

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

332919C

For professional use only.

Not approved for use in European explosive atmosphere locations.

For the application of architectural paints and coatings.

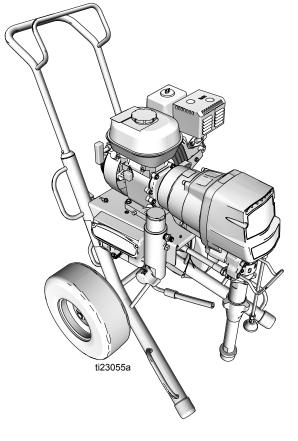
3300 psi (22.8 MPa, 228 bar) Maximum Working Pressure



Important Safety Instructions

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

	GMAX 3400				
Model:	Standard				
16W863	√				
	l	GMAX	II 3900		
Model:	Standard	ProContractor	Lo-Boy	RentalPro 360G	
16W865	✓				
16W866			✓		
16W867		1			
16W984				✓	
	•	GMAX	II 5900		
Model:	Standard	ProContractor	Lo-Boy	Ironman	Convertible
16W869	✓				
16W870			✓		
16W871		1			
16W881				✓	
16W873					✓
	•	GMAX	II 7900		
Model:	Standard	ProContractor	Lo-Boy	Ironman	Roof Rig
16W883	✓				
16W884			✓		
16W885		1			
16W887				√	
16W987					✓
	•	TexSpray	5900HD		
Model:	Standard	ProContractor			
16W889	✓				
16W882		1			
TexSpray 7900HD					
Model:	Standard	ProContractor	Ironman		
16W890	✓				
16W888		1			
16X949			✓		



Related Manuals:

Parts 332921



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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.

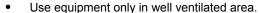
▲WARNING



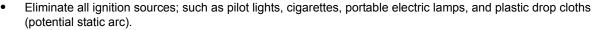
FIRE AND EXPLOSION HAZARD

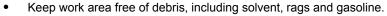
Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. To help prevent fire and explosion:





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.





- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.
- Ground all equipment in the work area. See **Grounding** instructions.
- Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are antistatic 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.



SKIN INJECTION HAZARD

High-pressure spray is able to inject toxins into the body and cause serious bodily injury. In the event that injection occurs, get immediate surgical treatment.



- Do not aim the gun at, or spray any person or animal.
- Keep hands and other body parts away from the discharge. For example, do not try to stop leaks with any part of the body.



- Always use the nozzle tip guard. Do not spray without nozzle tip guard in place.
- Use Graco nozzle tips.
- Use caution when cleaning and changing nozzle tips. In the case where the nozzle tip clogs while spraying, follow the Pressure Relief Procedure for turning off the unit and relieving the pressure before removing the nozzle tip to clean.
- Do not leave the unit energized or under pressure while unattended. When the unit is not in use, turn off the unit and follow the Pressure Relief Procedure for turning off the unit.
- Check hoses and parts for signs of damage. Replace any damaged hoses or parts.
- This system is capable of producing 3300 psi (22.8 MPa, 228 bar). Use Graco replacement parts or accessories that are rated a minimum of 3300 psi (22.8 MPa, 228 bar).
- Always engage the trigger lock when not spraying. Verify the trigger lock is functioning properly.
- Verify that all connections are secure before operating the unit.
- Know how to stop the unit and bleed pressure quickly. Be thoroughly familiar with the controls.



MOVING PARTS HAZARD

Moving parts can pinch, cut or amputate fingers and other body parts.



- 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 and disconnect all power sources.



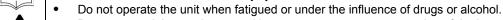


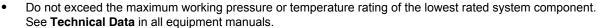
AWARNING



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.





- 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 distributor or retailer.
- Do not leave the work area while equipment is energized or under pressure.
- Turn off all equipment and follow the Pressure Relief Procedure when equipment is not in use.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- 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.



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.
- Many other fluids may contain chemicals that can react with aluminum. Contact your material supplier for compatibility.



CARBON MONOXIDE HAZARD

Exhaust contains poisonous carbon monoxide, which is colorless and odorless. Breathing carbon monoxide can cause death.

• Do not operate in an enclosed area.



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 MSDSs 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.



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.



PERSONAL PROTECTIVE EQUIPMENT

Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. This protective equipment includes but is not limited to:

- Protective eyewear, and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.



RECOIL HAZARD

Gun may recoil when triggered. If you are not standing securely, you could fall and be seriously injured.

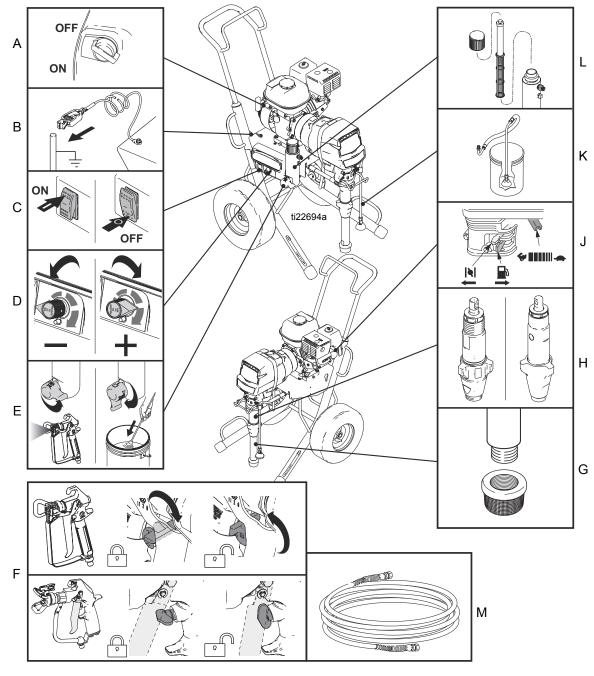
CALIFORNIA PROPOSITION 65

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

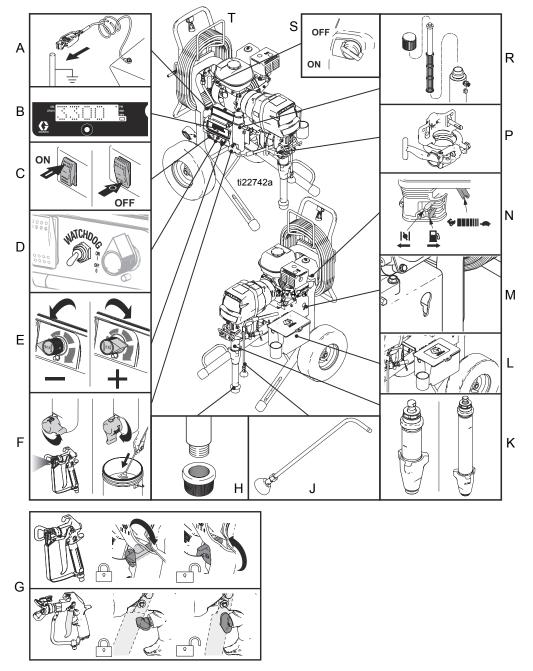
Standard Models (3400, 3900, 5900, 5900HD, 7900, 7900HD)



Α	Engine ON/OFF Switch
В	Grounding Clamp
С	Pump On/Off Switch
D	Pressure Control
E	Prime Valve
F	Gun Trigger Lock

G	Strainer
Н	Pump
J	Engine Controls
K	Drain Hose
L	Easy Out Pump Filter
М	Hose

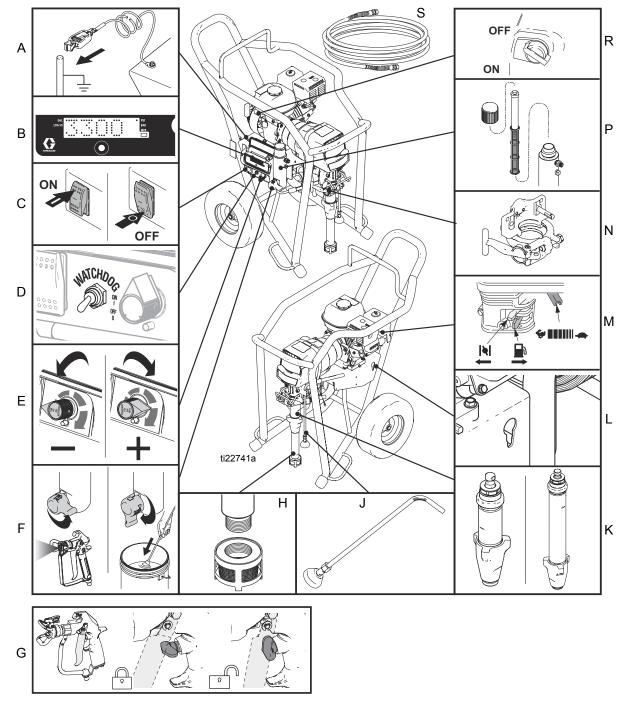
ProContractor Models (3900, 5900, 7900, 5900HD, 7900HD)



Α	Grounding Coil
В	Smart Control 3.0 Display
С	Pump ON/OFF Switch
D	WatchDog TM Switch
E	Pressure Control
F	Prime Valve
G	Gun Trigger Lock
Н	Strainer
J	Drain hose

K	Pump
L	Toolbox
М	Rod Pull Feature
N	Engine Controls
Р	ProConnect TM II Pump Clamp
R	Filter
S	Engine ON/OFF Switch
Т	Hose Reel

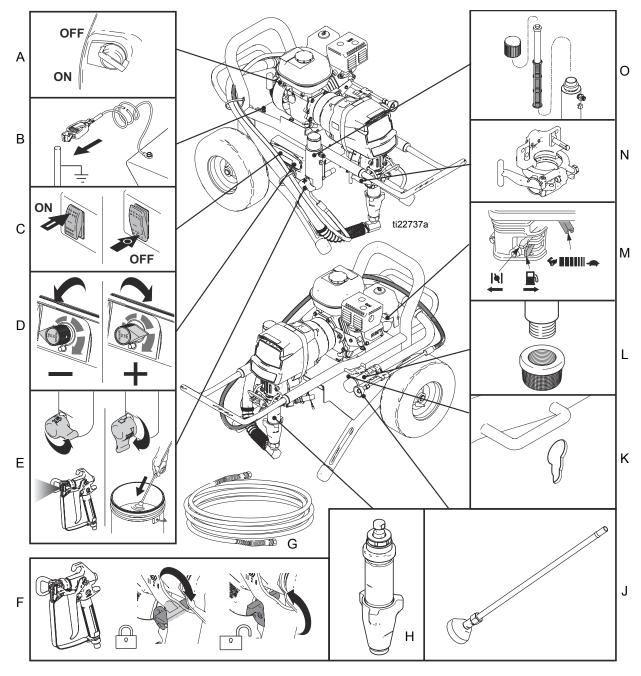
Ironman Models (5900, 7900, 7900HD)



Α	Grounding Coil
В	Smart Control 3.0 Display
С	Pump ON/OFF Switch
D	WatchDog TM Switch
E	Pressure Control
F	Prime Valve
G	Gun Trigger Lock
Н	Heavy Duty Strainer

J	Drain Hose
K	MaxLife Pump
L	Rod Pull Feature
М	Engine Controls
N	ProConnect TM II Pump Clamp
Р	Easy Out Pump Filter
R	Engine ON/OFF Switch
S	Hose

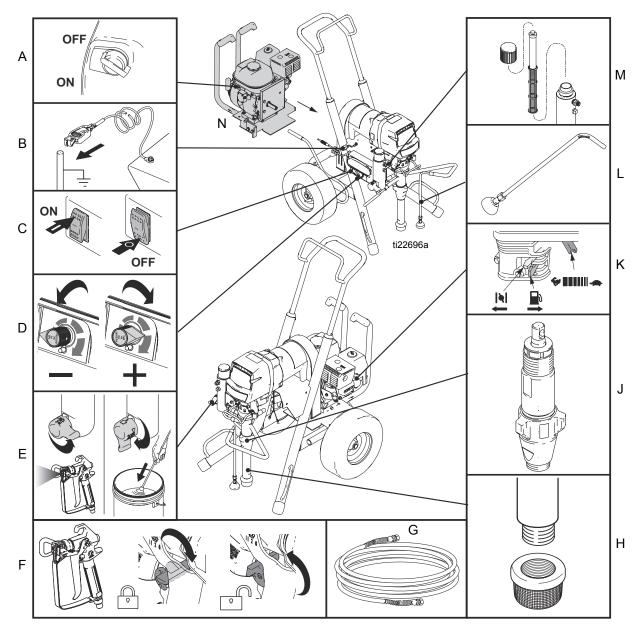
Lo-Boy Models (3900, 5900, 7900)



Α	Engine ON/OFF Switch
В	Grounding Coil
С	Pump ON/OFF Switch
D	Pressure Control
Е	Prime Valve
F	Gun Trigger Lock
G	Hose
Н	Pump

J	Drain Hose
K	Rod Pull Feature
L	Strainer
M	Engine Controls
N	ProConnect TM II Pump Clamp
0	Easy Out Pump Filter

Convertible Models (5900)



Α	Engine ON/OFF Switch
В	Grounding Coil
С	Pump On/Off Switch
D	Pressure Control
Е	Prime Valve
F	Gun Trigger Lock
G	Hose

Н	Strainer
J	Pump
K	Engine Controls
L	Drain Hose
M	Easy Out Pump Filter
N	Power Pack

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 engine ON/OFF switch to OFF.
- 3. Move pump switch to OFF and turn pressure control knob fully counterclockwise.
- 4. Disengage trigger lock. Hold metal part of gun firmly to side of grounded metal pail, and trigger gun to relieve pressure.
- 5. Engage gun trigger lock.
- 6. Turn prime valve down to DRAIN position. Leave prime valve down until ready to spray again.
- 7. If you suspect the 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.

Grounding



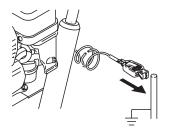






The equipment must be grounded to reduce the risk of static sparking. Static sparking can cause fumes to ignite or explode. Grounding provides an escape wire for the electric current.

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



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

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

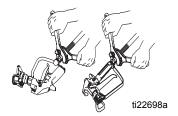
Solvent pails used when flushing: Follow local code. Use only conductive metal pails, placed on a grounded surface. Do not place the pail on a nonconductive surface, such as paper or cardboard, which interrupts grounding continuity.

To maintain grounding continuity when flushing or relieving pressure: Hold metal part of the spray gun firmly to the side of a grounded metal pail, then trigger the gun.

Setup



- 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.



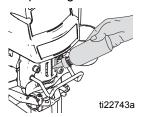
3. Engage gun trigger lock.



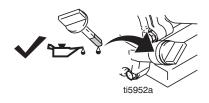
4. When spraying texture, remove inlet strainer and filter bowl screen when spraying materials.



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



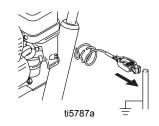
6. Check engine oil level. Add SAE 10W-30 (summer) or 5W-20 (winter), if necessary.



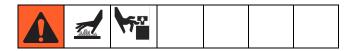
7. Fill fuel tank.



8. Attach sprayer grounding clamp to earth ground.

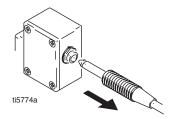


Convertible Models Only:

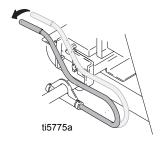


Change Engine to Motor

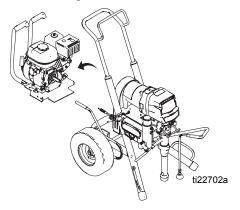
1. Disconnect engine power cord.



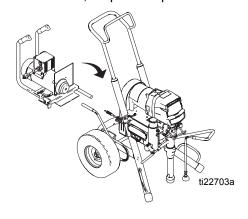
2. Release tension bar.



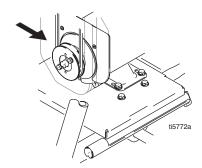
3. Remove engine; tilt and slide back.



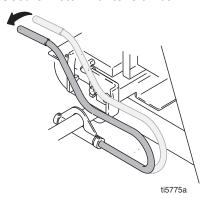
4. Install motor; drop in and push forward.



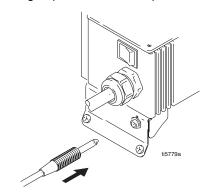
5. Look through side vent holes and ensure drive belt is in motor pulley.



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.



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





3. Set pump switch OFF.



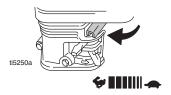
- 4. Start Engine
 - a. Move fuel valve to open.



b. Move choke to closed.



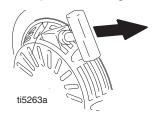
c. Set throttle to fast.



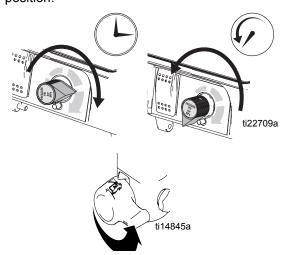
d. Set engine switch to ON.



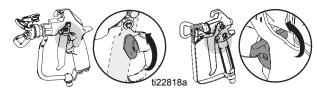
5. Pull rope to start engine.



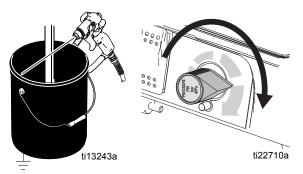
 Increase pressure enough to start pump stroking and allow fluid to circulate for 15 seconds; turn pressure down and turn prime valve forward to SPRAY position.



7. Disengage spray gun trigger lock.

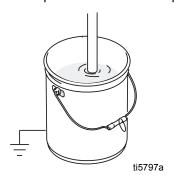


8. Hold gun against grounded metal flushing pail. Trigger gun and increase fluid pressure slowly until pump runs smoothly.



Inspect fittings for leaks. Do not stop leaks with your hand or a rag! If leaks occur, turn sprayer OFF immediately. Perform **Pressure Relief Procedure** steps 1-3, page 10. 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.

9. Place siphon tube in material pail.



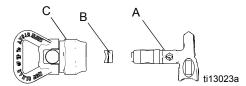
10. Trigger gun again into flushing fluid pail until material appears.



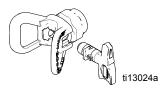
Switch Tip[™] Guard Assembly



- 1. Perform Pressure Relief Procedure, page 10.
- Engage gun trigger lock. Insert Switch Tip. Insert seat and OneSeal[™].



3. Insert Switch Tip.



4. Screw assembly onto gun. Tighten.

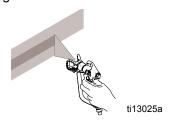


Spray

 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.



Clearing Tip Clogs







To avoid injury, never point gun at your hand or into a rag!

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



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

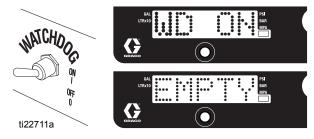


WatchDog[™] Protection System (ProContractor and Ironman units only)

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.

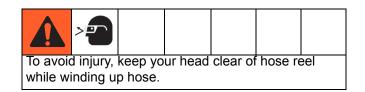


 Turn WatchDog switch OFF. Add material or reprime sprayer. Turn pump switch OFF and ON to reset WatchDog protection system. Turn WatchDog switch back ON to continue to monitor material level.

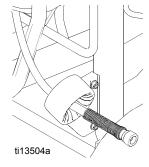


Hose Reel

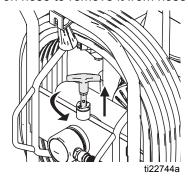
(ProContractor units only)



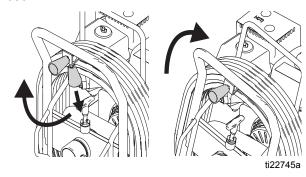
1. Make sure hose is routed through hose guide.



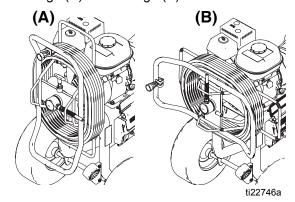
2. Lift and turn pivot lock 90 to unlock hose reel. Pull on hose to remove it from hose reel.



3. Pull reel handle down and turn clockwise to reel in hose.



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

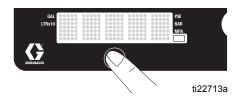


Digital Tracking System

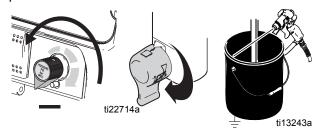
(ProContractor and Ironman units)

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.



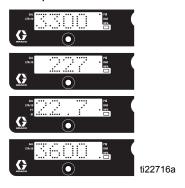
2. Turn power ON. Pressure display appears. Dashes will not appear unless pressure is less than 200 psi (14 bar, 1,4 MPa).



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Change Display Units

Press and hold DTS 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 DTS must be in pressure display mode and pressure must be at zero.



Job Gallons

1. Short press DTS 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

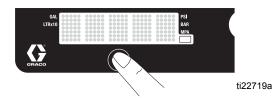
1. Short press DTS button to move to Lifetime Gallons (or liters x 10).

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



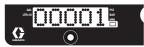
Secondary Menu - Stored Data and WatchDog Pump Protection Modes

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



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

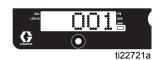




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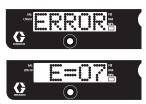
 Short press DTS button and MOTOR ON scrolls past and then total motor run hours are displayed.





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

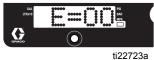




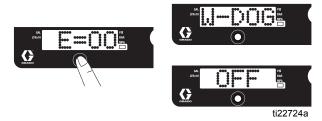
ti22722a

Press and hold DTS button to clear error code to zero.





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



 Press and hold (8 seconds) DTS button to move to WatchDog Trigger % menu. Continue to hold DTS button and Watchdog can be set to trigger at 30, 40, 50, or 60% of current sprayer pressure setting. Release DTS button when desired % is displayed. default is 50%.



ti22725a

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



Cleanup



 Perform Pressure Relief Procedure (page 10), 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

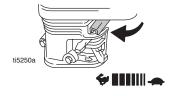
a. Move fuel valve to open.



b. Move choke to closed.



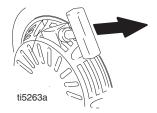
c. Set throttle to fast.



d. Set engine switch to ON.



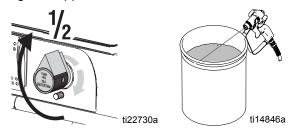
3. Pull rope to start engine.



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



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



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

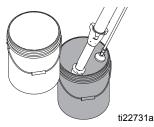


- Turn prime valve down to DRAIN position and allow flushing fluid to circulate until flushing fluid appears clear.
- 8. Turn prime valve forward to SPRAY position. Trigger gun into flushing pail to purge fluid from hose.





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.



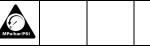
Maintenance

Pressure Relief Procedure









- 1. Lock gun trigger safety.
- 2. Turn engine ON/OFF switch to OFF.
- 3. Move pump switch to OFF and turn pressure control knob fully counterclockwise.
- 4. Unlock trigger safety. Hold metal part of gun firmly to side of grounded metal pail, and trigger gun to relieve pressure.
- 5. Lock gun trigger safety.
- 6. Open pressure drain valve. Leave valve open until ready to spray again.

If you suspect that the spray tip or hose is completely 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. Now clear tip or hose.

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 opera-

tion.

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.

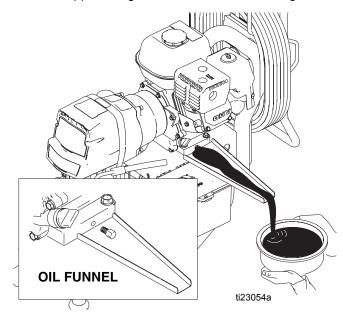
Replacement elements can be purchased from your local HONDA dealer.

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 31.
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 23.	Turn pressure down. Contact Graco Technical Assistance to adjust WatchDog parameters. Operate without WatchDog active (see Operation manual).
Engine operates, but displacement	Error code displayed.	See Digital Display Messages, page 31.
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 Digital Display Messages, page 31.
		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 Ω , for 5900/7900 1.7 \pm 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 32.
	Pinion assembly is worn or damaged.	Repair or replace pinion assembly. Page 32.

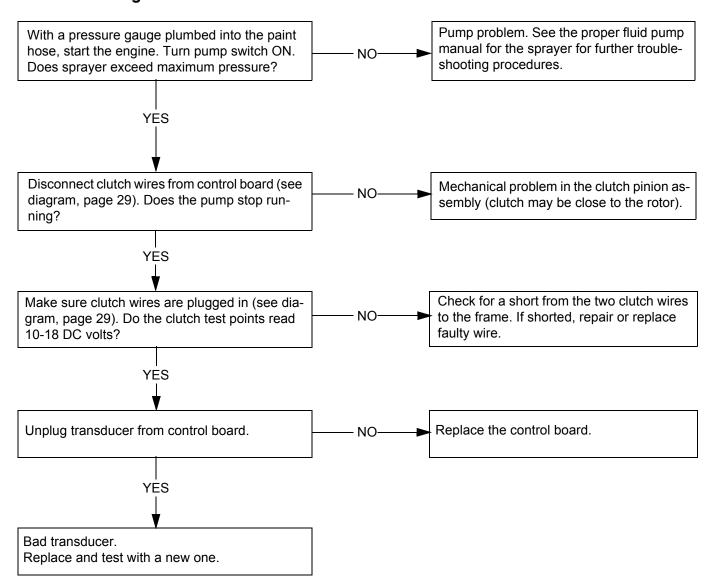
Problem	Cause	Solution
Pump output is low	Strainer is clogged.	Clean strainer.
	Piston ball is not seating.	Service piston ball (see pump manual).
	Piston packings are worn or damaged.	Replace packings (see pump manual).
	O-ring in pump is worn or damaged.	Replace o-ring (see pump manual).
	Intake valve 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. Page 32.
	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.

Fluid Pump Runs Constantly



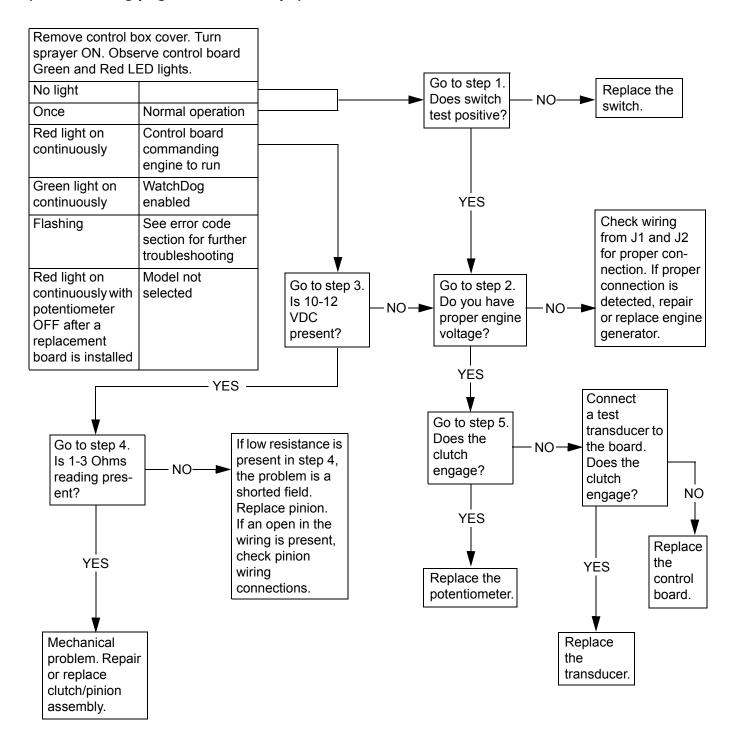
- Perform Pressure Relief Procedure (page 21), turn prime valve forward to SPRAY position, and turn power switch OFF.
- 2. Remove control box cover.

Troubleshooting Procedure:

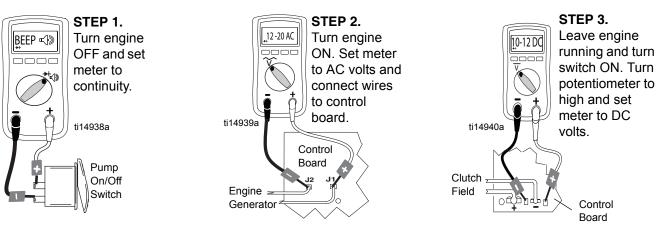


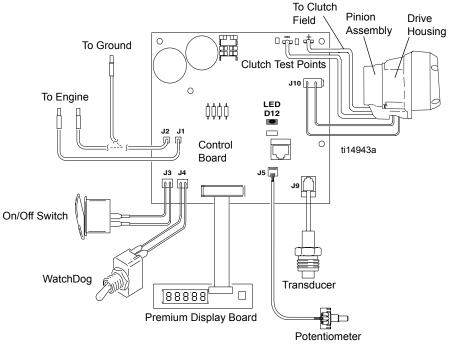
Control Board Malfunction

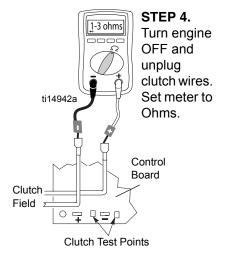
Troubleshooting Procedure (see following page for actual steps):

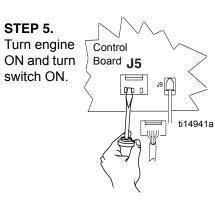


Control Board Malfunction (Steps)



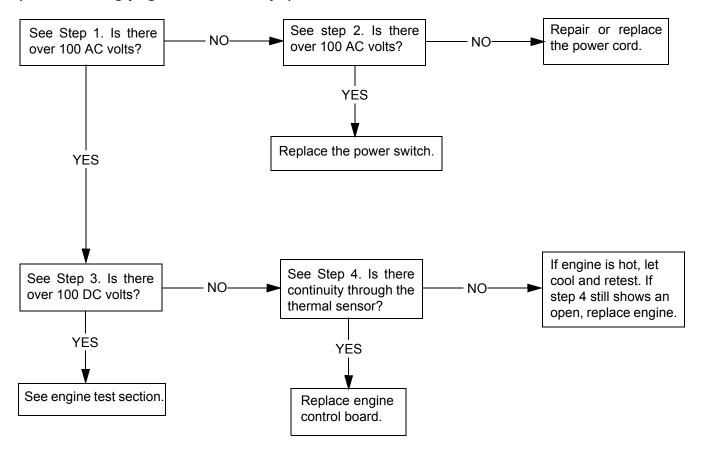




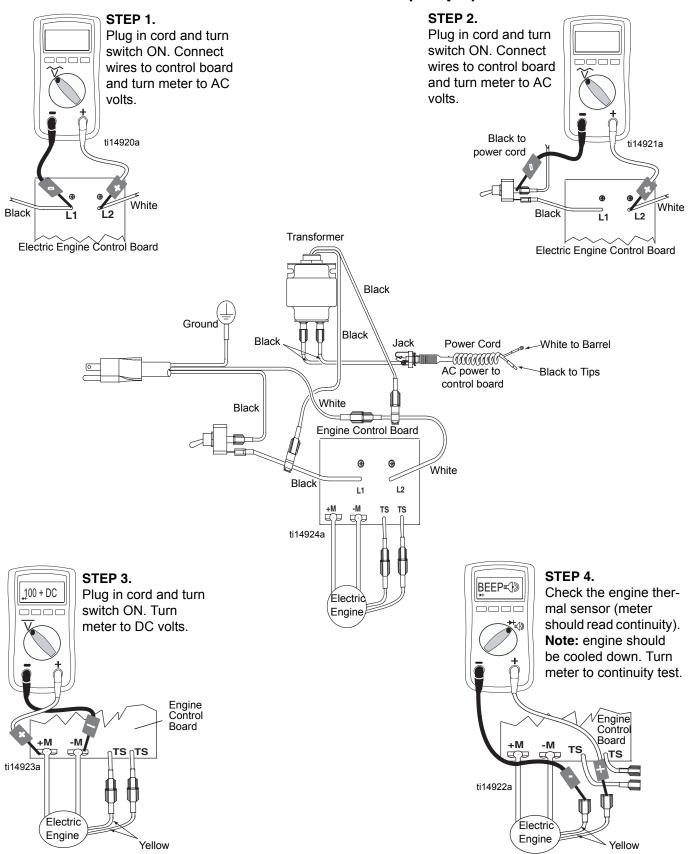


Convertible Electric Motor Will Not Run

Troubleshooting Procedure (see following page for actual steps):

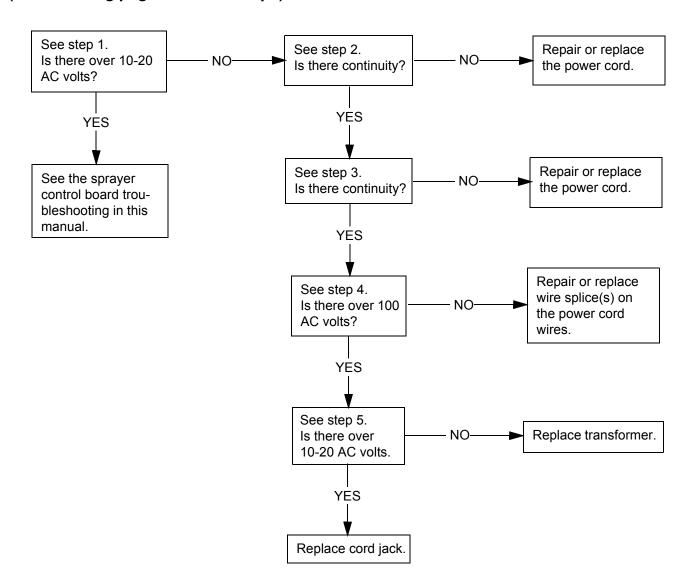


Convertible Electric Motor Will Not Run (Steps)

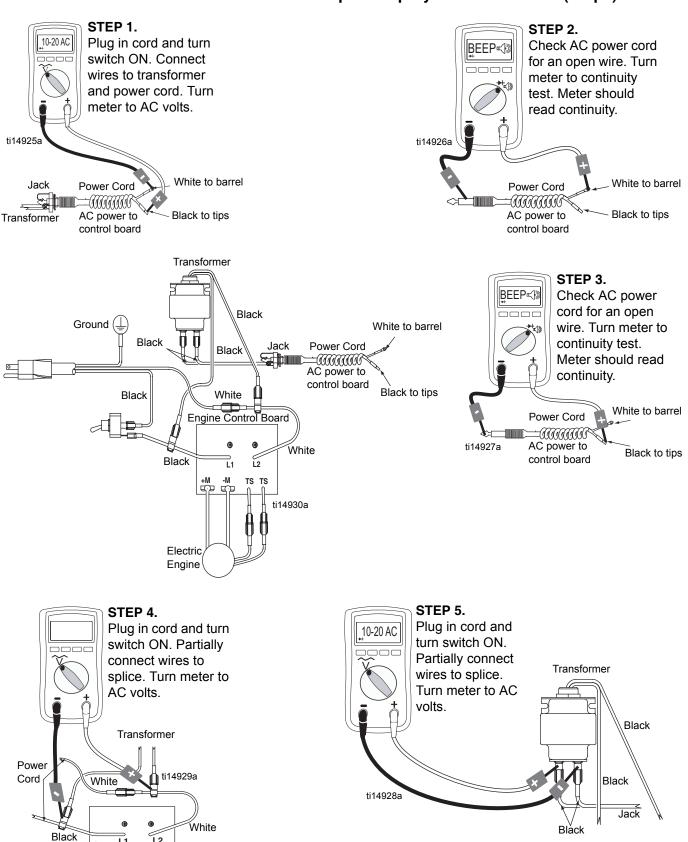


Convertible Electric Motor Runs - No AC Output to Sprayer Control Board

Troubleshooting Procedure (see following page for actual steps):



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



30 332919C

Electric Engine Control Board

Digital Display Messages



- Digital 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.
F1	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.

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

After a fault, follow these steps to restart sprayer:

- Correct fault condition
- 1. 2. 3. Turn sprayer OFF
- Turn sprayer ON

Pinion Assembly/Clutch Armature/Clamp

Pinion Assembly/Clutch Armature Removal

Pinion Assembly

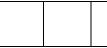
If pinion assembly (29) is not removed from clutch housing (19), do 1. through 3. Otherwise, start at 4.



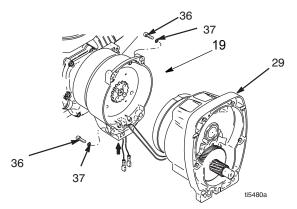




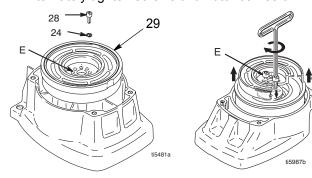




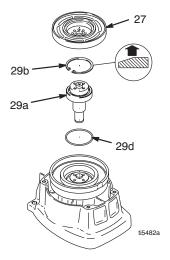
- Remove drive housing.
- 2. Disconnect clutch cable connectors from inside of pressure control.
 - Remove two screws (71) and swing down cover (130a).
 - b. Disconnect engine leads from board to engine.
 - c. Remove strain reliefs 130r and 123.
- 3. Remove four screws (36) and pinion assembly (29).



- 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.

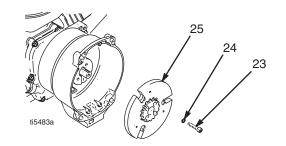


- 6. Remove retaining ring (29b).
- 7. Turn pinion assembly over and tap pinion shaft (29a) out with plastic mallet.



Clutch Armature

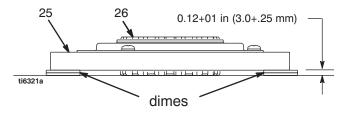
- 8. Use an impact wrench or wedge something between clutch armature (25) and clutch housing to hold engine shaft during removal.
- 9. Remove four screws (23) and lock washers (24).
- 10. Remove armature.



Installation

Clutch Armature

- 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

- 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).
- Connect clutch cable connectors to inside of pressure control.

Clamp Removal





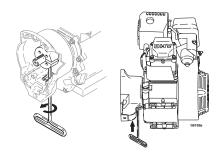






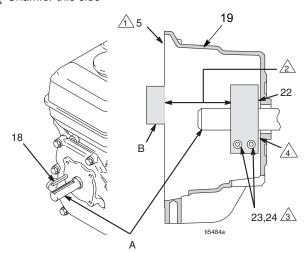
- 1. Remove engine.
- 2. Drain gasoline from tank according to Honda manual.
- 3. Tip engine on side so gas tank is down and air cleaner is up.

- 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).
- ⚠ Face of clutch housing
- \triangle 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 Chamfer this side



Technical Data

3400 Models		
	U.S.	Metric
Engine		
Honda GX120 Engine		
ANSI Power Rating @ 3600 rpm	4.0 Horsepower	3.0 kW
Sprayer		
Maximum Working Pressure	3300 psi	228 bar, 22.8 MPa
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
Maximum Tip Size:	1 Gun with 0.027 in. tip	1 Gun with 0.027 in. tip
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	zinc- and nickel-plated carbon steel, PTFE, nylon, polyurethane, UHMW, fluoroelastomer, acetal, leather, aluminum, tungsten carbide, stainless steel, chrome plating	
Noise Level:		
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

	U.S.	Metric
Engine		
Honda GX120 Engine		
ANSI Power Rating @ 3600 rpm	4.0 Horsepower	3.0 kW
Sprayer	a sales a	
Maximum Working Pressure	3300 psi	228 bar, 22.8 MPa
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
	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
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
GMAX 3900 Rental Pro 360G	106 lb	48.2 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
GMAX 3900 Rental Pro 360G	40.8 in.	103.6 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
GMAX 3900 Rental Pro 360G	38.3 in.	97.3 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
GMAX 3900 Rental Pro 360G	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

	U.S.	Metric
Engine		
Honda GX160 Engine		
ANSI Power Rating @ 3600 rpm	5.5 Horsepower	4.1 kW
Sprayer	·	
Maximum Working Pressure	3300 psi	228 bar, 22.8 MPa
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 Daint Filter	60 mesh (250 micron)	60 mesh (250 micron)
Outlet Paint Filter	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
	1 Gun with 0.043 in. tip	1 Gun with 0.043 in. tip
Mayimya Tin Cina	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
Dimensions	<u> </u>	
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	75.9 kg
GMAX 5900 IronMan	160 lb	72.7 kg
TexSpray 5900HD ProContractor	164 lb	74.5 kg
TexSpray 5900HD Standard	142 lb	64.5 kg
Height:	11218	0 1.0 Ng
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 FronMan	38.8 in.	98.6 cm
TexSpray 5900HD ProContractor	38.0 in.	98.6 cm
TexSpray 5900HD Standard	40.5 in.	102.9 cm
Length:	40.5 111.	102.3 CIII
GMAX 5900 Standard	37.7 in.	95.8 cm
GMAX 5900 Standard GMAX 5900 Lo-Boy	46.9 in.	119.1 cm
GMAX 5900 E0-Boy GMAX 5900 ProContractor	32.7 in.	83.1 cm
GMAX 5900 Procentiactor GMAX 5900 Convertible, Standard	33.0 in.	83.8 cm
GMAX 5900 Convertible, Standard GMAX 5900 IronMan	40.4 in.	102.6 cm
TexSpray 5900HD ProContractor		83.1 cm
	32.7 in.	
TexSpray 5900HD Standard	37.7 in.	95.8 cm
Width:	24.4 in.	62.0 cm
	mine and state to take t	on steel DTFC males with the LUIS
Wotted parts		on steel, PTFE, nylon, polyurethane, UHM
Wetted parts		al, leather, aluminum, tungsten carbide, ss steel, chrome plating
Noise Level:	Sidiffe	oo otoor, ornorne plating
Sound Power	105 dBa per ISO 3744	105 dBa per ISO 3744
	96 dBa measured at 3.1 ft	96 dBa measured at 1 m
Sound Pressure	an add illeasured at 3.1 it	So upa measureu at i m

	U.S.	Metric
Engine		
Honda GX200 Engine		
ANSI Power Rating @ 3600 rpm	6.5 Horsepower	6.5 kW
Sprayer	,	
Maximum Working Pressure	3300 psi	228 bar, 22.8 MPa
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
	1 Gun with 0.048 in. tip	1 Gun with 0.048 in. tip
Mandanana Tin Olean	2 Guns with 0.035 in. tip	2 Guns with 0.035 in. tip
Maximum Tip Size:	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
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 kg
GMAX 7900 IronMan	168 lb	76.4 kg
TexSpray 7900HD Pro	182 lb	82.7 kg
TexSpray 7900HD Standard	153 lb	69.5 kg
TexSpray 7900HD IronMan	175 lb	79.5 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	38.8 in.	98.6 cm
TexSpray 7900HD Pro	38.0 in.	96.5 cm
TexSpray 7900HD Standard	40.5 in.	102.9 cm
TexSpray 7900HD IronMan	38.8 in.	98.6 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	40.4 in.	102.6 cm
TexSpray 7900HD Pro	33.3 in.	84.6 cm
TexSpray 7900HD Standard	38.1 in.	96.8 cm
TexSpray 7900HD IronMan	40.4 in.	102.6 cm
Width:	24.4 in.	62.0 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:		. 3
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.

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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.

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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.

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Original instructions. This manual contains English. MM 332919

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

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