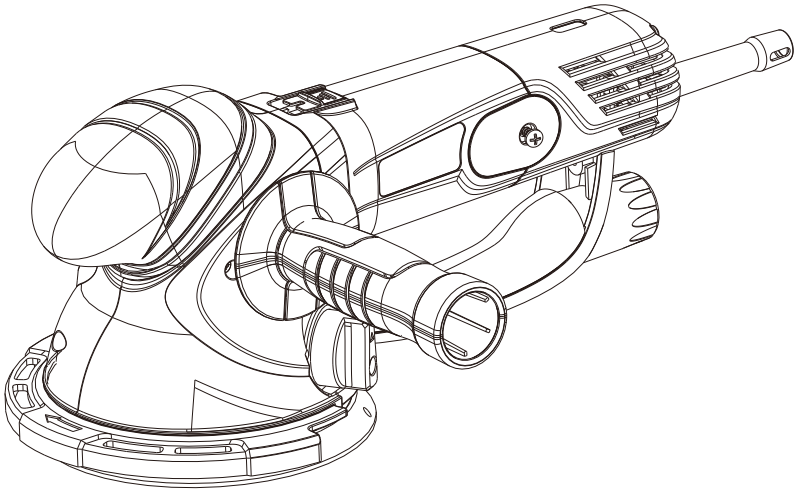
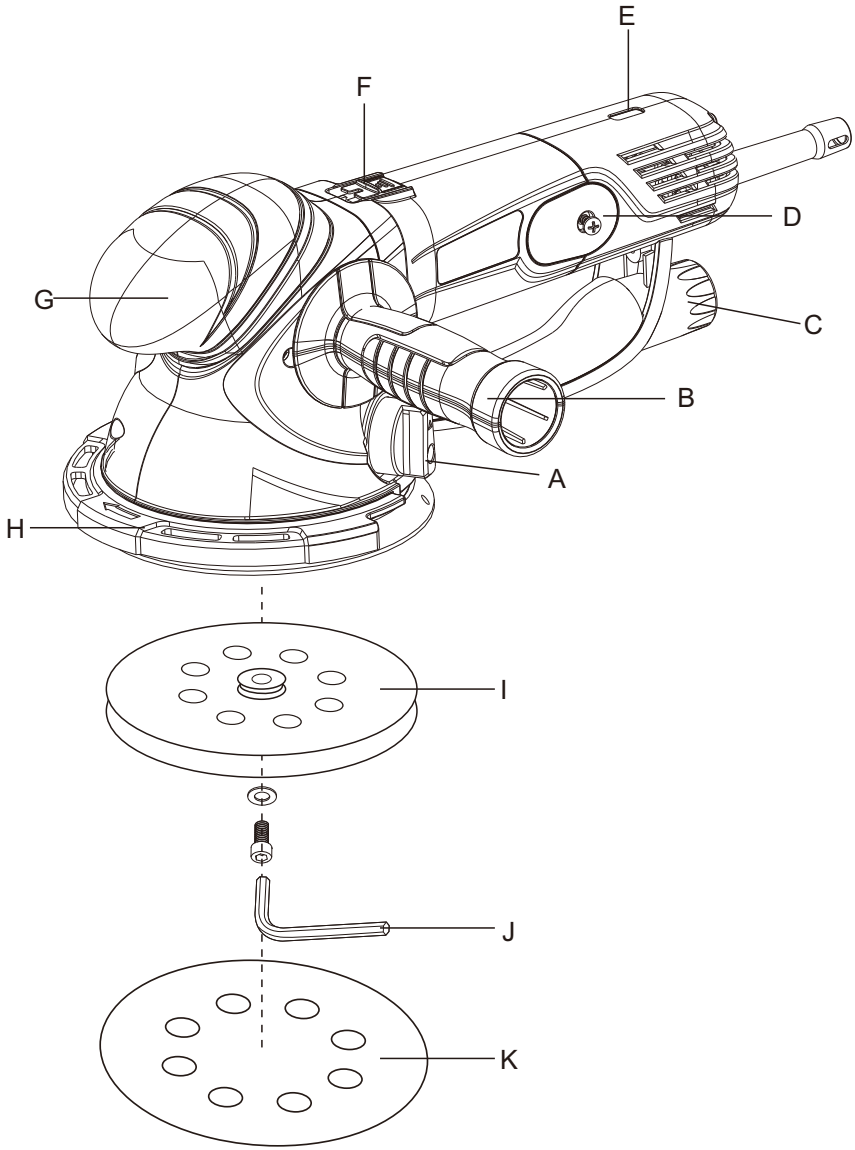


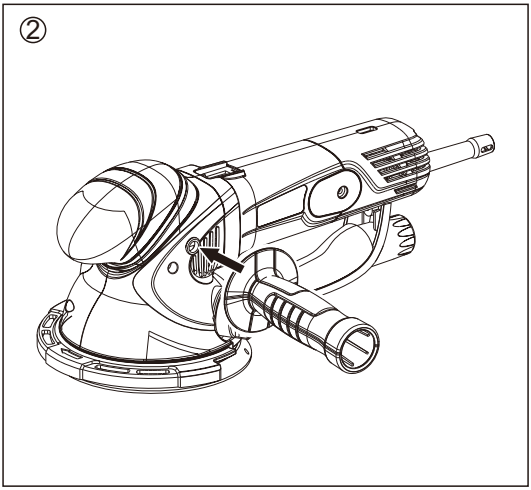
Eccentric Orbital Sander

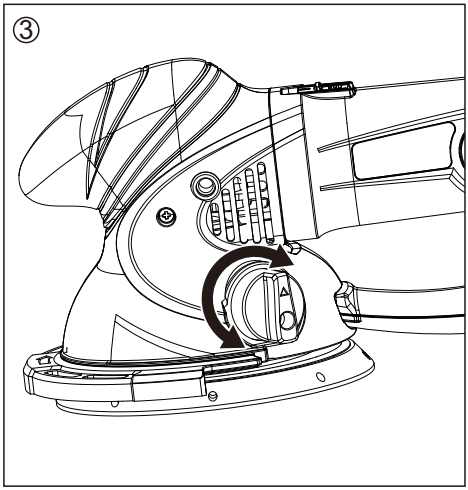
Model No:R7304

①



A.Mode selector switch
B.Auxiliary handle
C.Dust extraction port
D.Carbon brush access covers
E.Speed control dial
F.On/off switch
G.Front grip
H.Protection board
I. Hook & loop backing pad
J.Wrench
K.Sanding disc





TECHNICAL SPECIFICATIONS

Model Number	R7304
Voltage	110-120V~,60Hz/220-240V~,50Hz
Power	500W
No-load Speed	2500-6250 min^{-1}
Dia. Ø max	150mm
Protection class	⧈

SAFETY
GENERAL 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 mainsoperated (corded) power tool or battery-operated (cordless) power tool.

1.WORK AREA SAFETY

> Keep work area clean and well lit. Cluttered or 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 electric 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.
> If operating a power tool in a damp location is unavoidable, use an earth leakage circuit breaker. Use of an earth leakage circuit breaker 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 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.
> 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.
> 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 jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry 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 dust collection 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 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.
> 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 tool's 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, 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

> 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 INSTRUCTIONS FOR SANDER

1) SAFETY INSTRUCTIONS FOR ALL OPERATIONS

a) This power tool is intended to function as a sanding. 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) This power tool is not recommended for grinding,wire brushing or cutting off operations.Operations for which the power tool was not designed may create a hazard and cause personal injury.

c) Do not allow any loose portion of the bonnet or its attachment strings to spin freely. Tuck away or trim any loose attachment strings. Loose and spinning attachment strings can entangle your fingers or snag on the workpiece.

d) 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.

e) 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 fly apart.

f) 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.

g) 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.

h) Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, backing pads for cracks, tear or excess wear, wire brushes for loose or cracked wires. If the 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.

I) Wear personal protective equipment 4.Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and shop 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.

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

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.

2) KICK BACK 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 the 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. The 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 the 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.

GENERAL

Use this tool for sanding wood、paint removal、polishing.
Use the sanding paper and sponge pad which are supplied with this tool
This tool should not be used by people under the age of 16 years
Always disconnect plug from power source before making any adjustment or changing any accessory
Do not work materials containing asbestos (asbestos is considered carcinogenic)

ACCESSORIES

Use only accessories with an allowable speed matching at least the highest noload speed of the tool
Do not use damaged, deformed or vibrating accessories

OUTDOOR USE

When used outdoors, connect the tool via a fault current (FI) circuit breaker with a triggering current of 30 mA maximum, and only use an extension cord which is intended for outdoor use and equipped with a splashproof coupling-socket

BEFORE USE

Always check that the supply voltage is the same as the voltage indicated on the nameplate of the tool (tools with a rating of 230V or 240V can also be connected to a 220V supply)
Always mount auxiliary handle; never use the tool without it
Dust from material such as paint containing lead, some wood species, minerals and metal may be harmful (contact with or inhalation of the dust may cause allergi reactions and/or respiratory diseases to the operator or bystanders); wear a dust mask and work with a dust extraction device when connectable
Certain kinds of dust are classified as carcinogenic (such as oak and beech dust) especially in conjunction with additives for wood conditioning; wear a dust mask and work with a dust extraction device when connectable

Follow the dust-related national requirements for the materials you want to work with
Secure the workpiece (a workpiece clamped with clamping devices or in a vice is held more securely than by hand)
Do not clamp the tool in a vice
Use completely unrolled and safe extension cords with a capacity of 16 Amps (U.K. 13 Amps)

AFTER USE

Before you put down the tool, switch off the motor and ensure that all moving parts have come to a complete standstill
After switching off the tool, never stop the rotation of the accessory by a lateral force applied against it.

USE

Fitting the backing pad

Warning: Always disconnect from the power supply before removing or attaching the backing pad.

Note: This sander is supplied with its regular Hook and loop backing pad (I) factory pre-installed. It may, however, become necessary to remove and replace the backing pad, in order to fit replacements, perform maintenance or to thoroughly clean the device.

1. Switch the device into fixed orbit mode (see “Selecting sanding mode”)
2. Remove the Sanding disc (J) (if fitted), by peeling it off the Hook and loop backing pad (I)
3. Use a suitable hex key to loosen the bolt in the center of the Hook and loop backing pad (I), by turning it anticlockwise
4. Remove the bolt, spring washer and washer
5. Pull the Hook and loop backing pad (I) off the gear housing
6. Assemble in reverse order

> The Hook and loop backing pad (I) is a form fit to the two flattened sides of the internal mounting spindle.

Selecting the right grade of sanding disc

> Sanding discs are available in a variety of different grades: coarse (60 grit), medium (120 grit) and fine (240 grit).
> Use a coarse grit to sand down rough finishes, medium grit to smooth the work, and fine grit to finish off
> Always use good quality sanding discs to maximize the quality of the finished task
> It is advisable to do a trial run on a scrap piece of material to determine the optimum grade of sanding disc for a particular job. If there are still marks on your work after sanding, try either going back to a coarser grade and sanding the marks out before recommencing with the original choice of grit, or try using a new sanding disc to eliminate the unwanted marks before going on to a finer grit and finishing the job.

Fitting a sanding disc

WARNING: Always ensure that the tool is switched off and the plug is removed from the power supply, before fitting or removing sanding discs.

Note: DO NOT continue to use worn, torn or heavily clogged sanding discs. Ensure foreign objects, such as nails and screws, are removed from the workpiece before starting to sand.

WARNING: DO NOT use a sanding disc on wood that has previously been used on metal. This may cause scouring on the wooden surface.

> In order for the dust extraction system to function, this sander must only be used with punched sanding discs with holes that match the holes in the Hook and loop backing pad (I):

1.Remove the old sanding disc (J) (if fitted), by peeling it away from the Hook and loop backing pad (I).
2.Remove any dust or debris from the Hook and loop backing pad (I).
3.Match the holes in a suitable disc with the holes in and loop backing pad (I).
4.Simply press the disc on to the pad to attach it.

Note: To maximize the life of the hook and loop base, peel the sanding disc off slowly rather than rapidly removing it to avoid damage to the hook and loop system.

WARNING: Take care to regularly clean out the build-up of dust on the base underneath the sanding disc and not to let the disc wear completely down before replacing it. Failure to observe these two precautionary measures can lead to damage to the hooks and loops on the base, and the sanding disc will not attach properly.

Adjusting the auxiliary handle

> Screw auxiliary handle (B) on the right or the left of the tool (depending on the work to be carried out).

Mounting of accessories

> The holes of the sanding disc are lined up with the holes of the polishing disc.

> Before using the tool

1. Ensure that accessory is correctly mounted
2. Check if accessory runs freely by turning it by hand
3. Test-run tool for at least 30 seconds at highest no-load speed in a safe position
4. Stop immediately in case of considerable vibration or other defects and check tool to determine the cause.

Dust extraction

Note: This sander is designed to be connected to a household vacuum cleaner hose or workshop dust extraction system. This is the preferred and most effective method of dust extraction.

WARNING: Always ensure that the tool is switched off and disconnected from the power supply before attaching or removing any accessories.

WARNING: Always connect the sander to a suitable vacuum cleaner or workshop dust extraction system if the sanding dust contains harmful substances, such and particles from old paint, varnish, surface coating etc. ALWAYS dispose of harmful dust according to laws and regulations.

WARNING: Take special care to guard against harmful and toxic dusts when sanding lead-based painted surfaces, woods and metals, particularly if you are unsure about the exact substances involved. All persons entering the work area must wear a mask specially designed for protection against the toxic dust and fumes involved. Children and pregnant women MUST NOT enter the work area. DO NOT eat, drink or smoke in the work area.

> Push a suitable vacuum hose on to the Dust extraction port (C). The Dust extraction port (C) is designed to fit a 32mm diameter hose.

Selecting sanding mode

WARNING: NEVER attempt to operate the Mode selector switch (A) whilst the tool is running. This will cause tool damage.

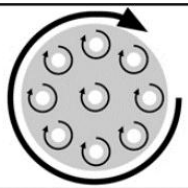
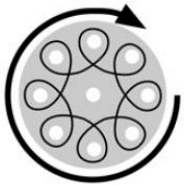
Note: when changing from non-geared to geared mode, the base must be rotated 360° to reset the gear mechanism.

> This sander features two sanding modes, which can be selected over the Mode selector switch (A) (see below picture):

1.Turn the Mode selector switch (A) either clockwise or anticlockwise until it stops

2.Push the orange latch sideways into the locked position, as shown on the images below

WARNING: DO NOT switch on the tool when the Mode selector switch (A) is in between settings, or if the orange latch has not been locked. This will cause damage to the gears.

 Anticlockwise (left) switch position	**Free-run mode** *Fine sanding with low material removal* This operating mode is recommended for handling sensitive surfaces as well as for fine polishing. As a result of the free running backing pad, an application pressure dependent rotational movement at constant eccentric motion is achieved. By varying the application pressure, the material removal can be regulated slightly.	
 Clockwise (right) switch position	**Forced rotation mode** *Coarse sanding with high material removal & buffing* This operating mode achieves highest material removal and is recommended for working very rough, insensitive surfaces. This mode is also recommended for buffing. As a result of the forced rotation, the backing pad constantly moves on an eccentric orbit, whilst rotational around its axis.	

Note: To determine the sanding mode the sander is currently set to, disconnect the tool from the power supply, and attempt to turn the Hook and loop backing pad (I) by hand. If the pad is hard to turn and moves on an eccentric orbit, Forced rotation mode is selected. If the base turns easily around its axis, the sander is set to Free-run mode.

Switching on and off

WARNING: DO NOT switch the tool on or off whilst under load, as this will greatly decrease the service life of the On/off switch (F).

1. Connect the plug to the power supply
2. Hold the tool securely with both hands, one on the main handle, the other on the Front grip (G) or Auxiliary handle (B), and make sure that you have full control at all times.
3. Ensure the tool is not in contact with the workpiece before commencing with switching on.
4. Push the On/off switch (F) forward until it engages, to start the machine.
5. Push down on to the bottom of the On/off switch (F), to disengage the switch and stop the machine.

WARNING: Lift the machine off the workpiece before switching off.
WARNING: Always wait until the machine has stopped vibrating completely before putting it down. Always disconnect from the power supply after use.

Adjust tool speed

> This sander features variable speed control that enables it to be used with a variety accessories, to work on a multitude of different materials, workpiece and objects.

WARNING: Never fit any accessories to the Hook and loop backing pad (I) that are not rated to the maximum no load speed of this device.

1.Slide the Speed control dial (E) upwards on to a higher number, to increase the tool speed.
2.Slide the Speed control dial (E) downwards on to a higher number, to in crease the tool speed.

Note: This sander features an electronic speed controller that holds the selected speed constant under load.

> If in doubt about the correct speed setting, suitable for the task at hand, start with a low speed, examine the results, and adjust to a higher setting if necessary.

Sanding tips

> Clamp workpiece to the workbench wherever possible. Ensure that workpieces cannot mode during work.
> If the tool is connected to a vacuum dust extracting system, switch the extraction device on before switching on the sander. Switch the sander off first, then the vacuum system.
> Move the machine in a circular motion over the workpiece surface, applying an even, moderate pressure until you reach the desired surface finish.

WARNING: Excessive pressure does not lead to a faster removal of material; it will however lead to premature wear of the sanding disc, and may cause damage to the machine. Both sanding performance and quality depend mainly on the choice of the correct sanding discs.

> If there are still scratches on your workpiece after sanding, refer to “Selecting the right grade of sanding disc”.

Sanding metal

WARNING: Some additional precautions have to be taken when sanding metal.

> ALWAYS connect the sander via a suitable RCD.

ALWAYS connect the sander to a suitable workshop dust extraction system

> Clean the tool thoroughly before using it to sand metal.

WARNING: Het metal particles and sparks could ignite residual wood dust. Always clean the tool THOROUGHLY when switching from sanding wood to sanding metal, and vice versa.

> A sanding disc that was previously used for sanding metal should not be used on wood again. Residual metal particles may lead to scratches, and damage the workpiece surface.

Maintenance

WARNING: Always disconnect from the power supply before carrying out any maintenance/cleaning.

> This tools is manufactured using class leading components and makes use of the latest in intelligent circuitry that protects the tool and its components. In normal use it should provide a long working lfe.

On the product, the rating label and within these instructions you will ýnd among others the following symbols and abbreviations. Familiarize yourself with them to reduce hazards like personal injuries and damage to property.

V~	Volt, (alternating voltage)	mm	Millimetre
Hz	Hertz	kg	Kilogram
W	Watt	dB(A)	Decibel (A-rated)
/min or min^{-1}	Per minute	m/s^2	Metres per seconds squared

Lock / to tighten or secure.

Unlock / to loosen.

Note / Remark.

Caution / Warning.

Read the instruction manual.

Wear hearing protection.

Wear eye protection.

Wear a dust mask.

Wear protective gloves.

Wear protective, slip-resistant footwear.

Switch the product off and disconnect it from the power supply before assembly, cleaning, adjustments, maintenance, storage and transportation.

This product is of protection class II. That means it is equipped with enhanced or double insulation.

The product complies with the applicable European directives and an evaluation method of conformity for these directives was done.

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