IMPORTANT

This ANEST IWATA spray gun 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.

BEFORE USE, ADJUSTMENT OR MAINTENANCE, IT IS IMPORTANT TO READ THIS MANUAL CAREFULLY. THIS MANUAL MUST BE STORED IN A SAFE PLACE FOR FUTURE REFERENCE THAT MAY BE NEEDED.

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. Be sure to observe following marked items which are especially important.

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

Max. Pressure: 6.8 bar (98 PSI) Max. Temperature: 5 ~ 40 °C
Noise Level (LAEqT): 70.1 dB (A) Atmosphere 5 ~ 43 °C
Spray conditions: Recommended Air and fluid 5 ~ 43 °C
Measuring point: 1m backwards from gun, 1.6 m height
Air connection: G 1/4” Fluid connection: G 1/4”

HIGH T.E.C. W300 WB GRAVITY FEED

Model: W300WB-101G Nozzle orifice: 1.0 (0.039) Air cap no. Air pressure at gun inlet bar (PSI) Fluid output ml/min Weight: 230 (9.1) Fluid consumption U/min (cfm)
W300WB-121G: 1.2 (0.047) 100 190 (6.7) 240 (9.4) W300WB-141G: 1.4 (0.055) 125 250 (9.8) 250 (9.8)

For any accident or damage caused by failure to observe the operational and safety procedures in this manual, ANEST IWATA disclaims all responsibility for any accident or damage caused by failure to observe this operational and safety procedures in this manual.

In the interest of user friendliness, this manual contains information in a brief and concise form. For any additional information you may require regarding spray gun operations, or if any missing parts or any damage during transportation is found, please contact your nearest ANEST IWATA Company (see last cover page).

IMPORTANT

Manufactured by ANEST IWATA Corporation 3176, Shinyoshida-cho, Kohoku-ku, Yokohama, 223-8501 Japan
SAFETY WARNINGS

FIRE OR EXPLOSION HAZARD

1. Sparks 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 HALOGENATED HYDROCARBON SOLVENTS which can cause cracks or dissolution on gun body (aluminium) by chemical reaction. - Unsuitable solvents methyl chloride, dichloromethane, 1,2-dichloroethane, carbon tetrachloride, trichloroethylene, 1,1,1-trichloroethane
   - Be sure that all fluids and solvents are compatible with gun parts.
   - We can supply a list of materials used to manufacture the product.

3. Securely ground spray gun by using air hose with built-in ground wire.
   - Ground wire: Less than 1MΩ Check the earth stability periodically.
   - If not, insufficient grounding can cause fire and explosion due to static electric sparking.

IMPROPER USE OF EQUIPMENT

1. Never point gun towards people or animals.
   - If done, it can cause inflammation of eyes and skin or bodily injury.

2. Never exceed maximum operating pressure and maximum operating Temperature.

3. Be sure to release air and fluid pressures before cleaning, disassembling or servicing.
   - If not, remaining pressure can cause bodily injury due to improper operation or scattering of cleaning liquid.
   - In order to release pressure, first stop supply of compressed air, fluid and thinner to spray gun. Then remove fluid adj. knob and pull fluid needle set towards you.

4. Tip of fluid needle set has a sharp point.
   - Do not touch the tip of fluid needle during 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 85 dB(A), depending on operating conditions and painting site.

4. If operators pull the trigger many times during operation, it may cause carpal tunnel syndrome.
   - Rest if you feel any discomfort in your hand.

OTHER PRECAUTIONS

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 have been turned off.
   - If not, contact with them can cause injury.
SPARE PARTS LIST

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.

HOW TO CONNECT

CAUTION
- Use clean air filtered through air dryer and air filter. If not, dirty air can cause painting failure.
- When you use this gun for the first time after purchasing, adjust fluid needle packing set. Slowly tighten fluid packing seat and loosen a bit when fluid needle set does not return smoothly, and adjust so that fluid needle set smoothly moves.
- When you use this gun for the first time after purchasing, clean fluid passages spraying thinner and remove rust preventive oil. If not, remaining preventive oil can cause painting failure such as fisheyes.
- Firmly fix cup to spray gun. If not, disconnection and drop of cup can cause bodily injury.

HOW TO OPERATE

Suggested air pressure is 1.0 to 2.0 bar (14 to 28 PSI)

Recommended paint viscosity differs according to paint property and painting conditions. Follow the advise on paint viscosity specified by paint manufacturers.

Keep fluid output as small as possible to the extent that the job will not be hindered. It will lead to better finishing with fine atomization.

Set the spray distance from the gun to the work piece as near as possible within the range of 100-200 mm (3.9-7.9 in).

The gun should be held so that it is perpendicular to the surface of the workpiece at all times. Then, the gun should move in a straight and horizontal line. Arcing the gun causes uneven painting.
**MAINTENANCE AND INSPECTION**

**WARNING**
- First release air and fluid 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 during maintenance for protection of the human body.
- Be careful not to damage the tip of the fluid nozzle or 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 holes of air cap, fluid nozzle or fluid needle.

**Step-by-step procedure**

1. Pour remaining paint to another container. Clean fluid passages and air cap set.
   - Spray a small amount of thinner to clean fluid passages.
   - Clean each section with brush soaked with thinner and wipe out with waste cloth.

2. Before disassembly, fully clean fluid passages.
   - Disassemble fluid nozzle set.
   - Do not need to remove fluid adj. guide set from gun body.
   - Remove fluid adj. knob and fluid needle spring, then pull out fluid needle spring and then pull out fluid needle set from back of fluid adj. guide set.

3. During disassembly, do not scratch seat section.
   - Disassemble fluid needle set.
   - Be careful when handling tip of fluid needle set since it is sharp.
   - Disassemble fluid adj. guide set as little as possible.

4. The fluid nozzle packing set must be adjusted while the fluid needle set is insen
ted. Tighten fluid needle packing set by hand and then tighten further by spanner.
   - Too much tightening of fluid nozzle packing set can cause bad movement
   of fluid needle set and fluid leakage from the tip of fluid needle set.

5. In order to assemble air valve, first assemble air valve & air valve spring & fluid adj. guide set together. Next, insert fluid needle set into fluid adj. guide set, then fit it to gun body set and screw fluid adj. guide set.
   - If you try to fit air valve spring and air valve to gun body set without fluid
   needle set, air valve will not be fitted correctly and packing inside fluid adj. guide set will be damaged.

6. Turn pattern adj. knob counterclockwise to fully open.
   - Then tighten pattern adj. set or air adj. set.

**Parts replacement standard**

1. Each hole passage of air cap and fluid nozzle
   - Replace if it is crushed or deformed.

2. Packings and O rings
   - Replace if it is deformed or worn out.

3. Leakage from seat section between fluid nozzle and fluid needle set
   - Replace them if leakage does not stop after fully cleaning fluid nozzle and fluid needle set. If you replace fluid nozzle or fluid needle only, fully match them and confirm that there is no leakage.

**TROUBLESHOOTING**

**Spray Pattern**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Where it occurred</th>
<th>Parts to be checked</th>
<th>Cause</th>
<th>Retighten</th>
<th>Adjust</th>
<th>Clean</th>
<th>Replace</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluttering</td>
<td>1. Air enters between fluid nozzle and tapered seat of gun body. 2. Air is drawn from fluid needle packing set 3. Air enters at fluid cup fitting nut</td>
<td>Air valve set</td>
<td><em>Dirt or damage on seat</em></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Dirt or damage on seat</em></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Wear on air valve spring</em></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Damaged or deteriorated O ring</em></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Loose fluid needle adj. knob</em></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Wear on needle spring</em></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Insufficient tightening</em></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Dirt or damage on seat</em></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Needle does not return due to packing set too tight</em></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Needle does not return due to paint buildup on fluid needle</em></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Wear</em></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Insufficient tightening</em></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><em>Insufficient opening</em></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROBLEMS AND REMEDIES**

1. 1. Remove fluid nozzle to clean seat. If it is damaged, replace nozzle.
   2. Tighten fluid needle packing.
   3. Fully tighten joint section.

2. 1. Remove obstructions from horn holes with attached brush. But do not use metal objects to clean horn holes.
   2. Replace if damaged.
   3. Replace fluid nozzle, clean seat section.

3. 1. Add thinner to increase viscosity.
   2. Tighten fluid adj. knob to reduce fluid output or turn pattern adj. knob clockwise to increase fluid output.
   3. Clean air cap set.