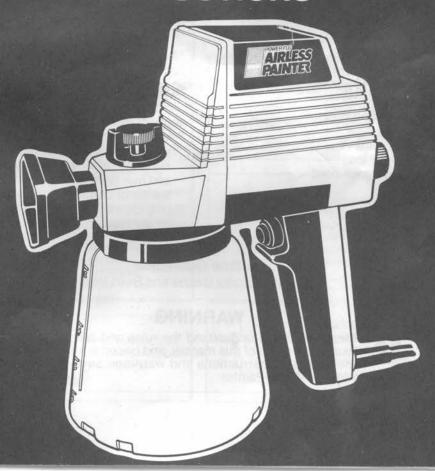


General Duty PF 15 and PF 25 Models
OPERATING
INSTRUCTIONS



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#### SPECIFICATIONS:

- All ceramic pump and nozzle
- · 115 Volts, 60 HZ
- 2.5 Amps (Maximum)
- · Weight, Empty: 3.7 lbs.
- · 3-wire grounded power cord
- 1-quart canister
- Spray rate 10¾ fl. oz. per min., (1 gallon in 12 minutes)
- · Single knob flow control

#### Suitable Spraying Materials:

Your sprayer will apply almost any type of interior or exterior paint. This would include enamels, stains, primers, lacquers, latex and water based paints. Many paints like latex are supplied ready for use with a brush or rol and may have to be thinned for spraying. (See thinning) Other materials like insecticides, oils, cleaning agents, silicons, etc. can also be sprayed.

#### Lifetime Guarantee

on Ceramic Spray Nozzle and Swirl Valve

#### WARNING

Please read and understand the rules and safety precautions found on page 5 of this manual, and become fully familiar with the enclosed instructions and warnings prior to using your PE 15 and PE 25 Airless Painter.

# YOUR PF 15 AND PF 25 AIRLESS PAINTER KIT CONSISTS OF THE FOLLOWING PIECES:

a roller, you can achieve smooth even results in a relatively short time. This Owner's Manual will help show you how.



HEAVY DUTY AIRLESS PAINTER: Complete with general purpose blue nozzle for spraying medium bodied latex paints, enamels, stains, lacquers; 1 quart canister and pick-up tube, complete with strainer; made of clear plastic, the canister is easily removed for cleaning.

Note: PF-15 equipped with grey nozzle only.



GREY SPRAY NOZZLE: Nozzle for spraying heavy bodied latex paints and enamels.

Lifetime Guarantee



WD-40 OIL: Use after cleaning to lubricate all moving parts. Refer to long term cleaning instructions, pages 12 and 13.

Not included with PF-15



MEASURING CUP: Use when thinning paint. Measures water or solvent in 1-ounce increments. See "thinning chart" found on page 8 of this manual.

Not included with PF-15



DELUXE CARRYING CASE: Plastic carrying case can be purchased as an accessory. For PF-15.



6-FOOT SUCTION TUBE KIT:

(Includes 6-foot suction tube, retainer and tube adapter.) Use the 6-foot suction tube kit for large painting jobs.

Not included with PF-15 or PF-25.



FACE MASK: Filters out dust and larger air-borne particles. For painting jobs, or spraying in enclosed areas, a paint respirator (a mask for use when painting) should be used.

Not included with PF-15 or PF-25.



CLEANING BRUSH: Use each time the product is cleaned to remove all paint residue. See cleaning instructions Pages 12 and 13.

Optional — not included with PF-15 & PF-25.

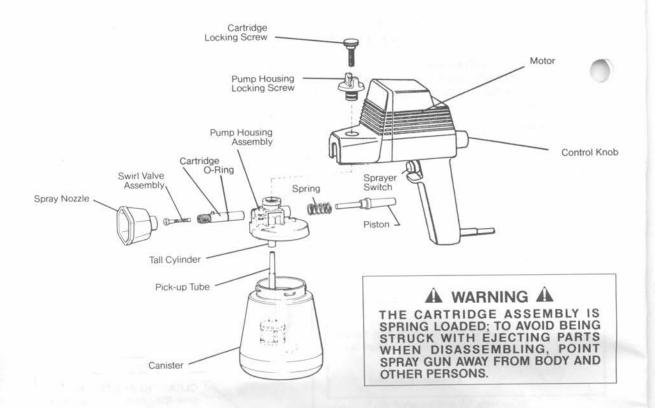


TWO REPLACEMENT SWIRL VALVE ASSEMBLIES: The swirl valve included in your sprayer will last a lifetime. However, if you lose a valve, these are the replacements.



FLEXIBLE EXTENSION: Can be bent at any angle. Use for painting ceiling, floors and under eaves without tilting sprayer.

Optional – not included with PF-15 & PF-25.



### TO PREVENT DAMAGE TO YOUR SPRAYER



- NEVER FORGET TO CLEAN YOUR AIR-LESS PAINTER. If paint is allowed to dry on the piston, it will clog the pump. This will result in a low humming sound followed by overheating of the motor.
- When assembling the spray nozzle and/or the flexible extension, be careful not to overtighten or cross threads.
- Your Airless Painter is not designed to spray
- materials containing particles or other solids such as: fire retardant paint, textured paints, cement, red glazes, paint containing lime, ground chalk, etc. Particles of asbestos, sand or metal in these paints may cause clogging and are highly abrasive to the piston, cartridge and spray nozzle.
- Do not operate your Airless Painter without paint or other materials.

### A WARNING A RULES FOR SAFE OPERATION

- The Airless Painter pumps paint at high pressure. NEVER purposely or accidentally aim it at any part of the body as the pressure may cause injection of paint into the skin. Such injection can cause serious injury (possibly leading to amputation). If such injection occurs contact a doctor immediately, as well as the Pittsburgh National Poison Center Office at 412-681-6669.
- READ AND UNDERSTAND THIS OWNER'S MANUAL BEFORE OPER-ATING YOUR AIRLESS SPRAYER.
- KEEP CHILDREN AWAY FROM WORK-ING AREA.
- To reduce the risk of electric shock, do not expose to rain. Store indoors.
- Inspect the electrical cord before use for signs of damage. Do not use if a deficiency is found. Never operate a damaged unit.

- WHEN SPRAYING PAINT USE A MASK SPECIFICALLY RECOMMENDED FOR SPRAY PAINTING.
- Always disconnect Airless Painter from power source when attaching the accessories.
- DO NOT spray in areas where fumes can reach an open flame, pilot lights on stove, heaters, furnaces, or other equipment that has a pilot light. DO NOT SMOKE WHILE SPRAYING. PAINT MAY IGNITE.
- When spraying toxic chemicals, follow the instructions provided by the chemical manufacturer. To avoid spontaneous combustion, discard waste rags into approved metal waste can.
- When unit is not in use, store in a dry place.
   Do not abuse cord.
- Servicing should be performed at the Service Center.

#### **GROUNDING INSTRUCTIONS**

This product should be grounded. In the event an electrical short circuit, grounding reduces are 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.

DANGER—Improper use of the grounding plug can result in a risk of electric shock.

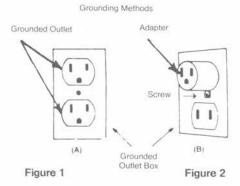
If repair or replacement of the cord or plug is necessary, do not connect the grounding wire to either flat blade terminal. The wire with insulation having an outer surface that is green with or without yellow stripes is the grounding wire.

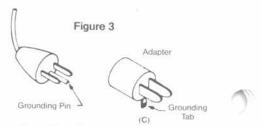
Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the product is properly grounded. Do not modify the plug provided; if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

This product is for use on a nominal 120 volt circuit, and has a grounding plug that looks like the plug illustrated in Figure 1. A temporary adapter, which looks like the adapter illustrated in Figure 2 and 3, may be used to connect this plug to a 2-pole receptacle as shown in Figure 2

#### Grounding Instructions Cont.

if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet (Figure 1) can be installed by a qualified electrician. The green colored rigid ear, lug, or the like extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by the screw.





#### **Extension Cords**

Use only a 3-wire extension cord that has a 3-blade grounding plug, and a 3-slot receptacle that will accept the plug on the product. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your

Ampere	Volts	Length	of Cord	in Feet
Rating Range	120V	25 ft.	50 ft.	100 ft
2-3		*18	*18	*16

product will draw. An undersized cord will cause a drop in line voltage resulting in loss of

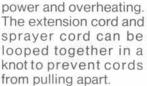




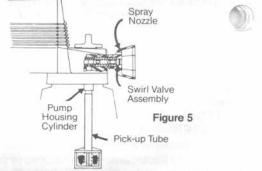
Figure 4

#### PRACTICE FIRST

Practice spraying water on newspaper or cardboard. This will give you the feel of the Airless Painter and all its features. Most power tools go through a short "break in" period before developing peak performance. This Power Sprayer may undergo a few minutes of hesitation and uneven spray pattern during its "break in" but will then smooth out. Follow the owner's instructions for adjusting to the proper spray pattern.

#### 1. CHECK THE FOLLOWING:

- A. Swirl Valve Assembly is in cartridge.
- B. Spray Nozzle is screwed on tightly.
- C. Pick-up Tube is inserted tightly into tall cylinder of Pump Housing. See Figure 5.
- 2. Fill paint canister with water.



 Plug your sprayer into a 3-wire extension cord (see Extension Cords instructions), looping the ends together. This will prevent the cords from pulling apart when spraying. See Figure 4.

#### Practice First Cont.

- 4. Press sprayer trigger. Allow a few seconds for the pump to spray material.
- As you spray, notice the difference in spray volume and spray pattern while adjusting the Control Knob.

Adjust the control knob until you get the best possible spray pattern.

KEEP A STIFF WRIST. Do not arch your wrist at the beginning or the end of the stroke.



Figure 6

Do not stop the motion of the sprayer while stroking. The path of the sprayer must pass beyond the area being painted and the flow of the paint must be triggered on and off as the sprayer passes into and out of the spraying area. See Figures 6 and 7.

#### WRONG WAY

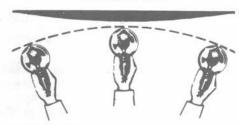


Figure 7

Stopping the motion of the sprayer or swinging into a new stroke pattern while paint is being delivered will result in heavy paint build-up at the edges of the stroke.

## Practice until you feel comfortable operating your Airless Sprayer.

 Latex paints can be sprayed immediately but be sure water is dried from all parts of the Airless Sprayer before spraying oil-based materials.



#### THINNING MATERIALS

In order for your Airless Painter to operate properly it is important to correctly thin the paint before spraying. Paint should be thinned by adding the solvent recommended by the paint manufacturer. For acrylic latex paints, use a lubricant additive, or water, to prevent excess piston wear and possible seizure of the piston. Lubricant additives are sold by hardware, paint and lumber stores with such brand names as Floetrol, Emulsabond and Gun Runner. The

lubricant additive should be added before thinning the paint with water, then, if further thinning is needed, add water.

Following is a general thinning guide. Because paints differ from brand to brand as well as from batch to batch, this guide can only be a place to start. The final guide to correctly thinned paint is achieving the proper spray pattern as shown in Figure 9.

#### Thinning Materials Cont.

PAINT	GENERAL THINNING GUIDE	
Stains-Interior Latex	Approx. one pint* per gallon or 12.5%	1
Stains—Exterior Latex	Approx. one pint* per gallon or 12.5%	
Stains—Oil Base	Use as is, unthinned	
Acrylic Latex—Exterior	Approx. one pint* per gallon or 12.5%**	
Acrylic Latex—Interior	Approx. one pint* per gallon or 12.5%**	
Latex Primers	Approx. one pint* per gallon or 12.5%	
Oil Base	Use as is, unthinned	

<sup>\*16</sup> fluid ounces = 1 pint. \*\*Be sure to use a lubricant additive.

Always follow the coverage rate recommended by the paint manufacturer regardless of the thinning required.

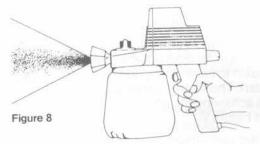
Additional thinning may be required when you are using the 6-foot Suction Tube and/or the Flexible Spray Extension.

Removing the suction tube filter basket may give better results when spraying heavy paints. Do not remove the filter unless the paint is new and completely clean. Take care to keep dirt from falling into the paint can while you are spraying.

#### SPRAYING INSTRUCTIONS

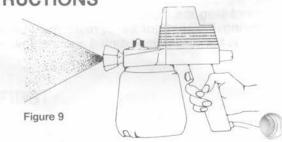
- Wear appropriate breathing protection, eye protection, gloves and clothing. A mask is recommended for dust and large air borne particles only.
- Begin spraying, by adjusting the control knob for best spray pattern setting, while spraying paint with your Airless Sprayer on newspaper or cardboard.

A spray pattern with heavy spray in center (Figure 8) means the pressure is too low.



Adjust the control knob by turning counter clockwise to increase pressure.

A correct spray pattern looks like Figure 9. The paint should be fairly evenly spread over the surface.

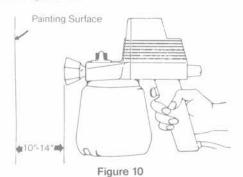


- 3. If the spray pattern is not correct, change the nozzle. The grey nozzle is for latex or heavy bodied paints. The blue nozzle is for oil base or thin bodied paints.
- 4. If the spray pattern is still not correct, disassemble the spray nozzle and inspect the swirl valve assembly. If the black valve is excessively worn (normally scratch marks around the outside, see figure), replace the swirl valve assembly.
- 5. If the spray pattern is still not correct, a thorough cleaning of the nozzle, swirl valve assembly, and pump assembly is required. Cleaning every 5-9 gallons of paint may be necessary for correct spraying. After cleaning, reassemble the parts. Lubricate the out-

8

side of the pump cartridge with petroleum jelly or Vasoline to improve the sealing. See figure.

Hold the sprayer 10-14 inches from the surface to be painted. Keep the sprayer parallel to the ground without pointing it up or down. See Figure 10.

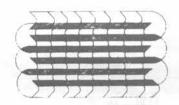


TILTING THE AIRLESS SPRAYER IS NOT RECOMMENDED. (SEE FLEXIBLE EXTENSION PAGE 11.)

NOTE: TO AVOID RUNS & SAGS DO NOT SPEED UP OR SLOW DOWN WHILE MOVING THE SPRAYER.

7. Overlap each stroke about 1/3 of the spray pattern. See Figure 11.

Figure 11



To paint inside corners, spray the adjoining walls or surface first. The overspray will paint the corner.

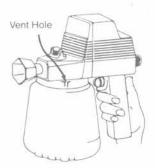
Figure 12

9. When you spray outside corners, point the nozzle of the sprayer in towards the surface. If you do not do this the paint will be sprayed past the corner. The overspray may land on the surface that you do not want painted. See Figure 12.

**IMPORTANT:** Should a low humming sound and/or an irregular spray pattern occur while spraying, immediately remove plug from electrical source and **THOROUGHLY** clean. This will prevent the motor from overheating and causing damage to the sprayer. (See cleaning instructions Pages 11 and 12).

NOTE: IF YOU STOP PAINTING FOR 30 MIN-UTES OR LONGER, RETEST THE SPRAY PATTERN BY SPRAYING ON NEWSPAPER OR CARDBOARD. IF YOU ARE UNABLE TO ADJUST THE SPRAY PATTERN PROPERLY, THERE IS A POSSIBILITY THAT THE PAINT HAS STARTED TO DRY. IF THIS HAPPENS, IT IS TIME TO CLEAN YOUR SPRAYER. (SEE CLEANING INSTRUCTIONS PAGES 11 AND 12).

Figure 13



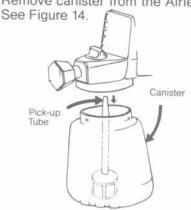
10. Keep vent in pump housing clean. If paint should dry and clog hole, your sprayer will not function properly. Remove dried paint with toothpick. See Figure 13.

#### 6-FOOT SUCTION TUBE KIT

Use the 6-foot suction tube kit for large painting jobs. It enables paint or material to feed directly from the material container through the sprayer. eliminating the need to continually fill the 1 quart canister.

#### HOW TO ATTACH THE 6-FOOT SUCTION TUBE KIT

1. Remove canister from the Airless Sprayer.



2. Remove the pick-up tube (complete with strainer), and insert it into the open end of the 6-foot suction tube. Assemble adapter to the other end of tube. See Figure 15.

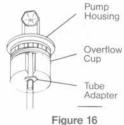


Figure 15

Figure 14

3. Lock the overflow cup into the sprayer. Make sure the hole in the cup lines up with the front of the sprayer so you can see the pump housing hole inside.

Push the tube adapter through the overflow cup and insert it into the hole in the pump housing tightly to prevent air leaks. See Figure 16.



Tube Retainer

4. Snap the tube retainer, which will be used to connect the suction tube to the paint container, over the 6-foot suction tube. See Figure 17.

Figure 17

5. Attach tube retainer with pick-up tube complete with strainer to the side of paint or material container.

Adjust suction tube so the strainer is below the fluid level. See Figure 18.



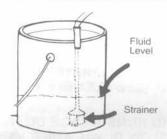
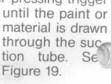
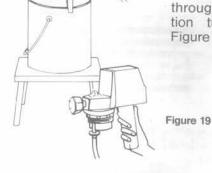


Figure 18

6. Prime your Airless Sprayer before you begin to spray. To prime hold the Sprayer below the fluid level in the container pressing trigger





IMPORTANT: Normal priming time is 1 minute for paint to travel from container to sprayer. If longer than 2 minutes stop and clean gun. (Refer to pages 12 and 13 under long term cleaning.)

#### **CLEANING THE 6-FOOT SUCTION TUBE**

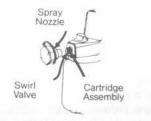
- To clean your sprayer run water or cleaning solvent through the suction tube until clear.
   Disassemble the fittings at both ends of the suction tube before any remaining paint can dry.
- 3. Thoroughly clean the tube adapter, suction tube, overflow cup and strainer.

#### FLEXIBLE EXTENSION

The flexible extension and the 6-foot suction tube kit included in your Airless Paint Sprayer can be used separately or together. Bend the flexible extension at any angle, making it easier to paint floors, ceilings, overhangs, or hard to reach areas. Using the flexible extension will prevent tilting of the sprayer. TILTING THE AIRLESS SPRAYER IS NOT RECOMMENDED.

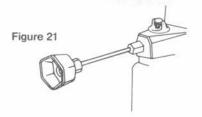
## HOW TO ATTACH THE FLEXIBLE EXTENSION

 Remove the spray nozzle from the Airless Sprayer. The swirl valve assembly (with spring) should remain in cartridge. See Figure 20.

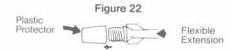


Screw the flexible extension end onto the sprayer. See Figure 21.

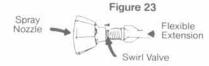
Figure 20



3. Remove the plastic protector from the flexible extension. See Figure 22.

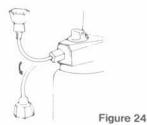


 Screw spray nozzle on the flexible extension, leaving the swirl valve (without spring) in place. See Figure 23.



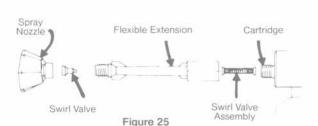
NOTE: BOTH SWIRL VALVE AND SWIRL VALVE ASSEMBLY MUST BE USED WITH THE FLEXIBLE EXTENSION. ONE SWIRL VALVE IS PLACED IN THE FLEXIBLE EXTENSION, THE OTHER SWIRL VALVE ASSEMBLY (WITH SPRING) IS INSERTED INTO THE CARTRIDGE OF SPRAYER.

Bend the flexible extension up, down, or sideways, whichever position is required. See Figure 24.

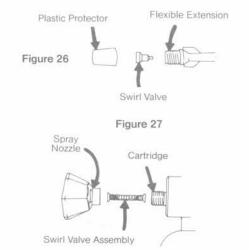


#### CLEANING THE FLEXIBLE EXTENSION

- To clean the flexible extension, spray water or cleaning solvent through the sprayer until clear.
- Remove spray nozzle from flexible extension. Remove swirl valve. Remove flexible extension and swirl valve assembly in cartridge. See Figure 25.
- Clean the flexible extension, swirl valves and spray nozzle.



4. After cleaning, replace swirl valve into the flexible extension and cover with the plastic protector. The swirl valve assembly should inserted into the cartridge. See Figures 26 and 27.



#### SHORT TERM CLEANING

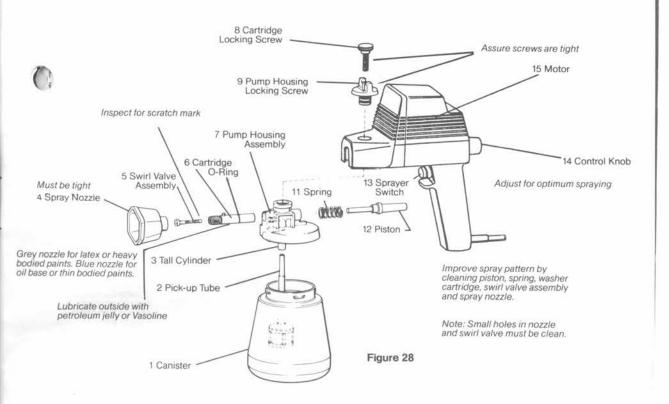
Follow these instructions if spraying will be discontinued for 30 minutes or longer, and periodically when spraying latex paint.

- Unplug electrical cord. Loosen spray nozzle
   Unscrew cartridge locking screw (8) 3 full turns counterclockwise.
- 2. Gently pull spray nozzle to remove cartridge
- and piston (See Figure 28).
- 3. Remove spray nozzle (4) and swirl valve assembly (5).
- 4. Rinse cartridge (6) and piston (12) in appropriate cleaning solvent (see paint can labe Rinse with soapy water. Lubricate outside of cartridge with petroleum jelly or other lubricant. Reassemble.

#### LONG TERM CLEANING

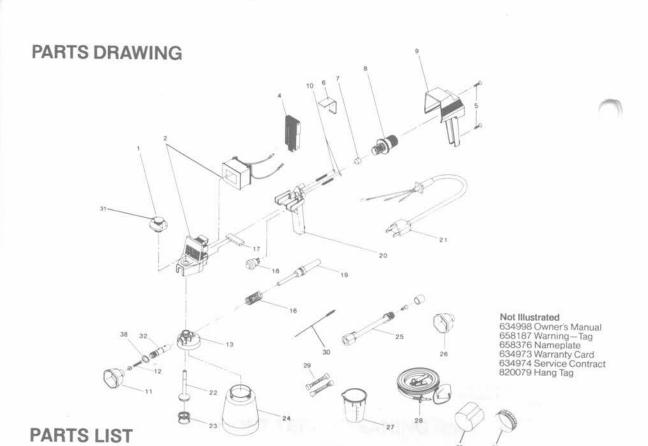
Follow these instructions when spraying job is finished.

- Unplug electrical cord and drain paint from canister.
- 2. Remove pick-up tube (2).
- 3. Loosen spray nozzle (4).
- 4. Unscrew (3 full turns counterclockwise) cartridge locking screw (8).
- 5. Gently pull spray nozzle to remove cartridge and piston (See Figure 28).
- 6. Remove spray nozzle and swirl valve assembly (5) from cartridge.
- Remove piston from cartridge (6). Remove spring (11) and retainer (10). DO NOT LOSE RETAINER.
- 8. Unscrew and remove pump housing locking knob (9), and pull pump housing assembly down.



- Thoroughly clean all parts with water or appropriate cleaning solvent (see paint can label). Use cleaning brush included with kit (paying attention to swirl valve holes).
- Lubricate all moving parts with WD-40 or any equivalent lightweight oil.
- Lubricate outside surface of cartridge assembly with petroleum jelly, Vaseline, or comparable lubricant.
- Slide pump housing assembly back under motor (15). Secure with pump housing locking knob.

- 13. Insert swirl valve assembly and attach spray nozzle to cartridge.
- Reassemble spring, retainer and piston, and insert into cartridge.
- Insert cartridge assembly into pump housing. Secure with cartridge locking screw.
- Tip gun upside down and put WD-40 into tall cylinder (3). Plug gun into electrical outlet. Press sprayer trigger (113) briefly to distribute oil.
- 17. Reassemble pick-up tube and canister.



Key No.	Part No.	Description
1	622033	Locking Knob
2	664192	Motor Housing, E-lam & Coil Assy
4	608288	Armature Assembly
5	625420	Screw #8-18
6	627116	Leaf Spring
7	624616	Buffer
8	629077	Control Knob Assembly
9	614715	Cover
10	625421	Screw #8-32
11	618082	Blue Spray Nozzle (Ceramic)
12	633882	Swirl Valve Assembly
13	661346	Pump Housing
16	627118	Compression Spring
17	624615	Damper
18	602315	Switch
19	626093	Ceramic Piston
20	629139	Handle
21	633865	Cord

Key No.	Part No.	Description
22	615647	Pick Up Tube
23	616206	Strainer
24	614638	Quart Cup
25	650277	Nozzle Extension
26	618081	Gray Spray Nozzle (Ceramic)
27	622016	Measuring Cup
28	650279	Suction Tube Kit
29	633882	Two Extra Swirl Valve Assemblies
30	624093	Cleaning Brush
31	625435	Cartridge Locking Screw
32	615393	Ceramic Cartridge Assembly
33	662015	Overflow Cup
34	623564	Locking Ring
35	625262	Screw (N.S.)
36	626503	Lockwasher (N.S.)
37	631543	WD40 Lubricant (N.S.)
38	623566	O-Ring

## TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
otor does not run	No current at motor Loose electrical connection	Check wall outlet and extension cord
	Defective motor or switch	Return to Service Center
Motor makes muffled humming sound	Control knob is screwed all the way in	Adjust control knob
	Armature spring is broken	Replace armature spring
	Seized piston	Remove piston and cartridge Clean (Add lubricant with latex paint)
Motor makes normal humming	Loose pick-up tube	Tighten pick-up tube
sound, but there is no spray	Plugged swirl valve or spray nozzle	Clean holes in each. If problem continues, replace swirl valve or nozzle
	Vent hole in pump housing is plugged	Clean out hole
	Swirl valve assembly is not seating properly	Replace swirl valve assembly
	Air is leaking between cartridge and pump housing	Reseal outside of housing with petroleum jelly or Vaseline
Paint is spitting	Canister is low	Refill canister
0	Improper adjustment	Adjust control knob
	Paint is too thick	Thin paint (Add lubricant with latex paint)
	Spray nozzle is too large or worn out	Replace or use a smaller nozzle
	Loose spray nozzle	Tighten spray nozzle
	Worn swirl valve	Replace swirl valve
	Air is leaking between cartridge and pump housing	Reseal outside of housing with petroleum jelly or Vaseline
Uneven spray pattern	One or more holes in the swirl valve have clogged	Clean swirl valve thoroughly
	Partial blockage in spray nozzle	Clean nozzle (use care not to damage ceramic nozzle)

# POWER-FLO PF 15 AND PF 25 HEAVY DUTY AIRLESS PAINTER ONE YEAR LIMITED WARRANTY

For one year from the date of purchase, when this PF 15 and PF 25 Airless Painter is maintained a operated according to the instructions in the owner's manual, we will repair, free of charge, any defect in material and workmanship.

If this Airless Painter is used for commercial or rental purposes, this warranty is invalid.

This warranty does not cover:

—Repairs necessary because of operator abuse or negligence. WARRANTY SERVICE IS AVAILABLE BY SHIPPING THE AIRLESS PAINTER, FREIGHT PRE-PAID, TO THE NEAREST SERVICE CENTER IN THE UNITED STATES.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.



Power-Flo Products Corp. 1661 94th Lane, N.E. Minneapolis, MN 55434

#### **HOW TO ORDER REPAIR PARTS**

Now that you have purchased your Airless Paint Sprayer, should a need ever exist for repair parts or service, simply contact the Service Center. Be sure to provide all pertinent facts when you call.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION: PART NUMBER (See Box) PART DESCRIPTION MODEL NUMBER (See Box) NAME OF ITEM Airless Paint Sprayer All parts listed may be ordered from the Service Center.

Record in space provided below the Date Code of this Airless Sprayer. The Date Code is located on the nameplate.

Model No.	
Date Code	

PN 634998 or PN 820063 2/89 edition

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