Keep manual for future reference.

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User manual

Cordless Spray Gun

MODEL NUMBER: ☐ **CEDSP1000Li**
SERIAL NUMBER:

Model number and serial number should be on nameplate.
You should write them down and store in a safe place.

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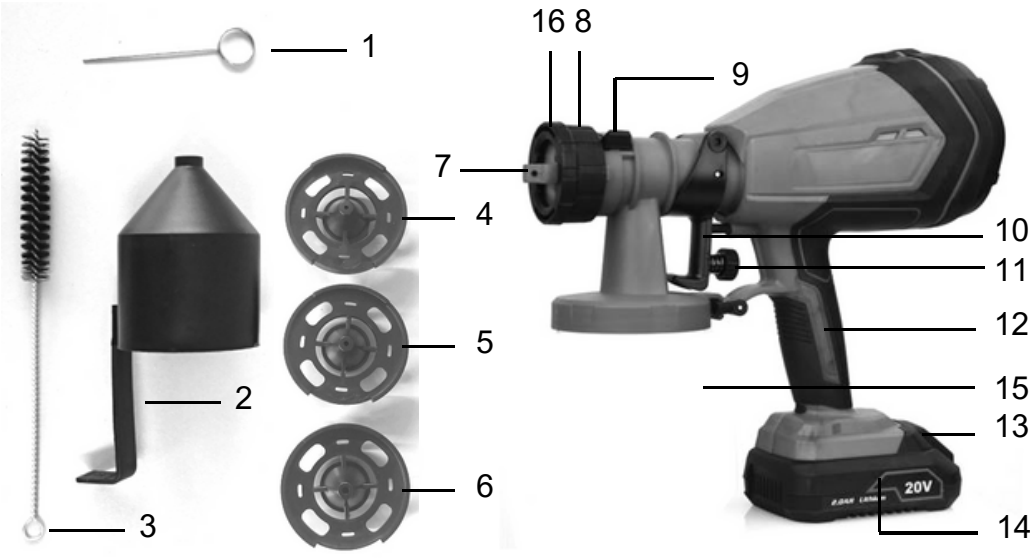
IDENTIFICATION



1. Nozzle cleaning needle
2. Viscosity cup Tank
3. cleaning brush
4. Φ1.5mm nozzle
5. Φ1.8mm nozzle
6. Φ2.5mm nozzle
7. Air cup
8. Cup nut
9. Air cup lever
10. Switch Trigger
11. Flow rate adjusting knob
12. Soft handle
13. Button of Battery Cartridge
14. Battery Cartridge
15. 1000ml Tank (container)
16. Front cap

SPECIFICATIONS

Model:	CEDSP1000Li
Container	1l
Flow Rate	800 ml/min
Max viscosity	60 DIN-S
Spraying pressure	0,1 bar
Nozzle size	2.5 mm / 1.8 mm / 1.5 mm
Rated voltage	D.C. 20 V
Overall length (bare tool)	300 mm
Net weight (Bare tool)	1.25 kg

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifications may differ from country to country.
- The weight may differ depending on the attachment(s), including the battery cartridge.

Applicable battery cartridge

battery cartridge	CEDLi-Ion 2Ah, CEDLi-Ion 4Ah, CEDLi-Ion 6Ah
battery charger	CEDFCH2.4, CEDDCH3.0, CEDFCH3.5

- Some of the battery cartridges and chargers listed above may not be available depending on your region of residence.

⚠ ***WARNING:*** **Only use the battery cartridges and chargers listed above.** Use of any other battery cartrid and chargers may cause injury and/or fire.

Symbols

The following show the symbols used for the equipment. Be sure that you understand their meaning before use.

	Read instruction manual.
	Do not use in rain.
	Wear protective mask.
	Wear protective gloves.
	Wear safety glasses.
	Do not direct the nozzle at people including yourself, animals, and live electrical equipments.
 Ni-MH Li-ion	Only for EU countries Do not dispose of electric equipment or battery cartridge together with household waste material! In observance of the European Directives, on Waste Electric and Electronic Equipment and Batteries and Accumulators and Waste Batteries and Accumulators and their implementation in accordance with national laws, electric equipment and batteries and battery cartridge(s) that have reached the end of their life must be col- lected separately and returned to an environmentally compatible recycling facility.

Intended use

The spray gun is for spraying non-flammable and non-hazardous paints and varnishes suitable.

NOTE:

(1) This tool is suitable for solvent-based and water-based paints, finishes, primers, two-component paints, varnishes, automotive topcoats, stains and wood preservatives.

(2) It is not suitable for alkali, acidic paints and the paints of which flash point is under 21.

⚠ ***CAUTION:*** **WARNING! The tool cannot be used for spraying of flammable liquids. Do not use the tool for the food, pharmacy or other purposes that are not mentioned in the manual.**

Noise

The typical A-weighted noise level determined according to EN 50580:
Sound pressure level (LpA) : 80.9 dB(A) or less
Uncertainty (K) : 3 dB(A)

The noise level under working may exceed 90 dB (A).

NOTE: The declared noise emission value(s) has been measured in accordance with a standard test method and may be used for comparing one tool with another.

NOTE: The declared noise emission value(s) may also be used in a preliminary assessment of exposure.

⚠ ***WARNING:*** **Wear ear protection.**

⚠ ***WARNING:*** **The noise emission during actual use of the power tool can differ from the declared value(s) depending on the ways in which the tool is used especially what kind of workpiece is processed.**

⚠ ***WARNING:*** **Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).**

Vibration

The vibration total value (tri-axial vector sum) determined according to EN50580:
Work mode: operation without load
Vibration emission (a_h) : 1 .67 m/s^2
Uncertainty (K) : 1.5 m/s2

NOTE: The declared vibration emission value has been measured in accordance with the standard test method and may be used for comparing one tool with another.

NOTE: The declared vibration emission value may also be used in a preliminary assessment of exposure.

⚠ ***WARNING:*** The vibration emission during actual use of the power tool can differ from the declared emission value depending on the ways in which the tool is used.

⚠ ***WARNING:*** Be sure to identify safety measures to pro- tect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

SAFETY WARNINGS

General power tool safety warnings

⚠

tions, illustrations and specifications provided with this tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "tool" in all of the warnings listed below refers to your mains operated (corded) tool or battery operated (cordless) tool.

Save all warnings and instructions for future reference.

Work area safety

1. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

Electrical Safety

1. **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
2. **Indoor use only. Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

Personal Safety

1. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
2. **Use personal protective equipment.** Protective equipment such as a dust mask, safety glasses, protective gloves or hearing protection used for appropriate conditions will reduce personal injuries.
3. **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.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
4. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
5. **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
6. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
7. **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

Power tool use and care

1. **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
2. **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
3. **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
4. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.

5. **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.

6. **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

7. **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

Cordless spray gun safety warnings

1. **Do not use guns for spraying flammable**
2. **materials.**
3. **Do not clean guns with flammable solvents. Warning! Be aware of any hazard presented by the material being sprayed and consult the markings on the container or the information supplied by the manufacturer of the material to be sprayed.**
4. **Do not spray any material where the hazard is not known.**
5. **Use appropriate personal protective equipment, such as dust mask, protective clothing.**

Important safety instructions for battery cartridge

1. **Before using battery cartridge, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.**
2. **Do not disassemble battery cartridge.**
3. **If operating time has become excessively shorter, stop operating immediately. It may result in a risk of overheating, possible burns and even an explosion.**
4. **If electrolyte gets into your eyes, rinse them out with clear water and seek medical attention right away. It may result in loss of your eyesight.**
5. **Do not short the battery cartridge:**
   - **(1) Do not touch the terminals with any conductive material.**
   - **(2) Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.**
   - **(3) Do not expose battery cartridge to water or rain.**

A battery short can cause a large current flow, overheating, possible burns and even a breakdown.

6. **Do not store the tool and battery cartridge in locations where the temperature may reach or exceed 50 °C (122 °F).**
7. **Do not incinerate the battery cartridge even if it is severely damaged or is completely worn out. The battery cartridge can explode in a fire.**
8. **Be careful not to drop or strike battery.**
9. **Do not use a damaged battery.**
10. **The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements.**

    For commercial transports e.g. by third parties, forwarding agents, special requirement on cartridge- aging and labeling must be observed. For preparation of the item being shipped, consulting an expert for hazardous material is required. Please also observe possibly more detailed national regulations.
    Tape or mask off open contacts and cartridge up the battery in such a manner that it cannot move around in the packaging.

11. **Follow your local regulations relating to disposal of battery.**

SAVE THESE INSTRUCTIONS.

⚠ ***CAUTION:*** **Only use genuine Cedrus batteries.** Use of non-genuine Cedrus batteries, or batteries that have been altered, may result in the battery bursting causing fires, personal injury and damage. It will also void the Cedrus warranty for the Cedrus tool and charger.

Tips for maintaining maximum battery life

1. **Charge the battery cartridge before completely discharged. Always stop tool operation and charge the battery cartridge when you notice less tool power.**
2. **Never recharge a fully charged battery cartridge. Overcharging shortens the battery service life.**
3. **Charge the battery cartridge with room temperature at 5°C - 45 °C . Let a hot battery cartridge cool down before charging it.**

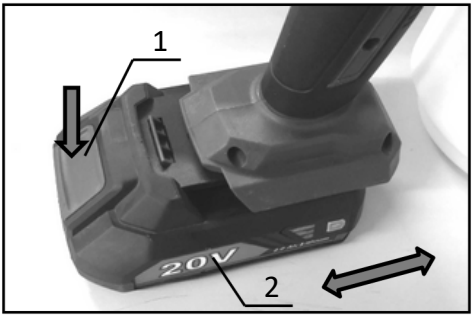
FUNCTIONAL DESCRIPTION

⚠ ***CAUTION:*** **Always be sure that the tool is switched off and the battery cartridge is removed before adjusting or checking function on the tool.**

Installing or removing battery cartridge

⚠ ***CAUTION:*** **Always switch off the tool before installing or removing of the battery cartridge.**

⚠ ***CAUTION:*** **Hold the tool and the battery cartridge firmly when installing or removing battery cartridge.** Failure to hold the tool and the battery cartridge firmly may cause them to slip off your hands and result in damage to the tool and battery cartridge and a personal injury.



►**1.** Button **2.** Battery cartridge

To remove the battery cartridge, slide it from the tool while sliding the button on the front of the cartridge.

To install the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Insert it all the way until it locks in place with a little click.

⚠ ***CAUTION:*** **Always install the battery cartridge fully.** If not, it may accidentally fall out of the tool, causing injury to you or someone around you.

⚠ ***CAUTION:*** **Do not install the battery cartridge forcibly.** If the cartridge does not slide in easily, it is not being inserted correctly.

Tool / battery protection system

The tool is equipped with a tool/battery protection system. This system automatically cuts off power to the motor to extend tool and battery life. The tool will automatically stop during operation if the tool or battery is placed under one of the following conditions:

Overload protection

When the battery is operated in a manner that causes it to draw an abnormally high current, the tool automatically stops without any indication. In this situation, turn the tool off and stop the application that caused the tool to become overloaded. Then turn the tool on to restart.

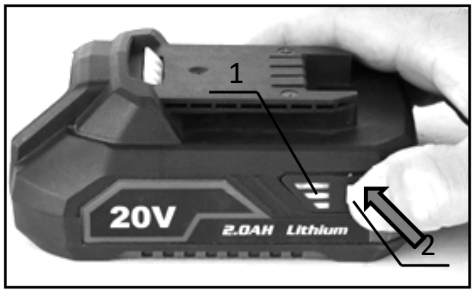
Overheat protection

When the tool/battery is overheated, the tool stops automatically. In this situation, let the battery cool before turning the tool on again.

Overdischarge protection

When the battery capacity is not enough, the tool stops automatically. In this case, remove the battery from the tool and charge the battery.

Indicating the remaining battery capacity



►**1.** Indicator lamps **2.** Check button

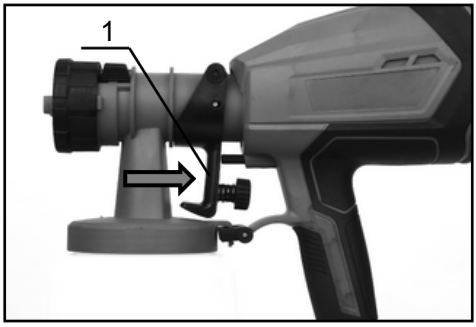
Press the check button on the battery cartridge to indicate the remaining battery capacity. The indicator lamps light off immediately when release the check button.

Indicator lamps		Remaining capacity
Lighted	Off	
GREEN ORANGE RED		75% to 100%
ORANGE RED		25% to 50%
RED		10% to 25%

NOTE: Depending on the conditions of use and the ambient temperature, the indication may differ slightly from the actual capacity.

Switch action

⚠ ***CAUTION:*** **Before installing the battery cartridge into the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.**

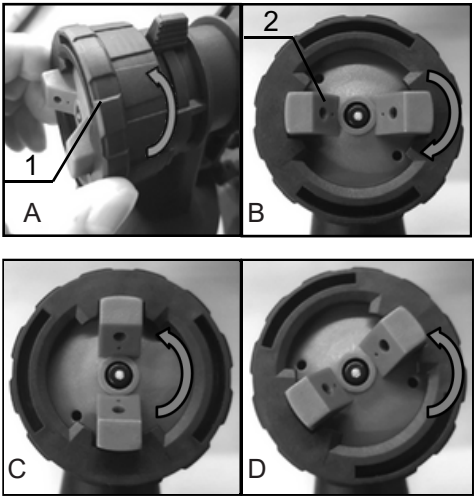


►**1.** Switch trigger

To start the tool, simply pull the switch trigger.
To stop the tool, release the switch trigger.

Selecting the spray patterns

⚠ ***CAUTION:*** **Never turn the air cup when the switch trigger is depressed.**



►**1.** Front cap **2.** Air cup

Turn the front cap to desired position to fit the different operating conditions (See Fig. A).
The figure above shows the air cup position with their corresponding spraying patterns:
B: Air cup is in horizontal position = the spraying shape is vertical: for vertical surface;
C: Air cup is in vertical position = the spraying shape is horizontal: for horizontal surface;
D: Air cup is in oblique position =the spraying shape is circular: for corners, edges and others.

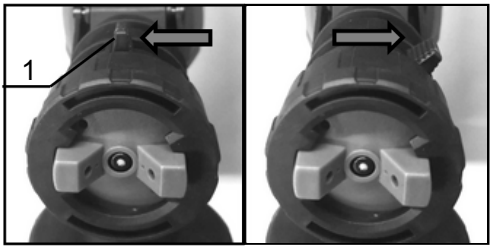
Adjusting the rate of flow

NOTICE: **Make sure not to loosen the knob (turn counter-clockwise) too much. Overdo will cause the knob fall off from the tool.**

► **1.** Flow rate adjusting knob

The sprayed capacity can he adjusted by using the flow rate adjusting knob. Adjust the adjusting knob until the best spray pattern is reached. Turn the adjusting knob clockwise (+) to increase the flow rate and turn it counter-clockwise (-) to decrease the flow rate. A poor spray pattern will concentrate the paint in the centre of the spray and give a blotchy finish. A good spray pattern will give even distribution of paint throughout the pattern.

Adjusting the intensity of spraying



►**1.** Air cup lever

While spraying ,you can also adjust the intensity of spraying. Pull the air cup lever to left to increase and to right to reduce the intensity.

ASSEMBLY

⚠ ***CAUTION:*** **Always be sure that the tool is switched off and the battery cartridge is removed before carrying out any work on the tool.**

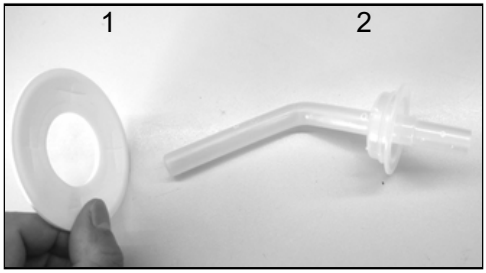
⚠ ***CAUTION:*** **Always place the tool on the ground or workbench when carrying out any assembling work. The tool without being held tight may loose balance and cause injury.**

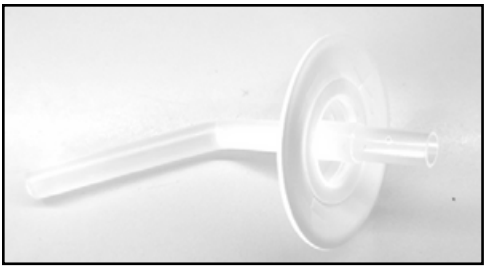
Assembling the tank and suction pipe

⚠ ***CAUTION:*** **After installing the tank onto the tool, always make sure that it is secured firmly. Otherwise, it may suddenly separate from the tool body and result in an personal injury.**

To install the tank and suction pipe onto the spray head, perform following steps:

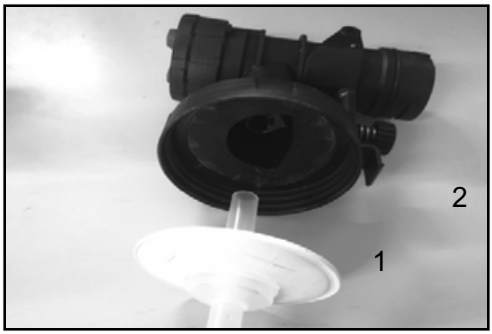
1. Attach the waterproof pad onto the suction pipe with the direction as shown in the figure.





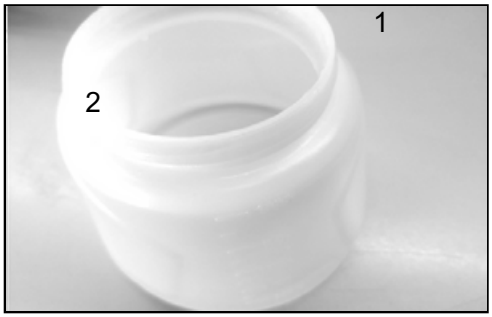
►**1.** Waterproof pad **2.** Suction pipe

2. Insert the section pipe into the hole on the spray head as far as it can go..



►**1.** Hole on the spray head **2.** Spray head

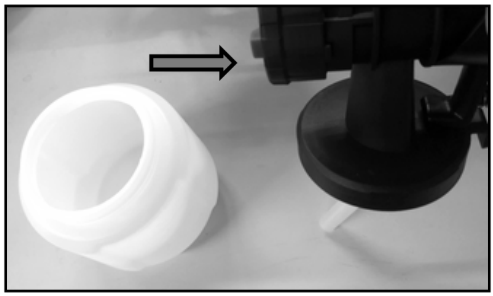
3. Fill the tank with paint of the correct viscosity. Be sure not filling the paint above the Max filling tick-mark on the tank.



► **1.** Tank (container) with paint **2.** Max filling tick-mark

4. Adjust the suction pipe direction correctly according to different operating conditions to deplete the material in the tank as much as possible.

5. Attach the tank by screwing it in clockwise direction onto the spray head firmly.



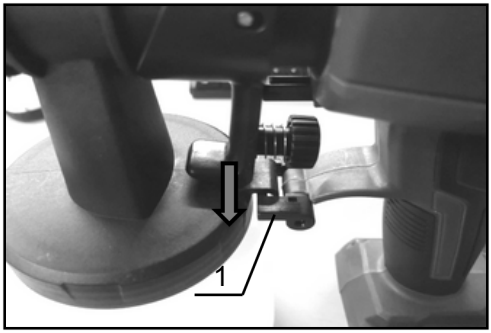
To remove the tank from the spray head, perform the installation steps in reverse.

Installing /Removing the spray head assembly

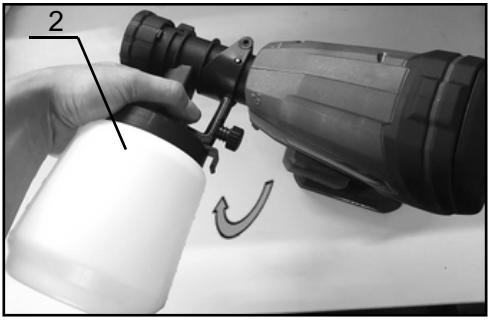
CAUTION: **After installing the spray head assembly , make sure that it is buckled on and firmly secured onto the tool body.**

To remove the spray head assembly from the tool body, perform following steps:

1.Depress down to unlock the buckle .



2. Rotate the spray head assembly to the 90 degree unlock position by turning it anticlockwise.



3. Pull out the spray head assembly from the tool body a bit hard directly.

► **1.** Buckle **2.** Spray head assembly **3.** Tool body

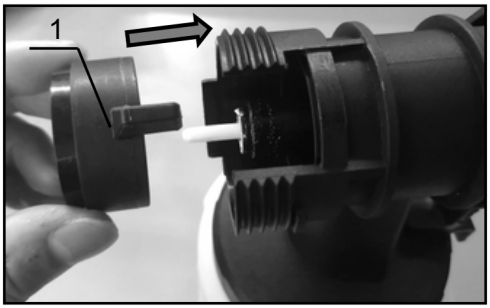
To install the spray head assembly onto the tool body, perform the removal steps in reverse.

Installing or uninstalling the nozzle and air cup

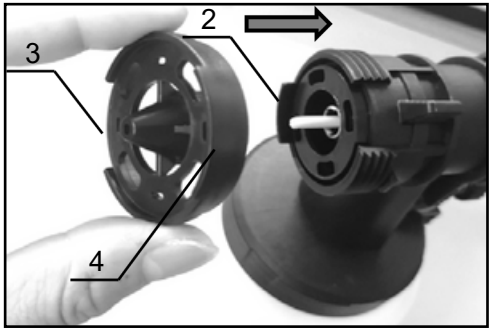
⚠*CAUTION:* After installing the spray head, make sure that the cup nut is firmly tightened.

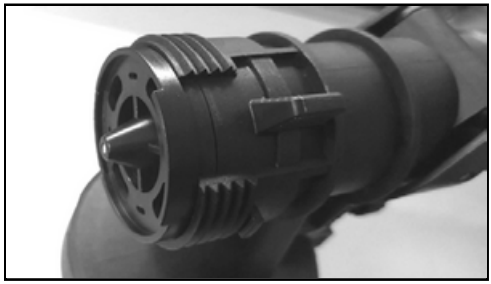
To install the nozzle and air cup onto the spray head, perform following steps:

1. Insert and attach the air cup lever onto the spray head with direction as shown in the figure.

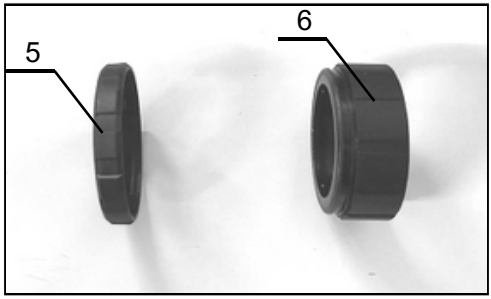


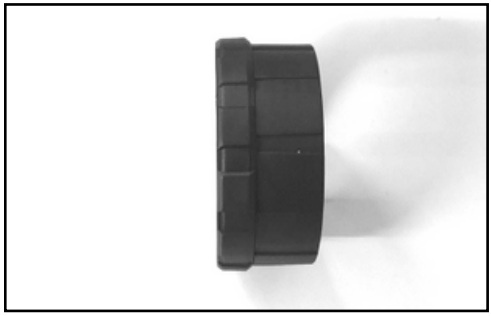
2. Align the protrusions on the spray head with the groove on the nozzle and attach the nozzle onto the spray head.



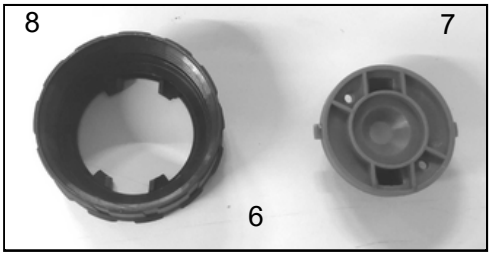


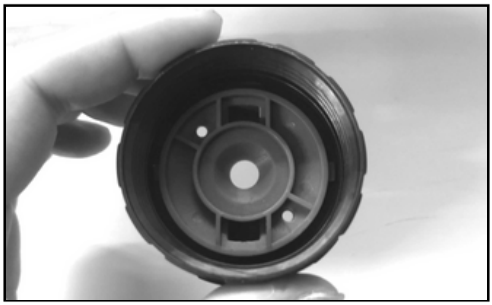
3. Insert and attach the front cap onto the cup nut directly.



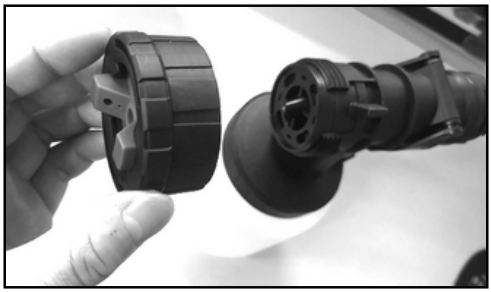


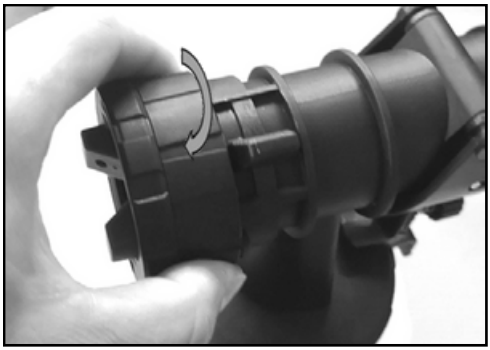
4.Align the protrusions on the air cup with the groove on the cup nut and attach the air cup onto the cup nut.





5. Attach the whole cup nut by screwing it in clockwise direction onto the screw thread firmly.

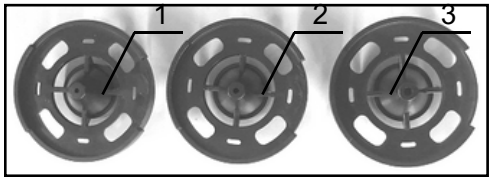




► **1.** Air cup lever **2.** Protrusions on the spray head **3.** groove on the nozzle **4.** Nozzle **5.** Front cap **6.** Cup nut **7.** Air cup **8.** Groove on the cup nut

Nozzle type

There are three different hole diameter nozzles, 2.5mm,1.8mm and 1.5mm hole diameter.
Choose as your desire.



► **1.** 1.5mm Nozzle **2.** 1.8mm Nozzle **3.** 2.5mm Nozzle

Preparation

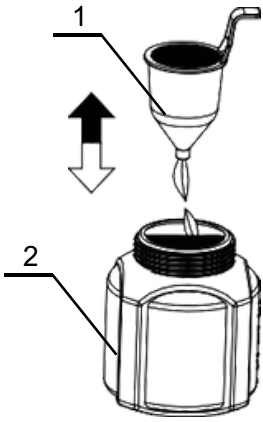
To obtain the best results, it is important that you prepare the paint to be sprayed and thin the paint to the correct viscosity. Before operating, always ensure that the paints to be sprayed are free from dust, dirt and grease. The paint or fluid to be sprayed should be thoroughly mixed and free from lumps or other particles. Many substances can be sprayed with your spray gun, but always check the manufactures recommendations before purchasing your paint.

Viscosity Measurement

Most paints are supplied ready for brush application and will need to be thinned before they are suitable to be sprayed. Follow the manufacturer's advice on thinning the paint when used with a spray gun. The viscosity cup will help you to determine the correct viscosity of paint to be used.

To determine the correct viscosity

1)Stir well the paint before the starting to measure.
2)Fill the viscosity cup to the brim with paint.
3)Measure the time in seconds of liquid dripping from the cup into the tank until the cup is empty. The measured time is called run-DIN-seconds (DIN-s).



►**1.** Viscosity cup **2.** Tank (container)

The following table below shows recommended run-DIN-seconds for different types of material.

Solvent-based paints----------15-50
Primers----------25-50
Pickling----------no need to dilute
2 Component paints----------20-50
Varnishes----------15-40
Waterborne paints----------20-40
Automotive topcoats----------20-40
Wood preservatives----------no need to dilute

If the paint takes longer than the recommended time to empty, then further thinning is required. Mix in a small quantity of the appropriate thinner and use the viscosity test until the correct thickness is achieved.

OPERATION

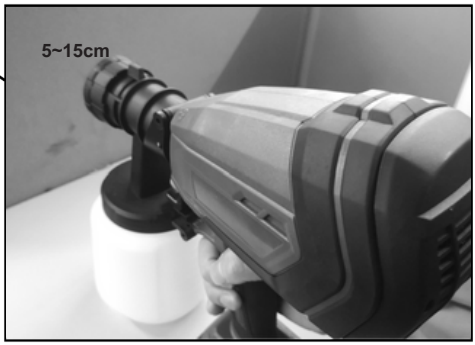
NOTICE: **Check to make sure the tank is loaded with enough paint or clean water when operating the spray gun.**

NOTICE: **Before operating, aim the spray gun at a piece of scrap material and start spraying to find the best pattern and flow rate.**

NOTICE: **The intended area to be sprayed should be pretreated to be smooth and clean, free from dust.**

NOTICE: **Make sure that you have masked the areas that should not be sprayed by a good quality masking tape.**

Spraying Techniques



(1)Attach the tank filled with paint onto the spray head.

(2)Install the battery cartridge

(3)Pull the switch trigger to start.

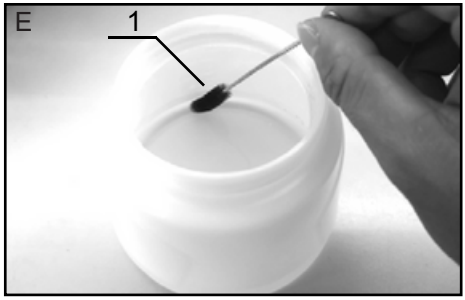
To obtain the best results, keep your spray gun level and parallel to the surface at all times. Keep the nozzle 5~15cm from the surface and spray evenly from side to side or up and down, use smooth and even strokes.

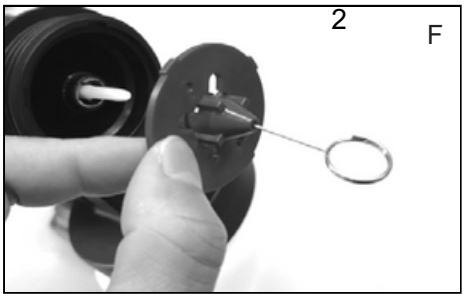
MAINTENANCE

⚠ ***CAUTION:*** **Always be sure that the tool is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.**

⚠ ***NOTICE:*** **Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.**

Regularly clean the tool using a damp cloth. Do not use any abrasive or solvent-based cleaner. Never let any liquid get inside the tool and never immerse any part of the tool into liquid.
The following action suggest to be taken after every use:
1)After switch off the spray gun, depress the trigger switch again to return the paint remained in the spray gun back to the tank.
2)Remove the tank and pour the remaining liquid back in to the can.
3)Put some suitable thinner into the tank and be sprayed through the spray gun until only clean thinner comes out of the nozzle.
4)Remove the tank, the suction tube , and thoroughly clean them with the tank cleaning brush. (SEE Fig. E)
5)Unscrew the cap nut, take out the air cup and move the nozzle from the cylinder.
6)Use the nozzle cleaning needle to clean the nozzle (SEE Fig. F), and air cup, cup nut thoroughly with thinner.
7)Reassemble the spray gun.
8)Clean the outside of the machine with a moist cloth.



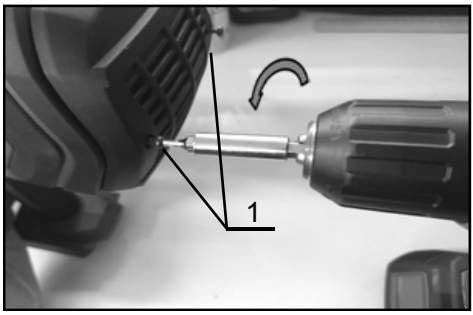


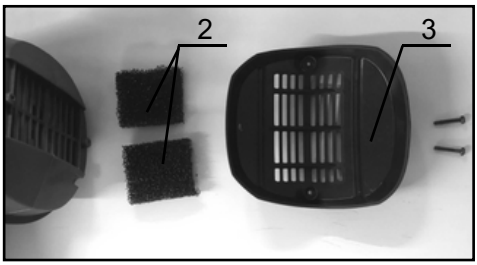
► **1.** Tank cleaning brush **2.** Nozzle cleaning needle

Clean the filter

⚠ *CAUTION:* Do not use the tool without filter, otherwise dirt may be sucked in the tool.

Remove the filter cover by unscrewing the two screws counter-clockwise. Remove the cover and take the sponge filter out and clean it. Re-install the dry and clean filter back to the tool.





► **1.** Screw **2.** Sponge Filter **3.** Cove r

OPTIONAL ACCESSORIES

⚠ *CAUTION:* These accessories or attachments are recommended for use with your Cedrus tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Cedrus Service Center.

- Φ2.5 mm nozzle
- Φ1.8 mm nozzle
- Φ1.5 mm nozzle
- Nozzle cleaning needle
- Tank cleaning brush
- Viscosity cup
- Cedrus genuine battery and charger

NOTE: Some items in the list may be included in the tool package as standard accessories. They may differ from country to country.

TROUBLESHOOTING

Before asking for repairs, conduct your own inspection first. If you find a problem that is not explained in the manual, do not attempt to dismantle the machine. Instead, askCedrus Authorized Service Centers, always using Cedrus replacement parts for repairs.

State of abnormality	Probable cause (malfunction)	Remedy
No spray	Nozzle clogged	Clean the nozzle
	Suction pipe clogged	Clean the suction pipe
	Flow rate set too low	Turn the adjusting knob clockwise (+) to increase the flow rate
	Suction pipe loosened	Tighten the suction pipe
	Tank not tightened	Tighten the tank
	Paint is too thick	Check the viscosity of the paint and dilute.
Paint dropped from nozzle	Nozzle loosened	Tighten the nozzle
	Worn nozzle	Replace the nozzle
	Paint accumulated on air cap or nozzle	Clean the air cap or nozzle with solvents or water.
Spraying too thick	Paint is too thick	Check the viscosity of the paint and dilute.
	Flow rate set too high	Turn the adjusting knob counter-clockwise (-) to decrease the flow rate
	Low pressure in the tank	Re-tighten the tank
Irregular spraying	Not enough paint in the tank	Add enough paint
	Dirty filter	Clean the filter or replace it.
Liquid dripping while spraying	Flow rate set too high	Turn the adjusting knob counter-clockwise (-) to decrease the flow rate