Operation

GMAX[™] 3400, GMAX[™] II 3900/5900/7900, and TexSpray 5900HD/7900HD Airless Sprayers

For the application of architectural paints and coatings. For professional use only. Not approved for use in European explosive atmosphere locations.

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

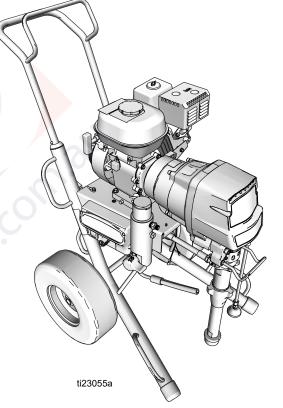
Important Safety Instructions

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

Related Manuals:

Parts 3A6417 Honda Engine Manuals

	Model	Standard	ProContractor	Lo-Boy	Ironman
	GMAX 3400	17E825			
	GMAX II 3900	17E827		17E826	
	GMAX II 5900	17E831		17E829	
	GMAX II 5900 Convertible	17E830			
	GMAX II 7900	17E836		17E834	
	TexSpray 5900HD	17E839			
	TexSpray 7900HD	17E841			
	GMAX 3400	17G997			
(GMAX II 3900	17G999	17E828	17G998	
	GMAX II 5900	17H810	17E832	17H808	17E833
СОГ	GMAX II 7900	17H818	17E837	17H817	17E838
EĦE	GMAX II 7900 Roof Rig				17E835
	TexSpray 5900HD	17H819	17E840		
S	TexSpray 7900HD	17H820	17E842		17E843









3A6400B

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Warning

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

	 When repair or replacement of the cord or plug is required, do not connect the grounding wire to either flat blade terminal. The wire with insulation having an outer surface that is green with or without yellow stripes is the grounding wire. Check with a qualified electrician or serviceman when the grounding instructions are not completely understood, or when in doubt as to whether the product is properly grounded.
•	 Do not use an adapter with this product. Extension Cords: Use only a 3-wire extension cord that has a grounding plug and a grounding receptacle that accepts the plug on the product.

Electric Motor Warnings





FIRE AND EXPLOSION HAZARD

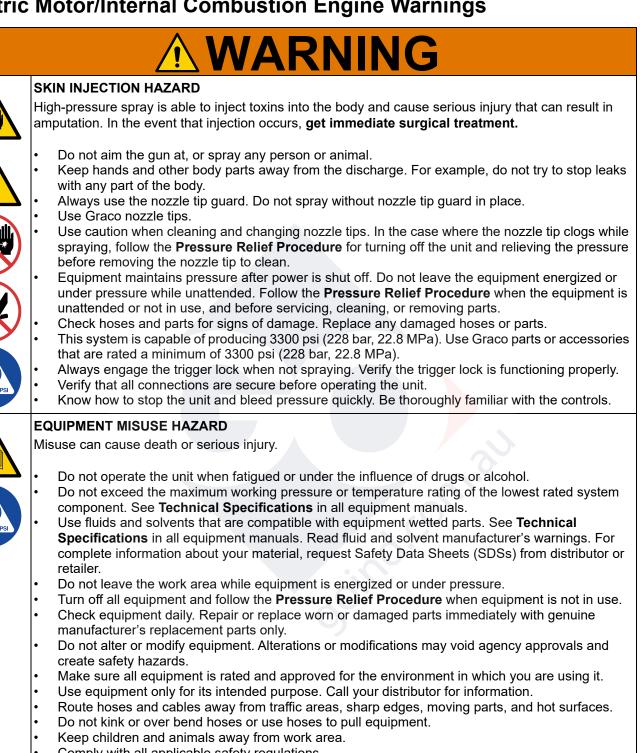
Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. To help prevent fire and explosion:

- Do not spray flammable or combustible materials near an open flame or sources of ignition such as cigarettes, motors, and electrical equipment.
- Paint or solvent flowing through the equipment is able to result in static electricity. Static electricity creates a risk of fire or explosion in the presence of paint or solvent fumes. All parts of the spray system, including the pump, hose assembly, spray gun, and objects in and around the spray area shall be properly grounded to protect against static discharge and sparks. Use Graco conductive or grounded high-pressure airless paint sprayer hoses.
- Verify that all containers and collection systems are grounded to prevent static discharge. Do not use pail liners unless they are anti-static or conductive.
- Connect to a grounded outlet and use grounded extensions cords. Do not use a 3-to-2 adapter.
- Do not use a paint or a solvent containing halogenated hydrocarbons.
- Do not spray flammable or combustible liquids in a confined area.
- Keep spray area well-ventilated. Keep a good supply of fresh air moving through the area. Sprayer generates sparks. Keep pump assembly in a well-ventilated area at least 20 feet (6.1 m) from the spray area when spraying, flushing, cleaning, or servicing. Do not spray pump assembly.
- Do not smoke in the spray area or spray where sparks or flame is present.
- Do not operate light switches, engines, or similar spark producing products in the spray area.
- Keep area clean and free of paint or solvent containers, rags, and other flammable materials.
- Know the contents of the paints and solvents being sprayed. Read all Safety Data Sheets (SDSs) and container labels provided with the paints and solvents. Follow the paint and solvent manufacturer's safety instructions.
 - Keep a working fire extinguisher in the work area.

Internal Combustion Engine Warnings

WARNING
 FIRE AND EXPLOSION HAZARD Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. To help prevent fire and explosion: 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. Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static sparking). Ground all equipment in the work area. See Grounding instructions. Never spray or flush solvent at high pressure. 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. Use only grounded hoses. Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are anti-static or conductive. Stop operation immediately if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem. Keep a working fire extinguisher in the work area.
 CARBON MONOXIDE HAZARD Exhaust contains poisonous carbon monoxide, which is colorless and odorless. Breathing carbon monoxide can cause death. Do not operate internal combustion engine in an enclosed area. BURN HAZARD Equipment surfaces and fluid that is heated can become very hot during operation. To avoid severe burns: Do not touch hot fluid or equipment.

Electric Motor/Internal Combustion Engine Warnings

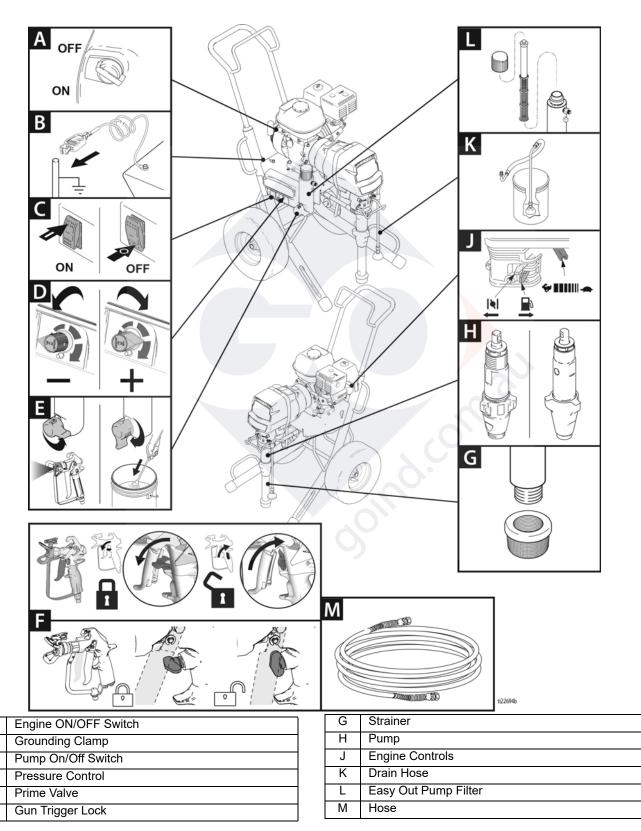


Comply with all applicable safety regulations.

	PRESSURIZED ALUMINUM PARTS HAZARD Use of fluids that are incompatible with aluminum in pressurized equipment can cause serious chemical reaction and equipment rupture. Failure to follow this warning can result in death, serious injury, or property damage.
	 Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents. Do not use chlorine bleach. Many other fluids may contain chemicals that can react with aluminum. Contact your material supplier for compatibility.
	MOVING PARTS HAZARD
	Moving parts can pinch, cut or amputate fingers and other body parts.
MPa/bar/PSI	 Keep clear of moving parts. Do not operate equipment with protective guards or covers removed. Equipment can start without warning. Before checking, moving, or servicing equipment, follow the Pressure Relief Procedure and disconnect all power sources.
	TOXIC FLUID OR FUMES HAZARD
	Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.
	 Read Safety Data Sheets (SDSs) to know the specific hazards of the fluids you are using. Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.
	RECOIL HAZARD
	Gun may recoil when triggered. If you are not standing securely, you could fall and be seriously injured.
	PERSONAL PROTECTIVE EQUIPMENT
	Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. Protective equipment includes but is not limited to:
	 Protective eyewear, and hearing protection. Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.
	CALIFORNIA PROPOSITION 65 The engine exhaust from this product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.
	This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm. Wash hands after handling.

Component Identification

Standard Models (3400, 3900, 5900, 5900HD, 7900, 7900HD)



А

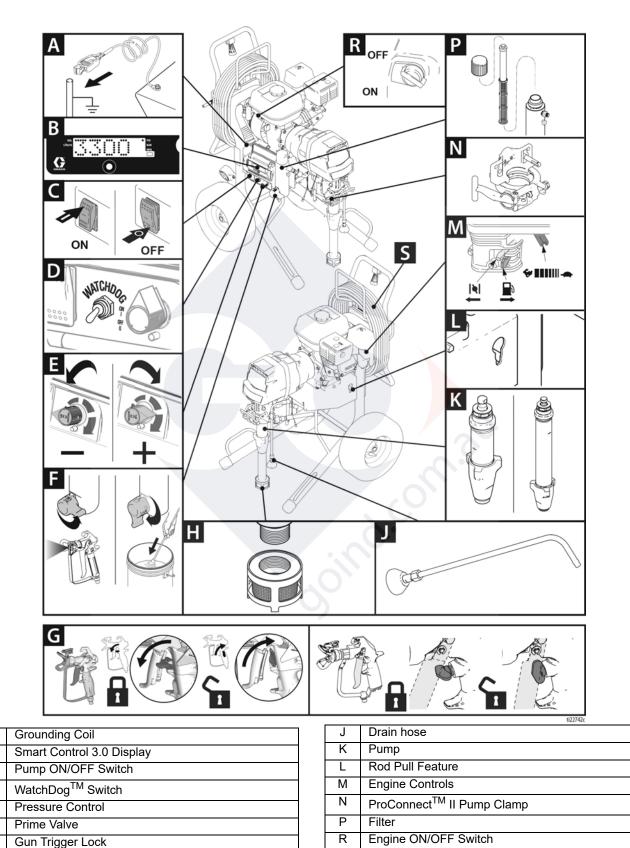
В

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S

QuikReel

ProContractor Models (3900, 5900, 7900, 5900HD, 7900HD)

А

В

С

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Ε

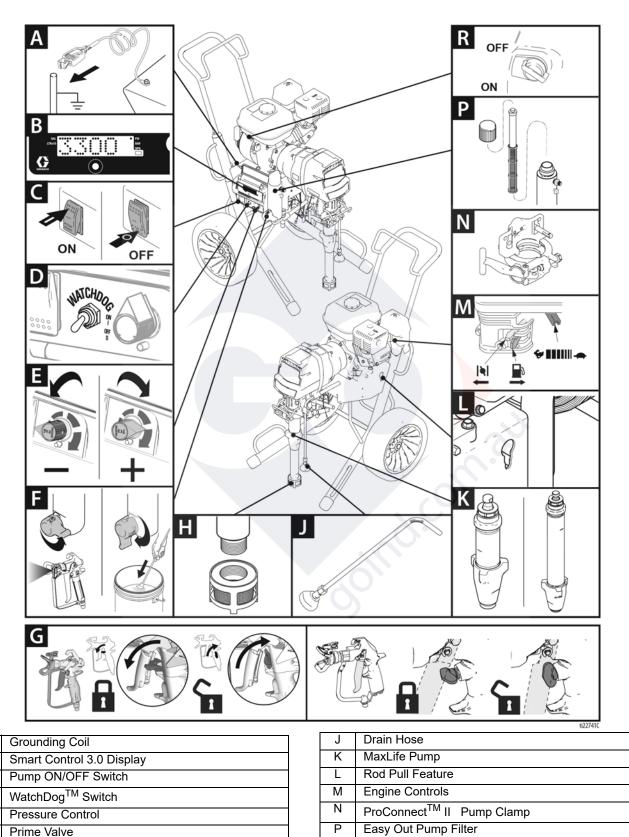
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G

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Strainer

Ironman Models (5900, 7900, 7900HD)



Engine ON/OFF Switch

Hose (not shown)

R

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А

В

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D

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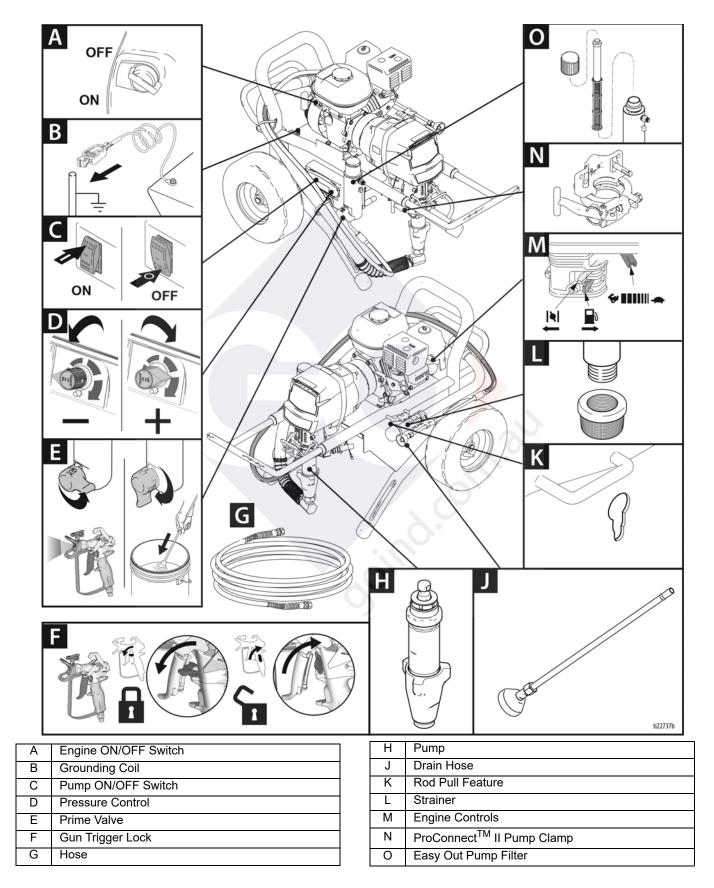
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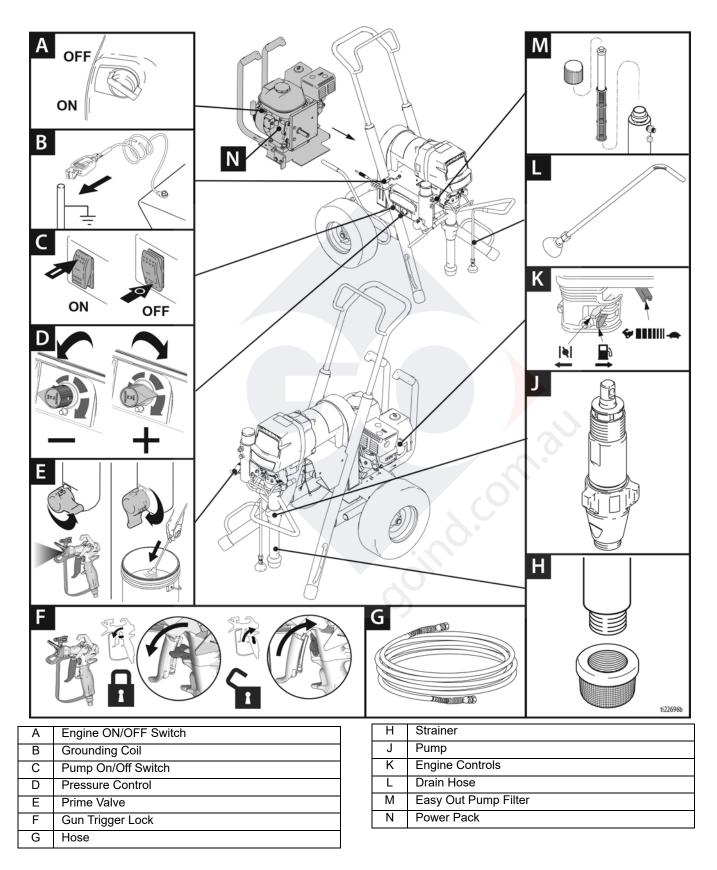
Gun Trigger Lock

Heavy Duty Strainer



Lo-Boy Models (3900, 5900, 7900)

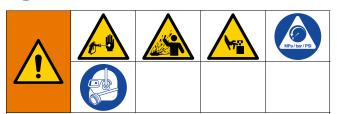
Convertible Models (5900)



Pressure Relief Procedure



Follow the Pressure Relief Procedure whenever you see this symbol.



This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop spraying and before cleaning, checking, or servicing the equipment.

- 1. Engage trigger lock.
- 2. Turn gas engine ON/OFF siwtch to OFF. For Convertible Models with electric motor, turn electric motor ON/OFF switch to OFF, and unplug power cord to electric motor.
- 3. Disengage trigger lock. Hold metal part of gun firmly to side of grounded metal pail, and trigger gun to relieve pressure.
- 4. Engage gun trigger lock.
- 5. Turn prime valve down to DRAIN position. Leave prime valve down until ready to spray again.
- 6. If you suspect the spray tip or hose is clogged or that pressure has not been fully relieved:
 - VERY SLOWLY loosen the tip guard retaining nut or the hose end coupling to relieve pressure gradually.
 - b. Loosen the nut or the coupling completely.
 - c. Clear the obstruction in the hose or tip.

Grounding

Grounding Procedure for Internal Combustion Engine



The equipment must be grounded to reduce the risk of static sparking. Static sparking can cause fumes to ignite or explode. Grounding provides an escape wire for the electric current.



To ground sprayer: Attach sprayer grounding clamp to earth ground.

Air and fluid hoses: Use only electrically conductive hoses with a maximum of 500ft. (150 m) combined hose length to ensure grounding continuity. Check electrical resistance of hoses. If total resistance to ground exceeds 29 megaohms, replace hose immediately.

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

Grounding Procedure for Electric Motor (Convertible Models only)



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

This sprayer is equipped with a power cord that has a ground wire and an appropriate grounding plug.

If using the electric motor, plug must be plugged into an actual outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided; if it does not fit the outlet, have the proper outlet installed by a qualified electrician.

Power Requirements

Convetible is only in USA or Canada.

• 100-120 VAC, 50/60 Hz, 15A, 1 phase.

Extension Cords

Use an extension cord with an undamaged ground contact. If an extension cord is necessary, use a 3-wire, 12 AWG (2.5 mm²) minimum.

NOTE: Smaller gauge or longer extension cords may reduce sprayer performance.

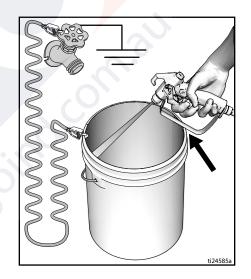
Grounding of Pails

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



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

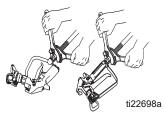
To maintain ground continuity when sprayer is flushed or pressure is relieved: hold metal part of spray gun firmly to the side of a grounded metal pail then trigger the gun.



Setup



- 1. All sprayers except ProContractor: Connect appropriate Graco high-pressure hose to sprayer.
- 2. **Select Units:** Install whip hose to fluid inlet of spray gun and tighten securely.

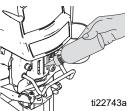


3. Engage gun trigger lock.



- 4. When spraying texture, remove inlet strainer and filter bowl screen when spraying materials.

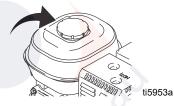
5. Fill throat packing nut with TSL to prevent premature packing wear. Do this each time you spray.



6. Check engine oil level. Add SAE 10W-30 (summer) or 5W-20 (winter), if necessary.



7. Fill fuel tank.



8. Attach sprayer grounding clamp to earth ground.

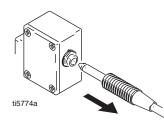


Convertible Models Only

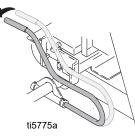


Change Gas Engine to Electric Motor

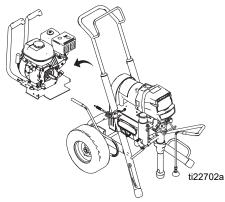
1. Disconnect engine power cord.



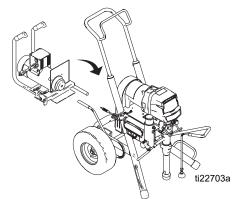
2. Release tension bar.



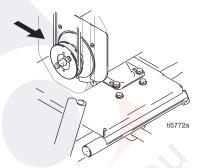
3. Remove engine; tilt and slide back.



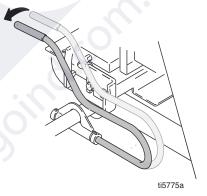
4. Install motor; drop in and push forward.



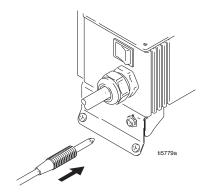
5. Look through side vent holes and ensure drive belt is in motor pulley.



6. Secure motor with tension bar.



7. Plug in pressure control power cord.



Startup



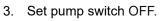
1. Place suction tube and drain tube in grounded metal pail partially filled with flushing fluid. Attach ground wire to pail and to earth ground.



2. Turn prime valve down to DRAIN position. Turn pressure control counterclockwise to lowest pressure.

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- 4. Start Engine
 - a. Move fuel valve to open.

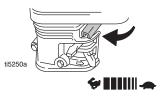


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b. Move choke to closed.



c. Set throttle to fast.



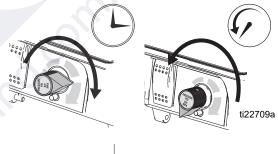
d. Set engine switch to ON.



5. Pull rope to start engine.



6. Increase pressure enough to start pump stroking and allow fluid to circulate for 15 seconds; turn pressure down and turn prime valve forward to SPRAY position.



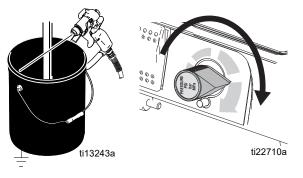


7. Disengage spray gun trigger lock.



Startup

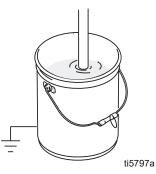
 Hold gun against grounded metal flushing pail. Trigger gun and increase fluid pressure slowly until pump runs smoothly.





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

- Inspect fittings for leaks. If leaks occur, turn sprayer OFF immediately. Perform Pressure Relief Procedure steps 1-3, page 13. Tighten leaky fittings. Repeat Startup procedure steps 1 - 5. If no leaks, continue to trigger gun until system is thoroughly flushed. Proceed to step 6.
- 10. Place siphon tube in material pail.



11. Trigger gun again into flushing fluid pail until material appears.

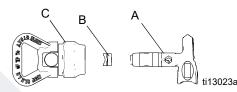


Switch Tip[™] Guard Assembly

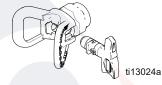


To avoid serious injury from skin injection do not put your hand in front of the spray tip when installing or removing the spray tip and tip guard.

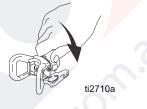
- 1. Perform **Pressure Relief Procedure**, page 13.
- Engage gun trigger lock. Insert Switch Tip. Insert seat and OneSeal[™].



3. Insert Switch Tip.



4. Screw assembly onto gun. Tighten.



Spray

1. Spray test pattern. Increase pressure to eliminate heavy edges. Use smaller tip size if pressure adjustment can not eliminate heavy edges.



 Hold gun perpendicular, 10-12 in. (25-30 cm) from surface. Spray back and forth. Overlap by 50%. Trigger gun after moving and release before stopping.

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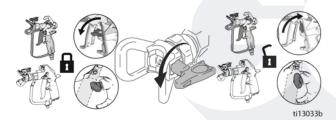
Clearing Tip Clogs



1. Release trigger, engage trigger lock. Rotate Switch Tip. Disengage trigger lock. Trigger gun to clear clog.



2. Engage trigger lock. Return Switch Tip to original position. Disengage trigger lock and continue spraying.

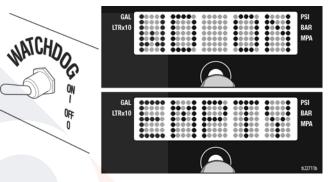


WatchDog[™] Protection System (ProContractor and Ironman units only)

Pump stops automatically when material pail is empty.

To Activate:

- 1. Perform Startup.
- Turn WatchDog switch ON and WD ON displays. EMPTY displays/flashes and pump stops when Watchdog protection system detects an empty material pail.



3. Turn WatchDog switch OFF. Add material or reprime sprayer. Turn pump switch OFF and ON to reset WatchDog protection system. Turn WatchDog switch back ON to continue to monitor material level.



QuikReel[™] (ProContractor units only)

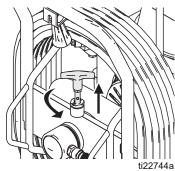


To avoid injury, keep your head clear of hose reel while winding up hose.

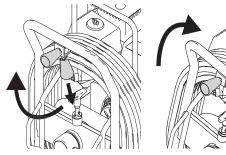
1. Make sure hose is routed through hose guide.



2. Lift and turn pivot lock 90 to unlock hose reel. Pull on hose to remove it from hose reel.

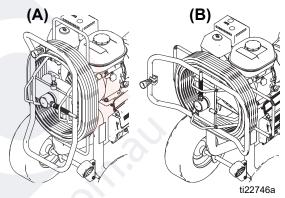


3. Pull reel handle down and out. Turn clockwise to reel in hose.



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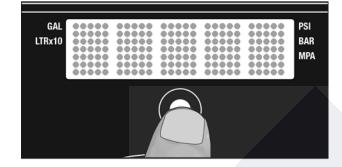
NOTE: The QuikReel can be locked into two positions: Usage (A) and Storage (B).



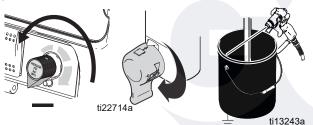
LED Display (ProContractor and Ironman units)

Operation Main Menu

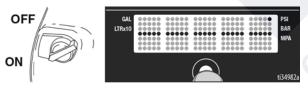
Short press to move to next display. Press and hold (5 seconds) to change units or reset data.



 Turn pressure to lowest setting. Trigger gun to relieve pressure. Turn prime valve down to DRAIN position.

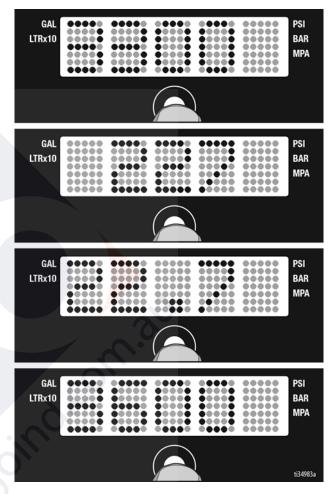


 Turn power ON. Pressure display appears. Dashes will not appear unless pressure is less than 200 psi (14 bar, 1,4 MPa).



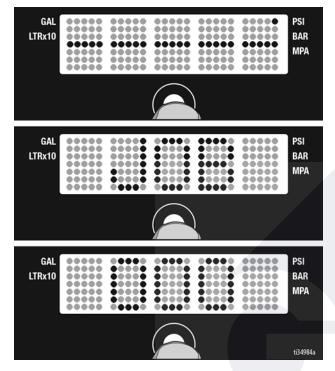
Change Display Units

Press and hold **DISPLAY** button for 5 seconds to change pressure units (**psi, bar, MPa**) to desired units. Selection of bar or MPa changes **gallons** to **liters x 10**. To change display units **DISPLAY** must be in pressure display mode and pressure must be at zero.



Job Gallons

1. Short press **DISPLAY** button to move to Job Gallons (or liters x 10).

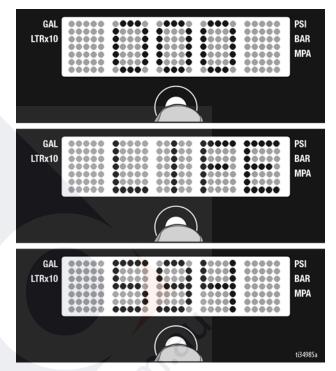


NOTE: JOB scrolls past, then the number of gallons sprayed above 1000 psi (70 bar, 7 MPa) displays.

Lifetime Gallons

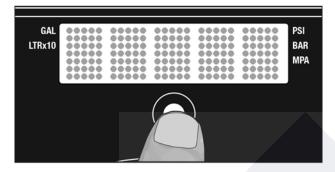
1. Short press **DISPLAY** button to move to Lifetime Gallons (or liters x 10).

NOTE: LIFE scrolls briefly, then the number of gallons sprayed above 1000 psi (70 bar, 7 MPa) displays.

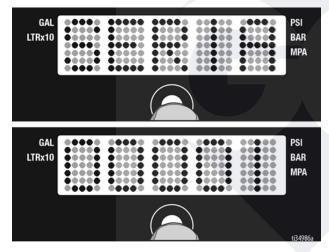


Secondary Menu - Stored Data and WatchDog Pump Protection Modes

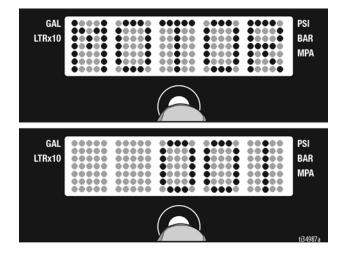
- 1. Perform **Pressure Relief**, steps 1 4 if they have not already been done.
- 2. Turn power switch on while holding **DISPLAY** button down.



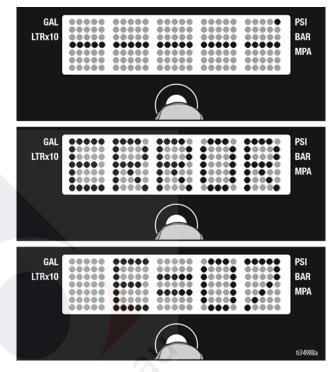
 The sprayer model briefly displays (e.g. 5900), SERIAL NUMBER scrolls past and then serial number (e.g. 00001) displays.



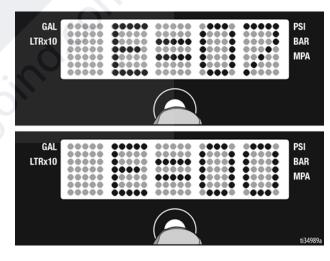
 Short press **DISPLAY** button and **MOTOR ON** scrolls past and then total motor run hours are displayed.



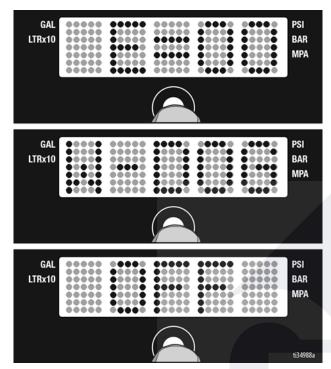
 Short press DISPLAY button. LAST ERROR CODE scrolls by and last error code is displayed; e.g. E=07. See sprayer Repair manual for additional information.



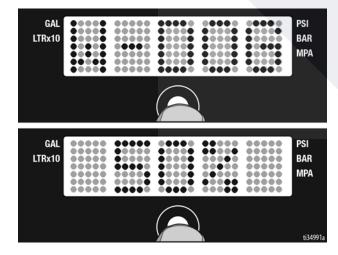
Press and hold **DISPLAY** button to clear error code to zero.



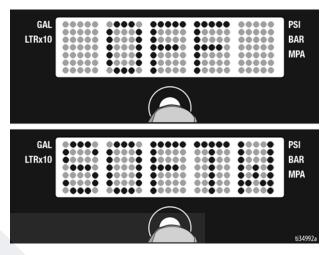
7. Short press **DISPLAY** button. **W-DOG** scrolls past then **OFF** displays if watchdog switch is OFF. **ON** displays if Watchdog switch is ON.



 Short press **DISPLAY** button to move to Watch Dog sensitivity menu. Press and hold **DISPLAY** button Watch Dog can be set to low, medium, or high sensitivity. Release **DISPLAY** button when desired sensitivity setting is displayed.



9. Short press to move to **SOFTWARE REV**.



Cleanup



 Perform Pressure Relief Procedure, page 13, steps 1 - 4. Remove siphon tube set from paint and place in flushing fluid. Remove tip guard from gun.



NOTE: Use water for water-base paint, mineral spirits for oil-base paint, or other solvents recommended by manufacturer.

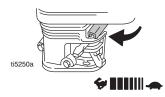
- 2. Start Engine
 - a. Move fuel valve to open.



b. Move choke to closed.



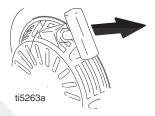
c. Set throttle to fast.



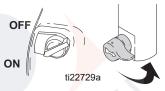
d. Set engine switch to ON.



3. Pull rope to start engine.



4. Turn pump switch ON. Turn prime valve forward to SPRAY position.



 Increase pressure to 1/2. Hold gun against paint pail. Disengage trigger lock. Trigger gun until flushing fluid appears.



6. Move gun to waste pail, hold gun against pail, trigger gun to thoroughly flush system. Release trigger and engage trigger lock.



7. Turn prime valve down to DRAIN position and allow flushing fluid to circulate until flushing fluid appears clear.

Cleanup

8. Turn prime valve forward to SPRAY position. Trigger gun into flushing pail to purge fluid from hose.



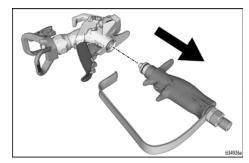
9. Raise siphon tube above flushing fluid and run sprayer for 15 to 30 seconds to drain fluid. Turn pump switch and engine OFF



10. Turn prime valve down DRAIN position.



11. Remove filters from gun and sprayer, if installed. Clean and inspect. Install filters.



- 12. If flushing with water, flush again with mineral spirits, or Pump Armor, to leave a protective coating to prevent freezing or corrosion.
- 13. Wipe sprayer, hose and gun with a rag soaked in water or mineral spirits.



Maintenance

Perform **Pressure Relief Procedure**, page 13, before performing maintenance.

NOTE: For detailed engine maintenance and specifications, refer to separate Honda Engines Owner's Manual, supplied.

DAILY: Check engine oil level and fill as necessary.

DAILY: Check hose for wear and damage.

DAILY: Check that all hose fittings are secure.

DAILY: Check gun safety for proper operation.

DAILY: Check pressure drain valve for proper operation.

DAILY: Check and fill the gas tank.

DAILY: Check level of TSL in displacement pump packing nut. Fill nut, if necessary. Keep TSL in nut to help prevent fluid buildup on piston rod and premature wear of packings and pump corrosion.

AFTER THE FIRST 20 HOURS OF OPERATION:

Drain engine oil and refill with clean oil. Reference Honda Engines Owner's Manual for correct oil viscosity.

WEEKLY: Remove engine air filter cover and clean element. Replace element, if necessary. If operating in an unusually dusty environment: check filter daily and replace, if necessary.

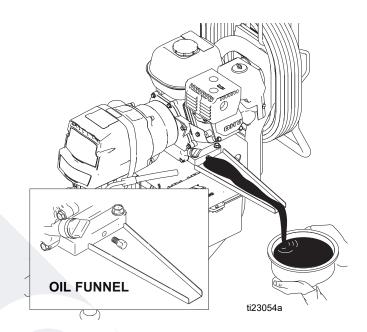
Replacement elements can be purchased from your local HONDA dealer.

AFTER EACH 100 HOURS OF OPERATION:

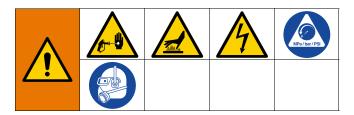
Change engine oil. Reference Honda Engines Owner's Manual for correct oil viscosity.

SPARK PLUG: Use only BPR6ES (NGK) or W20EPR-U (NIPPONDENSO) plug. Gap plug to 0.028 to 0.031 in. (0.7 to 0.8 mm). Use spark plug wrench when installing and removing plug.

Use the supplied engine oil funnel when draining oil.



Troubleshooting



Problem	Cause	Solution
E=XX is displayed	Fault condition exists.	Determine fault correction from table, page 35.
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. Pump output is low, page 29.	Turn pressure down. Contact Graco Technical Assistance to adjust WatchDog parameters. Operate without WatchDog active (see Operation manual).

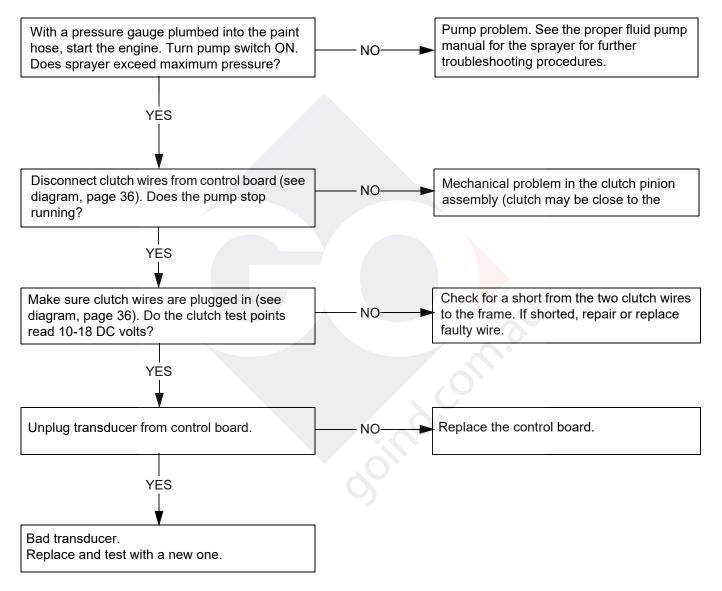
Problem	Cause	Solution
Engine operates, but displacement	Error code displayed.	See LED Display Messages, page 38.
pump does not operate	Pump switch is OFF.	Turn pump switch ON.
	Pressure setting too low.	Turn pressure adjusting knob clockwise to increase pressure.
	Fluid filter is dirty.	Clean filter.
	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.	See Parts manual.
	Drive housing is worn or damaged.	See Parts manual.
	Electrical power is not energizing clutch field.	See Parts manual.
		See LED Display Messages, page 38.
		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 for 3900 - $1.2 + 0.2 \Omega$, for 5900/7900 1.7 ± 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. See page 39.
	Pinion assembly is worn or damaged.	Repair or replace pinion assembly. Page 39.
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. Page 39.
	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).

Problem	Cause	Solution
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 intake tube 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).
	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.
	goil	0.

Fluid Pump Runs Constantly

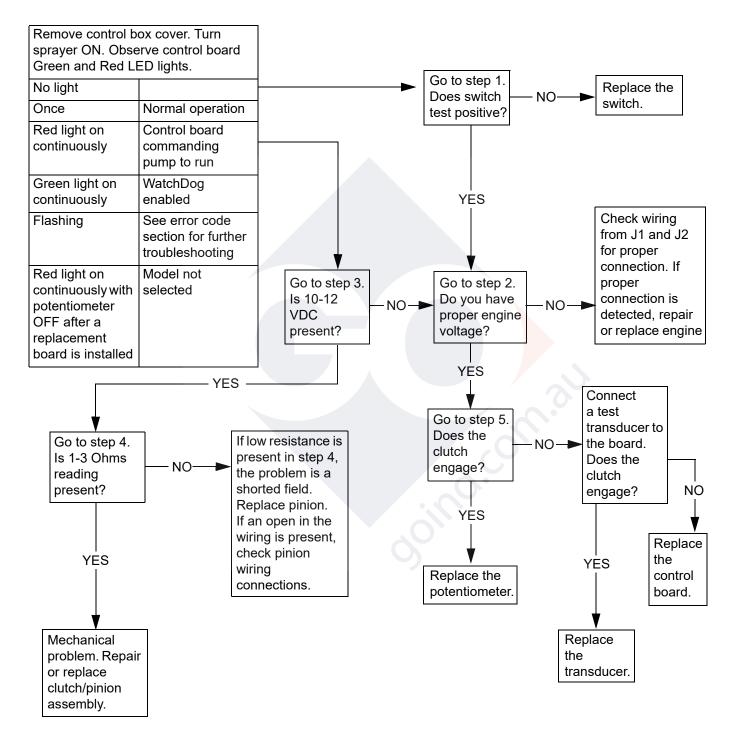
- 1. Perform **Pressure Relief Procedure**, page 13, turn prime valve forward to SPRAY position, and turn power switch OFF.
- 2. Remove control box cover.

Troubleshooting Procedure:

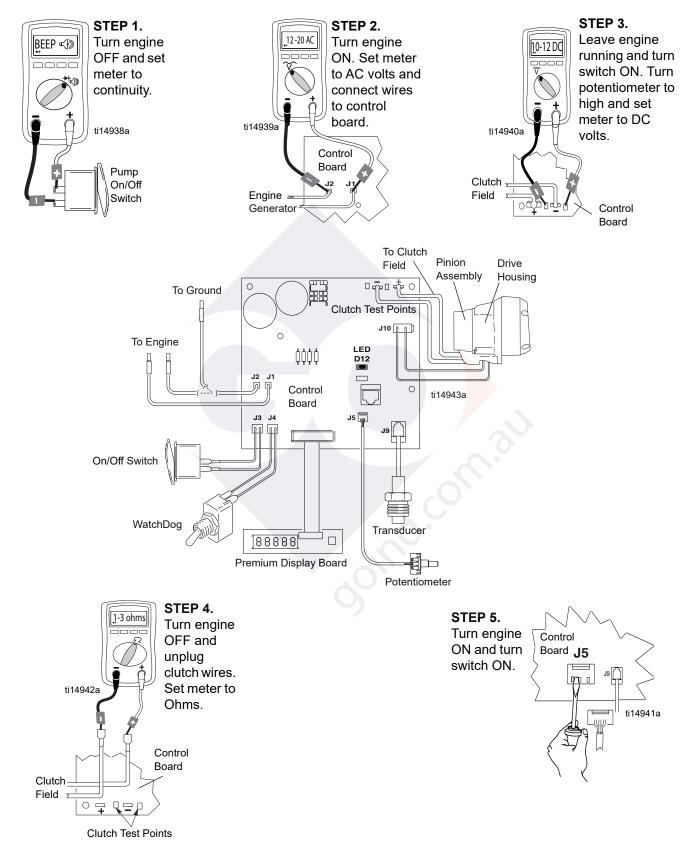


Control Board Malfunction

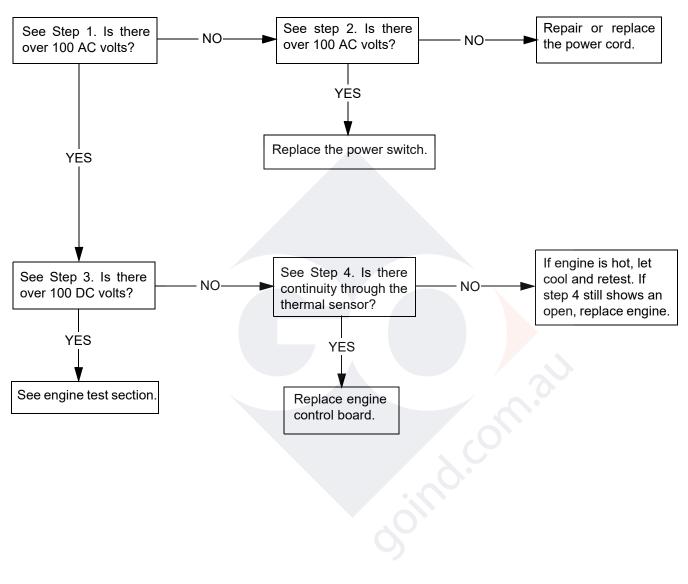
Troubleshooting Procedure (see following page for actual steps):







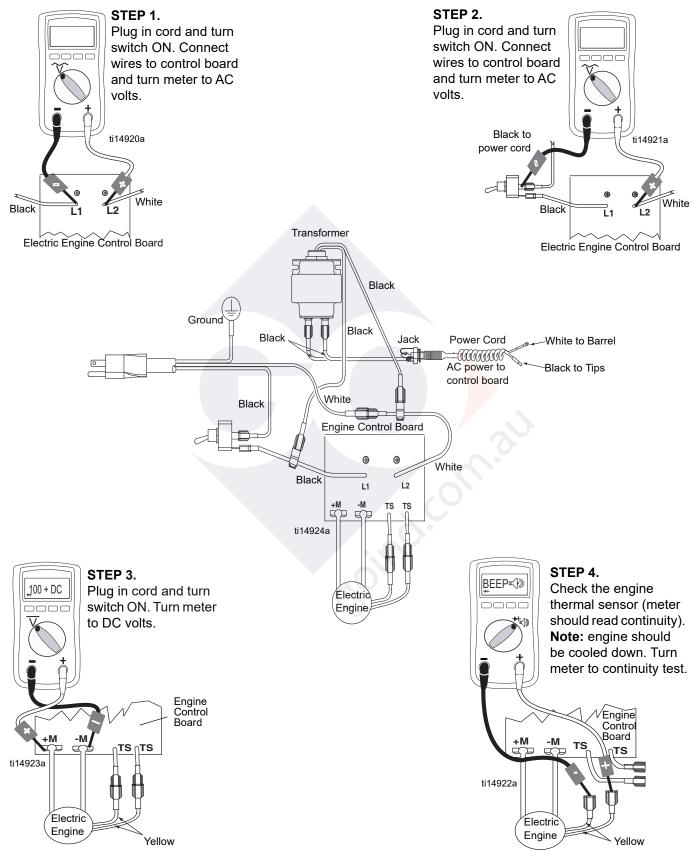
Convertible Electric Motor Will Not Run



Troubleshooting Procedure (see following page for actual steps):

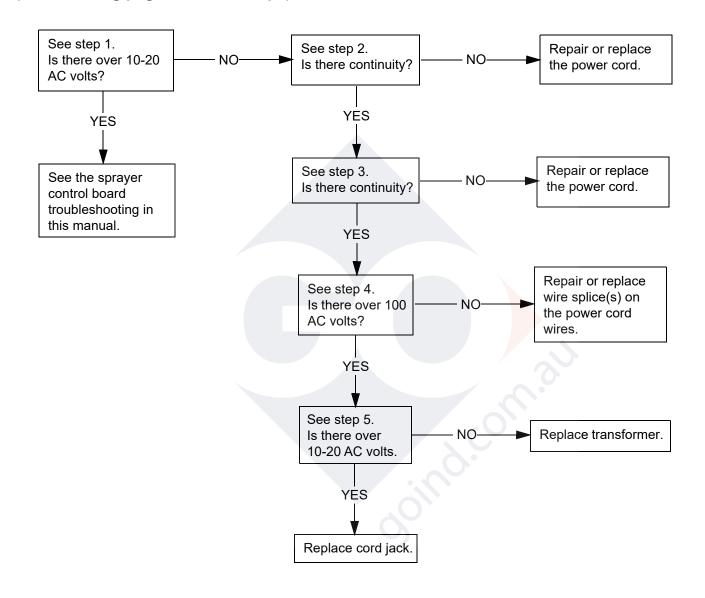
Troubleshooting

Convertible Electric Motor Will Not Run (Steps)

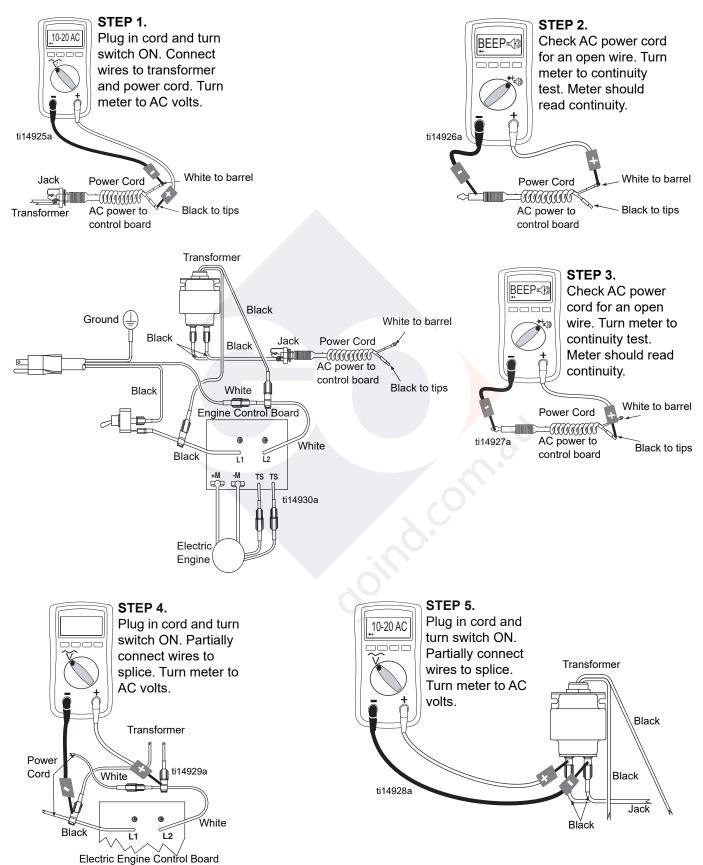


Convertible Electric Motor Runs -No AC Output to Sprayer Control Board

Troubleshooting Procedure (see following page for actual steps):



Convertible Electric Motor Runs - No AC Output to Sprayer Control Board (Steps)



LED Display Messages

- Display messages are not available on all sprayers
- Blinking LED total count equals digital error code • i.e., two blinks is the same as E=02

DISPLAY*	SPRAYER OPERA- TION	INDICATION	ACTION
No Display	Sprayer may be pressurized.	Loss of power or display not connected.	Check power source. Relieve pressure before repair or disassembly. Verify display is connected.
***** ***** ***** *****	Sprayer may be pressurized.	Pressure less than 200 psi (14 bar, 1.4 MPa).	Increase pressure as needed.
	Sprayer is pressurized. Power is applied. (Pressure varies with tip size and pressure control setting).	Normal operation.	Spray
	Sprayer stops. Engine is running.	Exceeded pressure limit.	 Check fluid path for clogs, such as clogged filter. Open prime valve and gun if running AutoClean. Use Graco paint hose, 1/4 in. x 50 ft minimum. Smaller hose or metal braid hose may result in pressure spikes. Replace transducer if fluid path is not clogged and proper hose is used.
	Sprayer stops. Engine is running.	Pressure transducer faulty, bad connection or broken wire.	 Check transducer connection. Disconnect and reconnect transducer plug to ensure good connection with control board socket. Open prime valve. Replace sprayer transducer with known good transducer and run sprayer. Replace transducer if sprayer runs or control board if sprayer does not run.
	Sprayer stops. Engine is running.	High clutch current.	 Check wiring connections. Measure: 1.2 + 0.2 Ω (GMAX II 3900); 1.7 + 0.2 Ω (GMAX II 5900/ 7900 & TexSpray 7900HD) across clutch field at 70°F. Replace clutch field assembly.
(with constant green LED)	Sprayer stops. Engine is running.	Loss of paint to pump or severe pressure loss.	 Check for empty paint condition, clogged inlet strainer, failed pump or severe leak. Reduce pressure and turn pump switch OFF and ON to restart pump. WatchDog function can be deactivated by turning WatchDog switch OFF.
····· ···· ···· ····· ·····	Sprayer stops. Engine is running.	Pressure greater than 2000 psi (138 bar, 14 MPa) while in Flush Timer Mode.	 Open prime valve and gun. Verify no flow obstructions or clogged filter.

* Error codes also appear on control board as a blinking red LED. LED is an alternate to digital messages.

After a fault, follow these steps to restart sprayer:

Correct fault condition 1.

Remove two screws (71) and swing down cover (130). Start engine. Blink count is the same as error code(E=0X). 1. 2.

- 2. 3. Turn sprayer OFF Turn sprayer ON

Pinion Assembly/Clutch Armature/Clamp



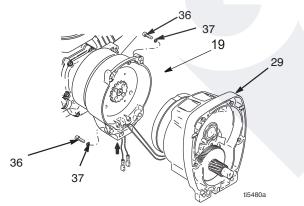
Perform **Pressure Relief Procedure**, page 13, before performing these tasks.

Pinion Assembly/Clutch Armature Removal

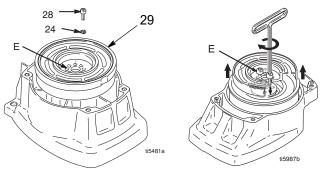
Pinion Assembly

If pinion assembly (29) is not removed from clutch housing (19), do 1. through 3. Otherwise, start at 4. 1. Remove drive housing.

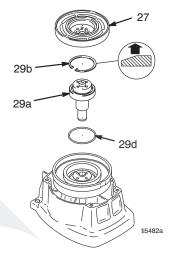
- 2. Disconnect clutch cable connectors from inside of pressure control.
 - a. Remove two screws (71) and swing down cover (130a).
 - b. Disconnect engine leads from board to engine.
 - c. Remove strain reliefs 130r and 123.
- 3. Remove four screws (36) and pinion assembly (29).



- 4. Place pinion assembly (29) on bench with rotor side up.
- Remove four screws (28) and lock washers (24). Install two screws in threaded holes (E) in rotor. Alternately tighten screws until rotor comes off.

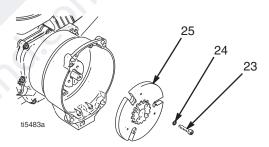


- 6. Remove retaining ring (29b).
- 7. Turn pinion assembly over and tap pinion shaft (29a) out with plastic mallet.



Clutch Armature

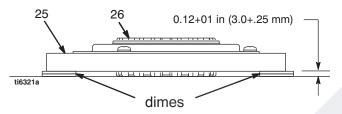
- Use an impact wrench or wedge something between clutch armature (25) and clutch housing to hold engine shaft during removal.
- 9. Remove four screws (23) and lock washers (24).
- 10. Remove armature.



Installation

Clutch Armature

- 1. Lay two stacks of two dimes on smooth bench surface.
- 2. Lay armature (25) on two stacks of dimes.
- 3. Press center of hub (26) down to bench surface.



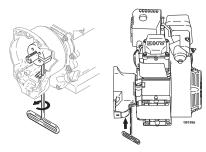
- 4. Install armature (25) on engine drive shaft.
- 5. Install four screws (23) and lock washers (24) with torque of 125 in-lb.

Pinion Assembly

- 1. Check o-ring (29d) and replace if missing or damaged.
- 2. Tap pinion shaft (29a) in with plastic mallet.
- 3. Install retaining ring (29b) with beveled side facing up.
- 4. Place pinion assembly on bench with rotor side up.
- Apply thread sealant to screws. Install four screws (28) and lock washers (24). Alternately torque screws to 125 in-lb until rotor is secure. Use threaded holes to hold rotor.
- 6. Install pinion assembly (29) with four screws (36) and washers (37).
- 7. Connect clutch cable connectors to inside of pressure control.

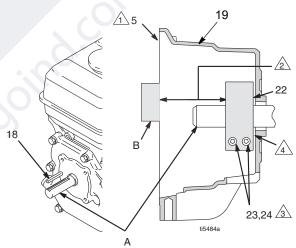
Clamp Removal

- 1. Remove engine.
- 2. Drain gasoline from tank according to Honda manual.
- 3. Tip engine on side so gas tank is down and air cleaner is up.
- 4. Loosen two screws (24) on clamp (22),
- 5. Push screwdriver into slot in clamp (22) and remove clamp.



Clamp Installation

- 1. Install engine shaft key (18).
- Tap clamp (22) onto engine shaft (A). Maintain dimension shown note 2. Chamfer must face engine.
- Check dimension: Place rigid, straight steel bar (B) across face of clutch housing (19). Use accurate measuring device to measure distance between bar and face of clamp. Adjust clamp as necessary. Torque two screws (24) to 125 ±10 in-lb (14 ±1.1 N•m).
- A Face of clutch housing
- ▲ 1.550 ± .010 in. (39.37 ± .25 mm) GMAX 3400 and 3900 2.612 ± .010 in. (66.34 ± .25 mm) - GMAX 5900 and 7900
- A Torque to 125 ±.10 in-lb (14 ±1.1 №m)
- A Chamfer this side



Technical Data

3400 Models		
	U.S.	Metric
Engine		
Honda GX120 Engine		
Sprayer		
Maximum Working Pressure	3300 psi	228 bar, 22.8 MPa
Maximum Tip Size:	0.027 in. tip	0.027 in. tip
Maximum Delivery Rating	0.75 gpm	2.84 lpm
Inlet Paint Strainer	12 mesh (1523 micron) stainless steel screen, reusable	12 mesh (1523 micron) stainless steel screen, reusable
Outlet Paint Filter	60 mesh (250 micron) stainless steel screen, reusable	60 mesh (250 micron) stainless steel screen, reusable
Pump Inlet Size	1 1/4-12 UNF-2A	1 1/4-12 UNF-2A
Fluid Outlet Size	1/4 npsm from fluid filter	1/4 npsm from fluid filter
Dimensions		
Weight:	89 lb	40.5 kg
Height (handle extended):	40.8 in.	103.6 cm
Length (handle extended):	35.0 in.	88.9 cm
Width:	22.3 in.	56.6 cm
Wetted parts	fluoroelastomer, acetal,	n steel, PTFE, nylon, polyurethane, UHMW, , leather, aluminum, tungsten carbide, s steel, chrome plating
Noise Level:		0
Sound Power	100 dBa per ISO 3744	100 dBa per ISO 3744
Sound Pressure	86 dBa measured at 3.1 ft	86 dBa measured at 1 m

3900 Models		
	U.S.	Metric
Engine	I	
Honda GX120 Engine		
Sprayer		
Maximum Working Pressure	3300 psi	228 bar, 22.8 MPa
	1 Gun with 0.036 in. tip	1 Gun with 0.036 in. tip
Maximum Tip Size:	2 Guns with 0.023 in. tip	2 Guns with 0.023 in. tip
	3 Guns with 0.018 in. tip	3 Guns with 0.018 in. tip
Maximum Delivery Rating	1.25 gpm	4.73 lpm
Inlet Paint Strainer	8 mesh (2589 micron) stainless steel screen, reusable	8 mesh (2589 micron) stainless steel screen, reusable
Outlet Paint Filter	60 mesh (250 micron) stainless steel screen, reusable	60 mesh (250 micron) stainless steel screen, reusable
Pump Inlet Size	1-5/16-12 UN-2A	1-5/16-12 UN-2A
Fluid Outlet Size	1/4 npsm from fluid filter	1/4 npsm from fluid filter
Dimensions		
Weight:		
GMAX 3900 Standard	106 lb	48.2 kg
GMAX 3900 Lo-Boy	123 lb	55.9 kg
GMAX 3900 ProContractor	133 lb	60.5 kg
Height:		
GMAX 3900 Standard	40.8 in.	103.6 cm
GMAX 3900 Lo-Boy	26.4 in.	67.1 cm
GMAX 3900 ProContractor	38.3 in.	97.3 cm
Length:		
GMAX 3900 Standard	38.3 in.	97.3 cm
GMAX 3900 Lo-Boy	46.9 in.	119.1 cm
GMAX 3900 ProContractor	32.3 in.	82.0 cm
Width:		
GMAX 3900 Standard	22.3 in.	56.6 cm
GMAX 3900 Lo-Boy	24.4 in.	62.0 cm
GMAX 3900 ProContractor	22.3 in.	56.6 cm
Wetted parts	zinc- and nickel-plated carbon steel, PTFE, nylon, polyurethane, UHMW, fluoroelastomer, acetal, leather, aluminum, tungsten carbide, stainless steel, chrome plating	
Noise Level:	· · · · · · · · · · · · · · · · · · ·	
Sound Power	105 dBa per ISO 3744	105 dBa per ISO 3744
Sound Pressure	96 dBa measured at 3.1 ft	96 dBa measured at 1 m

5900 Models

	U.S.	Metric
Engine		
Honda GX160 Engine		
Sprayer		
Maximum Working Pressure	3300 psi	228 bar, 22.8 MPa
	1 Gun with 0.043 in. tip	1 Gun with 0.043 in. tip
	2 Guns with 0.029 in. tip	2 Guns with 0.029 in. tip
Maximum Tip Size:	3 Guns with 0.023 in. tip	3 Guns with 0.023 in. tip
	4 Guns with 0.019 in. tip	4 Guns with 0.019 in. tip
Maximum Delivery Rating	1.6 gpm	6.06 lpm
	8 mesh (2589 micron)	8 mesh (2589 micron)
Inlet Paint Strainer	stainless steel screen, reusable	stainless steel screen, reusable
Outlet Paint Filter	60 mesh (250 micron)	60 mesh (250 micron)
	stainless steel screen, reusable	stainless steel screen, reusable
Pump Inlet Size	1-5/16-12 UN-2A	1-5/16-12 UN-2A
Fluid Outlet Size	1/4 npsm from fluid filter	1/4 npsm from fluid filter
Fluid Outlet Size (5900 IronMan and 5900HD)	3/8 npsm from fluid filter	3/8 npsm from fluid filter
Dimensions		
Weight:		
GMAX 5900 Standard	138 lb	62.7 kg
GMAX 5900 Lo-Boy	144 lb	65.5 kg
GMAX 5900 ProContractor	160 lb	72.7 kg
GMAX 5900 Convertible, Standard	167 lb	7 <mark>5.9</mark> kg
GMAX 5900 IronMan	147 lb	67.1 kg
TexSpray 5900HD ProContractor	164 lb	74.5 kg
TexSpray 5900HD Standard	142 lb	64.5 kg
Height:		<u> </u>
GMAX 5900 Standard	40.5 in.	102.9 cm
GMAX 5900 Lo-Boy	27.2 in.	69.1 cm
GMAX 5900 ProContractor	38.0 in.	96.5 cm
GMAX 5900 Convertible, Standard	43.8 in.	111.3 cm
GMAX 5900 IronMan	40.5 in.	102.9 cm
TexSpray 5900HD ProContractor	38.0 in.	98.6 cm
TexSpray 5900HD Standard	40.5 in.	102.9 cm
Length:	6	
GMAX 5900 Standard	37.7 in.	95.8 cm
GMAX 5900 Lo-Boy	46.9 in.	119.1 cm
GMAX 5900 ProContractor	32.7 in.	83.1 cm
GMAX 5900 Convertible, Standard	33.0 in.	83.8 cm
GMAX 5900 IronMan	37.7 in.	95.8 cm
TexSpray 5900HD ProContractor	32.7 in.	83.1 cm
TexSpray 5900HD Standard	37.7 in.	95.8 cm
Width:	24.4 in.	62.0 cm
	l	
Wetted parts	zinc- and nickel-plated carbon steel, PTFE, nylon, polyurethane, UHMW, fluoroelastomer, acetal, leather, aluminum, tungsten carbide, stainless steel, chrome plating	
Noise Level:	1	
Sound Power	105 dBa per ISO 3744	105 dBa per ISO 3744
Sound Pressure	96 dBa measured at 3.1 ft	96 dBa measured at 1 m

7900 Models		
	U.S.	Metric
Engine		
Honda GX200 Engine		
Sprayer		
Maximum Working Pressure	3300 psi	228 bar, 22.8 MPa
Maximum Tip Size:	1 Gun with 0.048 in. tip	1 Gun with 0.048 in. tip
	2 Guns with 0.035 in. tip	2 Guns with 0.035 in. tip
	3 Guns with 0.027 in. tip	3 Guns with 0.027 in. tip
	4 Guns with 0.023 in. tip	4 Guns with 0.023 in. tip
Maximum Delivery Rating	2.2 gpm	8.33 lpm
Inlet Paint Strainer	8 mesh (2589 micron) stainless steel screen, reusable	8 mesh (2589 micron) stainless steel screen, reusable
Outlet Paint Filter	60 mesh (250 micron) stainless steel screen, reusable	60 mesh (250 micron) stainless steel screen, reusable
Pump Inlet Size	1-5/16-12 UN-2A	1-5/16-12 UN-2A
Fluid Outlet Size	3/8 npsm from fluid filter	3/8 npsm from fluid filter
Dimensions		
Weight:		
GMAX 7900 Standard	148 lb	67.3 kg
GMAX 7900 Lo-Boy	154 lb	70.0 kg
GMAX 7900 ProContractor	167 lb	75.9 <mark>kg</mark>
GMAX 7900 IronMan	157 lb	71.2 kg
TexSpray 7900HD Pro	182 lb	82.7 kg
TexSpray 7900HD Standard	153 lb	69. <mark>5</mark> kg
TexSpray 7900HD IronMan	162 lb	73.5 kg
Height:		
GMAX 7900 Standard	40.5 in.	102.9 cm
GMAX 7900 Lo-Boy	27.2 in.	69.1 cm
GMAX 7900 ProContractor	38.0 in.	96.5 cm
GMAX 7900 IronMan	40.5 in.	102.9 cm
TexSpray 7900HD Pro	38.0 in.	96.5 cm
TexSpray 7900HD Standard	40.5 in.	102.9 cm
TexSpray 7900HD IronMan	40.5 in.	102.9 cm
Length:		
GMAX 7900 Standard	38.1 in.	96.8 cm
GMAX 7900 Lo-Boy	46.9 in.	119.1 cm
GMAX 7900 ProContractor	33.3 in.	84.6 cm
GMAX 7900 IronMan	38.1 in.	96.8 cm
TexSpray 7900HD Pro	33.3 in.	84.6 cm
TexSpray 7900HD Standard	38.1 in.	96.8 cm
TexSpray 7900HD IronMan	38.1 in.	96.8 cm
Width:	24.4 in.	62.0 cm
	zinc- and nickel-plated carb	on steel, PTFE, nylon, polyurethane, UHM
Wetted parts	fluoroelastomer, acetal, leather, aluminum, tungsten carbide, stainless steel, chrome plating	
Noise Level:		
Sound Power	105 dBa per ISO 3744	105 dBa per ISO 3744
Sound Pressure	96 dBa measured at 3.1 ft	96 dBa measured at 1 m

Graco Standard Warranty

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

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

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

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

FOR GRACO CANADA CUSTOMERS

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Graco Information

For the latest information about Graco products, visit www.graco.com.

For patent information, see www.graco.com/patents.

TO PLACE AN ORDER, contact your Graco distributor or call 1-800-690-2894 to identify the nearest distributor.



All written and visual data contained in this document reflects the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.

Original instructions. This manual contains English. MM 3A6400

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

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