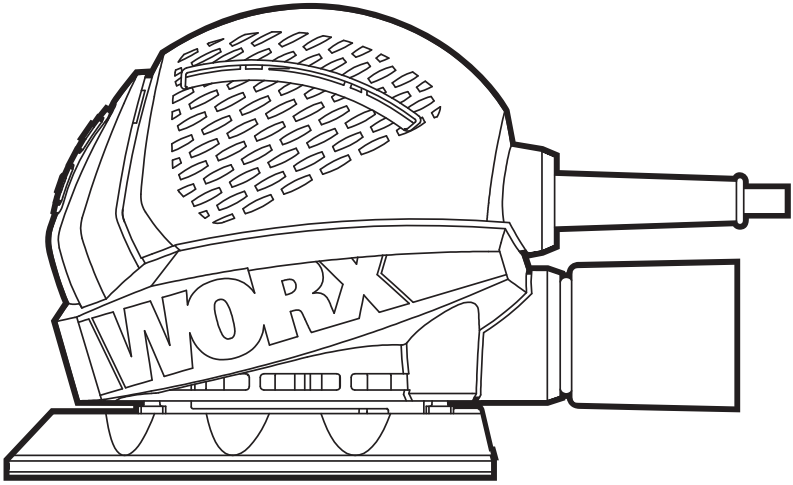
WORX®



SAFETY AND OPERATING MANUAL

ORIGINAL INSTRUCTIONS

Palm sander **WX646 WX646.1**

GENERAL POWER TOOL SAFETY WARNINGS

WARNING: Read all safety warnings and all instructions.
Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.
The term "power tool" in the warnings refers to your electric (corded) power tool or battery-operated (cordless) power tool.

1. WORK AREA SAFETY

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

2. ELECTRICAL SAFETY

a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
b) **Avoid body contact with grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.
c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
d) **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.
e) **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.
f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

3. PERSONAL SAFETY

a) **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.
b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
c) **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.
d) **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.
e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
f) **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.
g) **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.

4. POWER TOOL USE AND CARE

a) **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.

b) **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.

c) **Disconnect the plug from the power source and/or the battery pack 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.

d) **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.

e) **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.

f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g) **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.

5. SERVICE

a) **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.

SAFETY WARNINGS COMMON FOR SANDING OPERATION

a) **This power tool is intended to function as a sander. Read all safety warnings, instructions, illustrations and specifications provided with this power tool.** Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

b) **Operations such as grinding, wire brushing, polishing or cutting-off are not recommended to be performed with this power tool.** Operations for which the power tool was not designed may create a hazard and cause personal injury.

c) **Do not use accessories which are not specifically designed and recommended by the tool manufacturer.** Just because the accessory can be attached to your power tool, it does not assure safe operation.

d) **The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.** Accessories running faster than their rated speed can break and fly apart.

e) **The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** Incorrectly sized accessories cannot be adequately guarded or controlled.

f) **The arbour size of wheels, flanges, backing pads or any other accessory must properly fit the spindle of the power tool.** Accessories with arbour holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.

g) **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect**

for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute. Damaged accessories will normally break apart during this test time.

h) **Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments.** The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtrating particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.

i) **Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.** Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.

j) **Hold power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and shock the operator.

k) **Position the cord clear of the spinning accessory.** If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.

l) **Never lay the power tool down until the accessory has come to a complete stop.** The spinning accessory may grab the surface and pull the power tool out of your control.

m) **Do not run the power tool while carrying it at your side.** Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.

n) **Regularly clean the power tool's air vents.** The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.

o) **Do not operate the power tool near flammable materials.** Sparks could ignite these materials.

p) **Do not use accessories that require liquid coolants.** Using water or other liquid coolants may result in electrocution or shock.

q) Your hand must hold on the handle when you are working. Loss of control can cause personal injury

FURTHER SAFETY INSTRUCTIONS FOR ALL OPERATIONS

KICKBACK AND RELATED WARNINGS

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

a) **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up.** The operator can control torque reactions or kickback forces, if proper precautions are taken.

b) **Never place your hand near the rotating accessory.** Accessory may kickback over your hand.
c) **Do not position your body in the area where power tool will move if kickback occurs.** Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.
d) **Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.** Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.
e) **Do not attach a saw chain woodcarving blade or toothed saw blade.** Such blades create frequent kickback and loss of control.

ADDITIONAL SAFETY INSTRUCTIONS FOR SANDING OPERATIONS
SAFETY WARNINGS SPECIFIC FOR SANDING OPERATIONS:

a) **Do not use excessively oversized sanding disc paper. Follow manufacturer's recommendations, when selecting sanding paper.** Larger sanding paper extending beyond the sanding pad presents a laceration hazard and may cause snagging, tearing of the disc or kickback.

SYMBOLS


To reduce the risk of injury, user must read instruction manual


Warning

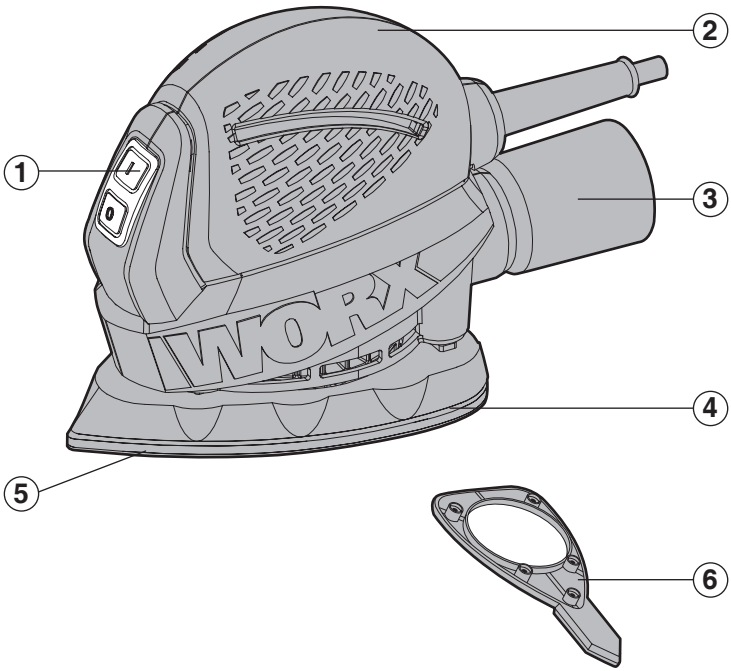

Double insulation


Wear eye protection


Wear ear protection


Wear dust mask


Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.



1. ON-OFF SWITCH
2. SOFT GRIP HANDLE
3. DUST EXTRACTION ADAPTOR
4. SANDING PLATE
5. SANDING PAPER* (See Fig. A)
6. FINGER PAD

*Not all the accessories illustrated or described are included in standard delivery.

TECHNICAL DATA

Type **WX646 WX646.1 (645-649-designation of machinery, representative of palm sander)**

Voltage	220-240V~50/60Hz
Power input	160W
Rated no load speed	12000/min
Base size	140x140x95mm
Protection class	⧈/II
Net weight	0.9kg

NOISE AND VIBRATION DATA

A weighted sound pressure	L_{pA}= 80.8dB(A)
K_{pA}	3dB(A)
A weighted sound power	L_{wA}= 91.8dB(A)
K_{wA}	3dB(A)
Wear ear protection when sound pressure is over	80dB(A)

VIBRATION INFORMATION

Vibration total values (triax vector sum) determined according to EN 60745:	
Typical weighted vibration	Vibration emission value a_h = 3.38m/s^2
	Uncertainty K = 1.5m/s^2

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 dependant on the following examples and other variations on how the tool is used:
How the tool is used and the materials being cut or drilled.
The tool being in good condition and well maintained.
The use the correct accessory for the tool and ensuring it is sharp and in good condition.
The tightness of the grip on the handles and if any anti vibration accessories are used.
And the tool is being used as intended by its design and these instructions.

This tool may cause hand-arm vibration syndrome if its use is not adequately managed

WARNING: To be accurate, an estimation of exposure level in the actual conditions of use should also take account of all parts of the operating cycle such as the times when the tool

is switched off and when it is running idle but not actually doing the job. This may significantly reduce the exposure level over the total working period.
Helping to minimise your vibration exposure risk.
ALWAYS use sharp chisels, drills and blades.
Maintain this tool in accordance with these instructions and keep well lubricated (where appropriate).
If the tool is to be used regularly then invest in anti vibration accessories.
Avoid using tools in temperatures of 10^0C or less.
Plan your work schedule to spread any high vibration tool use across a number of days.

ACCESSORIES

Sanding papers:	**9**
80grit;	**2**
100grit;	**2**
120grit;	**2**
Finger pad sander paper	**3**
Finger pad	**1**
Dust extraction adaptor	**1**

We recommend that you purchase your accessories from the same store that sold you the tool. Use good quality accessories marked with a well-known brand name. Choose the type according to the work you intend to undertake. Refer to the accessory packaging for further details. Store personnel can assist you and offer advice.

OPERATING INSTRUCTIONS

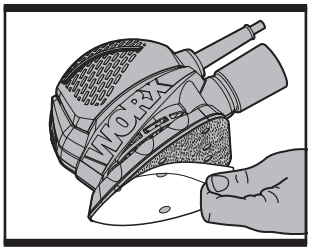
NOTE: Before using the tool, read the instruction book carefully.

INTENDED USE

The machine is intended for dry sanding of wood, plastic, filler and coated surfaces.

1. FITTING THE SANDING PAPER (See Fig. A)

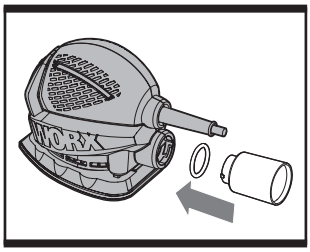
Fit the paper over the pad so that it covers the entire area. Make sure the sanding paper is even with the edges and that the dust collection holes in the pad and sanding paper is aligned and the sanding paper evenly overlaps the pad. Never use your sander without a sanding paper.



A

2. USING THE DUST ADAPTER (See Fig. B)

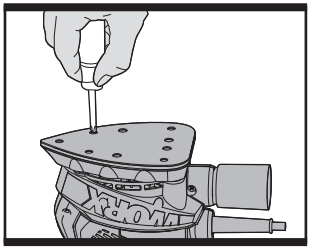
Your sander is equipped with a dust adapter, which is designed for collecting dust task. Insert the dust adapter into the rear dust outlet of sander. Then pull the dust adapter and make sure it is tightened securely on the dust outlet. Then connect the hose of a vacuum cleaner. First please turn on the vacuum cleaner, then turn on the sander. If you stop sanding, first turn off the sander, then turn off your vacuum cleaner.



B

3. ON/OFF SWITCH

To start your sander, depress the protective cover over the switch at the position marked "I". To stop your sander, depress the protective cover at the position marked "0".



C

4. FLUSH SANDING FACILITY

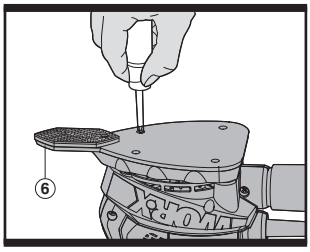
Your sander can sand flush on three sides of the base-plate which allows easy access to corners and edges of moulding.

5. ORBITAL SANDING

Your sander operates in small circular rotations which allows efficient material removal.

Operate your sander in long sweeping movements across your workpiece and even across the grain. For a finer finish, always use a fine grain sandpaper and only move the sander in the direction of the grain and never across the grain.

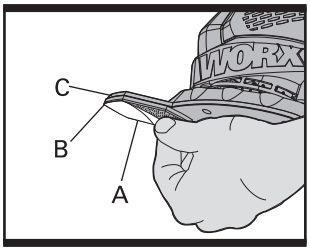
Do not allow your sander to remain in the same position otherwise you will remove material and create and uneven surface.



D

6. CHANGE THE BASES (See Fig. C, D)

1) Remove the 5 Phillips head screws holding the



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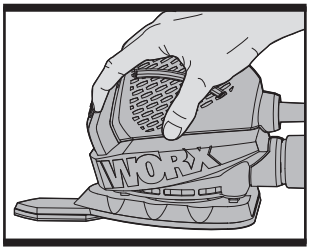


F

triangular base.
2) Replace triangular base by fastening the detail sanding attachment to base position.
3) Fix it by 5 screws.
4) Similar process is conducted when detail sanding attachment is changed to triangular base.

7. ATTACH SANDING SHEETS AND PADS (See Fig. E)

This sander features an easy hook and loop accessory fastening system for quick changing without clamps.
1) Unplug the sander.
2) Carefully center the sanding sheet (A) or pad over the base (3/4) to be used. Line up the tip of the sanding sheet (B) or pad with the tip of the base (C).
3) Press the sheet or pad firmly in place.
4) To remove sheet or pad, simply pull it off.

WARNING: Failure to unplug the sander could result in accidental starting causing possible serious personal injury.

8. SANDING WITH EITHER BASE (See Fig. F)

Always hold the sander as shown in Fig F.
Move the sander in long, sweeping strokes across the sanding surface. Light pressure is needed for sanding, polishing and scrubbing. Let the sander do the work. Always check your work. This sander removes material quickly.
IMPORTANT: Applying excessive pressure will slow the sander and produce unsatisfactory results.

WORK HINTS FOR YOUR PALM SANDER

If your power tool becomes too hot, run no load for 2-3 minutes to cool the motor.
Always ensure the work-piece is firmly held or clamped to prevent movement.
Any movement of the material may affect the quality of the sanding finish.
Start your sander before sanding and turn off only after stopping sanding. For best results sand wood in the direction of the grit.
Do not start sanding without sandpaper fitted.
Do not allow the sandpaper to wear away, it will damage the base-plate. The guarantee does not cover base-plate wear and tear.
Use coarse grit paper to sand rough surfaces, medium grit for smooth surfaces and fine grit for the final surfaces. If necessary, first make a test on scrap material.
Use only good quality sandpaper.
The sanding efficiency is controlled by the sandpaper not the amount of force you apply to the tool. Excessive force will reduce the sanding efficiency and cause motor overload.
Replacing the sanding paper regularly will maintain optimum sanding efficiency.

MAINTENANCE

Remove the plug from the socket before carrying out any adjustment, servicing or maintenance.
Your power tool requires no additional lubrication or maintenance.
There are no user serviceable parts in your power tool. Never use water or chemical cleaners to clean your power tool. Wipe clean with a dry cloth. Always store your power tool in a dry place. Keep the motor ventilation slots clean. Keep all working controls free of dust.
Occasionally you may see sparks through the ventilation slots. This is normal and will not damage your power tool.
If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

ENVIRONMENTAL PROTECTION

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist.
Check with your local authorities or retailer for recycling advice.

PLUG REPLACEMENT (UK & IRELAND ONLY)

If you need to replace the fitted plug then follow the instructions below.

IMPORTANT

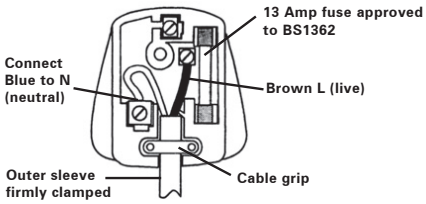
The wires in the mains lead are colored in accordance with the following code:

BLUE=NEUTRAL BROWN=LIVE

As the colors of the wires in the mains lead of this appliance may not correspond with the colored markings identifying the terminals in your plug, proceed as follows. The wire which is colored blue must be connected to the terminal which is marked with N. The wire which is colored brown must be connected to the terminal which is marked with L.

WARNING! Never connect live or neutral wires to the earth terminal of the plug. Only fit an approved 13A BS1363/A plug and the correct rated fuse.

NOTE: If a moulded plug is fitted and has to be removed take great care in disposing of the plug and severed cable, it must be destroyed to prevent engaging into a socket.



DECLARATION OF CONFORMITY

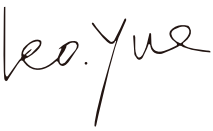
We,
Positec Power Tools (Europe) Ltd, PO Box 152, Leeds, LS10 9DS, UK

Declare that the product,
Description **WORX Palm sander**
Type **WX646 WX646.1**
(645-649-designation of machinery, representative of palm sander)
Function
Remove surface material with a plate

Complies with the following Directives,
Machinery Directive
2006/42/EC
Electromagnetic Compatibility Directive
2004/108/EC
RoHS Directive
2011/65/EU

Standards conform to:
EN 55014-1
EN 55014-2
EN 61000-3-2
EN 61000-3-3
EN 60745-2-4
EN 60745-1

The person authorized to compile the technical file,
Name: Russell Nicholson
Address: Positec Power Tools (Europe) Ltd, PO Box 152, Leeds, LS10 9DS, UK



2012/12/07
Leo Yue
POSITEC Quality Manager

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