

USE and MAINTENANCE INSTRUCTION MANUAL



**PRESSURE
SPRAY GUN Series**

WS-200

- **WS-200 SP**
Split Nozzle
- **WS-200 FT**
Flat Tip Nozzle

Dear Customer,

We thank you for the preference you gave us and we are glad to count you among our customers. We hope the use of this equipment will satisfy you and your staff.

1. IMPORTANT INFORMATIONS

IMPORTANT	
	This manual is an integral part of pressure spray gun and must be read carefully before starting ANY ACTIVITY involving the use, adjustment and maintenance of the equipment, including its handling. This manual must be stored in a safe place for any future 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.
II 2G X	This ANEST IWATA pressure spray guns complies to ATEX regulations 2014/34/EU. Protection level: II 2 G X Suitable for using Zones 1 and 2. X marking: Any static electricity should be discharged from the spray gun and needs to be diverted to the ground via a conductive air hose not included.

ALWAYS OBSERVE WARNINGS AND CAUTIONS IN THIS MANUAL

SYMBOL	WARNING	HAZARD LEVEL	CONSEQUENCE
	WARNING	POTENTIALLY HAZARDOUS SITUATION	DEATH OR SERIOUS INJURY
	CAUTION		MINOR TO MODERATE INJURY
	IMPORTANT		PROPERTY DAMAGE

2. TECHNICAL SPECIFICATION














Max. operating air/fluid pressure:	12 bar (175 PSI)	Air connection:	G1/4"
Noise Level (LAeqT)*:	82.9 dB(A)	Fluid connection:	G3/8"
Weight g (lbs):	395 (0.87)	Max. Temperature range:	Atmosphere 5-40°C / Air-Fluid 5-43°C

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

2.1 TECHNICAL DATA

WS-200SP Split Nozzle	NOZZLE ORIFICE (mm)	AIR CAP SET MARK	AIR PRESSURE at Gun Inlet (MPa)	FLUID OUTPUT (ml/min)	AIR CONSUMPTION (l/min)	SPRAY DISTANCE 150 mm	PATTERN WIDTH (mm)
WS-200SP-0801	0.8	WS-200SP-01	0.25	200	435		210
WS-200SP-1001	1.0			250			230
WS-200SP-1201	1.2			300			240
WS-200SP-1401	1.4			300			240
WS-200SP-1601	1.6			350			255
WS-200SP-1801	1.8			400			265
WS-200FT Flat Tip Nozzle	NOZZLE ORIFICE (mm)	AIR CAP SET MARK	AIR PRESSURE at Gun Inlet (MPa)	FLUID OUTPUT (ml/min)	AIR CONSUMPTION (l/min)	SPRAY DISTANCE 150 mm	PATTERN WIDTH (mm)
WS-200FT-0801	0.8	WS-200FT-01	0.25	200	380		240
WS-200FT-1001	1.0						210
WS-200FT-1201	1.2						210
WS-200FT-1401	1.4			300			240
WS-200FT-1601	1.6						240
WS-200FT-1801	1.8						240
WS-200FT-0802	0.8	WS-200FT-02	0.30	200	475		215
WS-200FT-1002	1.0			250			250
WS-200FT-1202	1.2			300			255
WS-200FT-1402	1.4			300			255
WS-200FT-1602	1.6			350			270
WS-200FT-1802	1.8			400			285

3. SAFETY WARNING

 WARNING	FIRE AND EXPLOSION HAZARDS
	<p>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.</p>
	<p>SECURELY GROUND SPRAY GUN BY USING A CONDUCTIVE AIR HOSE. ELECTRICAL RESISTANCE: <math>< 1M\Omega</math>. ALWAYS ensure that the spray gun is earthed correctly. Insufficient grounding can cause fire and explosion due to static electric sparking.</p>
	<p>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.</p>
 WARNING	PROTECTION OF HUMAN BODY
	<p>USE IN A WELL-VENTILATED SITE BY USING A SPRAY BOOTH. If not, poor ventilation can cause organic solvent poisoning and catch fire. If you feel any abnormality during operation, consult a medical doctor immediately.</p>
	<p>ALWAYS WEAR PROTECTIVE GEAR (safety glasses, mask, gloves.) If not, cleaning liquid, etc., can cause inflammation of eyes and skin. In case of any physical discomfort for skin or eyes, immediately seek a medical advice.</p>
	<p>WEAR EARPLUGS IF NECESSARY. Noise level can exceed 85 dB(A), depending on operating conditions and painting site.</p>
	<p>NEVER TRY TO STOP LEAKS BY HAND, WHEN PAINT LEAKS. In case of leaks, stop pump immediately and reduce paint pressure down to 0 pressure. If you feel any abnormality or receive any injury, consult a medical doctor immediately.</p>
	<p>Pulling trigger many times during operation, may cause carpal tunnel syndrome. ALWAYS REST, IN CASE OF TIREDNESS.</p>
 WARNING	IMPROPER USE OF THE EQUIPMENT
	<p>NEVER EXCEED MAXIMUM OPERATING PRESSURE AND MAXIMUM OPERATING TEMPERATURE. Use at more than max. operating pressure can cause explosion of Spray Gun resulting in great danger.</p> <p>ALWAYS RELEASE AIR AND FLUID PRESSURE BEFORE CLEANING, DISASSEMBLING OR SERVICING. Otherwise, remaining pressure can cause bodily injury due to improper operation or scattering cleaning liquid.</p> <p>NEVER POINT Spray Gun towards people or animals.</p> <p>TIP OF FLUID NEEDLE SET HAS A SHARP POINT. Do not touch the tip during maintenance to avoid accidents.</p> <p>NEVER USE THIS GUN TO SPRAY FOODS OR CHEMICALS. Otherwise, foreign substance, could cause corrosion of fluid passages which could adversely affect health.</p> <p>NEVER ALTER THIS SPRAY GUN. If done, it can cause insufficient performance and failure or in extreme cases, explosions.</p>
 WARNING	OTHER PRECAUTIONS
	<p>SECURELY CONNECT FLUID HOSE. If hose is disconnected during operation, hazardous hose movement and paint ejection will cause severe bodily injury.</p> <p>IF SOMETHING GOES WRONG, IMMEDIATELY STOP OPERATION AND FIND THE CAUSE. Do not use again until you have solved the problem.</p> <p>NEVER USE SPARE PARTS THAT ARE NOT ANEST IWATA ORIGINALS.</p> <p>USE NEUTRAL CLEANER: pH value shall be 6 to 8, otherwise could cause corrosion.</p>

4. BOX CONTENTS



WHEN RECEIVING THE SPRAY GUN, MAKE SURE THAT IT HAS NOT BEEN DAMAGED DURING TRANSPORT OR STORAGE AND ALSO CHECK THAT ALL THE FOLLOWING CONTENTS ARE INSIDE THE BOX.

		<p>TWISTED BRUSH ø 10 mm</p>	
<p>SPRAY GUN</p>	<p>UNIVERSAL SPANNER</p>	<p>BRUSH</p>	<p>INSTRUCTION MANUAL</p>

5. SETUP OF THE GUN

<p>CAUTION</p>	
	<p>USE CLEAN AIR FILTERED THROUGH AIR DRYER AND AIR FILTER.</p> <p>WHEN USING THIS GUN FOR THE FIRST TIME AFTER PURCHASE, CLEAN FLUID PASSAGES AND REMOVE RUST PREVENTIVE OIL BY SPRAYING CLEANER.</p> <p>FIRMLY FIX PAINT HOSE TO SPRAY GUN, TO AVOID THAT DISCONNECTION OF IT, CAN CAUSE BODILY INJURY.</p>
<p>1.</p>	<p>Flush fluid passages with a compatible cleaner.</p>
<p>2.</p>	<p>Firmly connect an air hose to air nipple G1/4".</p>
<p>3.</p>	<p>Firmly connect a paint hose to fluid nipple G3/8".</p>
<p>4.</p>	<p>Test spray, adjust fluid output and as well as pattern width.</p>

6. HOW TO OPERATE

<p>Suggested atomizing air pressure is 2.0 to 3.0 bar (29 to 43.5 PSI).</p>
<p>Recommended paint viscosity differs according to paint property and painting conditions. 14 to 25 sec. / Ford cup#4 is recommended.</p>
<p>Set the spray distance from the gun to the work piece, as near as possible within the range of 130-200 mm.</p>
<p>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.</p>

7. MAINTENANCE AND INSPECTION

<p>CAUTION</p>	
	<p>BEFORE CARRYING OUT MAINTENANCE AND INSPECTION ALWAYS OBSERVE WARNING INDICATIONS.</p>
<p>- NEVER DAMAGE FLUID NOZZLE TIP, FLUID NEEDLE OR AIR CAP HOLES.</p>	
<p>- NEVER IMMERSE THE SPRAY GUN COMPLETELY IN LIQUIDS SUCH AS THINNER.</p>	

7.1 MANUAL CLEANING PROCEDURE

CAUTION



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.

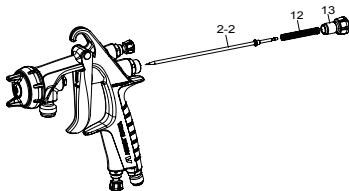
NEVER SOAK AIR CAP SET (1) IN CLEANER FOR AN EXTENDED PERIOD, EVEN WHEN CLEANING.

NEVER USE METAL BRUSH TO CLEAN THE GUN.

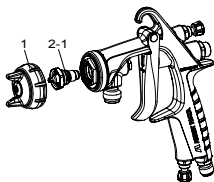
- 1 RELEASE AIR AND FLUID PRESSURE.
- 2 REMOVE AIR CAP SET AND PAINT HOSE FROM GUN, CLEAN FLUID PASSAGES, THEN CLEAN EACH SECTION WITH BRUSH SOAKED WITH CLEANER AND WIPE OUT WITH WASTE CLOTH.
- 3 DRY ALL PARTS COMPLETELY AND APPLY SPRAY GUN LUBRICANT TO EACH THREAD.

7.2 DISASSEMBLY AND REASSEMBLY PROCEDURE

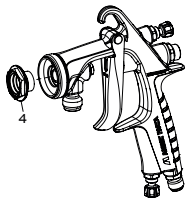
- A FLUID NEEDLE (2-2):** Disassemble: fluid adj. knob (13) fluid needle spring (12) and needle set (2-2), with air cap (1) already assembled.



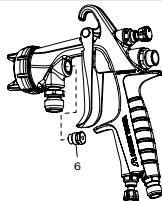
- B FLUID NOZZLE SET (2-1):** Disassemble: air cap set (1) and fluid nozzle (2-1), while keeping fluid needle (2-2) pulled (triggering) in order to protect its seat section. Use the enclosed spanner to disassemble the fluid nozzle (size Hex.19 mm).



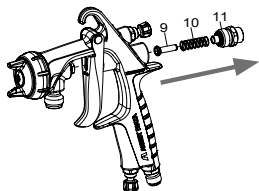
- C BUFFLE RING (4):** Disassemble baffle ring (4) by using jaw wrench Hex. 24 mm (not included).



- D FLUID NEEDLE PACKING SET (6):** Disassemble fluid needle packing set (6), by using universal spanner hex.10 mm. **IMPORTANT!** If you replace fluid needle packing set, be sure to adjust it carefully while pulling trigger and confirming movement of fluid needle.



- E AIR VALVE SET (9):** To disassemble air valve (9), unscrew the fluid adj. guide set (11) by using universal spanner hex. 17 mm size, and remove air valve spring (10) and air valve (9).



- F AIR VALVE SHAFT (14):** To disassemble air valve shaft (14), unscrew air valve seat set (8) by using hex. 10 mm allen wrench (not included). **IMPORTANT!** Before to reassemble it, fasten the air valve shaft (14) to air valve seat set (8) see fig.1.

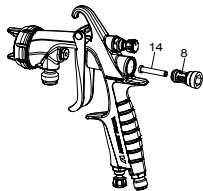
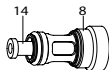


Fig. 1



G Reassemble air valve (9), air valve spring (10) and fluid adj. guide set (11) together. Next insert fluid needle set (2-2) into fluid adj. guide set (11) fit it into gun body set and tighten fluid adj. guide set (11) by using the enclosed spanner. **IMPORTANT! If you try to fit air valve spring (10) and air valve (9) into gun body, without fluid needle set (2-2) assembled, air valve will not be fitted correctly and the packing of fluid adj. guide set (11) will be damaged.**

H TRIGGER SET (16): To disassemble trigger set (16), unscrew hexagon socket bottom bolt (18) by using hex. 2.5 mm allen wrench (not included) and remove trigger stud (17). **IMPORTANT! To reassemble, fit the hexagonal shape of the edge of the trigger stud (17) into hexagonal hole of it, see fig.2.**

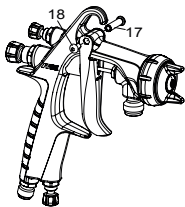
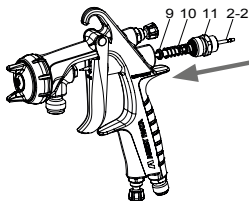
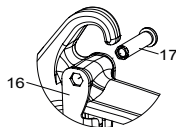





Fig. 2



I PATTERN ADJ. SET (7) and AIR ADJ. SET (15) . IMPORTANT: Before disassembling or assembling of pattern adj. set (7) and/or air adj. set (15) make sure that these operations will be carried out with the adjustments fully opened. Otherwise it could cause damage of seats section. Disassemble pattern adj. set (7) and/or air adj. set (15) by using the enclosed spanner hex. 13 mm size.

8. PROBLEMS CAUSES AND REMEDIES

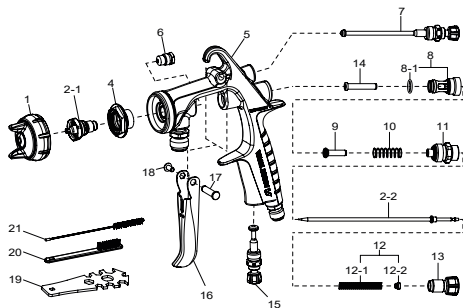
PROBLEM	CAUSE	REMEDY
SPRAY GUN DOES NOT SPRAY	 Fluid adj. knob (13) closed.	Check and adjust it.
	Tip hole of nozzle obstructed.	Check and clean it.
INTERMITTENT SPRAY PATTERN	 Air escapes from fluid nozzle (2-1).	Check , clean & replace if necessary.
	Air escapes from fluid needle packing (6).	Tighten.
	Dirty inside air cap set (1).	Clean.
DEFECTIVE SPRAY PATTERN	Dirty nozzle (2-1) or air cap set (1).	Clean carefully.
	Nozzle (2-1); air cap (1) or baffle ring (4) has been damaged.	Replace if damaged.
	Fluid nozzle (2-1) or baffle ring (4) are loose.	Tighten.
	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), needle set (2-2) or gun body (5), dirty, damaged or worn on seat.	Clean & replace if necessary.
	Dirt inside air cap set (1).	Clean.
	Loose fluid adj. knob (13).	Adjust.
	Fluid needle spring set (12) is worn.	Replace.
	Loose fluid nozzle set (2-1).	Tighten.
AIR ESCAPES FROM AIR CAP	Needle packing set (6) dirty or worn.	Clean or replace.
	Air valve (9), air valve seat (8) or air valve spring (10) dirty or damaged.	Clean or replace if necessary.
	Air valve seat set "O"ring (8-1) damaged or worn.	Replace.

8.1 INSPECTION AND REPLACEMENT STANDARD

WHERE TO INSPECT	REPLACEMENT PART
Each hole passage of air cap set (1) and fluid nozzle set (2-1).	Replace air cap or fluid nozzle if they are crushed or deformed.
Packings and O'rings.	Replace if deformed or worn out.
Leakage from seat section between fluid nozzle (2-1) and fluid needle set (2-2).	Replace them if leakage does not stop after fully cleaning fluid nozzle (2-1) and fluid needle set (2-2). If you replace fluid nozzle (2-1) or fluid needle set (2-2) only, fully match them and confirm that there is no leakage.

9. SPARE PARTS LIST

Ref.	CODE	DESCRIPTION		
1	AIR CAP SET			
	93001300	WS-200SP-01		
	93002070	WS-200FT-01		
	93002190	WS-200FT-02		
2-1 + 2-2	FLUID NOZZLE SET + FLUID NEEDLE SET ●			
	93007240	WS-200SP-08		
	93007490	WS-200SP-10		
	93007550	WS-200SP-12		
	93007620	WS-200SP-14		
	93007650	WS-200SP-16		
	93007660	WS-200SP-18		
	93002180	WS-200FT-08		
	93002150	WS-200FT-10		
	93002130	WS-200FT-12		
	93003420	WS-200FT-14		
	93003480	WS-200FT-16		
	93003500	WS-200FT-18		
	4	93007750	BAFFLE RING SET	●
	6	03810620	NEEDLE PACKING SET	●
7	93001561	PATTERN ADJUSTMENT SET		
8	93001640	*AIR VALVE SEAT SET		
8-1	93001680	O RING	●	
9	93001690	AIR VALVE	●	
10	93001700	AIR VALVE SPRING		
11	93001710	FLUID ADJ. GUIDE SET		
12	93002820	NEEDLE SPRING SET		
12-1	93593530	NEEDLE SPRING		
12-2	93001760	NEEDLE SPRING PACKING	●	
13	93001780	FLUID ADJUSTMENT KNOB		
14	93001790	AIR VALVE SHAFT	●	
15	93001801	AIR ADJUSTMENT SET		
16	93001820	TRIGGER SET		
17	93001870	TRIGGER STUD		
18	93001960	**HEX. SOCKET BUTTON BOLT		
19	93505910	SPANNER		
20	W2COM6163	BRUSHES (5 pcs.)		
21	W2COM6162	TWISTED BRUSHES ø10mm (5 pcs.)		



NEVER REMOVE FLUID NIPPLE GUN BODY! Any malfunctions resulting by the removal of this part will not be covered by the Warranty. In case of replacement contact your Technical Service directly.

NOTE

● Marked parts are wearable parts.

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

*To disassemble Air valve seat ref. 8, use 10 mm Allen wrench (Non ball point type). (not enclosed)

**To disassemble Hexagon socket button bolt ref. 18, use 2.5 mm Allen wrench. (not enclosed)

NOZZLE NEEDLE SET COMBINATION	FLUID NOZZLE SET		FLUID NEEDLE SET
	SIZE ø mm (inch)	MARK	MARK
	0.8 (0.031)	WS200 /08SP	WS20012
	1.0 (0.039)	WS200 /10SP	
	1.2 (0.047)	WS200 /12SP	
	1.4 (0.055)	WS200 /14SP	WS20016
	1.6 (0.063)	WS200 /16SP	
	1.8 (0.071)	WS200 /18SP	
	0.8 (0.031)	WS200 /08FT	WS20012H
	1.0 (0.039)	WS200 /10FT	
	1.2 (0.047)	WS200 /12FT	
	1.4 (0.055)	WS200 /14FT	WS20016H
	1.6 (0.063)	WS200 /16FT	
	1.8 (0.071)	WS200 /18FT	

EUROPE:

ANEST IWATA Italia S.r.l.

Torino - ITALY
info@anest-iwata.it
www.anest-iwata.it

ANEST IWATA Deutschland GmbH

Leipzig - GERMANY
info@anest-iwata.de
www.anest-iwata.de

ANEST IWATA France S.A.

Saint Quentin Fallavier, Lyon - FRANCE
info@anest-iwata.fr
www.anest-iwata.fr

ANEST IWATA U.K. Ltd.

St. Neots Cambridgeshire - ENGLAND
enquiries@anest-iwata.co.uk
www.anest-iwata.co.uk

ANEST IWATA Iberica S.L.

Badalona - Barcelona - SPAIN
info@anest-iwata.es
www.anest-iwata.es

ANEST IWATA Scandinavia AB.

Partille, Göteborg - SWEDEN
info@anest-iwata.se
www.anest-iwata.se

ANEST IWATA Polska Sp. Z o.o.

Poznań - POLAND
info@anestiwata.com.pl
www.anest-iwata.pl

NORTH AMERICA:

ANEST IWATA USA Inc.

West Chester - Ohio - U.S.A.
inquiry@anestiwata.com
www.anestiwata.com

SOUTH AMERICA:

ANEST IWATA DO BRASIL COMERCIAL Ltda.

Sao Paulo - BRAZIL
contato@anest-iwata.net.br
www.anest-iwata.net.br

AUSTRALIA:

ANEST IWATA Australia Pty Ltd.

Sidney - AUSTRALIA
info@anest-iwata.com.au
www.anest-iwata.com.au

SOUTH AFRICA:

ANEST IWATA South Africa Pty Ltd.

Johannesburg - REPUBLIC OF SOUTH AFRICA
www.anest-iwata.co.za

ASIA:

ANEST IWATA Coating Solutions Corporation

Yokohama - JAPAN
www.anest-iwata.co.jp

ANEST IWATA KOREA Corporation

Ansan City - KOREA
inquiry@aikr.co.kr
www.aikr.co.kr

ANEST IWATA Motherson Coating Equipment Ltd.

Noida - INDIA
sales@alm.motherson.com
www.motherson.com/anest-iwata-motherson.html

ANEST IWATA Russia LLC

Moscow - RUSSIA
tam@anestiwata.ru
www.anestiwata.ru

ANEST IWATA Shanghai Corporation

Shanghai - CHINA
customer@anest-iwata-sh.com
www.anest-iwata-sh.com

ANEST IWATA Taiwan Corporation

Hu-Kuo - TAIWAN R.O.C.
service@anestiwata.com.tw
www.anestiwata.com.tw

ANEST IWATA Vietnam CO. Ltd.

Ho Chi Minh City - VIETNAM
info@anest-iwata.vn
www.anest-iwatasoutheastasia.com

PT. ANEST IWATA Indonesia

Jakarta - INDONESIA
www.anest-iwatasoutheastasia.com

ANEST IWATA Southeast Asia CO. Ltd.

Bangkok - THAILAND
info@anest-iwata.co.th
www.anest-iwatasoutheastasia.com

