



WORX



SAFETY AND OPERATING INSTRUCTIONS

Random orbital sander

WX653 WX654

SAFETY INSTRUCTIONS



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 mains-operated (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 earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **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.
- 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) **Recommendation for the use of a residual current device with a rated residual current of 30 mA or less.**
- ## 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 these devices 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 tools 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 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 those intended could result in a hazardous situation.

5. Battery tool use and care

- a) Ensure the switch is in the off position before inserting battery**

pack. Inserting the battery pack into power tools that have the switch on invites accidents.

- b) Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack.
- c) Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- d) When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screw, or other small metal objects that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or fire.
- e) Under abusive conditions, liquid may be ejected from the battery; avoid contact, if contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

6. Service

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

ADDITIONAL SAFETY POINTS FOR YOUR ROTARY SANDER

1. Remove the plug from the socket before carrying out any adjustment, servicing or maintenance.
2. Fully unwind cable drum extensions to avoid potential overheating.
3. When an extension cable is required you must ensure it has the correct ampere rating for your power tool and is in a safe electrical condition.
4. Ensure your mains supply voltage is same as indicated on the rating plate.
5. Your tool is double insulated for additional


protection against a possible electrical insulation failure within the tool.

6. Always check walls, floors and ceilings to avoid hidden power cables and pipes.
7. After long working periods external metal parts and accessories could be hot.
8. Wear eye protection when operating this tool.
9. If possible, ensure the workpiece is firmly clamped to prevent movement.
10. Your sander is a hand held tool, do not clamp your rotary sander.
11. Before sanding, check the area is free of nails, screws, etc.
12. Never stop the sander by applying a force to the baseplate.
13. Only use paper in good condition. Do not use torn or worn paper.
14. Do not sand material containing asbestos due to a health risk.
15. Do not sand lead based paint due to the risk of lead poisoning.
16. Do not eat or drink in the working area of the sander.
17. Do not allow people to enter the working area without wearing a dust mask.
18. Where possible, seal off the working area to contain the dust for later removal.
19. Always wear a dust mask.
20. Your tool is designed for dry sanding only, not wet sanding.
21. Your tool is designed for general purpose light polishing of wood and metals.
22. Do not sand magnesium material due to the risk of fire.

23. Always wear safety glasses or eye shields when using the sander. Everyday eyeglasses have only impact-resistant lenses; they are NOT safety glasses. Following this rule will reduce the risk of serious personal injury.

24. Always wear a face mask or dust mask. Following this rule will reduce the risk of serious personal injury.

25. Always wear hearing protection during extended periods of operation. Following this rule will reduce the risk of serious personal injury.

 **WARNING: Some dust particles created by power sanding, sawing, grinding, drill and other construction jobs contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:**

- Lead from lead-based paints.
- Crystalline silica from bricks and cement and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending upon how often you do this type of work.

To reduce your exposure to these chemicals:

- Work in a well-ventilated area.
- Work with approved safety equipment, such as those dust masks that are specially designed to filter microscopic particles.

Double insulation

The tool is double insulated. This means that all the external metal parts are electrically insulated from the main power supply. This is done by placing insulation barriers between the electrical and mechanical components making it unnecessary for the tool to be earthed.

Important note

Be sure the supply is the same as the voltage given on the rating plate. The tool is fitted with a two-core cable and plug. Remove the main plug from socket before carrying out any adjustment or servicing.

SYMBOLS



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



Warning



Double insulation



Wear eye protection



Wear ear protection

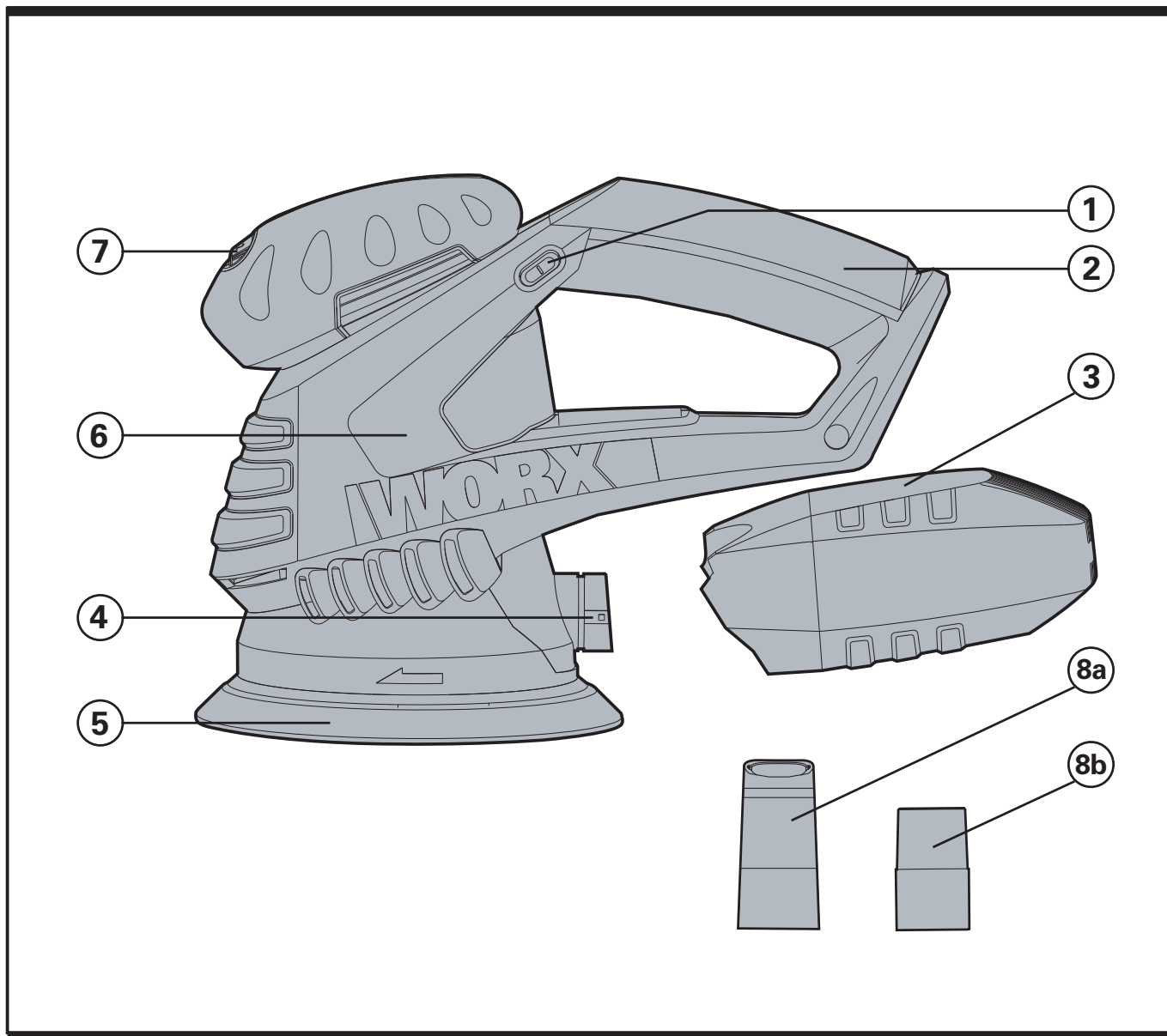


Wear dust mask



RCM approval mark

5112



1. SLIDING ON-OFF SWITCH

2. SOFT GRIP HANDLE

3. DUST BOX*

4. DUST EXTRACTION OUTLET

5. BASEPLATE

6. MOTOR HOUSING

7. VARIABLE SPEED CONTROL

8. DUST EXTRACTION ADAPTER (a: 35 mm; b: 32 mm)

9. SANDING PAPER (SEE FIG. B) *

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


Random orbital sander

WX653 WX654

TECHNICAL DATA

	WX653	WX654
Rated voltage	220-240V~50/60Hz	230-240V~50Hz
Rated input power	360W	480W
Rated no load speed	7000-12000opm	4000-11000opm
Belt size	125mm	150mm
Orbital diameter	2.5mm	
Protection class	□ /II	
Machine weight	2.1kg	2.3kg

NOISE AND VIBRATION DATA

	WX653	WX654
A weighted sound pressure	L_{PA} : 78.6 dB(A) K_{PA} : 3.0 dB(A)	L_{PA} : 83.4 dB(A) K_{PA} : 3.0 dB(A)
A weighted sound power	L_{WA} : 89.6 dB(A) K_{WA} : 3.0 dB(A)	L_{WA} : 94.4 dB(A) K_{WA} : 3.0 dB(A)
Wear ear protection when sound pressure is over 85dB(A) 		
Typical weighted vibration	a_h = 6.47m/s ² K = 1.5m/s ²	a_h = 9.19m/s ² K = 1.5m/s ²

ACCESSORIES

Dust box	1
32mm dust extraction adaptor	1
35mm dust extraction adaptor	1
60 grit velcro sanding paper	3
80 grit velcro sanding paper	3
120 grit velcro sanding paper	3
125mm baseplate	1 (only for WX654)

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.

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OPERATING INSTRUCTIONS



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

ASSEMBLY THE ROTARY SANDER

1. REPLACING THE SANDING PLATE (See Fig A)

To replace the sanding plate, pull off the Sand paper. Loosen and remove the screw.

Replace damaged sanding plates without delay.

2. REPLACING THE SAND PAPER

Remove the plug from the socket before carrying out any adjustment, servicing or maintenance.

A) Selecting the sand paper

Depending on the material to be worked and the desired material removal, various Sand paper qualities are to be used:

-Use coarse grits to sand down rough finishes medium grit to smooth the work and fine grit to finish off.

-The higher the grade number, the finer the grit. For rough work, start with a low grade of grit. (e.g.60grit) and change to a higher, finer grade (e.g.120grit) for finishing.

B) Replacing the sand paper (See Fig B)

Lift the Sand paper at the side and pull it off the sanding plate. Clean the sanding plate, if required.

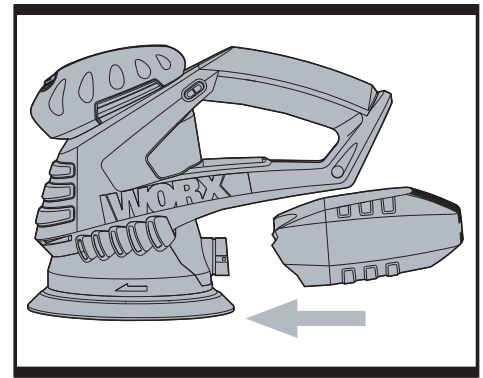
Press the new Sand paper against the bottom of the sanding plate. To ensure optimum dust extraction, the holes of the Sand paper must match with those of the sanding plate.

OPERATION

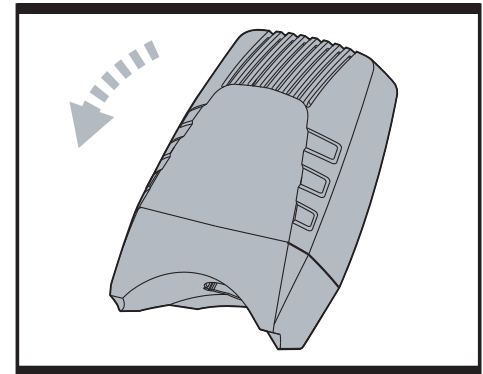
1. SWITCHING ON/OFF (See Fig C)

Depress “

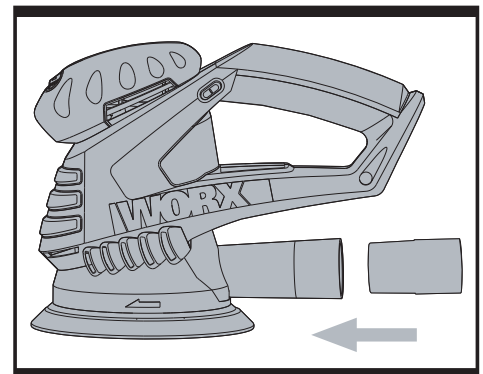
Sanding work	Grain		Speed setting(opm)
	Coarse sanding	Precision sanding	
Sanding down varnishes	180	400	8700~12000
Stripping paint	40	120	9800~12000
Touching up paintwork	120	120	7600~10000
Sanding wood	60	240	7600~12000
Machining veneer	180	400	8700~11000
Sanding aluminium	80	240	7600~11000
Derusting metal	40	120	9800~12000
Sanding metal and steel	120	240	9800~12000
Sanding plexiglass	180	400	6500~8700



E



F



G

3. DUST BOX (See Fig E, F)

A) Attach the dust box (See Fig E)

Your sander is equipped with a dust collection box. To attach, slide the dust box onto the outlet piece and take care that the dust box locks in the grooves of the outlet.

CAUTION: To prevent the possibility of sanding dust or foreign body being thrown into your face or eyes, never attempt to use your sander without the dust box properly installed.

B) Empty dust box (See Fig F)

For more efficient operation, empty dust box every 5-10mins. This will permit the air to flow through the box better. To empty the dust box, pull off the dust box out of the dust extraction outlet directly and shake out dust.

4. USING THE DUST EXTRACTION ADAPTER (See Fig. G)

Your sander is equipped with two dust extraction adapters, which are designed for connecting the hose of a vacuum cleaner.

If the vacuum hose is 35mm, Insert the 35mm dust adapter (a) directly into the rear dust outlet of sander..

If the vacuum hose is 32 mm, insert the 32 mm adapter (b) into the back of 35mm adapter (a).

NOTE: Please pull the dust adapter to make sure tightened securely on the dust outlet.

5. SANDING SURFACES

Place the machine with the complete Sand paper on the surface to be worked. Ensure uniform sanding pressure. Less sanding pressure increases the sanding capacity and protects the machine and the sanding tool. The removal capacity and the sanding pattern are determined mainly by the selection of the Sand paper (grain size), the speed of the sanding plate and the application pressure.

Rough sanding

Attach a Sand paper with coarse grain. Apply only light sanding pressure to achieve increased material removal.

Fine sanding

Attach a Sand paper with fine grain. With moderate pressure, move the machine in a circular pattern or alternately in lengthwise and crosswise directions over the work piece. Do not tilt the machine to avoid sanding through the work piece (e.g. when sanding veneer). After finishing the work, switch off the machine and lift it from the work piece.

WORKING HINTS FOR YOUR ROTARY SANDER

If your power tool becomes too hot, especially when used at low speed, set the speed to maximum and run it with no load for 2-3 minutes to cool the motor. Avoid prolonged usage at very low speeds. Always use sand paper that is suitable for the material you want to sand. 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 it off only after you stop sanding. For the best results, sand wood in the direction of the grain.

Do not start sanding without having the sandpaper fitted.

Do not allow the sand paper 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 run on scrap material.

Use only good quality sand paper.

The sand paper controls the sanding efficiency, not

the amount of force you apply to the tool. Excessive force will reduce the sanding efficiency and cause motor overload. Replacing the sand paper regularly will maintain optimum sanding efficiency.

MAINTAINANCE

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. 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.

WORX
you've got the power