

Earlex[®]
SPRAY
STATION^{PRO}
THE COMPLETE PAINT SPRAYING SYSTEM



OPERATING INSTRUCTIONS

Thank you for purchasing the Earlex HVLP Spray Kit.
This is a highly versatile spray kit and can be used on
a variety of applications.

BEFORE USE - PLEASE READ THE SAFETY &
OPERATING INSTRUCTIONS.

Please retain for future reference



SAFETY OPERATING INSTRUCTIONS

PLEASE READ BEFORE USE

- **NEVER** under any circumstances aim the nozzle at another person or animal. In the event of injury occurring seek expert medical advice immediately.
- **The spray gun must only be used with paints and solvents that have a suitable flash point for spraying. If in doubt consult paint or solvent manufacturer's data.**
- **Always ensure there is adequate ventilation when spraying.**
- **NEVER** spray near a naked flame, including appliance pilot flame.
- **NEVER** use this spray gun outside when its raining.
- **NEVER** smoke whilst spraying.
- **NEVER** allow children to operate or play with the spray gun.
- **Always read the paint manufacturer's thinning instructions before using.**
- **Always disconnect unit from mains supply when refilling the paint container.**
- **Before cleaning, always disconnect unit from the mains supply.**
- **Always wear the correct protective face mask when spraying. We would also recommend the use of gloves, goggles and overalls.**
- **After every use ensure that you clean your spray gun thoroughly and grease the fluid needle packing.**
- **Use only genuine Earlex replacement parts.**

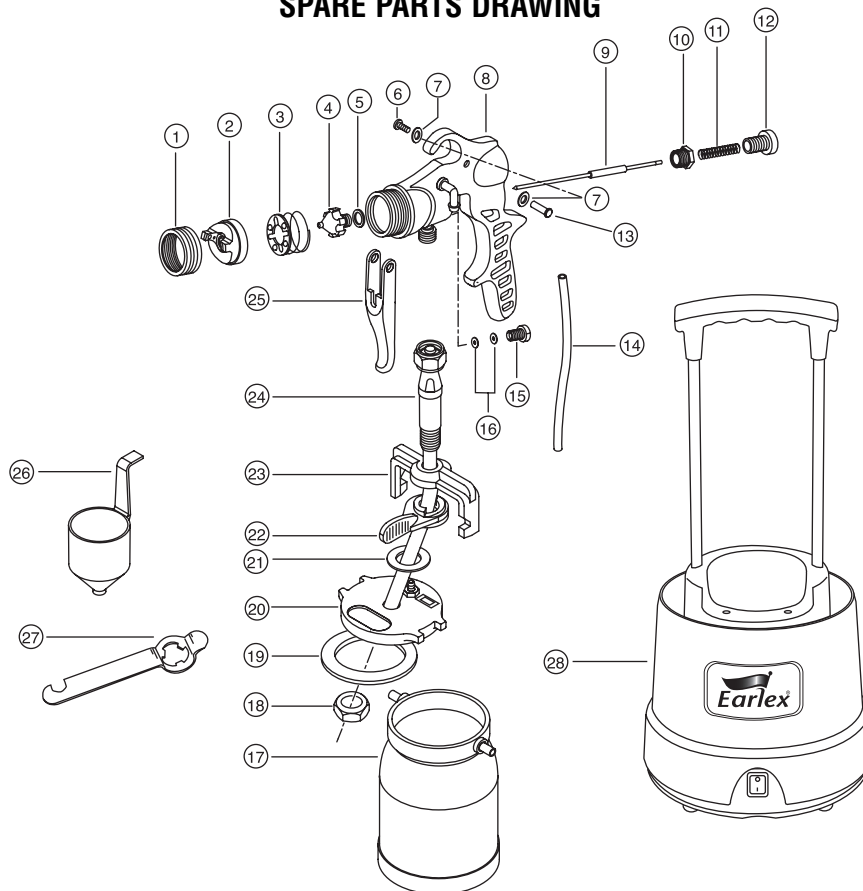
WARNING: The substances used with this spray gun (paint, thinners etc) may contain hazardous, harmful, explosive or corrosive materials. **ALWAYS COMPLY WITH THE SAFETY INSTRUCTIONS ISSUED WITH THIS PRODUCT AND THE MATERIAL BEING USED.**

Only use the unit as detailed in these instructions.

TECHNICAL SPECIFICATION

Supply Voltage	230V (50Hz)	Output control	690g/min (water)
Rated Input	800 Watts	Spray Gun Weight (empty)	1100gms
Airflow (motor)	1550 ltr/min	Container Capacity	1 Litre
Cable Length	1.7m	Appliance Class	Class 2,
Hose Length	4m		double insulated

SPARE PARTS DRAWING



The following parts are available from Earlex. Please phone our Helpline on 01483 454666.

SPARE PARTS LIST

Key Description	Part No.	Key Description	Part No.
1. Air Cap Ring	L0151	15. Gland Nut	L0173
2. Air Cap	L0152	16. Gland Washer (2 pcs)	L0168
3. Air Distributor Plate Assy	L0162	17. Paint Container	L0190
4. Fluid Tip, 2.0mm	L0157	18. Centre Bolt Nut	L0189
5. Fluid Tip Seal	L0159	19. Gasket	L0188
6. Pivot Screw	L0179	20. Lid Assy	L0187
7. Washer	L0195	21. Shim	L0186
8. Main Body Assy	L0180	22. Clamp Lever	L0185
9. Fluid Needle 2.0mm	L0166	23. Yoke	L0184
10. Adaptor	L0174	24. Centre Bolt & Pick Up Tube Assy	L0183
11. Spring	L0175	25. Operating Lever	L0177
12. Adjusting Screw	L0176	26. Viscosity Cup	SG243
13. Pivot	L0178	27. Spanner	L0191
14. Air Feed Tube	L0182	28. Motor Unit (not available)	L0228

OPTIONAL EXTRAS

Needles & Fluid Tips of different sizes can be obtained as sets under the following accessory numbers. Please call our helpline to order these on 01483 454666.

1.0mm dia Fluid Tip, needle & seal	L0224	2.0mm dia Fluid Tip, needle & seal	L0226
1.5mm dia Fluid Tip, needle & seal	L0225	2.5mm dia Fluid Tip, needle & seal	L0227

INTRODUCTION

HVLP stands for High Volume, Low Pressure. This type of spraying technology allows you to spray extremely accurately without all the overspray that occurs with the high pressure tank type equipment. In fact, in some parts of the world the high pressure systems are banned by law on environmental grounds and HVLP type systems are the only alternative for professional type spraying. The spray gun is extremely easy to use, very safe and reduces the amount of paint used.

IMPORTANT SELECTING PAINT

This is a highly versatile spray kit that can be used with several different spray mediums including varnishes, wood preservatives, enamels, oil and water based paints and cellulose. However some materials cannot be sprayed so please check the recommendation of the manufacturer before buying the paint. If a material refers to brush application only then it usually cannot be sprayed.

THIS UNIT CANNOT BE USED FOR TEXTURED PAINTS. USE OF THESE MATERIALS WILL CAUSE PREMATURE WEAR, WHICH WILL VOID YOUR GUARANTEE. TO OBTAIN THE BEST RESULTS FROM YOUR SPRAY KIT PLEASE READ THE INSTRUCTIONS CAREFULLY BEFORE USE.

PREPARATION

Preparation of the surface and thinning of the paint are the two most important areas to be concerned with to obtain the best results from your spray kit.

Ensure all surfaces are free from dust, dirt, rust and grease. If necessary rub down with sandpaper, or similar. Masking of areas is important to ensure you do not spray those areas you wish to remain untouched.

THINNING

Your spray kit is supplied with a viscosity cup. Viscosity is a technical term used to indicate if a product is very thin or very thick. If thin, the viscosity is said to be low, while if very thick the viscosity is said to be high. Viscosity is measured in seconds. In order to spray some materials they need to be "thinned" (diluted). Thinning is very important when spraying. Most paints etc are supplied ready for brush application and may need to be thinned (diluted) for spraying purposes.

Follow the manufacturers guide for thinning in conjunction with a spray gun. If in doubt please contact the manufacturers of the paint. The viscosity cup will help you determine the correct thickness of the paint. Paint is "thinned" by adding the substance which the paint is based upon. If a water based paint then water is added, if oil based then white spirit, if cellulose then a cellulose thinner is added.

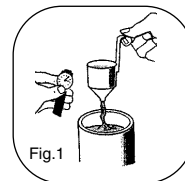
As some paints, wood preservatives and other sprayable materials contain particles that have differing qualities, please ensure that when filling the paint container of the spray gun, that the paint is filtered through either a funnel with a filter on it or through nylon tights or stockings. This will ensure that no large particles enter the paint container, so preventing blockages and providing you with trouble free spraying. Ensure that a face mask, gloves and goggles are worn at all times when spraying.

IDEAL VISCOSITY

Water based paints and emulsions	45 - 60 seconds	Varnishes	No dilution
Oil based paints	45 - 50 seconds	Aluminium paints	No dilution
Wood preservatives	No dilution	Wood stains	No dilution
Primers	45 - 50 seconds	Cellulose	Manufacturer's ratio

This spray gun can be used with products having a viscosity ranging from 10 to a maximum of 60 *seconds*. Dip the viscosity cup into the material and fill up. Time how long it takes for the viscosity cup to empty (Fig 1).

Using the above chart (or manufacturer's instructions) as a guide determine if the material requires further thinning, if so then thin accordingly.



OPERATION

Fill the paint container with the spray medium. Take care not to overfill.

Take the spray gun unit and with the clamp lever (22) turned fully anti-clockwise, locate the spray gun unit into the paint container. Rotate the container until the 2 pins locate into the recesses in the yoke (23). Now turn the clamp lever clockwise to secure the container to the lid. Do not over tighten.

Place the motor unit onto a clean floor space, free from any loose debris, liquids or dust sheets that could block the motor inlet. Unwind the hose from the main housing and connect to the back of the gun. Uncoil the mains cable from the base of the unit and plug in.

ALWAYS KEEP THE MOTOR UNIT AS FAR AWAY FROM THE SPRAYING AREA AS POSSIBLE TO PREVENT PAINT CONTAMINATING THE MOTOR.

MASK ANY AREA YOU DO NOT WISH TO SPRAY.

Once you have set up ready to spray, switch on the unit. No paint will be sprayed from the gun until the trigger on the spray gun is pulled. Before starting any work on spraying actual objects we suggest you spend a small amount of time practicing on cardboard or newspaper until you have got used to how the gun works.

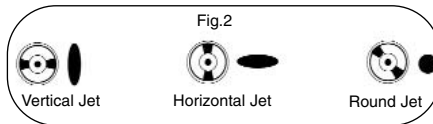
SPRAY PATTERNS

The gun has 3 different spray patterns – Horizontal, Vertical and Round (Fig.2).

The horizontal and vertical are recommended for large surfaces. The round spray is used for small objects or for areas - such as corners – that are difficult to reach.

To change the spray pattern simply rotate the Air Cap (2) until it clicks into the positions as shown in (Fig 2).

The overall size of the selected spray pattern can be varied by turning the Air Cap Ring (1). When viewed from the front, rotate it clockwise to increase the pattern size, or anti-clockwise to reduce the pattern size.



PAINT VOLUME

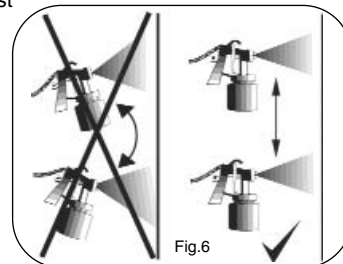
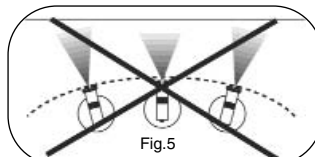
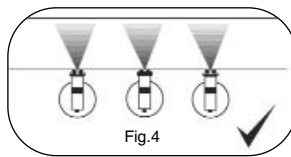
The volume of paint sprayed is easily adjustable (Fig.3). Completely close adjustment screw (12) by turning this clockwise as far as it will go. Whilst pulling the trigger, begin turning the adjustment screw anti-clockwise until the volume of paint you require is obtained.

If the paint spray contains too much paint turn the adjustment screw clockwise to reduce it. Once you have set the spray pattern & the paint volume, you are ready to begin spraying.



SPRAYING TECHNIQUE

1. To obtain the best results always keep your spray gun level and spray equally from side to side or up or down from the surface. Avoid spraying at an angle as this will lead to runs on the surface (Fig.4).
2. Let your arm control the left to right movement rather than your wrist as this will aid even paint distribution over the whole area (Fig.5).
3. Do not tip the spray gun to more than 45° angle (Fig.6).



NEEDLE & FLUID TIP SELECTION

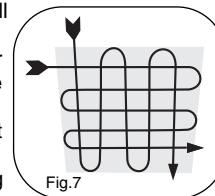
Paints, varnishes, wood treatments etc, are manufactured using a variety of materials & have widely different viscosities. You may find that the 2.0mm dia Fluid Tip & Needle supplied with this spray gun does not enable you to spray your particular choice of finish exactly as you would like. In such cases a change of Fluid Tip & Needle size will probably solve this problem.

In general, thicker, more viscous materials are best sprayed through a larger Fluid Tip to give best coverage. Thinner, less viscous materials are best sprayed through a smaller Fluid Tip.

To allow for these variations Fluid Tip & needle sets are available, as optional extras, in 1.0mm dia, 1.5mm dia & 2.5mm dia (See page 3).

HELPFUL HINTS

1. Evenly control the speed of movement of the spray gun. A fast speed will give a thin coat and a slow speed will give a heavy coat.
2. Only apply one coat at a time. If a further coat is required follow the paint manufacturer's instructions for drying times.
3. If spraying small areas or objects keep the adjusting screw setting low as this will avoid excessive use of paints and will minimise overspray.
4. When spraying large areas or objects, it is best to use a criss-cross pattern, either from left to right then up or down or vice-versa. This will ensure maximum coverage (Fig. 7).
5. Avoid stopping and starting when spraying as this can lead to too much or not enough material on a surface.
6. To ensure edges are covered, commence spraying just to the side of area being sprayed.
7. **CLEAN SPRAY GUN AFTER EVERY USE (SEE CLEANING INSTRUCTIONS).**



CLEANING INSTRUCTIONS

THE SPRAY GUN SHOULD BE THOROUGHLY CLEANED & THE GLAND WASHERS LUBRICATED, IMMEDIATELY AFTER EACH USE. IF THE PAINT DRIES INSIDE THE GUN CLEANING WILL BE MUCH MORE DIFFICULT & MAY RENDER THE GUN INOPERABLE. THIS IS NOT COVERED BY THE GUARANTEE.

Flush out the residue paint from the spray gun, as follows:

- Remove the paint container (17) from the spray gun.
- Pour any residual paint into its original container for future use.
- Use a cloth soaked in thinners to wipe out excess paint from the container, the underside of the lid (20) & the gasket (19).
- Pour a small quantity of clean thinners into the container, re-fit the container to the spray gun and shake the gun lightly.
- Now spray all of the thinners through the gun.
- Repeat this, each time using clean thinners, until there is no trace of paint in the thinners being sprayed.

To thoroughly clean the remainder of the spray gun, remove all working parts as per the exploded spare parts drawing on p.3 as follows.

- Loosen and remove Air Cap Ring (1), Air Cap (2) and Air Distributor Plate & Spring (3).
- Now unscrew the Adjusting Screw (12) and pull out the Needle (9) and Needle Spring (11).
- Use the supplied spanner, to remove the Fluid Tip (4) and Fluid Tip Seal (5).

All of the components above can be immersed in thinners and cleaned using the cleaning kit supplied with this product. After cleaning your spray gun and before fitting the needle, dip the tip into some vaseline which will lubricate the gland washers as the needle is inserted.

The external surfaces of the spray gun can be wiped clean with a cloth soaked in thinners.

NEVER DISPOSE OF PAINTS OR SOLVENT INTO DRAINS. CONTACT YOUR LOCAL COUNCIL TO ARRANGE COLLECTION OR FOR DETAILS OF NEAREST REGISTERED DISPOSAL SITE.

PERIODIC MAINTENANCE

Gland Washers (16) prevent leakage of air past the needle. This leakage reduces the performance of the spray gun and must, therefore, be kept to a minimum. After a period of use the Gland Washers will wear. This is normal and can be compensated by gradual adjustment of the Gland Nut (15).

Periodically check to ensure the Gland Nut is not loose. **DO NOT OVER-TIGHTEN** as this will increase wear of the washers. When necessary just tighten the nut lightly using the special spanner provided.

By tightening this nut, the inside diameter of Gland Washers reduce thereby closing any small gap that may have occurred between the Needle & Gland Washers, therefore, eliminating excess leakage.

TURBINE UNIT

The turbine unit only requires minimal maintenance

- Ensure its filter element is kept clean at all times.
This is the filter underneath the main body of the Motor Unit (28). Disconnect the unit from the mains, turn on side and remove foam material. This can be washed out if necessary and replaced when dry. From time to time this filter will need replacing (part no.L0058).
- The turbine bearings are sealed and lubricated for life. There is no maintenance or adjustment required.
- Clean the turbine and hose unit with a damp cloth after use.
- The hose is stored by coiling it between the motor housing and hose cover.
- The mains lead is stored by wrapping around the base of the unit and locating the plug in the space at the back of the unit.

TROUBLE SHOOTING

PROBLEM	CAUSE	ACTION REQUIRED
The paint runs on the item being sprayed	Paint too diluted	Add undiluted material
	Paint volume too high	Reduce the paint flow by adjusting screw (12)
	Moving too slowly	Increase speed of application
	Gun trigger being held for too long	Release trigger earlier
	Gun too close	Increase the distance between gun and workpiece
Paint is thin or irregular	Paint too diluted	Add undiluted material
	Paint volume too low	Increase the paint flow by adjusting screw (12)
	Moving too fast	Reduce speed of application
	Gun clogged	Clean the gun
	Gun too far away	Reduce the distance between gun and workpiece
No paint being produced	Paint too thick	Add thinner
	Gun clogged	Clean the gun
	Pick up tube clogged	Clean pick up tube (24)
	Air hose split	Replace air hose
	Grainy paint	Filter the paint
	Container almost empty	Refill container
	Gun at an angle	Ensure Pick up tube is angled towards paint
	Air intake blocked	Check no paper or loose debris can block the air intake underneath the unit

MAINS CONNECTION

This unit is a Class II appliance which means it is double insulated for your protection, no earthing wire is necessary.

If the supply cord is damaged, it must be replaced by Earlex Ltd or our appointed agents.

Your unit has been supplied with a mains lead with a fitted plug. This is identified by the fuse holder in the base of the plug. Please read the following safety instructions before use.

1. If the fitted plug is cut off from the mains lead then the plug must be disposed of safely. **NEVER** under any circumstances insert such a plug into a 13 amp socket.
2. **NEVER** under any circumstances use the appliance or mains lead without the fuse cover fitted.
This is the little cover fixed into the base of the plug to hold the fuse in place.
3. If you lose the fuse cover then please contact any electrical dealer for a replacement or ring our helpline.
4. A replacement fuse must be rated at 5 amp. These must be manufactured and approved to BS 1362.
5. **IF IN ANY DOUBT CONTACT AN ELECTRICIAN.**

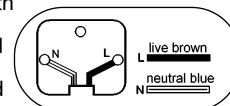
If you need to fit a plug to the mains lead, this should be fitted in accordance with the wiring instructions below, and will need to be used with a 5 amp fuse. If in doubt consult an electrician.

If you are using an extension lead it must be rated at a minimum of 6 amps and fully unwound. Do not operate with a lead rated at less than 6 amps as this will cause premature failure of the motor which is not covered by the guarantee.

As the colours of the wires in the mains lead of the application may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.



PLEASE NOTE: We have done all we can to ensure that used correctly and according to these instructions, this spray gun will give long and trouble free life. We accept no responsibility for damage caused by the use of incorrect or unsuitable substances, paints or fluids which have not been thinned correctly or are unsuitable for the surfaces to which they are applied, health hazards arising from lack of ventilation when working in confined spaces or failure of the equipment due to inadequate cleaning of the components after use. If in doubt, always test a small inconspicuous area first. Always read the paint manufacturer's instructions first. Neither our guarantee nor the above statement affects your statutory rights.

EC Declaration of Conformity

We declare that the unit: HV5000 conforms to: 73/23/EEC,
EN60335-1 & 89/336/EEC, EN55014-1, EN55014-2, EN61000-3-2, EN61000-3-3.



Tim Hopper Technical Director

British Registered Design No: 2, 106, 529
German Registered Design No: 402 04 314.6
French Registered Design No: 02 3314
Benelux Registered Design No: 794 76 - 01
US Registered Design No: 29/161, 395
Chinese Registered Design No: 232 9477.9
UK (Gun only) Registered Design No: 3006933
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GUARANTEE

This product is guaranteed for a period of 24 months against faulty manufacture and materials. It is not guaranteed for industrial or hire purposes. The guarantee does not affect your statutory rights. Earlex Ltd. will accept no responsibility for the use of this product if used for any purposes other than detailed herein.

If you require further assistance, please contact our helpline on

Tel: 01483 454666 **Fax:** 01483 454548

email: enquiries@earlex.co.uk Monday - Friday 8.30 - 18.00 (excluding bank holidays)

Website: www.earlex.co.uk



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