

## AUTOMATIC SPRAY GUNS

- **TOF-5B TOF-5RB (Round Pattern)** Common air source for atomizing air and piston operating air
- **TOF-6B TOF-6RB (Round Pattern)** Different air source for atomizing air and piston operating air



**⚠ Before use, adjustment or maintenance, it is important to read this instruction manual very carefully. This manual must be stored in a safe place for any future reference.**

This ANEST IWATA spray guns kit complies to ATEX regulations 94/9/EC, protection level: II 2 G X Suitable for using Zones 1 and 2.  
 X marking: Any static electricity discharge from the spray gun is to be diverted to the ground via the conductive air hose as stipulated.



### PROTECTION OF HUMAN BODY



1. **Use in a well-ventilated site, using a spray booth.**  
Poor ventilation can cause organic solvent poisoning and fire.
2. **Always wear protective gear (safety glasses, mask, gloves) to avoid inflammation of eyes and skin.**  
In case of any physical discomfort, immediately seek medical advice.
3. **Wear earplugs if necessary.**  
Noise level can exceed 85 dB(A), depending on operating conditions and painting site.

### IMPROPER USE



1. **Never point gun towards people or animals.**
2. **Never exceed maximum working Pressure or maximum operating Temperature.**
3. **Always release air and fluid pressure before cleaning, disassembling or servicing.** Otherwise, remaining pressure can cause bodily injury due to improper operation or scattering of cleaning liquid.
4. **Tip of fluid needle set has a sharp point.**  
Do not touch the tip during maintenance to avoid accidents.
5. **Never use this gun to spray foods or chemicals.**  
Otherwise, foreign substance, could cause corrosion of fluid passages which could adversely affect health.
6. **Never alter this spray gun,** to avoid insufficient performance and damage.
7. **If something goes wrong, immediately stop operation and find the cause. Do not use again, until you have solved the problem.**
8. **Do not enter working areas, where robots, reciprocators, etc. are used, until they have been turned off.** Otherwise, they could cause injury.

### 3. HOW TO CONNECT



#### IMPORTANT

- This gun should be operated by adequately trained operators only.
- Ensure that the gun has not been damaged during transportation.

#### CAUTION

- Use clean air filtered through air dryer and air filter. If not, dirty air can cause coating failure.
- If you use this gun for the first time after purchasing, clean fluid passages to remove rust preventive oil spraying by caenar. If not, remaining preventive oil can cause painting failure such as fish eyes.
- Use three-way solenoid valve with effective cross section of more than 4 mm inner dia. area and air hose of over Ø 4 mm inner diameter and less than 10m length. When operate multiple guns, use larger size of solenoid valve cross section and hose inner diameter accordingly.  
If not, small diameter of solenoid valve and longer air hose between three-way solenoid valve and gun can cause delay in operation.
- Firmly fix hose to spray gun. If not, disconnection of hose can cause bodily injury.

**⚠ ALWAYS observe WARNINGS and CAUTIONS in this instruction manual.**

Symbol	WARNING	Hazard level	Consequence
	<b>WARNING</b>	Potentially hazardous situation	Death or serious injury
	<b>CAUTION</b>	Potentially hazardous situation	Minor to moderate injury
	<b>IMPORTANT</b>	Potentially hazardous situation	Property damage

### 1. TECHNICAL SPECIFICATIONS

Max. working air pressure: 6.8 bar (98 PSI)	Air connection: G 1/8"
Noise Level (LAeqT)*: 69.4 dB (A)	Fluid connection: G 1/8"
Max. Temperature range: 5 ~ 40 °C	

\* Measuring point: 1m backwards from gun, 1.6m height.

Model	Nozzle size Ø mm	Air cap set Mark	Fluid output ml/min	Air consumption NI/min (cfm)		Pattern Width Spray distance 300 mm mm (in)		Weight g (lbs)
				Fun	Round	Fun	Round	
TOF 5B-5RB	0.5	05	60	60	40	200	50	TOF 5B 320 (0.71)
TOF 6B-6RB	0.5			(2.1)	(1.4)	(7.9)	(2.0)	
TOF 5B-5RB	1.0	10	250	80	50	250	70	TOF 5RB 300 (0.66)
TOF 6B-6RB	1.0			(2.8)	(1.8)	(9.8)	(2.8)	
TOF 5B-5RB	1.3	13	360	100	55	350	80	TOF 6B 330 (0.73)
TOF 6B-6RB	1.3			(3.5)	(1.9)	(13.8)	(3.1)	
TOF 5B-5RB	2.0	20	600	140	85	400	90	TOF 6RB 310 (0.71)
TOF 6B-6RB	2.0			(4.9)	(3.0)	(15.7)	(3.5)	

Measuring conditions: Tested with water at 3.0 bar.

### 2. SAFETY WARNING



1. **Never use the following HALOGENATED HYDROCARBON SOLVENTS:** which can cause cracks or dissolution of gun body (aluminium) due to chemical reaction. UNSUITABLE SOLVENTS: methyl chloride, dichloromethane, 1,2-dichloroethane, carbon tetrachloride, trichloroethylene, 1,1,1-trichloroethane
2. **Sparks and open flames are strictly prohibited.** Paints can be highly flammable and can cause fire. Do not expose to open flames, electrical goods, cigarettes etc.
3. **Securely ground spray gun using grounded gun stay.**  
Ground resistance : Less than 1MΩ. Ω  
Check the earth stability periodically. If not, insufficient grounding can cause fire and explosion due to static electric sparking.
4. **Do not use corrosive liquid (acid and alkali, etc.)**  
Before using corrosive liquids, make sure that they are compatible with the gun components. We can provide you with a list of materials used in the product.

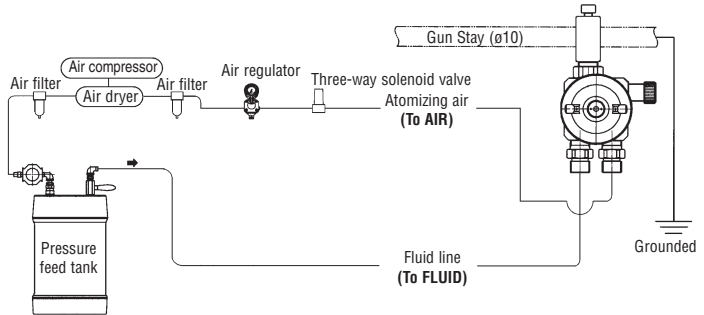
## CONNECTION

1. Fit the gun to fitting stay, aim at spraying direction and fix it with fitting bolts.
2. Connect atomizing air hose to atomizing air side (AIR marked side) and operating air hose to operating air side (CYL marked side) tightly.
3. Connect fluid hose to fluid inlet (FLUID marked side) tightly.
4. Pour compatible cleaning liquid into container, spray to clean fluid passages.
5. Supply paint to container, test spray and adjust fluid output, air volume and pattern width.

### Connecting example of air hose and fluid hose:

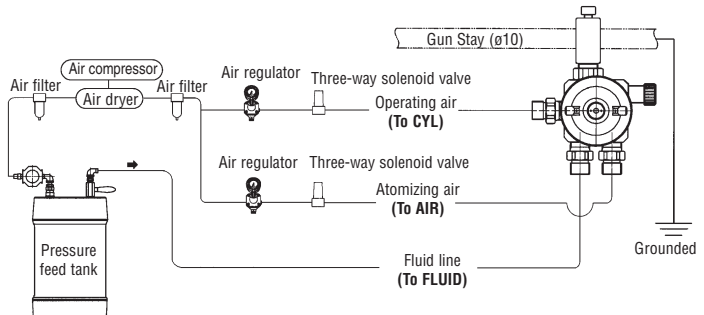
#### • TOF-5B/5RB:

Operating three-way valve, both atomizing air and piston operating air will flow and spray will start.



#### • TOF-6/6R:

1. Operate two-way valve to let atomizing air flow.
2. Operate three-way valve, to let piston operating air flow and spray paint.
3. In order to stop spraying, first stop 3-way valve. Next stop two-way valve and then stop atomizing air.



## 4. HOW TO ADJUST

1. Adjust atomizing air pressure varies according to viscosity and paint property. Recommended air pressure is between 2.5-4.0 bar. (Use higher air pressure to spray fine mist and lower air pressure to spray coarse mist).
2. For TOF-6B/6RB, set piston operating air pressure to 2.5 bar or more (CYL marked side).
3. When using the pressure feed tank, set its pressure to 2.0 bar or less. There are two methods to adjust fluid output:
  - (1) Adjust compressed air pressure to the pressure feed tank.
  - (2) Open and close fluid adjustment knob of gun. Fluid output becomes zero when fluid adjustment knob of gun is turned fully clockwise. Fluid output gradually starts increasing when fluid adjustment knob is turned 0.5 turn counterclockwise from zero point and fluid output stops increasing when fluid adjustment knob is 4 full turns counterclockwise.
4. The pattern becomes round, when the pattern adj. knob is completely closed. The pattern becomes oval, turning the pattern adj. knob counterclockwise. (TOF-5B/6B).

## IMPORTANT

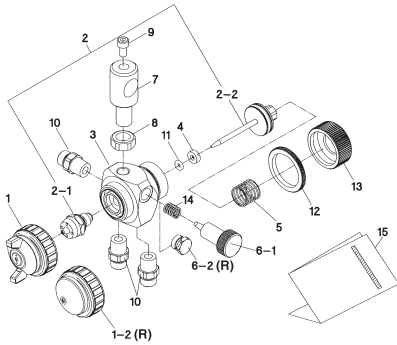


1. One air supply line is used as both atomizing air and piston operating air. So if supply air setting is not appropriate, it can cause failure of piston operation.
2. Securely lock fluid adjustment knob with jam nut when fluid output has been decided, so that the fluid output is not changed by vibrations caused by piston operation and the piston and the piston spring do not suddenly fly out unexpectedly due to loosening of adjustment knob.
3. Be careful that the fluid adj. knob and pattern adj. knob could come off when they are completely opened. Especially when air pressure is applied to them, they could fly out swiftly and could cause injury. To adjust pattern adj. at the maximum, turn pattern adj. knob around 3 turns from fully closed position.
4. With TOF-5B/5RB it could be possible to have spits at start and stop, depending, that is due to the type of paint and painting conditions. To avoid failure, start to spray in advance and stop late.

## 5. SPARE PARTS LIST

- When ordering parts, specify gun model, part name with ref. No. and marked No. of air cap set and nozzle piston set.
- When replacing nozzle or piston, replace it with nozzle piston set.
- Before use, be sure to confirm that there is no damage or missing parts. If there is some damage or something is lost during transportation, do not use the product and contact the shop which sold it to you.

## TOF-5B/6B & TOF-5RB/6RB



No.	Description	Qty.	No.	Description	Qty.
1	AIR CAP SET	1	11	O'RING	1 ●
1-2	AIR CAP SET (TOF-5RB/6RB)	1	12	JAM NUT	1
2	NOZZLE PISTON SET	1 ●	13	FLUID ADJ. KNOB	1
2-1	NOZZLE SET	1	14	SPRING	1
2-2	PISTON SET	1			
3	BODY	1			
4	O'RING SEAT	1			
5	PISTON SPRING	1			
6-1	PATTERN ADJ. KNOB	1			
6-2	PLUG (TOF-5RB/6RB)	1			
7	HOLDER	1			
8	HEX. NUT	1			
9	BOLT	1			
10	NIPPLE	2 (3 R)			

● Marked parts are wearable parts.

## 6. MAINTENANCE AND INSPECTION



Before carrying out maintenance and inspection ALWAYS observe WARNING indications.

### CAUTION

- Never use spare parts that are not Anest Iwata originals.
- Never damage fluid nozzle, tip of fluid needle or air cap holes.
- Never immerse the spray gun completely in liquids such as thinner.

### 6.1 MANUAL CLEANING PROCEDURE



The fluid passages of the gun, must be cleaned thoroughly after each use, especially after use with bi-component paints. Incomplete cleaning can cause defective pattern shape.

- Never soak air cap set (1) in cleaning liquid for an extended period, even when cleaning.
  - Never use metal brush to clean the gun.
1. Drain remaining paint from spray gun, into a suitable container. Spray a small amount of cleaning liquid to clean fluid passages and air cap set. Incomplete cleaning can cause failure of pattern shape and uniform particles.
  2. Clean each section with brush soaked with cleaning liquid and wipe out with waste cloth. Do not immerse the whole gun in cleaning liquid. Otherwise, it can damage the gun. When cleaning, never scratch any holes of air cap set, fluid nozzle or piston set.
  3. Before disassembly, fully clean fluid passages. During disassembly, do not scratch seat section.
    - (1) **Disassemble piston set.** First remove fluid adjustment knob and pull it by holding end of piston. Ensure that piston spring does not suddenly fly out because fluid adjustment knob is strongly pushed by piston spring.
    - (2) **Disassemble fluid nozzle** (Use ring spanner and box wrench). Remove fluid nozzle while piston set is kept pulled backwards, in order to protect seated section of fluid nozzle and piston set.

### 6.2 INSPECTION & REPLACEMENT STANDARD

WHERE TO INSPECT	REPLACEMENT PART
a. Each hole passage of air cap (1) and fluid nozzle (2-1).	Replace if it is crushed or deformed
b. Packing and O ring	Replace if it is deformed or worn out.
c. Leakage from seat section between fluid nozzle (2-1) and piston set (2-2).	Replace them if there is any leakage even after cleaning.

## 7. TROUBLESHOOTING

### GUN DOES NOT SPRAY



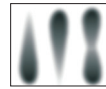
- Fluid adj. knob (13) closed. Check and adjust.
- Tip hole of nozzle obstructed. Check and clean.

### INTERMITTENT SPRAY PATTERN



- Air escapes from fluid nozzle and tapered seat of gun body. Check, clean & replace if necessary.
- Air escapes from fluid passages because O'ring is worn out. Replace O'ring.
- Air escapes from fluid hose joint. Tighten.

### DEFECTIVE SPRAY PATTERN (Round Pattern specifications are excluded)



- Dirty nozzle (2-1) or air cap (1). Clean carefully.
- Nozzle (2-1) or air cap (1) has been damaged. Replace If damaged.
- Fluid nozzle (2-1) is loose or not properly fitted. Tighten or remove and clean its seated section.
- Paint viscosity too high or too low. Dilute paint or increase viscosity.
- Fluid output too high or too low. Adjust fluid adj. knob (13) to reduce or increase.

### LEAKING



- Fluid nozzle (2-1), piston set (2-2), dirty, damaged, worn on seat. Clean or replace if necessary.
- Piston spring (5) is worn. Replace.
- Fluid nozzle (2-1) and gun body are loose. Tighten.
- Fluid nozzle (2-1) and gun dirty or damaged on seat. Clean or replace if necessary.
- Piston set is dirty. Clean or replace O'ring if necessary.
- Piston O'ring is worn. Replace.


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