Instructions–Repair/Parts 309879L

2300 and M2300 Airless Sprayer

- For portable spray application of architectural paints and coatings -

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

Model 249159 and 249168: 120 Vac
Model 246803 and 249169: 240 Vac

3000 psi (207 bar, 20.7 MPa) Maximum Working Pressure

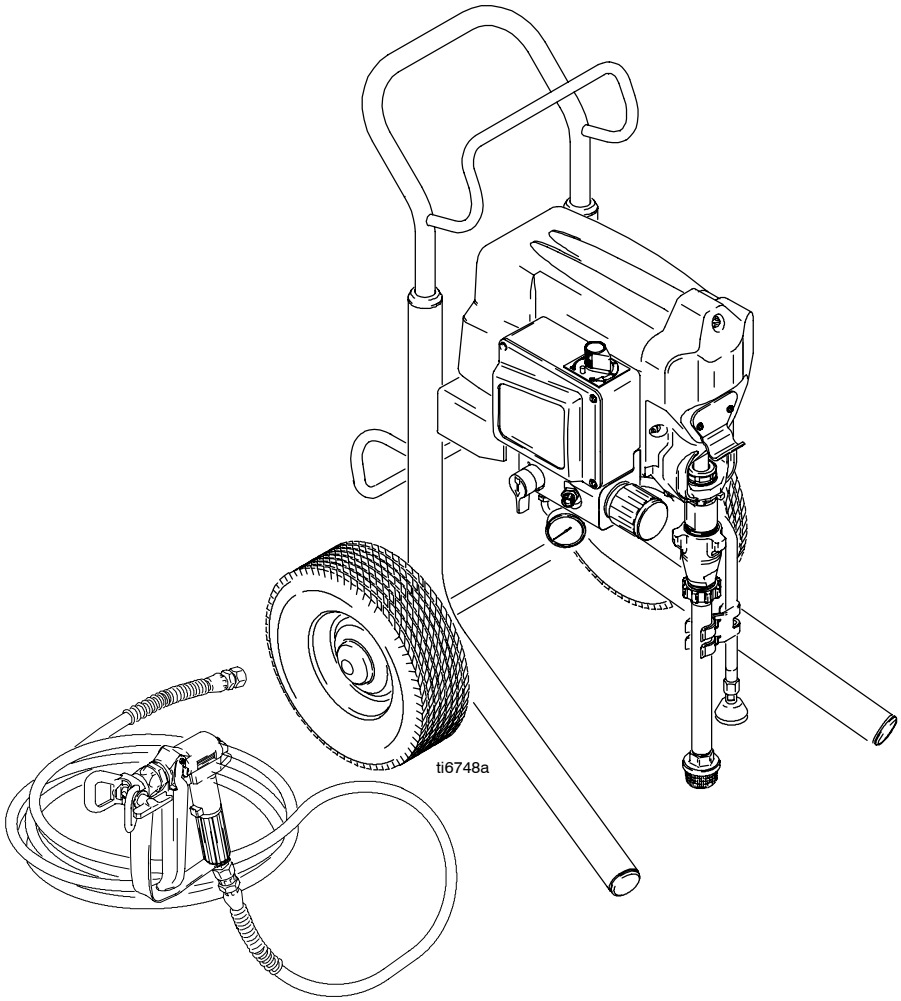
Related manuals

. . . . . **309878**

. . . . . **309971**

. . . . . **309053**
Model 246803
(Series A, B)

. . . . . **311062**
Models 249159,
249168, 249169,
246803 (Series C)



Model 249168,
249169, 246803

Model 249159

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.

Warnings

The following are general warnings related to the setup, use, grounding, maintenance and repair of this equipment. Additional, more specific warnings may be found throughout the body of this manual where applicable. Symbols appearing in the body of the manual refer to these general warnings. When these symbols appear through the manual, refer back to these pages for a description of the specific hazard.

⚠ 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.
- Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop clothes (potential static arc).
- Sprayer generates sparks. When flammable liquid is used in or near sprayer or for flushing or cleaning, keep sprayer at least 20 ft (6 m) away from explosive vapors.
- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords or turn lights on or off when flammable fumes are present.
- Ground equipment and conductive objects in work area. Read Grounding instructions.
- If there is static sparking or you feel a shock, stop operating immediately. Do not use equipment until you identify and correct the problem.
- Keep a fire extinguisher in the work area.

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.

⚠ WARNING

SKIN INJECTION HAZARD

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

- Do not point gun at anyone or any part of the body.
- Do not put your hand over the spray tip.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Engage trigger lock when not spraying.
- Follow Pressure Relief Procedure in this manual, when you stop spraying and before cleaning, checking or servicing equipment.

INSTRUCTIONS

EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. Read **Technical Data** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. Read **Technical Data** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS from distributor or retailer.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine ASM replacement parts only.
- Do not alter or modify equipment.
- Use equipment only for its intended purpose. Call your ASM distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts and hot surfaces.
- Do not kink or overbend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Do not operate the unit when fatigured or under the influence of drugs or alcohol.
- Comply with all applicable safety regulations.

PRESSURIZED ALUMINUM PARTS HAZARD

Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in this equipment. Such use could result in a serious chemical reaction, with the possibility of explosion, which could cause death, serious injury and/or substantial property damage.

TOXIC FLUID HAZARD

Toxic fluid 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 all 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.

Component Identification and Function

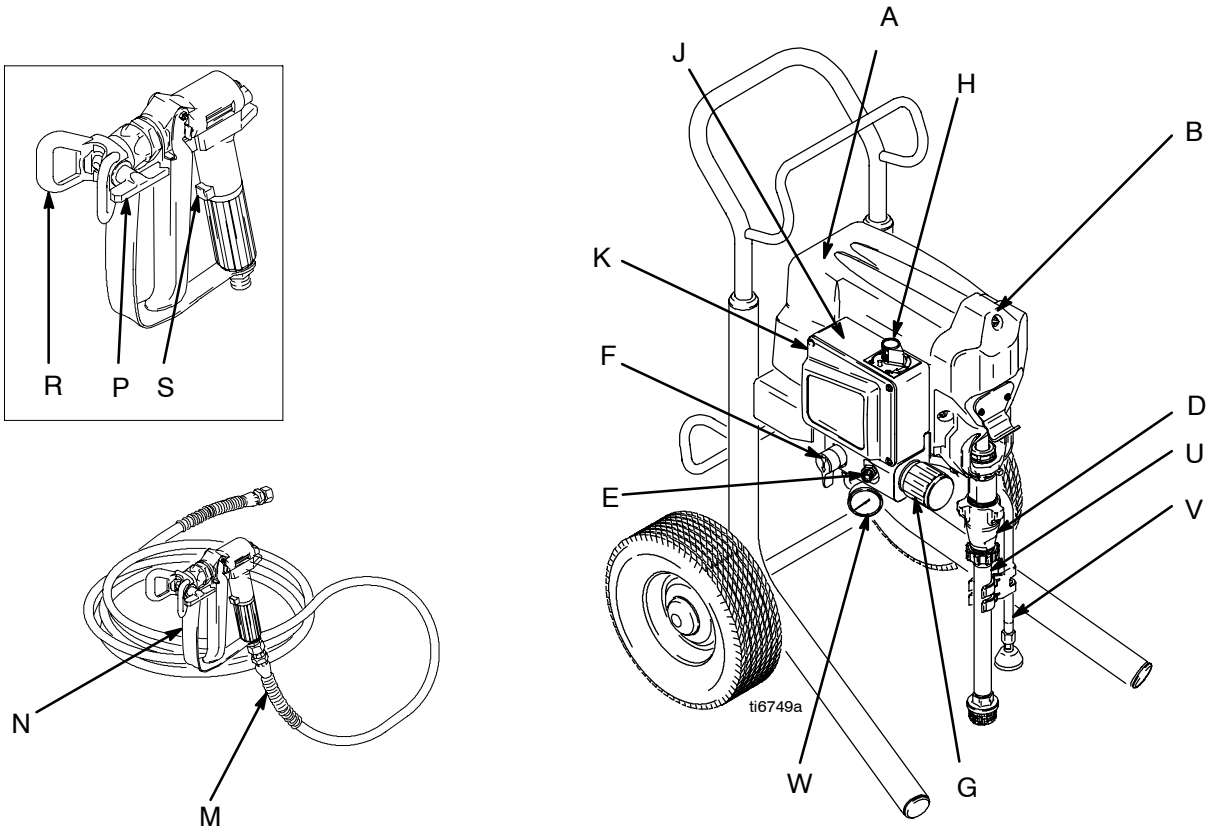


Fig. 1

A	Motor	DC motor, permanent magnet, totally enclosed, fan cooled
B	Drive Assembly	Transfers power from DC motor to displacement pump
D	Displacement Pump	Transfers fluid to be sprayed from source through spray gun
E	Fluid Outlet	Spray gun is connected here
F	Prime Valve	Used to prime and drain sprayer (also relieves fluid outlet pressure) when open
G	Fluid Filter	Final filter of fluid to spray gun
H	Pressure Adjusting Knob	Controls fluid outlet pressure
J	Pressure Control	Controls motor speed to maintain fluid outlet pressure at displacement pump outlet. Works with pressure adjusting knob.
K	ON/OFF Switch	Power switch that controls main power to sprayer
M	50 ft (15 m) Main Hose	1/4 in. ID, grounded, nylon hose with spring guards on both ends
N	Spray Gun	High pressure spray gun with gun safety latch
P	Tip	Uses high pressure fluid to clear tip clogs without removing tip from spray gun
R	Tip Guard	Tip guard reduces risk of injection injury
S	Thumb Lock Safety	Gun safety latch inhibits accidental triggering of spray gun
T	Power Cord Rack	Holds wrapped power cord for storage
U	Suction Hose	Transfers fluid to be sprayed from source to pump
V	Drain Tube	Fluid outlet used to drain and prime the sprayer
W	Pressure Gauge	Displays current fluid pressure level

General Repair Information

Pressure Relief Procedure

System pressure must be manually relieved to prevent system from starting or spraying accidentally. Fluid under high pressure can be injected through skin and cause serious injury. To reduce risk of injury from injection, splashing fluid, or moving parts, follow **Pressure Relief Procedure** whenever you:

- are instructed to relieve pressure,
- stop spraying,
- check or service any system equipment,
- or install or clean spray tip.

1. Lock gun safety latch.
2. Turn ON/OFF switch to OFF.
3. Unplug power supply cord.
4. Unlock gun safety latch. Hold metal part of gun firmly to grounded metal pail. Trigger gun to relieve pressure.
5. Lock gun safety latch.
6. Open pressure drain valve. Leave pressure drain valve open until ready to spray again.

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

CAUTION

To reduce risk of pressure control malfunction:

- Use needle nose pliers to disconnect wire. Never pull on wire, pull on connector.
- Mate wire connectors properly. Center flat blade of insulated male connector in female connector.
- Route wires carefully to avoid interference with other connections of pressure control. Do not pinch wires between cover and control box.

1. **Keep all screws, nuts, washers, gaskets, and electrical fittings** removed during repair procedures. These parts are not normally provided with replacement assemblies.

To reduce risk of serious injury, including electric shock, do not touch moving or electrical parts with fingers or tools while testing repair. Shut off and unplug sprayer when inspection is complete. Install all covers, gaskets, screws and washers before operating sprayer.

2. **Test repair** after problem is corrected.

3. **If sprayer does not operate properly**, review repair procedure to verify procedure was done correctly. If necessary, see Troubleshooting Guide, pages 7 – 11, for other possible solutions.

Motor and drive housing may be very hot during operation and could burn skin if touched.

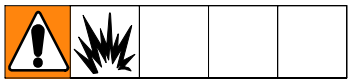
Flammable materials spilled on hot, bare motor could cause fire or explosion. Have motor shroud in place during operation to reduce risk of burns, fire or explosion.

CAUTION

Do not run sprayer dry for more than 30 seconds to avoid damaging pump packings.

4. **Install motor shroud before operation** of sprayer and replace if damaged. Motor shroud directs cooling air around motor to prevent overheating. It can also reduce risk of burns, fire or explosion; see preceding **WARNING**.

Grounding



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

1. 120 Vac models require a 50 Hz, 15A circuit with a grounding receptacle. 220–240 Vac models require a 50 Hz, 10A circuit with a grounding receptacle. See Fig. 2.

2. Do not alter ground prong or use adapter.

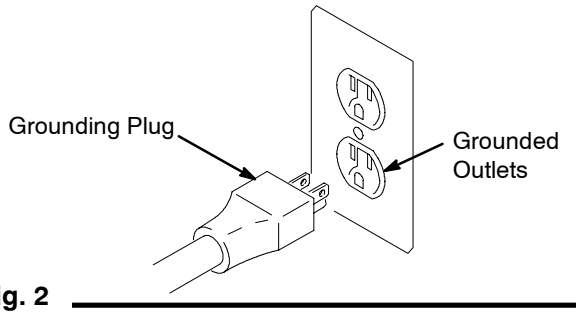


Fig. 2

3. A 3–wire, 1.0 mm (12 AWG) (minimum) extension cord up to 90 m long can be used with this sprayer. Long lengths reduce sprayer performance.

Troubleshooting

Relieve pressure; page 6.

MOTOR WON'T OPERATE

TYPE OF PROBLEM	WHAT TO CHECK *If check is OK, go to next check*	WHAT TO DO *When check is not OK refer to this column*
Basic Fluid Pressure Problems	1. Pressure control knob setting. Motor will not run if at minimum setting (fully counterclockwise).	1. Slowly increase pressure setting to see if motor starts.
	2. Spray tip or fluid filter may be clogged.	2. Relieve pressure and clear clog or clean filter; refer to separate gun or tip instruction manual.
Basic Mechanical Problems	1. Pump (13) for frozen or hardened paint.	1. Thaw sprayer if water or water-based paint has frozen in sprayer. Place sprayer in warm area to thaw. Do not start sprayer until thawed completely. If paint hardened (dried) in sprayer, replace pump packings. See page 25 (**Displacement Pump Replacement**).
	2. Displacement pump connecting rod pin (9a). Pin must be completely pushed into connecting rod (9) and retaining spring (9b) must be firmly in groove of pump pin. See Fig. 16.	2. Push pin into place and secure with spring retainer.
	3. Motor (1). Remove drive housing assembly (10). See page 23. Try to rotate fan by hand.	3. Replace motor (1) if fan won't turn. See page 24.
Basic Electrical Problems	1. Motor control board. Board shuts down and displays error code.	1. See **Motor Control Board Diagnostics**, page 21.
	2. Electrical supply. Meter must read: For 100–120 Vac models – 85–130 Vac For 220–240 Vac models – 210–255 Vac.	2. Reset building circuit breaker; replace building fuse. Try another outlet.
	3. Extension cord. Check extension cord continuity with volt meter.	3. Replace extension cord.
	4. Sprayer power supply cord (79). Inspect for damage such as broken insulation or wires.	4. Replace power supply cord.

Troubleshooting

MOTOR WON'T OPERATE (Continued)

TYPE OF PROBLEM	WHAT TO CHECK *If check is OK, go to next check*	WHAT TO DO *When check is not OK refer to this column*
Basic Electrical Problems (continued)	1. That motor leads are securely fastened and properly mated.	1. Replace loose terminals; crimp to leads. Be sure terminals are firmly connected. Clean circuit board terminals. Securely reconnect leads.
	2. For loose motor brush lead connections and terminals. See page 12.	2. Tighten terminal screws. Replace brushes if leads are damaged. See page 12.
	3. Brush length which must be 1/2 in. minimum. See page 12. **NOTE:** Brushes do not wear at the same rate on both sides of motor. Check both brushes.	3. Replace brushes. See page 12.
	4. For broken or misaligned motor brush springs. Rolled portion of spring must rest squarely on top of brush. See page 12.	4. Replace spring if broken. Realign spring with brush. See page 12.
	5. Motor brushes may be binding in brush holders. See page 12.	5. Clean brush holders. Remove carbon with small cleaning brush. Align brush leads with slot in brush holder to assure free vertical brush movement.
	6. Motor armature commutator for burn spots, gouges and extreme roughness. See page 12.	6. Remove motor and have motor shop resurface commutator if possible. See page 24.
	7. Motor armature for shorts using armature tester (growler) or perform spin test. See page 12.	7. Replace motor. See page 24.
Refer to the wiring diagrams in this manual to identify test points (TP).	1. Power supply cord (79). Connect volt meter between TP1 (neutral) and TP2 (L2, 120 Vac). Plug in sprayer. Meter must read: For 100-120 Vac models - 85-130 Vac For 220-240 Vac models - 210-255 Vac. Unplug sprayer.	1. Replace power supply cord.
	2. ON/OFF switch (23). Connect volt meter between L1 and L2 terminal on ON/OFF switch. Plug in sprayer and turn ON. Meter must read: For 100-120 Vac models - 85-130 Vac For 220-240 Vac models - 210-255 Vac.	2. Replace ON/OFF switch. See page 18.
	3. Motor thermal cutoff switch. Turn sprayer OFF. Check for continuity between TO1 and TO2 with ohmmeter.	3. If thermal switch is open (no continuity), allow motor to cool. If switch remains open after motor cools, replace motor. If thermal switch closes after motor cools, correct cause of overheating.
	4. All terminals for damage or loose fit.	4. Replace damaged terminals and reconnect securely.

Troubleshooting

LOW OR FLUCTUATING OUTPUT

TYPE OF PROBLEM	WHAT TO CHECK *If check is OK, go to next check*	WHAT TO DO *When check is not OK refer to this column*
Low Output	1. For worn spray tip.	1. Follow **Pressure Relief Procedure Warning,** then replace tip. See your separate gun or tip manual.
	2. Verify pump does not continue to stroke when gun trigger is released.	2. Service pump. See page 25.
	3. Filter clogged.	3. Relieve pressure. Check and clean filter.
	4. Prime valve leaking.	4. Relieve pressure. Repair prime valve.
	5. Suction hose connections.	5. Tighten any loose connections.
	6. Electrical supply with volt meter. Meter must read: For 100–120 Vac models – 85–130 Vac For 220–240 Vac models – 210–255 Vac. Low voltages reduce sprayer performance.	6. Reset building circuit breaker; replace building fuse. Repair electrical outlet or try another outlet.
	7. Extension cord size and length; must be at least 12 gauge wire and no longer than 300 ft. Longer cord lengths reduce sprayer performance.	7. Replace with a correct, grounded extension cord.
	8. Leads from motor to pressure control circuit board (35) for damaged or loose wires or connectors. Inspect wiring insulation and terminals for signs of overheating.	8. Be sure male terminal blades are centered and firmly connected to female terminals. Replace any loose terminal or damaged wiring. Securely reconnect terminals.
	9. For loose motor brush leads and terminals. See page 12.	9. Tighten terminal screws. Replace brushes if leads are damaged. See page 12.
	10. For worn motor brushes which must be 1/2 in. minimum. See page 12.	10. Replace brushes. See page 12.
	11. For broken and misaligned motor brush springs. Rolled portion of spring must rest squarely on top of brush.	11. Replace spring if broken. Realign spring with brush. See page 12.
	12. Motor brushes for binding in brush holders. See page 12.	12. Clean brush holders, remove carbon dust with small cleaning brush. Align brush lead with slot in brush holder to assure free vertical brush movement.
	13. Low stall pressure.	13. Do either or both: a. Turn pressure control knob fully clockwise. Make sure pressure control knob is properly installed to allow full clockwise position. b. Try a new transducer.
	14. Motor armature for shorts by using an armature tester (growler) or perform spin test. See page 12.	14. Replace motor. See page 24.

Troubleshooting

LOW OR FLUCTUATING OUTPUT

TYPE OF PROBLEM	WHAT TO CHECK *If check is OK, go to next check*	WHAT TO DO *When check is not OK refer to this column*
Motor runs and pump strokes	1. Paint supply.	1. Refill and reprime pump.
	2. Intake strainer clogged.	2. Remove and clean, then reinstall.
	3. Suction tube or fittings loose.	3. Tighten; use thread sealant or sealing tape on threads if necessary.
	4. To see if intake valve ball and piston ball are seating properly. See page 25.	4. Remove intake valve and clean. Check balls and seats for nicks; replace if necessary, page 25. Strain paint before using to remove particles that could clog pump.
	5. Leaking around throat packing nut which may indicate worn or damaged packings. See page 25.	5. Replace packings, page 25. Also check piston valve seat for hardened paint or nicks and replace if necessary. Tighten packing nut/wet-cup.
	6. Pump rod damage.	6. Repair pump, page 25.
Motor runs but pump does not stroke	1. Displacement pump pin (9a) (damaged or missing), page 25.	1. Replace pump pin if missing. Be sure retainer spring (9b) is fully in groove all around connecting rod, page 25.
	2. Connecting rod assembly (9) for damage, page 23.	2. Replace connecting rod assembly, page 23.
	3. Gears or drive housing, page 23.	3. Inspect drive housing assembly and gears for damage and replace if necessary, page 23.

Troubleshooting

MOTOR IS HOT AND RUNS INTERMITTENTLY

TYPE OF PROBLEM	WHAT TO CHECK *If check is OK, go to next check*	WHAT TO DO *When check is not OK refer to this column*
Motor is hot and runs intermittently.	1. Determine if sprayer was operated at high pressure with small tips, which causes low motor RPM and excessive heat build up.	1. Decrease pressure setting or increase tip size.
	2. Be sure ambient temperature where sprayer is located is no more than 90°F and sprayer is not located in direct sun.	2. Move sprayer to shaded, cooler area if possible.

ELECTRICAL SHORT

TYPE OF PROBLEM	WHAT TO CHECK *If check is OK, go to next check*	WHAT TO DO *When check is not OK refer to this column*
Building circuit breaker opens as soon as sprayer switch is turned on. **CAUTION** Any short in any part of the motor power circuit will cause the control circuit to inhibit sprayer operation. Correctly diagnose and repair all shorts before checking and replacing control board.	1. All electrical wiring for damaged insulation, and all terminals for loose fit or damage. Also wires between pressure control and motor. See page 24.	1. Repair or replace any damaged wiring or terminals. Securely reconnect all wires.
	2. For missing inspection plate gasket (see page 24), bent terminal forks or other metal to metal contact points which could cause a short.	2. Correct faulty conditions.
	3. Motor armature for shorts. Use an armature tester (growler) or perform spin test. See page 12. Inspect windings for burns.	3. Replace motor. See page 24.
	4. Motor control board (35) by performing motor control board diagnostics on page 21. If diagnostics indicate, substitute with a good board. **CAUTION:** Do not perform this check until motor armature is determined to be good. A bad motor armature can burn out a good board.	4. Replace with a new pressure control board (35). See page 21.
Building circuit breaker opens as soon as sprayer is plugged into outlet and sprayer is NOT turned on.	1. Basic Electrical Problems on page 7.	1. Perform necessary procedures.
	2. ON/OFF switch (23) See page 18. *Be sure sprayer is unplugged!* Disconnect wires from switch. Check switch with ohmmeter. Reading must be infinity with ON/OFF switch OFF, and zero with switch ON.	2. Replace ON/OFF switch. See page 18.
	3. For damaged or pinched wires in pressure control. See page 21.	3. Replace damaged parts. See page 21.
Sprayer quits after sprayer operates for 5 to 10 minutes.	1. Basic Electrical Problems on page 7.	1. Perform necessary procedures.
	2. Electrical supply with volt meter. Meter must read: For 100–120 Vac models – 85–130 Vac For 220–240 Vac models – 210–255 Vac	2. If voltage is too high, do not operate sprayer until corrected.
	3. Tightness of pump packing nut. Over tightening tightens packings on rod, restricts pump action, and damages packings.	3. Loosen packing nut. Check for leaking around throat. Replace pump packings, if necessary. See page 25.

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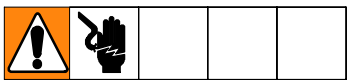
Spin Test

Setup



Electric Shock Hazard; page 6.

To check armature, motor winding and brush electrical continuity:

1. Relieve pressure**;** page 6.
2. Remove drive housing; page 23.
3. Fig. 3. Remove pressure control cover (39). Disconnect motor leads (F) and (G).
4. Fig. 4. Remove motor shroud (74) and inspection covers (A).

Armature Short Circuit Test

Quickly turn motor fan by hand. If no electrical shorts, motor coasts two or three revolutions before complete stop. If motor does not spin freely, armature is shorted. Replace motor; page 24.

Armature, Brushes, and Motor Wiring Open Circuit Test (Continuity)

1. Connect red and black motor leads together with test lead. Turn motor fan by hand at about two revolutions per second.
2. If uneven or no resistance, check for: broken brush springs, brush leads, motor leads; loose brush terminal screws, motor lead terminals; worn brushes. Repair as needed; page 12.
3. If still uneven or no resistance, replace motor; page 24.

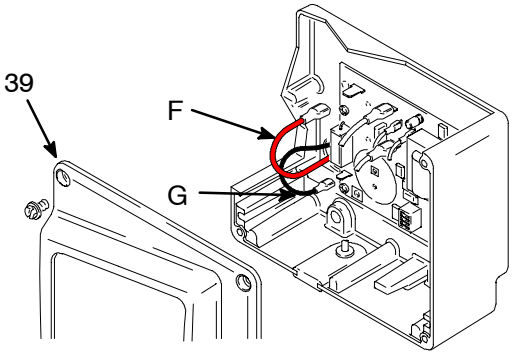


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Fig. 3

Motor Brush Replacement

Motor Brush Removal

Replace brushes worn to less than 1/2 in. Brushes wear differently on each side of motor, check both sides. Brush Repair Kit, page 27. Spring clip, 112766, may be purchased separately.

1. Read **General Repair Information**; page 6.

2. Relieve pressure**;** page 6.
3. Fig. 4. Remove motor shroud (74) and two inspection covers (A).

(Continued on page 13)

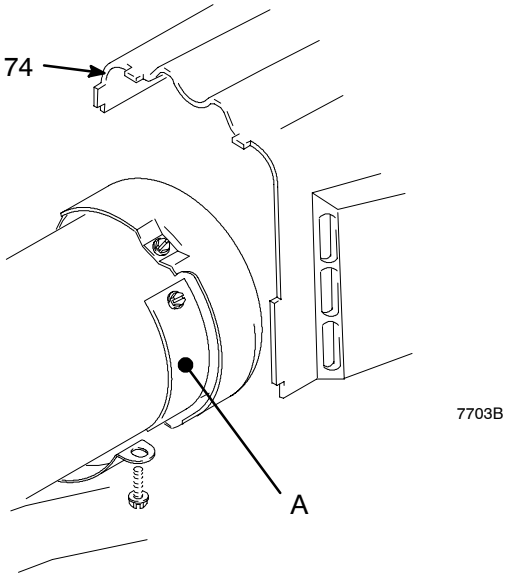

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Fig. 4

Motor Brush Replacement

4. Fig. 5. Push in spring clip (A) to release hook (B) from brush holder (C). Pull out spring clip (A).

5. Fig. 5. Pull brush lead (D) out of terminal (E). Remove brush (F).

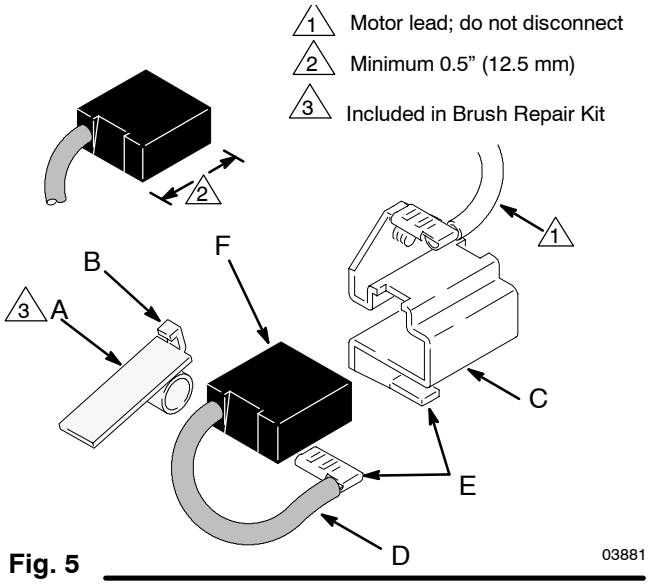


Fig. 5

6. Inspect commutator for excessive pitting, burning or gouging. A black color on commutator is normal. Have commutator resurfaced by a motor repair shop if brushes wear too fast.

Motor Brush Installation

CAUTION

When installing brushes, follow all steps carefully to avoid damaging parts.

1. Fig. 6. Install new brush (F) with lead into brush holder (C).

2. Fig. 5. Slide brush lead (D) into terminal (E).

3. Fig. 6. Install spring clip (A). Push down to set hook (B) into brush holder (C).

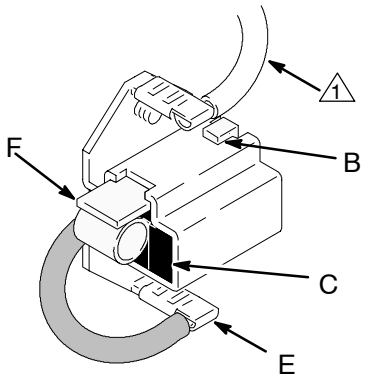


Fig. 6

4. Repeat for other side.

5. Test brushes.

   a. Remove pump (13); **Displacement Pump Replacement**, page 25.

   b. With sprayer OFF, turn pressure control knob fully counterclockwise to minimum pressure. Plug in sprayer.

   c. Turn sprayer ON. Slowly increase pressure until motor is at full speed.

CAUTION

Do not run sprayer dry for more than 30 seconds while checking brushes to avoid damaging displacement pump packings.

6. Install brush inspection covers and gaskets.

7. Break in brushes.

   a. Operate sprayer 1 hour with no load.

   b. Install pump (13); **Displacement Pump Replacement**, page 25.

On/Off Switch Replacement

120 Vac (249168)

Removal

1. Relieve pressure; page 6.
2. Fig. 7. Remove four screws (18) and pressure control cover (39).
3. Disconnect four wires (A) from ON/OFF switch (23).
4. Remove toggle boot (25) and locking ring (24). Remove ON/OFF switch (23).

Installation

1. Install new ON/OFF switch (23). Install locking ring (24) and toggle boot (25).
2. Connect four wires (A) to ON/OFF switch (23).
3. Install pressure control cover (39) with four screws (18).

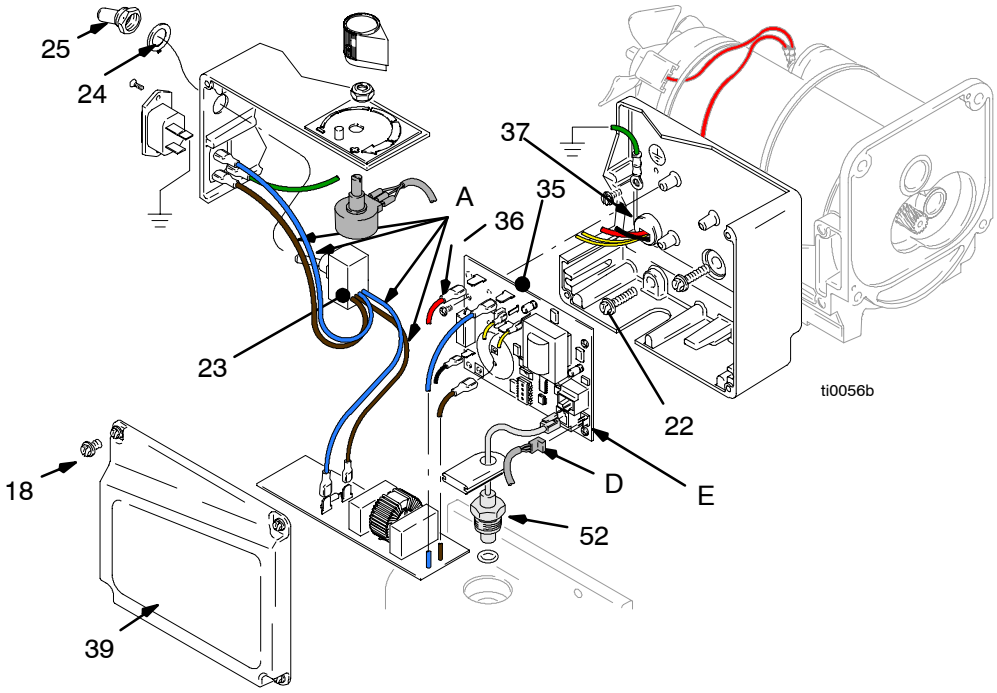


Fig. 7

Wiring Diagram

120 Vac (249168)

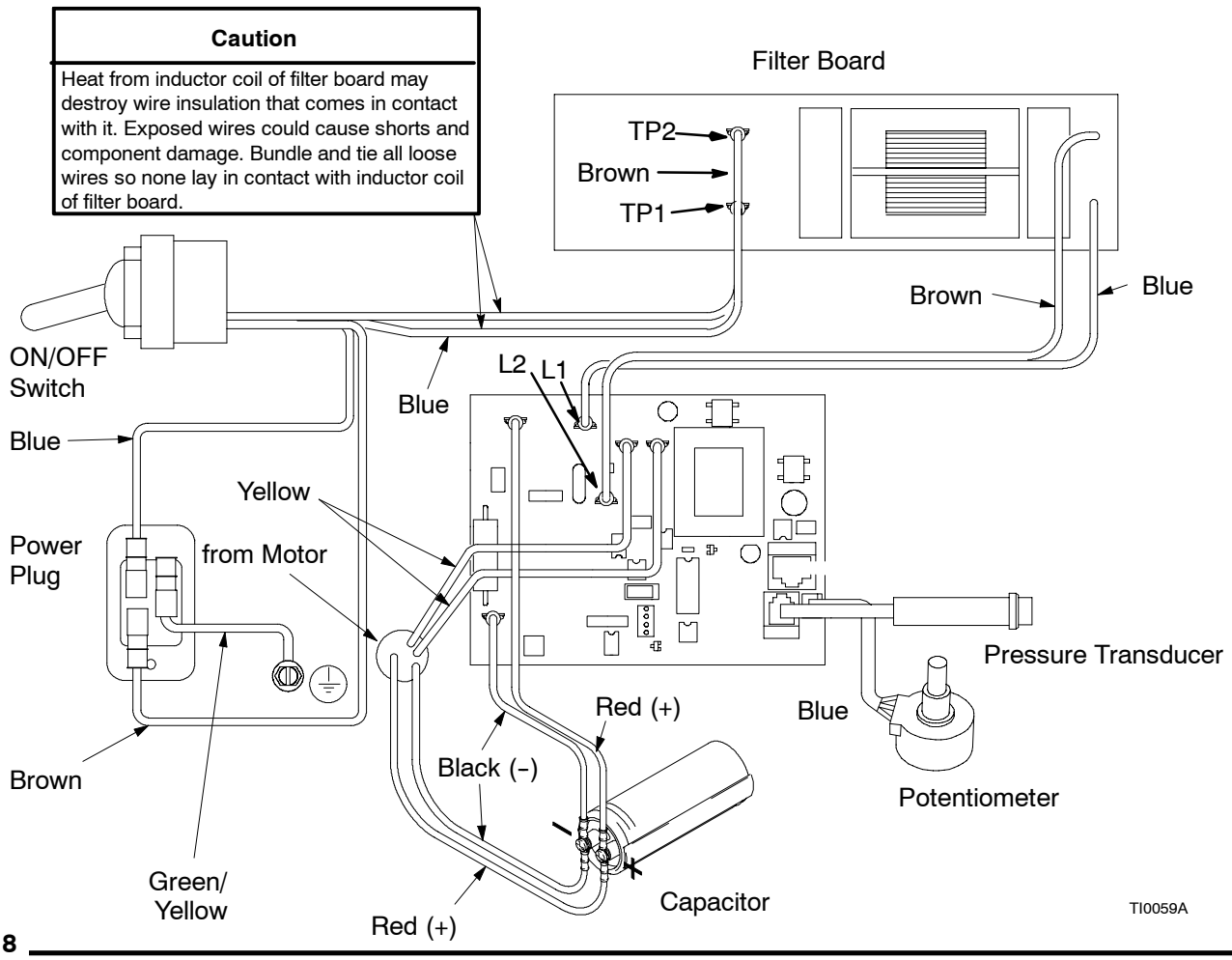


Fig. 8

On/Off Switch Replacement

240 Vac (249169)

Removal

1. Relieve pressure; page 6.
2. Fig. 9. Remove pressure control cover (39).
3. Disconnect four wires (A) at ON/OFF switch (23).
4. Remove toggle boot (25) and locking ring (24). Remove ON/OFF switch (23).

Installation

1. Install new ON/OFF switch (23). Install locking ring (24) and toggle boot (25).
2. Connect four wires (A) to ON/OFF switch.
3. Install pressure control cover (39).

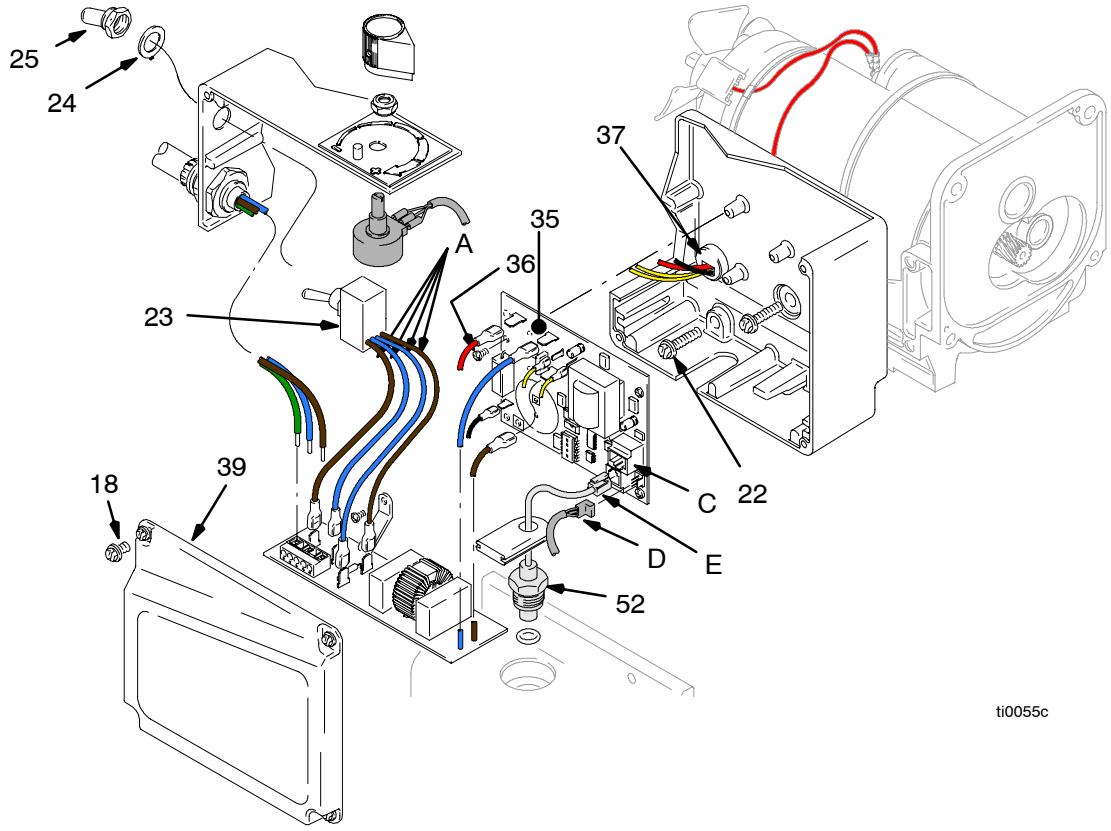


Fig. 9

Wiring Diagram

240 Vac (249169)

Caution

Heat from inductor coil of filter board may destroy wire insulation that comes in contact with it. Exposed wires could cause shorts and component damage. Bundle and tie all loose wires so none lay in contact with inductor coil of filter board.

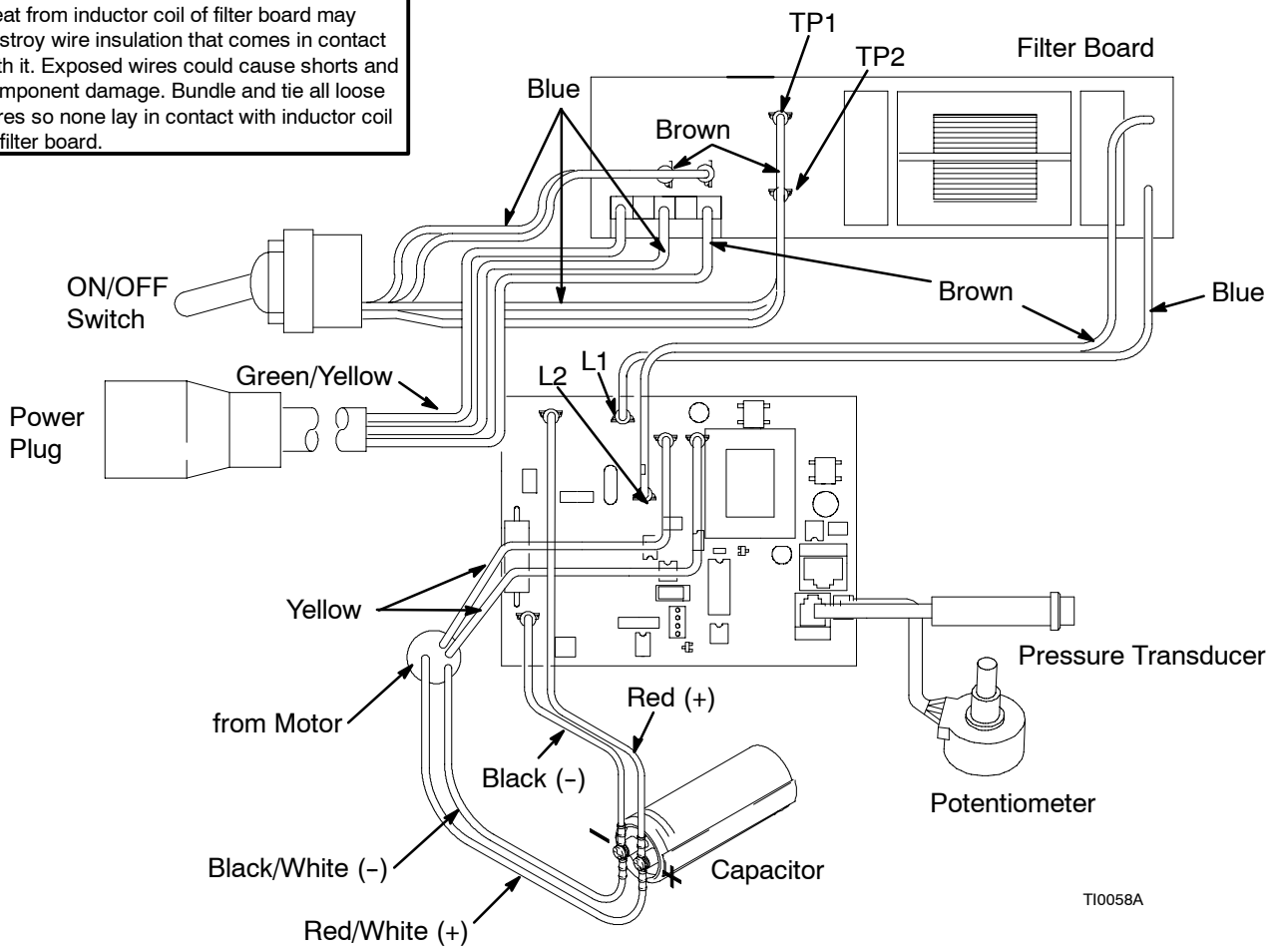


Fig. 10

On/Off Switch Replacement

240 Vac (246803)

Removal

1. Relieve pressure; page 6.
2. Fig. 11. Remove pressure control cover (39).
3. Remove display connector (B) from plug (C).
4. Disconnect four wires (A) at ON/OFF switch (23).
5. Remove toggle boot (25) and locking ring (24). Remove ON/OFF switch (23).

Installation

1. Install new ON/OFF switch (23). Install locking ring (24) and toggle boot (25).
2. Connect four wires (A) to ON/OFF switch.
3. Install display connector (B) in plug (C).
4. Install pressure control cover (39).

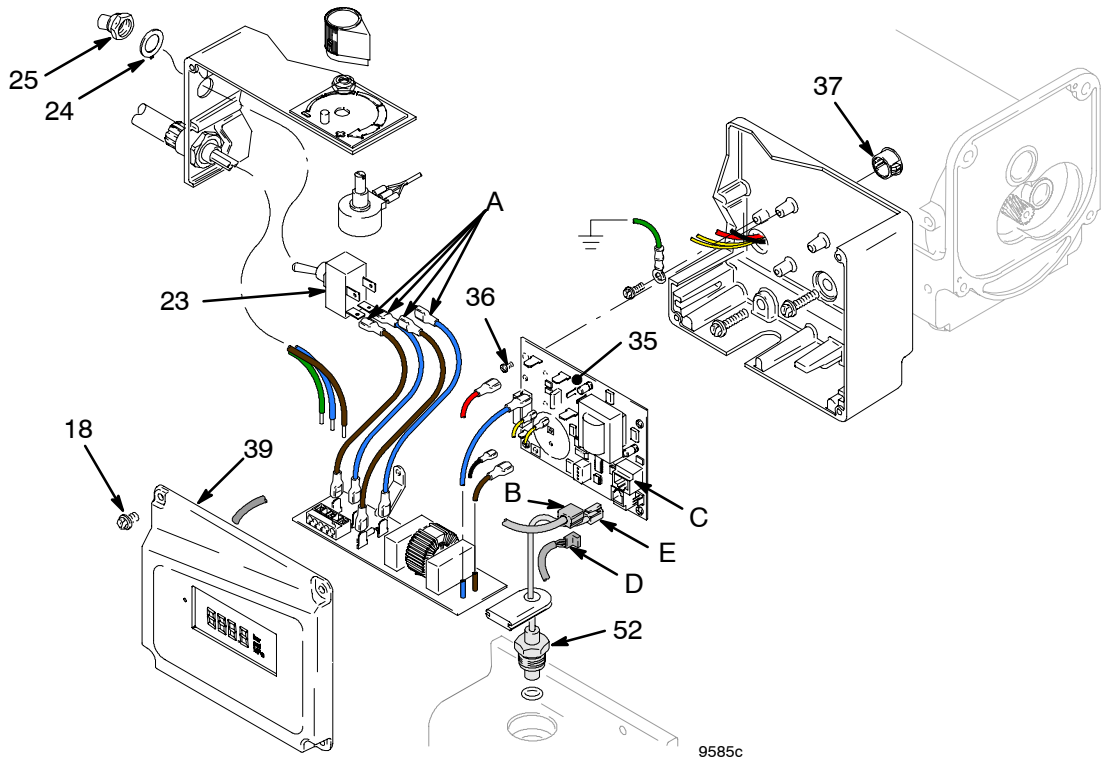


Fig. 11

Wiring Diagram

240 Vac (246803)

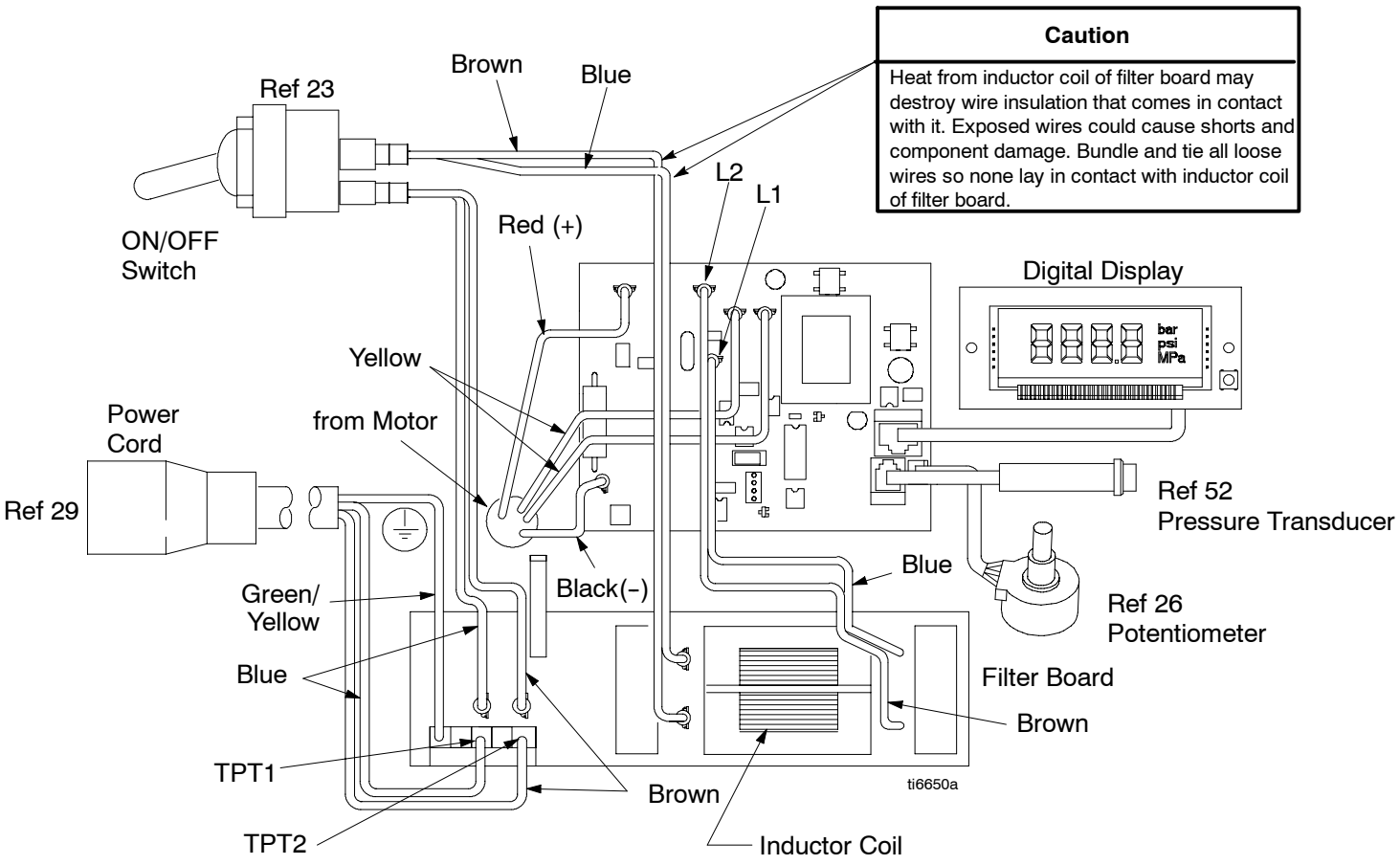


Fig. 12

On/Off Switch Replacement

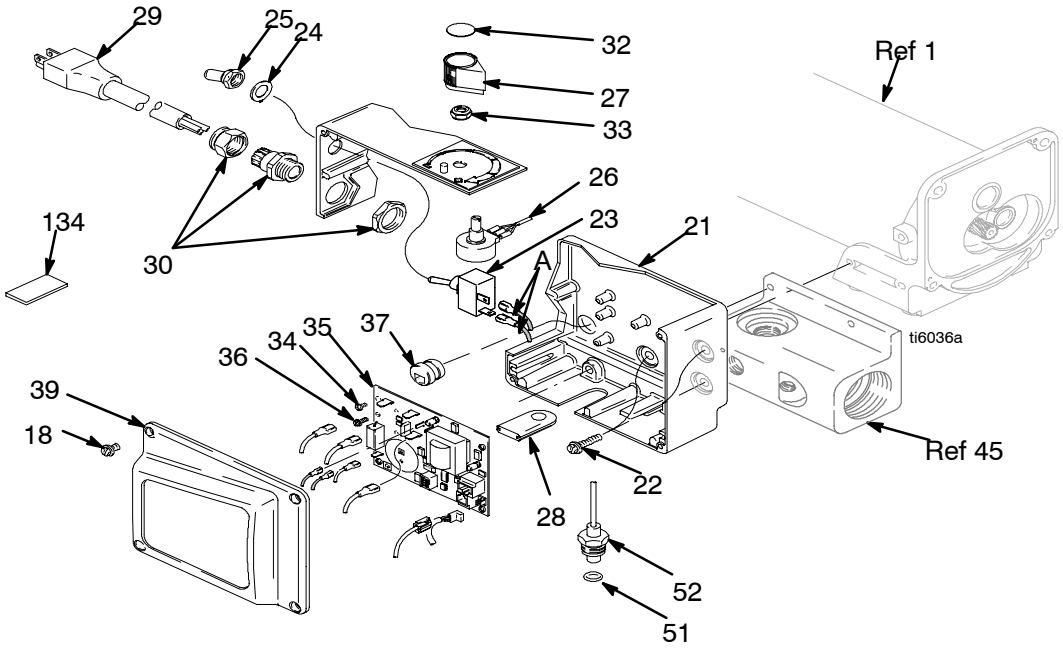
120 Vac (249159)

Removal

1. Relieve pressure; page 6.
2. Fig. 13. Remove four screws (18) and pressure control cover (39).
3. Disconnect two wires (A) from ON/OFF switch (23).
4. Remove toggle boot (25) and locking ring (24). Remove ON/OFF switch (23).

Installation

1. Install new ON/OFF switch (23). Install locking ring (24) and toggle boot (25).
2. Connect two wires (A) to ON/OFF switch.
3. Install pressure control cover (39) with four screws (18).



Wiring Diagram

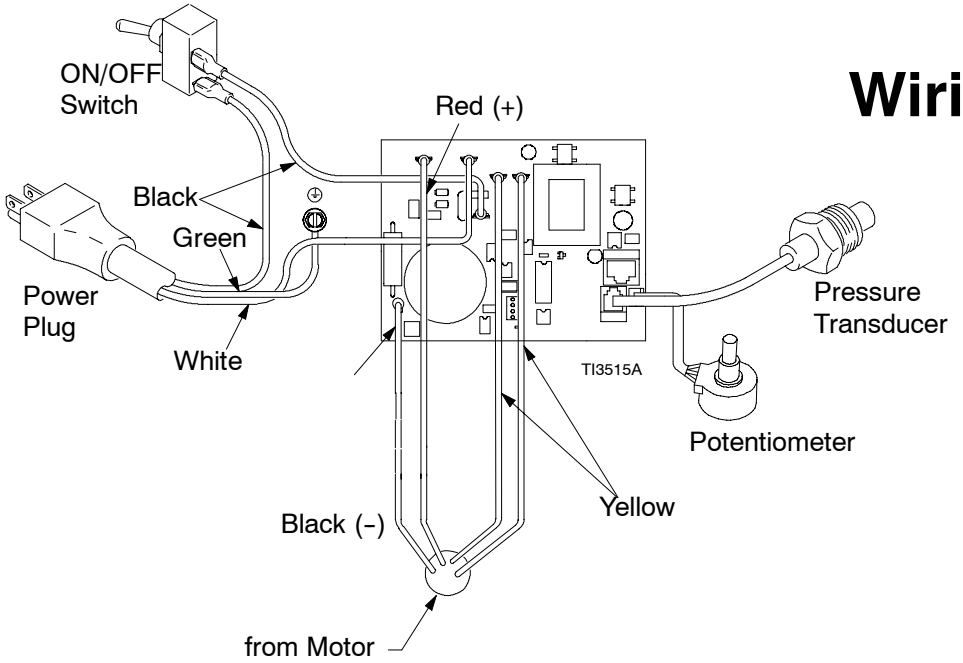


Fig. 13

Pressure Control Repair

Motor Control Board

Removal

1. Relieve pressure; page 6.
2. Remove four screws (18) and cover (39).
3. Disconnect at motor control board (35):
   - Filter board.
   - Four motor leads: two yellow, black (+) and red (–).
   - Lead (D) from potentiometer.
   - Lead (E) from transducer.
   - Lead (B) from display
4. Remove five screws (36) and circuit board (35).

Installation

1. Clean pad on rear of motor control board. Apply small amount of thermal compound 073019 to pad.
2. Install motor control board (35) with five screws (36).
3. Connect to motor control board (35):
   - Lead (E) to transducer.
   - Lead (D) to potentiometer.
   - Four motor leads: two yellow, black (+) and red (–).
4. Install cover (39) with four screws (18).

Motor Control Board Diagnostics

Note: Keep a new transducer on hand to use for test.

CAUTION

Do not allow sprayer to develop fluid pressure without transducer installed. Leave drain valve open if test transducer is used.

1. Remove four screws (18) and cover (39).
2. Turn ON/OFF switch ON.
3. Observe LED operation and reference following table:

4. Relieve pressure and unplug sprayer before servicing control board; page 6.

LED BLINKS	SPRAYER OPERATION	INDICATES	WHAT TO DO
Once	Sprayer runs	Normal operation	Do nothing
Two times repeatedly	Sprayer shuts down and LED continues to blink two times repeatedly	Run away pressure. Pressure greater than 4500 psi (310 bar, 31 MPa).	Replace motor control board. See preceding Motor control board removal procedure.
Three times repeatedly	Sprayer shuts down and LED continues to blink three times repeatedly	Pressure transducer is faulty or missing	Check transducer connection. Open drain valve. Substitute new transducer for transducer in sprayer. If sprayer runs, replace transducer.
Four times repeatedly	Sprayer shuts down and LED continues to blink four times repeatedly	Line voltage is too high	Check for voltage supply problems
Five times repeatedly	Sprayer shuts down and LED continues to blink five times repeatedly	Too much current	Check for locked rotor, worn motor brushes, shorted wiring or motor. Repair or replace failed parts.

Pressure Control Repair

Pressure Control Transducer

Removal

1. Relieve pressure; page 6.
2. Fig. 7. Remove four screws (18) and cover (39).
3. Disconnect lead (E) from motor control board (35).
4. Remove two screws (22) and filter housing (45).
5. Thread transducer lead plastic connector down through transducer grommet (28).
6. Remove pressure control transducer (52) and packing o-ring (51) from filter housing.

Installation

1. Install packing o-ring (51) and pressure control transducer (52) in filter housing (45). Torque to 30–35 ft-lb.
2. Thread transducer lead plastic connector up through transducer grommet (28).
3. Install filter housing (45) with two screws (22).
4. Connect lead (E) to motor control board (35).
5. Install cover (39) with four screws (18).

Pressure Adjust Potentiometer

Removal

1. Relieve pressure; page 6.
2. Fig. 7. Remove four screws (18) and cover (39).
3. Disconnect all leads from motor control board (35).
4. Remove five screws (36) and board (35)
5. Remove potentiometer knob (27), sealing shaft nut (33) and pressure adjust potentiometer (26).

Installation

1. Install pressure adjust potentiometer (26), sealing shaft nut (33) and potentiometer knob (27).
   a. Turn potentiometer fully clockwise.
   b. Install knob at full clockwise position.
2. Install board (35) with five screws (36).
3. Connect all leads to motor control board (35).
4. Install cover (39) with four screws (18).

Drive Housing Replacement

CAUTION

Do not drop gear cluster (7) when removing drive housing (10). Gear cluster may stay engaged in motor front end bell or drive housing.

Disassembly

1. Relieve pressure; page 6.
2. Remove pump (13); **Displacement Pump Replacement**, page 25.
3. Fig. 14. Tip sprayer up. Remove screw (74c) and remove shroud (74).
4. Remove two front screws (22).
5. Remove two back screws (22).
6. Pull drive housing (10) off of motor (1).

Assembly

1. Push drive housing (10) onto motor (1)
2. Install two front screws (22).
3. Install two back screws (22).
4. Fig. 14. Tip sprayer up. Install shroud (74) with screw (74c).
5. Install pump (13); **Displacement Pump Replacement**, page 25.
6. Instal new access cover (10a) with two screws (10b).

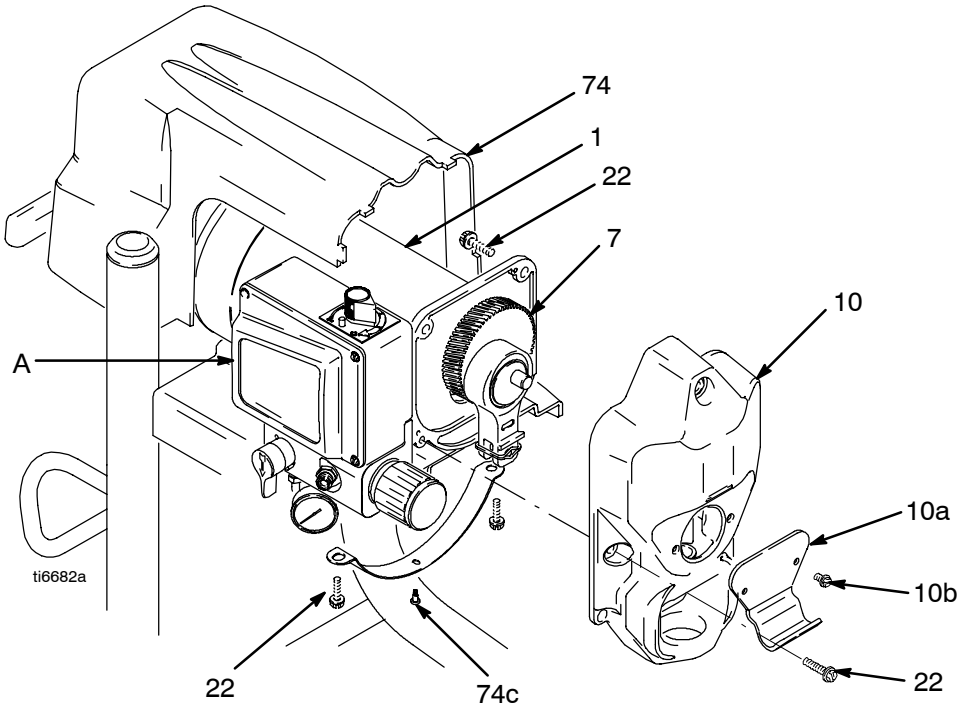


Fig. 14

Motor Replacement

Disassembly

1. Relieve pressure; page 6.
2. Remove pump (13); **Displacement Pump Replacement**, page 25.

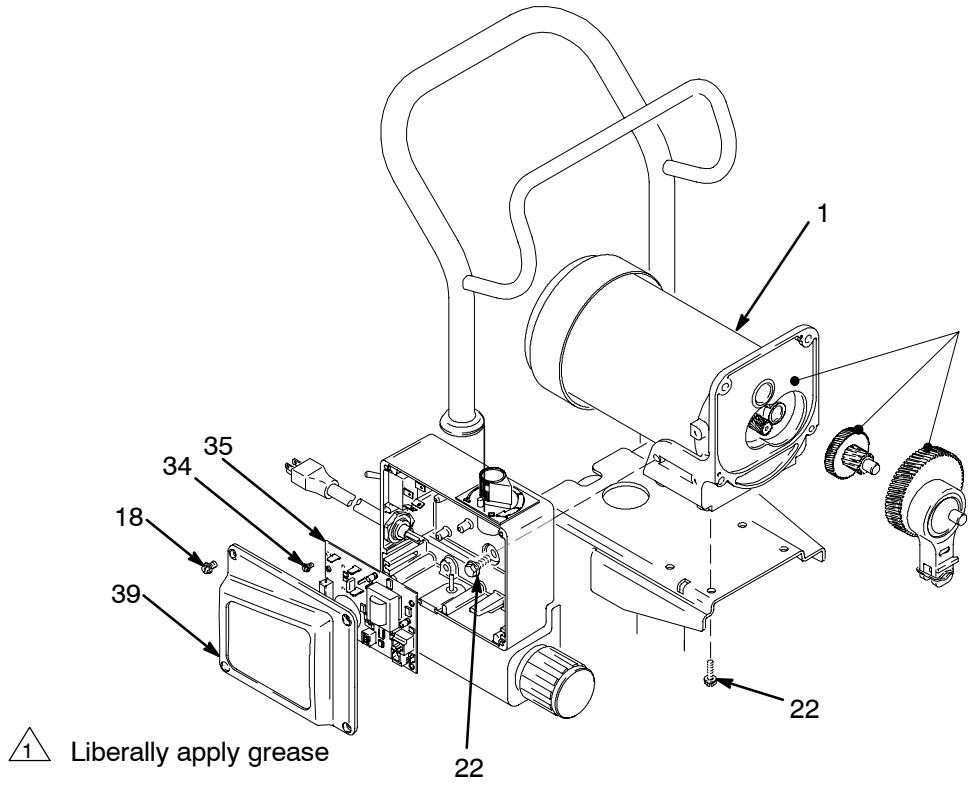
CAUTION

Do not drop gear cluster (7) when removing drive housing (10). Gear cluster may stay engaged in motor front end bell or drive housing.

3. Remove drive housing (10); **Drive Housing Replacement**, page 23.
4. Remove four screws (18) and cover (39).
5. Disconnect all leads from board (35). Remove five screws (36) and board.
6. Remove strain relief (37, page 34, 38).
7. Remove three screws (22) behind board and remove control housing (21).
8. Remove four screws (22) and motor (1) from frame (63).

Assembly

1. Install new motor (1) on frame (63) with four screws (22).
2. Install control housing (21) with three screws (22).
3. Install strain relief (37, page 34, 38).
4. Install board (35) with five screws (36). Connect all leads to board (35).
5. Install drive housing (10); **Drive Housing Replacement**, page 23.
6. Install pump (13); **Displacement Pump Replacement**, page 25.



ti3677a

Fig. 15

Displacement Pump Replacement

See parts on page 26 for sprayer part number references.

Removal

1. Flush pump (13).

2. Relieve pressure; page 6.

3. Fig. 16. Loosen two screws (10b) and rotate cover (10a).

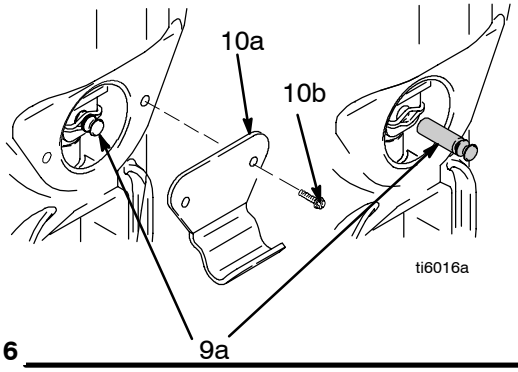


Fig. 16

4. Cycle pump until pump pin (9a) is in position to be removed. Remove pump pin (9a).

5. Fig. 17. Remove suction tube (78) and hose (19).

6. Loosen pump jam nut (12). Unscrew pump.

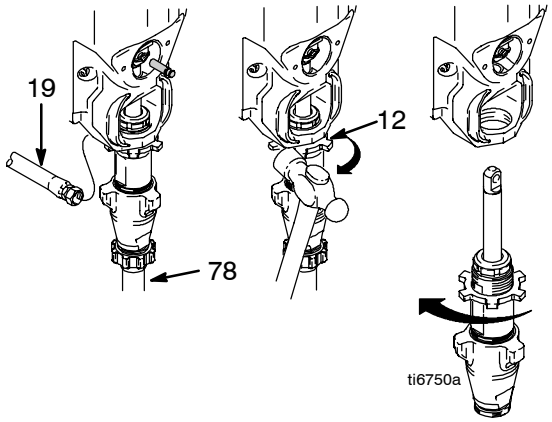
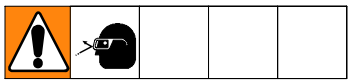


Fig. 17

Installation



If pin works loose, parts could break off due to force of pumping action. Parts could project through the air and result in serious injury or property damage.

CAUTION

If the pump locknut loosens during operation, the threads of the drive housing will be damaged.

1. Fig. 18. Extend pump piston rod fully. Apply grease to top of pump rod at (A) or inside connecting rod.

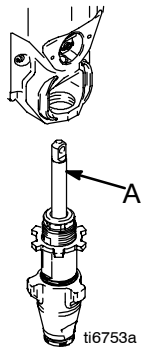


Fig. 18

2. Fig. 16. Install pump pin (9a). Verify retainer spring is in groove of pump pin.
3. Push pump up until pump threads engage.
4. Screw in pump until threads are flush with drive housing opening. Align pump outlet to back.
5. Fig. 17. Install suction tube (78) and hose (19).
6. Fig. 19. Screw jam nut (12) up onto pump until nut stops. Tighten jam nut by hand, then tap 1/8 to 1/4 turn with a 20 oz (maximum) hammer to approximately 75 ± 5 ft-lb (102 N·m).

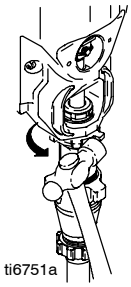


Fig. 19

7. Fig. 20. Fill packing nut with TSL until fluid flows onto top of seal.

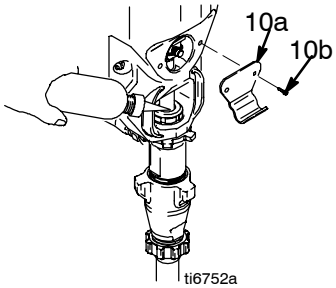
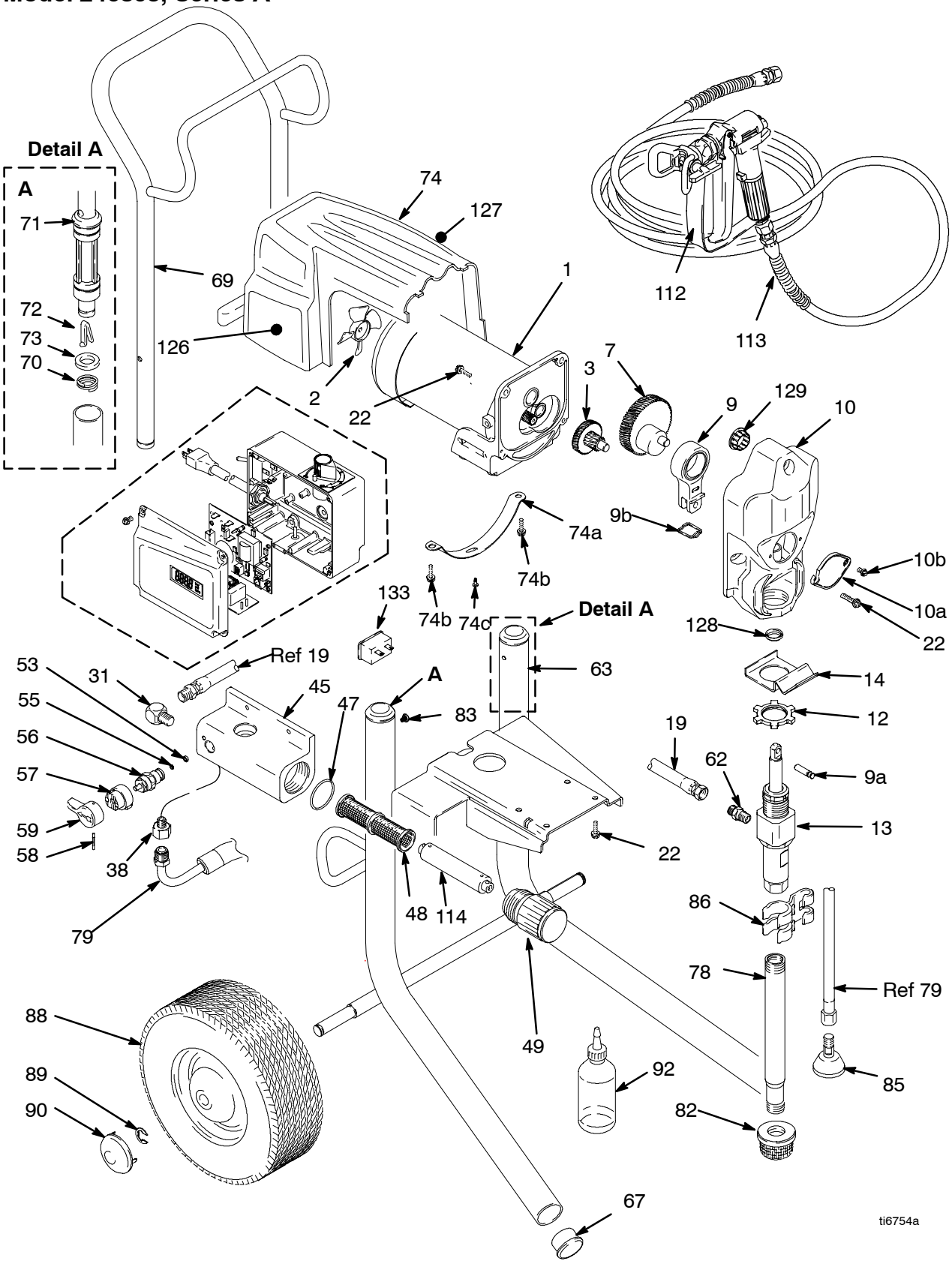


Fig. 20

8. Fig. 16. rotate cover (10a); tighten screws (10b).

Parts Drawing

Model 246803, Series A



Parts List - Sprayer

Model 246803, Series A

REF NO.	PART NO.	DESCRIPTION	QTY
1	**242015***	**MOTOR, 240 Vac**	**1**
2	115525	BLADE, fan motor	1
3	**243219**	**GEAR, combination**	**1**
7	**243218**	**CRANK SHAFT**	**1**
9	**243221**	**CONNECTING ROD**	**1**
		includes 9a and 9b	
9a	195175	PIN, pump	1
9b	195512	RETAINER, pin	1
10	**243220**	**DRIVE HOUSING**	**1**
		includes 10a and 10b	
10a	195099	COVER	1
10b	115492	SCREW	6
12	195150	NUT, jam, pump	1
13	**243187**	**PUMP**	1
		Manual 309053	
14	195497	HOOK, pail	1
19	15C709	HOSE, coupled, high pressure	1
22	115495	SCREW, slot hd, hex, washer hd	13
38	15C394	FITTING, adapter	1
43	15F573▲	LABEL, control	1
45	195157	HOUSING, filter	1
47	104361	O-RING	1
48	245527†	FILTER, fluid, 60 mesh	1
49	195139	CAP, filter	1
53	111699	GASKET, seat, valve	1
55	187615	VALVE, seat	1
56	235014	ASSY, drain valve	1
		includes 53 and 55	
57	224807	ASSY, cam, drain valve	1
58	111600	PIN, grooved	1
59	187625	HANDLE, valve, drain	1
63	241867	FRAME, cart	1
67	108691	PLUG, tubing	2
68	15F594▲	LABEL, drive	2
69	239998	HANDLE, cart	1
70	110243	RING, retaining	2
71	192027	SLEEVE, cart	2
72	111590	BUTTON, snap	2
73	183350	WASHER	2
74	15C391	SHROUD, motor	1
		includes 74a, 74b, 74c, 126 and 127	
74a	195159	BRACKET, shroud	1
74b	114531	SCREW, slot hd, hex, washer hd	2
74c	115843	SCREW, mach, pnhd, self-drill	1
78	198973	TUBE, suction, intake	1
79	244240	KIT, repair, return line, Hi	1
		includes 85	
82	245530	STRAINER	1
83	109032	SCREW, pan hd	4
85	241920	DEFLECTOR, threaded	1
86	276888	CLIP, spring	1
88	106062	WHEEL, semi-pneumatic	2
89	101242	RING, retaining, external	2
90	104811	CAP, hub	2
92	206994	FLUID, TSL, 8 oz	
112	451-SG	GUN, 400	1
113	717HOSE	HOSE, 1/4 in. x 50 ft (15 m)	1
114	196773	FILTER INSERT	1
126	195833▲	LABEL, WARNING	1
127	195805▲	LABEL, DANGER	1
128	115491	WIPER, rod	1
129	115979	PLUG	1

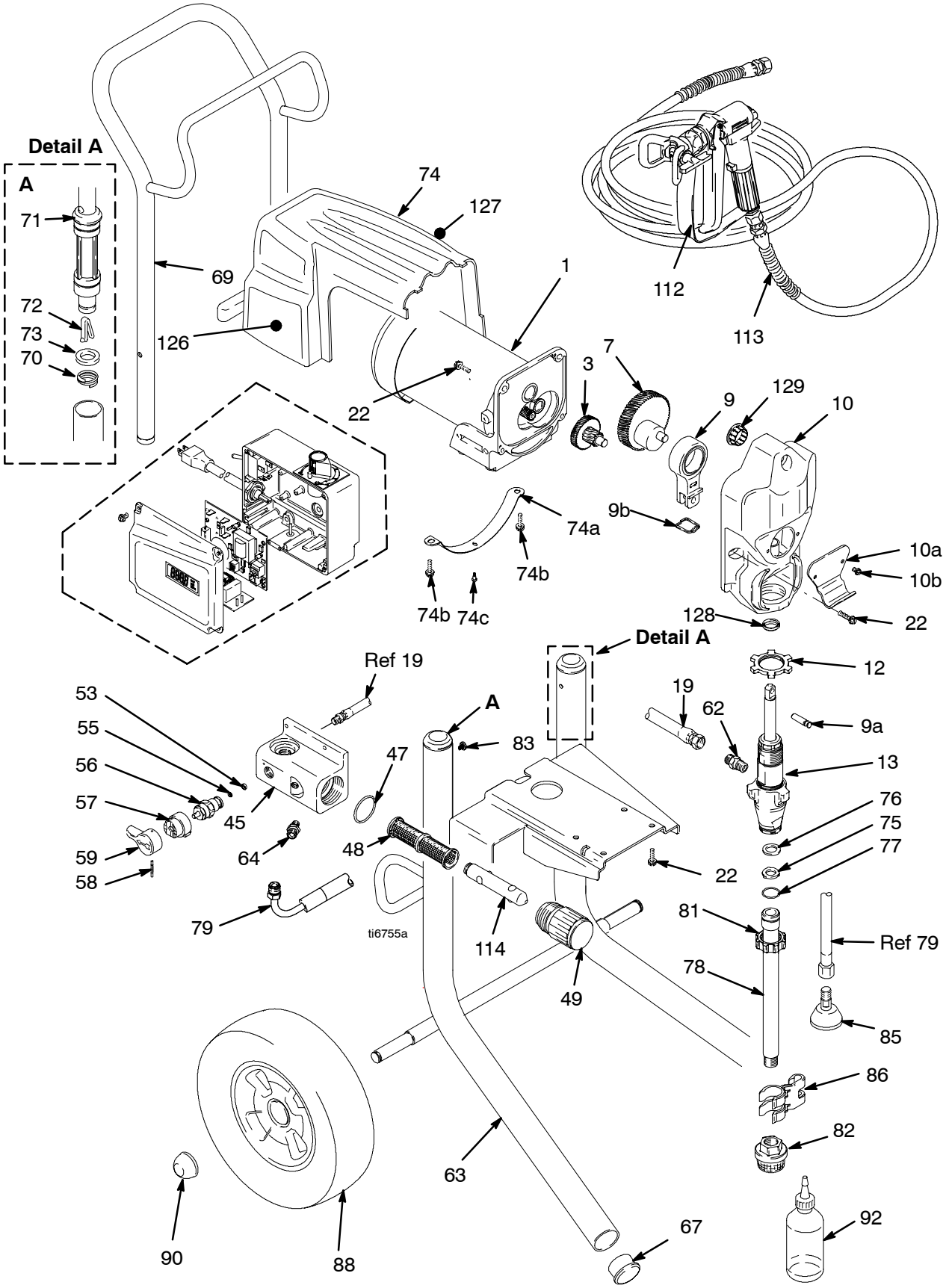
▲ *Replacement Danger and Warning labels, tags, and cards are available at no cost.*

* Motor Brush Kit 236967 is available

† Other filters available: 245528, 100 mesh; 245526, 200 mesh

Parts Drawing

Model 246803, Series B and C
Series C shown



Parts List - Sprayer

Model 246803, Series B and C

REF NO.	PART NO.	DESCRIPTION	QTY
1	**242015***	**MOTOR, 240 Vac**	**1**
3	**243219**	**GEAR, combination**	**1**
7	**243218**	**CRANK SHAFT**	**1**
9	**243221**	**CONNECTING ROD**	**1**
		includes 9a and 9b	
9a	195175	PIN, pump	1
9b	195512	RETAINER, pin	1
10	**243220**	**DRIVE HOUSING**	**1**
		includes 10a and 10b	
10a	15E286	HOOK, pail	1
10b	115492	SCREW	6
12	195150	NUT, jam, pump	1
13		**PUMP**	1
	243187	Series B (manual 309053)	
	287658	Series C (manual 311062)	
19	15C709	HOSE, coupled, high pressure	1
22	115495	SCREW, slot hd, hex, washer hd	13
43		LABEL, control	1
	15F573▲	Series B	
	15G024▲	Series C	
45	15E180	HOUSING, filter	1
47	104361	O-RING	1
48	243080†	FILTER, fluid, 60 mesh	1
49	15E289	CAP, filter	1
53	111699	GASKET, seat, valve	1
55	187615	VALVE, seat	1
56	235014	ASSY, drain valve	1
		includes 53 and 55	
57	224807	ASSY, cam, drain valve	1
58	111600	PIN, grooved	1
59	187625	HANDLE, valve, drain	1
62	156971	NIPPLE, short	1
63	241867	FRAME, cart	1
64	15E539	NIPPLE, 1/4 nps(m) x 1/8 npt	1
67	108691	PLUG, tubing	2
68	15F594▲	LABEL, drive	2
69	239998	HANDLE, cart	1
70	110243	RING, retaining	2
71	192027	SLEEVE, cart	2
72	111590	BUTTON, snap	2
73	183350	WASHER	2
74	287159	SHROUD, motor	1
		includes 74a, 74b, 74c, 126 and 127	
74a	195159	BRACKET, shroud	1
74b	114531	SCREW, slot hd, hex, washer hd	2
74c	115843	SCREW, mach, pnhd, self-drill	1
75	15B652	WASHER, suction (series C)	1
76	115099	WASHER, garden hose (series C)	1
77	103413	O-RING (series C)	1
78		TUBE, suction, intake	1
	15E290	Series B	
	15F551	Series C	
79	244240	KIT, repair, return line, Hi	1
		includes 85	
81	15E813	NUT, intake tube (series C)	1
82	187651	STRAINER	1
83	109032	SCREW, pan hd	4
85	241920	DEFLECTOR, threaded	1
86	276888	CLIP, spring	1
88	119451	WHEEL, semi-pneumatic	2
90	119452	CAP, hub	2
92	206994	FLUID, TSL, 8 oz	
93	102814	GAUGE, pressure, fluid	1
94	15E540	TEE, pipe	1
95	111763	ELBOW	1
112	451-SG	GUN, 400	1
113	717HOSE	HOSE, 1/4 in. x 50 ft (15 m)	1
114	15E288	FILTER INSERT	1
126	195833▲	LABEL, WARNING	1
127	195805▲	LABEL, DANGER	1
128	115491	WIPER, rod	1
129	115979	PLUG	1

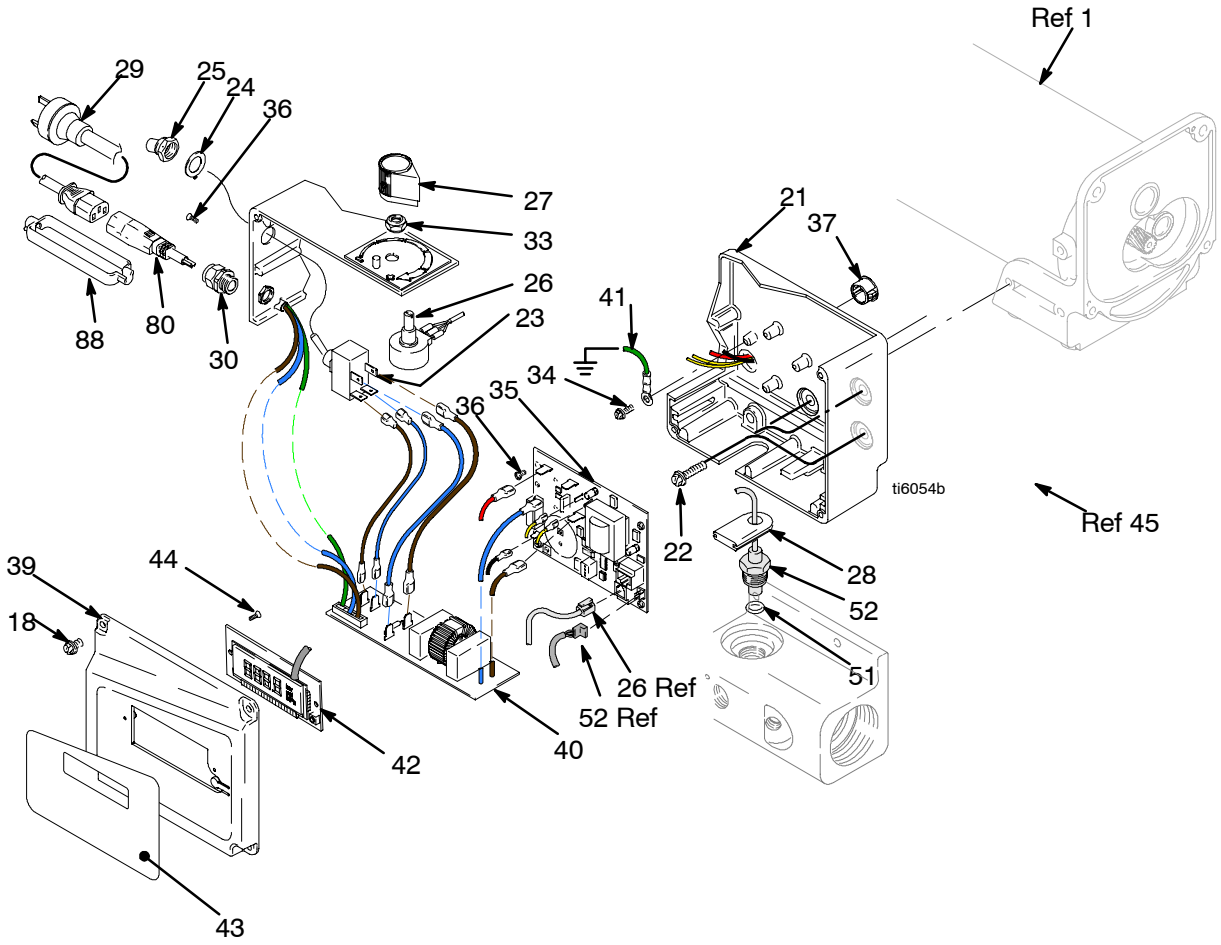
▲ *Replacement Danger and Warning labels, tags, and cards are available at no cost.*

* Motor Brush Kit 236967 is available

† Other filters available: 245528, 100 mesh; 245526, 200 mesh

Parts Drawing

Model 246803, Series A, B, and C



Parts List – Sprayer

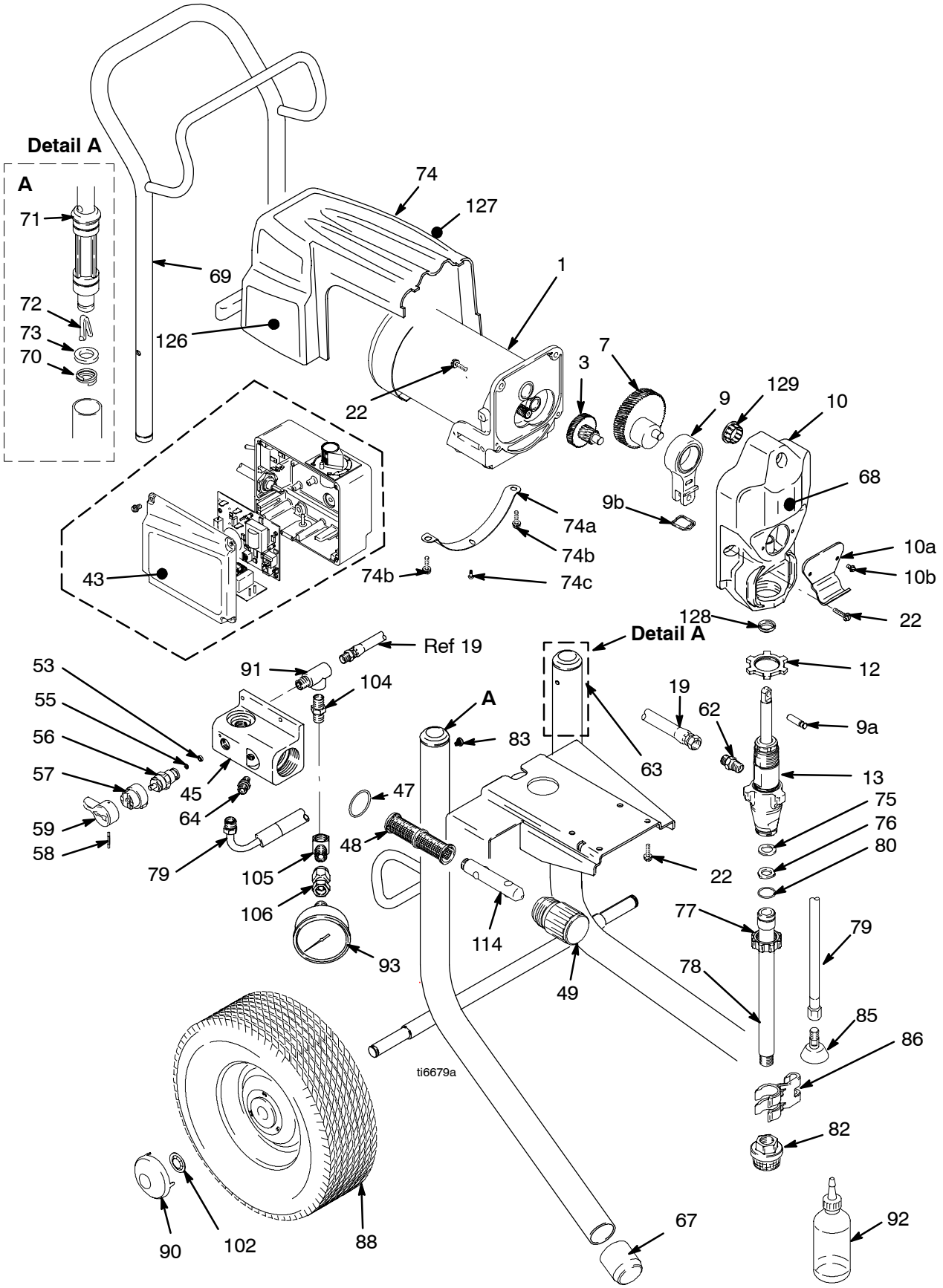
REF NO.	PART NO.	DESCRIPTION	QTY
18	115492	SCREW, slot hd, hex, washer hd	4
21	276539	HOUSING, control	1
22	115495	SCREW, slot hd, hex, washer hd	5
23	195429	SWITCH, toggle	1
24	15A435	RING, locking	1
25	195428	BOOT, toggle	1
26	236352	POTENTIOMETER, adjust, pressure	1
27	116167	KNOB, potentiometer	1
28	195423	GROMMET, transducer	1
29	242000	CORD SET, jumper, IEC 320	1
30	114421	BUSHING, strain relief	1
32	15A356	LABEL, control	1
33	112382	NUT, shaft, sealing	1
34	115498	SCREW, slot hd, hex, washer hd	1
35	241992	BOARD, control	1
36	241992	SCREW, 6-32 X 1/2, TAPTITE	5
37	115756	BUSHING, strain relief	1
39	198935	CONTROL, cover, black	1
40	241994	BOARD, filter	1
41	243539	CONDUCTOR, ground	1
42	241946	BOARD, display, LCD	
43		LABEL, control	1
	15F573▲	Series A, B	
	15G024▲	Series C	
44	115522	SCREW, mach, pnh	1
51	111457	O-RING	1
52	243222	TRANSDUCER, pressure control includes 51	1
60	195866	WIRE, jumper	1
80	195551	RETAINER, plug adapter	1
88	242005	CORDSET, adapter	1
130	15B182	WIRE, jumper	1
131	15B181	WIRE, jumper	1
132	15B187	CONNECTOR, wire	1
133	117472	METER, hour	1
134	15B953	TAPE, foam	1

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

Notes

Parts Drawing

Model 249168 and 246169



Parts List - Sprayer

Model 249168 and 249169

REF NO.	PART NO.	DESCRIPTION	QTY
1	**242012***	**MOTOR, 120 Vac**	**1**
1	**242015***	**MOTOR, 240 Vac**	**1**
3	**243219**	**GEAR, combination**	**1**
7	**243218**	**CRANK SHAFT**	**1**
9	**243221**	**CONNECTING ROD**	**1**
		includes 9a and 9b	
9a	195175	PIN, pump	1
9b	195512	RETAINER, pin	1
10	**243220**	**DRIVE HOUSING**	**1**
		includes 10a and 10b	
10a	15E286	HOOK, pail	1
10b	115492	SCREW	6
12	195150	NUT, jam, pump	1
13	**287658**	**PUMP**	
		Manual 311062	1
19	15C709	HOSE, coupled, high pressure	1
22	115495	SCREW, slot hd, hex, washer hd	13
43	15F573▲	LABEL, control	1
45	15E180	HOUSING, filter	1
47	104361	O-RING	1
48	243080†	FILTER, fluid, 60 mesh	1
49	15E289	CAP, filter	1
53	111699	GASKET, seat, valve	1
55	187615	VALVE, seat	1
56	235014	ASSY, drain valve	1
		includes 53 and 55	
57	224807	ASSY, cam, drain valve	1
58	111600	PIN, grooved	1
59	277089	HANDLE, valve, drain	1
62	156971	NIPPLE, short	1
63	287615	FRAME, cart	1
64	15E539	NIPPLE, 1/4 nps(m) x 1/8 npt	1
67	277091	PLUG, tubing	2
68	15F594▲	LABEL, drive	2
69	239998	HANDLE, cart	1
70	110243	RING, retaining	2
71	192027	SLEEVE, cart	2
72	111590	BUTTON, snap	2
73	183350	WASHER	2
74	287159	SHROUD, motor	1
		includes 74a, 74b, 74c, 126 and 127	
74a	195159	BRACKET, shroud	1
74b	114531	SCREW, slot hd, hex, washer hd	2
74c	115843	SCREW, mach, pnhd, self-drill	1
75	115099	WASHER, garden hose	1
76	15B652	WASHER, suction	1
77	15E813	NUT, intake tube	1
78	15F551	TUBE, suction, intake	1
79	287668	KIT, repair, return line, Hi	1
		includes 85	
80	103413	O-RING	1
82	246385	STRAINER	1
83	109032	SCREW, pan hd	4
85	287614	DEFLECTOR, threaded	1
86	276888	CLIP, spring	1
88	119730	WHEEL, semi-pneumatic	2
90	104811	CAP, hub	2
92	206994	FLUID, TSL, 8 oz	
93	804582	GAUGE, pressure, 0-5000 psi	1
102	101242	RING, retaining, ext.	2
104	156971	NIPPLE, short	1
105	100840	ELBOW, street	1
106	155570	UNION, swivel	1
114	15E288	FILTER INSERT	1
126	195833▲	LABEL, WARNING	1
127	195805▲	LABEL, DANGER	1
128	115491	WIPER, rod	1
129	115979	PLUG	1

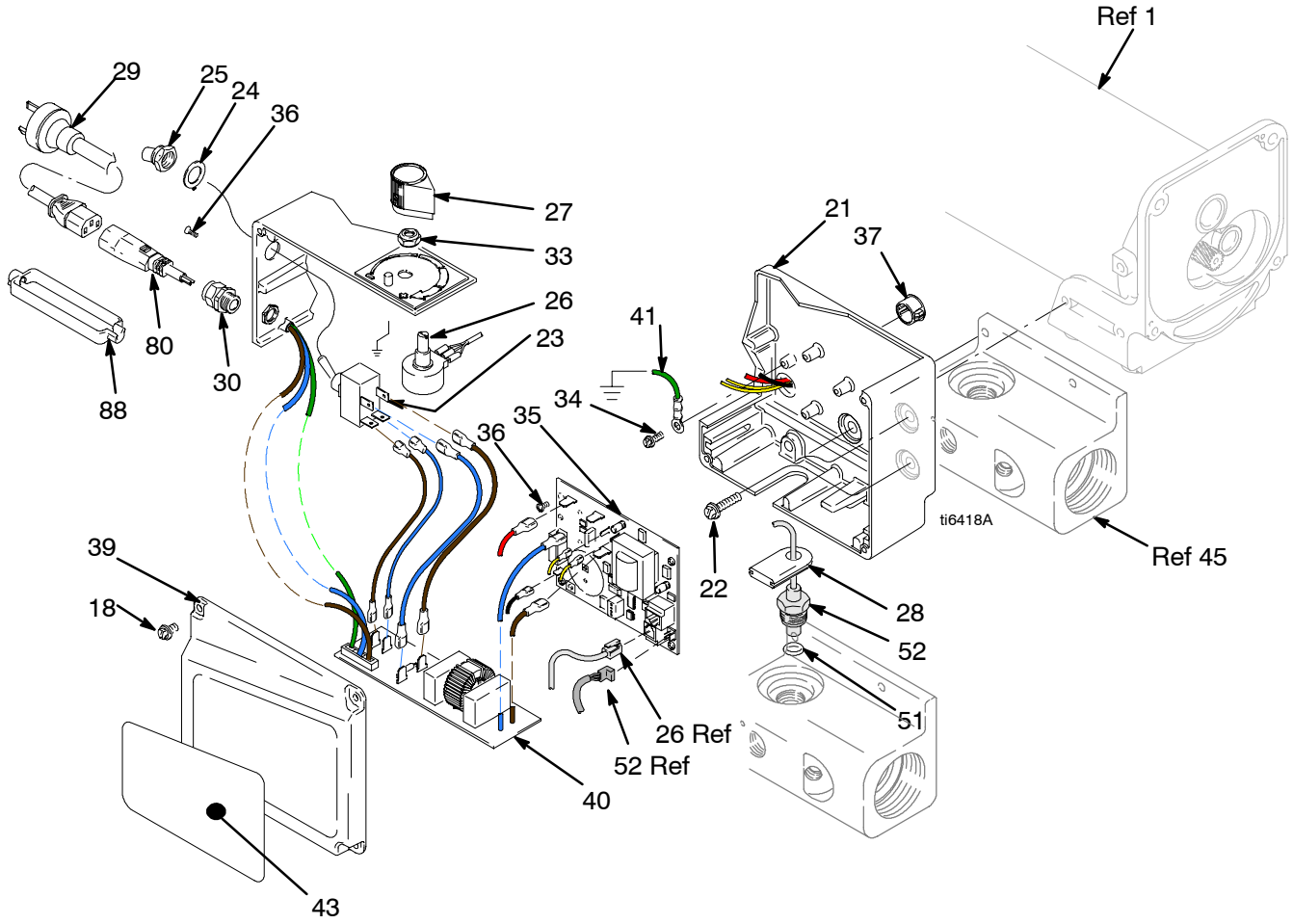
▲ *Replacement Danger and Warning labels, tags, and cards are available at no cost.*

***** Motor Brush Kit 236967 is available

† Other filters available: 243081, 100 mesh; 243226, 200 mesh

Parts Drawing

Model 249168 and 249169



Parts List – Sprayer

REF NO.	PART NO.	DESCRIPTION	QTY
18	115492	SCREW, slot hd, hex, washer hd	4
21	195528	HOUSING, control, 120Vac	
	276539	HOUSING, control, 240 Vac	1
22	115495	SCREW, slot hd, hex, washer hd	5
23	195429	SWITCH, toggle	1
24	15A435	RING, locking	1
25	195428	BOOT, toggle	1
26	236352	POTENTIOMETER, adjust, pressure	1
27	15F537	KNOB, potentiometer	1
28	195423	GROMMET, transducer	1
29	241996	CORD SET, 120 Vac, UK,	
	242001	CORD SET, 240 Vac, Europe,	
	287121	CORD SET, 240 Vac, Italy, Denmark, Switzerland	1
30	114064	BUSHING, strain relief, 120 Vac	
	114421	BUSHING, strain relief, 240 Vac	1
32	15A356	LABEL, control	1
33	112382	NUT, shaft, sealing	1
34	115498	SCREW, slot hd, hex, washer hd	1
35	241990	BOARD, control, 120 Vac	
	241992	BOARD, control, 240 Vac	1

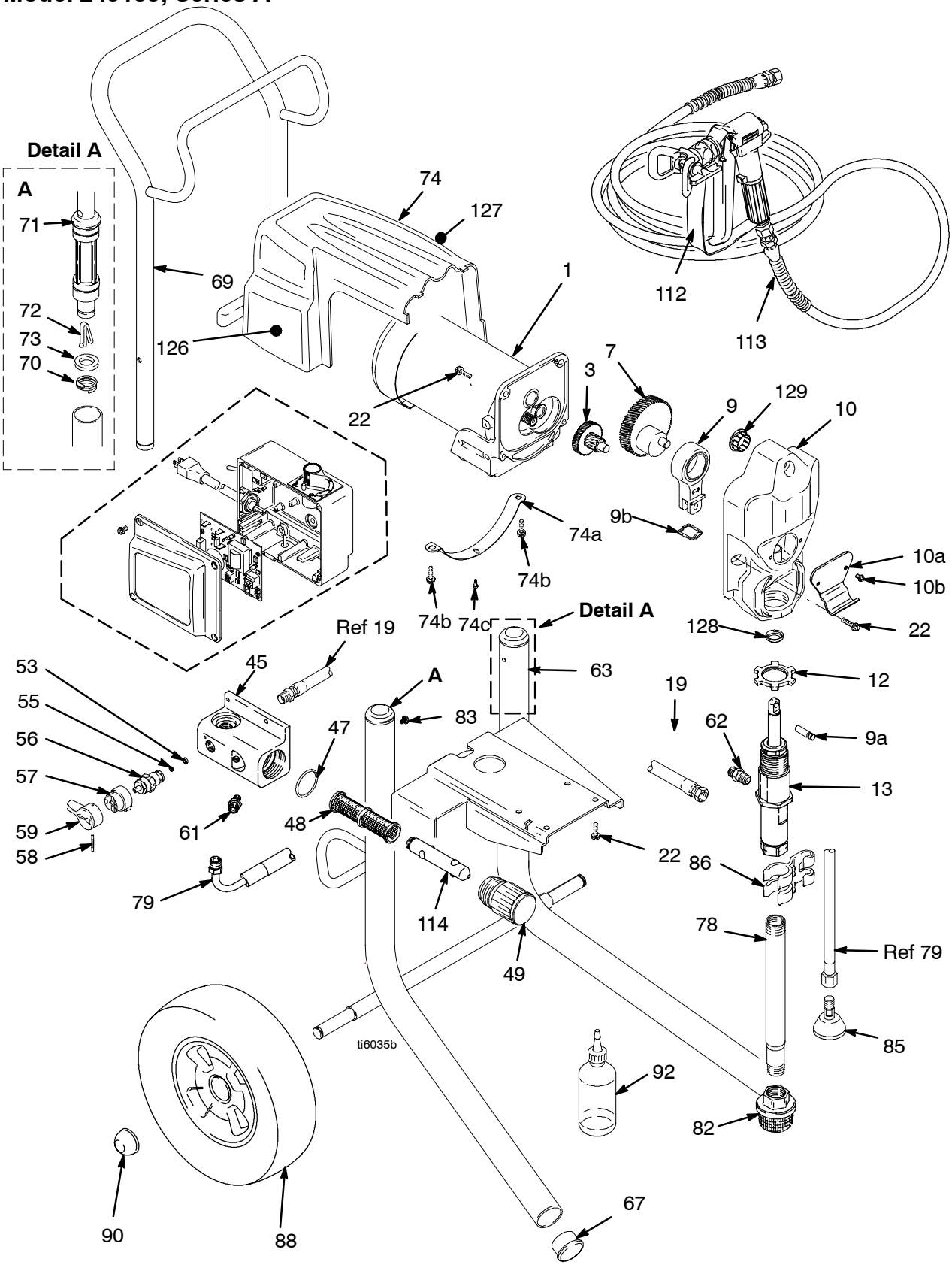
REF NO.	PART NO.	DESCRIPTION	QTY
36	241992	SCREW, 6-32 X 1/2, TAPTITE	5
37	115756	BUSHING, strain relief	1
39	198935	CONTROL, cover, black	1
40	241993	BOARD, filter, 120 Vac	
	241994	BOARD, filter, 240 Vac	1
41	243539	CONDUCTOR, ground	1
43	15F573▲	LABEL, control	1
51	111457	O-RING	1
52	243222	TRANSDUCER, pressure control includes 51	1
60	195866	WIRE, jumper	1
80	115632	RETAINER, plug adapter, 120 Vac	
	195551	RETAINER, plug adapter, 240 Vac	1
88	242005	CORDSET, adapter	1
130	15B182	WIRE, jumper	1
131	15B181	WIRE, jumper	1
132	15B187	CONNECTOR, wire	1
133	117472	METER, hour	1
134	15B953	TAPE, foam	1

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

Notes

Parts Drawing

Model 249159, Series A



Parts List - Sprayer

Model 249159 Series A

REF NO.	PART NO.	DESCRIPTION	QTY
1	**242012***	**MOTOR, 120 Vac**	**1**
3	**243219**	**GEAR, combination**	**1**
7	**243218**	**CRANK SHAFT**	**1**
9	**243221**	**CONNECTING ROD**	**1**
		includes 9a and 9b	
9a	195175	PIN, pump	1
9b	195512	RETAINER, pin	1
10	**243220**	**DRIVE HOUSING**	**1**
		includes 10a and 10b	
10a	15E286	HOOK, pail	1
10b	115492	SCREW	6
12	195150	NUT, jam, pump	1
13	**287658**	**PUMP (manual 311062)**	1
19	15C709	HOSE, coupled, high pressure	1
22	115495	SCREW, slot hd, hex, washer hd	13
43	15F303▲	LABEL, drive housing	1
45	15E180	HOUSING, filter	1
47	104361	O-RING	1
48	**245527†**	**FILTER, fluid, 60 mesh**	1
49	15E289	CAP, filter	1
56	**235014**	**ASSY, drain valve**	**1**
		includes 53 and 55	
57	224807	ASSY, cam, drain valve	1
58	111600	PIN, grooved	1
59	187625	HANDLE, valve, drain	1
62	162453	NIPPLE, 1/4 npt(m) x 1/4 npsm	1
63	241867	FRAME, cart	1
67	108691	PLUG, tubing	1
69	239998	HANDLE, cart	1
70	110243	RING, retaining	2
71	192027	SLEEVE, cart	2
72	111590	BUTTON, snap	2
73	183350	WASHER	2
74	15C391	SHROUD, motor	1
		includes 74a, 74b, 74c, 126 and 127	
74a	195159	BRACKET, shroud	1
74b	114531	SCREW, slot hd, hex, washer hd	2
74c	115843	SCREW, mach, pnhd, self-drill	1
75	115099	WASHER, garden hose	1
76	15B652	WASHER, suction	1
77	15E813	NUT, intake tube	1
78	15F551	TUBE, suction, intake	1
79	244240	HOSE, drain, includes 85	1
80	103413	O-RING	1
82	276897	STRAINER	1
83	109032	SCREW, pan hd	4
85	241920	DEFLECTOR, threaded	1
86	276888	CLIP, spring	1
88	119451	WHEEL, semi-pneumatic	2
90	119452	CAP, hub	2
92	206994	FLUID, TSL, 8 oz	1
112	248239	GUN, spray, ASM 400	1
113	116986	HOSE, coupled, 1/4” x 50” (hi-performance)	
114	15E288	FILTER INSERT	1
123	15F304▲	LABEL, identification, shroud	1
125	15C674▲	LABEL, Identification	1
128	115491	WIPER, rod	1
129	115979	PLUG	1

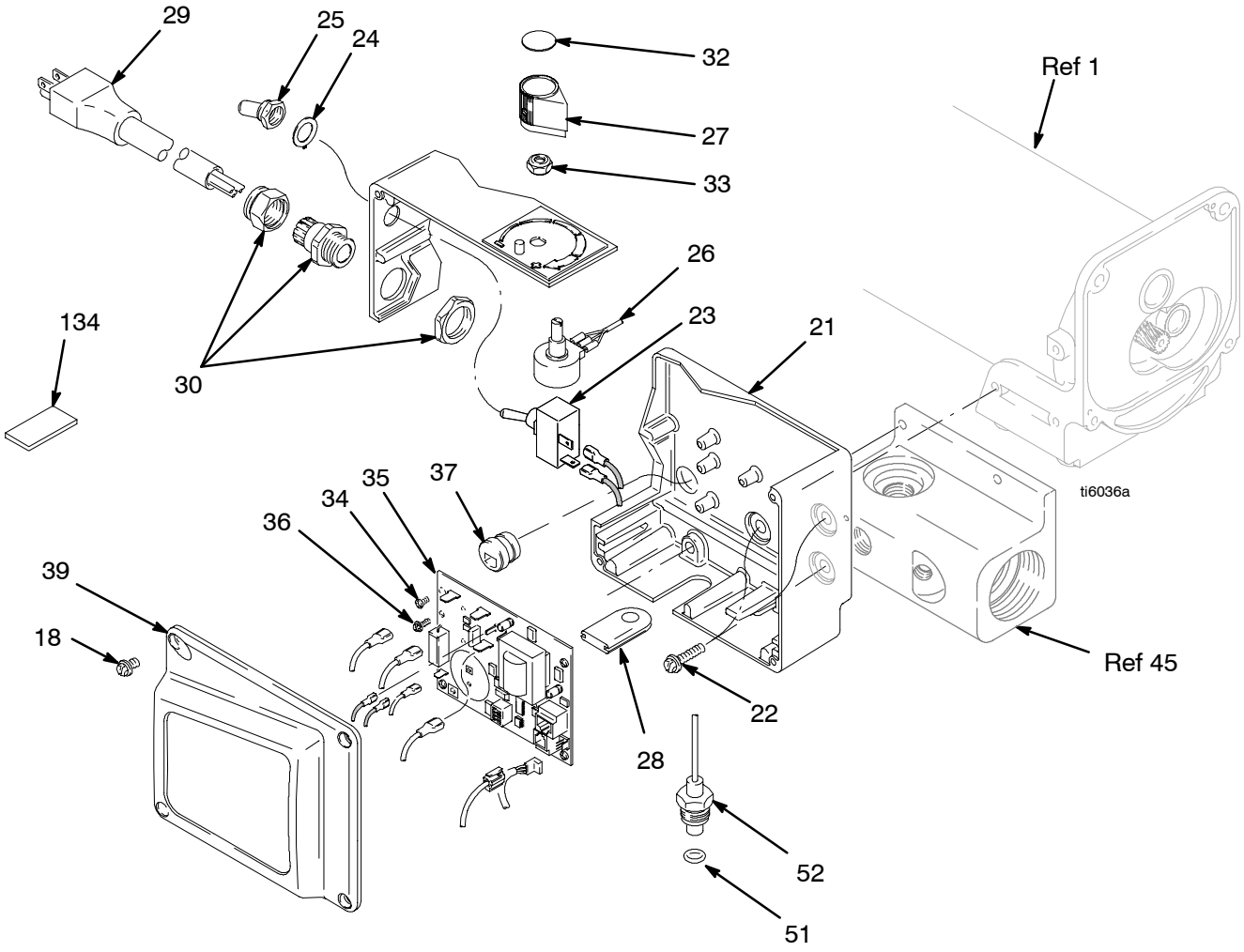
▲ *Replacement Danger and Warning labels, tags, and cards are available at no cost.*

* Motor Brush Kit 236967 is available

† Other filters available: 245528, 100 mesh; 245526, 200 mesh

Parts Drawing

Model 249159



Parts List – Sprayer

REF NO.	PART NO.	DESCRIPTION	QTY
18	115492	SCREW, slot hd, hex, washer hd	4
21	276539	HOUSING, control	1
22	115495	SCREW, slot hd, hex, washer hd	5
23	195429	SWITCH, toggle	1
24	15A435	RING, locking	1
25	195428	BOOT, toggle	1
26	236352	POTENTIOMETER, adjust, pressure	1
27	116167	KNOB, potentiometer	1
28	195423	GROMMET, transducer	1
29	241874	CORD SET, power	1
30	114421	BUSHING, strain relief	1
32	15A356	LABEL, control	1
33	112382	NUT, shaft, sealing	1
34	115498	SCREW, slot hd, hex, washer hd	1
35	241990	BOARD, control	1
36	115494	SCREW, 6-32 X 1/2, TAPTITE	5
37	115756	BUSHING, strain relief	1
39	198935	CONTROL, cover	1
51	111457	O-RING	1
52	243222	TRANSDUCER, pressure control includes 51	1
60	195866	WIRE, jumper	1

Technical Data

100–110V ∅, A, Hz	220–240V ∅, A, Hz	Generator Minimum W	Motor HP (W)	Cycles per gallon (liter)	Maximum Delivery gpm (lpm)	Maximum Tip size	Fluid Outlet npsm
1, 15, 50/60	1, 10, 50/60	3750	3/4 (560)	680 (180)	0.54 (2.09)	0.023	1/4 in

Basic Sprayer Wetted Parts: . . . . . zinc-plated carbon steel, polyurethane, polyethylene, stainless steel, PTFE, Delrin®, chrome plating, leather, V-Max™ UHMWPE, aluminum, stainless steel, tungsten carbide, nylon, thermoplastic elastomer, brass, nickel-plated brass

NOTE: Delrin® is a registered trademark of the DuPont Co.

Dimensions

Weight lb (kg)			Height in. (cm)	Length in. (cm)	Width in. (cm)
395	495	495			
57 (26)	59 (27)	66 (30)	29.5 (74.9) Handle down 39.5 (100.3) Handle up	21 (53.3)	20.5 (52.1)

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

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