosen tip guard retaining nut or hose end coupling to relieve pressure gradually, then loosen completely. Clear hose or tip obstruction.

 <p>ti5831a</p>	 <p>ti5832a FLUSH</p>	 <p>MATERIAL FLUSH</p> <p>ti5833a</p>	 <p>ti5978a ON</p>  <p>ti5979a</p>
<p>5. Unscrew bowl, remove filter. Assemble without filter. Clean filter.</p>	<p>6. Clean filter, guard and SwitchTip in flushing fluid.</p>	<p>7. Remove siphon tube set from material and place in flushing fluid.</p> <p>Use water for water base material and appropriate solvent for oil base material.</p>	<p>8. Turn engine ON and start engine.</p> <p>Set pump switch ON.</p> <p>Turn prime valve horizontal.</p>

 <p>MATERIAL</p> <p>ti5890a</p>	 <p>FLUSH</p> <p>ti5981a</p>	 <p>ti5838a</p> <p>20 SEC</p>	 <p>MATERIAL FLUSH</p> <p>ti5922a OFF ti5827b</p>
<p>9. Hold gun against material pail. Take trigger safety OFF. Turn pressure control up until motor begins to drive pump. Trigger gun until flushing fluid appears.</p>	<p>10. Move gun to flushing pail, hold gun against pail, trigger gun to thoroughly flush system. Release trigger and put trigger safety ON.</p>	<p>11. Turn prime valve down and allow flushing fluid to circulate for approximately 20 seconds to clean drain tube.</p>	<p>12. Raise siphon tube above flushing fluid and run sprayer for 15 to 30 seconds to drain fluid. Turn pump switch OFF. Turn engine OFF.</p>

  <p>Pump Armor</p>	 <p>ti5873a</p> <p>ti5963a</p> <p>ti5873a</p> <p>FLUSH</p>	 <p>ti5840a</p>	 <p>ti5843a</p> <p>FLUSH</p> <p>ti5984a</p>
<p>Caution: If flushing with water, do not leave water in sprayer. Flush again with mineral spirits, oil or Pump Armor and leave this protective coating in the sprayer to help prevent freezing or corrosion and increase sprayer life.</p>	<p>13. Close prime valve. Trigger gun into flushing pail to purge fluid from hose. Open prime valve.</p>	<p>14. Install filter into filter bowl. Make sure plastic center tube is tightened securely. Hand tighten filter bowl. Hand tighten gun handle.</p>	<p>15. Clean tip, guard and gasket with a soft bristle brush to prevent part failure due to dried materials. Assemble parts and attach loosely onto gun.</p> <p>Wipe sprayer, hose and gun with a rag soaked in water or mineral spirits.</p>

Troubleshooting



Problem	Cause	Solution
E=XX is displayed	Fault condition exists.	Determine fault correction from table.
Engine will not start	Engine switch is OFF.	Turn engine switch ON.
	Engine is out of gasoline.	Refill gas tank. Honda Engine Manual.
	Engine oil level is low.	Try to start engine. Replenish oil, if necessary. Honda Engine Manual.
	Spark plug disconnected or damaged.	Connect spark plug cable or replace spark plug.
	Engine is cold.	Use choke.
	Fuel shutoff lever is OFF.	Move lever to ON position.
	Oil is seeping into combustion chamber.	Remove spark plug. Pull starter 3 to 4 times. Clean or replace spark plug. Start engine. Keep sprayer upright to avoid oil seepage.
False tripping of WatchDog system. EMPTY is displayed. Pump does not run.	Operating conditions out of WatchDog parameters.	Turn pressure down. Contact Graco Technical Assistance to adjust WatchDog parameters. Operate without WatchDog active (see Operation manual).
	Pump output is low, page 6.	
Engine operates, but displacement pump does not operate	Error code displayed.Reference Pressure Control repair.	
	Pump switch is OFF.	Turn pump switch ON.
	Pressure setting too low.	Turn pressure adjusting knob clockwise to increase pressure.
	Fluid filter is dirty.	Clean filter.
	Tip or tip filter is clogged.	Clean tip or tip filter (see gun manual).
	Displacement pump piston rod is stuck due to dried paint.	Repair pump (see pump manual).
	Connecting rod is worn or damaged.	Replace connecting rod.
	Drive housing is worn or damaged.	Replace drive housing.
	Electrical power is not energizing clutch field.	Check wiring connections. Reference wiring diagram. With pump switch ON and pressure turned to MAXIMUM, use a test light to check for power between clutch test points on control board. Remove clutch wires from control board and measure resistance across clutch coil. At 70° F, the resistance must be between 1.2 + 0.2 Ω; if not, replace pinion housing. Have pressure control checked by authorized Graco dealer.
	Clutch is worn, damaged, or incorrectly positioned.	Adjust or replace clutch..
Pinion assembly is worn or damaged.Repair or replace pinion assembly.		

Troubleshooting

Problem	Cause	Solution
Pump output is low	Strainer is clogged.	Clean strainer.
	Piston ball is not seating.	Service piston ball (see pump manual).
	Piston packings are worn or damaged.	Replace packings (see pump manual).
	O-ring in pump is worn or damaged.	Replace o-ring (see pump manual).
	Intake valve ball is not seating properly.	Clean intake valve (see pump manual).
	Intake valve ball is packed with material.	Clean intake valve (see pump manual).
	Engine speed is too low.	Increase throttle setting (see operation manual).
	Clutch is worn or damaged.	Adjust or replace clutch.
	Pressure setting is too low.	Increase pressure (see operation manual).
	Fluid filter, tip filter or tip is clogged or dirty.	Clean filter (see gun manual).
	Large pressure drop in hose with heavy materials.	Use larger diameter hose and/or reduce overall length of hose. Use of more than 100 ft of 1/4 in. hose significantly reduces performance of sprayer. Use 3/8 in. hose for optimum performance (50 ft minimum).
Excessive paint leakage into throat packing nut	Throat packing nut is loose.	Remove throat packing nut spacer. Tighten throat packing nut just enough to stop leakage.
	Throat packings are worn or damaged.	Replace packings (see pump manual).
	Displacement rod is worn or damaged.	Replace rod (see pump manual).
Fluid is spitting from gun	Air in pump or hose.	Check and tighten all fluid connections. Reprime pump (see operation manual).
	Tip is partially clogged.	Clear tip (see gun manual).
	Fluid supply is low or empty.	Refill fluid supply. Prime pump (see operation manual). Check fluid supply often to prevent running pump dry.
Pump is difficult to prime	Air in pump or hose.	Check and tighten all fluid connections. Reduce engine speed and cycle pump as slowly as possible during priming.
	Intake valve is leaking.	Clean intake valve. Be sure ball seat is not nicked or worn and that ball seats well. Reassemble valve.
	Pump packings are worn.	Replace pump packings (see pump manual).
	Paint is too thick.	Thin the paint according to the supplier's recommendations.
	Engine speed is too high.	Decrease throttle setting before priming pump (see operation manual).
Clutch squeaks each time clutch engages	Clutch surfaces are not matched to each other when new and may cause noise.	Clutch surfaces need to wear into each other. Noise will dissipate after a day of run time.
High engine speed at no load	Misadjusted throttle setting.	Reset throttle to 3300 engine rpm at no load.
	Worn engine governor.	Replace or service engine governor.
Gallon counter not working	Bad sensor, broken or disconnected wire. Displaced or missing magnet.	Check connections. Replace sensor or wire. Reposition or replace magnet.
No display, sprayer operates	Display damaged or has bad connection.	Check connections. Replace display.