INSTRUCTION MANUAL

- Automatic Spray Guns: WRA-100 / WRA-200
- Low Pressure Automatic Spray Gun: LRA-200
- High Volume Low Pressure

Important

This manual contains IMPORTANT WARNINGS and INSTRUCTIONS. Equipment in this manual is exclusively for painting purposes. Do not use for other purposes. The operator shall be fully conversant with the requirements stated in this instruction manual including important warnings, cautions and operation and correct handling. Read and understand the instruction manual, before use and retain for reference.

Be sure to observe warnings and cautions in this instruction manual. If not, it can cause paint ejection and serious bodily injury by drawing organic solvent.

WARNING: Indicates a potentially hazardous situation which, if not avoided, may result in serious injury or loss of life.

CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage.

Important: Indicates notes which we ask you to observe. The safety precautions in this instruction manual are the minimum necessary conditions. Follow national and local regulations regarding fire prevention, electricity and safety as well as your own company regulations.

### Important specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Pressure</th>
<th>Atomizing air</th>
<th>Fan air</th>
<th>Air consumption l/min (cfm)</th>
<th>Fluid output ml/min</th>
<th>Pattern width mm (in)</th>
<th>Air &amp; fluid connection</th>
<th>Weight (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRA-100-123P</td>
<td>0.8 (0.031)</td>
<td>0.27 (2.738)</td>
<td>0.22 (0.265)</td>
<td>150</td>
<td>270 (9.5)</td>
<td>190 (7.5)</td>
<td>1 1/16</td>
<td>0.64 (24)</td>
</tr>
<tr>
<td>LRA-200-122P</td>
<td>1.2 (0.047)</td>
<td>0.24 (2.454)</td>
<td>0.27 (2.738)</td>
<td>-</td>
<td>500</td>
<td>530 (19.7)</td>
<td>400 (15.7)</td>
<td>3 1/16</td>
</tr>
</tbody>
</table>

**Note:** Air pressure means air pressure at gun inlet when air valve is opened and air flows.
**Safety precautions**

### WARNING

<table>
<thead>
<tr>
<th>Fire and explosion</th>
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<tbody>
<tr>
<td></td>
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</tbody>
</table>
| 1. Spark and open flames are strictly prohibited.  
Paints can be highly flammable and can cause fire.  
Avoid any ignition sources such as smoking, open flames, electrical goods, etc.  
2. Never use the following HALLOGENATED HYDROCARBON SOLVENTS  
which can cause cracks or dissolution on gun body (aluminum) by chemical reaction.  
unsuitable solvents: methyl chloride, dichloromethane, 1,2-dichloroethane, tetrahydrocarbon, trichloromethane, 1,1,1-trichloroethane  
(system that all fluids and solvents are compatible with gun parts. We are ready to supply a material list used in the product) |

### Improper use of equipment

| 3. Securely ground spray gun.  
Use air hose with built-in ground wire or use grounded gun stay.  
Ground resistance: Less than 1 Ω.  
Check the earth stability periodically  
If not, insufficient grounding can cause fire and explosion due to static electric sparking |

| 4. Tip of fluid needle set has a sharp point.  
Do not touch the tip of needle valve at the maintenance for the protection of the human body |

### Protection of human body

| 1. Use in a well-ventilated site by using spray booth.  
If not, poor ventilation can cause organic solvent poisoning and catch fire.  
2. Always wear protective gear (safety glasses, mask, gloves).  
If not, cleaning liquid, etc., can cause inflammation of eyes and skin.  
If you feel something wrong with eyes or skin, immediately see a doctor.  
3. Wear earplugs if necessary.  
Noise level can exceed 85dBA, depending on operating conditions and painting site |

### Other precautions

| 3. Never spray foods or chemicals through this gun.  
If done, it can cause accident by corrosion of fluid passages or adversely affect health by mixed foreign matter.  
4. If something goes wrong, immediately stop operation and find the cause. Do not use again until you have solved the problem |

| 1. Never alter this spray gun.  
If done, it can cause insufficient performance and failure.  
2. Enter working areas of other equipment (robots, reciprocators, etc.) after machines are turned off  
If not, contact with them can cause injury |

### How to connect

**CAUTION**

- Use clean air filtered through air dryer and air filter.  
- If not, dirty air can cause painting failure.  
- If you use this gun for the first time after purchasing, clean fluid passages by spraying thinner and remove rust preventive oil.  
- Use three-way solenoid valve of more than φ 4 inner dia. cross-sectional area and air hose of over φ 6 inner dia. and less than 10m length.  
If not, small flow 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 and drop of container can cause bodily injury.  

| Job 1: Fit the gun to fitting stay, aim at spraying direction and fix it.  
Job 2: Connect atomizing hose to atomizing air side (Cap marked side) and operating air hose to operating air side (CYL marked side).  
Job 3: Connect fluid hose to fluid inlet tightly  
Job 4: Flush the gun fluid passage with a compatible solvent  
Job 5: Pour paint into fluid container, test spray and adjust fluid output, air volume and pattern width |

### Diagram

[Diagram of air compressor, air dryer, air regulator, three-way solenoid valve, operating air (to CYL), two-way solenoid valve, atomizing air (to CAP), two-way solenoid valve, fan air (to FAN), fluid line (to FLU), body leak detection hole]
How to operate

Suggested air pressure is 3 to 4 bar (43 to 57 PSI).

NOTE:
Valve orifice inside three-way solenoid valve should be minimum 4 mm (0.157 in)
and also operating air hose length should be within 10m (32.8 ft) with the inner diameter
more than 0.8 mm (0.0315 in) to avoid delayed operation and any kind of failure.

Recommended paint viscosity differs according to paint property
and painting conditions: 15 to 23 sec Ford cup 4 is recommendable.

As LRA-200 is operate at low air pressure, high transfer efficiency will not be obtained
if the spray distance is too far.

NOTE:
Using air hose 12m (39.4 ft) long, the inner diameter must be a minimum 8 mm (0.315 in)
so the gun can have the correct air volume to atomize at 0.7 bar (10PSI) inside air cap.
Set the spray distance from the gun to the work piece as near as possible within the range of
150-350 mm (5.9-13.8 in) with WRA100, 200, 300, 400 mm (2.0-7.0 in) with LRA-200.

Maintenance and inspection

⚠️ WARNING
First release air and pressure fully according to item No. 3 of “Improper use of equipment” of WARNING on page 2.
*Tip of fluid needle set has a sharp point. Do not touch the tip of needle valve at the maintenance for protection of the human body.
Be careful not to damage the tip of fluid nozzle or must not put your hand on it.
Only an experienced person who is fully conversant with the equipment can do maintenance and inspection.

⚠️ CAUTION
- Never use commercial or other parts instead of ANEST IWATA original spare parts.
- Never immerse the whole gun into liquid such as thinner.
- Never damage nozzle of air cap a fluid nozzle and fluid needle.

Step-by-step procedure

<table>
<thead>
<tr>
<th>Step</th>
<th>Procedure</th>
<th>Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pour remaining paint to another container. Clean fluid passages and air cap set.</td>
<td>1. Incomplete cleaning can fail pattern shape and uniform particles. Especially clean fully and promptly two-component paint after use.</td>
</tr>
<tr>
<td>2</td>
<td>Clean each section with brush soaked with thinner and wipe out with waste cloth.</td>
<td>2. Do not immerse the whole gun in thinner. If done, it can damage parts. When cleaning, never stretch each hole of air cap set and fluid nozzle, and fluid needle set.</td>
</tr>
<tr>
<td>3</td>
<td>Before disassembly, fully clean fluid passages. (1) Disassemble fluid nozzle. Use ring spanner, box wrench or optional exclusive spanner (code NO.008680) to disassemble fluid nozzle.</td>
<td>3. During disassembly, do not scratch seat section. (1) Remove fluid nozzle after removing fluid needle set or while keeping fluid needle pulled, in order to protect seat section.</td>
</tr>
<tr>
<td></td>
<td>(2) Disassemble fluid needle set. Remove fluid needle set and pull out fluid needle set from gun body Pay attention so that spring does not suddenly fly out since fluid needle set is strongly.</td>
<td>(2) Pull fluid needle set after loosening fluid needle packing set to protect fluid needle packing set.</td>
</tr>
<tr>
<td></td>
<td>(2) Disassemble fluid needle set. Remove fluid needle set and pull out fluid needle set from gun body. Pay attention so that spring does not suddenly fly out since fluid needle set is strongly.</td>
<td></td>
</tr>
</tbody>
</table>

Where to inspect

<table>
<thead>
<tr>
<th>Where to inspect</th>
<th>Parts replacement standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Each hole passage of air cap and fluid nozzle</td>
<td>Replace if it is crushed or deformed.</td>
</tr>
<tr>
<td>2. Packing and O ring</td>
<td>Replace if it is deformed or worn out.</td>
</tr>
<tr>
<td>3. Leaking from seat section between fluid nozzle and fluid needle set</td>
<td>Replace them if leakage does not stop after fully cleaning fluid nozzle and fluid needle set. If you replace fluid nozzle or fluid needle set only, fully match them and confirm that there is no leakage.</td>
</tr>
</tbody>
</table>

Parts list

When ordering parts, specify gun’s model, part name with ref. No. and marked No. of air cap set, fluid nozzle and fluid needle set.

When replacing fluid nozzle or fluid needle for pressure feed application, please order fluid nozzle-needle set,

<table>
<thead>
<tr>
<th>Fluid nozzle</th>
<th>Fluid nozzle set combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Fluid nozzle set mark</td>
</tr>
<tr>
<td>WRA-100</td>
<td>WA100/05</td>
</tr>
<tr>
<td>200</td>
<td>WA200/12</td>
</tr>
<tr>
<td>LRA - 200</td>
<td>L200/12</td>
</tr>
</tbody>
</table>

Fluid nozzle - Fluid needle set combination

Model: WRA-100, 200, 300, LRA-200

Office: 0.0 (0.0201), 0.1 (0.047)

Mark: WA100/05, WA200/12, L200/12
# Troubleshooting

<table>
<thead>
<tr>
<th>Spray Pattern</th>
<th>Problems</th>
<th>Remedies</th>
</tr>
</thead>
</table>
| Fluttering    | 1. Air enters between fluid nozzle and tapered seat of gun body  
2. Air is drawn from fluid nozzle packing set.  
3. Air enters at fluid container fitting nut or fluid hose joint. | 1. Remove fluid nozzle to clean seat.  
It is damaged, replace nozzle.  
2. Tighten fluid needle packing.  
3. Fully tighten joint section. |
| Crescent      | 1. Paint buildup on air cap partially clogs horn holes  
Air passes air from horn holes.  
2. Fluid nozzle is not properly fitted. | 1. Remove obstructions from horn holes with attached brush.  
Rut in not use metal objects to clean horn holes.  
2. Remove fluid nozzle and clean seat section. |
| Defined       | 1. Paint buildup on fluid nozzle circumference and air cap center.  
2. Fluid nozzle is not properly fitted. | 1. Remove obstructions.  
Replace if damaged.  
2. Remove fluid nozzle and clean seat section. |
| Split         | 1. Paint viscosity too low.  
2. Fluid output too high. | 1. Add paint to increase viscosity.  
2. Tighten fluid reg. knob to reduce fluid output.  
Or turn pattern adj. valve set clockwise. |
| Heavy Center  | 1. Paint viscosity is too high.  
2. Fluid output is too low. | 1. Add thinner to reduce viscosity.  
2. Turn fluid adj. valve knob counter-clockwise to increase fluid output. |

## Solving Problems

<table>
<thead>
<tr>
<th>Problem</th>
<th>Where it occurred</th>
<th>Parts to be checked</th>
<th>Cause</th>
<th>Remedy</th>
</tr>
</thead>
</table>
| Paint leaks     | Fluid nozzle      | Fluid nozzle~fluid needle | 1. Dirt or damage, wear on seat surface  
2. Wear on needle spring | R1  
R2  
R3  
R4 |
|                 | Fluid needle packing | Fluid needle packing~packing seat | 1. Needle does not return due to paint buildup on fluid needle  
2. Wear  
3. Insufficient tightening | R1  
R2  
R3  
R4 |
| Paint leaks     | Tip of gun        | Fluid adj. knob | *Insufficient opening | R1  
R2  
R3  
R4 |
|                 |                   | Tip of needle | *Clogged | R1  
R2  
R3  
R4 |
|                 |                   | Paint filter | *Clogged | R1  
R2  
R3  
R4 |