Operation and Maintenance Manual

Air Wrap Hand Gun

APSG10

This manual contains important information on warnings and cautions. Read the manual thoroughly before starting to operate the equipment, and follow the instructions.
Always keep the manual handy until such time as the equipment is no longer being used.
If your manual is lost or worn badly, do not hesitate to contact our agency which is closest to you, or the Asahi Sunac Corporation, directly, and ask us to send you a new one.

17th Edition: October 23, 2025

Introduction

Thank you for purchasing our product Air Wrap Hand Gun < APSG10>.

Please be sure to read this operation manual carefully before using this product so that you can always use it under the optimum conditions.
In particular, please fully understand the items in the specifications and use them according to the correct usage.

If you have any questions, please contact us by clearly stating the "product number" and "serial number" and contacting us on the back cover.

Please keep this operation manual in a safe place where you can easily refer to it.

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17th Edition: October 23, 2025

1 For safe and correct use

Please understand the contents of this instruction manual and be sure to follow the handling method. If you use it without following this instruction manual, **you may injure your body or damage your equipment and fire.**

The following safety precautions should be considered as minimum basic safety measures when using our products.

●Precautions are displayed in the following two stages.

⚠ **WARNING**	Hazards that can result in death or serious injury.
⚠ **CAUTION**	Danger that may result in minor or moderate injury or physical damage only.

●Other important points are indicated as follows:

NOTE	Observations to ensure the equipment's performance and functions are fully operational.

In addition, please observe all national and local laws and regulations related to fire, electricity, and safety, as well as the rules and regulations of your own company or business division.

≪Range of use suitable for the product≫

This product is a manual spray gun designed to be installed in the coating booth equipped with an exhaust system and used for painting with air wrap atomization paint.

If you use the product under conditions other than the above, it will be used improperly. Also, please be careful as it may cause an accident.

《Warning and precautions for safe use》

⚠ WARNING

Fire and explosion

Preventing fire and explosion in coating shop

- **Do not use halogenated hydrocarbon solvents.**
  The aluminum alloy contained in this product's components may undergo a chemical reaction and explode.

- **Do not use this product outside its specifications.**
  Using it out of specification range may result in a fire hazard.

- **Provide adequate ventilation with ventilation equipment.**
  Volatilized organic solvents and other substances may remain and ignite, creating a risk of fire.

- **Clean the coating room and exhaust system (ducts and fans) regularly.**
  If the accumulated powder simply peels off, a spark may occur, which could cause a dust explosion.
  In the unlikely event of a fire, paint residue etc. will make it easier for the fire to spread and result in greater damage.

Prevent fire and electric shock caused by faulty earthing

- **All conductive objects in the coating booth (paint containers, peripheral equipment, etc.) must be grounded with an earth wire.**
  When paint flows through a pump or hose, static electricity is generated, and poorly grounded conductors can become charged and sparks can discharge, resulting in a fire or electric shock.

- **Always keep the workpiece earthed.**
  Risk of fire or electric shock due to spark discharge from charged workpieces.

- **Paint hose must be grounded with an earth wire.**
  Static electricity can cause spark discharge, which can result in fire or electric shock.
  When paint flows through the injector and paint hose, static electricity is generated and becomes charged.

- **The paint container must be grounded with an earth wire (excluding the insulated stand specifications).**
  The paint path can cause the paint container to become charged, a risk of fire or electric shock.

- **Be sure to periodically remove any paint that has stuck to the hanger.**
  If paint adheres to the contact part between the hanger and the object, there is a risk of fire or electric shock due to poor earthing.
  The ground resistance value should be 1kΩ or less for metal (1MΩ or less for resin) (measurement voltage should be 500V or more).

《Warning and precautions for safe use》

⚠ WARNING

Fire and explosion

Prevent fire and electric shock caused by faulty earthing

- **Do not place any items in the coating booth that are not necessary for coating.**
  Static electricity can cause spark discharge, which can result in fire or electric shock.
- **Paint operator must take precautions to prevent static electricity.**
  Static electricity builds up on the human body, causing sparks to discharge, which may result in fire or electric shock.
- **Do not bring any spark-producing devices, matches, lighters, etc.**
  Risk of explosion or fire due to ignition of flammable materials.

Equipment misuse

Preventing accidents caused by poor maintenance

- **Any abnormal noises or vibrations, immediately stop operation.**
  Product damage may result in a fire hazard.
- **Do not operate if any parts are damaged or missing.**
  Product damage may result in a fire hazard.

《Warning and precautions for safe use》

⚠ WARNING

Human protection

Protection from solvents, air and paint pressure

- **Do not spray paint towards person**
  Harmful substances may cause serious injury, including inflammation and poisoning.
  Pressurized paint can cause personal injury.

- **Wear protective glasses, a protective mask, and protective gloves[*1] when handling paint.**
  Harmful substances may cause serious injury, such as inflammation or poisoning.
  Carefully read the safety data sheet (SDS[*2]) of the paint you are using and take appropriate exposure prevention and protective measures.
  *1 When using protective gloves for skin absorption protection or to prevent dirt, it is necessary to prevent static electricity from building up on the human body. Be sure to ground it properly. (Recommended protective gloves are those specified in JIS T8118, or earth bands, etc.)
  *2 SDS：Safety Data Sheet

- **Clean the coating room and exhaust device (ducts and fans) regularly.**
  If the exhaust device does not function properly, harmful substances may cause serious injury, including inflammation and poisoning.

Protection from high pressure paint

- **Always use below maximum paint pressure.**
  The equipment may explode and cause injury to person from debris and pressurized paint.
  Harmful substances can cause serious injury, including inflammation and poisoning.

- **Do not use damaged hoses.**
  The hose may burst and cause injury to person from debris and pressurized paint.
  Harmful substances can cause serious injury, including inflammation and poisoning.

- **Do not touch the discharge part when the paint is high pressure.**
  Pressurized paint can cause personal injury.
  Harmful substances can cause serious injury, including inflammation and poisoning.

- **Always relieve paint and air pressure before cleaning, disassembly or maintenance work.**
  Do not remove or disassemble the nozzle or hose without relieving the pressure.
  Pressurized paint, cleaning fluids and air can cause personal injury.
  Harmful substances can cause serious injury, including inflammation and poisoning.

- **After application, make sure the paint is not pressurized.**
  Pressurized paint can cause personal injury.
  Harmful substances can cause serious injury, including inflammation and poisoning.

<Pressure Relief Procedure>

Follow this procedure to relieve pressure when inspecting, removing nozzle, cleaning, replacing and when stopping spraying.

① Close the paint valve for gun.
② Shut off the compressor air (stop the air supply to the pump and gun).
※Turn off the power when using an electric pump.
③ Slowly open the drain valve of the pump (to reduce paint pressure in the passage).
④ Release the trigger lock and slowly pull the trigger (check for a decrease in paint pressure).
⑤ Make sure the paint pressure has dropped sufficiently and then engage the trigger lock.

(If the pressure relief procedure does not completely relieve the pressure)

• Wrap the retaining nut or hose terminal connector in a rag etc. and carefully and slowly drain out the paint inside.

《Warning and precautions for safe use》

⚠ WARNING

- **Do not use this product outside its specifications.**
  Using it out of specification range may result damage to the product.

- **Hoses should be hung from the ceiling or side walls and not dragged across the floor.**
  It may cause damage such as scratches.
  When using conductive paint, be sure to suspend the paint hose from an insulating material such as a rubber tube.

- **When cleaning the nozzle, never use a metal brush, use a bamboo brush or similar.**
  It may damage the nozzle and result in poor coating.
  The nozzle is an important part of the sprayer.
  If you use a metal brush to damage the nozzle, it will become difficult to maintain uniform spray conditions.

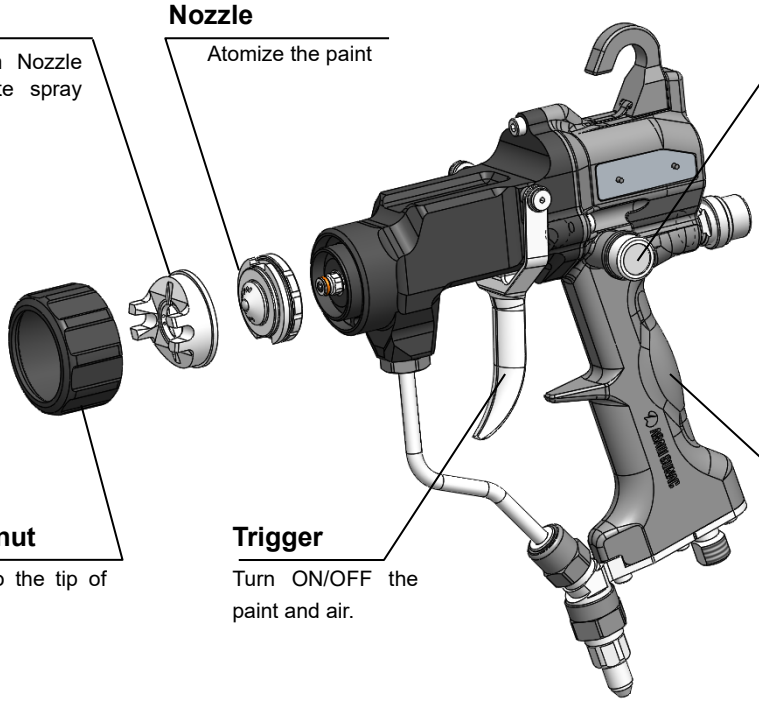
- **Check frequently for paint leaks, air leaks, and loose screw.**

●**A fire extinguisher should always be kept near the work area.**
In case of a fire, make sure to have equipment that has been regularly inspected installed at all times.

●**When disposing of this product, please dispose of it in accordance with the laws of your country.**

2 Outline of Equipment

2.1 Names and Roles of Parts



Air cap

Fixes paint from Nozzle tip to appropriate spray pattern.

Nozzle

Atomize the paint

Pattern valve

Adjust spraying pattern width

Body

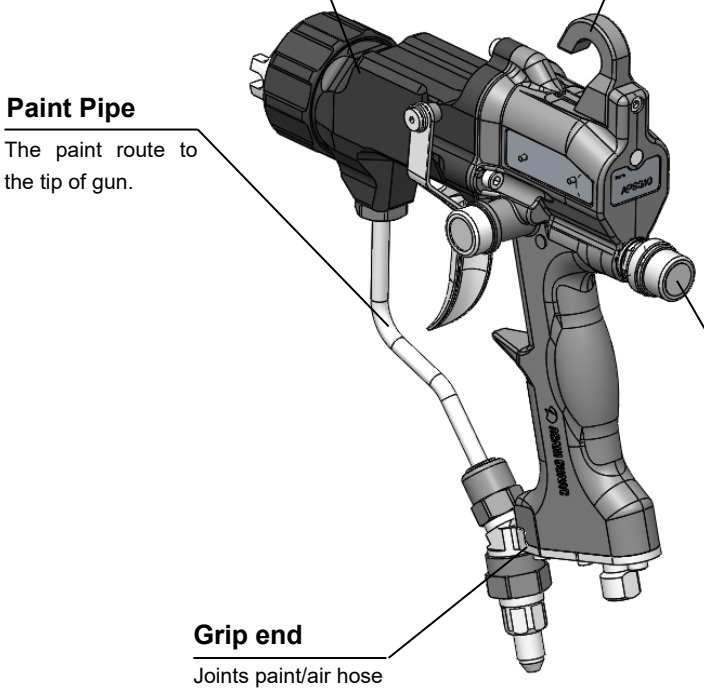
Handle of gun

Retaining nut

Fix air cap to the tip of gun.

Trigger

Turn ON/OFF the paint and air.



Barrel

Gun hook

Fit to various gun hungers.

Paint Pipe

The paint route to the tip of gun.

Trigger lock

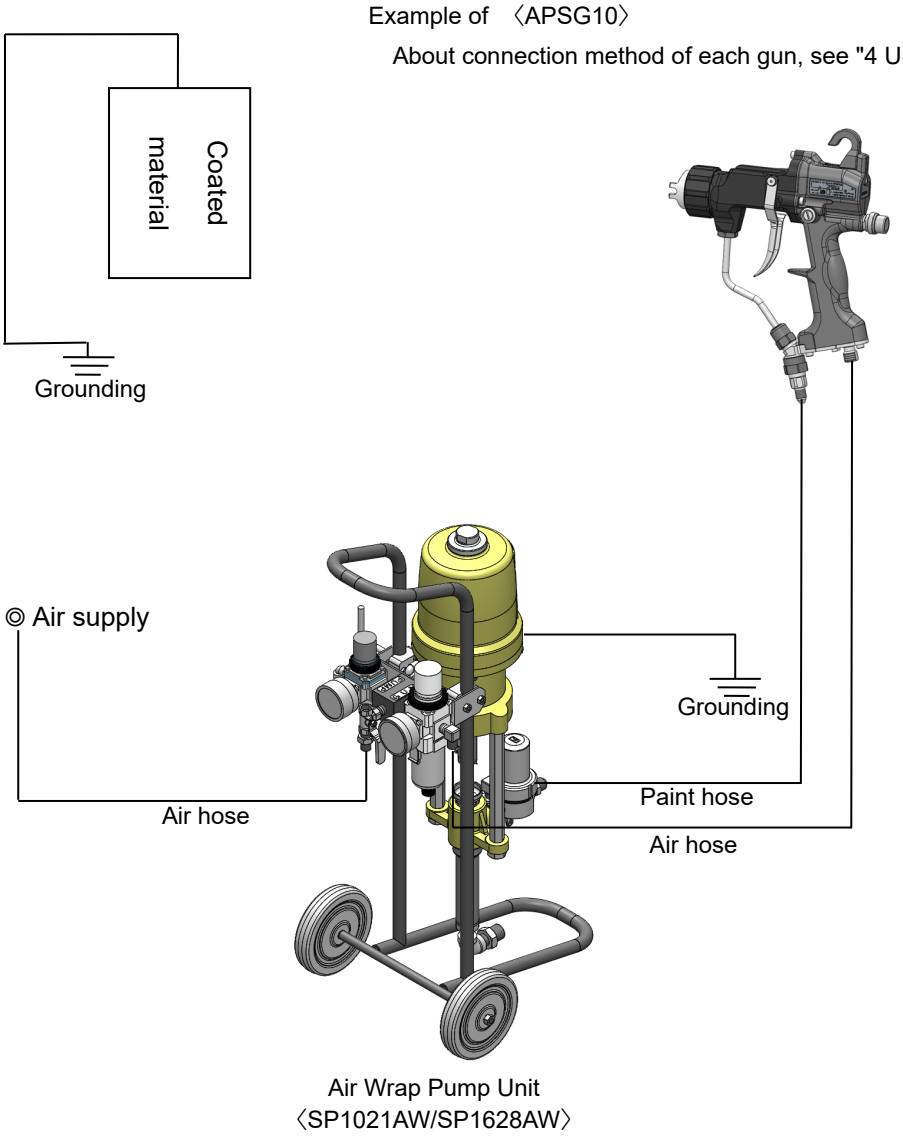
Locks trigger not to spraying incidentally.

Grip end

Joints paint/air hose

2.2 Example of Structure of Coating Machine Installation

Air Wrap Spray Hand Gun
Example of 〈APSG10〉
About connection method of each gun, see "4 Unit Installation.



Air Wrap Pump Unit
〈SP1021AW/SP1628AW〉

NOTE

Paint hose and connection cable are not attached to APSG10.

2.3 Related Accessory Equipment

●The related accessory equipment and maintenance tools are necessary for the operation of this product.

Select appropriate equipment from the following according to its usage/conditions and arrange it separately.

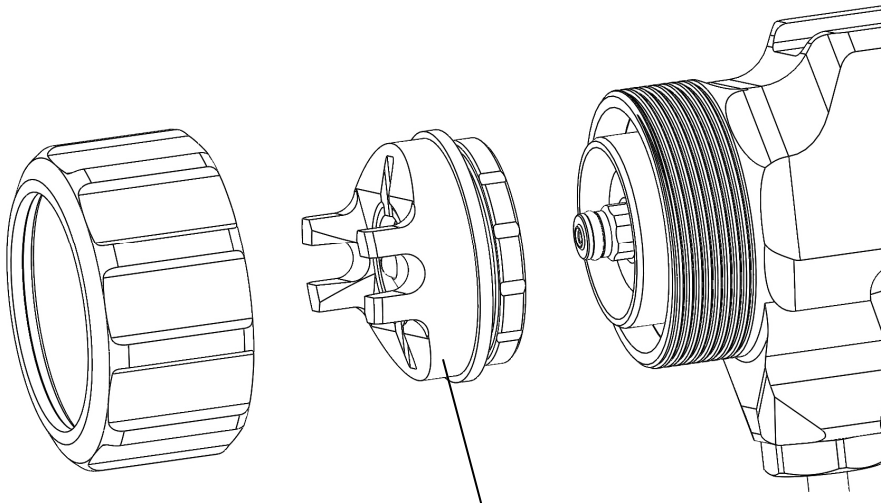
●As for arrangement of the products and parts of the related accessory equipment, check their part No. and quantity with their equipment manuals separately.

2.3.1 Air Cap (Model: AN Series) (separately offered)

●A part attached to the tip of the APEG100/100M having a function of atomizing and creating pattern by force of air and pressure of paint.

●Select an air cap from the separate manual according to its usage.

Air cap EN series image



2.3.4 Air Hose (Model: AH6,8 Series) (separately offered)

●To supply air required for atomization of paint and pattern creation to the coating machine, connect it between the air regulator of the electrostatic controller and coating machine.

Air hose part No. list

No.	Model	Part name	Part No.	Specifications
1	AH6-10	Air hose	591-3100	φ6-10m
2	AH6-20		591-3200	φ6-20m
3	AH8-10		592-3100	φ8-10m for high volume air,
4	AH8-20		592-3200	φ8-20m for high volume air,,

2.3.5 Paint hose (separately offered)

●A paint hose for sending high pressure paint from the pump to the APEG100/APEG100M.

Use nylon hose (gun side) and stainless steel soft hose (pump side) in combination.

Paint hose part No. list

No.	Model	Part name	Part No.	Specifications
1	Nylon hose	NH03050	515-1050	5m(for gun side),φ3.4,PF1/8
2	Stainless steel soft hose	NSR06050	53C-1050	5m(for pomp side),φ6,PF1/4
3	Stainless steel soft hose	NSR06100	53C-1100	10m(for pomp side) ,φ6,PF1/4
4	Stainless steel soft hose	NSR06200	53C-1200	20m(for pomp side) ,φ6,PF1/4
5	Intermediate nipple	-	3202-232	1F-2FF,NH03,NSR06 for joint hoses
6	Hose joint	-	1742-006	PF1/4

In case the high pressure drop with using high viscosity etc., change hose joint of gun to 1742-006(separately offered) and connect NSR06 hose to gun directly.

2.3.6 Maintenance Tool Set (separately offered)

●Preventive maintenance of parts and repair/part replacement due to failures can be done by replacing the targeted part assembly, but this is a maintenance tool set consisting of dedicated tools for more detailed part replacement and maintenance and control tools for stricttorque control.

⚠ CAUTION

If you are interested in detailed maintenance, we will provide a maintenance course. Only the person who has attended the maintenance course specified by Asahi Sunac can do maintenance.
For information on the maintenance course, please contact our person in charge.

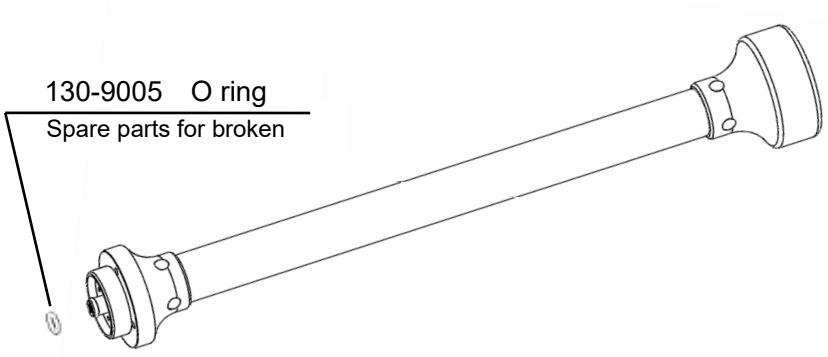
Maintenance tool set

No.	Part name	Part No.	Specifications
1	Maintenance tool set	35F4	For APSG10

2.3.7 Long extension (Sold separately)

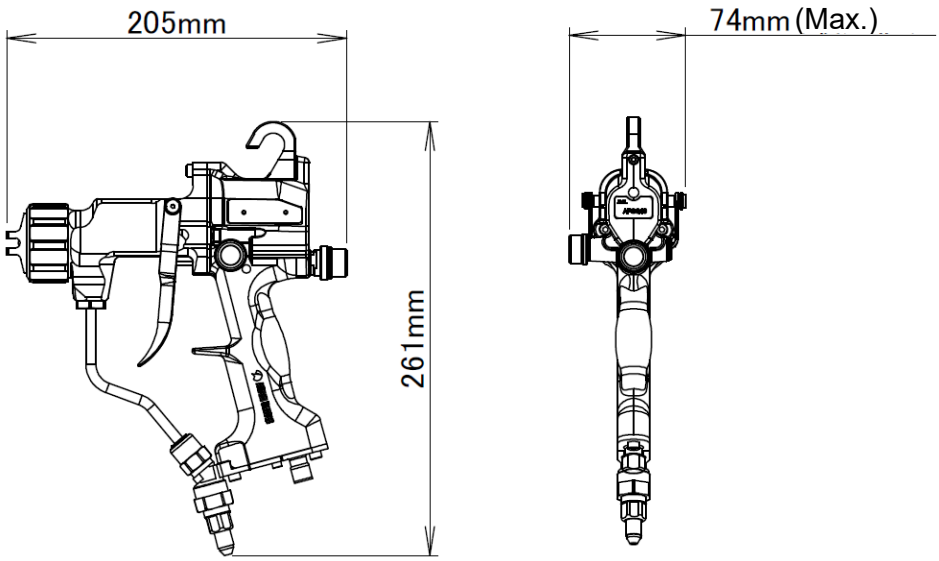
●It' nozzle for extend aircap . Order that as needed.

No.	Part name	Part No.	Specifications
1	Long extension	1607-1	For APSG10 300mm



3 Specifications

3.1 Drawing



3.2 Specification

Model		APSG10
Fluid pressure	Normal	2～16MPa
	Max.	21MPa
Wrap air pressure	Normal	0.2～0.5MPa
	Max.	0.6MPa
Air consumption		Max. 350L／min (ANR)
Weight		495g
Supply air conditions		Solid particle size:0.1μm or less

NOTES

For details on the paint pressure-feed unit and paint regulator, see the instruction manuals.

Standard air wrap pump unit	Mixing ratio	Maximum air pressure (MPa)
SP1021AW	1:23	0.6
SP1628AW	1:30	↑

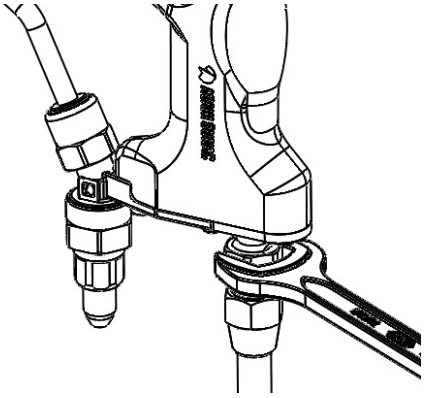
If you use our products except the air wrap pump unit, air pressure value should be less than maximum air pressure in the table not to the paint pressure-feed pressure is over 21Mpa.

Pump model	Pressure ratio	Maximum air pressure (MPa)
SP1021	1:23	0.6
SP1636/1854/2578	1:20	↑
SP1628/1844	1:30	↑
SP2554	1:45	0.46

4 Unit Installation

4.1 Connection of Air Hose

Connect the end connector of the black air hose to the nipple at the lower end of the gun grip (next to connecting cable). Then connect the other end connector to "AIR OUT" of the electrostatic controller and tighten it. (Screw port diameter: PF1/4) A 17 mm spanner is required for this operation.



⚠ CAUTION

Damage of the unit may occur.

When tightening an air hose or paint hose to the gun, be sure to use two spanners and do not apply excessive force to the gun. Also remove and attach it so that the spanner will not touch the cable connector.

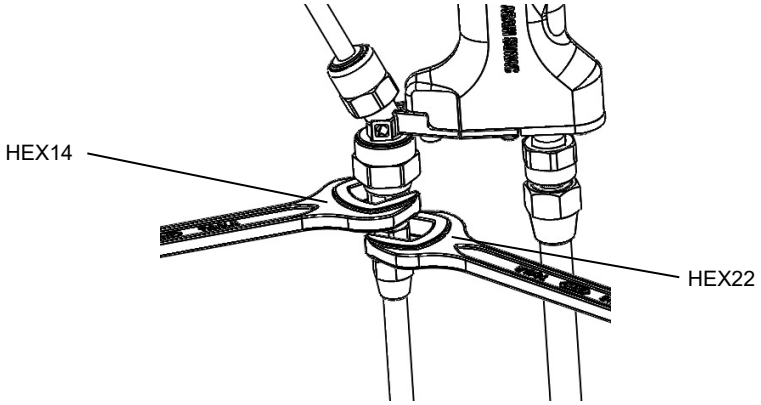
NOTE

If the length of the air hose is more than10m, use large internal diameter type. It leads effective paint atomization .

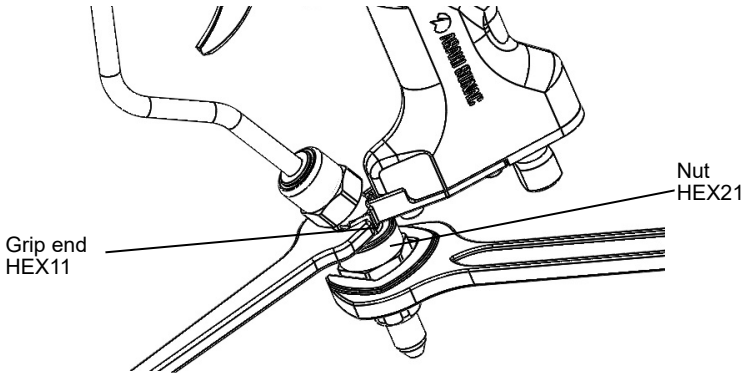
The screw diameter changes to G 3/8 by attaching joint bush (3204-027).

4.2 Connection of Paint Hose

Connect the end connector of the paint hose to the lower end of the gun grip (in front of connecting cable) and attach the other end paint hose connector to the paint pressure-feed unit (Connect ϕ3-5m long and ϕ6-5m long hoses using an intermediate joint into a 10m long hose.).

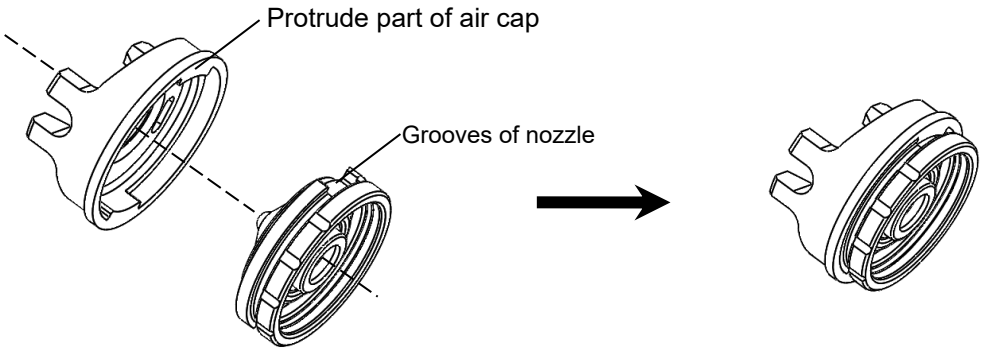


When paint hose is retighten, hook tools (wrench) to width across flat. Please be carried out with care prevent from scratch the griped surface. Retighten the griped and the nut after retighten paint hose.



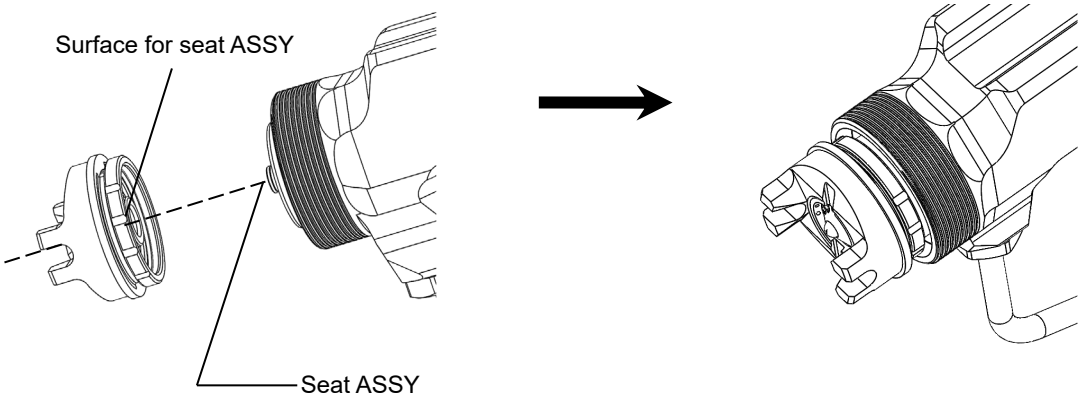
4.3 Installation of Air Cap set

(1) Place the protrude part of air cap in the grooves of nozzle snugly.



(2) Fix the air cap set to the nozzle by hand.

Tilt the gun tip downward so that thinner or solvent will not enter the gun.

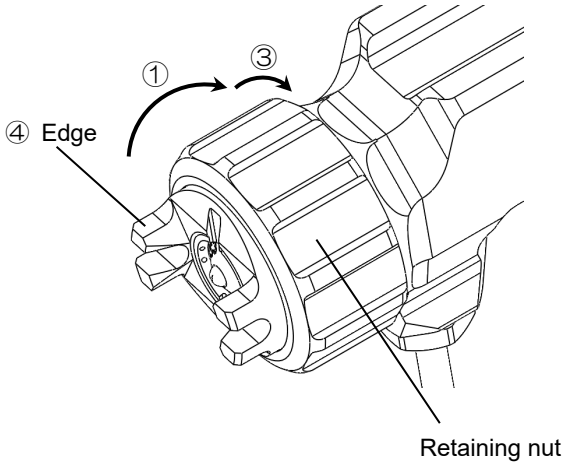


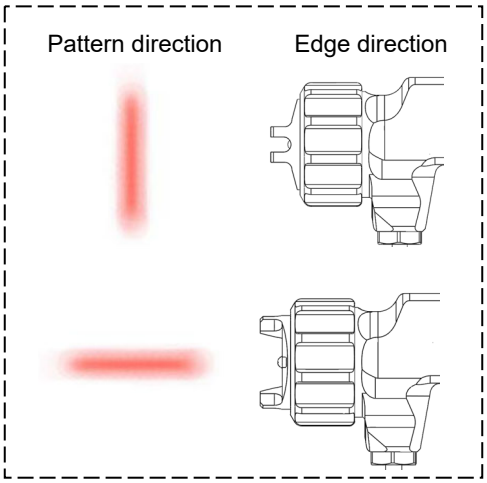
(3) Attach the retaining nut assembly to the outside of the air cap set.

①Tighten the retaining nut assembly tightly, and then adjust the angle direction of the air cap to the direction of pattern creation.

②Tighten the retaining nut assembly more strongly until the air cap set is fixed.

③Keep distance between the designated surface of barrel and end of retaining nut is around 1mm for standard of tightening.





⚠ CAUTION

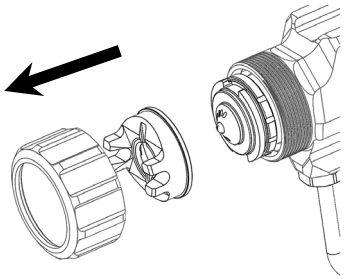
Damage of the unit may occur.

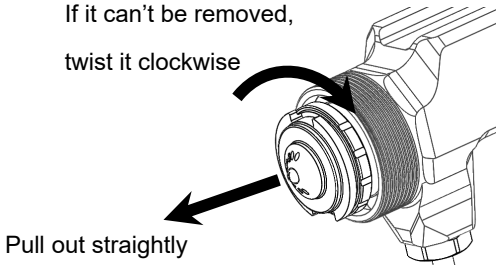
Since this is a resin product, the nozzle attachment joint inside diameter screw may be damaged if tightened too tightly. Remove and attach it with sufficient care.

⚠ CAUTION

Check the packing condition on the mating face of the nozzle tip and the O-ring of seat assembly. If the packing and O-ring are missing or damaged, the pressurized paint intrudes into the air circuit, possibly resulting in poor coating or disorder.

(4) When you disassemble the air cap, retighten the retaining nut with supporting the edge of air cap by hand and remove retaining nut and air cap. Please don't twist the nozzle if you remove it. In the case, it can't be removed, be sure to twist it clockwise.





⚠ CAUTION

Pull out the nozzle straightly or with twisting clockwise. If you twist it counter clockwise, paint leakage can be occurred because of seat assy corotation.

5 Coating preparation

Before a coating operation, make preparations for coating in accordance with the following procedure.

5.1 Put paint in the paint feeder.

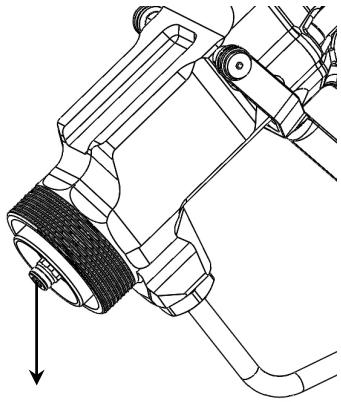
When this coating machine is used, the general standard viscosity is approximately 9-30 sec/FC#4, but it is not necessarily limited depending on various conditions such as the type of paint and solvent, shape of the product to be coated and thickness of the coating film. Also it is recommended that before putting in paint, the paint resistance be measured.

(1) Operate the paint feeder to feed the paint to the gun.

Operate the pump at a low pressure (approximately 2-3 MPa) with the air regulator for the pump and suck the paint.

(2) Discharge paint through the gun tip.

Check that the power switch on the controller has been set to off. First, spray a small amount of paint into an empty can or the like with no nozzle mounted on the gun and the gun trigger unlocked. Thus the foreign matter and air from the paint circuit are discharged.



(3) Check the coating machine and hose joints for paint leakage. Set the operating pressure to operating pressure.

⚠ WARNING

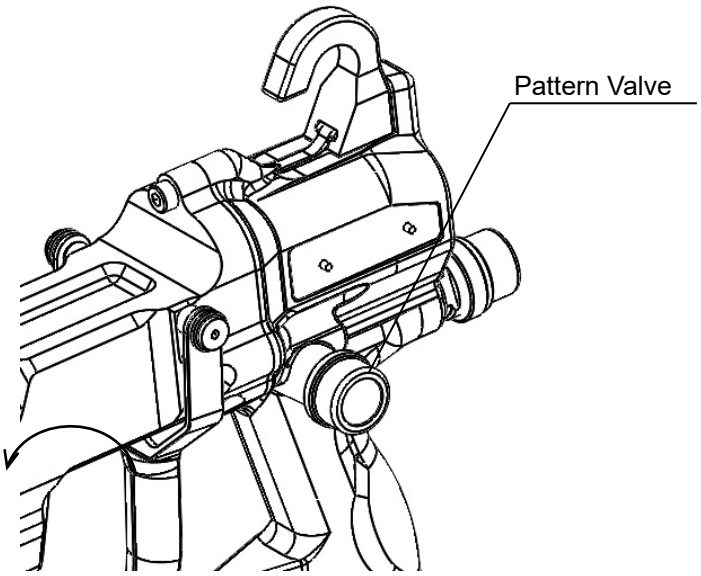
The maximum operating paint pressure for this gun is 21MPa. Never use it with a paint pressure exceeding 21MPa. Doing so may damage the gun or lead to injury or other accidents from the ejected paint

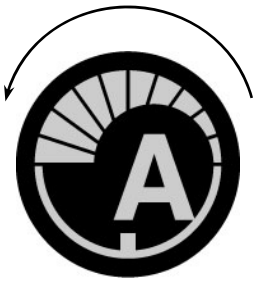
(4) Lock the trigger again and install the air wrap airless electrostatic spray nozzle.

⚠ WARNING

<u>There is a possibility of injury.</u>
When spraying is not performed, always raise the slider at the trigger to lock the trigger.

(5) Set the wrap air pressure regulator to between 0.1MPa and 0.5MPa.
Air comes out of the nozzle as the gun is triggered. In order to adjust the spray pattern, rotate the air flow control knob counterclockwise to increase the air flow and decrease the spray pattern width or rotate it fully clockwise to decrease the air flow to zero and increase the spray pattern width. Note that the spray pattern width cannot be varied enough at a higher paint pressure.





Wide pattern

Narrow pattern

6 Maintenance and inspection

Keep the gun, paint hose and connecting cable clean so that there will be no contamination such as paint. Also always be careful so that they will not be damaged due to mechanical shocks.

6.1 Measures After Operation is Completed

When suspending or finishing the coating operation, use the following procedure.

⚠ WARNING

When the operator suspend or finish coating operation, be sure to release paint pressure. If paint pressure hasn't been released, it may cause unexpected accidents and machine failure.

6.1.1 In Case Where Operation is Resumed Within 24 Hours

(1) Adjust the pressure of air supplied to the gun to 0 MPa.

(2) Adjust the drive air pressure of the paint pressure-feed unit to 0 MPa.

(3) Discharge paint through the gun tip to release the residual pressure.

(4) Remove the retaining nut by turning to the left and air cap too.

When removing the air cap, tilt the gun tip downward so that thinner or solvent will not enter the gun.

⚠ CAUTION

When removing the air cap, be careful not to drop it.
If dropped, it may be damaged.

⚠ CAUTION

<u>Damage of the retaining nut, seat ASSY and unit may occur.</u>
When removing the retaining nut, be sure to turn it by hand.
If you use a tool, damage may occur.

(5) Wipe off dirt such as paint mist attached to the gun and air cap with a cloth impregnated with cleaning solvent. For cleaning of nozzle tip, clean around seat part carefully in a brush or a cloth impregnated with cleaning solvent.

⚠ CAUTION

When cleaning the gun and air cap, do not use a hard brush such as a metal brush. Their surfaces may be damaged and their performance may be impaired.

⚠ CAUTION

When a coating operation is not performed, close the paint adjuster of the gun to prevent paint from being discharged due to a careless operation.

(6) Decrease the wrap air pressure, pull the trigger to get wrap air and push solvent out which got into the air path out.

(7) Stop the wrap air pressure to 0MPa, set the trigger rock.

⚠ CAUTION

After cleaning or an operation, do not allow the gun, air cap set, hose, etc. to be immersed in solvent. Although it is made of a material which is not easily influenced by solvent, if they are immersed in solvent for a long time, their durability will be decreased, which may cause failures.

⚠ CAUTION

When using chemically hardened paint such as two-component paint or paint that settles easily, clean it based on "8.1.2 In Case Where Operation is Not Performed for 24 Hours or More" each time an operation has been completed.

6.1.2 In Case Where Operation is Not Performed for 24 Hours or More

(1) Adjust the pressure of air supplied to the gun to 0 MPa.

(2) Extract the suction pipe of the paint pump from the paint container.

(3) Drive the paint pump at a low pressure (approximately 2 to 3 MPa) and discharge the paint in the pump from the return side to the paint container.

(4) Discharge the paint remaining in the hose and gun through the gun tip by pulling the trigger of the gun. Change the air pressure of paint feeder to 0MPa and release residual pressure. And disassemble the nozzle.

(5) Suck the cleaning solvent through the suction pipe, discharge it from the return side to the cleaning wastewater container and repeat the cleaning until the inside of the pump is cleaned.

(6) Discharge the solvent through the gun tip by pulling trigger to clean the hose and inside of the gun. Then drain solvent while pull and open the trigger over ten times. Wash the stuck paint on the needle.

(7) Stop the pump and pull the trigger of the gun to release the residual pressure through the gun tip.

(8) Wipe off dirt such as paint mist attached to the gun and air cap set with a cloth impregnated with cleaning solvent. For cleaning nozzle, clean with the cloth or the brush which soaked with solvent.

(9) Lower the supply air pressure, pull the trigger, jet only wrap air and push solvent which got into the air path out.

(10) With the trigger of the gun pulled, remove seat ASSY with accessory tool. And clean seat and head.

(11) To finish, lower the supply air pressure to 0MPa set the trigger rock.

It is recommended to allow the cleaning fluid to remain in the passage after cleaning to prevent fixation of paint remaining in the paint passage.

⚠ CAUTION

<u>Damage of the seat ASSY may occur.</u>
When removing the seat ASSY, be sure to use the attached dedicated tool.
Be careful not to drop it.

⚠ CAUTION

When cleaning the nozzle, do not poke at it with metal such as wire.
Also do not use a metallic brush and the like. Its performance may be impaired due to enlargement of hole diameter and scratches.

⚠ CAUTION

Always hang the gun on the gun hanger fixed to a gun hook on pump or a wall.

⚠ CAUTION

Be careful so that shocks such as falling will not be applied. Plenty of resins are used for APSG10 for weight saving. They are designed taking into account strength but may be damaged due to shocks.

(12) As for disposal of cleaning wastewater, recover and recycle it using a solvent recovery system or dispose of it through a contracted industrial waste processor in accordance with the laws.

6.2 Periodic Inspection

In order to fully exercise the performance of this equipment, perform periodical inspection according to the following table. The inspection timings are only shown as a guide and may vary depending on the conditions of use.

⚠ WARNING

<u>Personal injury or accidents may occur due to an unexpected operation of the coating machine.</u>

When conducting a periodic inspection, release the pressure of the air and paint.

Item	Measure	Period
Check external appearance of the gun body	If there is paint dirt, saturate a soft cloth or brush with cleaning solvent and wipe it off.	1 day
	If there is damage, replace with a new one.	
Check for air cap set paint dirt	If there is paint dirt, saturate a soft cloth or brush with cleaning solvent and wipe it off.	
Check for clogging of air spray hole of air cap set	After immersing in cleaning solvent, remove by blowing air.	
	If cannot be removed, replace with a new one.	
Check for scratches and dents around paint outlet of seat ASSY	If there are scratches or dents, replace with a new one.	
Check for clogging of paint spray hole of seat ASSY	After immersing in cleaning solvent, remove by nozzle pick.	
	If cannot be removed, replace with a new one.	
Check paint seat of seat ASSY	Inject cleaning solvent to clean the paint path and seat ASSY of the gun.	
	If the problem is not solved, replace the seat ASSY or head with a new one.	
Check air leakage from trigger	If there is air leakage, replace the air seat.	1 month
Check pattern valve	If the spray pattern cannot be adjusted, replace with a new one.	

⚠ CAUTION

When using the gun cover, replace it before it gets dirty.

⚠ CAUTION

Do not disassemble the gun unnecessarily except for the case of a failure.
To secure electric insulation of the gun and the sealing function, disassemble it only when the parts are replaced due to a failure.

⚠ CAUTION

When using a container for cleaning, be sure to ground a conductive container.

⚠ CAUTION

This gun and air cap is made from solvent resistant plastic, but to immerse in thinner for a long time can cause troubles. After washing with solvent, dry it with air blow enough.

6.3 Consumables

Prepare spare parts according to the conditions of use, referring to the rank classification in the following.

Rand classification	Part name	Part No.	Component assembly	Publishing Page
A	Head	1735-009	Core unit	34
	Seat ASSY	1740	Core unit	34
	Gun filter	1404	Grip end A	35
B	Paint pipe ASSY	1749	APSG10	36
	Packing ASSY	373-0012	Core unit	34
	Packing retainer ASSY	1750-015	Core unit	36
	O ring	101-9004	Paint pipe ASSY	36
	O ring	130-9005	Seat ASSY	
	U seal	373-0009	Core unit	34
C	Gun hook	12A1-002	APSG10	33
	Pattern valve	14C9	APSG10	36
	Trigger lock ASSY	1732	APSG10	36
	Air valve ASSY	1735-007	Core unit	34
	Needle ASSY	1750-108	Core unit	34
D	Packing	14F9-003	Core unit	34
	O ring	130-6007	Pattern valve	36
	O ring	101-6005	Grip end ASSY	35
	O ring	130-6010	Trigger lock ASSY	36
	O ring	130-6030	Grip end ASSY	35

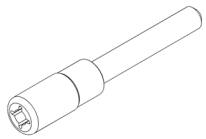
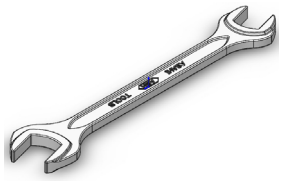
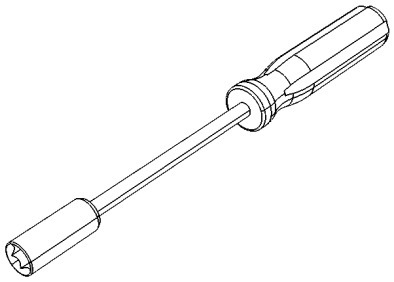
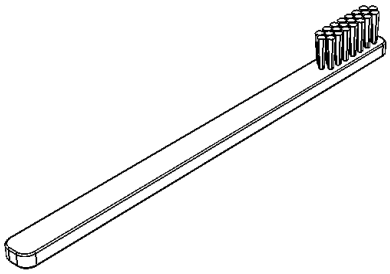
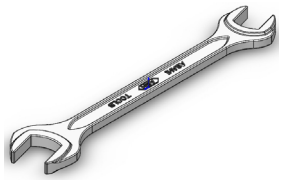
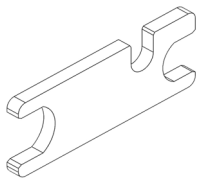
Rank A：Daily consumables

Rank B：Medium-term consumables

Rank C：Parts which may be damaged/lost when used

Rank D：Parts required to be replaced when disassembled

Accessory tool

Head tool Part No.：35F2-001	Double ended spanner Part No.：335-1113	Box spanner Part No.：332-0080
		
Bamboo brush Part No.：337-0006	Double ended spanner Part No.：335-1921	Flat spanner Part No.：35F3-008
		

7 Paint problems and solutions

Depending on the situation of a paint problem, several problematic phenomena and causes may occur at the same time.

Problematic phenomenon	Cause	Countermeasure
1. Atomization of spraying is bad	(1) Supply air pressure is too low	(1) Set supply air pressure to rather high
	(2) Viscosity is too high	(2) Decrease paint viscosity
	(3) Paint pressure is too low	(3) Raise paint pressure
	(4) Nozzle tip pin is bent	(4) Replace paint nozzle assembly
	(5) Solvent is inappropriate	(5) Please consult us or paint manufacturer
2. Much paint bounce back	(1) Spraying distance is too long	(1) Spraying distance should be within 200-300 mm
	(2) Paint or supply air pressure is too high	(2) Adjust paint or supply air pressure to rather low
	(3) Exhaust velocity is too late	(3) Set exhaust velocity to rather fast
3.Coating efficiency is low	(1) Paint or supply air pressure is too high	(1) Adjust paint or supply air pressure to appropriate pressure
	(2) Spraying distance is too long	(2) Spraying distance should be within 200-300 mm.
	(3) Booth supply and exhaust rate is too high	(3) Adjust booth supply and exhaust rate to rather low
4. Paint is attached to nozzle, which causes roughening, or string like particles are created on product to be coated	(1) Evaporation rate of solvent is too high	(1) Replace with solvent whose evaporation rate is low or adjust with additives
	(2) Viscosity of paint is high	(2) Decrease viscosity of paint
5. Particles are created on coated surface	(1) Atomization of spraying is bad	(1) See Section 1 in this chapter "Atomization of spraying is bad"
	(2) There is plenty of dirt in coating booth and dirt is attached to coated surface	(2) Install dust-proof filter on suction part of coating booth to remove dirt on coated surface
	(3) Atomizing air is dirty	(3) Clean or replace filter at air passage
	(4) Pigment dispersion of paint is bad	(4) Review solvent or filter paint well
6. Orange peel (dapple,pockmark) is created	(1) Temperature is high in coating booth or evaporation rate of solvent is high	(1) Adjust temperature or replace with solvent whose evaporation rate is low
	(2) Temperature of product to be coated is too high	(2) To lower temperature of product to be coated, adjust drying furnace
	(3) Supply and exhaust rate is too high	(3) Adjust to 0.5-1.0 m/sec on product surface to be coated
7. Cissing occurs	(1) Cleaning of product to be coated is insufficient	(1) Clean or defat sufficiently
	(2) Atomizing air is dirty	(2) Clean or replace filter at air passage
	(3) Exhaust of baking furnace is inappropriate	(3) Exhaust air sufficiently
8. Paint trickles down on coated surface	(1) Coating film is too thick	(1) Decrease paint discharge rate or increase operation speed of hand gun
	(2) Viscosity of paint is too low	(2) Increase paint viscosity
	(3) Evaporation rate of solvent is low	(3) Replace with solvent whose evaporation rate is high
9. Coating film is translucent	(1) Paint discharge rate is low	(1) Adjust paint discharge rate and consider operation speed of hand gun and recoating
	(2) Viscosity of paint is too low	(2) Increase viscosity

Problematic phenomenon	Cause	Countermeasure
10. Pin holes (small holes) are created	(1) Wrap air is dirty	(1) Clean or replace filter at air passage
	(2) Evaporation rate of solvent is too high	(2) Replace with solvent whose evaporation rate is low
	(3) Temperature of product to be coated is high	(3) Lower temperature
	(4) Drying of undercoating is insufficient	(4) Dry sufficiently
	(5) Setting time is short	(5) Take sufficient setting time
11. Whitening occurs	(1) Temperature and humidity are high inside/outside coating booth	(1) Replace with solvent whose evaporation rate is low Or check air conditioner
	(2) Selection of solvent is inappropriate	(2) Please consult us or paint/solvent manufacturer
12. Foaming occurs	(1) Wrap air is dirty	(1) Clean or replace filter at air passage
	(2) Drying after wet rubbing is insufficient	(2) Dry sufficiently
	(3) Coating film is too thick	(3) Set paint discharge rate to rather low
	(4) Evaporation rate of solvent is too high	(4) Adjust temperature to appropriate value
	(5) Temperature of baking furnace is too high	(5) Adjust temperature to appropriate value
13. Pattern shape is not good	(1) Paint and dirt are attached to atomizing air and paint spray hole of nozzle tip	(1) Clean well with thinner and bamboo brush and filter paint
	(2) Viscosity of paint is high	(2) Decrease viscosity
	(3) Top of nozzle tip is worn.	(3) Replace
	(4) Pattern adjustment is bad	(4) Adjust with pattern adjustment knob
	(5) Air Cap is reshaped or stuffed	(5) Clean or replace
14.Spray pattern width does not adjust much	(1) Pressure-feed pressure of paint is too high	(1) Decrease pressure-feed pressure
	(2) Wrap air is low and doesn't open the pattern valve	(2) Increase air pressure and open the pattern valve.

8 Troubleshooting

More than one phenomenon or cause may occur at the same time, depending on the situation.

Phenomenon of failure	Cause	Countermeasure
1. Discharge of paint is unstable, which causes shortness of breath during coating	(1) Tightening of seat ASSY is insufficient	(1) Sufficiently tighten seat ASSY
	(2) O ring of seat ASSY is damaged	(2) Replace O ring
	(3) Air is mixed in paint	(3) Check paint supply system
2. Paint discharge rate is low	(1) Abnormality of paint pressure-supply system	(1) Check paint supply system such as paint pump and paint regulator
	(2) Paint seat parts is clogged with lump of paint and dirt	(2) Clean paint seat part
	(3) Paint and dirt are attached to paint nozzle	(3) Remove and clean paint nozzle
3. Paint leaks from seat ASSY	(1) Paint seat part is clogged with lump of paint and dirt	(1) Clean paint seat part
	(2) Wear and chipping of paint seat part	(2) Replace seat ASSY or head
	(3) Deterioration of paint shaft spring	(3) Replace spring
	(4) Paint supply pressure is too high	(4) Decrease paint pressure
4. Paint leaks from packing ASSY part *	(1) Wear of packing ASSY	(1) Replace packing ASSY
	(2) Tightening of packing retainer is insufficient	(2) Attach packing ASSY properly
	(3) O ring of packing ASSY is damaged	(3) Replace O ring of packing ASSY
5. Even if trigger is returned, air leaks from nozzle part	(1) Seat part of air valve ASSY is clogged with dirt	(1) Clean or replace air valve ASSY
	(2) Wear of air valve ASSY	(2) Replace air valve ASSY
	(3) Deterioration of spring	(3) Replace spring
6. Air leaks from pattern valve	(1) Wear O ring and damaged	(1) Replace O ring
7. Nozzle is heavily clogged	(1) Mesh size of gun filter or material filter is too large	(1) Select a filter mesh suitable for the nozzle to be used
	(2) Poorly cleaned gun	(2) Especially when using two-component paint, thoroughly clean with exclusive paint thinner
8. Paint is not sprayed.	(1) Nozzle tip is clogged.	(1) Remove nozzle, immerse it in a solvent for a while and blow air from the opposite side.
	(2) Paint is not supplied under pressure.	(2) Check paint feed pump.

According to * marked item of the above, only our special engineer can disassemble and adjust it because incorrect operation may cause serious accidents. If you disassemble the part at place other than our factory, this equipment won't be covered by warranty. Please contact us with details of the trouble, serial number (marked on the grip's name plate), part name and part number if problems about * marked items happen.

⚠ CAUTION

Do not perform repair other than the method indicated in this Operation and Maintenance Manual

9 Parts replacement and adjustment

Follow the procedures below when replacing or repairing parts.

⚠ WARNING

Personal injury or accidents may occur due to an unexpected operation of the coating machine.

Before replacement and repair of parts, be sure to turn off the compressed air supplied to the gun and pump, discharge the paint in the paint passage and clean it.

9.1 Replacement of Air Cap Set

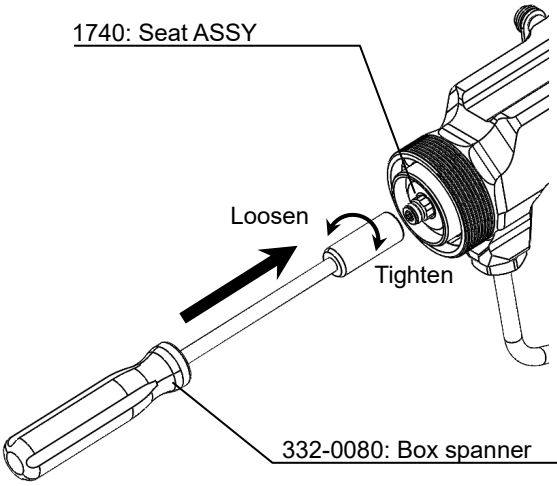
(1) In accordance with "4.6 Installation of Air Cap" in Chapter 4 "Unit Installation", remove and replace it.

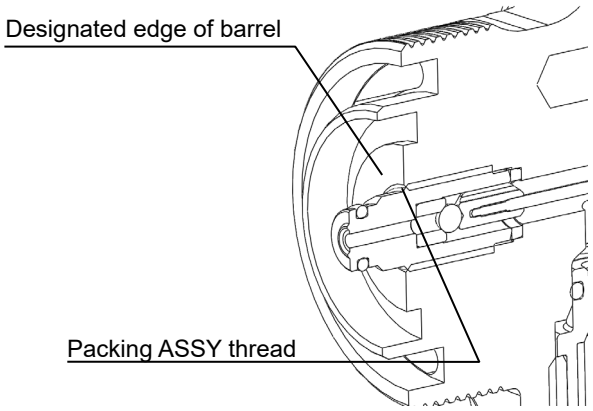
9.2 Replacement of Seat ASSY

(1) Replace it by stopping the paint pump, using a box spanner (accessory tool) while pulling the trigger with the residual pressure released and removing the seat ASSY.

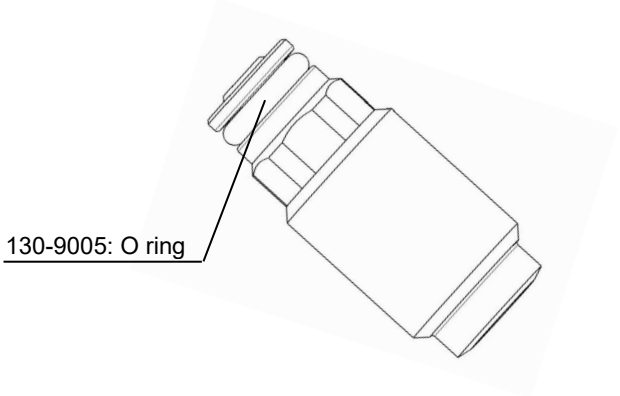
The position in which about 1mm inserted from barrel edge regular position of seat ASSY must tighten there for a regular position when install the seat.

Possibility of cannot the pattern adjustment and the paint backflow when it is not a regular position.





(2) Replace 130-9005 O ring in seat ASSY in it is damaged.

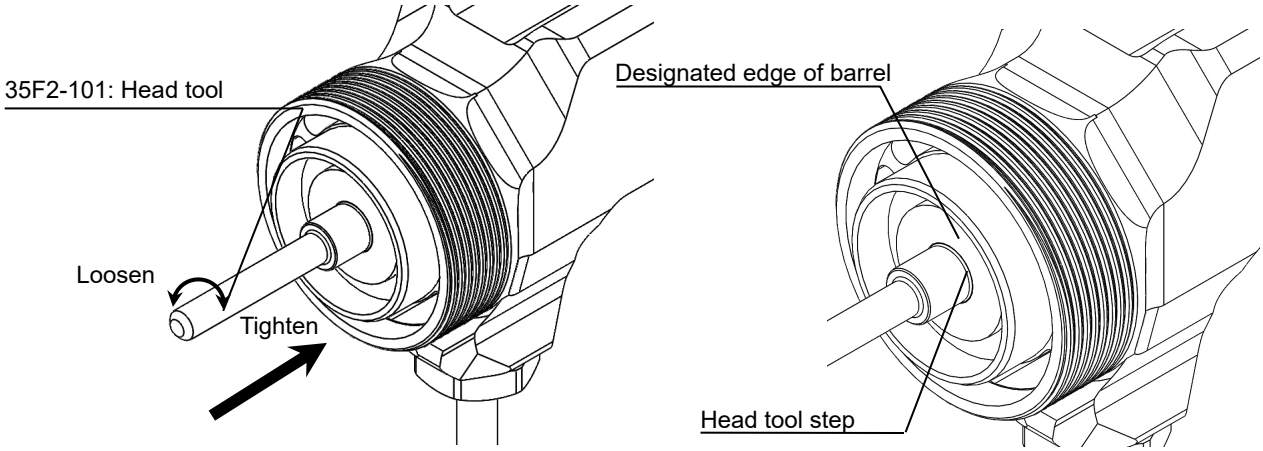


9.3 Replacement of Head

Please use head tool of accessory tool, remove and replace.

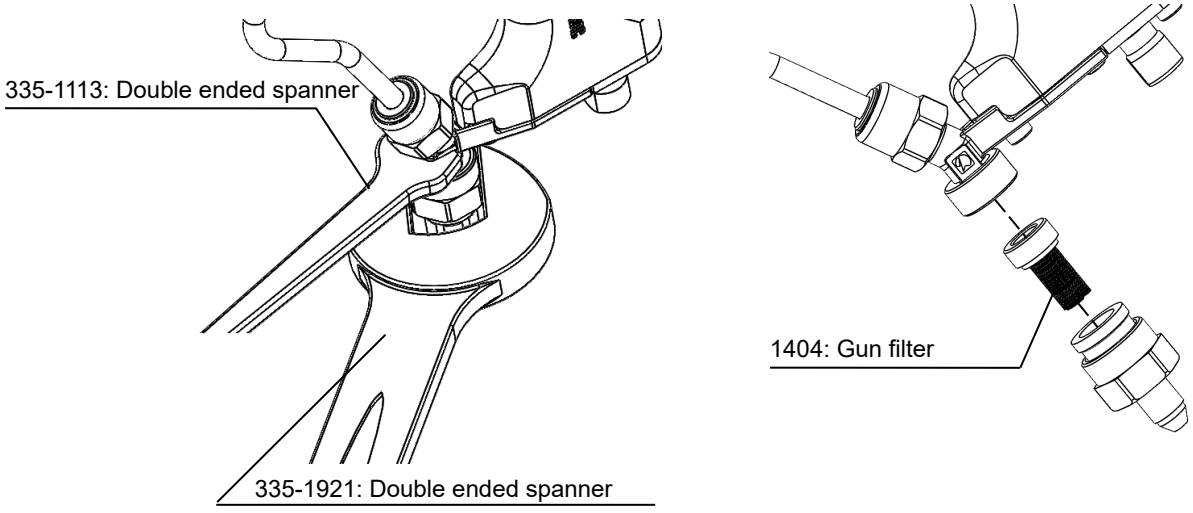
When installing, make sure the spring parts is washed. And tighten up to regular position that the following head tool step to the same position as designated edge of barrel.

When tightening up, please make sure that the trigger is installed.



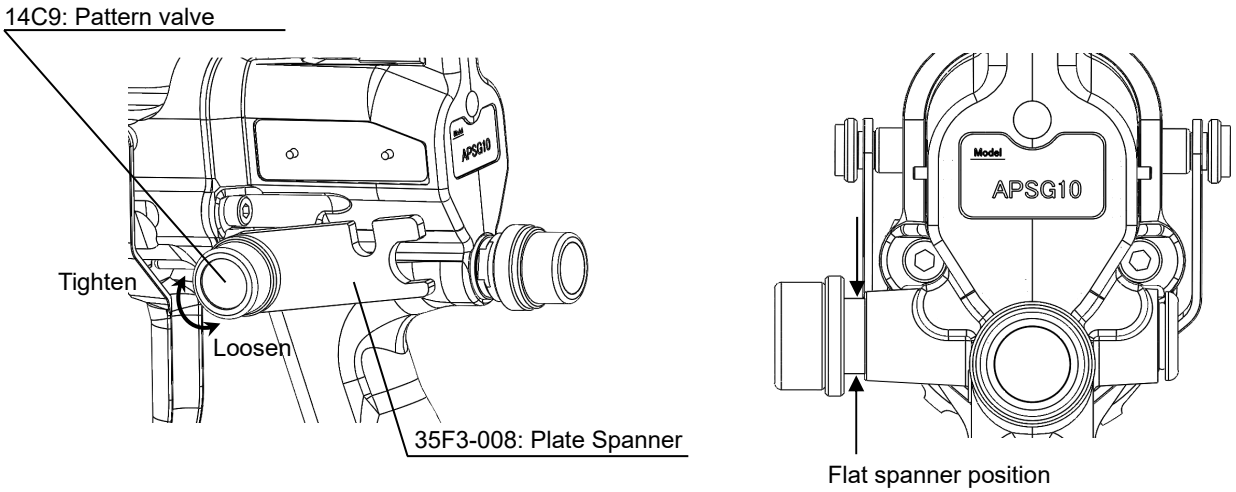
9.4 Replacement of Paint Filter

Remove the paint hose with the Double ended spanner (Hex.11) and Double ended spanner (Hex.21), remove nut from grip end. Then replace paint filter.

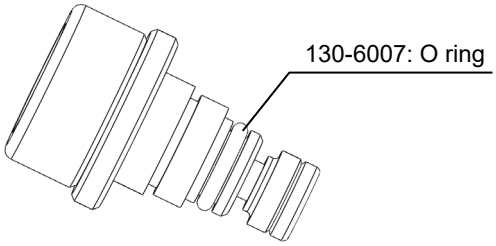


11.5 Replacement of pattern valve

(1) Remove and replace the pattern valve using a plate spanner of accessory tool (Hex.12) with the pattern valve fully opened.

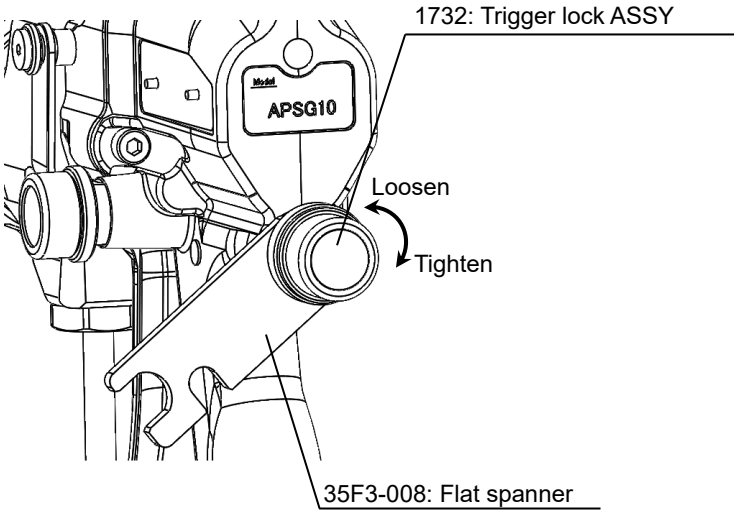


(2) When removing the pattern valve, be sure to replace 130-6007: O ring.
It is recommended to apply white petrolatum to the screw part and O ring part when attaching it.

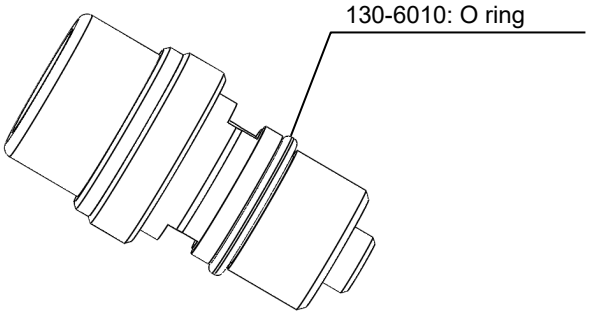


9.6 Replacement of Trigger Lock ASSY

(1) Remove and replace the trigger lock ASSY using a plate spanner (Hex12) (accessory tool)

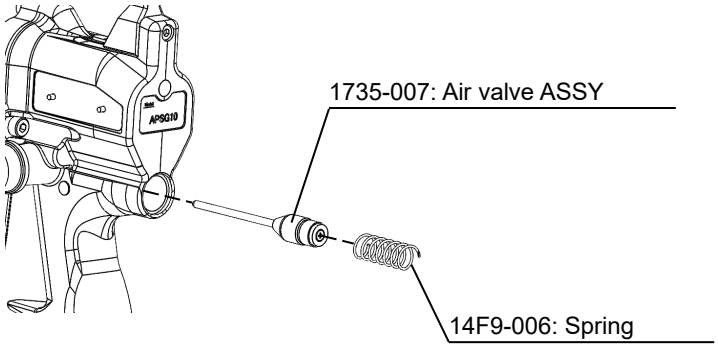


(2) When removing the trigger lock ASSY, be sure to replace 130-6010: O ring.
It is recommended to apply white petrolatum to the screw part and O ring part when attaching it.



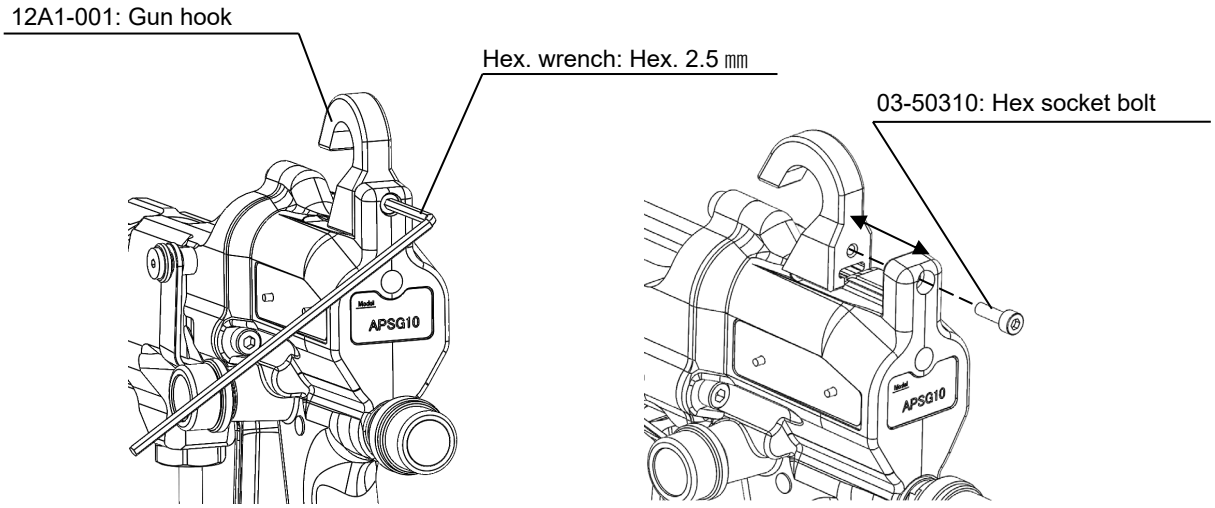
9.7 Replacement of Air Valve ASSY

(1) Extract and replace the air valve ASSY using longnose pliers by extracting the spring with the trigger lock ASSY.



9.8 Replacement of Gun Hook

(1) Remove the 03-50310: hex. socket bolt fixing the gun hook using a hex. wrench of hex. 2.5mm and extract the gun hook slide-fixed to the body ASSY in the direction of the arrow to remove and replace it.

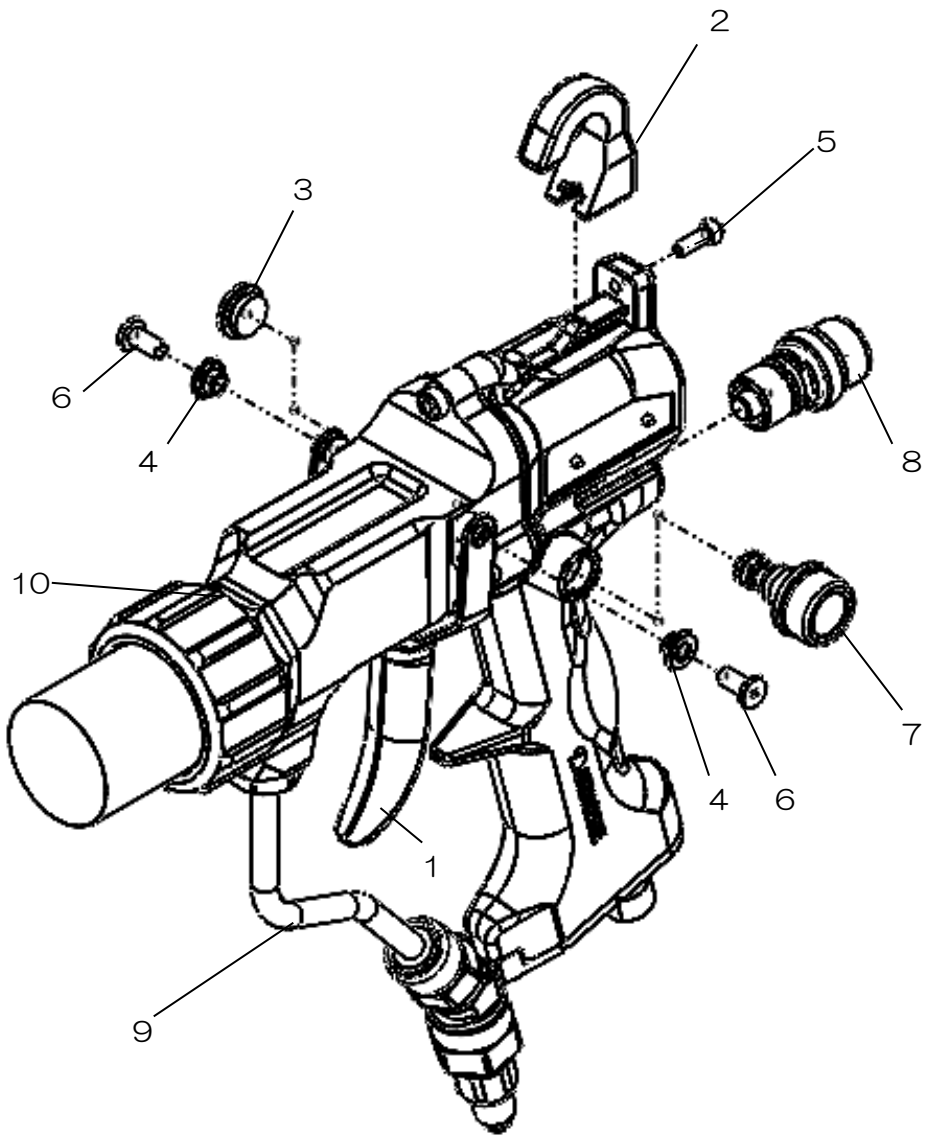


Only the person who has attended the maintenance course specified by us, can conduct maintenance of packing ASSY and paint pipe by using maintenance tool set: 35F4 (sold separately).

10.1 APSG10

APSG10

12C7



No.	Part No.	Part name	Quantity	Remarks
1	12A1-001	Trigger	1	
2	12A1-002	Gun hook	1	
3	12C5-003	Plug	1	
4	12A1-004	Collar	2	
5	03-50310	Hex. socket bolt	1	
6	360-0108	Hex. socket low head bolt	2	

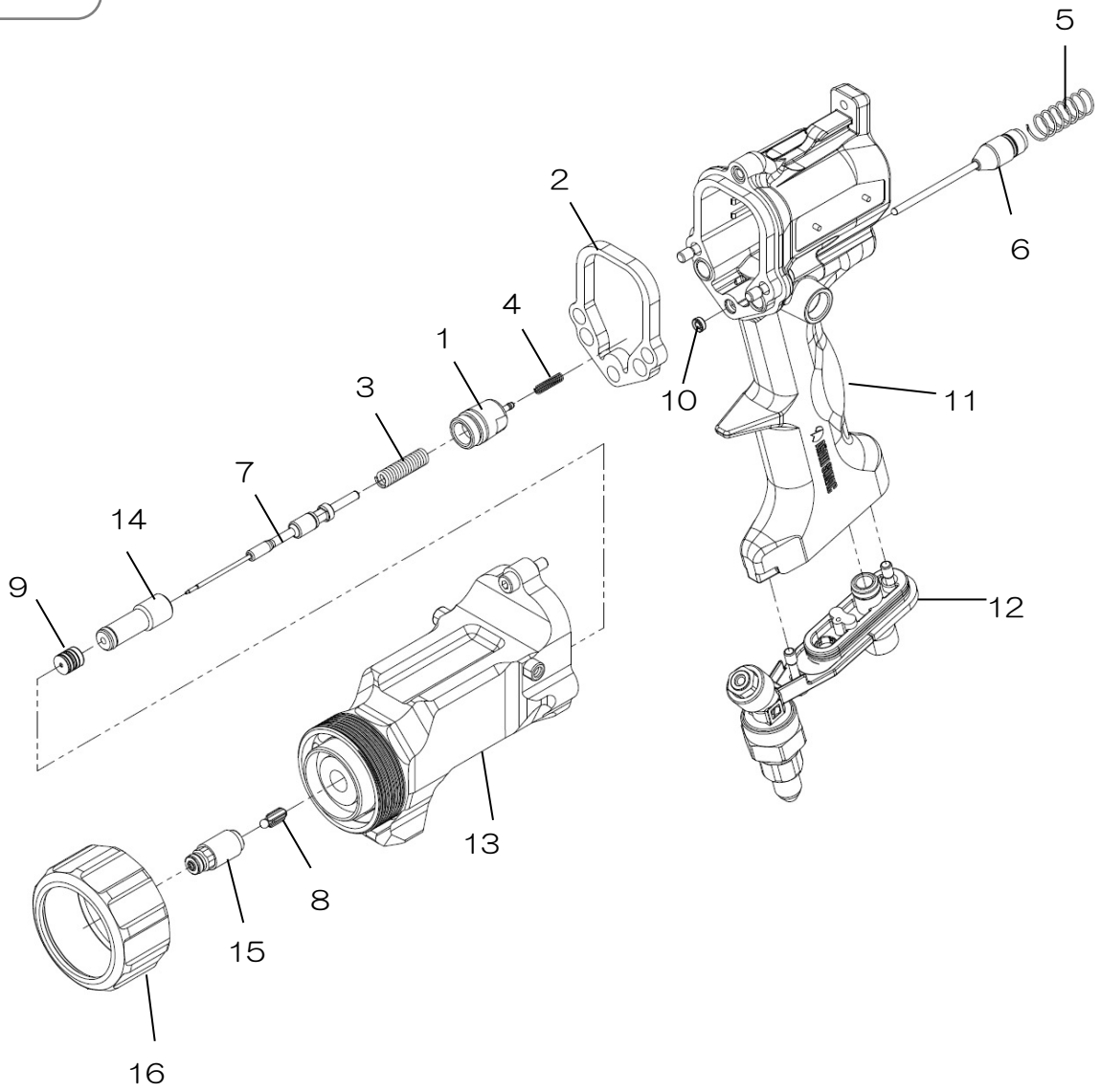
No.	Part No.	Part name	Quantity	Remarks
7	14C9	Pattern valve	1	
8	1732	Trigger lock ASSY	1	
9	1749	Paint pipe ASSY	1	
10	—	Core unit	1	*
11	35F2	Accessory tool	1	

* Can not order with core unit only.

10.2 Core unit

Core unit

—



No.	Part No.	Part name	Quantity	Remarks
1	14F9-002	Contact	1	
2	14F9-003	Packing	1	
3	1735-104	Spring	1	
4	14F9-005	Spring	1	
5	14F9-006	Spring	1	
6	1735-007	Air valve ASSY	1	
7	1750-108	Needle ASSY	1	
8	1735-009	Head	1	

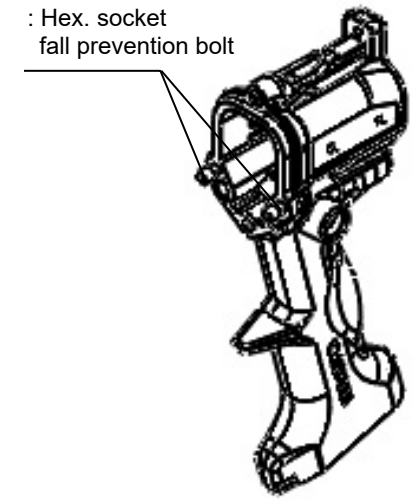
No.	Part No.	Part name	Quantity	Remarks
9	373-0012	Packing ASSY	1	*
10	373-0009	U seal	1	
11	1711-2	Body ASSY	1	
12	1752	Grip end ASSY	1	*
13	1753	Barrel ASSY	1	
14	1750-015	Packing retainer ASSY	1	*
15	1740	Seat ASSY	1	
16	1750-016	Retaining nut	1	

* Please remove by maintenance tool set: 35F4(sold separately)

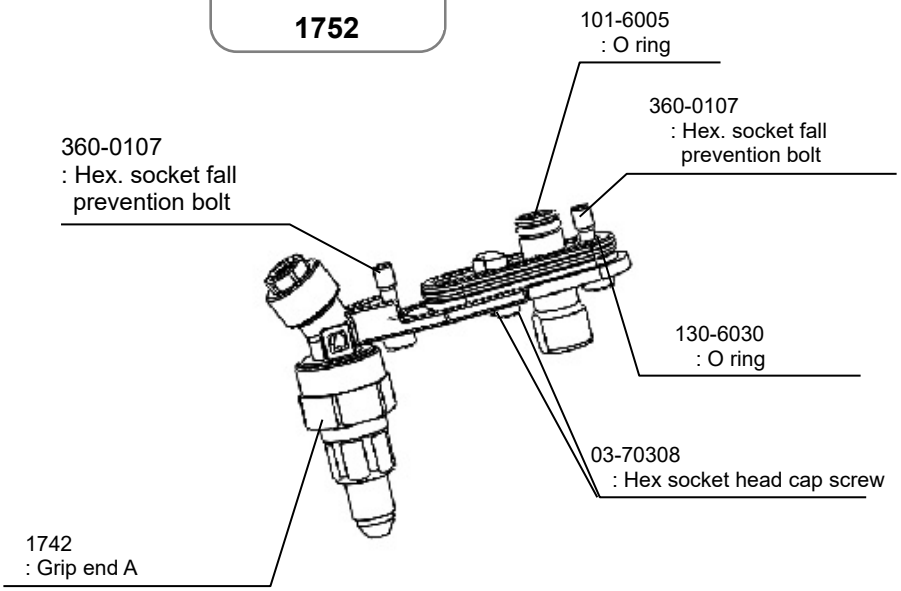
10.3 Replacement parts

The following are the replaceable parts in the parts assembly.
Parts not indicated should be replaced in assembly units.

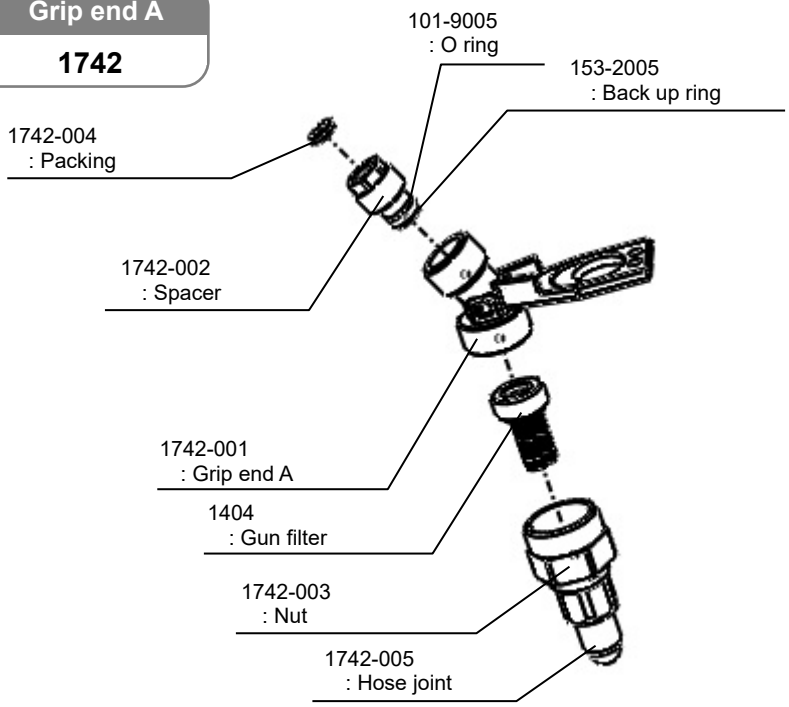
Body ASSY
1711-2



Grip end ASSY
1752



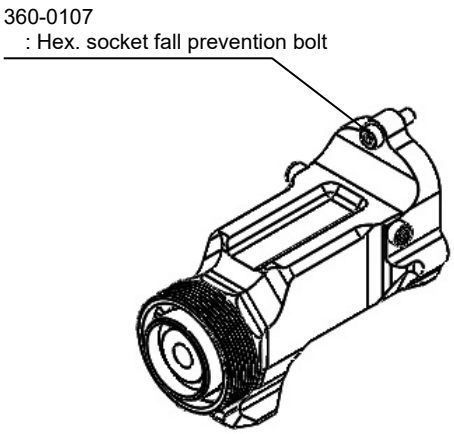
Grip end A
1742



Barrel ASSY

1753

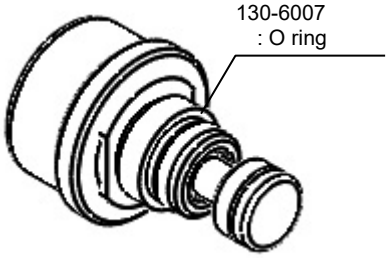
360-0107
: Hex. socket fall prevention bolt



Pattern valve

14C9

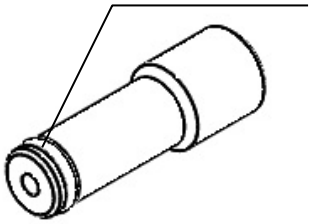
130-6007
: O ring



Packing retainer ASSY

1750-015

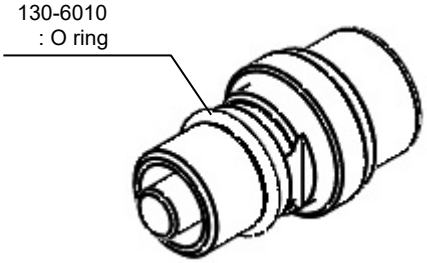
130-9006
: O ring



Trigger lock ASSY

1732

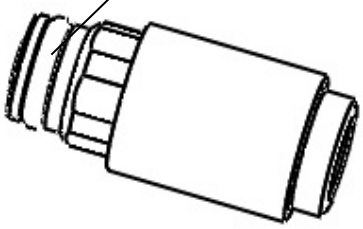
130-6010
: O ring



Seat ASSY

1740

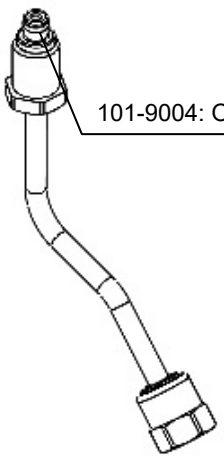
130-9005：O ring



Paint pipe ASSY

1749

101-9004: O ring



11 Maintenance Log

Please use record the details that you conduct a maintenance service, such as replacement of a part, tear-down cleaning, post-failure repair, etc.

Equipment name			Air wrap spray hand gun 〈APSG10〉		Purchase date:	
Date of service			Portion worked on	Description	Result	Who serviced
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
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						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac
						In-house / Dealer / Asahi Sunac

Note: Due to continuous improvements and modifications, the configurations specified herein are subject to change without prior notice.

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12 Warranty

ASAHI SUNAC CORPORATION (the “Company”) shall provide the original purchaser (the “Purchaser”) with warranty service for a period of one (1) year from the date of purchase of the product, as follows:

- Should you find defects in design or workmanship with regard to parts, ship them back to the Company, with freight prepaid. The Company shall repair or replace the parts free of charge and reimburse the freight charges, provided that, as a result of an inspection and investigation of the parts conducted by the Company, the defects are deemed to be to attributable to the factors within the Company’s responsibility.

- In the following cases, free after-sales service is not provided.

  1. Failure resulting from an inappropriate method of installing this equipment.
  2. Failure resulting from a use method not conforming to this instruction manual or mishandling.
  3. Failure resulting from insufficient maintenance management of this equipment and incorrect handling such as non-conformance to the procedures specified in this instruction manual.
  4. Failure resulting from unauthorized alteration or structure change of this equipment without the Company’s consent.
  5. Failure due to force majeure such as earthquake, disaster, flood disaster or lightening.
  6. Warranty for consumables worn or deteriorated even in the case where this equipment is used correctly.
  7. Repair after the machine has been used outside Japan, and shipping cost.
  8. In addition to the above, failure due to circumstances beyond our control.

- As for items such as parts purchased by the Company from another manufacturer, the warranty of that manufacturer shall apply.

- As for any parts deemed to be defective, the Company shall not be held liable for any expenses beyond the provision of repair or replacement parts free of charge.

- The Company shall not be held liable for any damage to the Purchaser caused by factors not attributable to the Company, such as misuse of product, etc.

- When a transfer of title of this equipment takes place, please see to it that this Operation and Maintenance Manual is handed over to the new owner.
- This equipment is manufactured in compliance with the Laws and Regulations of Japan.
  In the rare eventuality of this equipment being used outside Japan, compliance with the safety standards of the relevant countries is of course mandatory.

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ASAHI SUNAC CORPORATION

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