Repair

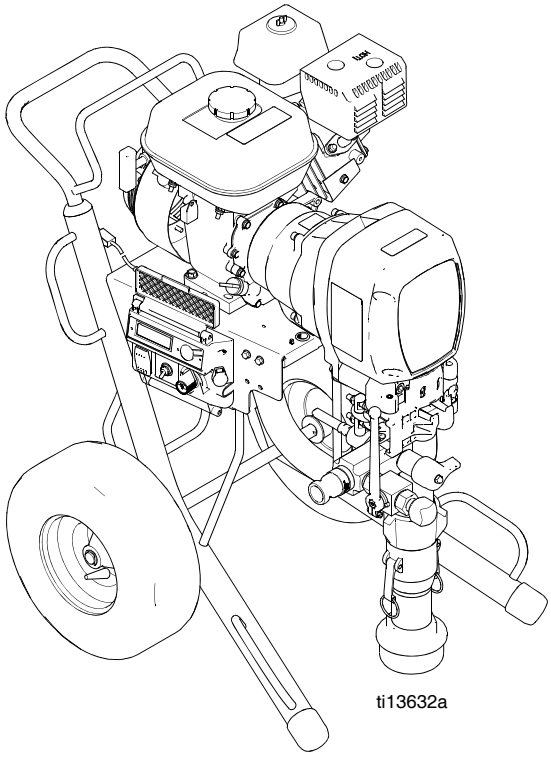
HTX 2030

313889E
EN

-For Portable Airless and Air-Assisted Spraying of Water-Based Architectural Coatings with Base Coat Pump-
-For Airless Spraying Architectural Coatings and Paints with Top Coat Pump-

IMPORTANT SAFETY INSTRUCTIONS
Read all warnings and instructions in this manual. Save these instructions.

Model Number: 257369 (HTX2030 FreeFlo Inline Gun)
Model Number: 278675 (HTX2030 AirSpray Trigger Gun)
Model Number: 26C681 (HTX2030 STX Gun, 50 ft. Hose)
Model Number: 26C682 (HTX2030 STX Gun, 100 ft. Hose)
Model Number: 26C683 (HTX2030 Plus, STX Gun, 50 ft. Hose)
Model Number: 26C684 (HTX2030 Plus, STX Gun, 100 ft. Hose)
Model Number: 26C697 (HTX2030 w/ Air Manifold, Bare Unit)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Maximum Working Pressure:

Base Coat Pump: *1000 psi (69 bar, 6.9 MPa)*
Top Coat Pump: *3300 psi (228 bar, 22.8 MPa)*

Related Manuals

313891 - Operation (French)
313893 - Operation (Spanish)
313889 - Repair (English)
313892 - Repair (French)
313893 - Repair (Spanish)
313890 - Parts
313895 - HTX 2030 Flex Head and Pole Spray Applicator (English)
313896 - HTX 2030 Flex Head and Pole Spray Applicator (French)
313897 - HTX 2030 Flex Head and Pole Spray Applicator (Spanish)
310894 - Displacement Pump (Top Coat)
308491 - Airless Heavy Duty Texture Gun
313537 - HTX 2030 FreeFlo Inline Gun (English)
313603 - HTX 2030 FreeFlo Inline Gun (Chinese)
313908 - HTX 2030 FreeFlo Inline Gun (French)
313911 - HTX 2030 FreeFlo Inline Gun (Spanish)
332160 - HTX2030 AirSpray Trigger Gun (English)
332227 - HTX2030 AirSpray Trigger Gun (French)
332228 - HTX2030 AirSpray Trigger Gun (Spanish)
332229 - HTX2030 AirSpray Trigger Gun (Chinese)
3A6746 - STX Air Spray Trigger Gun
3A6839 - Air Manifold

Contents

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:

- 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 arc).
- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.
- Ground 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 (SPRAY GUN)

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 (228 bar, 22.8 bar). Use Graco replacement parts or accessories that are rated a minimum of 3300 psi (228 bar, 22.8 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.

⚠WARNING

SKIN INJECTION HAZARD (APPLICATOR)

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

- Do not point dispensing device at anyone or at any part of the body.
- Do not put your hand over the fluid outlet.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Follow the **Pressure Relief Procedure** when you stop dispensing and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses and couplings daily. Replace worn or damaged parts immediately.

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.

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.

SUCTION HAZARD

Powerful suction could cause serious injury.

- Never place hands near the pump fluid inlet when pump is operating or pressurized.

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's heated can become very hot during operation. To avoid severe burns:

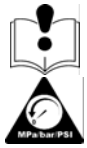
- Do not touch hot fluid or equipment.

⚠WARNING

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.

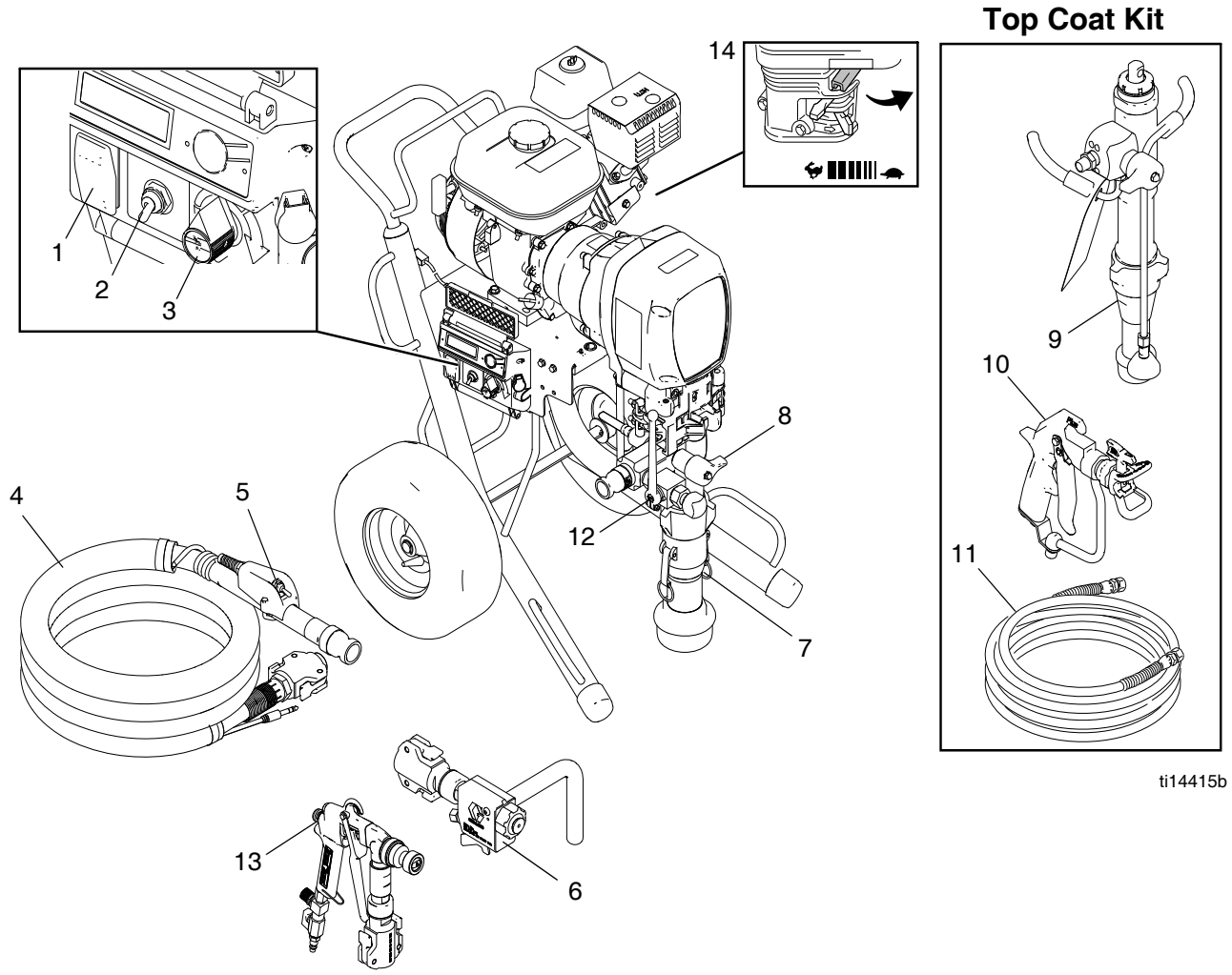


EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

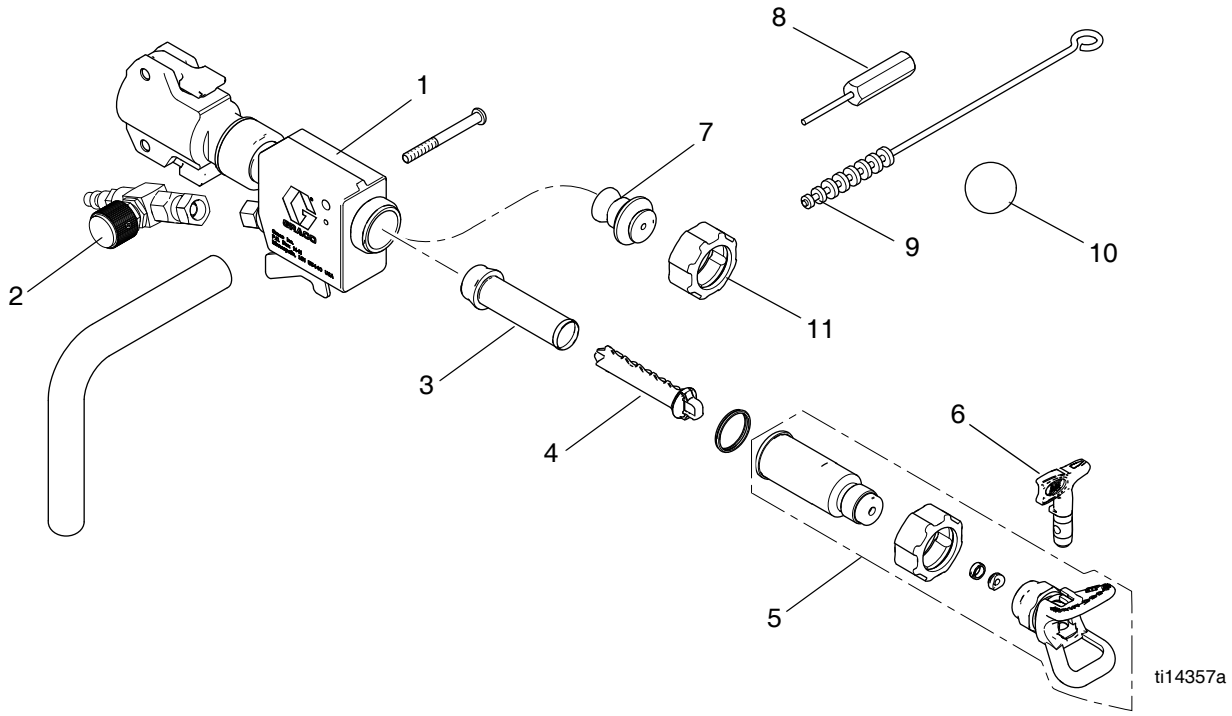
- Always wear appropriate gloves, eye protection, and a respirator or mask when painting.
- Do not operate or spray near children. Keep children away from equipment at all times.
- Do not overreach or stand on an unstable support. Keep effective footing and balance at all times.
- Stay alert and watch what you are doing.
- Do not 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.
- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not kink or over-bend the hose.
- Do not expose the hose to temperatures or to pressures in excess of those specified by Graco.
- Do not use the hose as a strength member to pull or lift the equipment.
- Do not spray with a hose shorter than 25 feet.
- 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.

Component Identification - Sprayer



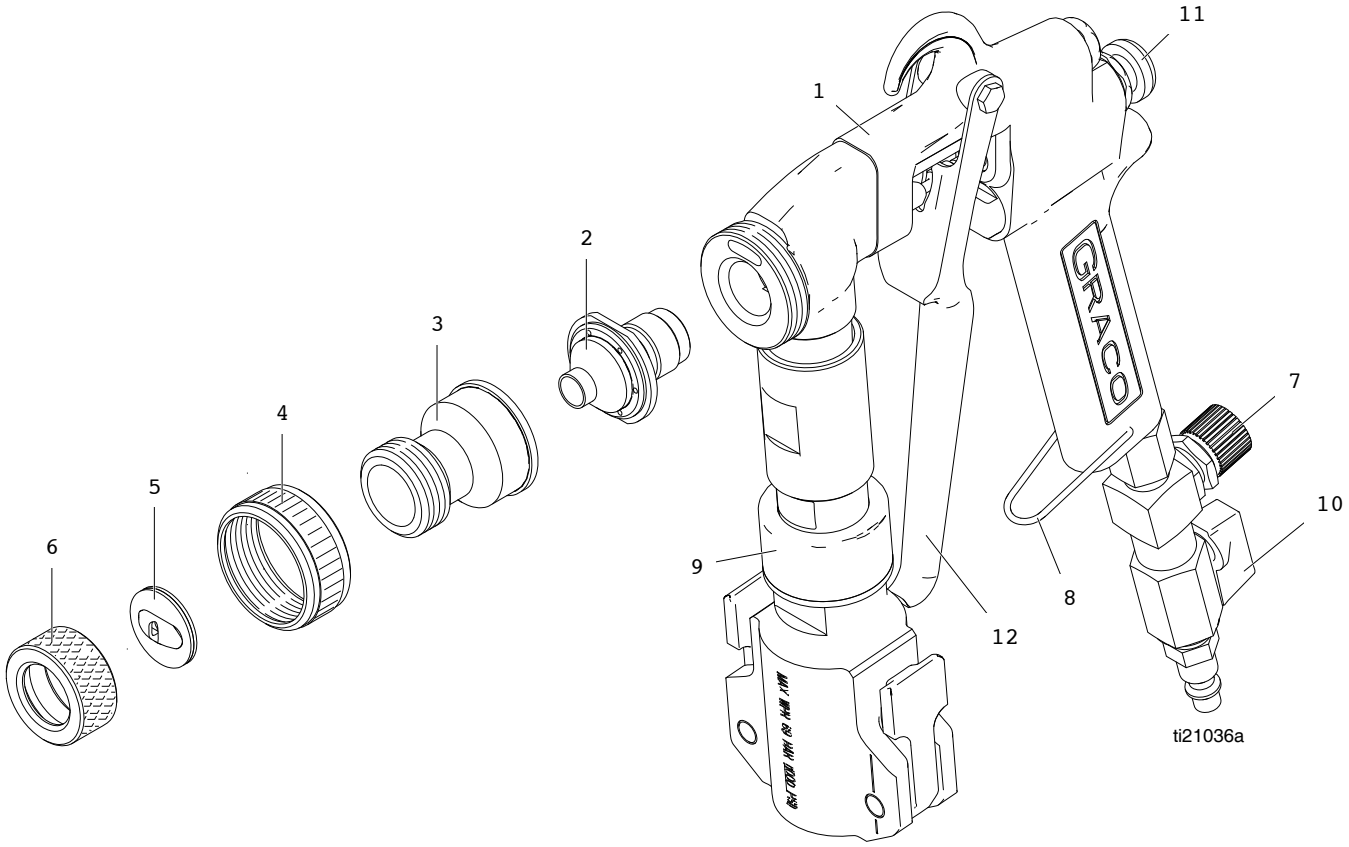
1	ON/OFF Switch
2	Prime Switch (used with Base Coat Pump)
3	Pump Control Knob
4	Heavy Texture Material Hose (used with Base Coat Pump)
5	Applicator Switch (used with Base Coat Pump--on Hose)
6	Applicator (Base Coat) (Model 257369)
7	Pump (Base Coat)
8	Over Pressure Relief Valve
9	Pump (Top Coat)
10	Spray Gun (Top Coat)
11	Paint/Texture Material Hose (used with Top Coat Pump)
12	Prime/Drain Valve
13	Air Spray Gun (24R054)
14	Engine Throttle Lever/Material Flow

Component Identification - Base Coat Applicator



1	Applicator
2	Air Hose Adapter and Air Adjustment Valve
3	Airless Filter or Air Passage Plug
4	Filter Support
5	Airless Spray Assembly
6	Airless Spray Tip Nozzle
7	Air Nozzle (4 mm, 6mm, 8mm, 10mm)
8	Air Nozzle Cleaner
9	Cleaning Brush
10	Cleaning Ball
11	Retaining Nut

Component Identification - HTX2030 Air Spray Trigger Gun



1	HTX2030 Air Spray Trigger Gun
2	Nozzle, Size #1, Size #2, Size #3
3	Adapter, Housing
4	Ring, Retaining Nozzles
5	Tip, Disc, Spray, 1/8 in. (3 mm), 1/4 in. (6.3 mm), 5/16 in. (8 mm), 3/8 in. (9.5 mm)
6	Ring, Retaining, Spray Discs
7	Air Hose Adapter and Air Adjustment Valve
8	Trigger, Latch On
9	HTX Swivel Assembly
10	Air, Control Ball Valve
11	Flow, Adjust Knob
12	Trigger

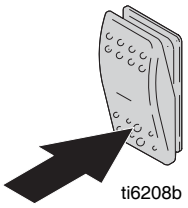
Pressure Relief Procedure

Applicator (Base Coat Pump)

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. Turn engine OFF.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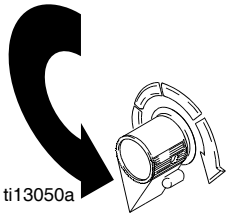
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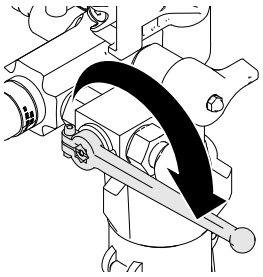
2. Turn on/off switch OFF and turn pressure control knob fully counterclockwise.

3. Pull gun trigger to release pressure.

4. Turn prime/drain valve down to DRAIN position. Fluid from drain valve can splash in eyes or skin and cause serious injury. Keep hands clear of pressure relief valve and always wear safety glasses.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NOTE: If you suspect spray tip nozzle or hose is completely clogged or that pressure has not been fully relieved after following the previous steps, cover the connection at end of hose with a heavy rag and **very slowly** loosen connection.

Spray Gun (Top Coat Pump)

1. Lock gun trigger safety and turn engine OFF.


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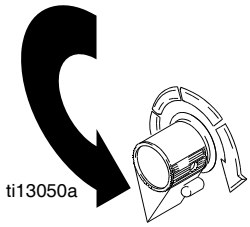
2. Turn on/off switch to OFF and turn pressure control knob fully counterclockwise.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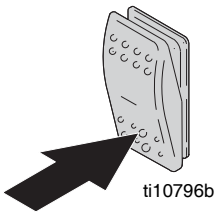
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3. Unlock trigger safety. Hold metal part of gun firmly to side of grounded metal pail and trigger gun to relieve pressure.


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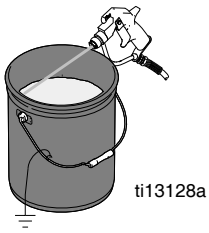
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4. Lock gun trigger safety. Open pressure prime/drain valve. Leave valve open until ready to spray again.


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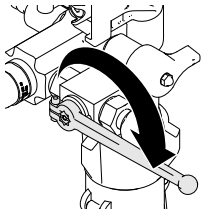
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NOTE: If you suspect that the spray tip nozzle or hose is completely clogged, or that pressure has not been fully relieved after following the previous steps, VERY SLOWLY loosen the tip guard retaining nut or hose end coupling to relieve pressure gradually, then loosen completely. Then clear tip or hose.

Troubleshooting

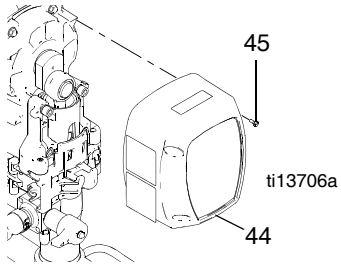
Problem	Cause	Solution
E=XX is displayed	Fault condition exists	Determine fault correction from **Digital Display Messages** table, see manual 313888.
Engine will not start	Engine switch is OFF	Turn engine switch ON
	Engine is out of gasoline	Refill gas tank. Honda Engines Owner's Manual.
	Engine oil level is low	Try to start engine. Replenish oil, if necessary. Honda Engines Owner's Manual.
	Spark plug is disconnected or damaged	Connect spark plug cable or replace spark plug
	Cold engine	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
Engine operates, but displacement pump does not operate	Error code displayed	Reference Pressure Control repair, page 20.
	Applicator switch is OFF (Base Coat Only)	Turn applicator switch ON
	Pump setting is OFF	Turn pressure adjusting knob clockwise to increase pressure.
	Tip or tip filter is clogged	Clean tip or tip filter, see manual 313537/313603.
	Displacement pump piston rod is stuck due to dried paint or texture	Repair pump, see manual 310894 or page 24.
	Connecting rod is worn or damaged	Replace connecting rod. Page 12.
	Drive housing is worn or damaged	Replace drive housing. Page 13.
	Electrical power is not energizing clutch field	Check wiring connections. Page 26. Reference **Digital Display Messages**, manual 313888. Reference **Wiring Diagram**. Page 26. With applicator 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 (21° C), the resistance must be between 1.2 +0.2Ω; if not, replace pinion housing. Have pressure control checked by authorized Graco dealer
	Clutch is worn, damaged, or incorrectly positioned	Adjust or replace clutch. Page 18.
	Pinion assembly is worn or damaged	Repair or replace pinion assembly. Page 14.
	Base Coat Pump: Applicator switch on material hose and/or Prime Switch on Pressure Control are damaged.	See page 24.
	Top Coat Pump: Pump is not correctly aligned to pump sensor or sensor is damaged.	Rotate pump to align transducer port toward back of sprayer. Replace damaged pump sensor.

Problem	Cause	Solution
Pump output is low (**Base Coat Pump** see pages 24. **Top Coat Pump** see manual 310894)	Strainer (82) is clogged	Clean strainer.
	Piston ball is not seating	Service piston ball.
	Piston packings are worn or damaged	Replace packings.
	O-ring in pump is worn or damaged	Replace o-ring.
	Intake valve ball is not seating properly	Clean intake valve.
	Intake valve is packed with material	Clean intake valve.
	Engine speed is too low	Increase throttle setting.
	Clutch is worn or damaged	Adjust or replace clutch. Page 18.
	Pressure setting is too low	Increase pressure.
	Tip filter or tip is clogged or dirty	Clean filter.
	Large pressure drop in hose with heavy materials	Use larger diameter hose and/or reduce overall length of hose.
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.
	Displacement rod is worn or damaged	Replace rod.
Fluid is spitting from gun	Air in pump or hose	Check and tighten all fluid connections. Reprime pump.
	Tip is partially clogged	Clear tip.
	Fluid supply is low or empty	Refill fluid supply. Prime pump. Check fluid supply often to prevent running pump dry.
Pump is difficult to prime	Air in pump or inlet tube	Check and tighten all fluid connections. Reduce engine speed and cycle pump as slowly as possible during priming.
	Intake valve is leaking or contaminated	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.
	Paint is too thick	Thin the paint according to the supplier's recommendations
	Engine speed is too high	Decrease throttle setting before priming pump.
Prime/Drain valve is plugged	Material hardened in valve	Operate drain valve at least once per hour when spraying.
		Flush valve more thoroughly when cleaning sprayer.
	Aggregate packed up in valve	Valve is opened too slowly and/or aggregate is too large.
Over pressure relief valve actuates	Clutch is worn out or damaged. Pressure transducer or control board are damaged.	Check and replace worn or damaged component.
	Valve is damaged or worn.	Clean out debris and replace valve.
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
No display, sprayer operates	Display damaged or has bad connection	Check connections. Replace display.

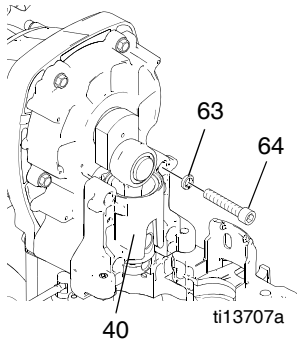
Bearing Housing and Connecting Rod

Removal

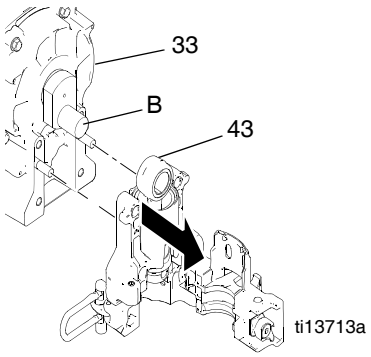
1. Perform **Pressure Relief Procedure**, page 9.
2. Remove **Pump**, page 24. Remove four screws (45) and front cover (44).



3. Remove four screws (64) and washers (63) from ProConnect bearing housing (40).



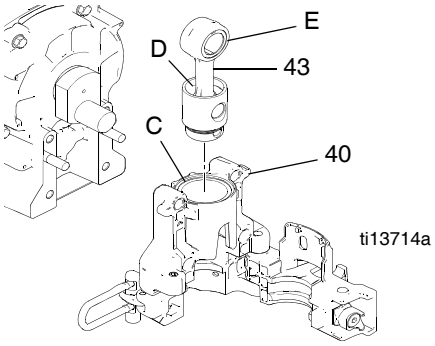
4. Pull connecting rod (43) and lightly tap lower rear of bearing housing with plastic mallet to loosen from drive housing (33). Pull bearing housing and connecting rod assembly off drive housing.



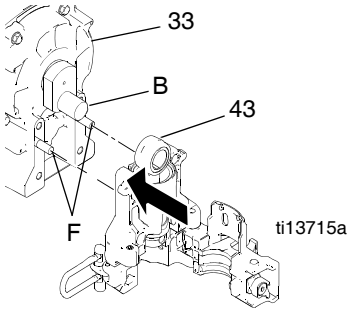
5. Inspect crank (B) and connecting rod (43) for excessive wear and replace parts as needed.

Installation

1. Evenly lubricate inside of bronze bearing (C) in bearing housing (40) with high-quality motor oil. Liberally pack top roller bearing (E), lower bearing (D) inside connecting rod (43) with bearing grease.



2. Assemble connecting rod (43) to bearing housing (40). Rotate connecting rod to lowest position.
3. Clean mating surfaces of bearing and drive housings.



4. Align connecting rod with crank (B) and carefully align locating pins (F) in drive housing (33) with holes in bearing housing (40). Push bearing housing onto drive housing or tap into place with plastic mallet.

NOTICE

Do not use bearing housing screws (41) to align or seat bearing housing with drive housing. Align these parts with locating pins to avoid premature bearing wear.

5. Install screws (41) and washers (42) in bearing housing. Torque evenly to 40 ft-lb (54 N•m).
6. Install **Pump**, page 24.

Drive Housing

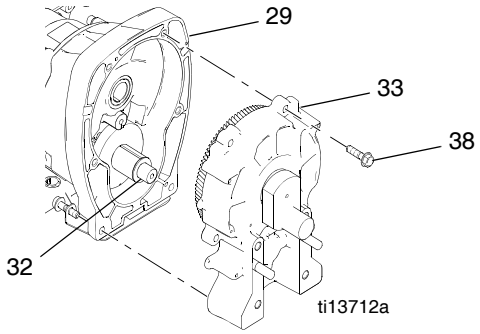
Removal

1. Perform **Pressure Relief Procedure**, page 9.
2. Remove **Bearing Housing**, page 12.

NOTICE

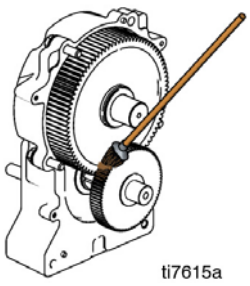
Thrust washers may stick to grease inside of drive housing. Do not lose or misplace.

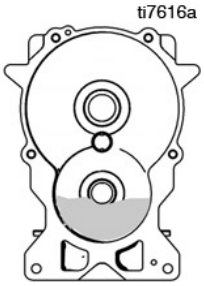
3. Remove six screws (38).
4. Lightly tap around drive housing (33) to loosen drive housing. Pull drive housing straight off pinion housing. Be prepared to support combination gear (32) which may also come out.



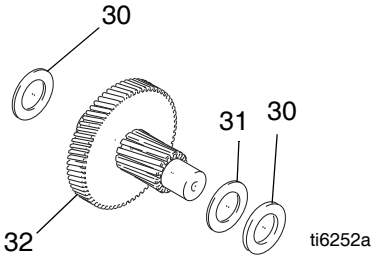
Installation

1. Apply all grease supplied with replacement gear cluster to gear teeth and mating surfaces.

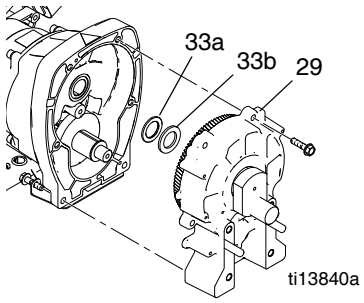




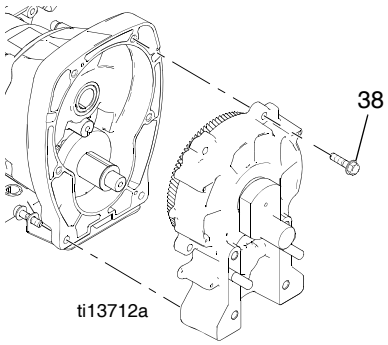
2. Ensure thrust washers (30, 31) are on combination gear (32) and washers (33a, 33b) are on crankshaft of drive housing (33).



3. Clean mating surfaces of pinion and drive housing.
4. Align gears and push new drive housing straight onto pinion housing (29) and locating pins (B).



5. Install six screws (38). Torque evenly to 200 ± 10 in-lb (22.6 ± 1.1 N•m).



6. Install housing (40) and (43), see page 12.
7. Install **Pump**, page 24.

NOTICE

DO NOT use drive housing screws to align or seat drive housing with pinion housing. Align these parts with locating pins to avoid premature bearing wear.

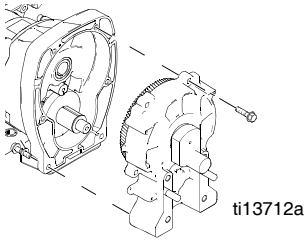
Pinion Assembly / Clutch Armature / Clamp

Pinion Assembly / Clutch Armature Removal

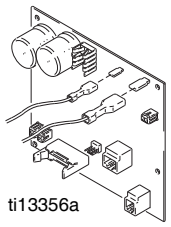
If pinion assembly (29) is not removed from clutch housing (19), perform steps 1 through 3. Otherwise, start at step 4.

Pinion Assembly

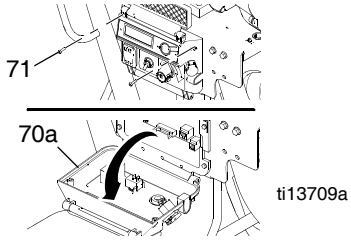
1. Remove drive housing, page 13.



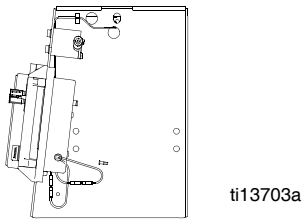
2. Disconnect clutch cable connectors from inside of pressure control:



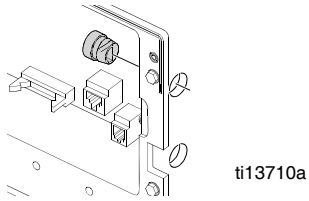
   a. Remove two screws (71) and swing down cover (70a).



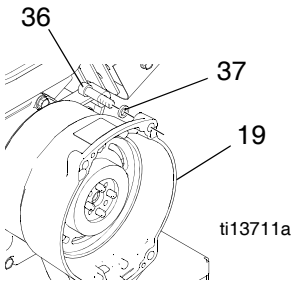
   b. Disconnect engine leads from board to engine.



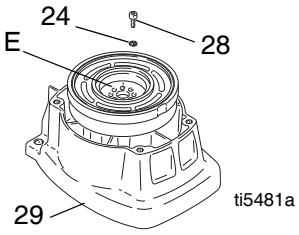
   c. Remove strain reliefs (70b).



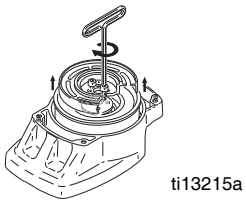
3. Remove four screws (36), washers (37), and pinion assembly (29).



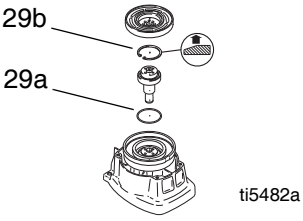
4. Place pinion assembly (29) on bench with rotor side up.



5. Remove four screws (28) and lock washers (24). Install two screws in threaded holes (E) in rotor. Alternately tighten screws until rotor comes off.



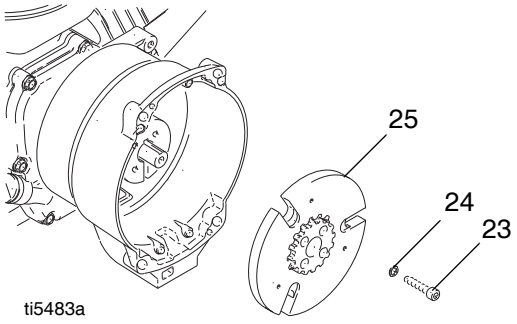
6. Remove retaining ring (29b).



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.



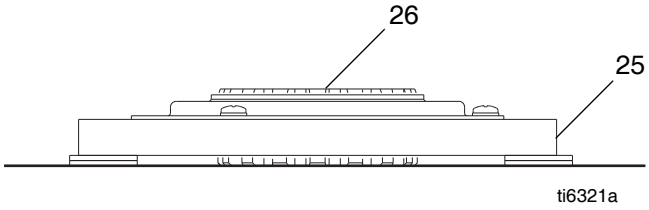
9. Remove four screws (23) and lock washers (24).

10. Remove armature (25).

Installation

Clutch Armature

1. Lay two stacks of two dimes (or 1.4mm coins) on a smooth bench surface.



2. Lay armature (25) on two stacks of coins.

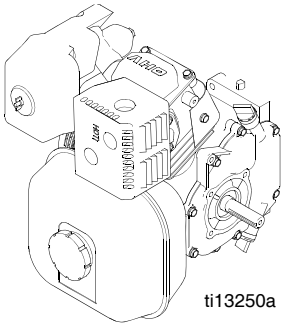
3. Press center of hub (26) down to bench surface.

Clamp Removal

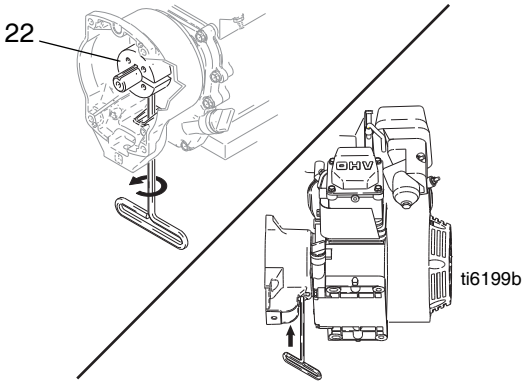
Gasoline can spill and cause a fire or explosion if engine is tipped on its side.

1. Remove **Engine**, page 19, and drain gasoline from tank according to Honda manual.

2. Tip engine on side so gas tank is down and air cleaner is up.



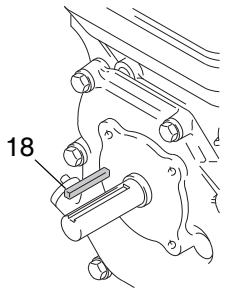
3. Use 3/16 in. hex key wrench to loosen two screws (23) on clamp (22).



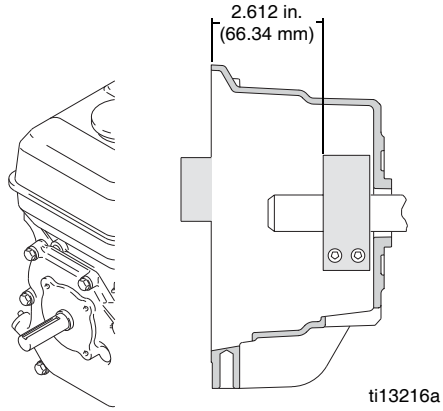
4. Push screwdriver into slot in clamp (22) and remove

Clamp Installation

1. Install engine shaft key (18).

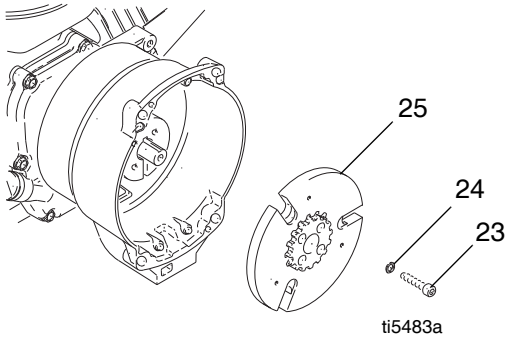


2. Tap clamp (22) onto engine shaft (A). Maintain dimension of 2.612 ± .010 in. (66.34 ± .25mm). Chamfer must face engine.



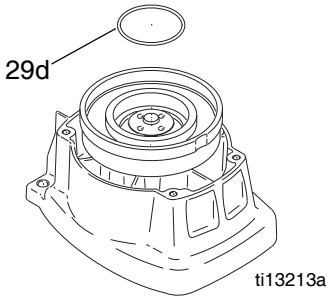
3. Check dimension: Place rigid, straight steel bar (B) across face of clutch housing (19). Use accurate measuring device to measure distance between bar and face of clamp. Adjust clamp as necessary. Torque two screws (23) to 125 ± 10 in-lb (14 ± 1.1 N•m).

4. Install armature (25) on engine drive shaft.

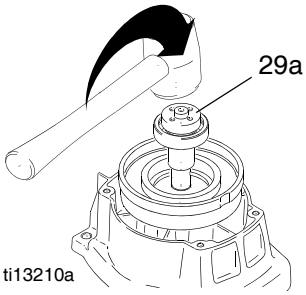


5. Install four screws (23) and lock washers (24). Torque to 125 ± 10 in-lb (14 ± 1.1 N•m).

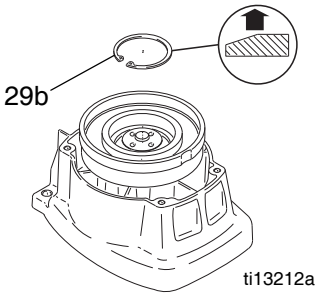
6. Check o-ring (29d) and replace if missing or damaged.



7. Tap pinion shaft (29a) in with plastic mallet.

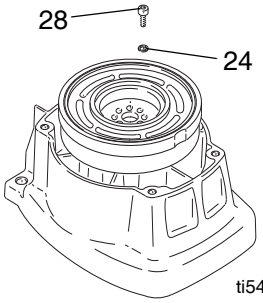


8. Install retaining ring (29b) with beveled side facing up.



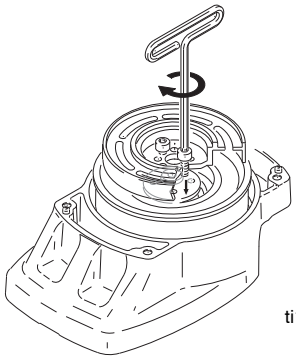
9. Place pinion assembly on bench with rotor side up.

10. Apply thread sealant to screws. Install four screws (28) and lock washers (24). Alternately torque screws to 125 ± 10 in-lb (14 ± 1.1 N•m) until rotor is secure. Use threaded holes to hold rotor.

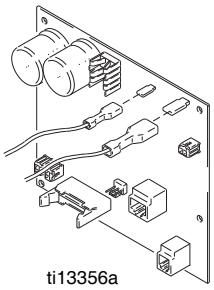


ti5481a

11. Install pinion assembly (29) with four screws (36) and washers (37).


ti13217a

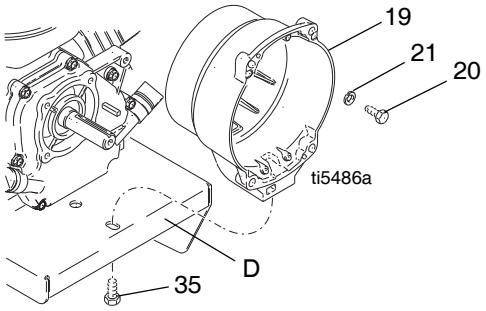
12. Connect clutch cable connectors to inside of pressure control.


ti13356a

Clutch Housing

Removal

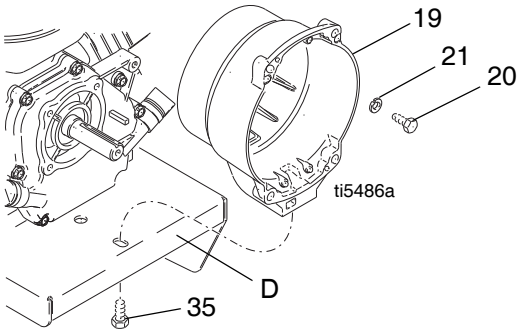
1. Remove four screws (20) and lock washers (21) which hold clutch housing (19) to engine.



2. Remove screw (35) from under mounting plate (D).
3. Pull off clutch housing (19).

Installation

1. Push on clutch housing (19).
2. Install four capscrews (20) and lock washers (21) and secure clutch housing (19) to engine. Torque to 200 in-lb (22.6 N•m).



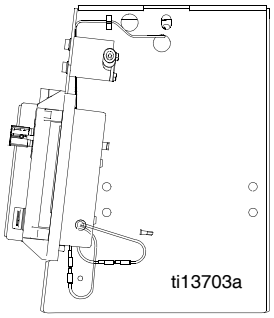
3. Install screw (35) from beneath mounting plate (D). Torque to 26 ft-lb (35.2 N•m).

Engine

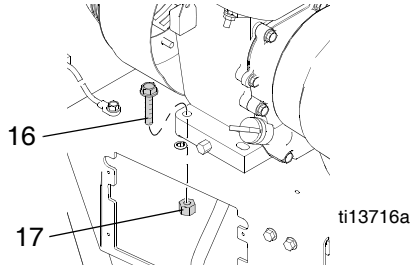
Removal

NOTE: All service to the engine must be performed by an authorized Honda dealer.

1. Remove **Pinion Assembly/Clutch Armature/Clamp** and **Clutch Housing**.
2. Disconnect all necessary wiring.



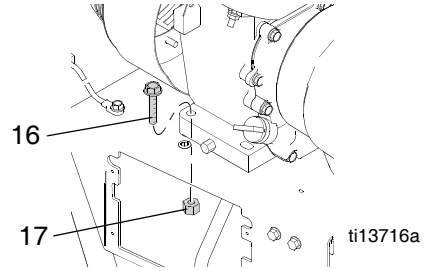
3. Remove two locknuts (17) and screws (16) from base of engine.



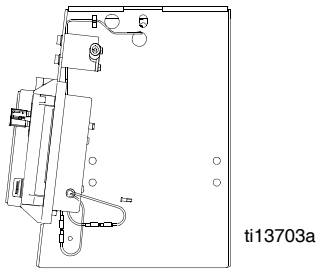
4. Lift engine carefully and place on work bench.

Installation

1. Lift engine carefully and place on sprayer cart.
2. Install two screws (16) in base of engine and secure with locknuts (17). Torque to 26 ft-lb (22.6 N•m).



3. Connect all necessary wiring.



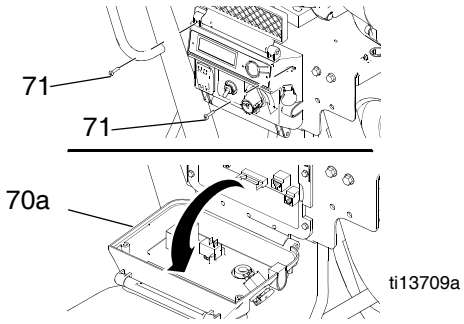
4. Install **Pinion Assembly/Clutch Armature/Clamp** and **Clutch Housing**.

Pressure Control

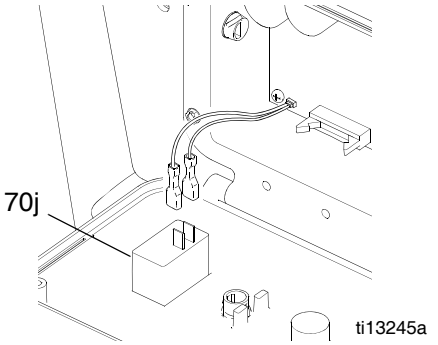
Pump On/Off Switch

Removal

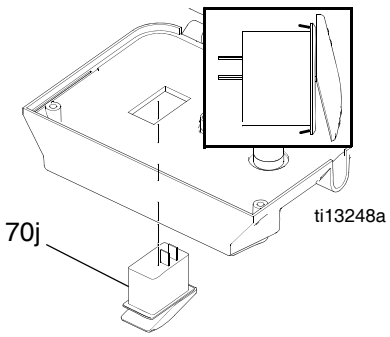
1. Remove two screws (71) and swing down cover (70a).



2. Disconnect pump ON/OFF switch (70j) connector from control board.

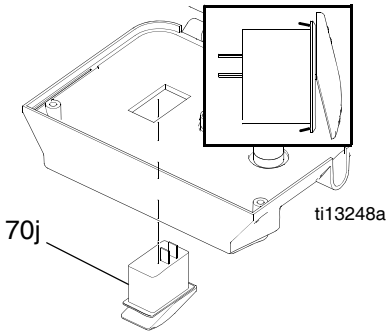


3. Press in on two retaining tabs on each side of pump ON/OFF switch (70j) and remove switch from cover.

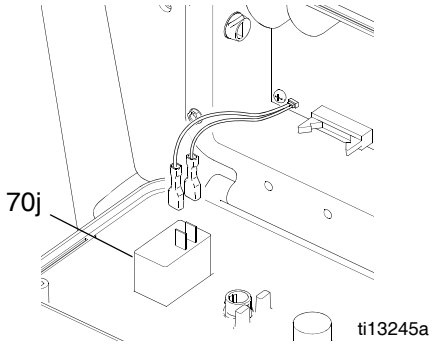


Installation

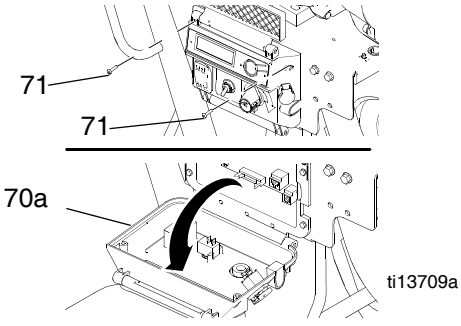
1. Install new ON/OFF switch (70j) so tabs of switch snap into place on inside of cover. Align new ON/OFF switch with electrical tabs at bottom.



2. Connect pump ON/OFF switch connector to control board.



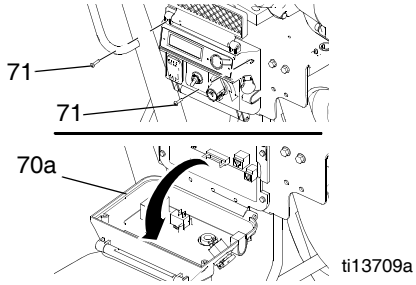
3. Swing cover (70a) up and secure with two screws (71).



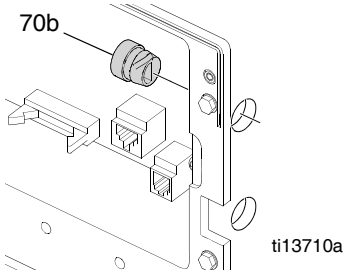
Control Board

Removal

1. Remove two screws (71) and swing cover (70a) down.

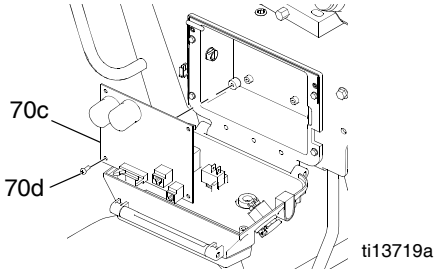


2. Squeeze strain relief bushings (70b) with pliers and remove.



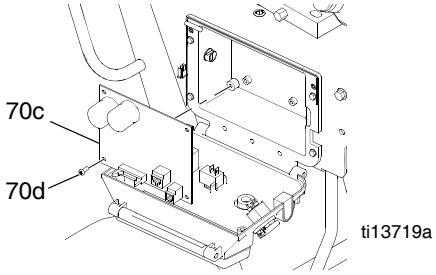
3. Disconnect all leads at control board (70c). See **Wiring Diagram**, page 26.

4. Remove four screws (70d) and control board (70c).



Installation

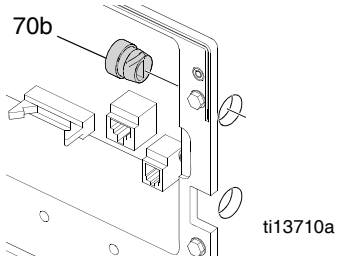
1. Install control board (70c) with four screws (70d).



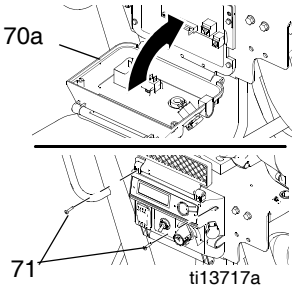
2. Connect engine wires to control board (70c).

3. Connect all leads at control board (70c). See **Wiring Diagram**, page 26.

4. Install new strain relief bushings (70b).



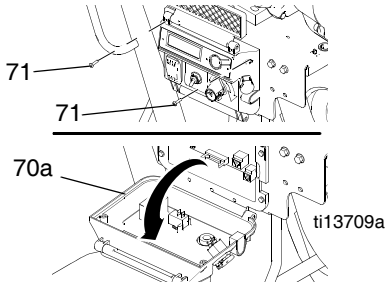
5. Swing cover (70a) up and secure with two screws (71).



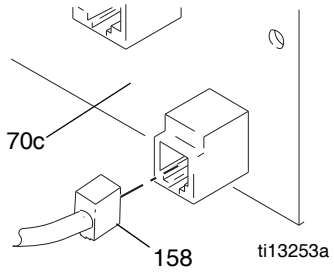
Pressure Control Transducer

Removal

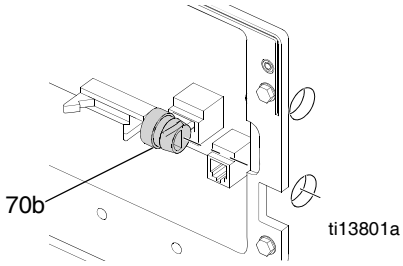
1. Remove two screws (71) and swing cover (70a) down.



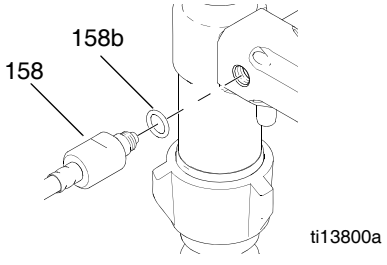
2. Disconnect transducer lead (158) from control board (70c).



3. Remove strain relief (70b) and pull transducer cable from the control box. Remove screws (182) and cover (184) to detach transducer from cart frame.

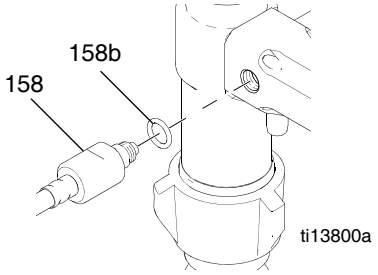


4. Remove pressure control transducer (158) and o-ring (158b) from manifold.

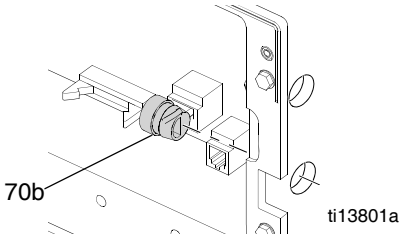


Installation

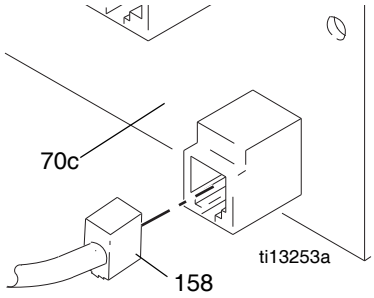
1. Install o-ring (158b) and pressure control transducer (158) in manifold (72). Tighten securely.



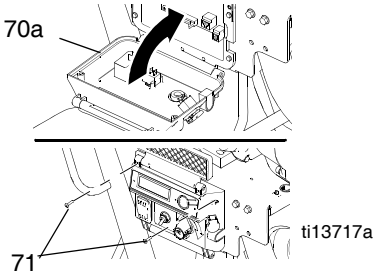
2. Place end of transducer in slot of mount (183) and secure with cover (184) and screws (182). Route transducer cable through control box and secure with strain relief (70b).



3. Connect transducer lead (158) to control board (70c).



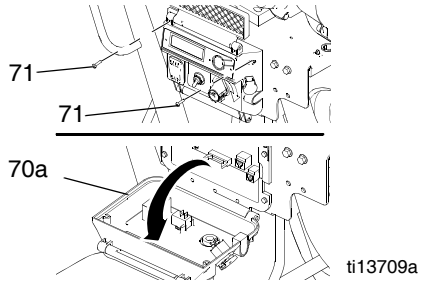
4. Swing cover (70a) up and secure with two screws (71).



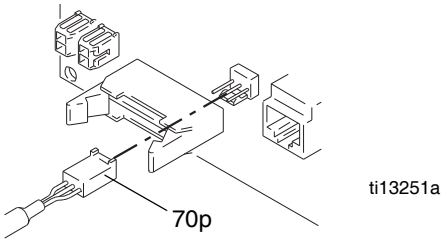
Pump Control

Removal

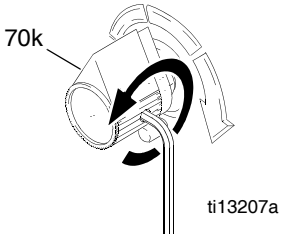
1. Remove two screws (71) and swing cover (70a) down.



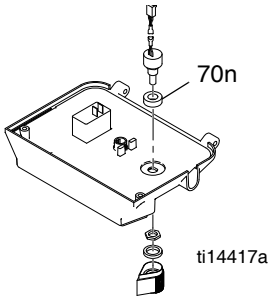
2. Disconnect pump control (70p) lead from control board (70c).



3. Loosen set screws on pump control knob (70k) and remove knob, shaft nut, lock washer and pump control (70p).

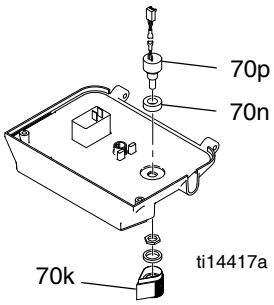


4. Remove shaft spacer (70n) from pump control.

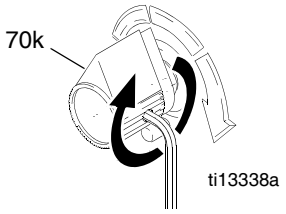


Installation

1. Install shaft spacer (70n) on pump control (70p).
2. Install pump control, shaft nut, lock washer, and pump control knob (70k).

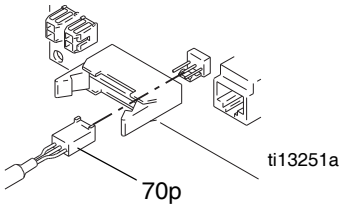


   a. Turn pump control shaft clockwise to internal stop. Assemble pump control knob to strike pin on cover (70a).

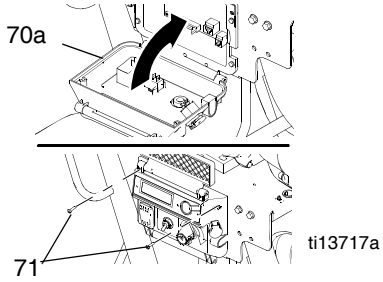


   b. After adjustment of step a, tighten both set screws in knob 1/4 to 3/8 turn after contact with shaft.

3. Connect pump control lead to control board (70c).



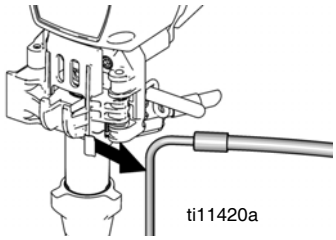
4. Swing cover (70a) up and secure with two screws (71).



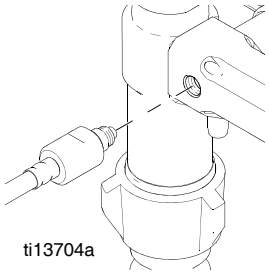
Displacement Pump

Removal

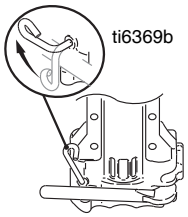
1. Flush pump, page 24.
2. Stop pump with piston rod in its lowest position.
3. Perform **Pressure Relief** procedure, page 9.
4. **Top Coat Pump:** Separate drain hose from sprayer.

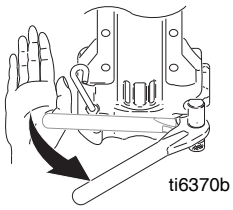


5. Disconnect transducer from pump manifold.

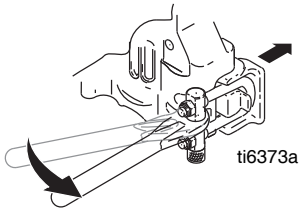


6. Raise latch lock and push latch open.

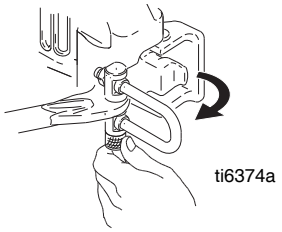




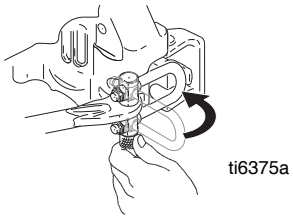
7. Ratchet open pump door.



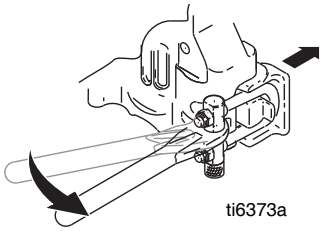
   a. Ratchet pump door forward.
   b. Twist latch u-bolt out of pump door recess.
   c. Place u-bolt on pump door outer edge.
   d. If pump door is stuck, do steps e, f, and 8. Otherwise, go to step 9.
   e. Twist latch u-bolt back from pump door outer edge.



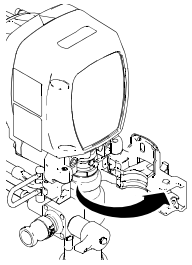
   f. Place u-bolt on pump door protrusion.



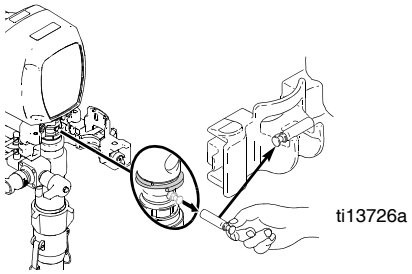
8. Ratchet pump door forward.



9. Open pump door.



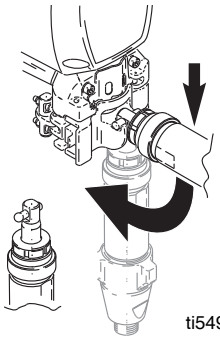
10. Pull out pump pin and place in pin holder.



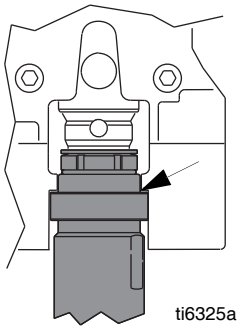
Installation

1. Adjust piston rod to proper length:

   Adjust piston rod with pin holder to pull **out** piston rod. Tap piston rod on hard surface to push **in** piston rod.

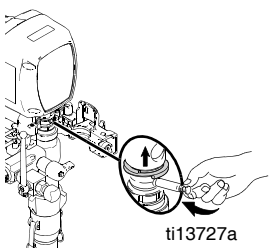

ti5492a

2. Slide pump into connecting rod. Push pump collar flush with bearing housing ledge to be able to close pump door.


ti6325a

3. Push pump pin until it is fully retained.

   NOTE: Pin will snap into position.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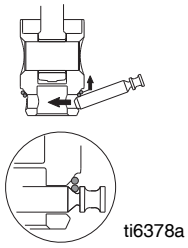
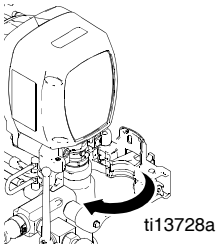

ti6378a

4. Close pump door and rotate latch into position. Do not tighten latch.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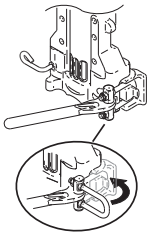
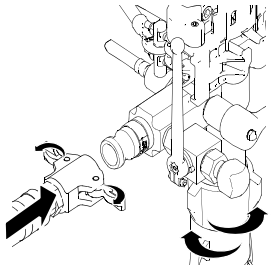

ti6313a

5. Rotate pump until transducer port is aligned directly to back of sprayer. Connect transducer and hand tighten securely.

   NOTE: Clean out ALL media and debris from transducer and transducer port before connecting transducer.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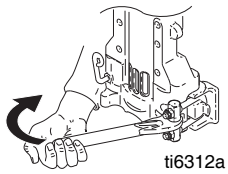
6. Tighten latch and rotate latch lock into locked position.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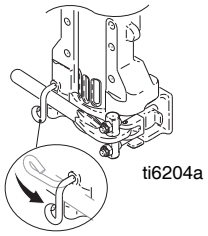
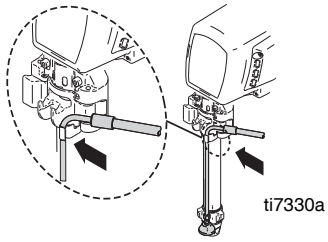
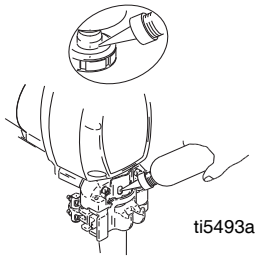

ti6204a

7. **Top Coat Pump:** Attach drain hose to sprayer.


ti7330a

8. Fill pump with Graco TSL until fluid flows onto top of seal.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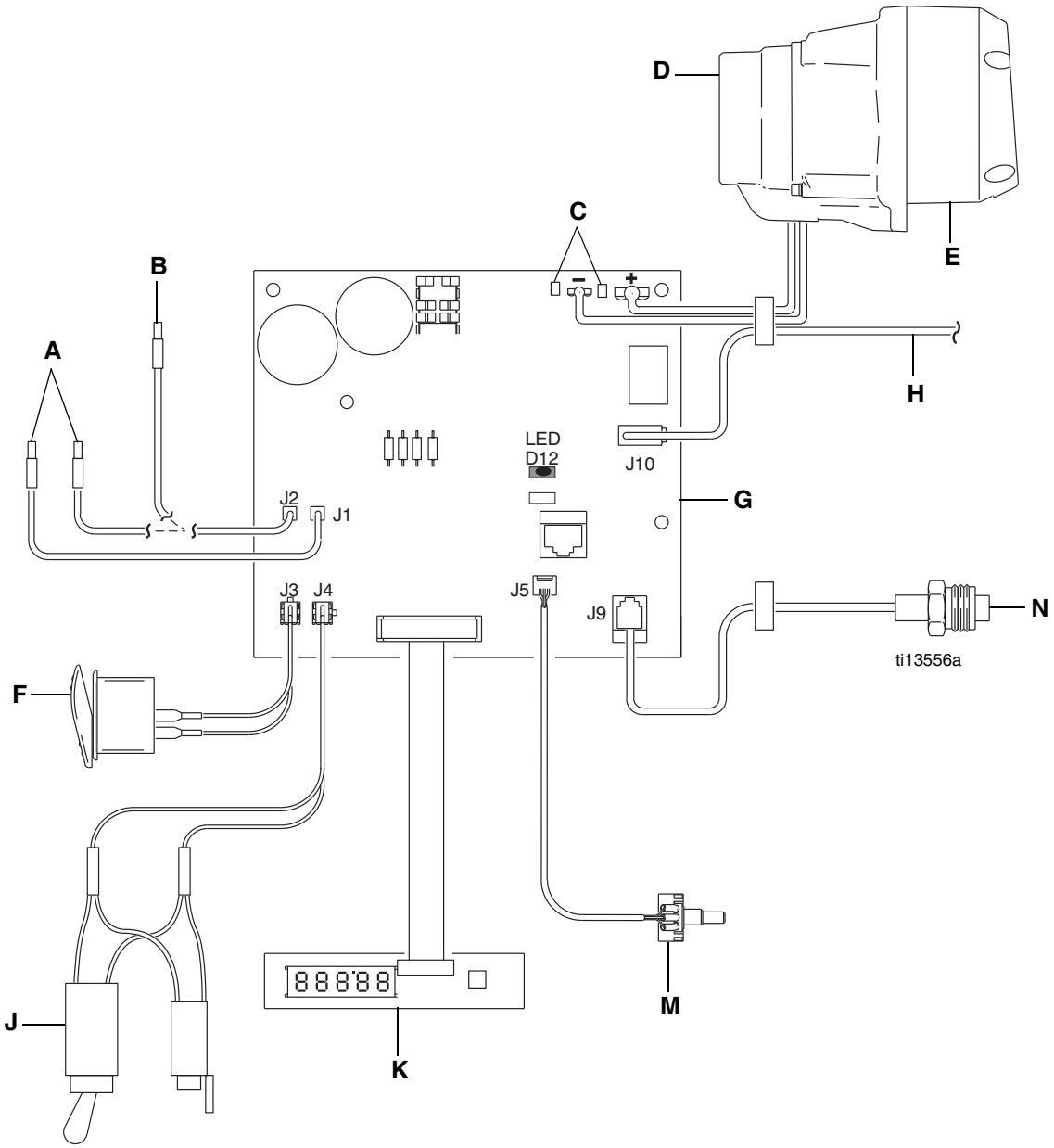
Wiring Diagram



A	To Engine
B	To Ground
C	Clutch Test Points
D	Pinion
E	Drive
F	On/Off Switch

G	Control Board
H	Pump Sensor
J	Pump/Prime Switch
K	Display Board
M	Pump Control
N	Transducer

Technical Data

Honda GX 200 Engine:	
ANSI Power Rating @ 3600 rpm	6.5 Horsepower (4.8 kW)
Maximum Working Pressure:	
Base Coat Pump	1000 psi (69 bar, 6.9 MPa)
Top Coat Pump	3300 psi (228 bar, 22.8 MPa)
Noise Level:	
Sound Power	105 dBa per ISO 3744
Sound Pressure	96 dBa measured at 3.1 ft (1 m)
Maximum Delivery Rating:	
Base Coat Pump	3.0 gpm (11.36 liter/min)
Top Coat Pump	2.20 gpm (8.33 liter/min)
Maximum Tip Nozzle Size:	
Base Coat Pump	1 applicator with .071 in. tip or 10 mm Nozzle
Top Coat Pump	1 gun with 0.048 in. tip nozzle
	2 guns with 0.035 in. tip nozzle
	3 guns with 0.027 in. tip nozzle
	4 guns with 0.023 in. tip nozzle
Inlet Paint Strainer:	
Base Coat Pump	2 in. npsm, #5 mesh sst
Top Coat Pump	1 in. npsm, #8 mesh sst
Pump Inlet Size:	
Base Coat Pump	2 in. QD Camlock male coupler
Top Coat Pump	1 in. - 11.5 npsm
Fluid Outlet Size:	
Base Coat Pump	1 in. QD Camlock male coupler
Top Coat Pump	3/8 npsm
Wetted Parts:	zinc-plated carbon steel, PTFE, nylon, polyurethane, UHMW, polyethylene, fluoroelastomer, acetal, leather, aluminum, tungsten carbide, nickel- and zinc-plated carbon steel, stainless steel, chrome plating

Dimensions

Part	Weight lb (kg)	Height in. (cm)	Width in. (cm)	Length in. (cm)
HTX 2030 Sprayer	155 (70.5)	34.25 (87.0)	24.5 (62.2)	33.0 (83.8)
3/4 in. Hose	29 (13.2)	—	—	—
Applicator/Swivel	3 (1.3)	—	—	—
HTX2030 Air Spray Trigger Gun	3.65 (1.7)	12 (30.5)	1.7 (2.5)	10.4 (26.4)

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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.

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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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Original instructions. This manual contains English. MM 313889

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