

Clarke®



ORBITAL SANDER

MODEL NO: COS210

PART NO: 6462057

OPERATION & MAINTENANCE INSTRUCTIONS



ORIGINAL INSTRUCTIONS

DL0423 - Rev2

INTRODUCTION

Thank you for purchasing this CLARKE Orbital Sander, designed for DIY use.

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.

GUARANTEE

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.

SPECIFICATIONS

Rated Voltage	230V~50Hz
Power Input	200W
Duty cycle	S1 (continuous)
Speed Range (6 speeds)	1 - 6000 rpm 2 - 9000 rpm 3 - 10000 rpm 4 - 11000 rpm 5 - 12000 rpm 6 - 13000 rpm
Sound Pressure Level LpA	78 dB(A), Uncertainty Factor (K) 3 dB(A)
Sound Power Level LWA	89 dB(A), Uncertainty Factor (K) 3 dB(A)
Weight	1.4 kg
Vibration	3.703 m/s ² Uncertainty Factor (K) 1.5m/s ²
Dimensions (L x W x H)	230 mm x 92 mm x 165 mm
Sanding Pad size	1/3rd sheet (94 mm x 190 mm)

POWER TOOL SAFETY WARNINGS

WORK AREA

1. **Keep the work area clean and well lit.** Cluttered and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids or gases.** 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. **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use adaptor plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce the risk of electric shock.
2. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
3. **Do not abuse the cable.** Never use it for carrying, pulling or unplugging the power tool. Keep the cable away from heat, oil, sharp edges or moving parts. Damaged or entangled cables increase the risk of electric shock.
4. **When operating a power tool outdoors, use an extension cable suitable for outdoor use.** Use of a cable suitable for outdoor use reduces the risk of electric shock
5. **If operating the power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.**

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 personal injury.
2. **Use safety equipment. Always wear eye protection.** Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
3. **Avoid accidental starting.** Ensure the switch is in the off position before plugging in. Carrying power tools with your finger on the switch or plugging in 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, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.

POWER TOOL USE AND CARE

1. **Do not force the power tool.** Use the correct accessories for your application. The correct power tool will do the job better and safer at the rate which it was designed for.
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 before changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
4. **Store idle tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate it.** Power tools are dangerous in the hands of untrained users.
5. **Maintain power tools.** 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 and accessories in accordance with these instructions and in the manner intended, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from intended could result in a hazardous situation.
7. The performance of this tool may vary, depending upon variations in line voltage. Extension cable usage may also affect performance.

SERVICE

1. **Have your power tool serviced by qualified service personnel using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

ADDITIONAL SAFETY WARNINGS FOR SANDERS

1. **Secure the workpiece to a stable platform.** Holding the work by hand or against your body may lead to loss of control.
2. **Dust arising from sanding may endanger the health of the operator and possible bystanders.** Wear a dust mask and ensure that persons entering the work area are also protected.
3. **Remove all dust after sanding.**

4. Take care when sanding lead based paint or when sanding wood or metal which may produce toxic dust, - do not let children or pregnant women enter the work area.





VIBRATION

The declared vibration emission values stated in the specification have been measured in accordance with a standard test method provided by EN 60745 and may be used for comparing one tool with another. The declared vibration emission value may also be used in a preliminary assessment of exposure.



WARNING: THE VIBRATION EMISSION VALUE DURING ACTUAL USE OF THE POWER TOOL CAN DIFFER FROM THE DECLARED VALUE DEPENDING ON THE WAYS IN WHICH THE TOOL IS USED. THE VIBRATION LEVEL MAY INCREASE ABOVE THE LEVEL STATED.

EXPLANATION OF SYMBOLS & PICTOGRAMS

	Read instruction manual before use.		Wear safety glasses or goggles when using the tool.
	Wear ear protection when using this tool.		Wear a dust mask.

ENVIRONMENTAL RECYCLING POLICY



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.

Recycle unwanted materials instead of disposing of them as waste. All unwanted accessories and packaging should be sorted and taken to a recycling centre for disposal in a manner which is compatible with the environment.

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.

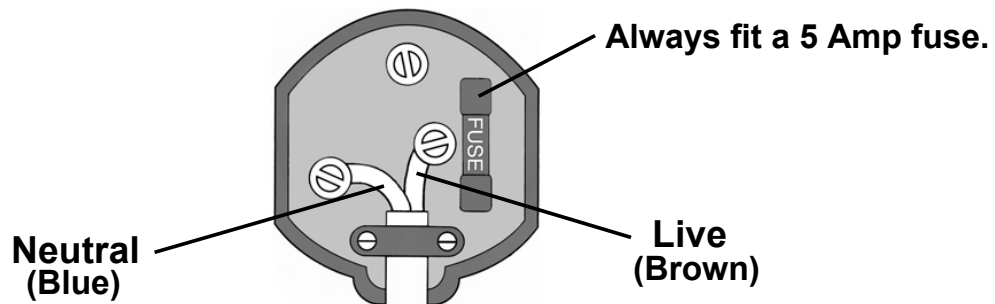


**WARNING: THE WIRES IN THE POWER CABLE OF THIS PRODUCT ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:
BLUE = NEUTRAL BROWN = LIVE**

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 which is marked **N**.
- The **Brown** wire must be connected to the terminal which is marked **L**

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)



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

BEFORE USE

The sander is supplied with the following items:

- 3 x P60 grit hook and loop sanding sheets
- 3 x P120 grit hook and loop sanding sheets
- 3 x P240 grit hook and loop sanding sheets
- Dust collection box/filter assembly

DUST EXTRACTION



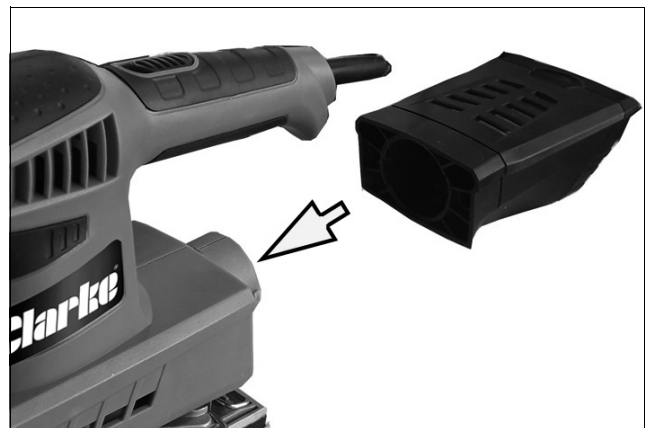
WARNING: HARMFUL OR TOXIC DUST MAY BE PRODUCED WHEN SANDING LEAD PAINTED SURFACES, WOODS OR METAL. CONTACT WITH, OR INHALATION OF THESE DUSTS CAN ENDANGER THE HEALTH OF THE OPERATOR OR BYSTANDERS. CERTAIN DUSTS LIKE OAK AND BEECH ARE CONSIDERED TO BE CANCEROUS IN CONJUNCTION WITH ADDITIVES IN WOOD TREATMENTS (CHROMATE, WOOD PRESERVATIVES). ASBESTOS-CONTAINING MATERIALS MAY ONLY BE HANDLED BY EXPERTS.

WARNING: - USE A DUST EXTRACTION DEVICE OR A VACUUM CLEANER.

WARNING: - WORK IN A WELL VENTILATED ROOM. - THE USE OF A DUST MASK FILTER CLASS P2 IS RECOMMENDED. - OBSERVE LOCAL REGULATIONS REGARDING THE HANDLING OF CERTAIN MATERIALS.

FITTING THE DUST FILTER

1. Attach the dust filter by pushing the filter onto the rear of the sander as far as it will go and then twisting clockwise until it locks into place.
 - The filter housing has lugs to align and secure it. Note their position matches those on the sander body before assembly.



NOTE: The user should still wear a face mask to prevent the inhalation of dust particles.

NOTE: Due to the nature of the sander some of the dust produced will be forced into the surrounding atmosphere and will not be collected.

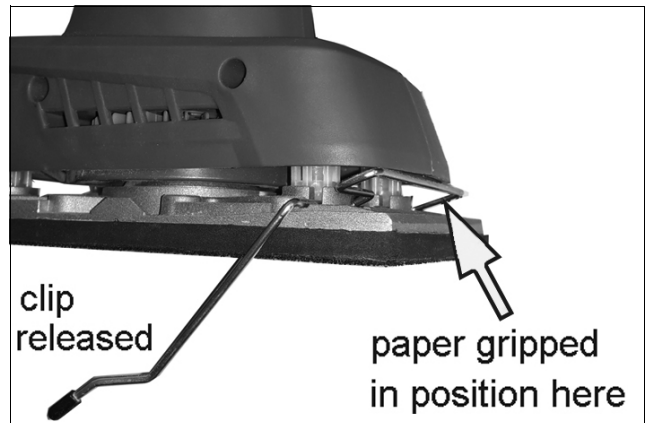
OPERATION

FITTING THE SANDING SHEET

With the sander disconnected from the power supply, select the sanding sheet appropriate for the task and attach it to the base plate as follows. Either plain sanding sheets or prepared sheets for hook and loop attachment can be used.

PAPER SANDING SHEETS

1. Lift the retaining clips to the open position and insert one end of the sanding sheets under the retaining clip.
2. Set the clip back in the retaining position to hold the sheet and lightly stretch it over the baseplate, ensuring it is not folded or wrinkled, then position it under the other retaining clip.
3. Lock the second clip back into the retaining position.
4. Check the paper lays straight and flat on the baseplate. If not, release either clip and adjust the sheet before resetting the clip.



HOOK AND LOOP SANDING SHEETS

1. Align the sanding sheet so that the holes align with those in the baseplate, press the sheet evenly onto the base plate to attach it.

REPLACEMENT SHEETS

The following sanding sheets are available from your CLARKE dealer.

Grit	Size (mm)	Part No
60	93 x 287 mm	6502075
120	93 x 287 mm	6502076
240	93 x 287 mm	6502077

STARTING & STOPPING THE SANDER

Ensure the sander is switched OFF before plugging into the power supply.

1. Ensure the sander is switched OFF before plugging into the power supply.
2. Switch the machine ON or OFF by sliding the switch forward and backward.



OPERATING TECHNIQUE

1. Select the operating speed appropriate to the job in hand. The speed required will be dependant on the material and will be determined by a practical trial.

- Speeds are stated in the specification.

2. Always hold the sander securely.
3. Regularly check the condition of the sanding sheet and replace it when necessary.
4. On very uneven surfaces or when removing layers of paint, start with a coarse grit. On other surfaces, start with a medium grit. In both cases, gradually change to a fine grit for a smooth finish.
5. Always use sanding sheet that is in top condition, as damaged sheets will cause damage to the baseplate. Please note, that baseplates are NOT covered by the warranty.
6. Always place the sander on the workpiece before switching ON to prevent the workpiece from being badly scored by the edge of the moving abrasive.
7. Move the sander evenly and smoothly over the surface of the workpiece with only light, even pressure. This helps to expel dust particles and produce an even finish and will also prolong the life of the sanding sheet.
8. Let the sander do the work and ensure the sander is flat on the work surface. Never apply heavy pressure as this will not only produce an uneven finish but will overload the motor causing it to burn out.
9. Be cautious when sanding the end of a workpiece as the sheet could come off the baseplate and damage it in the process.



MAINTENANCE



WARNING: BEFORE PERFORMING ANY MAINTENANCE, SWITCH OFF AND UNPLUG THE SANDER.

Your sander will operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper care.

Regularly clean the ventilation slots using a soft dry brush or dry cloth. Do not use any abrasive or solvent-based cleaner.

A damaged power cable should be replaced by your CLARKE dealer or qualified electrician.

The bearings in this sander are sealed for life and require no maintenance.

FAULTFINDING

SANDER IS OVERHEATING

This indicates the machine is dirty. Clean the ventilation holes and blow out with compressed air. Always wear eye protection when using compressed air.

Overloading the machine will also cause overheating. Do not use for heavy duty work and do not apply excessive pressure.

EXCESSIVE SPARKING OCCURS

This indicates worn brushes. This problem is quickly remedied but you should consult your CLARKE dealer for parts and advice.

SANDER DOES NOT OPERATE WHEN SWITCHED ON

Check to ensure the fuse is sound and replace if necessary. If the fuse is sound or blows repeatedly, consult your CLARKE dealer.

POOR ABRASION

If the sander is not removing material efficiently, check the sanding sheet. If the abrasive is worn down replace the sheet. The sanding sheet must always be stored in a dry place as if it allowed to become damp, the abrasive particles will detach from the sheet and will not abrade.

DECLARATIONS OF CONFORMITY

UKCA

Clarke
INTERNATIONAL

Hennell 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:

- The Electromagnetic Compatibility Regulations 2016*
- The Supply of Machinery (Safety) Regulations 2008*
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012*

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

EN IEC 55014-1:2021, EN IEC 55014-2:2021, EN IEC 61000-3-2:2019+A1:2021,
EN 61000-3-3:2013+A1:2019, EN 62841-1:2015+AC:15, EN 62841-2-4:2014, IEC 62321-8:2017,
IEC 62321-3-1 Edition 1.0:2013, IEC 62321-4:2013+A1:2017, IEC 62321-5 Edition 1.0:2013,
IEC 62321-6 Edition 1.0:2015, IEC 62321-7-1 Edition 1.0:2015, IEC 62321-7-2 Edition 1.0:2017

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: 2022

Product Description: Electric Sander
Model Number(s): COS210
Serial/Batch Number: Refer to product/packaging label
Date of Issue: 27/03/2023

Signed:


J.A Clarke
Director

COS210 UKCA Doc 032723

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CE

Clarke
INTERNATIONAL

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 55014-1:2021, EN IEC 55014-2:2021, EN IEC 61000-3-2:2019+A1:2021,
EN 61000-3-3:2013+A1:2019, EN 62841-1:2015+AC:15, EN 62841-2-4:2014, IEC 62321-8:2017,
IEC 62321-3-1 Edition 1.0:2013, IEC 62321-4:2013+A1:2017, IEC 62321-5 Edition 1.0:2013,
IEC 62321-6 Edition 1.0:2015, IEC 62321-7-1 Edition 1.0:2015, IEC 62321-7-2 Edition 1.0:2017

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: 2019

Product Description: Electric Sander
Model Number(s): COS210
Serial/Batch Number: Refer to product/packaging label
Date of Issue: 27/03/2023

Signed:


J.A Clarke
Director

COS210 CE Doc 032723

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