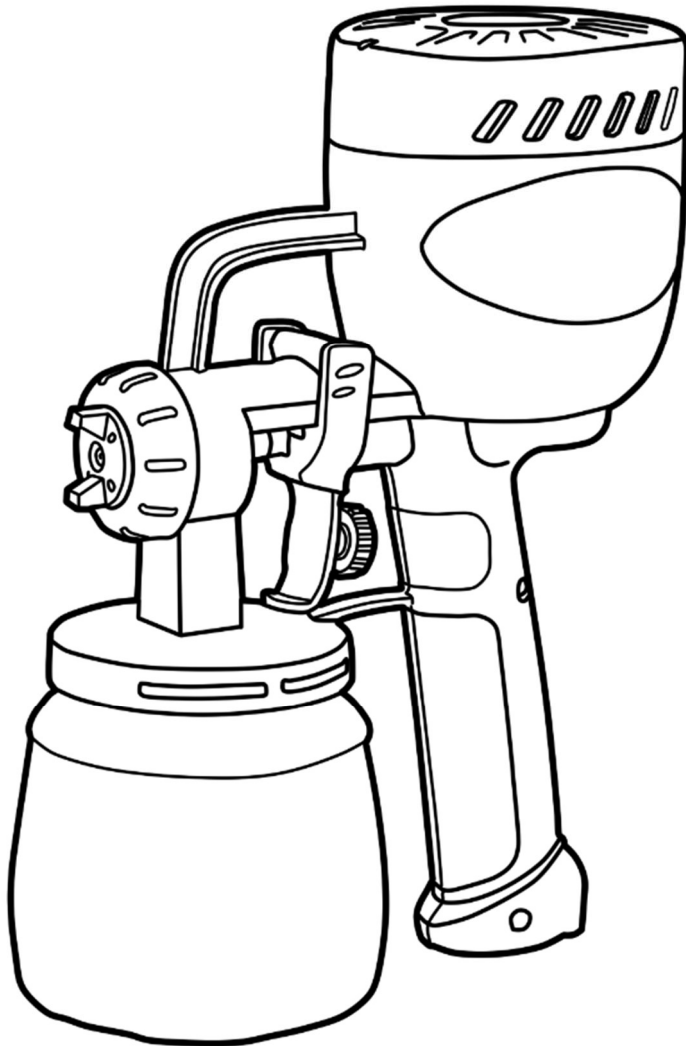


Haupon[®]

HVLP PAINT SPRAYER

TM-500 / TM-663A+



WARNING

TO REDUCE THE RISK OF INJURY, USER MUST READ AND UNDERSTAND
INSTRUCTION MANUAL. KEEP CHILDREN AWAY FROM WORKING AREA.

MADE IN TAIWAN

PLEASE READ AND SAVE THIS INSTRUCTION MANUAL

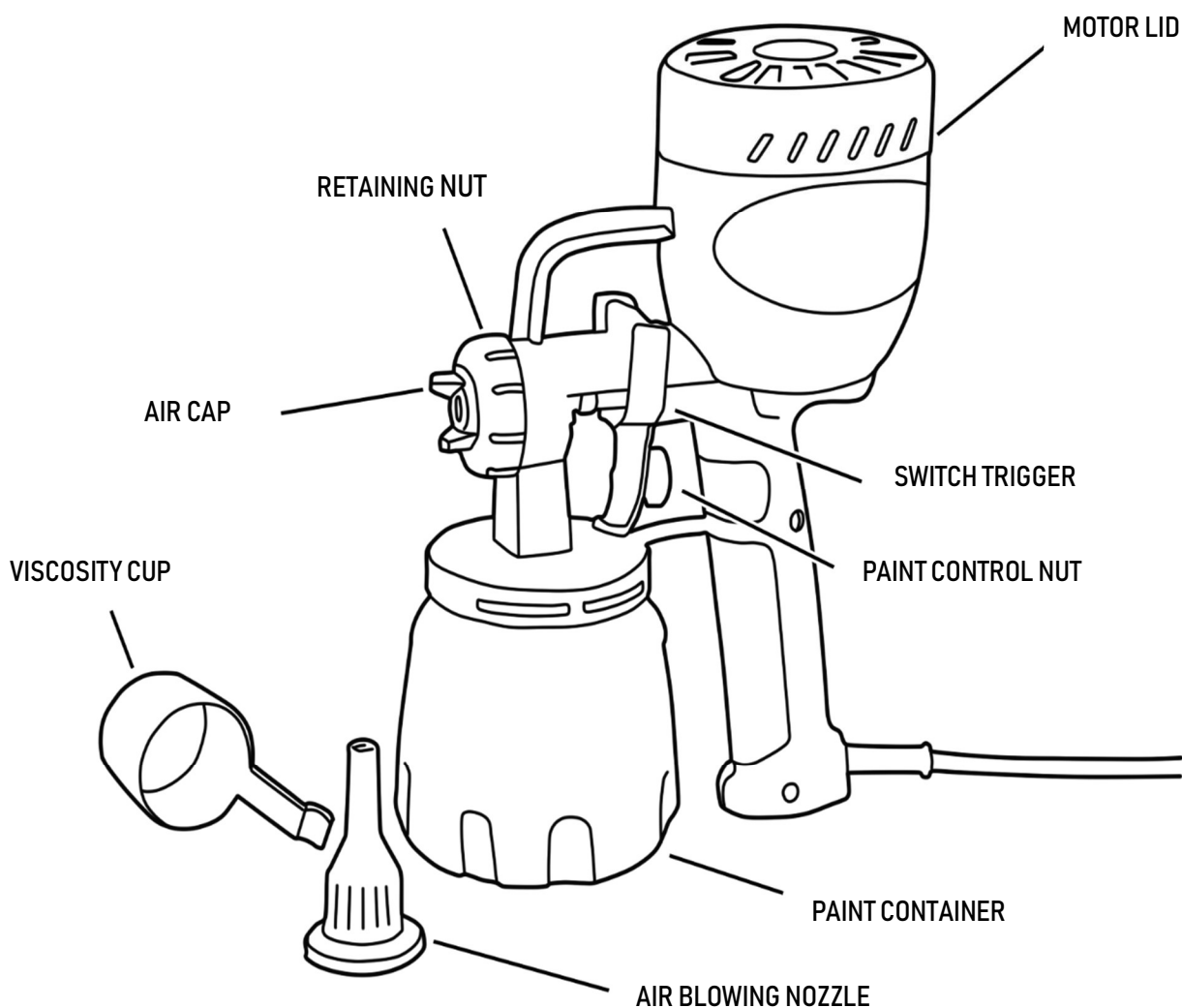
ENGLISH



Specifications :

Voltage	<input type="checkbox"/> 100V-120V <input type="checkbox"/> 220V-240V	50 Hz / 60 Hz
WATTS	300-450 watts	
Air supply	1.5-1.9 m ³ /min. (67cu.ft./min.)	
Container capacity	0.8L (28 oz)	
Weight	2.5 lbs. (1.2 kg)	
Motor speed	34,000 rpm	

Component Introduction:



Read instruction manual before operating and observe all warning.

WARNING:

DO NOT aim sprayer at yourself or anyone else at all times, in the event of an injury occurring seek expert medical consultant immediately.

DO NOT allow any part of the body to come in contact with the fluid stream.

DO NOT cover the nozzle with any part of your body, high velocity jet could cause accidental injuries.

DO NOT spray any hazardous materials (for example: easy flammable, very toxic, toxic, less toxic, corrosive or irritating substances).

DO NOT spray any textured materials containing particles or fibers such as asbestos fibers.

DO NOT spray flammable liquid.

DO NOT clean guns with flammable solvents.

DO NOT spray any material where the hazard is not known.

DO NOT use the spray gun outside when it is raining to reduce the risk of electric shock.

DO NOT use the spray gun at any stuffy area. Ensure adequate ventilation at all time when using the unit.

DO NOT disassemble the sprayer without skill's direction for avoiding danger.

DO NOT tamper with electrical motor, switch wiring or plug.

DO NOT leave your sprayer unclean or allow paint to dry in the gun. An unclean sprayer will not work next time and you could void the one-year warranty.

DO NOT use the power tool if the switch does not turn it on and off.

NEVER immerse the sprayer into water or other liquids for preventing electric shock.

ALWAYS place the sprayer upright (do not place the sprayer upside down or on its side) to prevent liquid or paints flow into motor.

ALWAYS wear mask, goggles, ear protectors and eye protectors while operating the sprayer.

ALWAYS unplug the cord to prevent accidental spraying when you stop spraying or servicing.

ALWAYS keep children and bystanders away.

USE fluids with a flashpoint above 40 degrees C.

FOR SAFE OPERATIONS:

1. **Keep work area clean**

Cluttered or dark areas and benches invite accidents.

2. **Consider work area environment**

Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, rain, gases or dust. Keep work area well lit. Avoid working with power tools in damp or wet areas or when perspiring. Store tools away from moisture. Do not use power tools where there is risk to cause fire or explosion. Power tools create sparks which may ignite the dust or fumes.

3. **Guard against electric shock**

Avoid body contact with earthed or grounded surfaces (e.g. pipes, radiators, ranges, refrigerators).

4. **Store idle tools**

When not in use, tools should be stored in a dry, high or locked up place, out of reach of children.

5. **Do not force the tool**

It will do the job better and safer at the rate for which it was intended.

6. **Dress properly**

Rubber gloves and non-skid footwear are recommended when working outdoors.

7. **Do not abuse the cord**

Never carry the tool by the cord or yank it to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.

8. **Do not overreach**

Keep proper footing and balance at all times.

9. **Disconnect tools**

When not in use, before servicing and when changing accessories such as spray tip, etc.

10. **Use outdoor extension leads**

When use the tool outdoors, use only extension cords intended for outdoor use.

11. **Stay alert**

Watch what you are doing. Use common sense. Do not operate tool when you are tired or under the influence of drugs, alcohol or medication.

12. **Have your tool repaired by a qualified person**

This electric tool is in accordance with the relevant safety requirement. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

13. **Do not use guns for spraying flammable materials.**

14. Do not clean guns with flammable solvents.
15. If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.
16. Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.
17. Remove any adjusting key or wrench before turning the power tool.
18. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.
19. **Maintain power tools.**
Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use.
20. Use the power tool, accessories and tool etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.
21. A-weighted sound pressure level: 87.4 dB(A).
22. A-weighted sound power level: 96.3 dB(A).
23. Hand-arm vibration emission value: 0.582 m/s².

CAUTION:

HAZARD: Solvent and paint fumes can explode or ignite, causing property damage and severe injury. Avoid all ignition sources such as static electricity sparks, open flames, pilot lights, cigarettes, etc.

HAZARD: Paints, solvents, insecticides and other materials may be harmful if inhaled causing severe nausea, fainting or poisoning.

HAZARD: Do not hold cord at plug connections to support cord. Failure to observe may result in an electric shock.

TREATMENT: See a physician immediately.

Notes:

- Practice before painting. Practice spraying water on cardboard, and adjust the paint flow and turn the wings of the tip to get the desired spray pattern. (see Page 8 & 9.)
- Keep spray tip and needle clean.
Check spray tip and needle for dried paint before each use.
- Make sure paint tube is inserted tightly into the intake port.
- Always clean the sprayer after each use. (see Clean Up, page 11.)

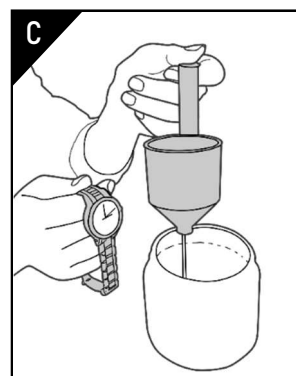
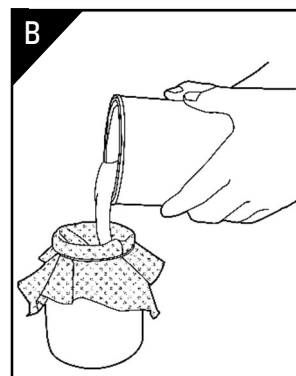
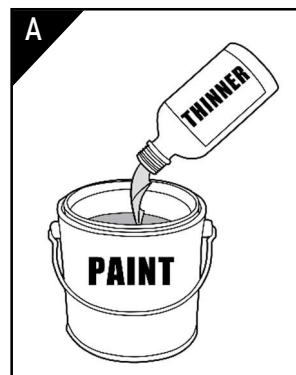
SERVICING OF A DOUBLE-INSULATED PRODUCT:

In a double-insulated product, two systems of insulation are provided instead of grounding. No grounding means is provided on a double-insulated product, nor should a means for grounding be added to the product. Servicing of a double-insulated product requires extreme care and knowledge of the system, and should be done only by qualified service personnel. Replacement parts for a double-insulated product must be identical to those parts in the product.

The double-insulated product shall be marked with « DOUBLE INSULATION » or «DOUBLE INSULATED » and «  ».

PAINT PREPARATION:

Most oil-based paint should be thinned with thinner before spraying. (Figure A) It might include dry paint particles which could block the spray tip. Strain the paint after thinning. Strain the paint through a fine metal sieve or nylon stocking to remove particles or fibers which could block the spray gun. (Figure B) When spraying lumps, no spray or thick spray pattern, it might be necessary to thin paint to achieve optimum spray pattern.



THE IDEAL CONSISTENCY FOR VARIOUS PAINTS:

Water based paint	20-35 sec.
Oil-based paint	20-30 sec.
Coating	20-30 sec.
Enamel paint	20-25 sec.
Wood stain	20-30 sec.
Metallic Paint	20-30 sec.
Clear Sealer	No thinning required
Polyurethane	No thinning required
Primer	30-45 sec.
Stain	No thinning required
Varnish	20-45 sec.

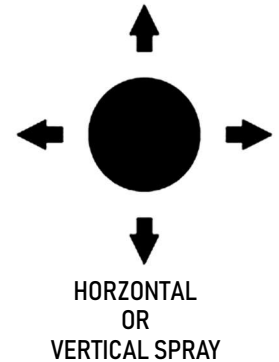
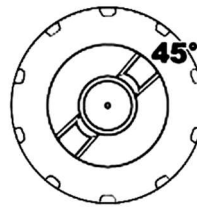
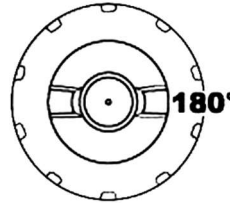
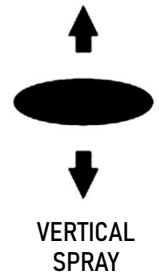
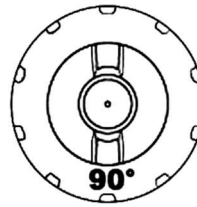
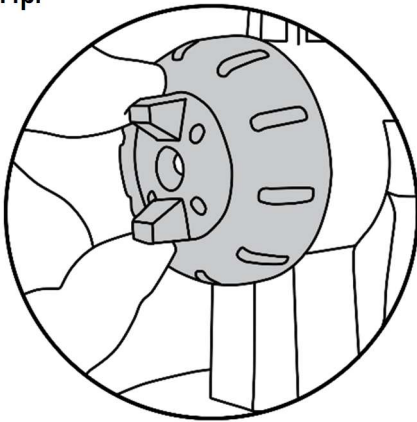
*This guide can offer only general information.

Thinning should be followed according to the stain or paint manufacturer's guideline.

OPERATING:

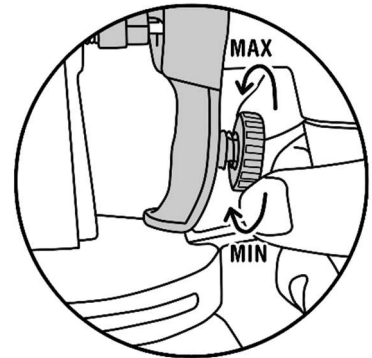
Adjust the Air-Cap

Slacken off the air-cap nut, turn the air-cap to the required position to produce a horizontal or vertical or round spray pattern. The horizontal spray is generally used when painting up and down, and vertical spray when painting across, and round spray when painting on the strip.



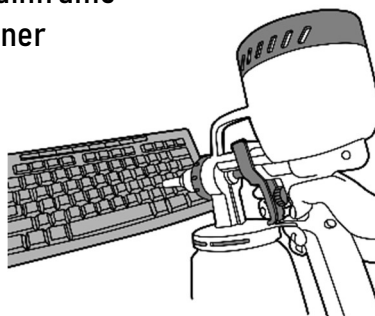
Adjust the paint flow

The knob adjusts the amount of paint released through the nozzle. Turn the paint control knob clockwise, the released flow becomes larger; turn it counterclockwise for less flow. Adjust it until you get a desired spray pattern.



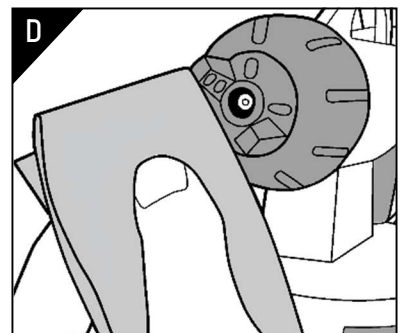
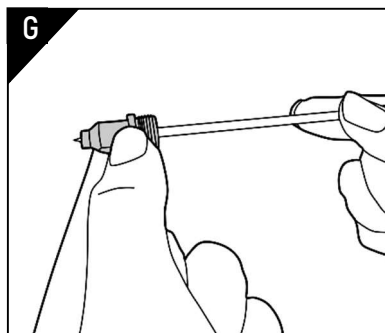
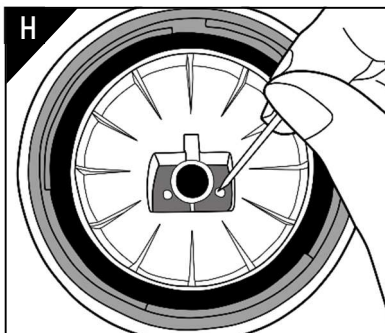
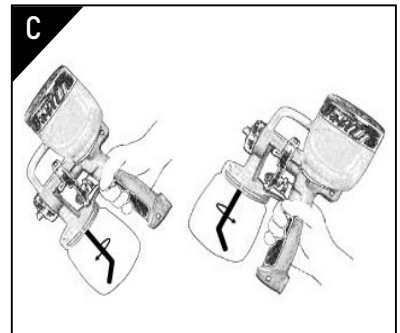
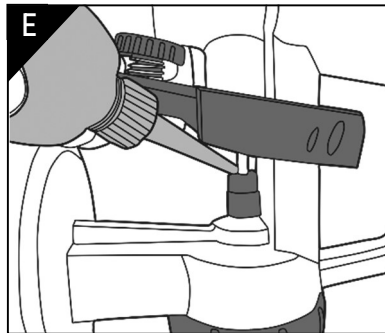
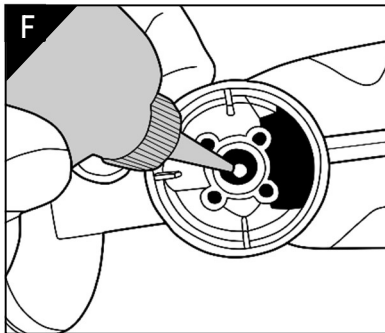
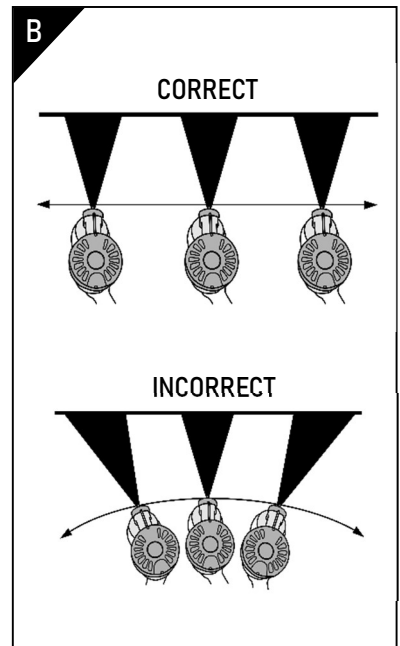
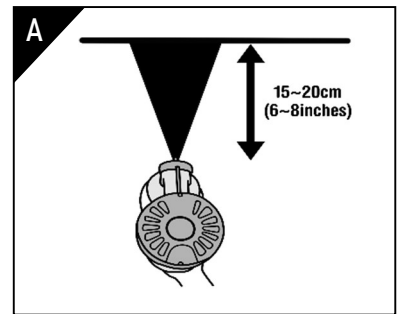
Air Blowing Nozzle

It is a breeze dusting device, suitable for the use of dusting computer mainframe heat sinks, keyboards, air conditioner filter meshes, and all kinds of precision instruments. However, it is not suitable for liquid spraying.



HOW TO OPERATE YOUR SPRAY GUN PROPERLY?

1. Practice before painting- Test your sprayer on cardboard or scrap wood especially when you operate the sprayer first time. 15 – 20 cm (6 – 8 inches) is about the best distance for spraying. (Figure A)
2. Always hold spray gun upright and spray parallel to the painting surface. (Figure B)
3. When spraying overhead (e.g. ceilings) or floors, be sure to adjust the angle of suction tube; or the sprayer may fail to get the paints from the container due to tilting. The vertical inclination should be not more than **70°** to avoid paints running up into the head of the gun through the air-cap. (Figure C)
4. The warm air from sprayer might cause the paint dried on the spray tip and needle tip easily, so always keep the brass needle clean with wet tissue or cloth to enable it to work longer. (See Figure D)
5. If the motor doesn't stop running or the needle is not flexible, pull and release trigger quickly (2-3 times) to make the needle back in the proper place. And use lubricant oil on these 2 positions. (See Figure E & F)
6. If the paint could not be sprayed out, clean holes on each side of pickup tube and the spray tip. (See Figure G & H)

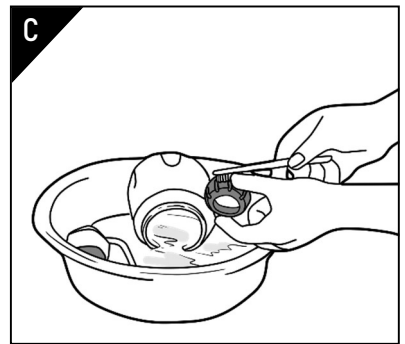
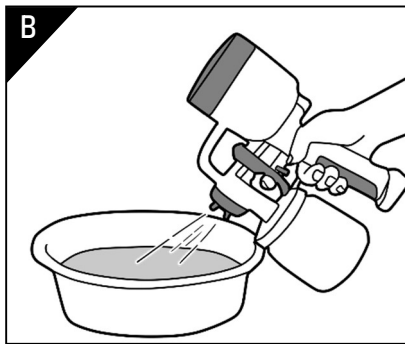
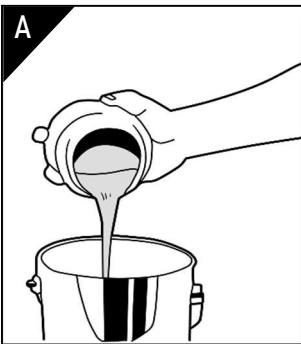


CLEANING UP

After the project has been completed or when you are going to take a longer rest, it is all necessary to clean up the gun to prevent the paint from dried out and causing damage to the gun.

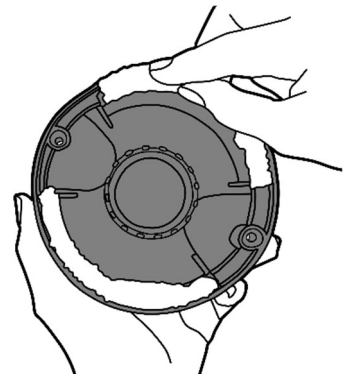
Cleaning steps

1. Unplug sprayer from electrical outlet and empty the remaining material in the container. (Figure A)
2. Fill container with some solvent (for oil-based paints) or soapy water (for water-based paints).
3. Plug sprayer into an electrical outlet then spraying towards the recycling bucket for about one minute (can't spray towards the flammable area) till the paint inside the circuit is fully cleaned. (Figure B)
4. Unplug sprayer and discard the remaining cleaning solution.
5. Disassemble nut, air-cap, suction tube, cup, etc. Clean up them with the above cleaning solution thoroughly and then reassemble all parts to the gun. (Figure C)
6. Put a small amount of light oil such as WD-40 or 3-in-one etc. into the below position (See page 8. Figure E & F) and trigger sprayer briefly. Always clean and lubricate piston and cylinder after spraying your sprayer with water or paint for avoiding rust. (See page 8. Figure E & F)
7. Clean the unit not enough and lubricate it with no lubricating oil which will cause cylinder rusted to seize, failure to follow the above steps will void your guarantee.



Clean Air Filter

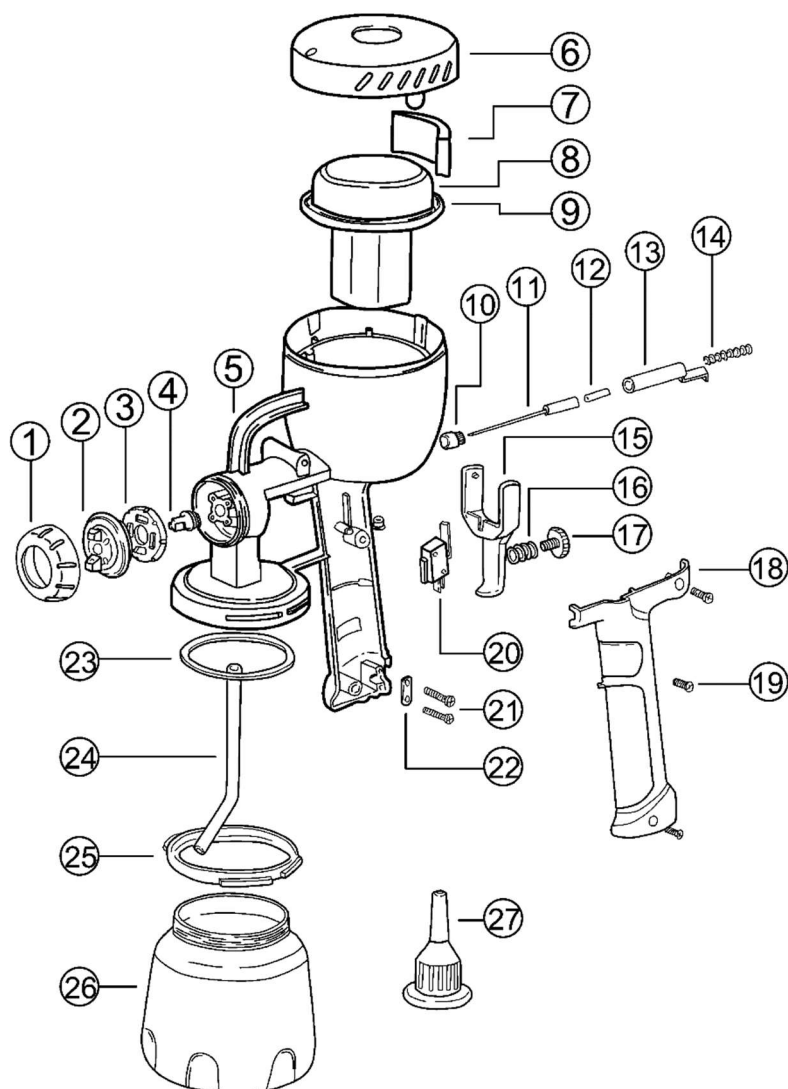
Clean or replace air filter periodically. An excessively dirty filter might cause damage to the sprayer, and ensure adequate ventilation at all time while using the unit.



TROUBLE SHOOTING

TROUBLE	CAUSE	REMEDY
Sags or runs	◆ Too much paint.	<ul style="list-style-type: none"> • Turn the adjust nut counterclockwise. • Move gun faster. • Add unthinned paint to achieve correct time through viscosity test cup. • Hold gun at right angle to surface and at a distance of 15-20 cm. • Overlap spray about 1/3 width of spray pattern.
	◆ Gun moved too slowly.	
	◆ Paint too thin.	
	◆ Gun held at incorrect angle or too close to painting surface.	
Dry spray	◆ Spray overlaps too much.	<ul style="list-style-type: none"> • Turn the adjust nut clockwise. • Hold gun at a distance of 15-20 cm surface or closer for small objects. • Hold gun at right angle to the painting surface. • Pay attention to the gun movement path. • Determine if obstruction is on air cap or paint tip by making a test pattern, rotating air cap half turn, and spraying another test pattern. If the defect is inverted, obstruction is on air cap.
	◆ Insufficient paint coming from the spray gun.	
	◆ Gun held too far from surface.	
	◆ Overspray from a preceding section when gun is not held at right angle to painting surface.	
	◆ Spray patterns not well overlapped.	
Spitting or spraying lumps	◆ Air cap holes partially blocked.	
	◆ Solid particles in paint.	<ul style="list-style-type: none"> • Strain paint. • Do not downward the angle too much.
Motor is running but no spray	◆ Downward spraying angle more than 90°.	
	◆ Paint not thin enough.	<ul style="list-style-type: none"> • Add the appropriate amount of solvent to the paint. Add only a small amount of solvent to the paint at one time. • Replace/clean air partition cap. • Tighten paint container. • Replace/clean lid washer. • Increase pressure on the trigger to pull needle to shoot paint out. • Tighten needle. • Turn the adjust nut clockwise, the release amount becomes bigger or Clean spray tip & needle to restart the trigger. • Take out needle tip and install needle tip in the needle. • Clean air cap with non-metallic instrument. If obstruction is on paint tip, check for fine burring which can be removed with 600 wet or dry sandpaper. For dried paint inside, open and wash. • Pull and then release trigger quickly (2-3 times) to make sure needle is seated properly. • Tighten needle nut. • Clean paint passages or Lubricate slide pipe to make sure slide pipe is seated properly. • Ensure slide pipe has to clasp spring properly.
	◆ Air partition cap missing/dirty.	
	◆ Loose paint container.	
	◆ Lid washer missing/dirty.	
	◆ Motor is running but the trigger does not pull the needle.	
	◆ Loose needle.	
	◆ Low volume of paint from spray gun.	
	◆ The needle tip drops from the needle, so needle tip is jammed tight in spray tip.	
	◆ Obstruction on paint tip or dirt on air cap seat or paint tip seat.	
	◆ Jamming needle.	
Fluttering spray	◆ Needle nut not seated properly.	
	◆ Blocked paint passages or Slide pipe not seated properly.	
	◆ Loose slide pipe & switch spring.	
Paint leaking from the paint container	◆ Loose paint container.	<ul style="list-style-type: none"> • Tighten paint container. • Tighten lid washer or replace lid washer.
	◆ Loose lid washer or worn lid washer.	
Paint leaking from the nozzle	◆ Loose nozzle.	<ul style="list-style-type: none"> • Tighten nozzle. • Loosen needle nut.
	◆ Needle nut is too tight, so the needle not seated properly.	

PARTS LIST

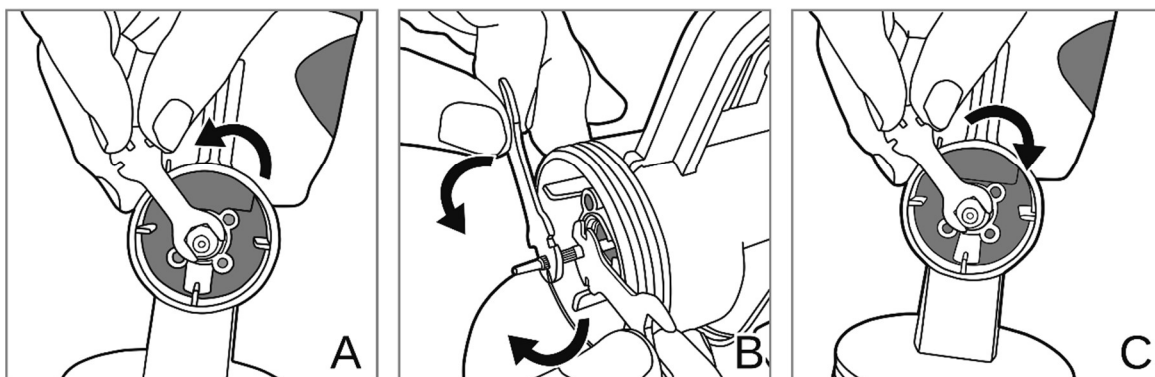


ITEM	DESCRIPTION
1.	RETAINING NUT
2.	AIR CAP
3.	AIR PARTITION CAP
4.	SPRAY TIP
5.	GUN BODY
6.	MOTOR LID
7.	FILTER
8.	MOTOR
9.	MOTOR PARTITION
10.	GUIDE NUT

ITEM	DESCRIPTION
11.	NEEDLE
12.	NEEDLE SPRING
13.	SLIDE PIPE
14.	SPRING FOR SLIDE PIPE
15.	TRIGGER
16.	SPRING FOR ADJUST NUT
17.	PAINT CONTROL NUT
18.	HANDLE HOUSING
19.	HANDLE SCREW
20.	SWITCH

ITEM	DESCRIPTION
21.	SCREW FOR WIRE FIXING
22.	WIRE FIXING
23.	LID WASHER
24.	PAINT TUBE
25.	LID SCREW NUT
26.	PAINT CONTAINER
27.	AIR BLOWING NOZZLE

Installing / Replacing Nozzle & Spray Tip (For TM-663A+ Only)



1. Use one of the included wrenches to loosen the tip and nozzle. (Figure A)
2. Disassemble the spray tip with two wrenches. (Figure B)
3. Use two wrenches to replace with desired tip and nozzle. (Figure B)
(Be caution do not overtighten to prevent needle from breaking)
4. Tighten the nozzle with the included wrench. (Figure C)

The Choice of Spray Tip Set Size (Optional)

Spray Tip Size	Recommended Material	Air Cap Nozzle
Ø1.0mm	Coating, Photocatalyst, Sealer, Lacquer, Adhesive, Wood paint, Enamel paint	Black
Ø1.3mm		
Ø1.5mm	Sealer, Lacquer, Red Lead Primer, oil-based paint, Paint with hardener	Black
Ø2.0mm*	Solvent based Waterproof paint, Oil-based paint, Red Lead Primer, Anti-rust primer, PU paint	Black
Ø2.5mm	Latex Paint, Waterproof paint, PU paint, Super Glue, Paint with hardener, Ready-mixed paint, Wood paint	Blue
Ø3.0mm	Recycle paint, Faux stone paint, High viscosity paint	Blue
Ø3.5mm		
Ø4.0mm	Recycle paint, Faux stone paint, High viscosity paint	Blue

* Ø 2.0mm is Included with TM-663A+

Large spray tip sets are for water-based paint (latex paint); small spray tip sets are for oil-based paint.



YouTube



Website

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tsungmao@haupon.com.tw
 MADE IN TAIWAN
 Rev B 20190322