JUPITER-K GUN Operation Manual

For GENERAL INDUSTRIES

IMPORTANT：Read and follow all instructions and SAFETY PRECAUTIONS before using this equipment.

The gun body of this model is finished with special coating. Do not use wire-brush or metal-spatula for cleaning. Do not inscribe letters on the gun body. It may cause the coating to peel off.

MODELS

JUPITER-K – Air Cap №. – Fluid Tip Size – Type of Feed（P：Pressure）

(Ex.)： JUPITER-K–P1–FX–P ← (№.P1 Air Cap – Size FX (1.1mm) – Pressure)

SPECIFICATIONS

Maximum Working Air Pressure：0.69 MPa, Maximum Working Fluid Pressure：0.69 MPa

Chart.1

Air cap №. Part Number	Tip Size（mm）		Type	Air Consumption Air Inlet Pressure	Pattern Range (mm)	Applications	Fluid Inlet	Air Inlet	Weight (g)
	FX(1.1）	FF(1.4)							
P1 JUP-3-P1	○	○	Pressure LVMP	200L/min 0.2MPa	250mm	Automotives & General Industries	G3/8	G1/4	348g
P2 JUP-3-P2	○	○	Pressure LVMP	200L/min 0.2MPa	300mm				
P3 JUP-3-P3	○	○	Pressure Conventional	550L/min 0.24MPa	400mm				

PARTS LIST

Chart.2

Ref. №.	Part Number	Description	Qty
1	JUP-6	Retaining Ring	1
2	JUP-50-K5	Cap Seat	1
3	JUP-55-K5	Ring Seat	1
4	Refer Chart.1	Air Cap	1
5	Refer Chart.3	Fluid Tip	1
6	JUP-7	Baffle	1
7	JUP-8-K5	Gasket	1
8	SN-404-K	Packing, Spring & Packing Nut Kit	1
9	JUP-12	Body Bushing & Seal	1
10	JUP-72-K5	Body Bushing Gasket	1
11	Refer Chart 3	Needle	1
12	SN-409	Valve Spring and Pad Kit	1
13	JUP-13-K	Needle Adjusting Knob	1
14	JUP-44-K	Pattern Valve Assembly	1
15	JUP-43	Air Valve Assembly	1
16	SN-405-J-K5	Trigger Stud & Hex Screw	1
17	JUP-108	Trigger	1
18	JUP-21	Plug	1
19	JUP-30	Air Connector	1
20	SN-26-K4	Color ID Ring Kit (sold separately)	1
21	JUP-35P	Fluid Inlet (Pressure)	1

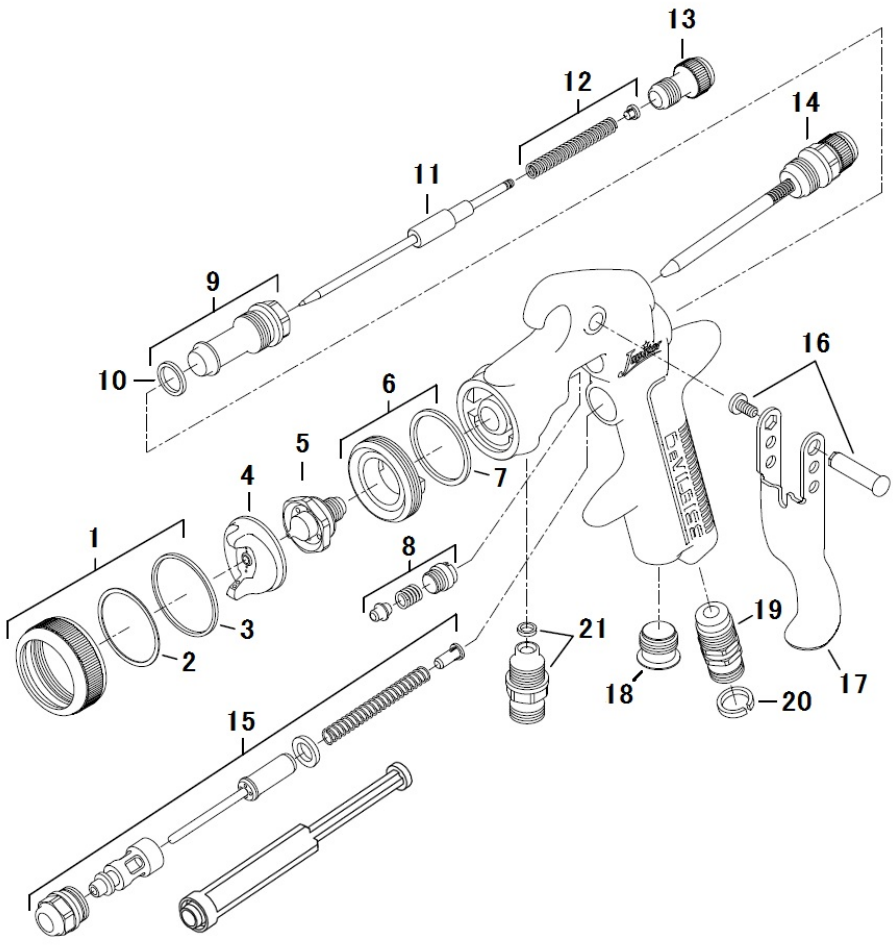


Chart.3

Description / Size （mm）	Fluid Tip	Needle
FX(1.1)	JUP-4-FX-S	JUP-41-FZ
FF(1.4)	JUP-4-FF-S	JUP-41-FZ

SAFETY PRECAUTIONS

This manual contains information that is important for you to know and understand.
This information relates to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS.
Read and follow SAFETY PRECAUTIONS before using this equipment.

FIRE OR EXPLOSION HAZARD

1. When spraying, adequate exhaust must be provided to keep air free of accumulations of flammable vapors which may cause fire or explosion.
2. Smoking must never be allowed in the spray area.
3. Static electricity is generated and a static spark could be produced in the spray area. To prevent the risk of fire or explosion, ground all conductive objects in the spray area.
4. Make it sure to use and ground hoses with static wire for spray gun operation. If improperly grounded, a static spark possibly produced may cause fire or explosion.
5. Fire extinguishing equipment must be provided in the spray area.
6. Solvents used for cleaning must have a flash point equal to or higher than that of the coating. Those for general cleaning must have flash points above 37.8℃(100˚ F) to prevent the risk of fire.

INHALING TOXIC SUBSTANCES

1. Toxic vapors and liquids are harmful to health. When spraying, adequate exhaust must be provided to keep the air free from accumulations of toxic materials and in the use at all times of respiratory protective equipment must be set compulsory.
2. Always wear eye protection when spraying or cleaning the equipment.
3. Certain materials may be harmful if contacted with the skin. Read all labels and safety performance data of the materials and solvents to be used. Appropriate clothes and gloves must be worn for spraying or cleaning the equipment.

MISUSE

1. Operators should be given adequate and appropriate training in the safe use and maintenance of this equipment.
2. Pressured liquids may injure eyes. Do not point the spray gun to any person.
3. Gravity or suction feed gun must not be used for pressure feed gun.
4. Parts with compressed air may damage the human body. Connect air hoses tightly by using a spanner so that air never leaks. If tightened loosely, hoses can be removed which may result in damaging the human body, objects to be coated and other equipment used together.
5. Parts with compressed air or under spring pressure may injure the human body. When replacing such parts, clean the spray gun by discharging the materials, discharge the air, remove air hose and fluid cup and then replace such parts by placing the gun flat. Eye protection must be worn when repairing the spray gun.
6. Do not use the gun above maximum working pressure（0.69MPa）.

INSTALLATION

1. The air supplied to spray gun must be clean, in which any water, oil and solid material removed. It is recommended to set up the Mist Separator and Air Transformer near the gun. The use of air not cleaned may cause coating troubles.
2. Connect fluid cup and air hoses tightly. If loose, hoses may disconnect, which may result in damaging the human body, objects to be coated and other equipments used together.
3. Adjust Needle Packing (8) before use of a brand new gun. Tighten the Packing Gland (8) gradually and adjust the needle to move smoothly. Untighten until the Needle (11) is not well pulled back.

OPERATION

1. The recommended pressure of air supplied to gun is in a range of 0.24MPa～0.30MPa for conventional type, and 0.19MPa～0.29MPa for LVMP type. Do not exceed the maximum working air pressure for proper usage (0.69MPa).
2. Try with the pressure starting from around 0.2MPa, as the spraying pressure varies depending upon the inner diameter of gun, triggering distance, and materials etc.
3. The recommended spraying distance is 180mm. If the spray distance is too far, good result will not appear.
4. In order to get uniform finishing, the spray gun should be held vertically toward the painting surface.

PREVENTIVE MAINTENANCE

1. Daily lubrication and cleaning is necessary to maintain the best condition of the gun.
2. To clean the gun body, wipe exterior with solvent dampened cloth. Do not submerge the gun body in solvent as any solids may get into the air passage causing troubles.
3. Do not leave the gun with solvent remained in the fluid cup. Clean the spray gun after use with clean solvent and by emptying the cup. To clean the fluid cup after use, remove remaining paint through appropriate solvent and flush down the residual paint.
4. The Air Cap can be immersed in solvent and brushed down for cleaning. If orifices are clogged, use a toothpick to remove obstruction. Never use a steel wire or hard instrument. This will damage air cap and result in a distorted spray pattern.
5. Do not immerse any plastic parts in solvent for long time.
6. Certain portions of gun should be lubricated. Do not lubricate to any portion where not instructed. For lubrication, SSL-10 Gun Lube* is recommended (*sold separately, vegetable oil that does not repel paint materials).
7. The following portions should be lubricated regularly; Trigger Bearing Stud Screw (16), Pattern Valve (14), and Adjusting Screw (13), Air Valve Stem (15), and portion of Packing Gland (8) where Needle (11) comes in and out.
8. When installing Air Cap (4), make sure no foreign materials adhered on Retaining Ring (1) and thread of Baffle (6). Inject one drop of Gun Lube SSL-10.
9. Apply non-silicone grease lightly on Needle Spring (12) and Air Valve Spring (15). Do not apply too much grease as it may clog the air passage.

REPLACEMENT OF PARTS

Before replacing gun parts, remove materials from the gun for cleaning. Then release the air pressure in the gun and disconnect air hoses. All repairs should be made on a clean flat surface. Use only appropriate tools indicated for replacement of parts.

Fluid Tip（5）and Needle（11）

1. It is recommended to replace Fluid Tip（5）and Needle（11）as a set.
2. Loosen Pattern Valve（14）completely by turning the knob counterclockwise.
3. Remove Adjusting Screw（13）and Needle Spring（12）and then withdraw Needle（11）from the gun body.
4. Remove Retaining Ring（1）and Air Cap（4）.
5. Remove Fluid Tip（5）by using socket wrench or offset wrench and Baffle（6）can also be removed.
6. Recommended torque of Fluid Tip (5) is 8N･m.

Fluid Inlet（21）and Air Connector（19）

Fluid Inlet（21）and Air Connector（19）are fixed together by sealing material. Do not disassemble these connectors if it is not necessary.

Pattern Valve（14）

When disassembling and reassembling Pattern Valve（14）, turn the knob completely counterclockwise and then disassemble or reassemble them.

Air Valve Assembly (15)

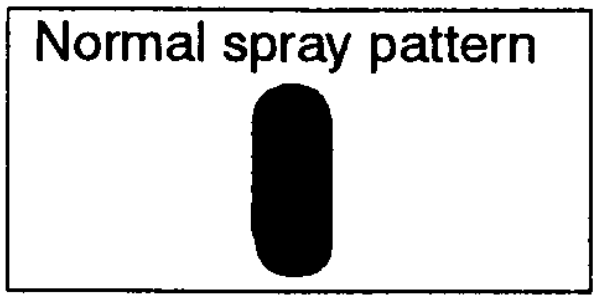
Valve Seal Replacing Tool is required for replacing Valve Seal（15）and it is provided when you purchase Air Valve Assembly (15). When replacing Air Valve, be careful not to damage the surface of seals of Gun Body, and Air Valve to prevent air leakage.

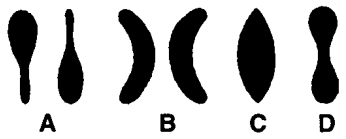
1. Using Hexagon Wrench 2.5mm (from the market) for removing the Trigger Screw (16) and then remove Trigger (17).
2. Remove Air Valve Assembly（15）by using 14mm offset wrench.
3. Withdraw Valve Spring from spring pad.
4. Withdraw Valve Rear Seal, using the Valve Seal Replacing Tool. Disassembling of Air Valve is now completed.
5. The next is assembling. Insert and place the Valve Seal at the end of valve hole of gun body by using Replacing Tool.
6. Insert new spring, ensuring the end with the plastic bearing pad goes in first.
7. Insert Air Valve Assembly (15) into gun.
8. Tighten Air Valve Assembly using fingers first and then tighten with offset wrench 14mm which is available in the market.
9. Replace Trigger (17) using Hexagon Wrench 2.5mm.

Needle Packing（8）

1. Using Hexagon Wrench 2.5mm (from the market) for removing the Trigger Screw (16) and then remove Trigger (17).
2. Remove Fluid Adjusting Knob(13) and Needle Spring with Spring Pad(12) from gun, and then remove Fluid Needle(11).
3. Loosen and remove Packing Nut (8) using a straight blade screw driver.
4. Reassembling the Packing (8). Assemble into gun body by hand and then tighten using a screwdriver.
5. Insert Fluid Needle (11), and then Needle Spring with Pad (12), and Needle Adjusting Knob (13). Reinstall Trigger (17).
6. Trigger gun several times to verify correct operation.

SERVICE CHECKS



Problem	Cause	Correction
Will not spray	No pressure to gun. Adjusting Screw (13) not properly adjusted.	Check air and material lines. Adjust.
Improper spray pattern  	A,B - Material build up on the Air Cap or Fluid Tip. C,D - Incorrect fluid delivery or viscosity.	A,B - Clean the Air Cap or Fluid Tip. C,D - Adjust.
Jerky or fluttering spray 	Insufficient material in the cup or loose Connector. Gun fluid passage plugged. Worn Needle Packing (8). Loose or damaged Fluid Tip (5).	Fill cup or tighten the Connector. Clean. Replace. Tighten or replace.
Fluid leaking from Needle Packing Nut (8)	Worn or damaged Needle Packing (8).	Replace.
Dripping from Fluid Tip	Worn or damaged Fluid Tip (5) or Needle（11）. Stuck Needle Packing (8) or Needle (11). Loose Adjusting Screw (13).	Replace. Lubricate. Adjust.

ACCESSORIES

Part No.	Description	Part No.	Description
42884-214-K5	Cleaning Brush (kit of 5)	SSL-10	Gun Lube (60ml)
SN-26-K4	Color ID Ring Kit (4 colors)		

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