

TROUBLESHOOTING

Provided you have followed the instructions, the sprayer will operate efficiently and give trouble-free service. Should any unexpected problem arise you can, in most cases, remedy the problem by following the chart below:

Problem	Cause	Remedy
I. Sprayer does not start up	<ol style="list-style-type: none"> 1. Sprayer not plugged in 2. Blown fuse in circuit 3. No voltage or low voltage at wall plug 4. Bad sprayer ON-OFF switch 5. Damaged cord or extension cord, or cord capacity too low 6. Defective motor 	<ol style="list-style-type: none"> 1. Plug in 2. Replace fuse 3. Test power supply voltage 4. Replace switch 5. Replace with 3-prong cord. Any extension cord used must be 3-wire, 12 gauge minimum, with a 3-wire plug that will plug into a 3-wire electrical outlet 6. Repair or replace. To repair, see motor manufacturer's instructions
II. Sprayer starts up but does not draw up paint	<ol style="list-style-type: none"> 1. No paint or suction tube not totally immersed in paint 2. Suction filter clogged 3. Suction tube loose at inlet valve 4. Suction tube damaged or defective 5. Priming valve plugged 6. Hydraulic oil level very low or empty 7. Inlet valve stuck (use screwdriver, pencil, etc. — valve should move easily) 8. Inlet valve damaged (paint is drawn up and leaks through inlet valve) 9. Outlet valve stuck, dirty, or has worn parts 10. Diaphragm membrane ruptured, broken diaphragm spring, cracked diaphragm disk, or loose diaphragm nut 11. Loose oil suction tube in hydraulic housing 12. Scored piston or cylinder 13. Wrong grade of hydraulic oil, or using fluid other than hydraulic oil 14. Rear motor fan cover bent 	<ol style="list-style-type: none"> 1. Add more paint or immerse suction tube in paint 2. Clean or replace filter 3. Clean connection and tighten firmly 4. Replace tube 5. Take valve off and clean it 6. Fill only with hydraulic oil part number 0088009 (quart) or 0088010 (gallon). Caution: do not overfill 7. Oil valve while pushing it up and down with a screwdriver or pencil. If this doesn't work, remove valve and give it a good cleaning 8. Replace inlet valve. Torque to 47 ft/lbs. 9. Dismantle valve. Clean or replace valve spring first. If this does not work, clean or replace ball 10. Clean hydraulic housing if needed (blown diaphragm may cause internal freezeup) Replace defective diaphragm parts or tighten nut if loose 11. Replace or reglue tube 12. Replace piston. If cylinder is scored, replace hydraulic housing 13. Use only hydraulic oil part number 88009 (quart) or 88010 (gallon). Change initial fill after first 20 hours of operation. Change every 200 hours thereafter. Bleed after changing 14. Remove fan cover and straighten
III. Sprayer draws up paint but pressure does not build up	<ol style="list-style-type: none"> 1. Priming valve defective (paint runs back via return hose) 2. Hydraulic oil level low 3. Diaphragm membrane ruptured, cracked diaphragm disk, broken diaphragm spring, or loose diaphragm nut 4. Outlet valve stuck, dirty, or has worn parts 5. Defective suction tube 6. Scored piston or cylinder 7. Cracked hydraulic housing or paint pump housing 	<ol style="list-style-type: none"> 1. Replace valve 2. Fill to appropriate level using only hydraulic oil part number 0088009 (quart) or 0088010 (gallon) 3. Clean hydraulic housing if needed. Replace defective diaphragm parts or tighten nut if loose 4. Dismantle valve. Clean or replace valve spring first. If this does not work, replace ball 5. Replace tube 6. If piston is scored, replace piston. If cylinder is scored, replace hydraulic housing 7. Replace housing

TROUBLESHOOTING (Continued)

Problem	Cause	Remedy
IV. Sprayer draws up paint, pressure builds up, but drops away markedly when gun is opened (low performance)	<ol style="list-style-type: none"> 1. No spray tip on gun 2. Spray tip hole too large 3. Suction filter clogged 4. Gun filter plugged 5. Gun filter too fine for coarse paint being sprayed 6. Suction tube not firmly tightened to inlet valve 7. Leaky suction tube 8. Leaky priming valve 9. Worn paint pump outlet valve seat, ball, or spring 10. Worn inlet valve 11. Pressure control valve worn or damaged 	<ol style="list-style-type: none"> 1. Put on correct tip 2. Select smaller tip or try newer tip 3. Clean or replace filter 4. Clean or replace filter every 4 hours. Keep extra filters on hand 5. Use correct filter OR stain/thin paint 6. Clean connection thoroughly and tighten 7. Clean connection thoroughly and tighten or replace tube 8. Replace valve 9. Replace defective part(s) 10. Replace valve 11. Replace valve
V. Pressure fluctuation	<ol style="list-style-type: none"> 1. Loose suction tube at inlet valve 2. Leaky suction tube at inlet valve 3. Leaky or dirty priming valve 4. Leaky, worn, or damaged inlet valve 5. Outlet valve may be stuck, dirty, or have worn parts 6. Dirty pressure control valve 7. Worn or damaged pressure control valve 8. Pinhole in diaphragm membrane 9. Loose oil suction tube, causing air in hydraulic system. Or, oil suction tube may be partly plugged 10. Eroded paint pump block 11. Cracked hydraulic housing 	<ol style="list-style-type: none"> 1. Clean connection thoroughly and tighten 2. If tightening doesn't work, replace suction nut and adapter 3. Clean or replace valve 4. Replace valve 5. Dismantle valve. Clean or replace valve spring first. If this doesn't work, replace ball 6. Remove valve and clean 7. Replace valve 8. Replace diaphragm membrane 9. Clean oil suction tube if necessary and reglue 10. Replace block 11. Replace housing
VI. Paint in hydraulic housing	<ol style="list-style-type: none"> 1. Ruptured diaphragm membrane 	<ol style="list-style-type: none"> 1. Clean hydraulic housing, pressure control valve, and bearings. Replace diaphragm or diaphragm membrane and motor shaft seal
VII. Spray gun won't shut off	<ol style="list-style-type: none"> 1. Insufficient trigger spring pressure on gun 2. Worn ball or diffuser seat or gun on 3. Foreign matter or paint buildup between ball and diffuser on gun 	<ol style="list-style-type: none"> 1. Increase trigger spring pressure by adjusting rear tension nut 2. Replace ball or diffuser 3. Disassemble gun and clean
VIII. Spray gun leaks	<ol style="list-style-type: none"> 1. Worn valve ball holder on gun 	<ol style="list-style-type: none"> 1. Replace valve ball holder
IX. Spray gun won't spray	<ol style="list-style-type: none"> 1. Out of spray material 2. Spray tip or gun filter plugged 	<ol style="list-style-type: none"> 1. Get more spray material 2. Clean spray tip. Clean or replace gun filter
X. Low paint output from spray gun	<ol style="list-style-type: none"> 1. Partially plugged spray tip or filter 	<ol style="list-style-type: none"> 1. Clean or replace gun filter. Clean spray tip
XI. Spray gun sprays without trigger being pulled back	<ol style="list-style-type: none"> 1. Valve ball holder not in correct position 	<ol style="list-style-type: none"> 1. Adjust rear tension nut. If this doesn't work, examine valve ball holder and replace if necessary

TROUBLESHOOTING (Concluded)

NOTE 1: If a return line that is completely submerged in paint causes bubbles after priming, you probably have a vacuum leak in the suction set. To remedy, tighten suction set.

NOTE 2: Should oil seep through the face of the hydraulic and paint pump sections, firmly tighten the four socket-head capscrews. Use the 10 millimeter allen wrench. Put an extension tube over the allen wrench for leverage. Work alternately on opposite screws in turn. If a torque wrench is available, torque to 52 foot-pounds (624 inch-pounds).

NOTE 3: More than 100 feet of extension cord is not recommended. Use more paint hose, not more extension cord. Shorter extension cords will assure maximum electrical power for proper operation.

NOTE 4: When the priming valve is on $\sqrt{\text{r}}$ (spray) and you are getting flow back through the return tube, remove priming valve and clean or replace.

NOTE 5: The electric motor should always be kept clean and dry. Paint acts as an insulator. Therefore, too much paint on the motor will cause it to overheat.