

Operating Instructions



309243 rev.J

Two–, Three– and Four–Stage HVLP Turbine Sprayers

240V AC 50/60 Hz

HVLP 2500 with Two-Stage Turbine
Model 233430

5 psi (34 kPa, 0.3 bar) Maximum Working Pressure

HVLP 3800 with Three-Stage Turbine
Model 233431

6 psi (41 kPa, 0.4 bar) Maximum Working Pressure

HVLP 4900 with Four-Stage Turbine
Model 233433

8 psi (55 kPa, 0.5 bar) Maximum Working Pressure

120V AC 50/60 Hz

HVLP 3800 with Three-Stage Turbine
Model 233438

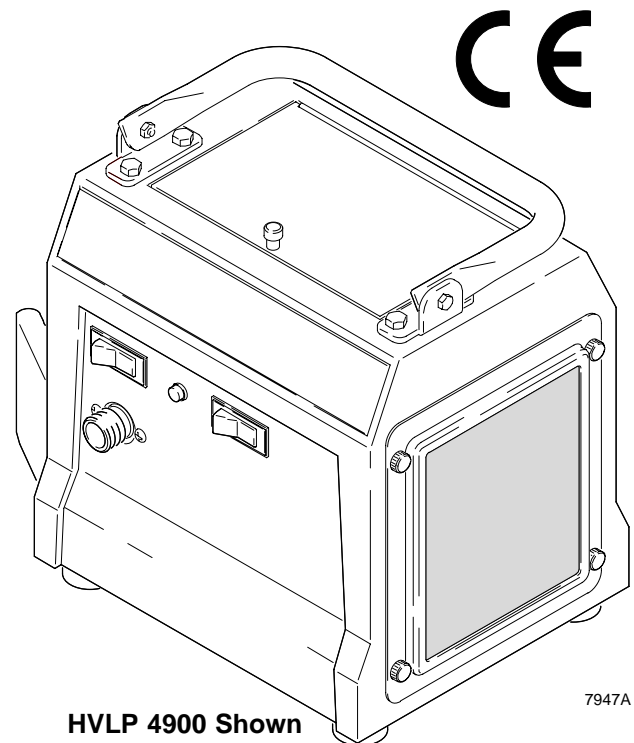
6 psi (41 kPa, 0.4 bar) Maximum Working Pressure

HVLP 4900 with Four-Stage Turbine
Model 233439

8 psi (55 kPa, 0.5 bar) Maximum Working Pressure

Related Manuals

HVLP Compressor/Cart [309244](#)
HVLP Turbine Gun [309205](#)



HVLP 4900 Shown

7947A

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Warning Symbol



This symbol alerts you to the possibility of serious injury or death if you do not follow instructions.

Caution Symbol



This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow instructions.

You will need:

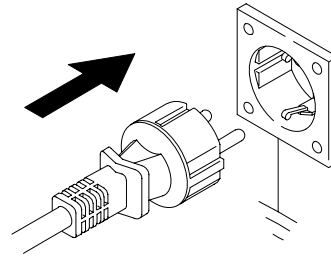
Cleaning fluids: a compatible solvent; water-based paint also requires soap and water.

Suggested proper clothing:

- Safety glasses
- Sturdy boots or shoes
- Respirator
- Gloves

Power Requirements:

- 120V AC 50/60 Hz, 15A circuit with a grounded outlet (models 233438 and 233439)
- 240V AC 50/60 Hz, 8A circuit with a grounded outlet (models 233430, 233431 and 233433)
- Extension cord must be 3-wire, 1.5 mm², no longer than 15 m.





WARNINGS

KNOW ALL HAZARDS BEFORE OPERATING SPRAYER!

Fire and explosion hazard: Solvent and paint fumes can ignite or explode.

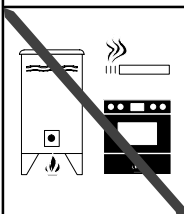
- Sprayers generate sparks. Keep sprayer at least 20 feet (6 m) from explosive vapors.

● **Use in an extremely well ventilated area.**

- Eliminate all ignition sources; such as pilot lights, cigarettes and static arcs from plastic drop cloths. Do not plug or unplug power cords or turn lights on or off in spray area.

- Ground Sprayer, object being sprayed, paint and solvent pails.

- Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use could result in a chemical reaction, with the possibility of explosion.



Equipment Misuse Hazard: Equipment misuse can cause the equipment to rupture or malfunction and result in serious injury.

- Before operating equipment, read all instruction manuals, tags, and labels.

- Check equipment daily. Repair or replace worn or damaged parts immediately.

- Do not exceed maximum working pressure (WPM) of the lowest-rated system component:

HVLP 2500 turbine – 5 psi (0.3 bar, 34 kPa)

HVLP 3800 turbine – 6 psi (0.4 bar, 41 kPa)

HVLP 4900 turbine – 8 psi (0.5 bar, 55 kPa)

- Use fluids and solvents that are compatible with the equipment wetted parts. See Specifications on page for this information.

- Wear hearing protection when operating this equipment.

- Do not “blow back” fluid; this is not an air spray system

- Follow Pressure Relief before cleaning, checking or servicing the equipment.

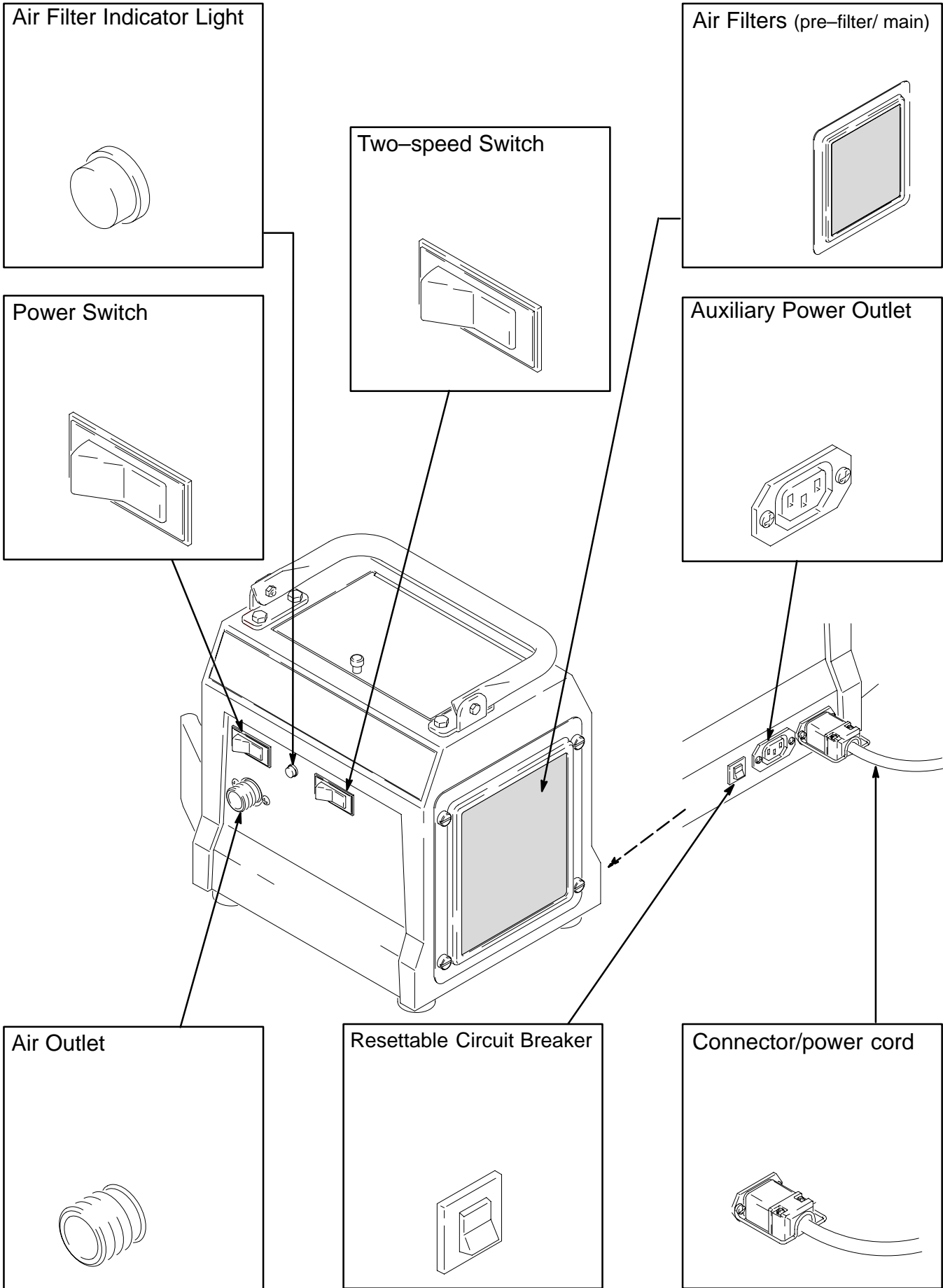


TOXIC FLUID HAZARD: Hazardous fluid or toxic fumes can cause serious injury or death if splashed in eyes or on skin, inhaled, or swallowed.

- Know specific hazards of fluid you are using and take protective measures as recommended by the fluid and solvent manufacturer.



Component Identification



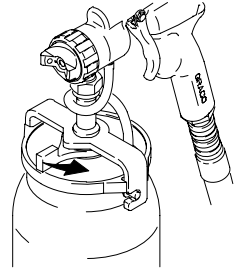
PRESSURE RELIEF – Follow this procedure when cleaning, repairing or shutting down sprayer



**Follow these instructions
whenever you stop spraying.**



Turn off turbine.



Unlatch cup

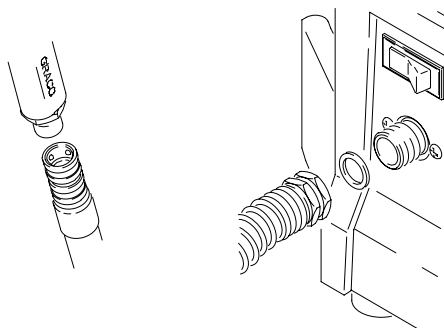


WARNING

GROUNDING – Improper installation or alteration of the grounding plug will result in a risk of electrical shock, fire or explosion

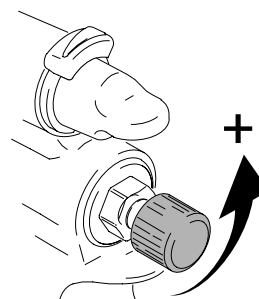
Setup

1. Connect air hose to gun and turbine.

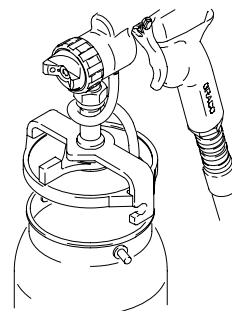


2. Turn fluid control out until trigger movement is not restricted.

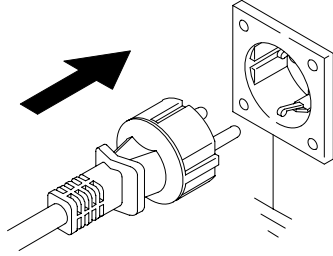
Caution: Turning knob too far will remove it.



3. Remove cup. Fill 3/4 full. **DO NOT OVERFILL.** Reattach and latch cup.



-
4. Plug turbine power cord into a grounded outlet.

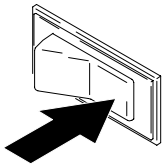


SPRAY (for complete information on the HVL Purbine Gun refer to manual 309205)

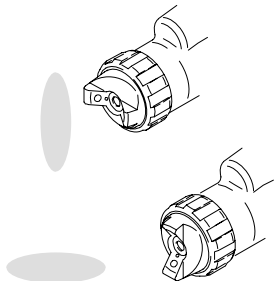
-
1. Open air control valve.



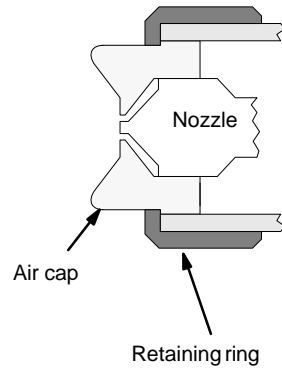
-
2. Turn turbine on. Wait several minutes prior to spraying to allow warm-up time.



-
3. Turn air cap to obtain desired direction.



-
4. Lock air cap with retaining ring.



-
5. Select spray pattern by adjusting the fluid knob and pattern selection knob. The air control adjusts the TOTAL air to the pattern and gun.

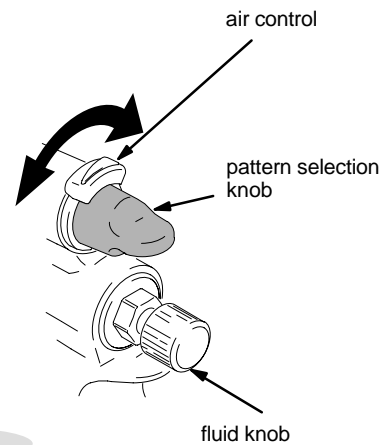
Round Pattern
Set knob to RND



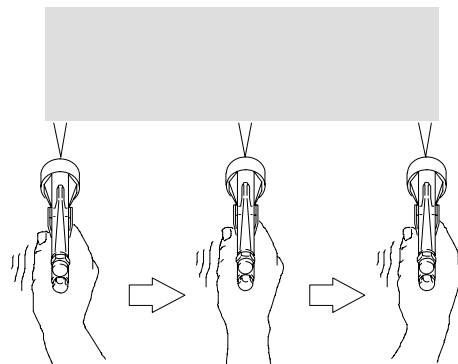
Vertical Pattern
Set knob to FAN

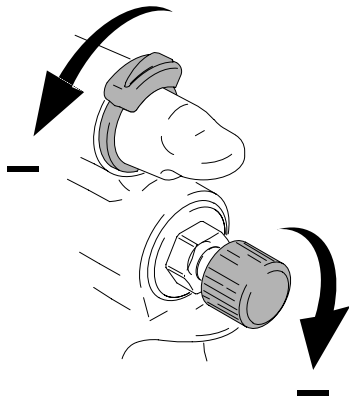


Horizontal Pattern
Set knob to FAN



-
6. Hold gun perpendicular, 6–8 inches from surface. Move gun first, then pull gun trigger to spray.

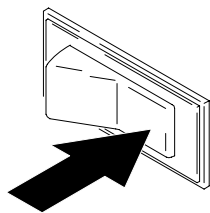




7. To control over-spray, reduce air flow or reduce fluid volume.

Note: If fluid is not atomizing properly, fluid may need to be thinned further, or a different tip size may be used.

OPERATING THE TURBINE



1. Turn turbine on several minutes prior to spraying to allow warm-up time.

Note: The turbine does NOT automatically shut off. When the turbine is not used for an extended period of time, turn it off.

Shutdown

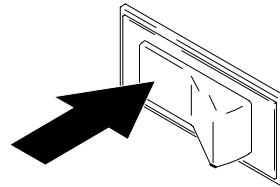
Perform **Pressure Relief procedure** described on page 2. Clean spray gun following procedure described in HVL Purbine Gun manual 309205.

Maintenance

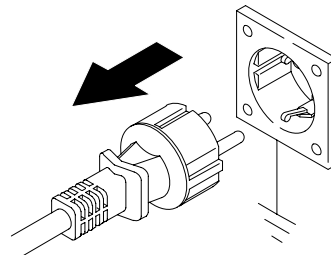
Daily: Turbine systems are lifetime lubricated. The only maintenance required is filter cleaning and replacement.

Cleaning the Filter

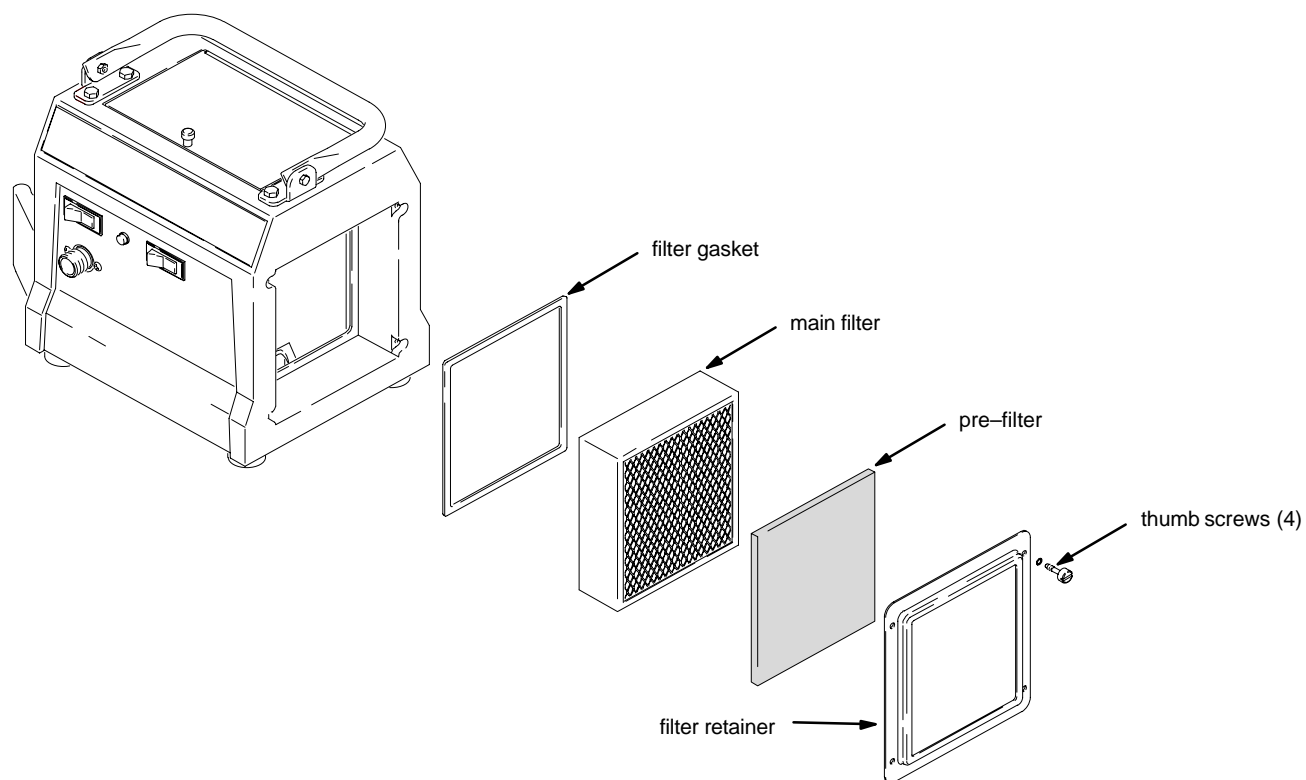
1. Turn off turbine.



2. Unplug turbine.



-
3. Loosen four thumbscrews and remove filter retainer, prefilter and main filter.



-
4. Clean main filter using one of the following three methods:

Method 1

1. Tap filter gently on flat surface – dirty side down.

Method 2

1. Direct compressed air (100 psi (7 bar, 70 kPa) through the filter panel in operation direction of arrows on side of filter (from the clean side to the dirty side).

Method 3

1. Soak filter for 15 minutes in water and mild detergent.

-
2. Rinse until clean. Air dry. DO NOT USE COMPRESSED AIR ON DAMP FILTER.

Weekly

1. Check hose for cracks, leaks, and holes.
Replace if necessary.

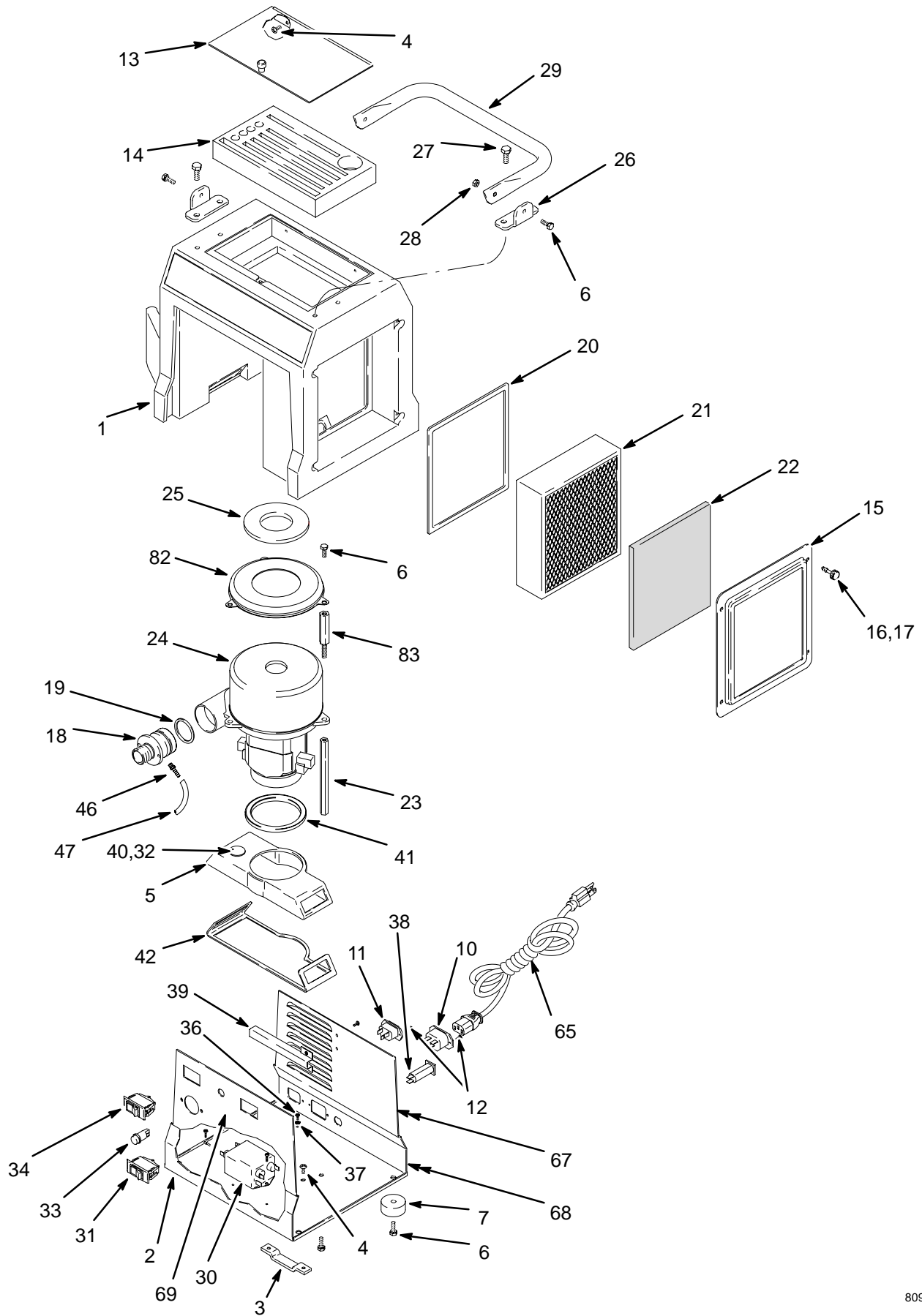
Annually or Every 600 Hours (whichever comes first)

1. Replace motor brushes after 600 hours of operation to avoid motor failure.

Note: It is recommended that an authorized service center perform the motor brush replacement.

[illegible]

Parts Drawing



8094C

Parts List

| Ref No. | Part No. | Description | Qty | Ref No. | Part No. | Description | Qty |
|---------|----------|--|-----|---|----------------|--|-------------|
| 1 | 276674 | COVER, turbine | 1 | 31 | 114658 | SWITCH, rocker (HVLP 4900) | 1 |
| 2 | 192775 | BASE PLATE, turbine (HVLP 2500 and 120V & 240V HVLP 3800) | 1 | 32 | 114279 | SENSOR, pressure (HVLP 3800 and HVLP 4900) | 1 |
| | 192774 | BASE PLATE, turbine (HVLP 4900) | 1 | 33 | 114286 | LIGHT, indicator (HVLP 3800 and HVLP 4900) | 1 |
| | 196839 | BASE PLATE, turbine (120V HVLP 4900) | 1 | | 114280 | LIGHT, indicator (120V HVLP 3800 & 4900) | |
| 3 | 192786 | PLATE, retaining | 1 | 34 | 114293 | SWITCH, rocker, red | 1 |
| 4 | 106084 | SCREW, pan hd | 6 | 36 | 111593 | SCREW, grounding | 1 |
| 5 | 192787 | DUCT, turbine | 1 | 37 | 102063 | WASHER, lock, external tooth | 1 |
| 6 | 112117 | SCREW, cap, hx hd | 12 | 38 | 114288 | BREAKER, circuit, 4A, 240V (HVLP 2500) | 1 |
| 7 | 113817 | BUMPER | 4 | | 114290 | BREAKER, circuit, 8A, 240V (HVLP 3800 and 240V HVLP 4900) | 1 |
| 10 | 114064 | PLUG, inlet | 1 | | 114403 | BREAKER, circuit, 15A, 120 (HVLP 3800 and 120V HVLP 4900) | 1 |
| 11 | 114065 | PLUG, inlet, female | 1 | | | | |
| 12 | 114410 | SCREW, pan hd, torx | 6 | | | | |
| 13 | 244166 | LID, tool box | 1 | 39 | 192905 | PLATE, deflector (HVLP 3800 and HVLP 4900) | 1 |
| 14 | 197054 | FOAM PAD, tool box | 1 | | | | |
| 15 | 197057 | RETAINER, filter | 1 | 40 | 193059 | GASKET, sensor (HVLP 3800 and HVLP 4900) | 1 |
| 16 | 192895 | SCREW, captive | 4 | | | | |
| 17 | 159486 | O-RING | 4 | 41* | 192845 | GASKET, duct | 1 |
| 18 | 193057 | FITTING, outlet (HVLP 2500) | 1 | 42* | 192846 | GASKET, duct | 1 |
| | 192779 | FITTING, outlet (HVLP 3800 and HVLP 4900) | 1 | 46 | 114287 | FITTING, barbed (HVLP 3800 and HVLP 4900) | 1 |
| 19* | 156698 | O-RING, buna-n | 1 | 47 | 192810 | HOSE, air (HVLP 3800 and HVLP 4900) | 1 |
| 20 | 192789 | GASKET, filter | 2 | | | | |
| 21 | 244137 | FILTER, main, paper (HVLP 2500) | 1 | 65 | 116281 | CORD SET, jumper IEC320, 8 ft | 1 |
| | 240273 | FILTER, main, paper (HVLP 3800 and HVLP 4900) | 1 | | 242001 | CORD SET, adapter, Cont. Europe | 1 |
| | | | | | 242002 | CORD SET, adapter, Italy | 1 |
| 22† | 240274 | FILTER, pre | 1 | | 242003 | CORD SET, adapter, Denmark | 1 |
| 23 | 193068 | SPACER, turbine (HVLP 2500) | 3 | | 242004 | CORD SET, adapter, Switzerland | 1 |
| | 192780 | SPACER, turbine (HVLP 3800 and HVLP 4900) | 3 | | 242005 | CORD SET, adapter, Australia (HVLP 2500, HVLP 3800, HVLP 4900) | 1 |
| 24* | M71135 | TURBINE, 2 stage, 240V (HVLP 2500) | 1 | | 241996 | CORD SET, IEC320, UK (120V HVLP 3800 & HVLP 4900) | 1 661955 |
| | M73016 | TURBINE, 3 stage, 240V (HVLP 3800) | 1 | 51 | RETAINER, plug | | 1 |
| | 114651 | TURBINE, 4 stage, 240V (240V HVLP 4900) | 1 | 67▲ | 193095 | LABEL, danger | 1 |
| | 240270 | TURBINE, 3 stage, 120V (120V HVLP 3800) | 1 | 68▲ | 193096 | LABEL, warning | 1 |
| | 241122 | TURBINE, 4 stage, 120V (120V HVLP 4900) | 1 | 69 | 193126 | LABEL, caution | 1 |
| 25* | 192812 | GASKET, turbine (HVLP 2500) | 1 | 75 | 240078 | #4/5 FLUID SET (HVLP 4900) <i>Not shown</i> | 1 |
| | 192788 | GASKET, turbine (HVLP 3800 and HVLP 4900) | 1 | 82 | 194094 | PLATE, turbine | 1 |
| | | | | 83 | | SPACER, turbine | 3 |
| | | | | | 194095 | HVLP 2500 | 3 |
| | | | | | 194096 | HVLP 3800 | 3 |
| | | | | | 194097 | HVLP 4900 | 3 |
| 26 | 19284 | BRACKET, handle | 2 | † Pre-filters are available in 5 packs. Order Part No. 240274. | | | |
| 27 | 105328 | SCREW, cap, hx hd | 4 | * Turbine Brush Kits are also available. Purchase separately: 240545 (for HVLP 2500), and 240546 (for HVLP 3800 and HVLP 4900). | | | |
| 28 | 113414 | NUT, lock | 2 | ▲ Extra danger and warning labels are available for free. | | | |
| 29 | 192785 | HANDLE, turbine | 1 | | | | |
| 30 | M71506 | FILTER, suppression (HVLP 2500) | 1 | | | | |
| | M73531 | FILTER, suppression (HVLP 3800 and 240V HVLP 4900) | 1 | | | | |
| | 116168 | FILTER, suppression (120V HVLP 3800 & 4900) | 1 | | | | |

Accessories

| Fluid Set (FS)/Spray Gun | |
|--------------------------|--------|
| FS | Number |
| None | 244115 |
| 3 | 244118 |

| Standard Turbine Air Hose | |
|---------------------------|--------|
| Length (ft) | Number |
| 30 | 241413 |

Tie Wrap Kit
(10 pack)
103473

| Material Hose | |
|---------------|--------|
| Length (ft) | Number |
| 30 | 240476 |

| Air & Material Hose | |
|---------------------|--------|
| Length (ft) | Number |
| 30 | 241423 |

| Pressure Pot | |
|--------------|--------|
| PTFE Lined | 240045 |

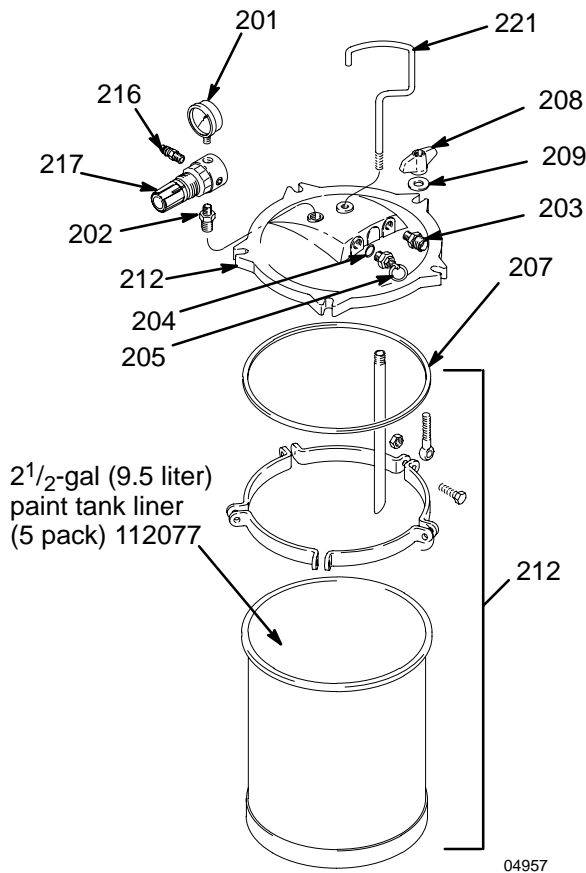
| Compressor Air Hose | | |
|-----------------------------------|-------------|--------|
| Pot | Length (ft) | Number |
| 2 ¹ / ₂ gal | 2 | 240074 |
| 2 qt | 30 | 240071 |

Notes:

- See **HVLP Fine Finish Systems** brochure 300564 for all accessories.
- Non-Silicone Lubricant 111265 (4 oz) is available for fluid seals and wear areas.

Accessories

2¹/₂-Gallon (9.5 liter) PTFE® coated Pot 240045
 50 psi (345 kPa, 3.5 bar) Maximum Inlet Air Pressure
 2¹/₂-gallon (9.5 liter) capacity, steel tank. Includes air pressure regulator, gauge, and pressure relief valve.



| Ref. No. | Part No. | Description | Qty. |
|----------|----------|---|------|
| 201 | 104655 | PRESSURE GAUGE | 1 |
| 202 | 151519 | REDUCER, 1/4 to 1/8 | 1 |
| 203 | M70687 | COUPLING | 1 |
| 204 | M70676 | O-RING | 1 |
| 205 | M70686 | PRESSURE RELIEF VALVE | 1 |
| 207 | 244953 | GASKET, standard; polyethylene (3/kit) | 1 |
| | M70616 | GASKET, standard; EPDM (optional – must order separately 1/kit) | 1 |
| | M70617 | GASKET, solvent resistant; | 1 |
| 208 | M70678 | WING NUT | 5 |
| 209 | M70677 | WASHER | 5 |
| 212 | 244288 | TANK, paint, 2 ¹ / ₂ -gal (9.5 liter), with PTFE coat | 1 |
| 216 | 169969 | QUICK DISCONNECT, male | 1 |
| 217 | 104815 | PRESSURE REGULATOR | 1 |
| 221 | M71639 | HANDLE | 1 |

Accessories

2-Quart (1.9 liter) Pressure Pot 287819

50 psi (345 kPa, 3.5 bar) Maximum Inlet Air Pressure

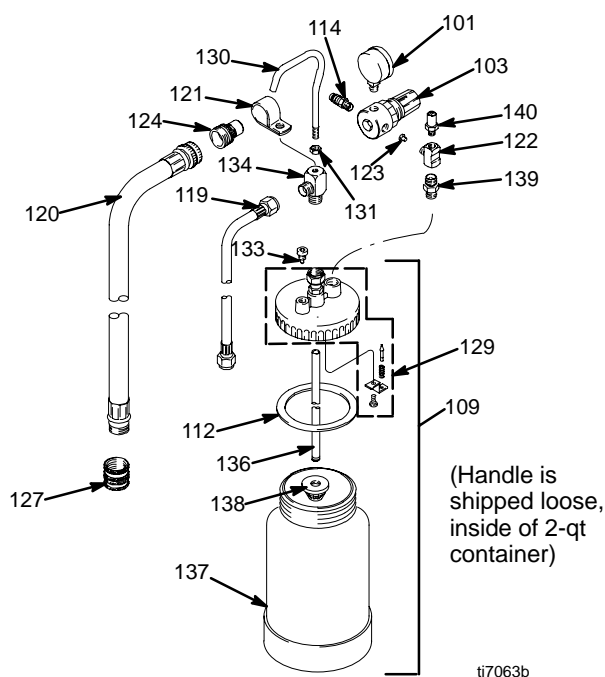
2-quart (1.9 liter) capacity, aluminum cup.

Includes air pressure regulator, gauge, pressure relief valve, and rigid hook handle.



WARNING

Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents, or fluids containing such solvents in the turbine spray system, which contains aluminum and/or galvanized-coated parts. 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.



| Ref. No. | Part No. | Description | Qty. |
|----------|----------|--------------------------------------|------|
| 101 | 104655 | PRESSURE GAUGE | 1 |
| 103 | 104815 | PRESSURE REGULATOR | 1 |
| 109 | 287818 | POT, 2 quart (1.9 liter), aluminum | 1 |
| 112 | 120132 | GASKET | 1 |
| | 287821 | GASKET KIT 5-pack | 1 |
| 114 | 169969 | FITTING | 1 |
| 119 | 240474 | HOSE, fluid; 60 in. long; 1/4 in. ID | 1 |
| 120 | 240482 | HOSE, air; 54 in. (1.37 m) long | 1 |
| 121 | M70854 | HOSE CLAMP | 1 |
| 122 | 110440 | FITTING TEE | 1 |
| 123 | 189557 | RESTRICTOR | 1 |
| 124 | M70399 | QUICK DISCONNECT, male | 1 |
| 127 | M70402 | QUICK DISCONNECT | 1 |
| 129 | 287820 | VALVE KIT, check repair | 1 |
| 130 | 120130 | HANDLE | 1 |
| 131 | 120129 | NUT, handle | 1 |
| 133 | 120127 | VALVE, pressure release | 1 |
| 134 | 120128 | FITTING, outlet | 1 |
| 136 | 120125 | TUBE, fluid | 1 |
| 137 | 120126 | CUP, 2 quart | 1 |
| 138 | 193218 | STRAINER | 1 |
| 139 | 120131 | FITTING, inlet | 1 |
| 140 | 120133 | VALVE, pressure relief | 1 |

NOTE:

- See HVLP Finish Systems brochure 300564 for all accessories.
- Non-silicone lubricant 111265 (4 oz.) is available for fluid seals and wear areas.

Specifications

Power requirements

| | |
|---|-------------------|
| All HVLP 2500, HVLP 3800 & HVLP 4900; Models 233430, 233431, & 233433 | 240V AC, 50/60 Hz |
| HVLP 3800 & HVLP 4900; Models 233438 & 233439 | 120V AC, 50/60 Hz |

Amps at 240 volts

| | |
|---|---------------------|
| HVLP 2500 | 1 phase, 4A minimum |
| HVLP 3800 & HVLP 4900; Models 233431 & 233433 | 1 phase, 8A minimum |

Amps at 120 volts (HVLP 3800 & HVLP 4900; Models 233438 & 233439)

1 phase, 14A minimum

Power cord (Extension cord must be 3-wire, 1.5 mm², no longer than 15 m.)

| | |
|----------------------------------|--|
| HVLP 2500, HVLP 3800 & HVLP 4900 | 1.0 mm ² , 3 wire, 8 ft (2.5 m) |
| 120V HVLP 3800 & HVLP 4900 | 1.5 mm ² , 3 wire, 10 ft (3 m) |

Unrestricted flow rate

| | |
|-----------|--------|
| HVLP 2500 | 58 cfm |
| HVLP 3800 | 80 cfm |
| HVLP 4900 | 82 cfm |

Turbine stages

| | |
|-----------|---|
| HVLP 2500 | 2 |
| HVLP 3800 | 3 |
| HVLP 4900 | 4 |

Maximum turbine hose length

| | |
|-----------|--------------|
| HVLP 2500 | 40 ft (12 m) |
| HVLP 3800 | 60 ft (18 m) |
| HVLP 4900 | 60 ft (18 m) |

Cup volume

1 quart (0.95 liter)

Wetted parts

| | |
|---|--|
| Bare spray gun | stainless steel, brass, PTFE, hard-coated aluminum |
| Spray gun cup | aluminum, polyethylene |
| 2-quart (1.9 liter) accessory remote pressure pot | aluminum, brass, polyethylene |
| 2 ¹ / ₂ -gallon (9.5 liter) accessory remote pressure pot | steel with solvent-resistant finish, EPDM gasket (standard) |

Turbine shipping weight

| | |
|-----------|-----------------|
| HVLP 2500 | 32 lb (14.5 kg) |
| HVLP 3800 | 34 lb (15.4 kg) |
| HVLP 4900 | 39 lb (17.7 kg) |

Turbine diameter

5.7 in (144.78 mm)

Sound level per ISO 3744

| | |
|----------------------|------------|
| Sound power level | 89.0 dB(A) |
| Sound pressure level | 78.0 dB(A) |

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1-800-367-4023 Toll Free

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mm 309243

This manual contains English

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