



Operating Instruction

Model No.: X980 X990 DP-6000



Please read and keep this manual, Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instruction for future reference.



Warnings for safe usage:

Before using the equipment please make sure that you have read and understood the Instruction Manual and observe all warnings when operating.

High pressure caution!

Airless painting equipment generates extremely high pressure. Paint sprayed under high pressure can cause personal injury so please observe the following precautions.

- Never pull trigger on airless gun when aimed at a person. For safety, when not in use or when removing nozzle tip, always engage safety lock.



- Do not use equipment if safety lock will not engage, or if trigger will not return or if there is a leak front any connectors. Do not modify airless gun or remove safety mechanisms (safety lock, safety card).
- Never place finger or hands on spray outlet or bring face close to it. Such actions are very dangerous and could lead to injury.

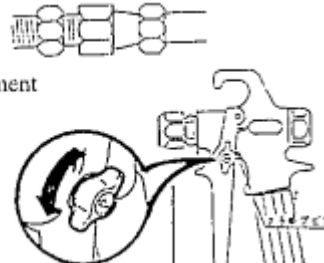


- Do not pull or twist paint hose excessively. Externally cracked, twisted or flattened paint hoses are more likely to break and spray out paint. Don't use in such condition.



- Ensure connectors are tightened firmly to avoid leaking. Should leaking occur, stop the equipment immediately purge air lines and lower paint pressure.

Ensure safe joint attachment



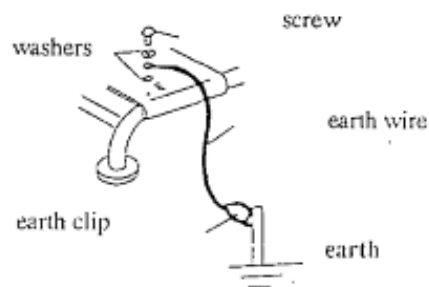
Always lock when you stop work.

NEVER INCREASE PAINT PRESSURE BEYOND WHAT IS REQUIRED.



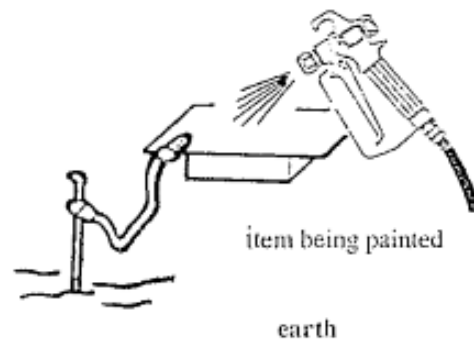
Static electricity caution!

- Paint atomized at high pressure can generate static electricity. To prevent discharge sparks, or accidents involving electric shocks make sure main unit and airless gun are earthed. The airless gun is earthed via paint hose (which can conduct electricity)

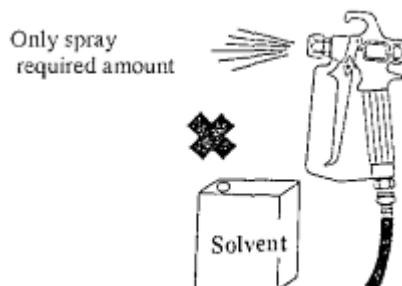


- Do not connect the earth wire to a gas pipe as it can lead to fire or explosion.

- Static electricity can also build up in the item being painted. Make sure this is also earthed.



Avoid spraying solvent oil its olvn any more than required. Solvent can ignite.



The paint hose is specifically for that purpose. Do not use it for any other purpose as this can lead to connection failure, leaking and cracking due to inadequate pressure resistance or failure to earth due to poor conductivity.



Part names, functions & basic operation

Warning!

- **The airless gun** sprays at extremely high pressure and is dangerous. Never touch tip of gun (spray orifice) or place it near the face.
- Very high pressure is applied to **paint hose**. Do not twist, bend, flatten or cut with any sharp object. This could lead to cracking and spray leakage.
- **When using this equipment always earth it.**
- Failure to do so can lead to fire, explosion or electric shock.
- Do not operate with the belt cover removed and do not poke sticks into the moving parts. Clothing or bands may be dragged in.
- **FAILURE TO OBSERVE THESE WARNINGS CAN RESULT IN SERIOUS INJURY.**

Caution!

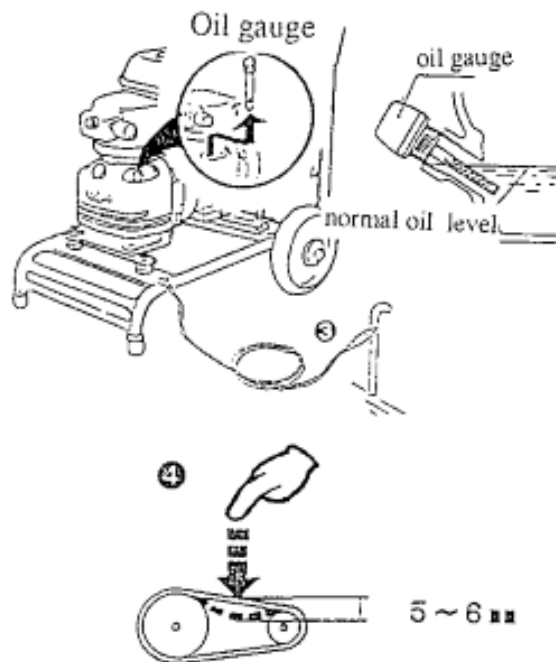
- Do not jolt or drop pressure gauge. The indicator may malfunction and cause a breakdown.
- Do not use relief valve to regulate pressure. This will shorten life of relief valve.
- Do no over-rotate pressure control valve beyond its maximum. This can lead.,to breakdown due to excessively high pressure.



Operational procedures

Preparation

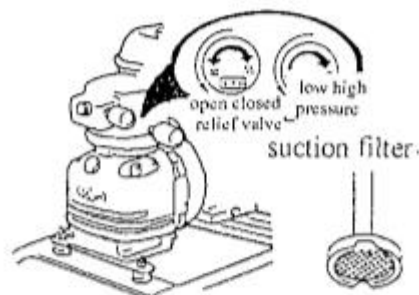
1. Make sure that paint hose, return hose, airless gun and nozzle tip are all properly connected.
2. Do not connect Oil gauge suction hose yet.
3. Use oil gauge to check whether there is any oil.
4. Carry out earth and check fuel.
5. If V-belt is slack, adjust to an appropriate tension. (On the super K101G) place your finger on the middle of the belt and press firmly. Adjust until slack is about 5-6mm. However never do this while in operation.



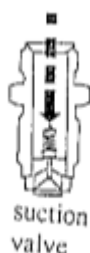


Confirming operation

1. Turn the relief valve right around to "open"
2. Turn the pressure control valve around to "low"
3. Check that suction filter is not blocked.
4. After engine starts (see Engine Start up) turn the pressure control valve slowly to "high"
5. Place the palm of your hand against air intake and check for suction.



If there is no suction?
Prime by flushing solvent through suction valve.
If suction valve is seized press suction valve rod and release.



If there is still no sound indicating operation?
Occasionally an air-lock occurs in the hydraulic system. If this happens, turn pressure control valve back to "low" and after operating for 1-2 minutes, slowly turn to "high"

5 Checking suction



Caution!

When you do this the solvent used as a primer can spurt out. Cover opening with a cloth to protect face and clothing.



Commencing operation

1. After confirming that suction valve is Operating, return pressure control Valve to "low" and connect suction hose. Suction hose and return hose are inserted into the paint that has been prepared in advance.

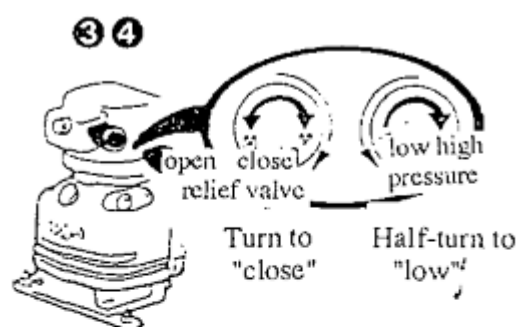
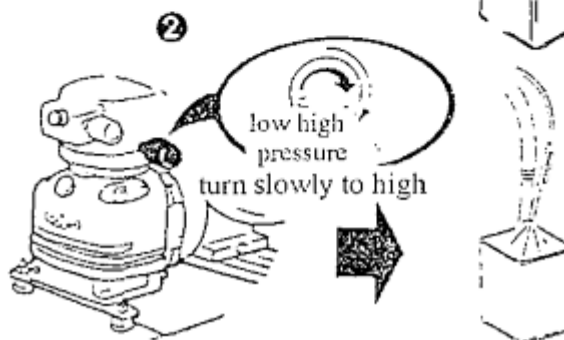
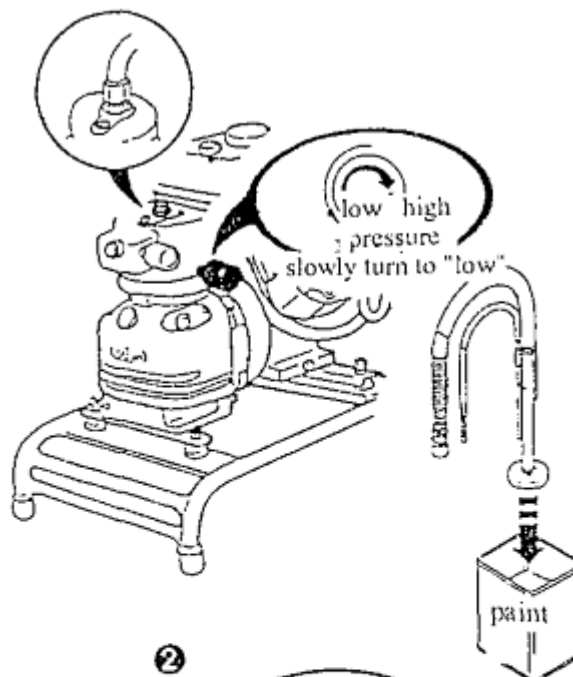
Caution!

- Don't use paints such as lysine etc. that contain aggregate.
- Take note of the allowable operating time for two-part paints. Make sure you stop within recommended time and clean up thoroughly.
- When stirring paint tank care not to aerate it. Aeration can cause suction failure.

2. Check that relief valve is set at "open". Slowly turn pressure control vale to "high" and paint will start to come out of return hose.
3. Return pressure control valve a half-revolution towards "low"
4. Turn relief valve to "close"
5. Slowly turn pressure control valve to "high" while pulling the trigger of airless gun and paint will come out of the nozzle. Then release gun trigger and re-set pump to desired spraying pressure.
6. Adjust pressure control valve to pressure that is appropriate for the paint then start work.

Caution!

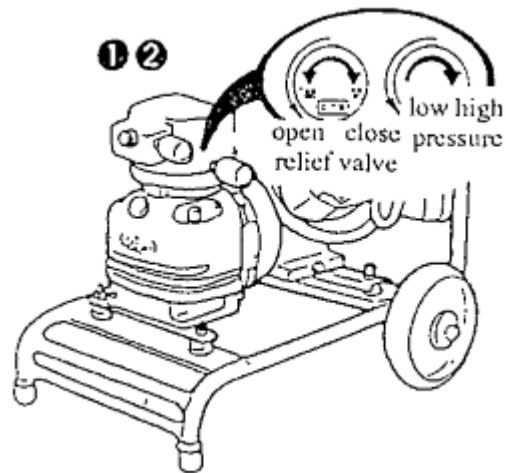
- When not working or when changing nozzle always activate safety lock on airless gun to prevent mishap.
- Ensure adequate ventilation while working and work in a location where there is good air movement. Wearing a face mask against dust is recommended for health reasons.
- Don't forcefully turn pressure control valve beyond maximum setting. Overloading can cause breakdown.





Interruption work, stopping work

1. Turn pressure control valve to "low".
2. Turn relief valve knob to "open"
3. Run for 1-2 minutes with throttle lever in the "low speed" position.
4. Switch off engine.
5. Close fuel cock.



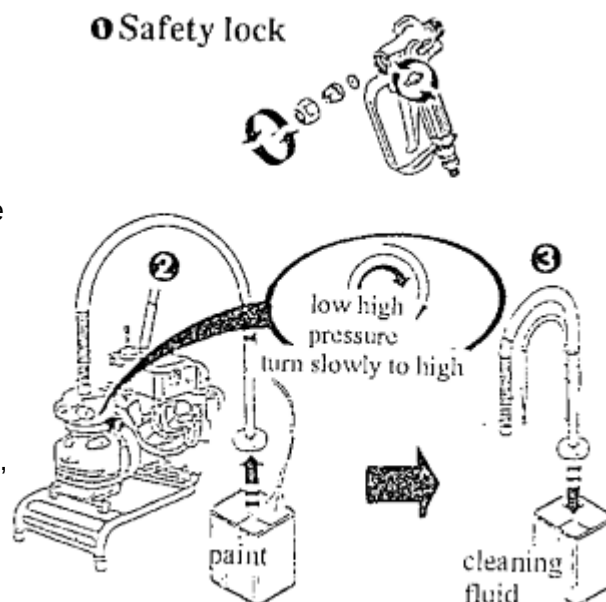
Shut-down and maintenance procedures

1. Check that pressure is at zero then activate safety lock on airless gun and remove nozzle tip.
2. Check that relief valve is at "open" and pressure control valve is at "low" then remove suction hose from paint and start engine.
3. Slowly turn pressure control valve to "high" and once a certain amount of paint has run out of return hose place suction hose into cleaning fluid#.

#Cleaning fluid is defined as a solvent, water etc. that is appropriate to the paint.

Oil-based paint - solvent

Water-based paint - water



Caution!

Don't increase pressure to such an extent that paint or cleaning fluid spray out.



Shut-down and maintenance procedures (continued)

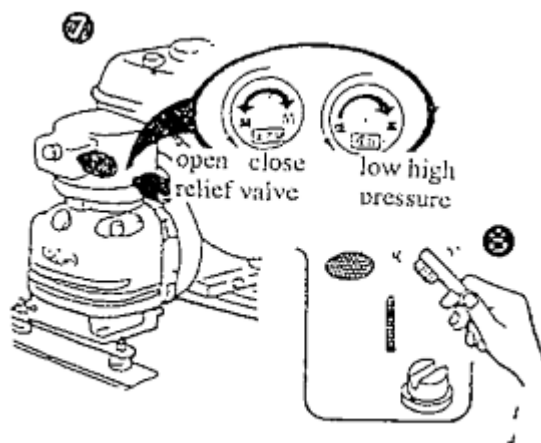
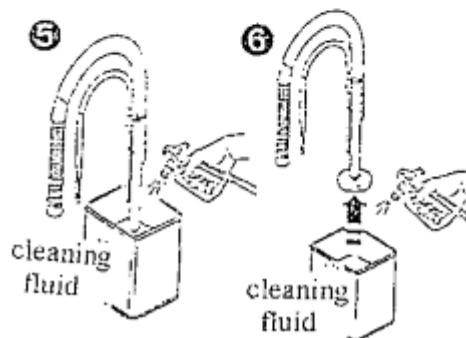
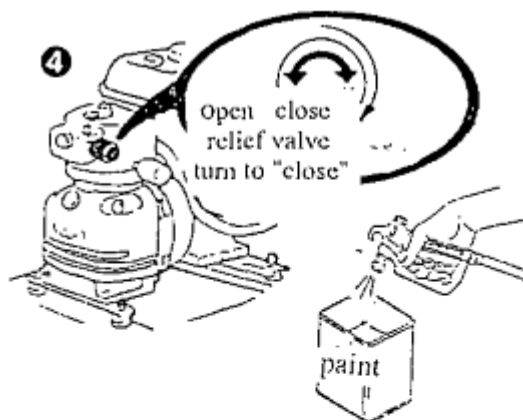
4. Once cleaning fluid has run out of return hose, turn relief valve to “close”, disengage safety lock on airless gun, pull trigger and purge paint out of hose.

5. Once cleaning fluid has run through tip of gun, recycle fluid in that state for a short time in order to clean out the paint system.

6. Remove suction hose from cleaning Fluid and purge cleaning fluid in paint Hose from airless gun.

7. Turn relief valve to “open”, purge cleaning fluid in return hose and finish by turning pressure control valve to “low”.

8. Remove suction filter and nozzle and clean away any build-up of matter or paint.



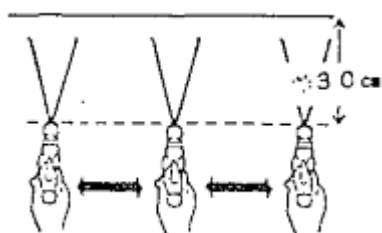
Caution!

- When not in use for an extended period totally purge cleaning fluid and fill suction valve with rust-proofing oil to prevent seizing.
- Never discharge paint waste or waste cleaning fluid into natural water systems, sewers etc. request removal by an industrial waste collector.



Airless spray gun operation

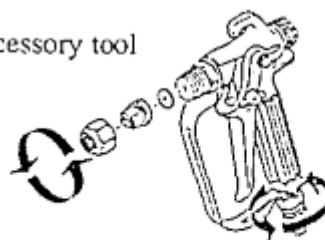
1.



Aim gun at surface for painting and move horizontally keeping a steady speed and maintaining an interval of approximately 30cm.

2.

use accessory tool



manually or with accessory tool

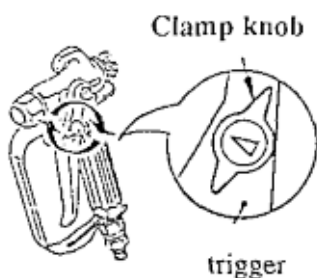
Remove nozzle tip gun filter as illustrated. If nozzle tip is blocked, remove tip and clear blockage by blowing in air from opposite direction. When attaching, check that gasket is in place and tighten firmly.

Caution!

Under no circumstances change the nozzle tip or remove the filter when the pressure is on, paint spraying out is dangerous.

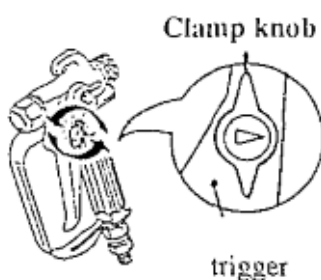
Clamp knob usage

Spry lock
(continuous spray)



Pull trigger back, then release it while turning knob so that arrow on knob points to gun tip. If you pull it again it will automatically disengage.

Safety lock



Without pulling trigger turn knob so that it faces side of handle.

Caution!

- For safety reasons, when not painting or when nozzle tip is removed, always engage safety lock.
- Paint build-up can cause a breakdown. Make sure cleaning and lubrication is carried out.



Nozzle tip diameter

Orifice Size	Fan Width - Inches							Flow Rate		Application	Filter
inch	2" – 4" Fan	4" – 6" Fan	6" – 8" Fan	8" – 10" Fan	10" – 12" Fan	12" – 14" Fan	16" – 18" Fan	gpm	L/min		
0.011"	111	211	311	411				0.12	0.45	Stain or Lacquer	150mesh (red)
0.013"	113	213	313	413	513	613		0.18	0.68		
0.015"	115	215	315	415	515	615		0.24	0.91	Oil Base Paint	100mesh (yellow)
0.017"	117	217	317	417	517	617		0.31	1.17	Latex Paint / Acrylic / Enamel	100mesh
0.019"	119	219	319	419	519	619	819	0.38	1.44		60mesh (white)
0.021"	121	221	321	421	521	621	821	0.47	1.78		
0.023"		223	323	423	523	623	823	0.57	2.16	Heavy latex	60mesh (white)
0.025"		225	325	425	525	625	825	0.67	2.54		
0.027"		227	327	427	527	627	827	0.77	2.91		
0.029"		229	329	429	529	629	829	0.90	3.41	Elastomeric / Block filler / Primer / putty / plaster / glue	30mesh (green)
0.031"		231	331	431	531	631	831	1.03	3.90		
0.033"		233	333	433	533	633	833	1.17	4.43		
0.035"		235	335	435	535	635	835	1.31	4.98		
0.037"		237	337	437	537	637		1.47	5.56		
0.039"		239	339	439	539	639		1.63	6.18		
0.041"		241	341	441	541	641					
0.043"		243	343	443	543	643		1.98	7.51		
0.045"				445	545	645		2.17	8.23		
0.051"				451	551	651		2.79	10.57		
0.055"				455	555	655		3.25	12.29		

Caution!

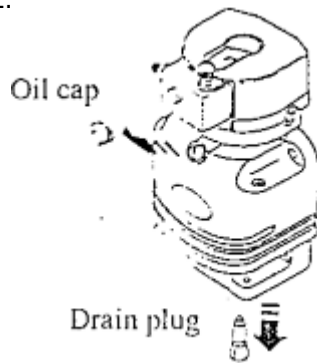
After using, always wash in readiness for the next usage. Remove gun filter inside handle and clean with a brush.



Maintenance and inspection

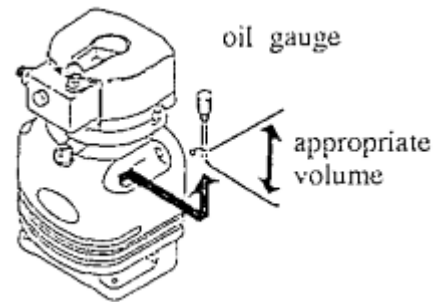
Changing oil

1.



Remove oil cap and drain plug to drain oil

2.



Confirm that drain plug is in place then put in approx. 900cc of oil and check using oil gauge. Overfilling will result in leaking via relief valve during operation.

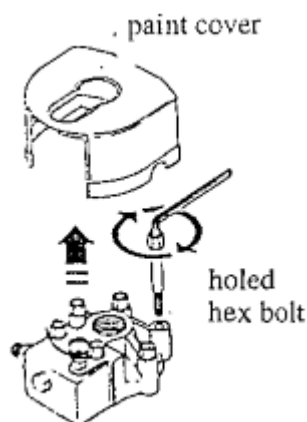
Caution!

Please take waste oil to your nearest petrol station. Never dispose of it in natural water courses or sewers.

Please use "High Power Oil". Do not use any oil other than our proprietary oil. Abnormally high temperatures and loss of performance can lead to breakdowns and shorten the life of the product.

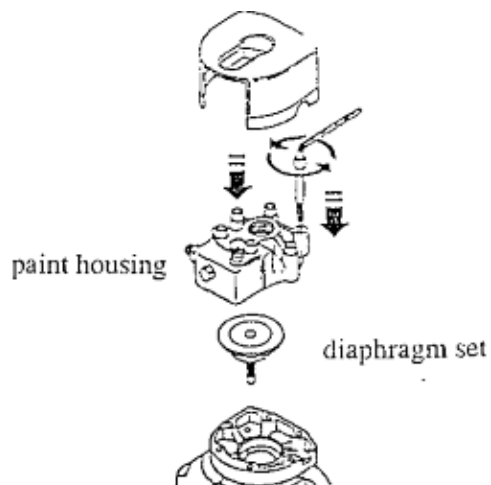
Changing diaphragm

1.



Remove paint cover.
Remove the 6 holed hex bolts using the corresponding 8mm hex key.

2.

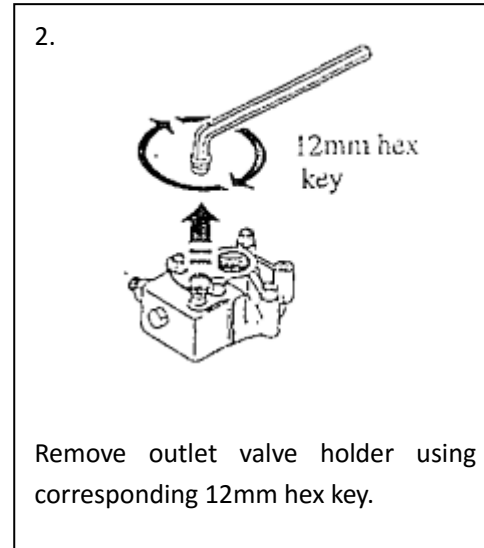
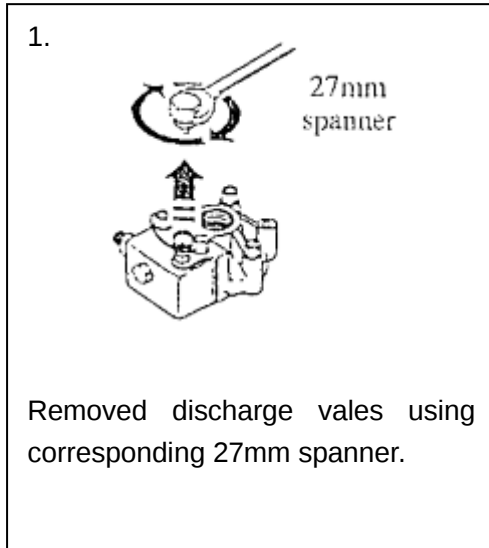


Change diaphragm for each set and assemble. When tightening the 6 holed hex bolts, tighten uniformly in sequentially diagonal order.



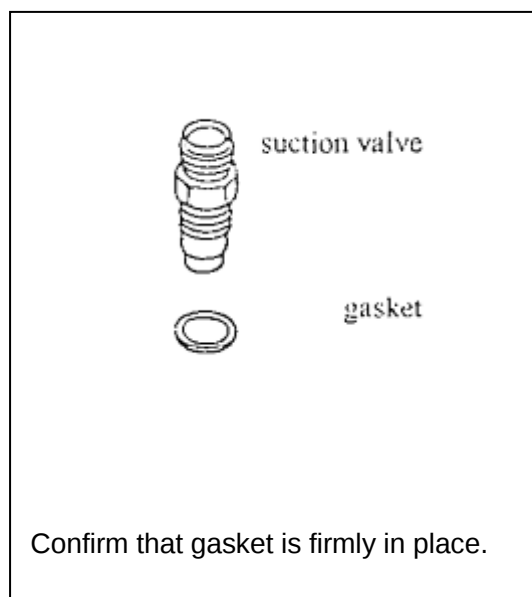
Changing outlet valve

Should paint particles or aggregate enter the valve it will show marked wear.



Changing suction valve

As with the outlet valve certain paint will also cause marked wear. Please change using the suction valve set.





Troubleshooting

Problem	Cause	Action
No suction strength	1. Air purging hasn't been carried out 2. Sticking of suction / discharge valves 3. Pressure control valve has loosened toward the "low" setting. 4. Air build-up in hydraulics 5. Insufficient oil volume	1. Purge air 2. Carry out priming and clear any adhesion by inserting a rod into the suction valve. 3. Turn pressure control valve slightly towards "high" 4. Purge using instructions on page 10 5. Fill up to recommended level
Has suction but no uptake	1. Suction filter blocked 2. Incorrect suction hose attachment has drawn in air 3. Suction hose is not immersed in paint 4. Paint viscosity too high	1. Clean or replace 2. Tighten firmly 3. Immerse in the paint 4. Reduce viscosity
Paint will not spray from gun	1. Suction filter or paint passage blocked. 2. Paint blocking nozzle tip.	1. Clean or replace. 2. Clean or replace.
Pressure low	1. Relief valve not tightened properly. 2. Pressure control valve adjustment incorrect	1. Tighten further 2. Turn pressure control valve to "high"
Pressure variation	1. Failure of suction or outlet valves 2. Damaged diaphragm 3. Worn piston, cylinder 4. Contaminants in hydraulic system 5. Suction hose failure air entering via suction valve 6. Insufficient oil volume 7. Contaminants in paint system	1. Replace 2. Replace 3. Replace 4. Replace 5. Disassemble and clean 6. Replace 7. Tighten 8. Fill up recommended level 9. Remove contaminants.
Oil on sprayed paint surface Oil contaminated by paint	Diaphragm cracked	Clean and replace diaphragm and oil



Operating procedure for DP-6860E

PREPARATION

1. Connect paint hose, suction hose, return hose and airless gun properly.
2. Check the oil levels.
3. Check that the unit is switched 'off' connect to 2LIOV power. Do not exceed 15m if using extension cord.
4. **WARNING:** All power supplies and cords must be earthed.

START

1. Turn pressure regulating and valves anti-clockwise to their limit. Insert suction and return hoses into material to be sprayed.
2. Switch on motor and turn pressure regulating knob slowly clockwise.
3. When material is being returned to the can via the return hose (when bubbles stop appearing in the can) the pump is primed.
4. Turn the relief valve clockwise slowly to it's limit. Wait for the hose to _L fill with material and tile pressure gauge indicates approximately 3000 psi and adjust pressure to suit material.

You are now ready to spray,

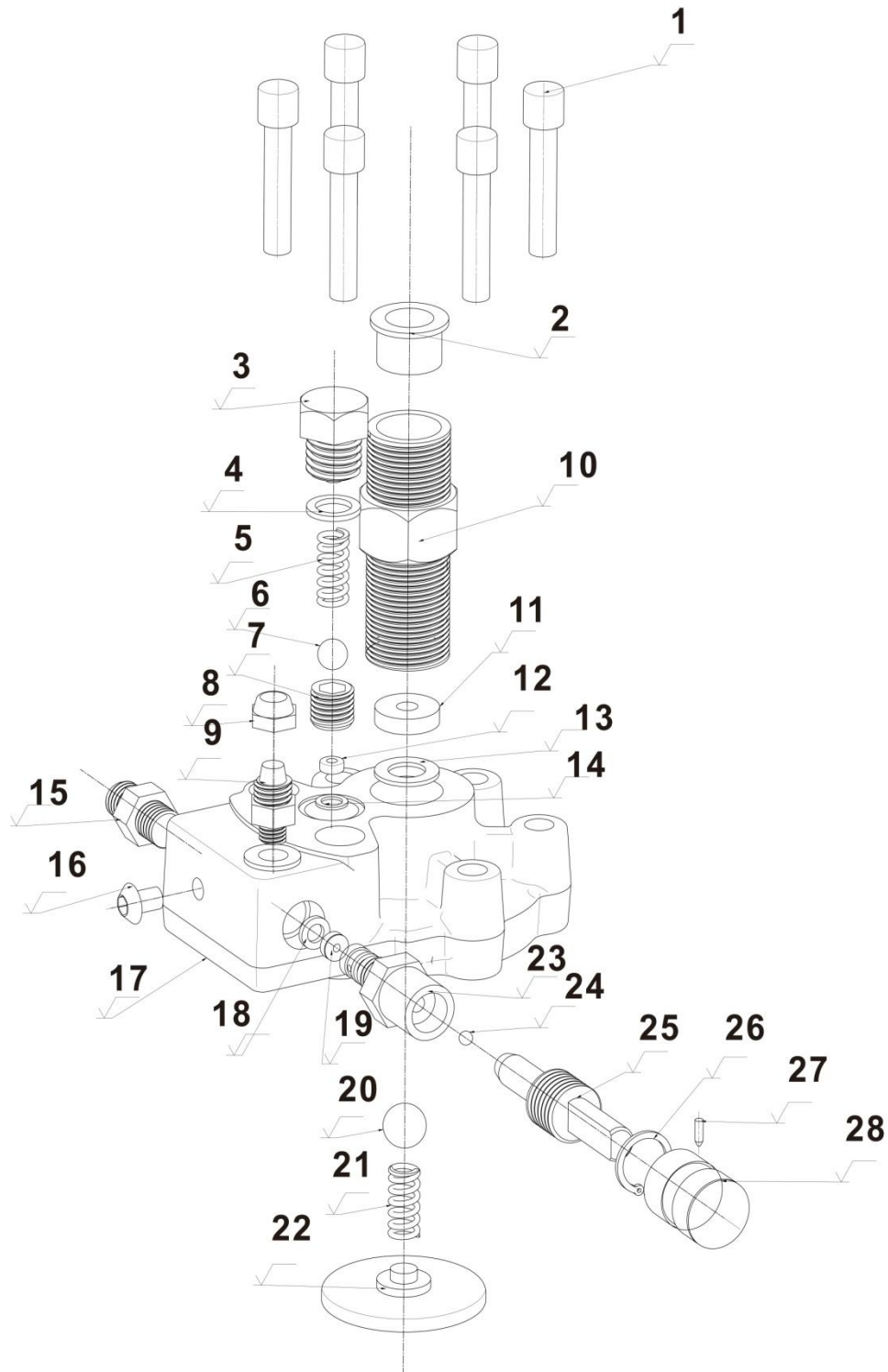
SAFETY INSTRUCTIONS

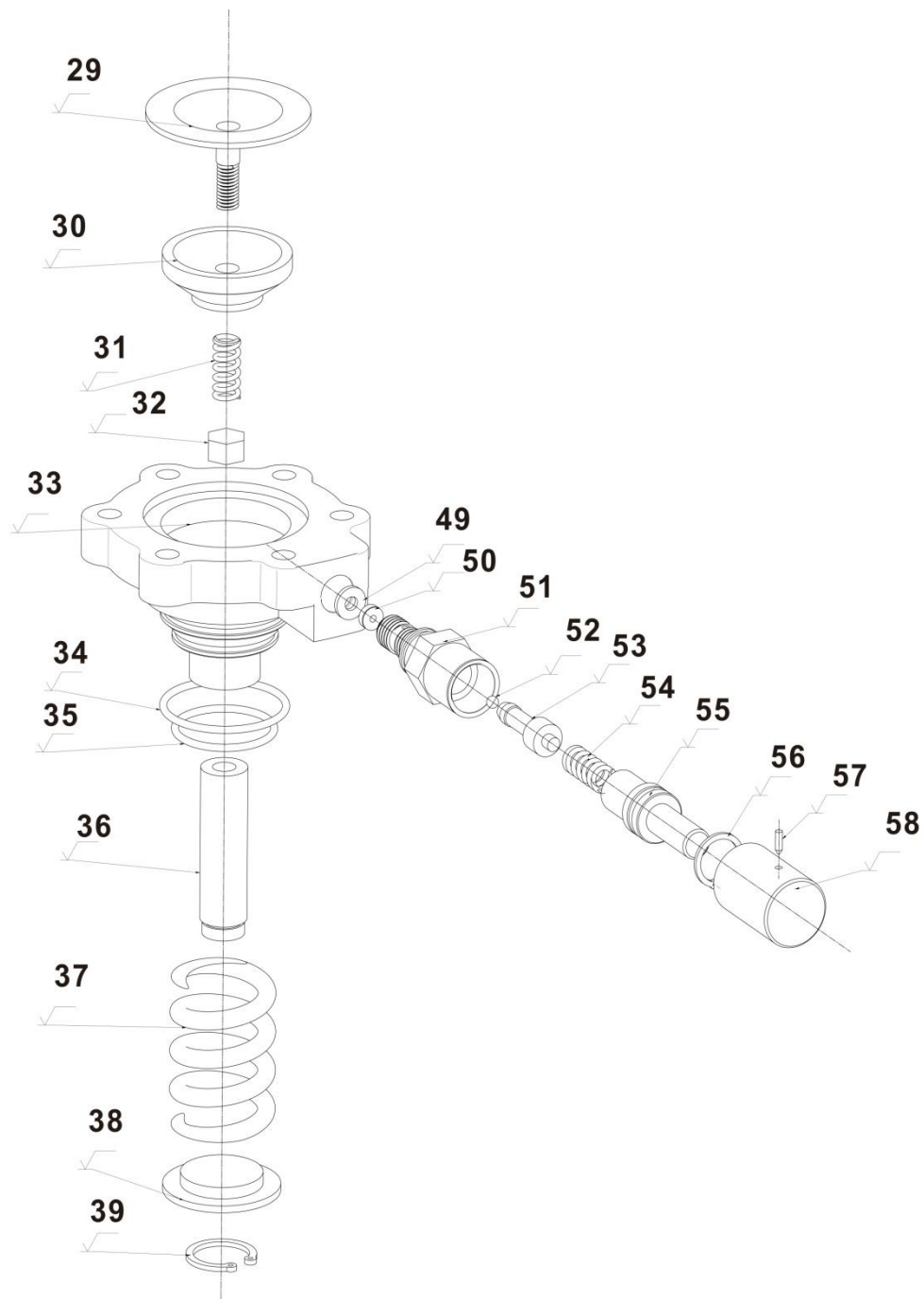
HIGH PRESSURE

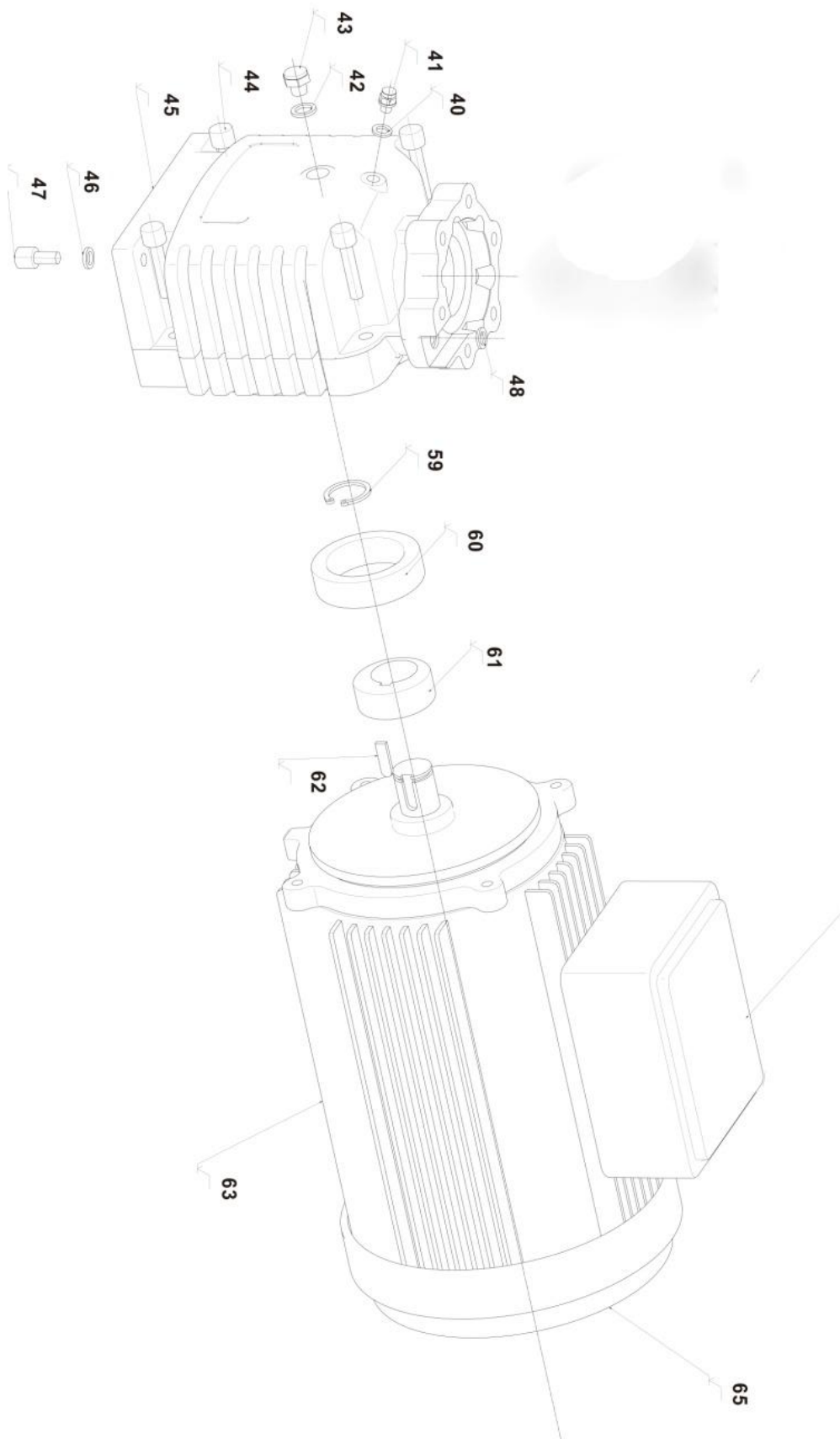
1. Never pull the trigger of the gun toward people. Unlock the trigger **ONLY** when you spray tile paint or take off the nozzle tip.
2. Never use a damaged hose. Due to the high pressure even a small flaw may cause an accident.
3. Pressure is very high and extremely dangerous. You must handle it with meticulous care.
4. Do not raise the pressure unnecessarily.
5. Connect all the attachments properly and tightly so that no paint will leak. If paint leaks while you are working, stop the pump immediately. Let the air go and lower the pressure.
6. Ensure you are using the correct hose.



Exploded view









Airless Paint Sprayer

1	Bolt	35	Down seal
2	Seal of inlet valve	36	Piston
3	Upper part of outlet valve	37	Spring
4	Cooper gasket	38	Spring pad
5	Spraying for outlet valve	39	Circlip
6	Valve ball	40	Gasket
7	Down part of outlet valve	41	Air release valve
8	Return tube connector	42	Oil level glass gasket
9	Screw of return tube connector	43	Oil level glass
10	Body of inlet valve	44	Screw
11	Inlet valve seat	45	Hydraulic oil tank
12	Outlet valve seat	46	Gasket
13	Gasket of inlet valve	47	Screw
14	Gasket of outlet valve	48	Seal
15	Output connector	49	Gasket
16	Plug screw	50	Ball seat for pressure regulator
17	Front pump body	51	Pressure regulator body
18	Prime/spray valve gasket	52	Ball for pressure regulator
19	Prime/spray valve seat	53	Ejector pin for pressure regulator
20	Inlet valve ball	54	Spring
21	Spring	55	Screw for ejector pin
22	Diaphragm stopper	56	Circlip for pressure regulator
23	Body of prime/spray valve	57	Screw
24	Prime/spray valve ball	58	Knob of pressure regulator
25	Ejector pin for prim/spray valve	59	Circlip
26	Circlip for prime/spray valve	60	Eccentric shaft bearing
27	Spring	61	Eccentric sleeve
28	Knob of prime/spray valve	62	Eccentric shaft pin
29	Diaphragm	63	Electric box
30	Diaphragm seat	64	Motor
31	Spring	65	Fan cover
32	Screw		
33	Rear pump body		
34	Upper seal		