

# Clarke®



## HVLP ELECTRIC SPRAY GUN

MODEL NO: APK900

PART NO: 2310060

## OPERATION & MAINTENANCE INSTRUCTIONS

UK  
CA | CE



ORIGINAL INSTRUCTIONS

GC 0825 - ISS 6

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## INTRODUCTION

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Thank you for purchasing this CLARKE HVLP (high velocity/low pressure) Electric Spray Gun. Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

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## IMPORTANT

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Please read all of the safety and operating instructions carefully before using this product. Please pay particular attention to all sections of these instructions that display warning symbols and notices.



**WARNING: THIS SYMBOL IS USED THROUGHOUT THE INSTRUCTIONS WHENEVER THERE IS A RISK OF PERSONAL INJURY. ENSURE THAT THESE WARNINGS ARE READ AND UNDERSTOOD AT ALL TIMES.**

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## GUARANTEE

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This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

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# GENERAL SAFETY RULES

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**WARNING: WHEN USING ELECTRIC TOOLS, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK AND PERSONAL INJURY INCLUDING THE FOLLOWING. READ ALL THESE INSTRUCTIONS BEFORE ATTEMPTING TO OPERATE THIS PRODUCT AND SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.**

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## GENERAL SAFETY IN THE WORKPLACE

1. **ALWAYS** ensure that air can circulate around the machine and that the air vents are unobstructed.
2. **ALWAYS** keep work area clean & tidy. Cluttered work areas and benches invite accidents.
3. **NEVER** over-reach. Keep proper footing and balance at all times.
4. **NEVER** store equipment in a wet/damp environment or expose to rain.
5. Keep other persons away. **DO NOT** let persons, especially children, not involved in the work, touch the tool or extension cable and keep them away from the work area.
6. **NEVER** operate a machine when under the influence of alcohol, drugs or medication.
7. **ALWAYS** ensure the workplace is well lit. Ensure that lighting is placed so that you will not be working in your own shadow.
8. **DO NOT** use tools in the presence of flammable liquids or gasses.
9. Stay alert, watch what you are doing, use common sense and do not operate the tool when you are tired.

## CARE OF POWER TOOLS

1. Read this manual carefully. Learn the machines applications and limitations, as well as the specific potential hazards peculiar to it.
2. **ALWAYS** keep guards in place and in working order. A guard or other part that is damaged should be properly repaired or replaced by an authorised service centre, unless otherwise indicated in this instruction manual.
3. Remove any adjusting keys or wrenches before starting. Form the habit of checking to ensure that keys, wrenches and tools are removed from the machine.
4. **ALWAYS** disconnect the machine from the power supply before carrying out any servicing or changing of accessories.

5. Before further use of the tool, it should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting or other condition that may affect its operation.
6. Have defective switches repaired by an authorised service centre. **DO NOT** use a tool if the switch does not turn it on and off.
7. **ALWAYS** check for any damage or any condition that could affect the operation of the machine. Damaged parts should be properly repaired.
8. **NEVER** remove the cover panel unless the machine is disconnected from the power supply, and never use the machine with cover panels removed.
9. Have your power tool repaired by a qualified person. This tool complies with the relevant safety rules. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.
10. **NEVER** use this product for any other purpose than that described in this booklet.
11. **NEVER** abuse the power cable by yanking the cable to disconnect it from the socket. Keep the cable away from heat, oil or sharp edges.
12. Guard against electric shock. Avoid body contact with earthed or grounded surfaces.
13. Avoid accidental starting by making sure the power switch is off before plugging in the power cable.

# ELECTRICAL CONNECTIONS



**WARNING: READ THESE ELECTRICAL SAFETY INSTRUCTIONS THOROUGHLY BEFORE CONNECTING THE PRODUCT TO THE MAINS SUPPLY.**

Before switching the product on, make sure that the voltage of your electricity supply is the same as that indicated on the rating plate. This product is designed to operate on 230VAC 50Hz. Connecting it to any other power source may cause damage.

This product may be fitted with a non-rewireable plug. If it is necessary to change the fuse in the plug, the fuse cover must be refitted. If the fuse cover becomes lost or damaged, the plug must not be used until a suitable replacement is obtained.

If the plug has to be changed because it is not suitable for your socket, or due to damage, it should be cut off and a replacement fitted, following the wiring instructions shown below. The old plug must be disposed of safely, as insertion into a mains socket could cause an electrical hazard.

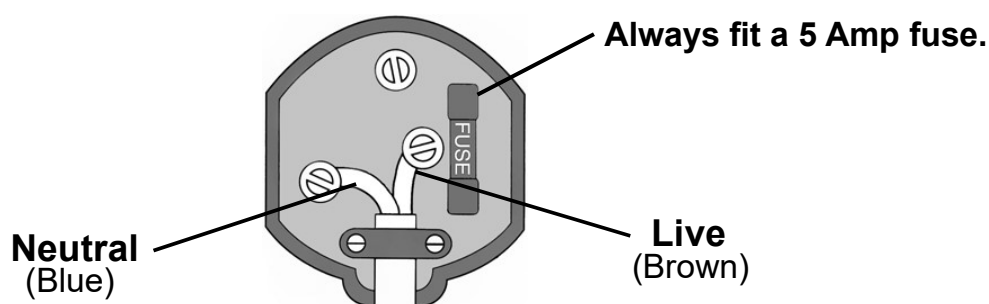


**WARNING: THE WIRES IN THE POWER CABLE OF THIS PRODUCT ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:  
BLUE = NEUTRAL      BROWN = LIVE**

If the colours of the wires in the power cable of this product do not correspond with the markings on the terminals of your plug, proceed as follows.

- The **Blue** wire must be connected to the terminal marked **N** or coloured **Black**.
- The **Brown** wire must be connected to the terminal marked **L** or coloured **Red**.

**Plug must be BS1363/A approved.**



**Ensure that the outer sheath of the cable is firmly held by the clamp**

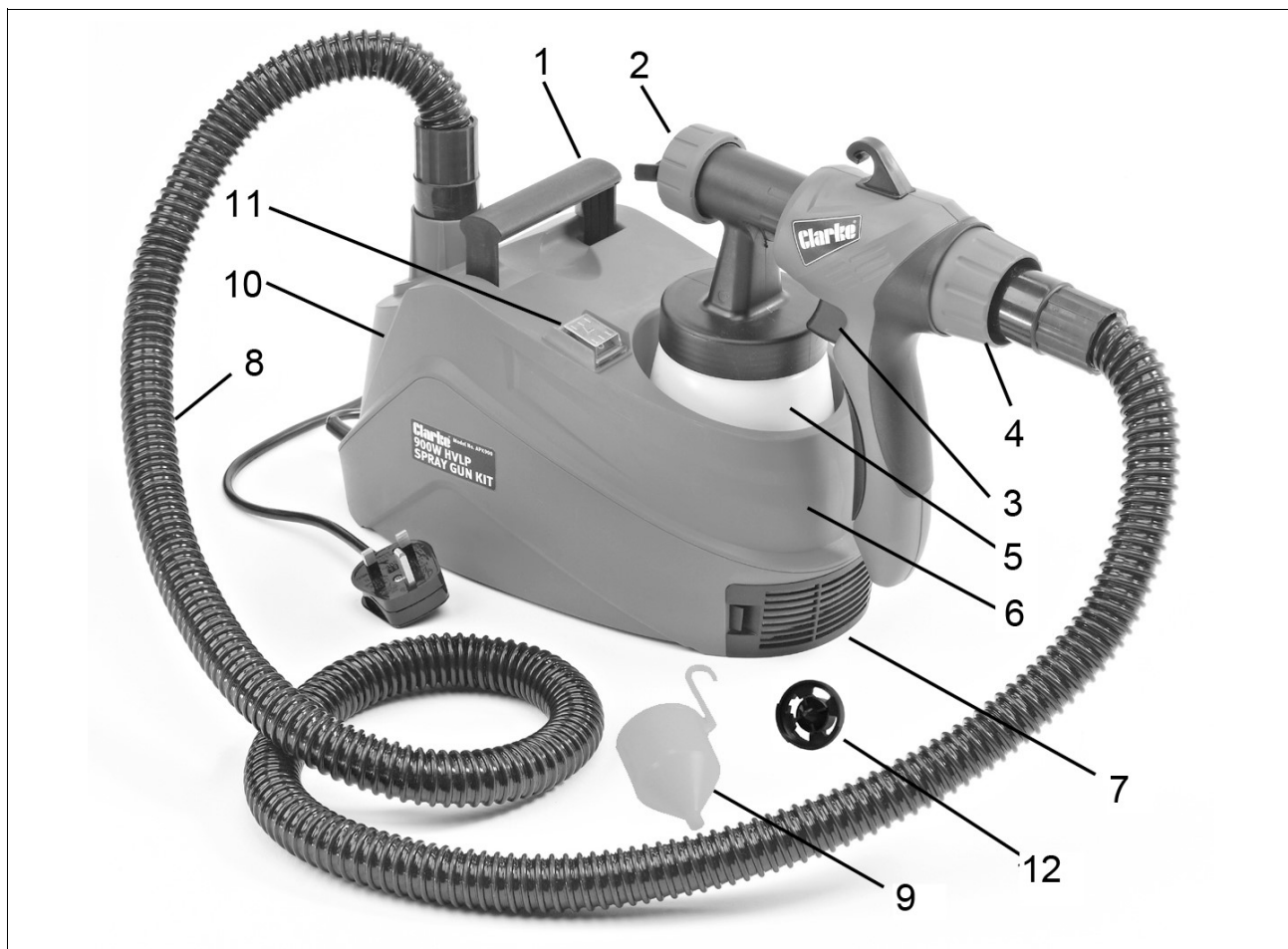
We strongly recommend that this machine is connected to the mains supply via a Residual Current Device (RCD) If in any doubt, consult a qualified electrician. **DO NOT** attempt any repairs yourself.



This symbol indicates that this is a Class II product and does not require an earth connection.

## OVERVIEW

The High Volume/Low Pressure (HVLP) spray gun reduces the spray mist associated with compressed air spraying and therefore both reduces paint loss and masking requirements. The gun may be used with various spray mediums, including varnishes, wood preservatives, masonry paints, enamel paints, and oil and water based paints.



1	Carrying Handle
2	Spray Nozzle Assembly
3	Trigger
4	Trigger Stop Regulator
5	Paint Container
6	Spray Gun Holder

7	Air Filter Cover
8	Connecting Hose
9	Viscosity Cup
10	Base Unit
11	On/Off Switch
12	Spare Spray Nozzle (2.6 mm)

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# OPERATION

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## GENERAL PREPARATION

**DO NOT** use textured wall paints or coatings as they are likely to block the nozzle. To obtain the best results, it is important that you prepare the surface to be sprayed and thin the paint to the correct viscosity before you operate your spray gun. Always ensure that the surfaces to be sprayed are free from dust, dirt and grease. Make sure that you have masked the areas that should not be sprayed, using a good quality masking tape.

Paint to be sprayed should be thoroughly mixed and free from lumps or other particles. Many substances can be sprayed with this spray gun, but always check the manufacturers recommendations before purchasing your paint.

## PAINT PREPARATION



CAUTION: ALWAYS REMEMBER TO DISCONNECT FROM THE MAINS SUPPLY BEFORE FILLING THE PAINT CONTAINER WITH SPRAYABLE MATERIALS

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

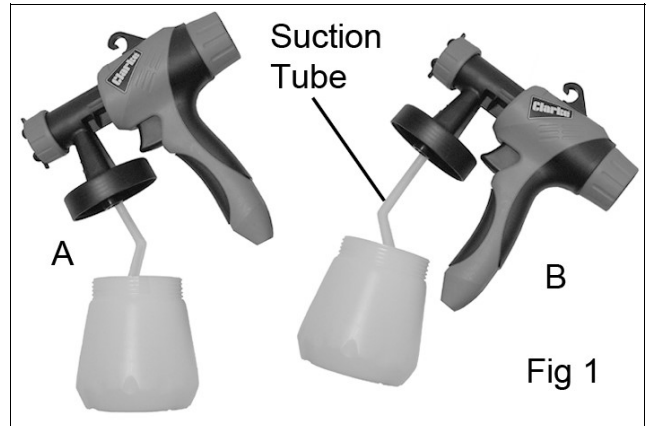
To do this, fill the cup to the brim with the paint and measure the amount of time it takes for the cup to empty back into the can. The table below shows recommended times for different materials.

Material	Runout Time
Emulsion paint	18 - 22 seconds
Thinner-soluble primers	25 - 40 seconds
Thinner-soluble varnishes	15 - 40 seconds
Water-soluble primers	25 - 40 seconds
Water-soluble varnishes	20 - 35 seconds
Automotive spray paint	20 - 35 seconds
Wood preservatives	No thinning required
Wood stains	No thinning required

If the paint takes longer than the recommended time to empty, further thinning is required. Mix in a small quantity of the appropriate thinner and repeat the viscosity test until the correct thickness is achieved. Some sprayable materials contain particles and lumps which should be strained before filling the paint container.

## START-UP

1. Unscrew the container from the spray gun and align the suction tube to suit the angle of spraying.
  - When spraying horizontal surfaces or pointing the gun downwards, turn the suction tube forward (A). If spraying objects at high level, turn the suction tube back towards you (B) as shown in Fig 1.
2. Fill the container with prepared paint and screw the container onto the spray gun. Place the spray gun in the holder of the machine base until ready to start spraying.
  - Always place the spray gun base assembly on a clean surface to avoid sucking in dust etc through the air filter.
3. Connect the air hose to both the base and the spray gun as shown in Fig 2.
4. Connect the spray gun to the mains supply.



## ADJUSTMENTS

### SPRAY PATTERN

Adjust the spray gun by rotating the nozzle and setting the tabs on the air cap as shown. Three different spray settings can be chosen, depending on the application and target object.

- A) Flat, narrow jet (for horizontal surfaces)
- B) Tall, narrow jet (for vertical surfaces)
- C) Circular jet (for corners, edges and hard to reach areas)







**A) horizontal flat jet**

**B) Vertical Jet**

**C) Tabs back**

**Fig 3**

- Note that both tabs must be adjusted as a pair.

## SPRAY VOLUME

1. In order to achieve consistent and repeatable spray output, adjust the spray volume by turning the trigger stop regulator on the rear of the spray gun as shown in Fig 4.

- Turn as shown; + to increase the volume of material and - to reduce.

- Adjustment of the regulator will also affect the pattern. 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 across the pattern.



2. Aim the spray gun at a piece of scrap material and operate the trigger until paint is spraying. Adjust the regulator until the required volume of paint is spraying.

## SPRAYING TECHNIQUE

The quality of the finished work depends on the smoothness and cleanliness of the surface to be sprayed. Therefore the surface should be carefully prepared and kept free from dust. Carefully mask all areas not to be painted and cover all surrounding areas.

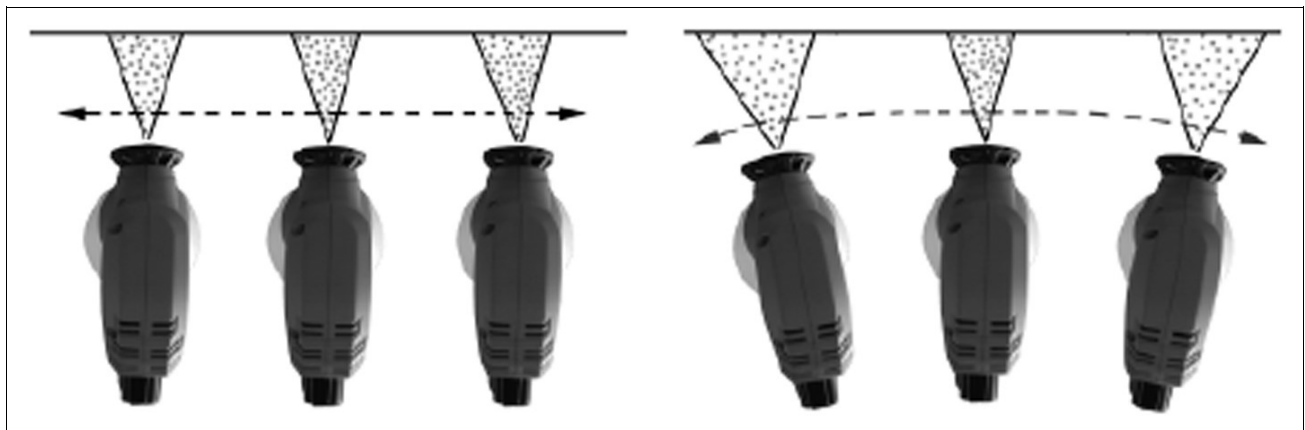
It is advisable to test the spray gun on cardboard or a similar surface to find the correct setting. Start spraying outside the actual target area and pass smoothly across the target without stoppages.

Control the speed of movement of the spray gun evenly. A fast speed of movement over the surface will give a thin coat and a slow speed will give a heavy coat.

Apply one coat at a time. If a further coat is required, make sure you observe the manufacturer's drying time recommendations before applying a second coat. When spraying small areas, keep the regulator on a low setting. This will avoid using too much paint and prevent overspray.

Where possible, avoid stopping and starting when spraying an object. This can lead to too much, or not enough paint being applied to local areas. Do not tilt the spray gun at more than 45 deg.

Hold the spray gun at an even distance from the target as shown in Fig 5 and avoid an uneven movement.



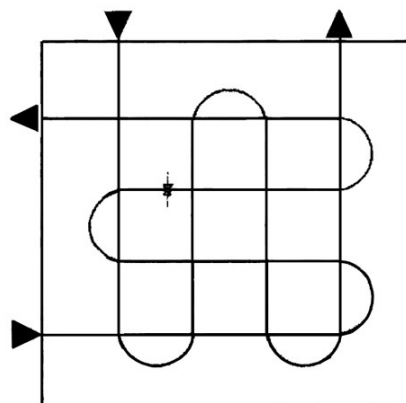
**RIGHT**

**WRONG**

**Fig 5**

To obtain the best results, keep your spray gun level and parallel to the surface at all times. Keep the nozzle 25 - 30 cm from the surface and spray evenly from side to side or up and down. Do not spray at an angle as this will lead to paint runs on the surface. Use smooth and even strokes. When spraying large areas, using a criss-cross pattern as shown in Fig 6.

**Fig 6**



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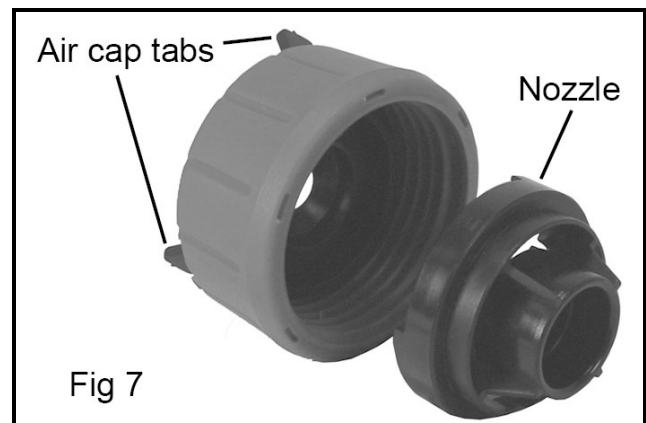
# CLEANING AND MAINTENANCE

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## CLEANING

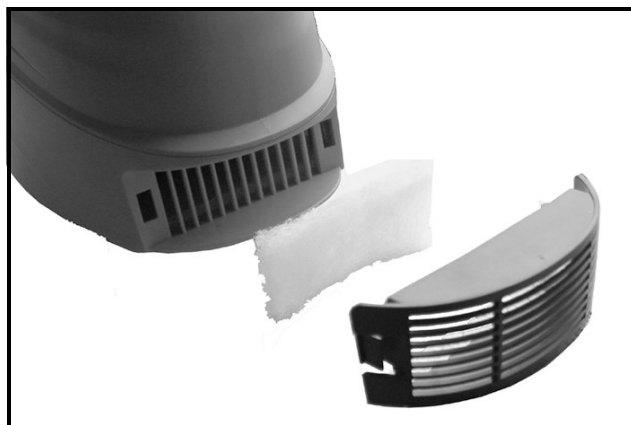
Continuous satisfactory operation depends upon proper care and regular cleaning. **It is essential that the spray gun is cleaned thoroughly after every use. Failure to clean it will almost certainly result in blockages and it may not operate correctly when you next come to use it.** The following action must be taken after every use.

1. Allow the remaining paint to flow back into the paint container. Empty any remaining material from the container.
2. Clean the paint container and suction tube thoroughly with a brush.
3. Pour some thinners or water (as applicable) into the container and screw back on. Turn the spray gun back on and spray into a container or cloth. Repeat until only clean thinners is coming out of the nozzle.
4. Turn the spray gun off and empty the paint container completely of any remaining thinners. Always ensure the container sealing disc is free of paint residue and check for any damage.
5. Clean the outside of the spray gun and container with a cloth soaked in thinners or water (as applicable).
6. Unscrew the union nut and remove the air cap and nozzle. Clean the air cap and nozzle with a brush and thinners or water.
  - Never clean the nozzle or air holes with sharp metal objects.



## MAINTENANCE

1. Release the cover from the base unit by pinching the side clips together and lifting the cover off.
2. Inspect the condition of the air filter.
3. The filter can be washed in soapy water or it should be replaced if badly fouled.
4. Replace the filter and the cover.



***IMPORTANT: Never operate without the air filter;- dirt could be sucked in and interfere with the function of the spray gun.***

Check the power cable to ensure it is sound and free from cracks, bare wires etc.

The nozzle parts may wear with long term use, depending on the abrasiveness of the materials being sprayed. More abrasive materials, such as emulsions, will cause faster wear.

A worn nozzle may eventually develop a larger hole and scratches on the surface, which will cause a poor spray pattern. Replacements are available from your dealer or the Clarke International Parts Department.

## STORAGE

For long term storage, always store in a well ventilated area and keep the product dry and dust free.

## ENVIRONMENTAL PROTECTION

If disposing of this product or any damaged components, do not dispose of with general waste. This product contains valuable raw materials and must be disposed of according to the laws governing Waste Electrical and Electronic equipment and should be taken to your local civic amenity site for recycling.

Through purchase of this product, the customer is taking on the obligation to deal with the WEEE in accordance with the WEEE regulations in relation to the treatment, recycling & recovery and environmentally sound disposal of the WEEE.

In effect, this means that this product must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility.

# TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SOLUTION
No spray or sound	No power.	Check power supply.
Motor hums but does not spray or spray is irregular	Pick up pipe in the wrong position. Blocked pick-up pipe. Blocked nozzle. Blocked air filter. Paint volume needs adjustment.	Adjust pick-up pipe. Clean with thinners. Clean nozzle. Wash out, dry and re-fit. Adjust regulator.
Atomisation is poor.	Paint volume adjustment incorrect. Paint too thick.	Adjust regulator. Check viscosity of paint.
Over-painting	Gun not clean, resulting in valve sticking. Too much paint. Viscosity too low.	Dismantle spray gun and clean out with thinners. Adjust the volume regulator to reduce spraying. Apply two thin coats of paint. Check viscosity using the viscosity cup.
Motor louder than normal.	Gun not clean.	Dismantle spray gun and clean with thinners.
Operating sound not normal.	Poor output adjustment Not enough paint in container resulting in air being sucked in. Paint not correctly diluted or not passing pickup pipe completely.	Adjust regulator. Re-fill container with paint. Check pick-up pipe and paint viscosity.
Orange peel or excessive fogging	Incorrect solvent used. Spray gun too far from surface. Paint too thick.	Use different solvent. Hold spray gun closer to the target. Thin the paint. Test velocity using the viscosity cup.

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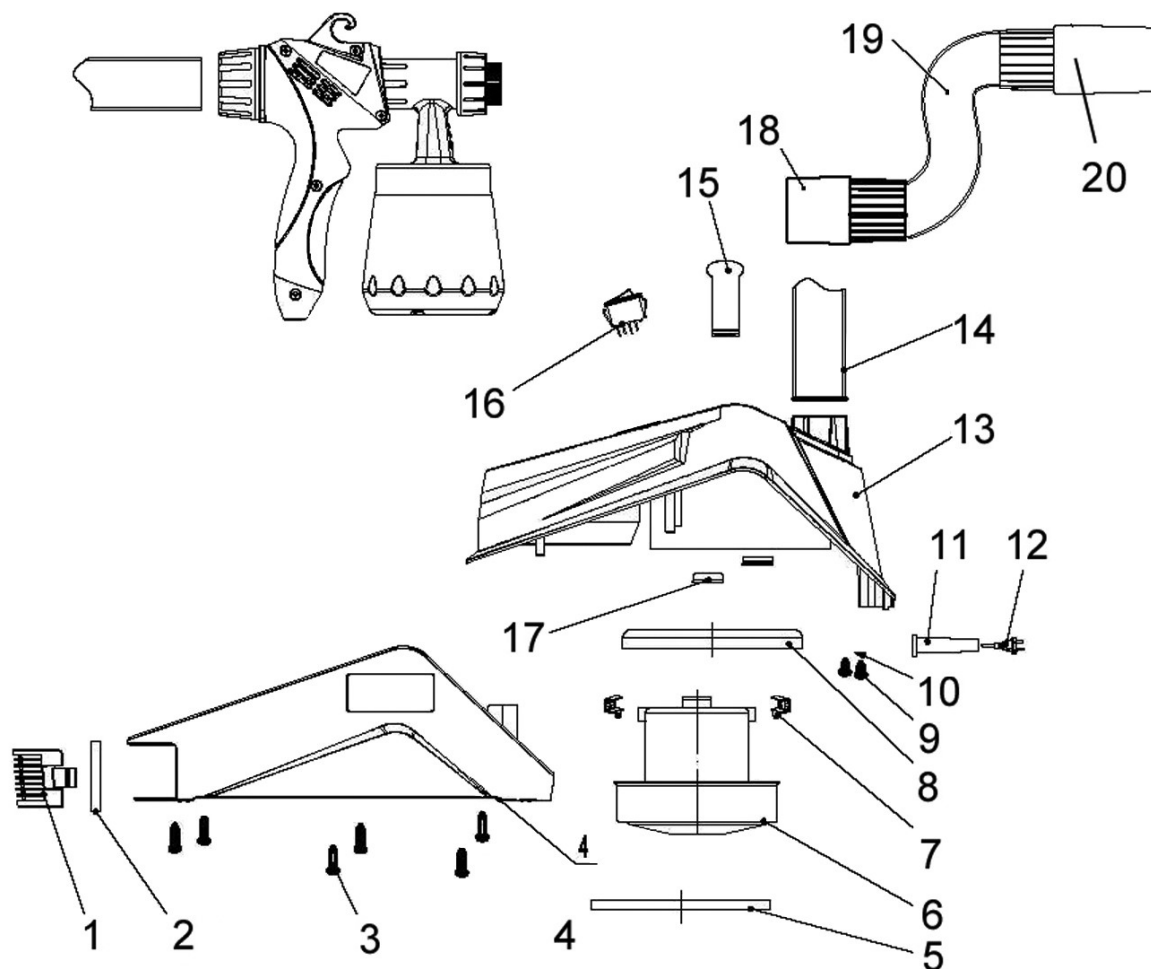
## SPECIFICATION

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Dimensions (L x W x H)	340 x 170 x 200 mm
Product Weight	3.2 kg
Container Capacity	700 ml
Hose Length	1.9 m
Maximum Nozzle Flow Rate	900 ml/min
Rated Input Power	900 W
Voltage	220-240 V/50 Hz
Insulation Class	Class II
Sound Pressure Level	83 dB LpA
Sound Power Level	96 dB LwA

Please note that details and specifications contained herein, are correct at the time of going to print. However, CLARKE International reserve the right to change specifications at any time without prior notice.

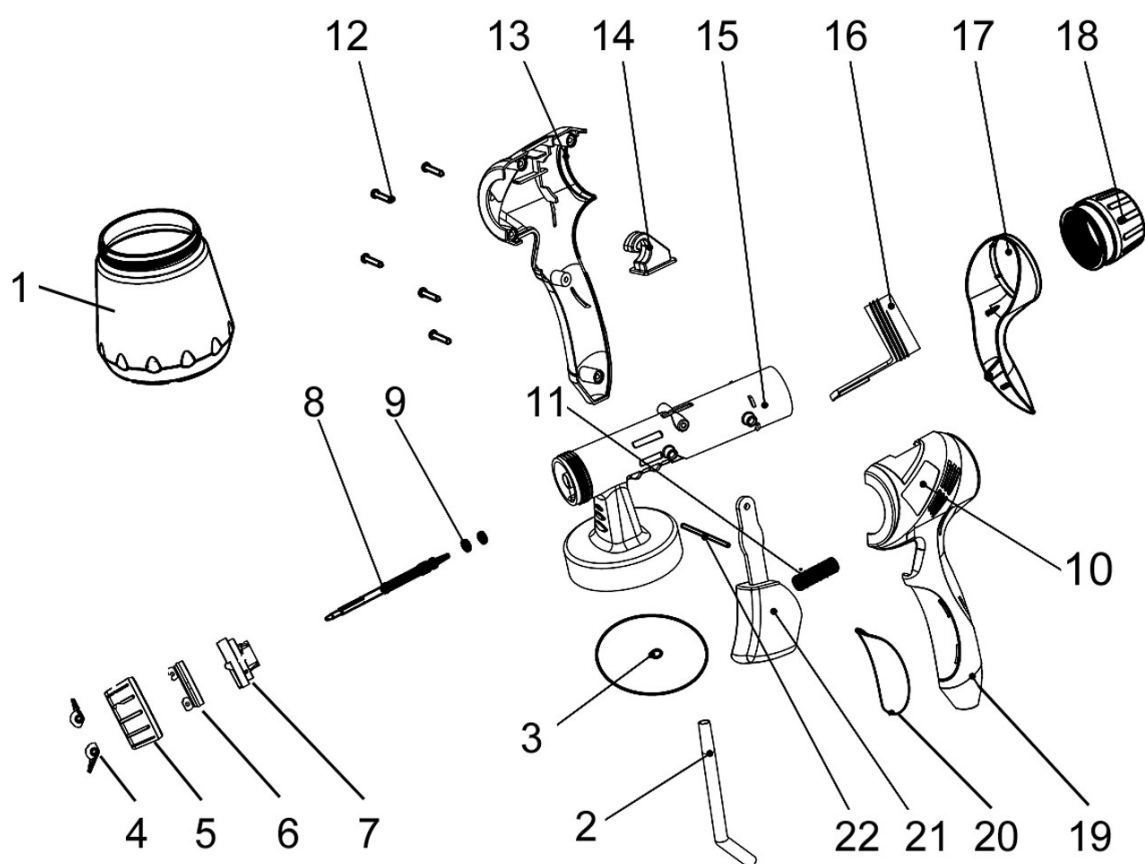
## COMPONENT PARTS - BASE ASSEMBLY



No	Description
1	Air Filter Cover
2	Air Filter
3	Self-tapping Screw
4	Base Housing
5	Heat Insulation Ring
6	Motor
7	Connector
8	Motor Sealing Ring
9	Self-tapping Screw 2.9 x 9.5
10	Cable Clip

No	Description
11	Cable Sleeve
12	Power Cable
13	Upper Housing
14	Connecting Hose
15	Handle
16	On/Off Switch
17	Rubber Sealing Ring
18	Short Tube Connector
19	Bellows
20	Long Tube Connector

## COMPONENT PARTS - SPRAY GUN



No	Description
1	Paint Container
2	Suction Tube
3	Container Sealing Disc
4	Adjusting Tab
5	Union Nut
6	Adjustable Air Cap
7	Fixed Nozzle (2.6 mm)
8	Valve Stem
9	O-Ring
10	Nameplate Sticker
11	Valve Stem Spring

No	Description
12	Self-tapping Screw 4 x 16
13	Housing (R/H)
14	Hook
15	Gun Body
16	Trigger Stopper
17	Rear Cover
18	Regulator Knob
19	Housing (L/H)
20	Front Cover Pad
21	Trigger
22	Dowel Rod



# DECLARATION OF CONFORMITY - UKCA



Hemnall Street, Epping, Essex, CM16 4LG

## DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following legislation:

2014/30/EU	<i>Electromagnetic Compatibility Directive</i>
2006/42/EC	<i>Machinery Directive</i>
2011/65/EU	<i>Restriction of Hazardous Substances (RoHS) Directive</i>

The following standards have been applied to the product(s):

EN IEC 61000-3-2:2019+A1, EN 61000-3-3:2013+A1+A2, EN 62841-1:2015+A11, IEC 62321-4:2017,  
IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-8:2017,  
EN IEC 55014-1:2021, EN IEC 55014-2:2021, IEC 62321-3-1:2013, EN ISO 12100:2010,  
EN 50580:2012+A1

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the  
aforementioned legislation has been compiled and is available for inspection by the relevant enforcement  
authorities.

The UKCA mark was first applied in: 2021

**Product Description:** Paint Spray Gun  
**Model Number(s):** APK900  
**Serial/Batch Number:** Refer to product/packaging label  
**Date of Issue:** 04/08/2025

Signed:

J.A Clarke

Director

# DECLARATION OF CONFORMITY - CE



Fitzwilliam Hall, Fitzwilliam Place, Dublin 2

## DECLARATION OF CONFORMITY

This is an important document and should be retained.

We hereby declare that this product(s) complies with the following legislation:

2014/30/EU	Electromagnetic Compatibility Directive
2006/42/EC	Machinery Directive
2011/65/EU	Restriction of Hazardous Substances (RoHS) Directive

The following standards have been applied to the product(s):

EN IEC 61000-3-2:2019+A1, EN 61000-3-3:2013+A1+A2, EN 62841-1:2015+A11, IEC 62321-4:2017,  
IEC 62321-7-1:2015, IEC 62321-7-2:2017, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-8:2017,  
EN IEC 55014-1:2021, EN IEC 55014-2:2021, IEC 62321-3-1:2013, EN ISO 12100:2010,  
EN 50580:2012+A1

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

The CE mark was first applied in: 2010

**Product Description:** Paint Spray Gun  
**Model Number(s):** APK900  
**Serial/Batch Number:** Refer to product/packaging label  
**Date of Issue:** 04/08/2025

Signed:

J.A Clarke

Director

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## NOTES

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# A SELECTION FROM THE VAST RANGE OF

# Clarke®

## QUALITY PRODUCTS



**AIR COMPRESSORS**  
From DIY to industrial, Plus air tools, spray guns and accessories.

**GENERATORS**  
Prime duty or emergency standby for business, home and leisure.

**POWER WASHERS**  
Hot and cold, electric and engine driven - we have what you need

**WELDERS**  
Mig, Arc, Tig and Spot. From DIY to auto/industrial.

**METALWORKING**  
Drills, grinders and saws for DIY and professional use.

**WOODWORKING**  
Saws, sanders, lathes, mortisers and dust extraction.

**HYDRAULICS**  
Cranes, body repair kits, transmission jacks for all types of workshop use.

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Submersible, electric and engine driven for DIY, agriculture and industry.

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Angle grinders, cordless drill sets, saws and sanders.

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All sizes for car and commercial use.



## PARTS & SERVICE:

## 0208 988 7400

**Parts Enquiries**  
[Parts@clarkeinternational.com](mailto:Parts@clarkeinternational.com)

**Servicing & Technical Enquiries**  
[Service@clarkeinternational.com](mailto:Service@clarkeinternational.com)

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