Repair and Parts

Tradeworks™ Project Painter, Tradeworks™ 150 and Tradeworks™ 170

313382M
EN

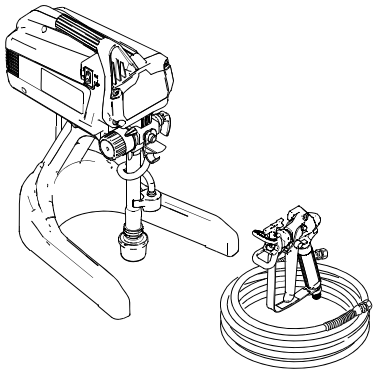
- For portable spray applications of architectural paints and coatings -

(See specifications, page 2.)

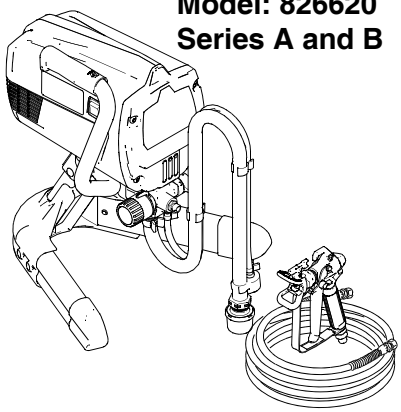
Use water based or mineral-spirit type material only. Do not use materials having flash points lower than 70°F (21°C). This includes, but is not limited to, acetone, xylene, toluene, or naphtha. For more information about your material request MSDS from distributor or retailer.

IMPORTANT SAFETY INSTRUCTIONS.
Read all warnings and instructions in this manual and on the sprayer cord. Save these instructions. See page 2 for model and series information including dispense rate, recommended hose length, guns, and maximum working pressure.

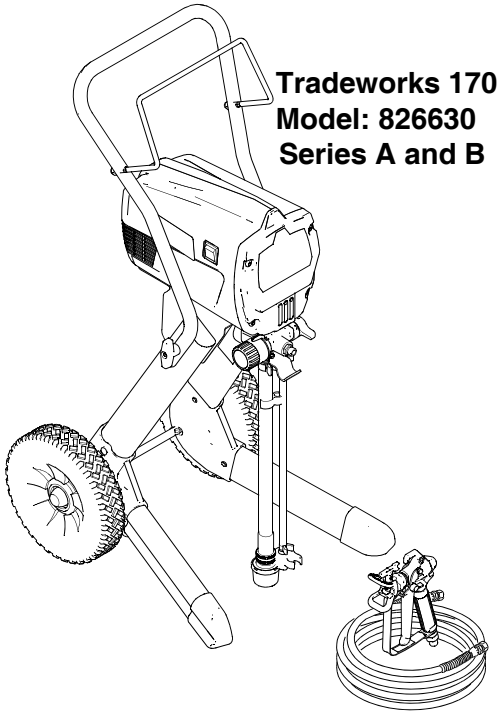
Tradeworks Project Painter
Model: 826610



Tradeworks 150
Model: 826620
Series A and B



Tradeworks 170
Model: 826630
Series A and B



Specifications

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

Model Name	Series	Dispense Rate gpm (lpm)	Hose Length and Diameter	Maximum Hose Length	Gun Model	Maximum Working Pressure		
						PSI	MPa	bar
Project Painter	A	0.24 gpm (0.91 lpm)	1/4 in. x 25 ft (6.4 mm x 7.5 m)	50 ft (15 m)	SG2	2800	19	193
Tradeworks 150	B	0.27 gpm (1.02 lpm)	1/4 in. x 25 ft (6.4 mm x 7.5 m)	75 ft (23 m)	SG3	3000	21	207
Tradeworks 170	B	0.31 gpm (1.17 lpm)	1/4 in. x 50 ft (6.4 mm x 15 m)	100 ft (30 m)	SG3	3000	21	207

Warnings

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 symbol refers to procedure-specific risks. Refer back to these warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

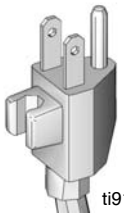
Grounding Instructions

This product must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This product is equipped with a cord having a grounding wire with an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

⚠ WARNING

GROUNDING

- Improper installation of the grounding plug is able to result in a risk of electric shock.
- When repair or replacement of the cord or plug is required, do not connect the grounding wire to either flat blade terminal.
- The wire with insulation having an outer surface that is green with or without yellow stripes is the grounding wire.
- Check with a qualified electrician or serviceman when the grounding instructions are not completely understood, or when in doubt as to whether the product is properly grounded.
- Do not modify the plug provided; if it does not fit the outlet, have the proper outlet installed by a qualified electrician.
- This product is for use on a nominal 120V circuit and has a grounding plug similar to the plug illustrated in the figure below.



ti9164a

- Only connect the product to an outlet having the same configuration as the plug.
- Do not use an adapter with this product.

Extension Cords:

- Use only a 3-wire extension cord that has a 3-blade grounding plug and a 3-slot receptacle that accepts the plug on the product.
- Make sure your extension cord is not damaged. If an extension cord is necessary, use 12 AWG (2.5 mm^2) minimum to carry the current that the product draws.

An undersized cord results in a drop in line voltage and loss of power and overheating.

⚠ 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 spray flammable or combustible materials near an open flame or sources of ignition such as cigarettes, motors, and electrical equipment. Only use water-based or mineral spirit-type materials with a flash point greater than 70° F (21° C).
- Paint or solvent flowing through the equipment is able to result in static electricity. Static electricity creates a risk of fire or explosion in the presence of paint or solvent fumes. All parts of the spray system, including the pump, hose assembly, spray gun, and objects in and around the spray area shall be properly grounded to protect against static discharge and sparks. Use conductive or grounded high-pressure airless paint sprayer hoses.
- Verify that all containers and collection systems are grounded to prevent static discharge.
- Connect to a grounded outlet and use grounded extensions cords. Do not use a 3-to-2 adapter.
- Do not use a paint or a solvent containing halogenated hydrocarbons.
- Keep spray area well-ventilated. Keep a good supply of fresh air moving through the area. Keep pump assembly in a well ventilated area. Do not spray pump assembly.
- Do not smoke in the spray area.
- Do not operate light switches, engines, or similar spark producing products in the spray area.
- Keep area clean and free of paint or solvent containers, rags, and other flammable materials.
- Know the contents of the paints and solvents being sprayed. Read all Material Safety Data Sheets (MSDS) and container labels provided with the paints and solvents. Follow the paint and solvents manufacturer's safety instructions.
- Fire extinguisher equipment shall be present and working.
- Sprayer generates sparks. When flammable liquid is used in or near the sprayer or for flushing or cleaning, keep sprayer at least 20 feet (6 m) away from explosive vapors.

SKIN INJECTION HAZARD

- 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 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.
- 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**.
- Check hoses and parts for signs of damage. Replace any damaged hoses or parts.
- This system is capable of producing 3000 psi. Use replacement parts or accessories that are rated a minimum of 3000 psi.
- 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

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 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 manufacturer.
- Do not use the hose as a strength member to pull or lift the equipment.

ELECTRIC SHOCK HAZARD

Improper grounding, setup, or usage of the system can cause electric shock.

- Turn off and disconnect power cord before servicing equipment.
- Use only grounded electrical outlets.
- Use only 3-wire extension cords.
- Ensure ground prongs are intact on sprayer and extension cords.
- Do not expose to rain. Store indoors.

PRESSURIZED ALUMINUM PARTS HAZARD

Do not use 1, 1, 1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use can cause serious chemical reaction and equipment rupture, and result in death, serious injury, and property damage.

MOVING PARTS HAZARD

Moving parts can pinch 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** in this manual. Disconnect power or air supply.

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 MSDS's to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.

PERSONAL PROTECTIVE EQUIPMENT

You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. This equipment includes but is not limited to:

- Protective eye wear
- Clothing and respirator as recommended by the fluid and solvent manufacturer
- Gloves
- Hearing protection

CALIFORNIA PROPOSITIONS 65

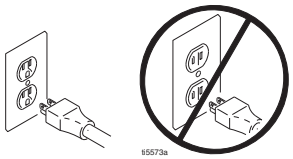
This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm. Wash hands after handling.

Installation

Grounding and Electric Requirements

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

- This sprayer requires a 120 Vac, 60 Hz, 15A circuit with a grounding receptacle.



- Never use an outlet that is not grounded or an adapter.
- Do not use the sprayer if the electrical cord has a damaged ground prong.

- Only use an extension cord with an undamaged 3-prong plug.

  Recommended extension cords for use with this sprayer:
  - 50 ft (15.0 m) 16 AWG (1.0 mm^2)
  - 100 ft (30.0 m) 14 AWG (1.5 mm^2)

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

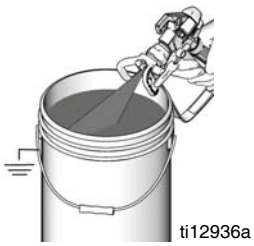
Smaller gauge or longer extension cords may reduce sprayer performance.

Fluid supply container: follow local code.

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

Grounding the metal pail: connect a ground wire to the pail by clamping one end to pail and other end to ground such as a water pipe.

Maintaining 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.



Thermal Overload

Motor has a thermal overload switch to shut itself down if overheated. If unit overheats, allow approximately 45 minutes for unit to cool. Once cool, switch will close and unit will restart.

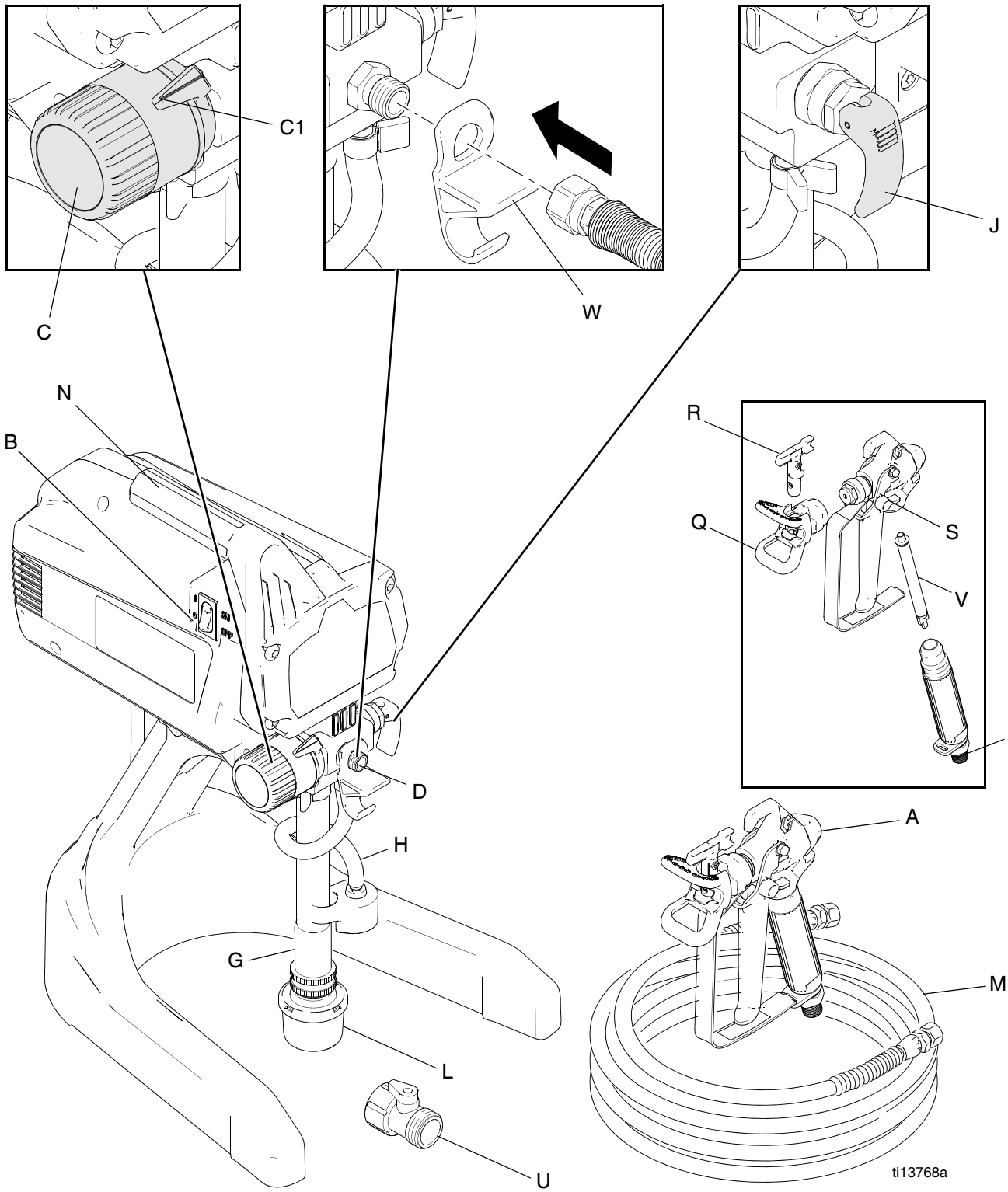
To reduce risk of injury from motor starting unexpectedly when it cools, always turn power switch OFF if motor shuts down.

Notes

Component Identification - Project Painter

A	Airless spray gun	Dispenses fluid.
B	Power switch	Turns sprayer ON and OFF.
C	Pressure control knob	Increases (clockwise) and decreases (counter-clockwise) fluid pressure in pump, hose, and spray gun.
C1	Setting Indicator	To select function, align symbol on pressure control knob with setting indicator, page 12.
D	Pump fluid outlet fitting	Threaded connection for paint hose.
G	Suction tube	Draws fluid from paint pail into pump.
H	Prime tube (with diffuser)	Drains fluid in system during priming and pressure relief.
J	Prime/Spray valve	• In PRIME position directs fluid to prime tube. • In SPRAY position directs pressurized fluid to paint hose. • Automatically relieves system pressure in overpressure situations.
L	Inlet screen	Prevents debris from entering pump.
M	Paint hose	Transports high-pressure fluid from pump to spray gun.
N	Handle	Used to help transport sprayer.
Q	Tip guard	Reduces risk of fluid injection injury.
R	Reversible spray tip	• Atomizes fluid being sprayed, forms spray pattern and controls fluid flow according to hole size. • Reverse unclogs plugged tips without disassembly.
S	Gun trigger safety lever (page 12)	Prevents accidental triggering of spray gun.
T	Gun fluid inlet fitting	Threaded connection for paint hose.
U	Power Flush attachment	Connects garden hose to suction tube for power flushing water-base fluids.
V	Gun fluid filter	Filters fluid entering spray gun to reduce tip clogs.
W	Pail Hook	Holds material pail.

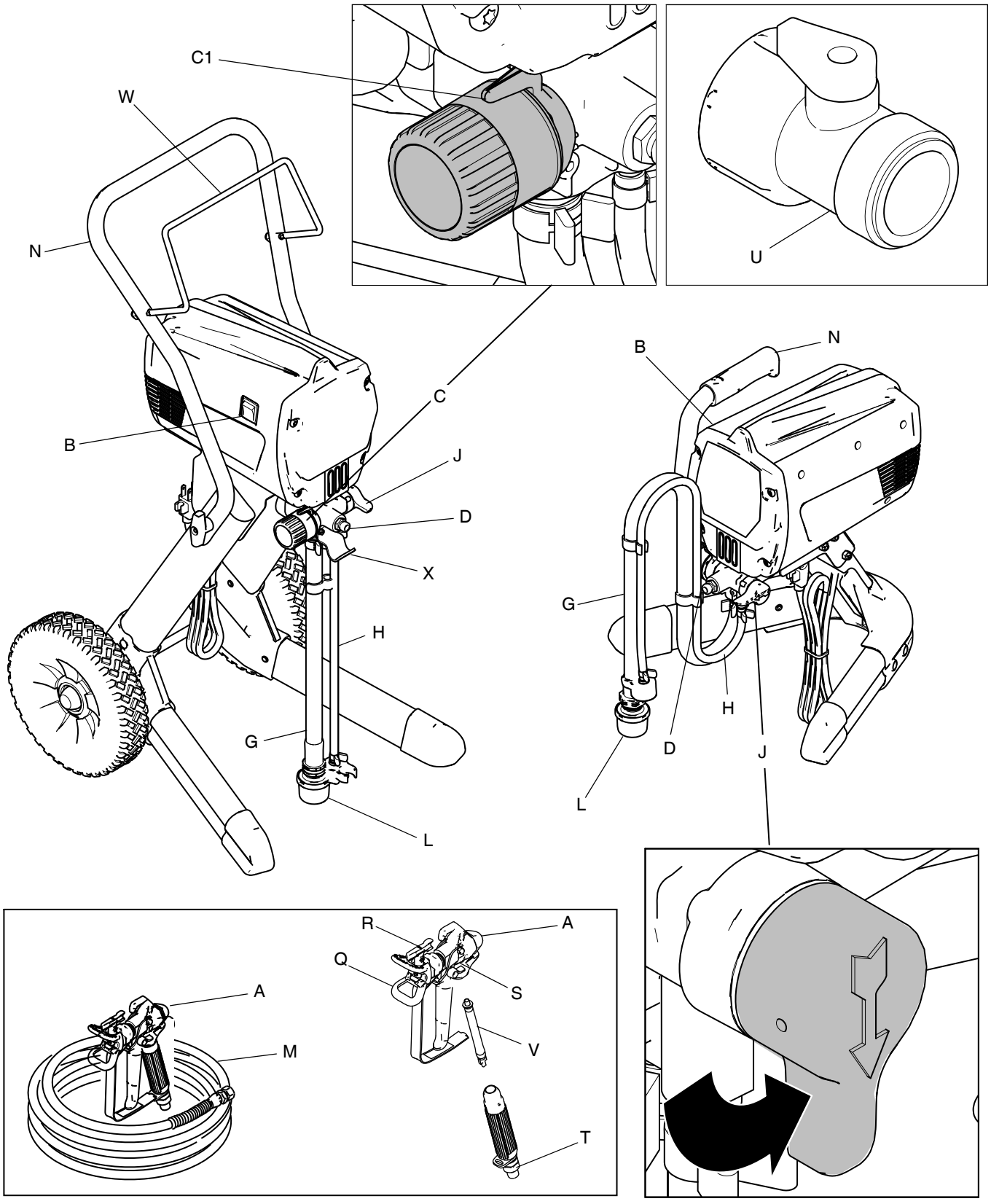
Tradeworks Project Painter



Component Identification - Tradeworks 150 and 170

A	Airless spray gun	Dispenses fluid.
B	Power switch	Turns sprayer ON and OFF.
C	Pressure control knob	Increases (clockwise) and decreases (counter-clockwise) fluid pressure in pump, hose, and spray gun.
C1	Setting Indicator	To select function, align symbol on pressure control knob with setting indicator, page 12.
D	Pump fluid outlet fitting	Threaded connection for paint hose.
G	Suction tube	Draws fluid from paint pail into pump.
H	Prime tube (with diffuser)	Drains fluid in system during priming and pressure relief.
J	Prime/Spray valve	• In PRIME position directs fluid to prime tube. • In SPRAY position directs pressurized fluid to paint hose. • Automatically relieves system pressure in overpressure situations.
L	Inlet screen	Prevents debris from entering pump.
M	Paint hose	Transports high-pressure fluid from pump to spray gun.
N	Handle	Used to help transport sprayer.
Q	Tip guard	Reduces risk of fluid injection injury.
R	Reversible spray tip	• Atomizes fluid being sprayed, forms spray pattern and controls fluid flow according to hole size. • Reverse unclogs plugged tips without disassembly.
S	Gun trigger safety lever (page 12)	Prevents accidental triggering of spray gun.
T	Gun fluid inlet fitting	Threaded connection for paint hose.
U	Power Flush attachment	Connects garden hose to suction tube for power flushing water-base fluids.
V	Gun fluid filter	Filters fluid entering spray gun to reduce tip clogs.
W	Hose wrap Rack	Stows paint hose.
X	Pail hanger	For transporting pail by its handle.

Tradeworks 150 and Tradeworks 170

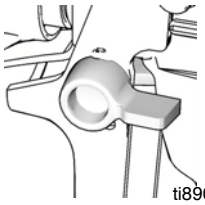


General Repair Information

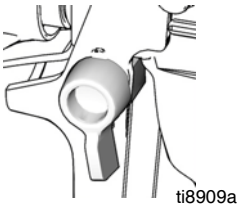
Trigger Lock

Always engage the trigger lock when you stop spraying to prevent the gun from being triggered accidentally by hand or if dropped or bumped.

Trigger Locked



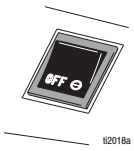
Trigger Unlocked



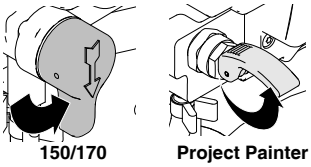
Pressure Relief Procedure

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

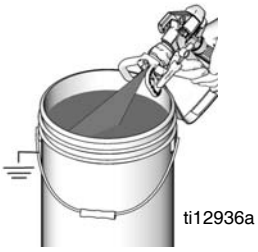
1. Turn power switch OFF and unplug power cord.



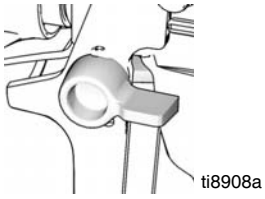
2. Turn Prime/Spray valve to PRIME to relieve pressure.



3. Hold gun firmly to side of pail. Trigger the gun to relieve pressure.



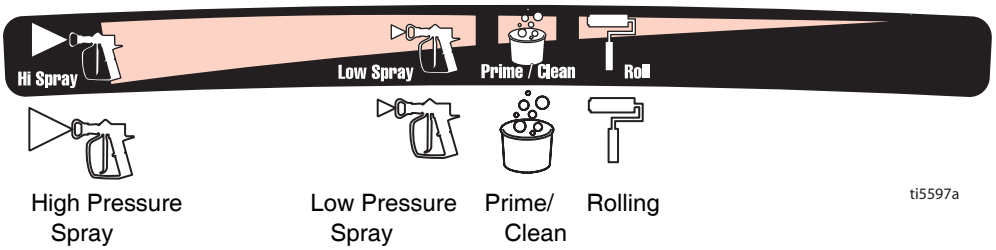
4. Engage trigger lock.



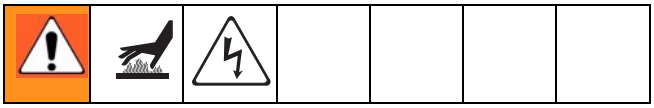
Leave Prime/Spray valve in the PRIME position until you are ready to spray again.

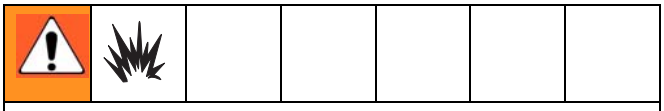
If you suspect the spray tip or hose is clogged or that pressure has not been fully relieved after following the steps above, VERY SLOWLY loosen tip guard retaining nut or hose end coupling to relieve pressure gradually, then loosen completely. Clear hose or tip obstruction. Read Unclogging Spray Tip instructions in the Sprayer or Gun Operation manual.

Pressure Control Knob Settings



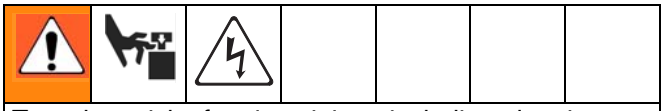
To select function, align symbol on pressure control knob with setting indicator on sprayer.





Flammable materials spilled on hot, bare, motor could cause fire or explosion. To reduce risk of burns, fire or explosion, do not operate sprayer with cover removed.

- Keep all screws, nuts, washers, gaskets, and electrical fittings removed during repair procedures. These parts usually are not provided with replacement kits.
- Test repairs after problems are corrected.
- If sprayer does not operate properly, review repair procedure to verify you did it correctly. See **Basic Troubleshooting**, page 14 and **Advanced Troubleshooting**, page 18.
- Overspray may build up in the air passages. Remove any overspray and residue from air passages and openings in the enclosures whenever you service sprayer.
- Do not operate the sprayer without the cover in place. Replace if damaged. Covers direct cooling air around motor to prevent overheating.



To reduce risk of serious injury, including electric shock:

- Do not touch moving or electric pars with fingers or tools while testing repair.
- Unplug sprayer when power is not required for testing.
- Install all covers, gaskets, screws and washers before you operate sprayer.

NOTICE

- Do not run sprayer dry for more than 30 seconds. Doing so could damage pump packings.
- Protect the internal drive parts of this sprayer from water. Openings in the cover allow for air cooling of the mechanical parts and electronics inside. If water gets in these openings, the sprayer could malfunction or be permanently damaged.
- Prevent pump corrosion and damage from freezing. Never leave water or water-base paint in sprayer when its not in use in cold weather. Freezing fluids can seriously damage sprayer. Store sprayer with Pump Armor to protect sprayer during storage.

Basic Troubleshooting

Check everything in this Basic Troubleshooting Table before you bring the sprayer to an authorized service center.

Problem	Cause	Solution
Power Switch is on and sprayer is plugged in, but motor does not run, and pump does not cycle.	Pressure is set at zero pressure.	Turn Pressure Control Knob clockwise to increase pressure setting.
	Motor or control is damaged.	Take sprayer to authorized service center.*
	Electric outlet is not providing power.	• Try a different outlet or plug in a compatible working appliance to test outlet. • Check plug end for light • Reset building circuit breaker or replace fuse.
	Extension cord is damaged.	Replace extension cord. Read **Grounding and Electric Requirements**, page 6.
	Sprayer electric cord is damaged.	Check for broken insulation or wires. Replace electric cord if damaged.
	Paint and/or water is frozen or hardened in pump.	Unplug sprayer from outlet. If frozen do NOT try to start sprayer until it is completely thawed or you may damage the motor, control board and/or drivetrain. Make sure power switch is OFF. Place sprayer in a warm area for several hours. Then plug in power cord and turn sprayer ON. Slowly increase pressure setting to see if motor will start. If paint is hardened in sprayer, pump packings, valves, drivetrain or pressure switch may need to be replaced. Take sprayer to authorized service center.*
Pump does not prime.	Prime/Spray Valve is in SPRAY position.	Turn Prime/Spray Valve to PRIME position (pointing down).
	Inlet screen is clogged or suction tube is not immersed.	Clean debris off inlet screen and make sure suction tube is immersed in fluid.

** Please refer to page 29 for a list of replaceable parts.*

Problem	Cause	Solution
Pump does not prime.	Inlet valve check ball is stuck.	Remove suction tube and place a pencil into the inlet section to dislodge the ball, allowing pump to prime properly. OR Power Flush sprayer (see Operation manual).
	Inlet valve check ball or seat is dirty.	Remove inlet housing. Clean or replace ball and seat.
	Outlet valve check ball is stuck.	Unscrew outlet valve with a 3/4 in. socket. Remove and clean assembly.
	Suction tube is not immersed	Make sure suction tube is immersed in paint.
	Suction tube is leaking, allowing air to enter.	Tighten suction tube connection. Inspect for cracks or vacuum leaks.
	Pump does not prime with fluid.	Remove suction tube from paint. Prime pump with water or solvent-based flushing fluid.
	Pump valves are worn.	Check for worn pump valves. a. Prime sprayer with paint. b. Trigger gun momentarily. When trigger is released, pump should cycle momentarily and stop. If pump continues to cycle, pump valves may be worn. Take sprayer to authorized service center.*
	Paint is very thick or tacky.	Thin material per manufacturer recommendations.
		Momentarily turn power switch OFF to allow pump to slow and stop. Repeat as necessary.
Pump cycles but does not build up pressure.	Pump is not primed.	Prime pump (see Operation manual).
	Inlet screen is clogged.	Clean debris off inlet screen and make sure suction tube is immersed in fluid.
	Suction tube is not immersed in paint.	Make sure suction tube is immersed in paint.
	Paint pail is empty.	Refill hopper or paint pail. Reprime sprayer.
	Suction tube is leaking, allowing air to enter.	Inlet tube fitting improperly or not securely attached.
	Prime/Spray Valve is worn or obstructed with debris.	Take sprayer to authorized service center.*
	Pump check ball is stuck.	Read ***Pump does not prime*** section above.
Pump cycles, but paint only dribbles or spurts when spray gun is triggered.	Pressure is set too low.	Turn Pressure Control Knob clockwise to increase pressure setting which will turn on motor to build pressure.
	Spray tip is clogged.	Unclog spray tip (see Operation manual).
	Spray gun fluid filter is clogged.	Clean or replace gun fluid filter (see Operation manual).
	Spray tip is too large or worn.	Replace spray tip.

** The Tradeworks Project Painter is a non-repairable sprayer. Please refer to page 29 for a list of replaceable parts.*

Problem	Cause	Solution
Pressure is set at maximum but cannot achieve a good spray pattern.	Reversible spray tip is in UNCLOG position.	Rotate arrow-shaped handle on spray tip so it points forward in SPRAY position (see Operation manual).
	Spray tip is too large for sprayer.	Select smaller spray tip.
	Spray tip is worn beyond capability of sprayer.	Replace spray tip.
	Extension cord is too long or not heavy enough gauge.	Replace extension cord. **Grounding and Electrical Requirements**, page 6.
	Spray gun fluid filter is clogged.	Clean or replace spray gun fluid filter (see Operation manual).
	Inlet screen is clogged.	Clean debris off inlet screen.
	Pump valves are worn.	Check for worn pump valves. a. Prime sprayer with paint. b. Trigger gun momentarily. When trigger is released, pump should cycle momentarily and stop. If pump continues to cycle, pump valves may be worn. Take sprayer to authorized service center.*
	Material too thick.	Thin material.
	Hose too long (if extra section is added).	Remove section of hose.
Spray gun stopped spraying.	Suction tube is leaking, allowing air to enter.	Tighten suction tube connection. Inspect for cracks or vacuum leaks.
	Spray tip is clogged.	Unclog spray tip (see Operation manual).
When paint is sprayed, it runs down the wall or sags.	Coat is going on too thick.	Move gun faster.
		Choose a tip with smaller hole size.
		Choose tip with wider fan.
		Make sure gun is far enough from surface.
When paint is sprayed, coverage is inadequate.	Paint coating is going on too thin.	Move gun slower.
		Choose tip with larger hole size.
		Choose tip with narrower fan.
		Make sure gun is close enough to surface.
Fan pattern varies dramatically while spraying. OR Sprayer does not turn on promptly when resuming spraying.	Pressure control switch is worn and causing excessive pressure variation.	Take sprayer to authorized service center.*
Cannot trigger spray gun.	Spray gun trigger lock is locked.	Rotate trigger safety lever to unlock trigger lock, page 12.
Paint is coming out of pressure control switch.	Pressure control switch is worn.	Take sprayer to authorized service center.*
Prime/Spray valve actuates automatically relieving pressure through prime tube.	System is over pressurizing.	Take sprayer to authorized service center.*
Paint leaks down outside of pump.	Pump packings are worn.	Replace pump packings.

Problem	Cause	Solution
Motor is hot and runs intermittently. Motor automatically shuts off due to excessive heat. Damage can occur if cause is not corrected. **Thermal Overload**, page 6.	Vent holes in enclosure are plugged or sprayer is covered.	Keep vent holes clear of obstructions and overspray and keep sprayer open to air.
	Extension cord is too long or not a heavy enough gauge.	Replace extension cord. Read **Grounding and Electrical Requirements**, page 6.
	Unregulated electrical generator being used has excessive voltage.	Use electrical generator with a proper voltage regulator. Sprayer requires 120VAC, 60 Hz, 1500-Watt generator.
	Sprayer was operated at high pressure with very small tip which causes frequent motor starts and excessive heat build up.	Decrease pressure setting or increase tip size.
Building circuit breaker opens after sprayer operates for 5 to 10 minutes.	Too many appliances are plugged in on same circuit.	Free up circuit (unplug things), or use a less busy circuit.
	Sprayer electrical cord is damaged.	Check broken insulation or wires. Replace electrical cord if damaged.
	Extension cord is damaged or too long or not a heavy enough gauge.	• Plug in something that you know is working to test extension cord. • Replace extension cord.

** The Tradeworks Project Painter is a non-repairable sprayer. Please refer to page 29 for a list of replaceable parts.*

Advanced Troubleshooting

See Basic Troubleshooting first, page 14 for problems that are more easily remedied.

General Problem: Motor Does Not Operate

Specific Problem	Cause	Solution
Power switch is on and sprayer is plugged in; pump does not cycle.	See **Basic Troubleshooting**, page 14.	
Basic mechanical problems.	Paint is frozen or hardened in pump.	Unplug sprayer from electrical outlet. **If paint is frozen in sprayer**: Do NOT try to start sprayer until completely thawed or you may damage the motor, control board, and/or drivetrain. 1. Turn OFF power switch. 2. Place sprayer in warm area for several hours. 3. Plug sprayer in. 4. Turn on sprayer. 5. Turn prime valve to PRIME position. **If paint hardened in sprayer**: Replace pump packings. Remove all residue from valves. **Pump Service**, page 27.
	Motor is damaged.	Remove gear and try to rotate motor shaft by hand. See **Motor Diagnostics**, page 26. If shaft will not turn, replace motor using **Motor Kit**, page 25.
	Yoke is broken because pump is locked up due to dried paint or worn packings	Repair or replace using **Gear/Yoke Kit**, page 25.
		Repair pump. See **Pump Service**, page 27.

** The Tradeworks Project Painter is a non-repairable sprayer. Please refer to page 29 for a list of replaceable parts.*

Specific Problem	Cause	Solution
Basic electrical problems.	Motor overheated.	Allow motor to cool for 45 minutes. Retry.
	Electrical outlet is damaged.	Reset building circuit breaker or replace fuse. Try another outlet. Check electric supply with volt meter. Meter must read 85 to 130V AC. If voltage is too high, do not plug sprayer in until outlet is corrected.
	Control board leads are improperly fastened or improperly mated.	Replace any loose terminals. Make sure all leads and harnesses are firmly connected. Check pressure control harness connection on front side of drive housing. Clean control board terminals. Securely reconnect leads.
	Motor brushes are worn.	Check length of BOTH brushes (brushes do not wear evenly on both sides of the motor). Brush length must be 0.25 in. (6.4mm). If brushes are worn replace motor using **Motor Kit,** page 25.
	Motor armature commutator damaged.	Check for burn spots, gouges and extreme roughness. Have motor shop resurface commutator if possible, or replace motor using **Motor Kit**, page 25.
	Fuse is blown.	Replace fuse using **Fuse Kit**, page 25.
	Motor armature shorting.	Check for shorts using armature tester (growler) or perform spin test, **Motor Diagnostic**, page 26. If shorts are evident, replace motor using **Motor Kit**, page 25.
	Control board damaged. **CAUTION:** Do not perform control board diagnostics until you have determined the armature is good. A damaged armature can burn out a good control board.	See **Control Board Diagnostics**, page 27. Replace control board if damaged using **Control Board Kit**, page 25.

Specific Problem	Cause	Solution
Sprayer Wiring Problems **NOTE:** Remove enclosure mounting screws and pull enclosure away from drive housing. Take care not to pull on leads from electrical cord and power switch.	Sprayer electrical cord damaged.	Unplug sprayer electrical cord. Disconnect black electrical cord wire at power switch. Unplug in-line connection white cord wire. Plug in electrical cord. Test voltage between black and white wires. Meter must read 85 to 130V AC. Replace electrical cord if no voltage.
	Sprayer power switch damaged.	1. Unplug sprayer electrical cord. 2. Disconnect black control board wire at power switch. 3. Unplug in-line connection white cord wire. 4. Plug in electrical cord. 5. Turn power switch ON. 6. Test voltage between open terminal of power switch and white electrical cord wire. Meter must read 85 to 130V AC. 7. Replace power switch if no voltage.
	Motor thermal overload cutoff switch. **Startup Hazard After Thermal Overload**, page 6.	1. Unplug sprayer electrical cord. 2. Remove motor harness from control card. 3. Check for continuity between yellow leads or motor harness. 4. If thermal relief switch is open (no continuity) allow motor to cool. 5. If switch remains open after motor cools, replace motor using **Motor Kit**, page 25. 6. If thermal relief switch closes after motor cools, find correct cause of overheating.
	Terminals are damaged or loose.	Replace any damaged terminals. Make sure all terminal connections are tight.

General Problem: Circuit Breaker is Tripping

Specific Problem	Cause	Solution
Building circuit breaker opens as soon as sprayer is turned on.	Sprayer electrical wiring is pinched or insulation is damaged.	Repair or replace any damaged wiring or terminals. Securely reconnect wires.
	Wires between pressure control switch and control board are pinched.	
	Motor armature is shorting.	Check for shorts using armature tester (growler) or perform spin test, **Motor Diagnostics**, page 26. If shorts are evident, replace motor using **Motor Kit**, page 25.
	Control board is damaged. **CAUTION:** Do not perform control board diagnostics until you have determined the armature is good. A bad motor armature can burn out a good motor control board.	See **Control Board Diagnostics**, page 27. Replace control board if damaged using **Control Board Kit**, page 25.
Building circuit breaker opens as soon as sprayer is plugged into outlet and sprayer is NOT turned on. **NOTE:** Remove enclosure mounting screws and pull enclosure away from drive housing. Take care not to pull on leads from electrical cord and power switch.	Sprayer electrical cord is damaged.	1. Unplug sprayer electrical cord. 2. Disconnect black electrical cord wire at power switch. 3. Unplug in-line connection white cord wire. 4. Plug in electrical cord. 5. Test voltage between black and white wires. Meter must read 85 to 130V AC. 6. Replace electrical cord if no voltage.
	Sprayer power switch damaged.	1. Unplug sprayer electrical cord. 2. Disconnect black control board wire at power switch. 3. Check resistance of switch with ohmmeter. 4. Reading must be infinity with power switch OFF. 5. Reading must be zero with power switch ON. 6. Replace power switch if damaged.
	Also see *Basic Electrical Problems,* and *Sprayer Wiring Problems*, page 19.	

General Problem: Erratic Motor Operation

Specific Problem	Cause	Solution
Sprayer quits after running for 5 to 10 minutes	Electrical outlet is damaged	Reset building circuit breaker or replace building fuse.
	Electrical outlet supplying wrong voltage	Try another outlet. Check electric supply with volt meter. Meter must read 85 to 130V AC. If voltage is too high, do not use outlet until corrected.
	Also see *Basic Electrical Problems* and *Sprayer Wiring Problems*, page 19.	
	Motor is overheating	See Motor is hot and runs intermittently in Basic Troubleshooting, page 17.
Motor is hot and runs intermittently.	See Motor is hot and runs intermittently in Basic Troubleshooting, page 17.	

General Problem: Low or Fluctuating Output

Specific Problem	Cause	Solution
Pump cycles, but output is low or surging.	See **Basic Troubleshooting**, page 14.	
	Worn or obstructed pump valves.	Check for worn pump valves as follows: Prime sprayer with paint. Trigger spray gun momentarily. When spray gun trigger is released pump should cycle momentarily and stop. If pump continues to cycle, pump valves may be worn or obstructed. **Pump Service**, page 27.
	Prime/Spray valve is leaking.	Check Prime/Spray valve for debris trapped on seat and for worn parts. Torque to 130-180 in-lb (15.8-18.1 N•m). Replace if parts are worn using **Prime/Spray Valve Kit**, page 25.
	Voltage from electrical outlet is too low. Low voltages reduce sprayer performance.	Check voltage of outlet. Meter must read 85 to 130V AC. Reset building circuit breaker or replace building fuse. Repair electrical outlet or try another outlet.
	Extension cord is too long or not heavy enough gauge.	Replace extension cord. **Grounding and Electrical Requirements**, page 6.
	Leads from motor or pressure switch to control board are damaged, loose, pinched, or overheated.	Be sure terminals are centered and firmly connected. Inspect for pinched wiring and wiring insulation and terminals for signs of overheating. Replace any loose terminals or damaged wiring. Securely reconnect terminals.
	Motor brushes are worn.	Check length of BOTH brushes (brushes do not wear evenly on both sides of the motor). Brush length must be 0.25 in. (6.4mm). If brushes are worn replace motor using **Motor Kit,** page 25.
	Motor brush springs are broken.	If springs are broken replace motor using **Motor Kit**, page 25.
	Motor brushes are binding in brush holders.	Clean brush holders. Remove carbon dust with small cleaning brush.
	Motor stops before sprayer reaches correct pressure (stall pressure is too low).	Replace pressure control using **Pressure Control Switch Kit**, page 25.
	Motor armature shorted.	Check for shorts using armature tester (growler) or perform spin test, **Motor Diagnostics**, page 26. If shorts are evident, replace motor using **Motor Kit**, page 25.
	Control board is damaged. **CAUTION:** Do not perform control board diagnostics until you have determined the armature is good. A damaged armature can burn out a good control board.	See **Control Board Diagnostics**, page 27. If damaged replace control board using **Control Board Kit**, page 25.

Specific Problem	Cause	Solution
Motor runs and pump cycles, but pressure does not build up.	Intake valve ball or outlet valve ball is not seating properly.	Remove and clean valves and check balls and seats for nicks; replace if necessary. Strain paint before spraying to remove particles that could clog pump. **Pump Service**, page 27.
	Pump packings are worn or damaged.	Check for leaking around throat packing nut. Replace pump packings if there are leaks. **Pump Service**, page 27.
	Prime/Spray Valve leaking.	Check Prime/Spray Valve for debris trapped on seat and for worn parts. Torque to 130-180 in-lb (14.6-20.3 N•m). If parts are worn, replace valve using **Prime/Spray Valve Kit**, page 25.
Spray pattern has variations, pressure fluctuates excessively, or motor runs very slowly.	Pressure switch to control board is damaged, loose or overheated	Be sure terminals are centered and firmly connected. Inspect wiring insulation and terminals for signs of overheating. Replace any loose terminals or damaged wiring. Securely reconnect terminals.
	Pressure switch leads are pinched between pump and drive housing or between front cover and drive housing.	Make sure pressure control harness is routed behind pump, through retention clip and connected to control board connector on control board (connect with tab to right).
	Control board is damaged. **CAUTION:** Do not perform control board diagnostics until you have determined the armature is good. A bad armature can burn out a good control board.	See **Control Board Diagnostics**, page 27. If damaged, replace control board using **Control Board Kit**, page 25.
	Pressure control switch is damaged or worn out.	Replace pressure control switch using **Pressure Control Switch Kit**, page 25.

General Problem: No Output

Specific Problem	Cause	Solution
Power switch is on and sprayer is plugged in but pump does not cycle	See **Basic Troubleshooting**, page 14.	
Motor runs but pump does not cycle.	Gear and/or yoke are damaged	Replace gear and yoke using **Gear/Yoke Repair Kit**, page 25.
Motor does not run.	Water or paint entered pressure control switch or shorted control board.	Clean out and/or dry out and retry. Replace if necessary using **Pressure Control Switch Kit**, page 25.

General Problem: Excessive Pressure Build Up

Specific Problem	Cause	Solution
Prime/Spray Valve actuates automatically, relieving pressure through drain tube.	Pressure control switch is worn or has damaged wires.	Replace pressure control switch using **Pressure Control Switch Kit**, page 25.
	Water or paint entered pressure control switch or shorted control board.	Clean out and/or dry out and retry. Replace if necessary using **Pressure Control Switch Kit**, page 25.
	Control board failed.	See **Control Board Diagnostics**, page 27. Replace damaged control board using **Control Board Kit**, page 25.

** The Tradeworks Project Painter is a non-repairable sprayer.*
Please refer to page 29 for a list of replaceable parts.

List of Kits

Kit Number	Models	Kit Description
257562	150 and 170	Control Board Kit (Series A)
16F102	150 and 170	Control Board Kit (Series B)
244035	150, 170 and Project Painter	Drain Tube Diffuser
257563	150 and 170	Enclosure (Series A)
16E832	150 and 170	Enclosure (Series B)
24B839	Project Painter	Enclosure and Stand
257564	150 and 170	Cover (Series A)
16E833	150 and 170	Cover (Series B)
24B836	Project Painter	Cover, Handle
826121	150 and Project Painter	Hose 1/4 in. x 25 ft
826079	170	Hose 1/4 in. x 50 ft
257566	150, 170 and Project Painter	Strainer Inlet
257567	150	Stand (Series A)
16E839	150	Stand (Series B)
257568	170	Left Leg
257569	170	Right Leg
16E843	150 and 170	Power Cord (Series A)
16E842	150	Power Cord (Series B)
16E843	170	Power Cord (Series B))
257572	150 and 170	PC 3000 psi
257573	150 and 170	Pump Inlet (Series A)
16F291	150 and 170	Pump Inlet (Series B)
257574	150 and 170	Pump Outlet (Series A)
16F292	150 and 170	Pump Outlet (Series B)
257575	150 and 170	Pump (Series A)
16F049	150 and 170	Pump (Series B)
257359	Project Painter	SG2 Gun Accessory
246506	150 and170	SG3 Gun Accessory
24B601	Project Painter	Suction Tube
197607	150	Suction Tube
15T122	170	Suction Tube (Series A)
16E847	170	Suction Tube (Series B)
235014	150 and 170	Drain Valve
24B841	Project Painter	Sprayer only - No gun/hose
257570	150 and 170	Motor (Series A)
16F290	150 and 170	Motor (Cinderson) (Series B)
16F393	150 and 170	Motor (Johnson) (Series B)
257565	150 and 170	Gear and Rod (Series A)
16F293	150 and 170	Gear/Drive (for Cinderson motor) (Series B)
16F391	150 and 170	Gear/Drive (for Johnson motor) (Series B)

Motor Diagnostics

Check for electrical continuity in motor armature, windings and brush as follows:

If Motor Diagnostics reveal a damaged motor or if motor brushes are shorter than 1/4 in. (6.4 mm) or if the motor shaft cannot turn, replace the motor using **Motor Kit**, page 25.

Setup

1. **Relieve pressure,** page 12.
2. Unplug electric cord.
3. Remove enclosure and disconnect motor leads from control card.
4. Remove fan brace (if equipped).
5. Remove four screws and front cover.
6. Remove yoke and guide rods.
7. Remove gear.

Armature Short Circuit Spin Test

Quickly turn motor fan by hand. There should not be electrical shorts and fan should coast two or three revolutions before stopping. If fan does not spin freely, armature is shorted. Replace motor using **Motor Kit**, page 25.

Armature, Brushes and Motor Wiring Open Circuit Test

1. Connect the two black motor leads together with test lead.
2. Turn motor fan by hand, about two revolutions per second.
3. If there is an uneven resistance or no resistance, replace motor using **Motor Kit**, page 25.

Control Board Diagnostics

Check for motor problems before replacing control board. A damaged motor may burn out a good control card.

Check for a damaged control board or pressure control switch as follows:

1. **Relieve pressure**, page 12.
2. Unplug electrical cord.
3. Remove cover screws and front cover.
4. Remove yoke and guide rods.
5. Remove gear.
6. Remove pressure control harness from control board. Using tip of small, flat blade screwdriver, press tab on right side connector to release.
7. Attach harness from a pressure control switch you know is functioning correctly to control board.

   Pressure control switch does not have to be installed in pump.

8. Turn pressure control adjustment knob clockwise to maximum pressure setting.
9. Plug electrical cord into 120VAC receptacle.
10. Turn power switch ON.
    - If motor runs, replace pressure switch. **Pressure Control Switch Kit**, page 25.
    - If motor does not run, replace control board repeat test. **Control Board Kit**, page 25.

Pump Diagnostics

CAUTION
When repairing or cleaning the pump, never submerge pump in water or allow fluid to enter pressure control.

When pump packings wear, paint begins to leak down outside of pump. Replace pump packings at the first sign of leaking or additional damage to drive train could occur. Use **Pump Repair Kit**, page 30.

Pump Service

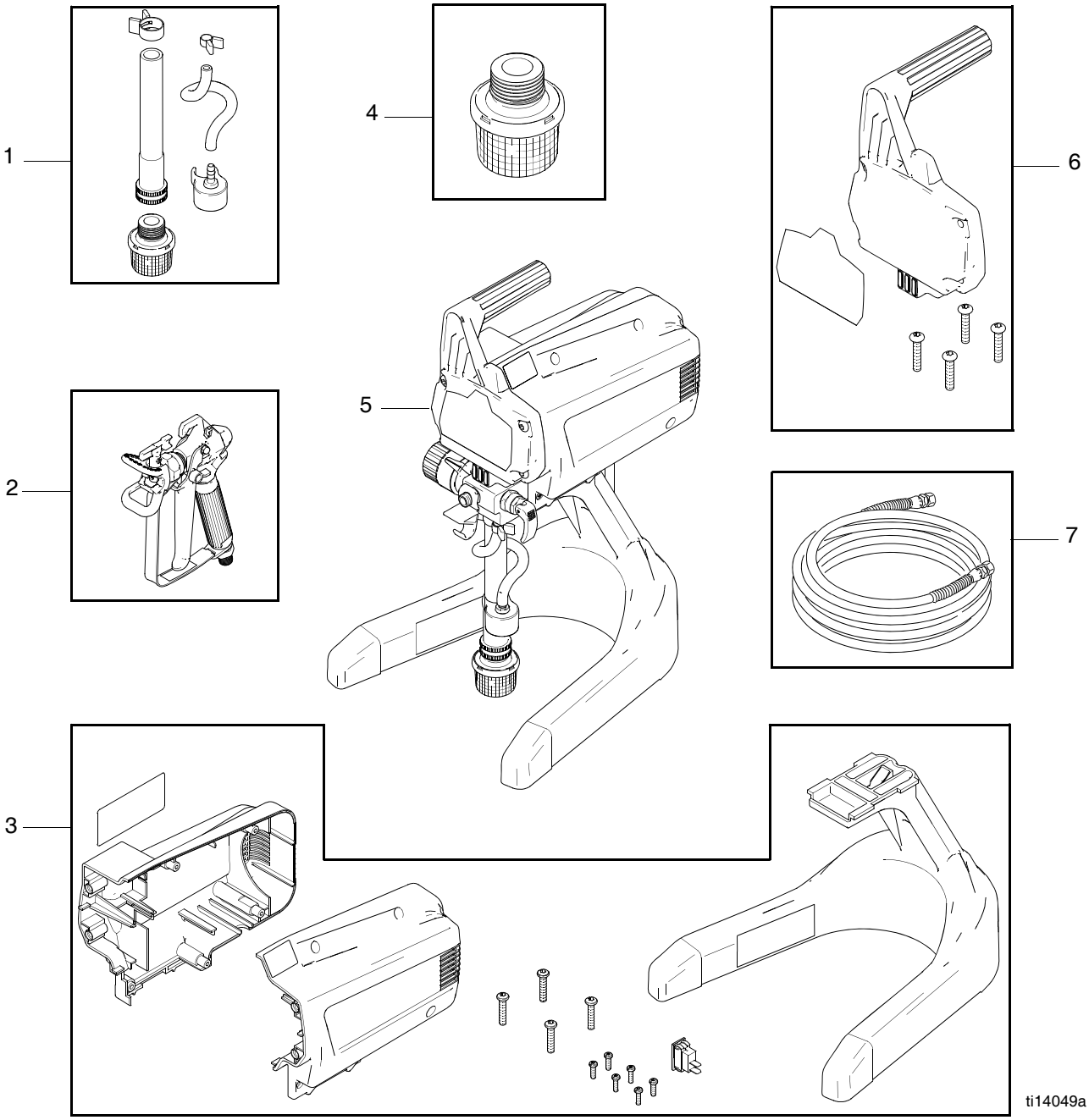
CAUTION
When repairing or cleaning pump, never submerge pump in water or allow fluid to enter pressure control.

If sprayer continues to cycle (motor and pump run) when the spray gun trigger is released, or if performance is poor even with new spray tips and clean filters, the pump inlet or outlet valve may be obstructed or worn. If a pump is worn, replace it. **List of Kits**, beginning on page 25.

Notes

Parts

Project Painter Model 826610



Ref	Part	Description	Qty
1	24B601	KIT, suction tube	1
2	257359	GUN, SG2	1
3	24B839	KIT, enclosure and stand	1
4	257566	STRAINER, inlet	1
5	24B841	SPRAYER (no gun or hose)	1
6	24B836	KIT, front cover	1
7	826121	HOSE, 1/4 in. x 25 ft	1

Parts List

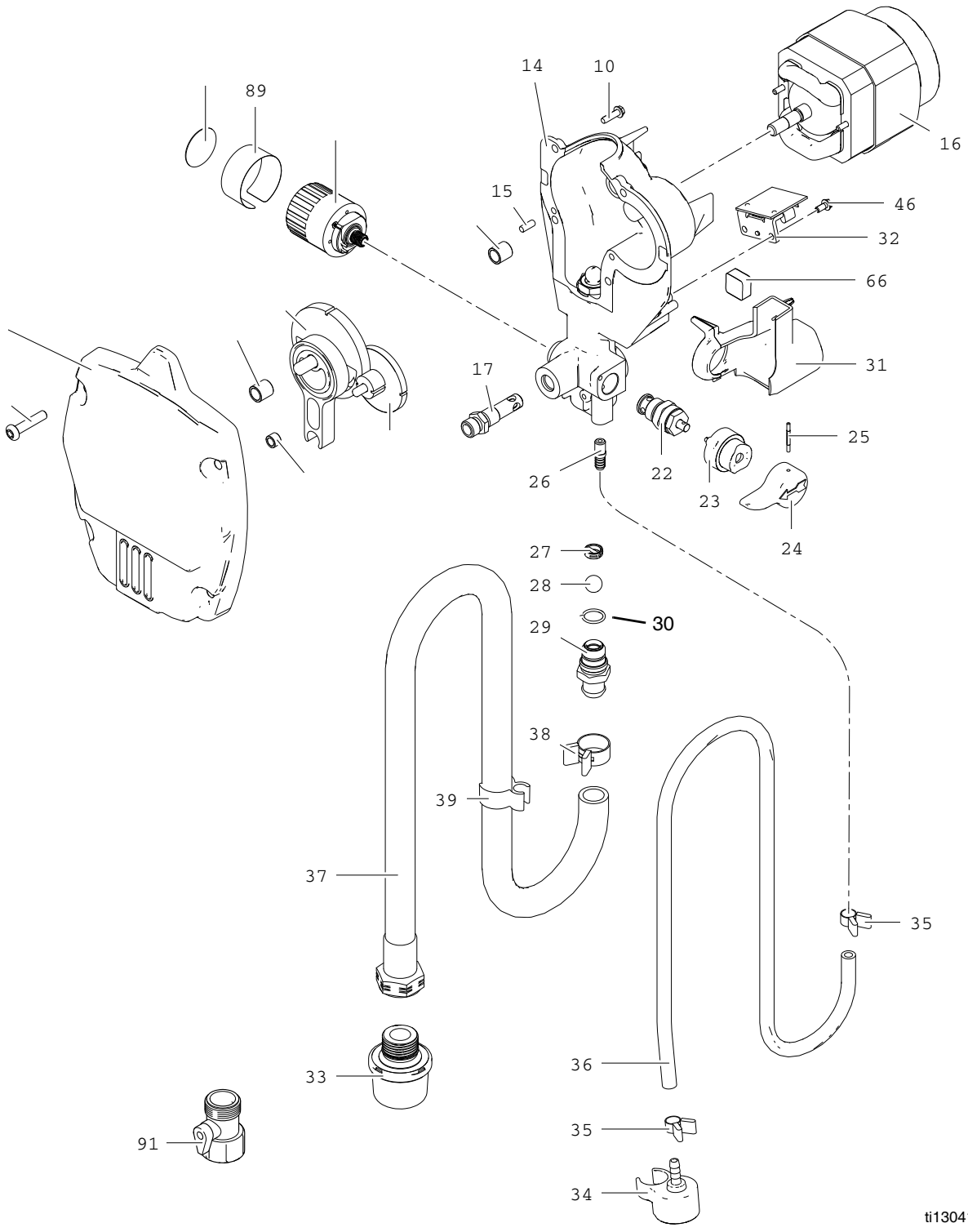
Tradeworks 150, Model 826620 (Series A)

Ref.	Part	Description	Qty.
1	257564	COVER, housing (includes 2, 3, 4)	1
2	120724	SCREW	4
3		BEARING, sleeve	3
4		BEARING, sleeve	2
5	257565	GEAR, eccentric, w/conn. rod (includes 6)	1
6		GEAR, combination	1
7	257572	CONTROL, pressure, diaphragm (includes 8, 89)	1
8	15A464	LABEL, control	1
14	257575	KIT, pump, repair (includes 5, 6, 101)	1
15	114618	PIN, dowel, dia 3/16 x 1/2 lg	2
16	257570	MOTOR, 120V	1
17	257574	VALVE, outlet	1
22	235014	VALVE, drain	1
23	224807	BASE, valve	1
24	187625	HANDLE, valve, drain	1
25	111600	PIN, grooved	1
26	196574	FITTING, drain	1
27	15K105	BALL, stop	1
28	105445	BALL, (.5000)	1
29	257573	HOUSING, inlet (Includes 27, 28)	1
30	115719	PACKING, o-ring	1
31	15R549	COVER, solenoid	1
32	257562	CONTROL, board (Includes 46)	1
33	257566	STRAINER	1
34	244035	DEFLECTOR, barbed	1
35	115489	CLAMP, drain tube	2
36	195084	TUBE, drain	1
37	197607	TUBE, suction	1
38	116295	CLAMP, tube	1
39	195400	CLIP, spring	2
46	115492	SCREW, mach, slot hex wash HD	1
66	15K744	FOAM, pump drain	1
89	15K530	LABEL	1
91	115648	VALVE, shutoff	1
92	244168	FLUID, pump armor, 8 OZ (not shown)	1
93▲	179960	SIGN, warning (not shown)	1
101	121939	SCREW, plastite, #8 hex wash HD	4

▲ *Replacement Danger and Warning labels, tags, and cards are available at no cost.*

Parts Drawing

Tradeworks 150, Model 826620 (Series A)



Parts List

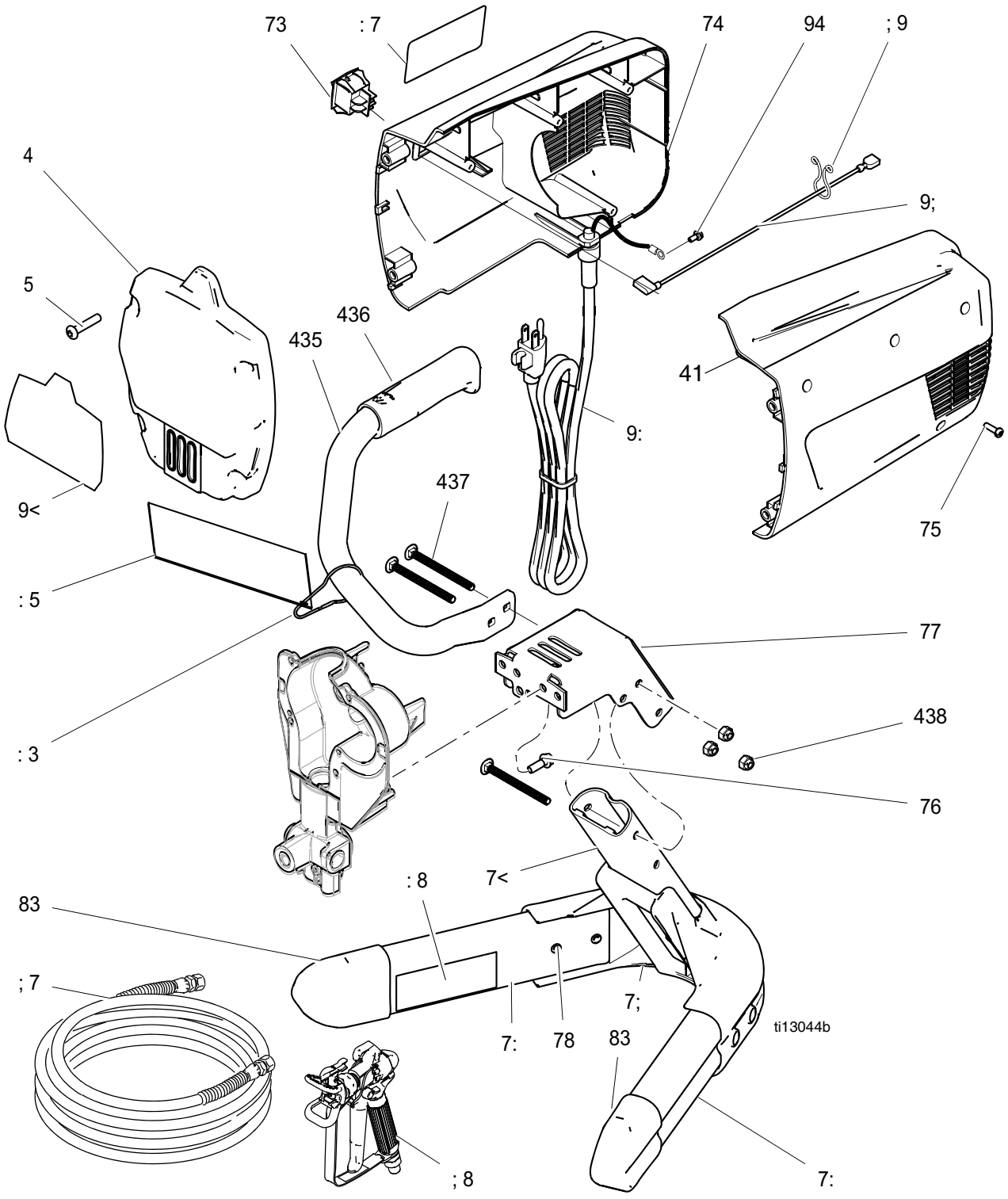
Tradeworks 150, Model 826620 (Series A)

Ref.	Part	Description	Qty.
1	257564	COVER, housing (includes 2, 3, 4)	1
2	120724	SCREW	4
40	118899	SWITCH, rocker	1
41	257563	KIT, enclosure	1
42	115477	SCREW, mach, torx pan hd	4
43	260212	SCREW, hex washer hd, thd form	2
44	15W185	SHELF, motor	1
45		RIVET	5
47	257567	KIT, stand (includes 43, 45, 47, 48, 49, 50)	2
48		BRACKET, leg	1
49		SUPPORT, stand	1
50	15J695	CAP, tube	2
61	115498	SCREW, mach, slot hex wash hd	1
67	289989	CORD SET, lighted with grip	1
68	16E212	WIRE, jumper	1
69	15W607	LABEL, label, front	1
70	121092	CLIP, spring	1
72	15W965	QUICK GUIDE, English	1
74▲	15W559	LABEL, warning	1
75		LABEL, identification	1
84	826121	HOSE, cpld, 1/4 in. x 25 ft	1
85	246506	GUN, spray, SG3	1
86	121423	RETAINER, wire	1
102	256992	HANDLE, painted	1
103	116139	GRIP, handle	1
104	122233	BOLT, carriage	3
105	102040	NUT, lock, hex	3

▲ *Replacement Danger and Warning labels, tags, and cards are available at no cost.*

Parts Drawing

Tradeworks 150, Model 826620 (Series A)



Parts List

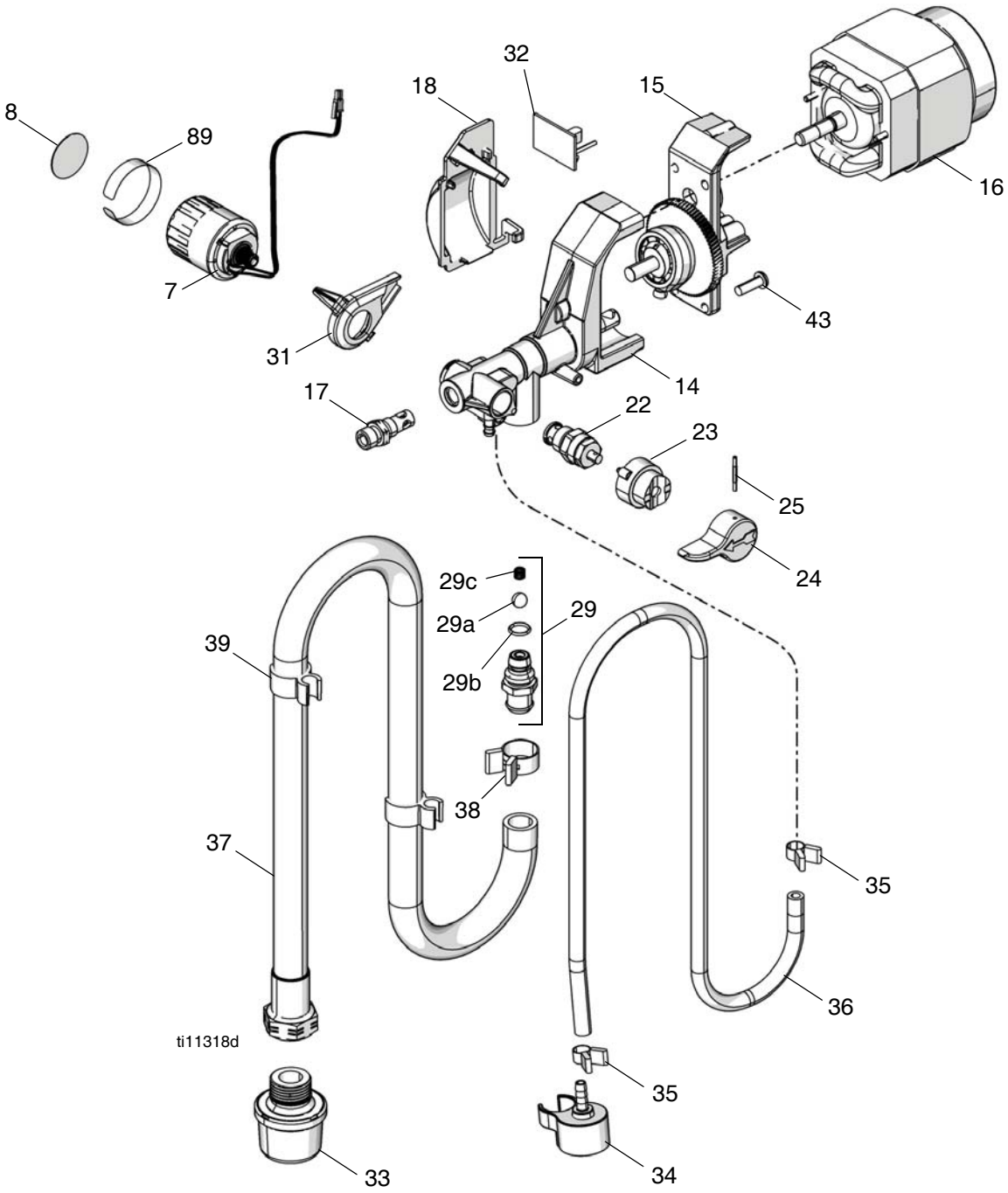
Tradeworks 150, Model 826620 (Series B)

Ref.	Part	Description	Qty.
7	257572	CONTROL, pressure, diaphragm (includes 8, 89)	1
8	15A464	LABEL, control	1
14	16F049	PUMP, includes 17, 29	1
15	16F293	KIT, gear/drive (for Cinderson motor)	1
	16F391	KIT, gear/drive (for Johnson motor)	1
16	16F290	MOTOR, 120V (Cinderson)	1
	16F393	MOTOR, 120V (Johnson)	1
17	16F292	VALVE, outlet	1
18	24E510	COVER, gear	1
22	235014	VALVE, drain	1
23	24E578	BASE, valve	1
24	187625	HANDLE, valve, drain	1
25	111600	PIN, grooved	1
29	16F291	VALVE, inlet (includes 29a, 29b, 29c)	1
29a	124249	BALL, inlet	1
29b	103338	O-RING	1
29c	123849	SPRING, inlet	1
31	15Y296	COVER, solenoid	1
32	16F102	CONTROL, board	1
33	257566	STRAINER	1
34	244035	DEFLECTOR, barbed	1
35	115489	CLAMP, drain tube	2
36	195084	TUBE, drain	1
37	197607	TUBE, suction	1
38	116295	CLAMP, tube	1
39	195400	CLIP, spring	2
43	112689	SCREW	2
89	15K530	LABEL	1
92	244168	FLUID, pump armor, 8 OZ (not shown)	1
93▲	179960	SIGN, warning (not shown)	1

▲ *Replacement Danger and Warning labels, tags, and cards are available at no cost.*

Parts Drawing

Tradeworks 150, Model 826620 (Series B)



Parts List

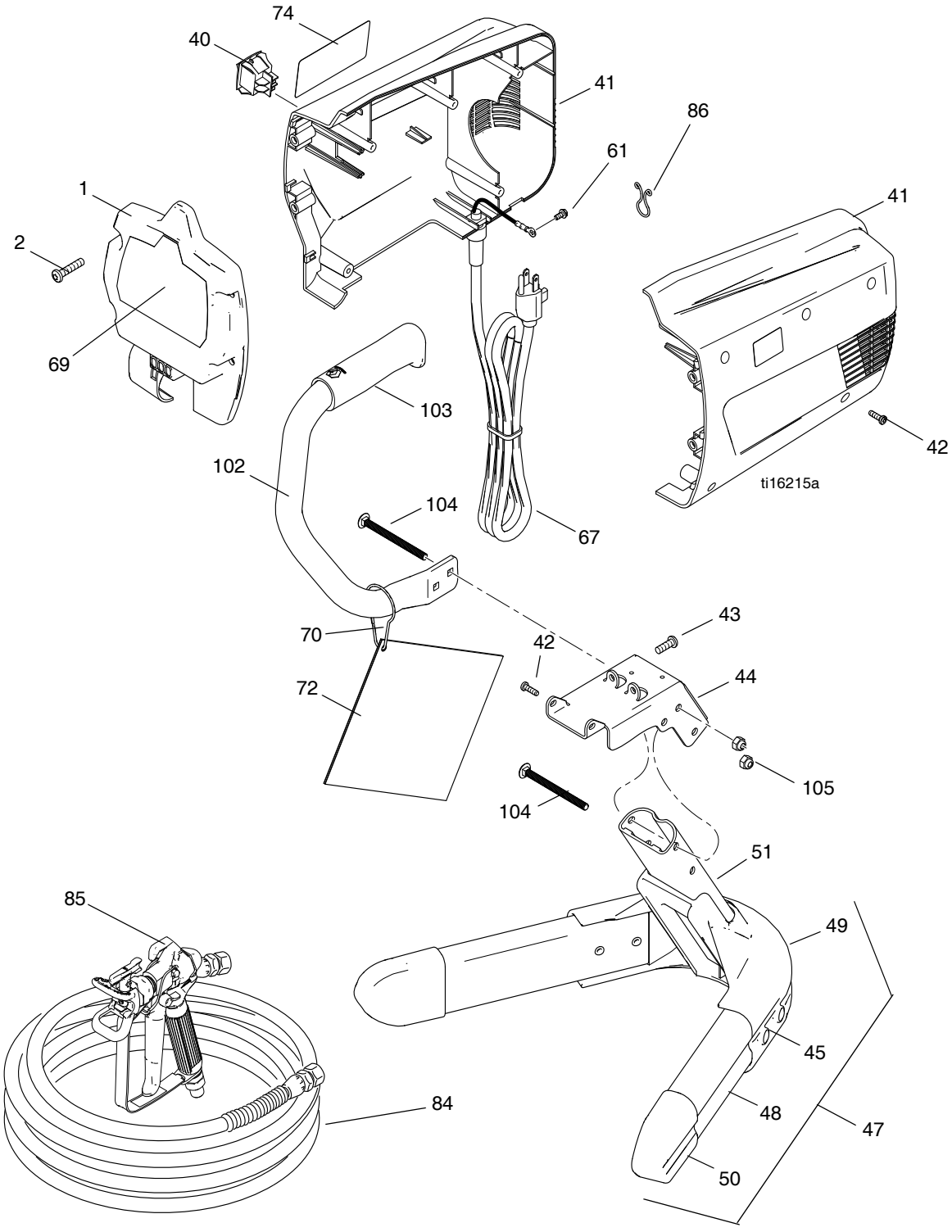
Tradeworks 150, Model 826620 (Series B)

Ref.	Part	Description	Qty.
1	16E833	COVER, housing (includes 2, 69)	1
2	120724	SCREW	4
40	118899	SWITCH, rocker	1
41	16E832	ENCLOSURE (includes 2, 42, 74)	1
42	115477	SCREW, mach, torx pan hd	6
43	112689	SCREW	2
44	16D684	SHELF, motor	1
45		RIVET	5
47	16E839	KIT, stand (includes 45, 48, 49, 50, 51, 104, 105)	1
48		BRACKET, leg	2
49		LEG, stand	1
50	15J695	CAP, tube	2
51		LEG, support	1
61	115498	SCREW, mach, slot hex wash hd	1
67	16E842	CORD SET, lighted with grip	1
69	15W607	LABEL, label, front	1
70	121092	CLIP, spring	1
72	15W965	QUICK GUIDE, English	1
74▲	15W559	LABEL, warning	1
84	826121	HOSE, cpld, 1/4 in. x 25 ft	1
85	246506	GUN, spray, SG3	1
86	121423	RETAINER, wire	1
102	256992	HANDLE, painted	1
103	116139	GRIP, handle	1
104	122233	BOLT, carriage	3
105	102040	NUT, lock, hex	3

▲ *Replacement Danger and Warning labels, tags, and cards are available at no cost.*

Parts Drawing

Tradeworks 150 Model 826620, Series B



Parts List

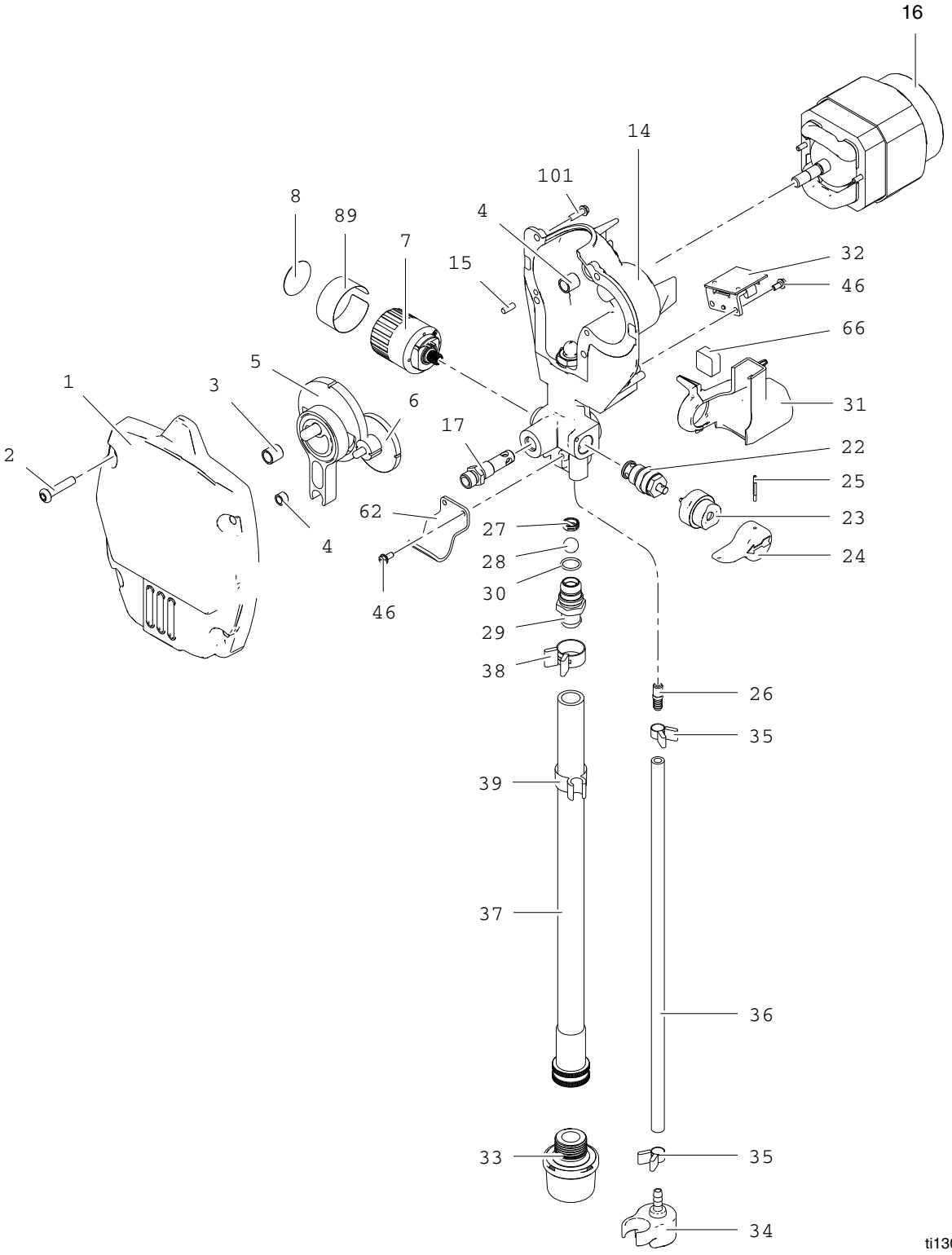
Tradeworks 170, Model 826630 (Series A)

Ref.	Part	Description	Qty.
1	257564	COVER, housing (includes 2, 3, 4)	1
2	120724	SCREW	4
3		BEARING, sleeve	3
4		BEARING, sleeve	2
5	257565	GEAR, eccentric, w/conn. rod (includes 6)	1
6		GEAR, combination	1
7	257572	CONTROL, pressure, diaphragm (includes 8, 89)	1
8	15A464	LABEL, control	1
14	257575	KIT, pump, repair (includes 5, 6, 101)	1
15	114618	PIN, dowel, dia 3/16 X 1/2 LG	2
16	257570	MOTOR, 120V	1
17	257574	VALVE, outlet	1
22	235014	VALVE, drain	1
23	224807	BASE, valve	1
24	187625	HANDLE, valve, drain	1
25	111600	PIN, grooved	1
26	196574	FITTING, drain	1
27	15K105	BALL, stop	1
28	105445	BALL, (.5000)	1
29	257573	HOUSING, inlet (includes 27, 28)	1
30	115719	PACKING,o-ring	1
31	15R549	COVER, solenoid	1
32	257562	CONTROL, board (includes 46)	1
33	257566	STRAINER	1
34	244035	DEFLECTOR, barbed	1
35	115489	CLAMP, drain tube	2
36	195108	TUBE, drain	1
37	15T122	TUBE, suction	1
38	116295	CLAMP, tube	1
39	195400	CLIP, spring	1
46	115492	SCREW, mach, slot hex wash hd	3
62	15R566	HANGER, pail	1
66	15K744	FOAM, pump drain	1
89	15K530	LABEL, control	1
101	121939	SCREW, plastite, #8 hex wash HD	4

▲ *Replacement Danger and Warning labels, tags, and cards are available at no cost.*

Parts Drawing

Tradeworks 170, Model 826630 (Series A)



Parts List

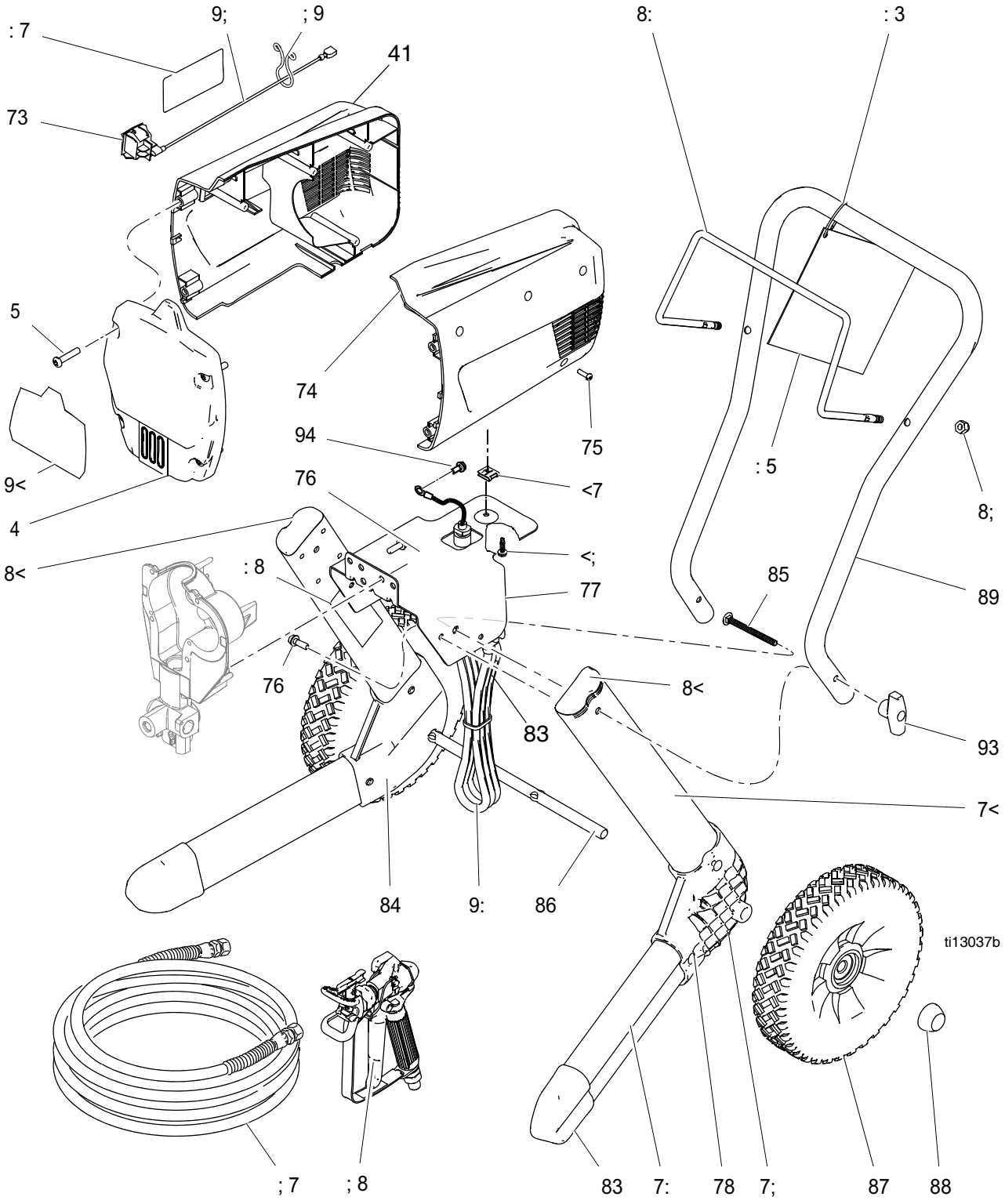
Tradeworks 170, Model 826630 (Series A)

Ref.	Part	Description	Qty.
1	257564	COVER, housing (includes 2, 3, 4)	1
2	120724	SCREW	4
3		BEARING, sleeve	3
4		BEARING, sleeve	2
40	118899	SWITCH, rocker	1
41	257563	KIT, enclosure	1
42	115477	SCREW, mach, torx pan hd	4
43	260212	SCREW, hex washer hd, thd form	6
44	15W222	SHELF, motor	1
45		RIVET	4
47		LEG, cart, right and left	2
48	257569	BRACKET, leg, cart, right (includes 43, 45, 47, 49, 50, 59)	1
49		SUPPORT, cart	2
50	15J695	CAP, tube	2
51	257568	BRACKET, leg, cart, left (includes 43, 45, 47, 49, 50, 59)	1
52	120788	SCREW, carriage	2
53	15R602	AXLE, cart	1
54	115095	WHEEL, 9 in.	2
55	112612	CAP, hub	2
56	256993	HANDLE, painted	1
57	257326	RACK, hose, painted	1
58	120689	NUT, hex, acorn, 5/16-18, nickel	2
59	15J699	CAP, tube	2
60	115480	KNOB, t-handle	2
61	115498	SCREW, mach, slot hex wash hd	1
67	289989	CORD SET, ST, lighted with grip	1
68	16E212	WIRE, jumper	1
69	15W608	LABEL, label, front, sw entry, 170	1
70	121092	CLIP, spring	1
72	15W965	GUIDE, quick guide, english	1
73	15W966	GUIDE, quick guide, spanish	1
74	15W559	LABEL, warning, sw	1
75		LABEL, serial	1
83▲	15T069	LABEL, warning	1
84	826079	HOSE, CPLD, 1/4in. X 50ft	1
85	246506	GUN, spray, SG3	1
86	121423	RETAINER, WIRE	1
91	115648	VALVE, shutoff	1
92	244168	FLUID, pump armor, 8 OZ (not shown)	1
93▲	179960	SIGN, warning	1
94	121481	NUT, u-type, tinnerman	1
98	120093	SCREW, self drilling	1

▲ *Replacement Danger and Warning labels, tags, and cards are available at no cost.*

Parts Drawing

Tradeworks 170, Model 826630 (Series A)



Parts List

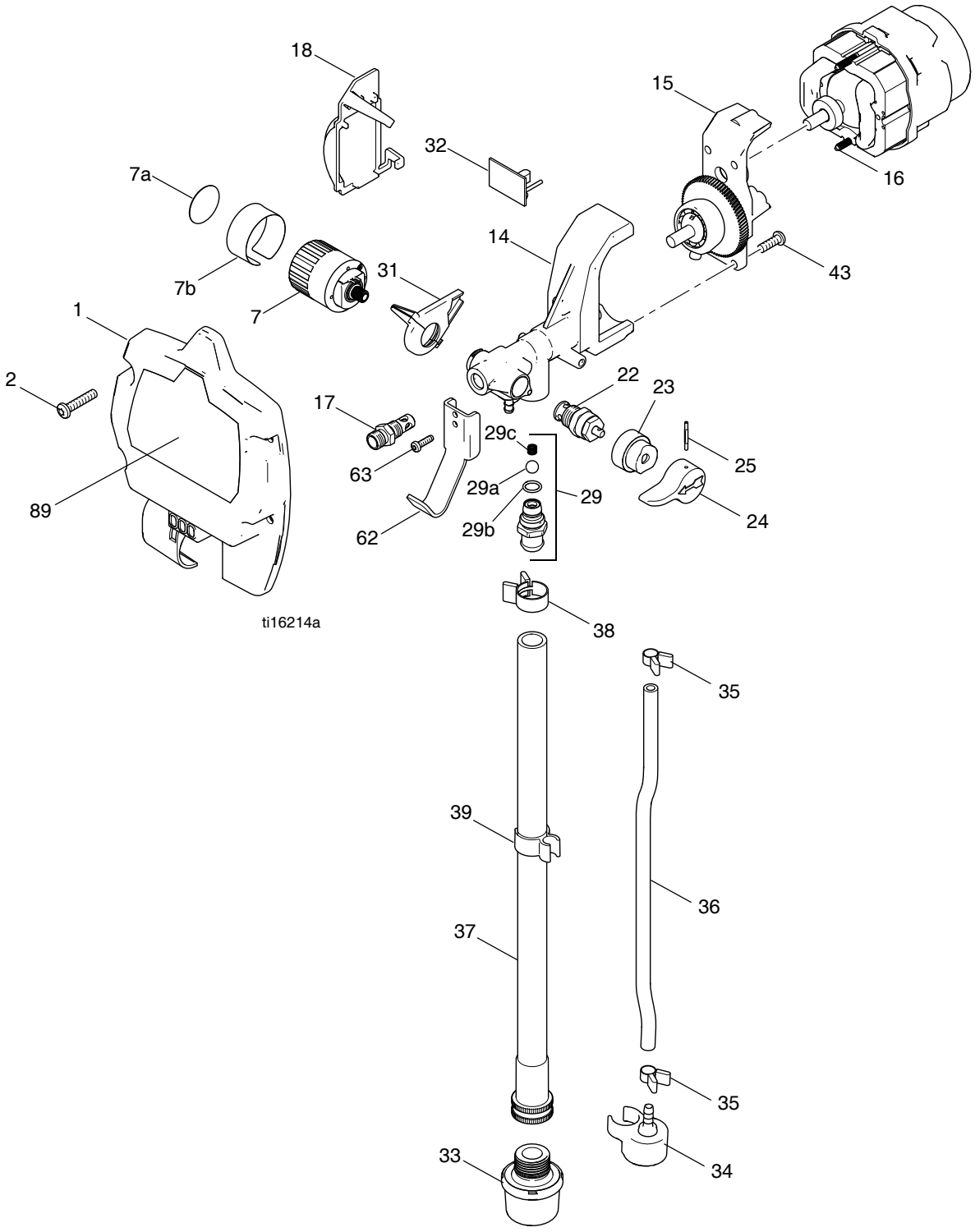
Tradeworks 170, Model 826630 (Series B)

Ref.	Part	Description	Qty.
1	16E833	COVER, housing (includes 2, 89)	1
2	120724	SCREW	4
7	257572	CONTROL, pressure, diaphragm (includes 7a, 7b)	1
7a	15A464	LABEL, control	1
7b	15K530	LABEL, control	1
14	16F049	PUMP, includes 17, 29	1
15	16F293	KIT, gear/drive (for Cinderson motor)	1
	16F391	KIT, gear/drive (for Johnson motor)	1
16	16F290	KIT, motor, 120V (Cinderson)	1
	16F393	KIT, motor, 120V (Johnson)	1
17	16F292	VALVE, outlet	1
18	24E510	COVER, gear	1
22	235014	VALVE, drain	1
23	24E578	BASE, valve	1
24	187625	HANDLE, valve, drain	1
25	111600	PIN, grooved	1
29	16F291	VALVE, inlet, includes 29a, 29b, 29c	1
29a	124249	BALL, inlet	
29b	103338	O-RING	
29c	123849	SPRING, inlet	
31	15Y296	INDICATOR, setting	1
32	16F102	CONTROL, board (includes 46)	1
33	257566	STRAINER	1
34	244035	DEFLECTOR, barbed	1
35	115489	CLAMP, drain tube	2
36	195108	TUBE, drain	1
37	16D951	TUBE, suction	1
38	116295	CLAMP, tube	1
39	195400	CLIP, spring	1
43	112689	SCREW	4
62	16D907	HANGER, pail	1
63	115477	SCREW	2
89	15W608	LABEL, front	1

▲ *Replacement Danger and Warning labels, tags, and cards are available at no cost.*

Parts Drawing

Tradeworks 170, Model 826630 (Series B)



Parts List

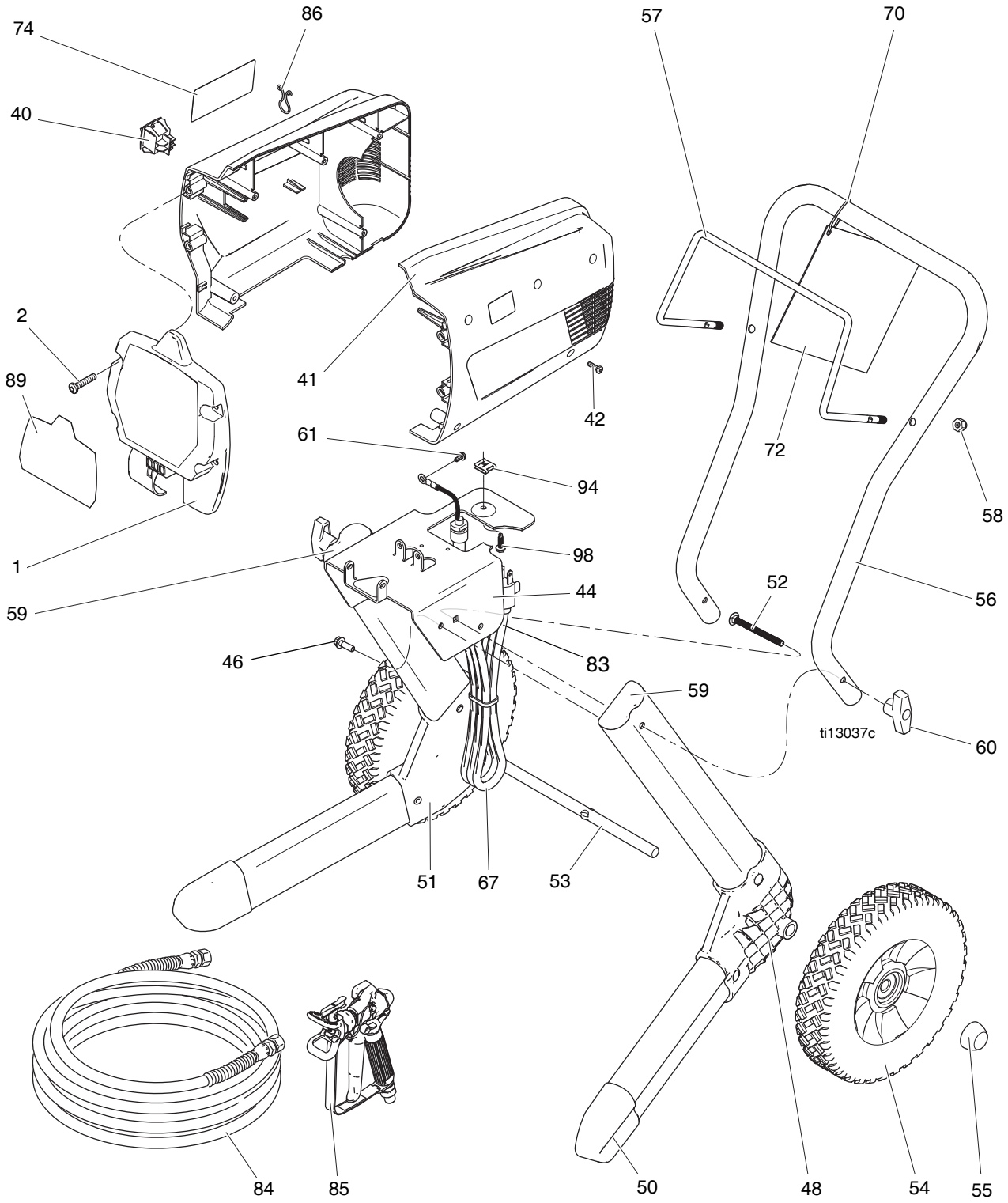
Tradeworks 170, Model 826630 (Series B)

Ref.	Part	Description	Qty.
1	16E833	COVER, housing (includes 2, 89)	1
2	120724	SCREW	4
40	118899	SWITCH, rocker	1
41	16E832	KIT, enclosure (includes 2, 42, 74)	1
42	115477	SCREW, mach, torx pan hd	6
44	16D685	SHELF, motor	1
46	260212	SCREW	4
48	257569	KIT, bracket, leg, left (includes 46, 50, 59)	1
50	15J695	CAP, tube	2
51	257568	KIT, bracket, leg, right (includes 46, 50, 59)	1
52	120788	SCREW, carriage	2
53	15R602	AXLE, cart	1
54	115095	WHEEL, 9 in.	2
55	112612	CAP, hub	2
56	256993	HANDLE, painted	1
57	257326	RACK, hose, painted	1
58	120689	NUT, hex, acorn, 5/16-18, nickel	2
59	15J699	CAP, tube	2
60	115480	KNOB, t-handle	2
61	115498	SCREW, mach, slot hex wash hd	1
67	16E843	CORD SET, ST, lighted with grip (includes 83)	1
70	121092	CLIP, spring	1
72	15W965	GUIDE, quick guide, english	1
74▲	15W559	LABEL, warning, sw	1
83▲	15T069	LABEL, warning	1
84	826079	HOSE, CPLD, 1/4in. X 50ft	1
85	246506	GUN, spray, SG3	1
86	121423	RETAINER, WIRE	1
89	15W608	LABEL, label, front, sw entry, 170	1
92	244168	FLUID, pump armor, 8 OZ (not shown)	1
94	121481	NUT, u-type, tinnerman	1
98	120093	SCREW, self drilling	1

▲*Replacement Danger and Warning labels, tags, and cards are available at no cost.*

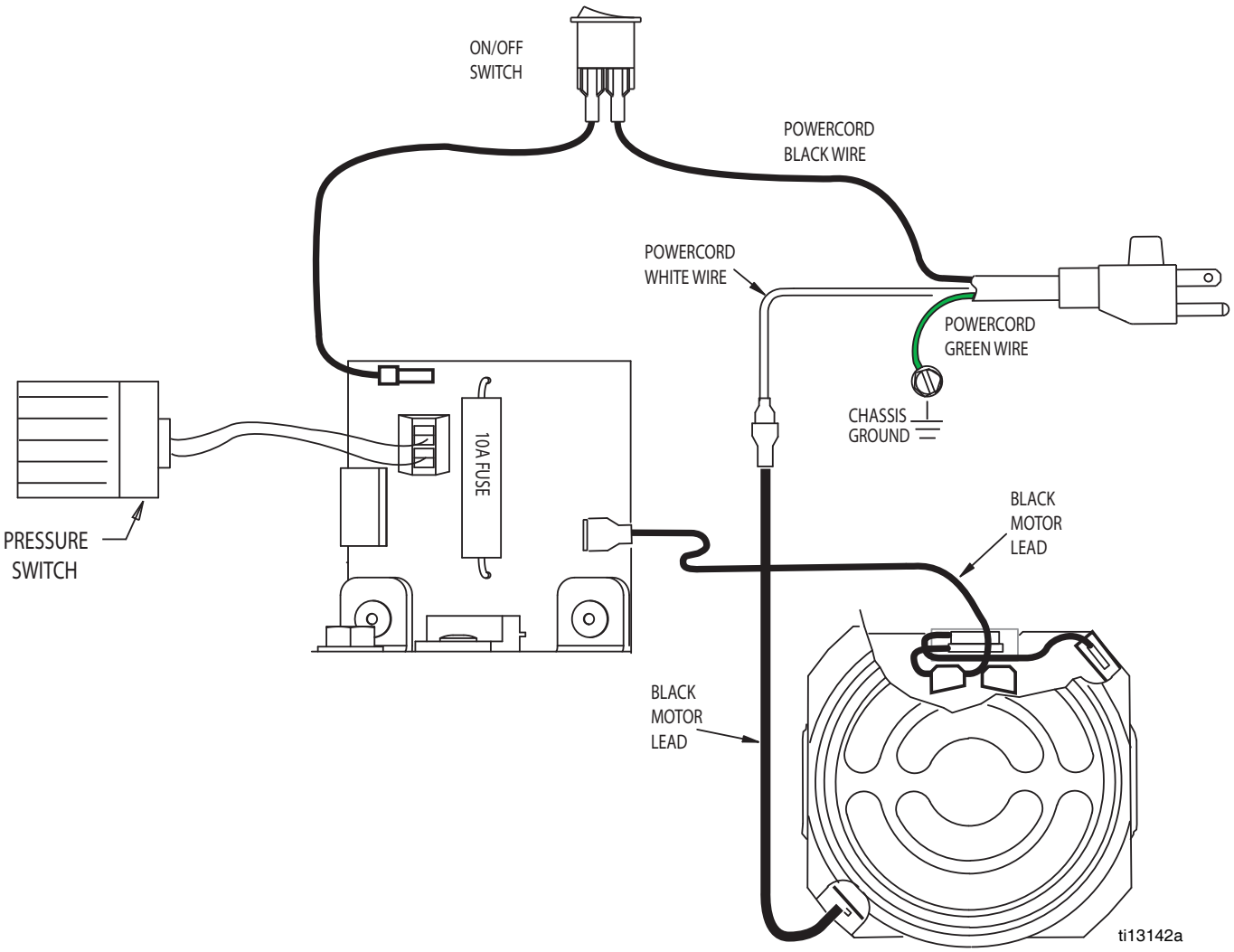
Parts Drawing

Tradeworks 170, Model 826630 (Series B)

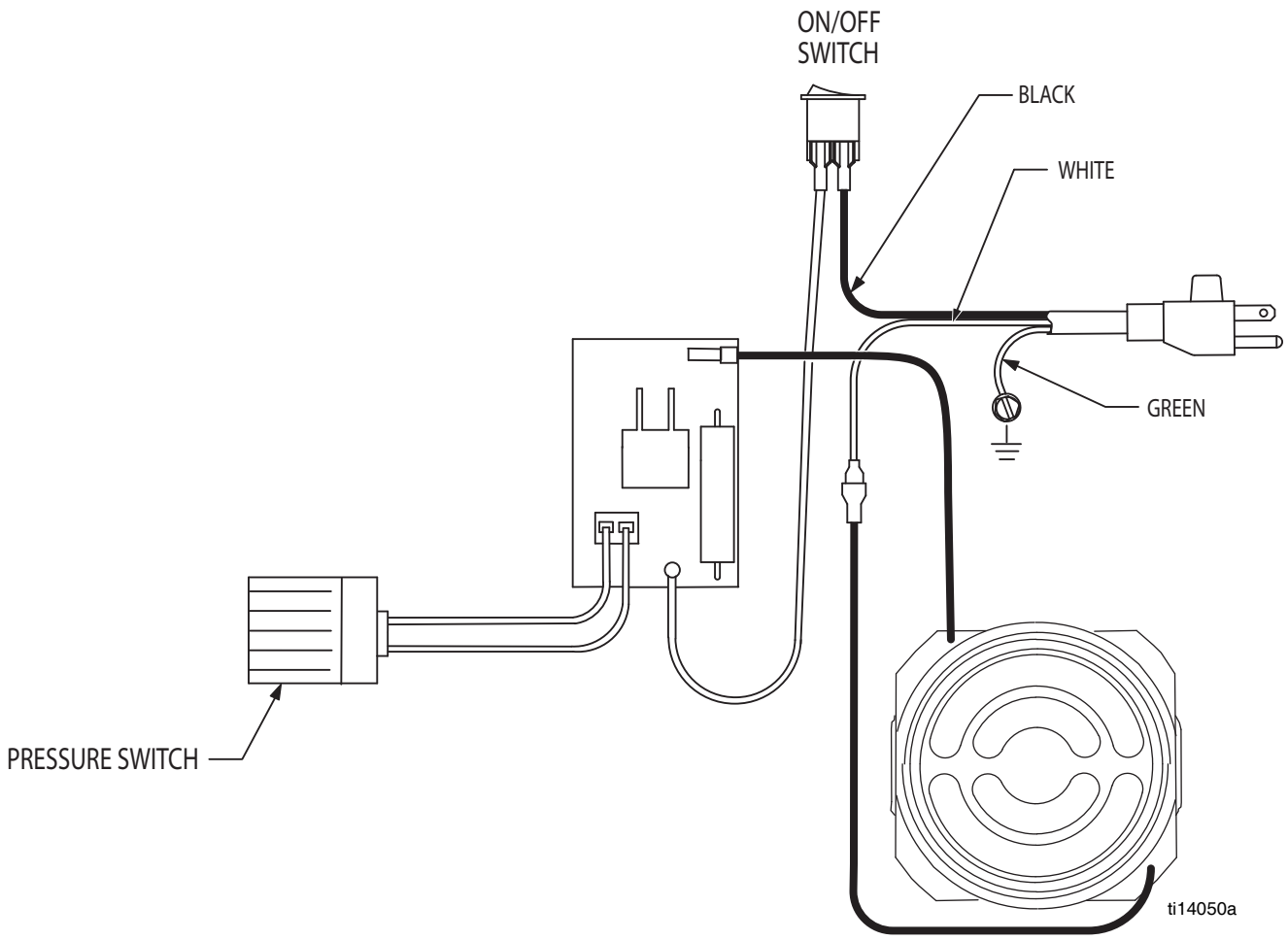


Wiring Diagram

Tradeworks 150 and 170, Models 826620 and 826630 (Series A)



Tradeworks Project Painter Model 826610
Tradeworks 150 Model 826620, Series B
Tradeworks 170 Model 826630, Series B



Technical Data

	Project Painter	Tradeworks 150 (Series A)	Tradeworks 170 (Series A)
Working pressure range	0-2800 psi (0-19 MPa, 0-193 bar)	0-3000 psi (0-21 MPa, 0-207 bar)	0-3000 psi (0-21 MPa, 0-207 bar)
Electric motor	7.0A (open frame, universal)	7.0A (open frame, universal)	7.0A (open frame, universal)
Operating horsepower	3/8	1/2	5/8
Maximum delivery (with tip)	0.24 gpm (0.91 lpm)	0.27 gpm (1.02 lpm)	0.31 gpm (1.17 lpm)
Paint hose	1/4 in. x 25 ft (6.4 mm x 7.5 m)	1/4 in. x 25 ft (6.4 mm x 7.5 m)	1/4 in. x 50 ft (6.4 mm x 15 m)
Maximum tip hole size	0.015 in. (0.38 mm)	0.015 in. (0.38 mm)	0.017 in. (0.43 mm)
Weight, sprayer only	10 lb (4.5 kg)	16 lb (7.3 kg)	26 lb (11.8 kg)
Weight, sprayer, hose & gun	13.2 lb (5.9 kg)	19.2 lb (8.7 kg)	29.2 lb (13.2 kg)
Dimensions (Upright):			
Length	13.6 in. (34.5 cm)	14.5 in. (36.8 cm)	19.3 in. (49.0 cm)
Width	11.1 in. (28.1 cm)	12.4 in. (31.5 cm)	15.3 in. (38.9 cm)
Height	17.8 in. (45.2 cm)	17.9 in. (45.5 cm)	37.0 in. (94.0 cm)
Dimensions (Folded):			
Length	N/A	N/A	19.3 in. (49.0 cm)
Width	N/A	N/A	15.3 in. (38.9 cm)
Height	N/A	N/A	29.2 in. (74.2 cm)
Power cord	18 AWG, 3-wire, 6 ft (1.8 m)		
Fluid inlet fitting	3/4 in. internal thread (standard garden hose thread)		
Fluid outlet fitting	1/4 NPSM external thread		
Inlet screen (on suction tube)	35 mesh (450 micron)		
Wetted parts, pump & hose	stainless steel, brass, leather, ultra-high molecular weight polyethylene (UHMWPE), carbide, nylon, aluminum, PVC, polypropylene, fluroelastomer		
Wetted parts, gun	aluminum, brass, carbide, nylon, plated steel, stainless steel, UHMWPE, zinc		
Generator requirement	1500 Watt minimum		
Electrical power requirement	120 Vac, 60 Hz, 15A, 1 phase		
Storage temperature range ◆❖	-30° to 160°F (-35° to 71°C)		
Operating temperature range ✔	40° to 115°F (4° to 46°C)		

◆ When pump is stored with non-freezing fluid. Pump damage will occur if water or latex paint freezes in pump.
❖ Damage to plastic parts may result if impact occurs in low temperature conditions.
✔ Changes in paint viscosity at very low or very high temperatures can affect sprayer performance.

Technical Data

	Tradeworks 150 (Series B)	Tradeworks 170 (Series B)
Working pressure range	0-3000 psi (0-21 MPa, 0-207 bar)	0-3000 psi (0-21 MPa, 0-207 bar)
Electric motor	9.0A (open frame, universal)	9.0A (open frame, universal)
Operating horsepower	1/2	5/8
Maximum delivery (with tip)	0.27 gpm (1.02 lpm)	0.31 gpm (1.17 lpm)
Paint hose	1/4 in. x 25 ft (6.4 mm x 7.5 m)	1/4 in. x 50 ft (6.4 mm x 15 m)
Maximum tip hole size	0.015 in. (0.38 mm)	0.017 in. (0.43 mm)
Weight, sprayer only	13.3 lb (6.0 kg)	23.3 lb (10.6 kg)
Weight, sprayer, hose & gun	16.5 lb (7.5 kg)	26.5 lb (12.0 kg)
Dimensions (Upright):		
Length	13.7 in. (34.8 cm)	19.3 in. (49.0 cm)
Width	16.2 in. (41.1 cm)	15.3 in. (38.9 cm)
Height	18.2 in. (46.3 cm)	37.0 in. (94.0 cm)
Dimensions (Folded):		
Length	N/A	19.3 in. (49.0 cm)
Width	N/A	15.3 in. (38.9 cm)
Height	N/A	29.2 in. (74.2 cm)
Power cord	18 AWG, 3-wire, 6 ft (1.8 m)	
Fluid inlet fitting	3/4 in. internal thread (standard garden hose thread)	
Fluid outlet fitting	1/4 NPSM external thread	
Inlet screen (on suction tube)	35 mesh (450 micron)	
Wetted parts, pump & hose	stainless steel, brass, leather, ultra-high molecular weight polyethylene (UHMWPE), carbide, nylon, aluminum, PVC, polypropylene, fluroelastomer	
Wetted parts, gun	aluminum, brass, carbide, nylon, plated steel, stainless steel, UHMWPE, zinc	
Generator requirement	1500 Watt minimum	
Electrical power requirement	120 Vac, 60 Hz, 15A, 1 phase	
Storage temperature range ◆❖	-30° to 160°F (-35° to 71°C)	
Operating temperature range ✔	40° to 115°F (4° to 46°C)	

◆ When pump is stored with non-freezing fluid. Pump damage will occur if water or latex paint freezes in pump.
❖ Damage to plastic parts may result if impact occurs in low temperature conditions.
✔ Changes in paint viscosity at very low or very high temperatures can affect sprayer performance.

Graco Standard Warranty

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

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

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

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

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

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

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

FOR GRACO CANADA CUSTOMERS
The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Information

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

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

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

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

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

Original instructions. This manual contains English. MM 313382
Graco Headquarters: Minneapolis
International Offices: Belgium, China, Japan, Korea

GRACO INC. AND SUBSIDIARIES • P.O. BOX 1441 • MINNEAPOLIS MN 55440-1441 • USA

www.graco.com
Revised M August 2014