

DRAPER®

INSTRUCTIONS FOR 230W Random Orbital Palm Sander

Stock No.41458 Part No.RS230K

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE SAFE AND EFFECTIVE USE OF THIS TOOL.



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GENERAL INFORMATION

Read all these instructions before operating this product and save these instructions.

This manual has been compiled by Draper Tools and is an integrated part of the product with which it is enclosed and should be kept with it for future references.

This manual describes the purpose for which the product has been designed and contains all the necessary information to ensure its correct and safe use. We recommend that this manual is read before any operation or, before performing any kind of adjustment to the product and prior to any maintenance tasks. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product.

Whilst every effort has been made to ensure accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.



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DECLARATION OF CONFORMITY

We:
 Draper Tools Ltd.,
 Hursley Road,
 Chandler's Ford,
 Eastleigh, Hampshire.
 SO53 1YF.
 England.

Declare under our sole responsibility that the product:

Stock No:- **41458.**

Part No:- **RS230K.**

Description:- **Random Orbital Sander.**

To which this declaration relates is in conformity with the following directive(s)
 98/37/EC, 73/23/EEC, 89/336/EEC.

With reference to:
 EN60745-1:2003+A1, EN60745-2-4:2003, EN55014-1+A2:2002, EN55014-2+A1:2001,
 EN61000-3-2+A2:2005, EN61000-3-3+A1:2001.

J.N. Draper
 Chairman

05/09/2006



SPECIFICATION

The Draper Tools policy of continuous improvement determines the right to change specification without notice.

Stock No.	41458
Part No.	RS230K
Rated Voltage	230V~50Hz
Rated Input.....	230W
Revolutions Per Minutes (no load)	12,000min ⁻¹
Backing Pad Size Ø	125mm
Abrasive Disc Size Ø	125mm
Orbit Diameter.....	2.7mm
Sound Pressure Level.....	81.3dB(A)
Sound Power Level	92.3dB(A)
Vibration Level	6.1m/s ²
Weight (machine only)	1.4kg

**ALWAYS WEAR AN APPROVED DUST MASK,
SAFETY GOGGLES & EAR DEFENDERS**



GUARANTEE

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, please return the complete tool to your nearest distributor or contact Draper Tools Limited, Chandler’s Ford, Eastleigh, Hampshire, SO53 1YF. England.
Telephone: (023) 8026 6355.

A proof of purchase must be provided with the tool.

If upon inspection it is found that a fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. The guarantee period covering parts/labour is 12 months from the date of purchase. The guarantee is extended to 24 months for parts only. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper warranty repair agents.

Note: If the tool is found not to be within the Terms of Warranty, repair and carriage charges will be quoted and made accordingly.

This guarantee applies in lieu of any other guarantee expressed or implied and variations of its terms are not authorised.

Your Draper guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the guarantee period.








Please note that this guarantee is an additional benefit and does not affect your statutory rights.

Draper Tools Limited.



POWER SUPPLY

CONNECTING YOUR MACHINE TO THE POWER SUPPLY: (230V ONLY)

- To eliminate the possibility of an electric shock your machine has been fitted with a BS approved, non rewireable moulded plug and cable which incorporates a fuse, the value of which is indicated on the pin face of the plug. If the plug is marked with the  symbol and the fuse needs replacing, an  approved BS1362 fuse must be used of the same amp rating. If the plug is not  marked, a fuse with the  symbol,  BS Kitemark, or both  and  should be used.
- The fuse cover is detachable, never use the plug with the cover omitted. If a replacement fuse cover is required, ensure it is the same colour as that visible on the pin face of the plug (i.e. red). Fuse covers are available from your Draper Tools stockist.
- If the fitted plug is not suitable, it should be cut off and destroyed. *The end of the cable should now be suitably prepared and the correct type of plug fitted. See below.

*WARNING:

- A plug with bare flexible wires exposed is hazardous if engaged in a live power socket outlet.

WARNING: THIS APPLIANCE IS DOUBLE INSULATED. (230V ONLY)

- The mains lead is coloured Blue – Neutral & Brown – Live. As these colours 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 or blue. The wire which is coloured brown must be connected to the terminal which is marked with the letter 'L' or coloured red or brown.

EXTENSION LEAD CHART:

Extension lead sizes shown assure a voltage drop of not more than 5% at rated load of tool.

Ampere rating (on Name plate)	3	6	10	13
Extension cable length	Wire Size mm ²			
7.5M	0.75	0.75	1.0	1.25
15M	0.75	0.75	1.0	1.5
22.5M	0.75	0.75	1.0	1.5
30M	0.75	0.75	1.25	1.5
40M	0.75	0.75	1.5	2.5

IMPORTANT:

On products exceeding 2000W it is recommended that the power cable and/or extension cable are fully unwound before a connection is made to the power supply. However, ensure the residual cable does not pose a trip hazard.

WARNING: Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

1. Work Area

- Keep work area clean and well lit.** Cluttered and dark areas invite accidents.
- 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.
- Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2. Electrical Safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electrical shock.
- 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.
- Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.

3. Personal Safety

- 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.
- 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.
- 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.
- Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

- Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- 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.
- If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of these devices can reduce dust related hazards.

4. Power Tool Use And Care

- 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.
- 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.
- Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- 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.
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, 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.

5. Service

- Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

SANDERS:

- **Wear dust protection with sanders.** Exposure to dust can be detrimental to health.
- **Connect dust extraction equipment.** If the tool is provided for the connection of dust extraction and collecting equipment, ensure these are connected and properly used.



- | | |
|-------------------------------------|---------------------------|
| ① On/Off Rocker Switch. | ⑤ Backing Pad. |
| ② BS Moulded Plug & Cable. | ⑥ Hand Grip. |
| ③ Dust Extraction (Vacuum Adaptor). | ⑦ Various Abrasive Discs. |
| ④ Dust Extraction (Collection Box). | |

- **UNPACKING:** After removing the packing material, make sure the product is in perfect condition and that there are no visible damaged parts. If in doubt, do not use the product and contact the dealer from whom it was purchased.

The packaging materials (plastic bags, polystyrene, etc.), must be disposed of in an appropriate refuse collection container. These materials must not be left within the reach of children as they are potential sources of danger.

- WARNING

Contact with or inhalation of harmful toxic dusts arising from sanding lead paint surfaces, woods, etc., can endanger the health of operators and bystanders. An approved dust mask shall be worn.

Prior to connecting this machine to the power supply ensure the switch is in the "off" position.

- SWITCH (Fig.1.):

Ensure the sander is raised off the workpiece. To activate the sander, position the rocker switch (A) to the "I" position. The sander will continue to run until switch (A) is changed back to the "O" position.

This machine is intended for fine detail/light duty sanding of wood and similar materials only.

Apply equal pressure on the workpiece with the backing pad remaining flat. Attempting to sand areas using only the edge will lead to damage to the backing pad.

- NOTE:

Excess pressure when sanding reduces the effectiveness of tool and will cause the motor to overload.

Do not overload this machine.

Replace abrasive discs when clogged with material or when surface/edge has rips, cracks or worn areas.

Inhalation of dust particles can be detrimental to health. The dust outlet must be connected with a dust extraction machine.

- NOTE:

Due to the outlet diameter, a size adaptation may be necessary.

All wood dust (including dust from composites like chipboards and fibre boards etc) is hazardous to health: it can affect the nose, the respiratory system and the skin. For example MDF (medium density fibreboard) which contains formaldehyde is a known carcinogen. In addition to the above measures a correctly fitted dust mask, suitable for the activity and in accordance to the relevant standard, must be worn.

For work activities involving exposure to fine wood dust a mask rated to at least FFP2 should be used.

FIG.1

- **ABRASIVE DISC INSTALLATION/REPLACEMENT (Fig.2.)**

The backing pad and the abrasive disc are considered consumable items. The abrasive discs (B) simply push on to the backing pad (C) and are held in place with a hook and loop fastening. To ensure optimum removal of dust ensure the holes in the abrasive disc are aligned with those in the backing pad.

To remove the worn abrasive disc, simply pull away from the hook and loop and re-apply a new disc.



- **GENERAL SANDING INFORMATION:**

Select the correct grit to obtain the desired finish. The higher the grit number the finer the finish. For removing larger amounts of material a 60/80 grit is ideal. When removing paint from a wood surface the grit will have a tendency to clog.

Replace abrasive disc when clogged with material or when surface/edge has rips, cracks or worn areas.

- **NOTE:**

Abrasive disc and the sander backing pad are consumable items.

- **DUST EXTRACTION FACILITY (Figs.3.&4.):**

- **Collection Box:**

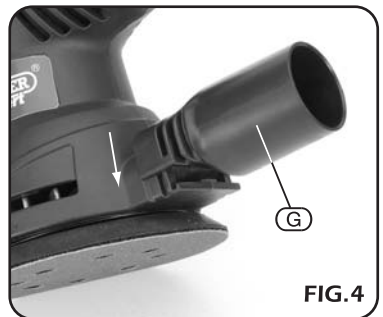
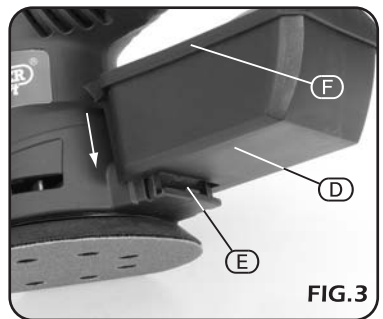
To attach the collection box (D) to the machine slide it down over the appature (E). Ensure it locates correctly in the guide slots and is pushed down fully, covering the outlet.

To empty the box, slide it off the machine over a waste recepticle, remove the lid (F) which is clipped over the box's rim.

- **Vacuum Adaptor:**

The vacuum adaptor attaches to the sander in the same manner as the collection box.

With the collection box removed, attach the adapter (G) to the sander. Insert a vacuum cleaner nozzle to achieve efficient dust removal.





MAINTENANCE & PARTS REPLACEMENT

Regular inspection and cleaning reduces the necessity for maintenance operations and will keep your tool in good working condition.

The motor must be correctly ventilated during tool operation. For this reason avoid blocking the air inlets. After use disconnect the tool from the power supply and vacuum the ventilation slots. If the replacement of the supply cord is necessary, this has to be done by the manufacturer or his agent in order to avoid a safety hazard.



OPTIONAL ACCESSORIES

See your local Draper stockist.



TROUBLE SHOOTING

WARNING: FOR YOUR OWN SAFETY ALWAYS TURN THE MAIN SWITCH ON THE MACHINE "OFF" AND REMOVE THE PLUG FROM THE POWER SUPPLY BEFORE CARRYING OUT ANY MAINTENANCE OR TROUBLE SHOOTING.

PROBLEMS	POSSIBLE CAUSES	REMEDY
Motor does not start	1. Fuse 2. Brushes worn 3. Other	1. Replace time delay fuse or reset circuit breaker 2. Have brushes replaced by an authorised service centre 3. Contact an authorised service centre
Reduced sanding efficiency	1. Abrasive disc worn, clogged or cracked	1. Replace abrasive disc †

† A range of accessory abrasive discs are available from your local Draper stockist. Abrasive discs and the backing pad are both considered consumable items.

DISPOSAL OF POWER TOOLS

- At the end of the machine's working life, or when it can no longer be repaired, ensure that it is disposed of according to national regulations.
- Contact your local authority for details of collection schemes in your area.

In all circumstances:

- Do not dispose of power tools with domestic waste.
- Do not incinerate.
- Do not abandon in the environment.
- Do not dispose of WEEE* as unsorted municipal waste.



* Waste Electrical & Electronic Equipment.

EXPLANATION OF SYMBOLS/PICTOGRAMS



Class II construction
(Double insulated).



Do not dispose of WEEE*
as unsorted municipal waste.

* Waste Electrical & Electronic Equipment.

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- **Service/Warranty Repair Agent**
For aftersales servicing or warranty repairs, please contact the Draper Tools Helpline for details of an agent in your local area.

YOUR DRAPER STOCKIST

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