

# 5 in. Random Orbital Sander

Ponceuse orbitale aléatoire, 5 po Lijadora orbital aleatoria de 5 pulg

Operator's Manual Manuel d'utilisation Manual del Operario



# 5" Random Orbital Sander Operator's Manual

2.2A

# **Specifications:**

Model: GROS2304

• Input: 120 V~ 60 Hz, 2.2 Amps

No Load Speed: 12,000 OPMPad Size 5" (127mm)

Sanding Disc: 5" with 8-hole pattern

Dust Collection Through pad

Includes: Dust collection bag and Sanding disc

WARNING: To reduce the risk of injury, user must read and understand this operator's manual before operating this tool. Save this Manual for future reference.

Toll-Free Help Line: 1-888-552-8665



WARNING: The Operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning tool operation, always wear safety goggles or safety glasses with side shields and a full face shield when needed. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always wear eye protection which is marked to comply with ANSI 287.1.



Look for this symbol to point out important safety precautions. It means attention!!! Your safety is involved.

# **GENERAL SAFETY RULES**

# A WARNING:

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains 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, and
- · Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

WARNING: READ AND UNDERSTAND ALL WARNINGS, CAUTIONS AND OPERATING INSTRUCTIONS BEFORE USING THIS EQUIPMENT. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

## SAVE THESE INSTRUCTIONS

#### **WORK AREA SAFETY:**

- Keep your work area clean and well lit. Cluttered benches 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 bystanders, children, and visitors away while operating a power tool. Distractions can cause you to lose control.

#### **ELECTRICAL SAFETY**

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not
  use any adapter plugs in any earthed (grounded) power tools. Double insulated tools are equipped
  with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only
  one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact
  a qualified electrician to install a polarized outlet. Do not change the plug in any way. Double
  insulation eliminates the need for the three wire grounded power cord and grounded power supply
  system.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the 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 grounded.
- 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 cords increase the risk of electric shock.
- When operating a power tool outside, use an extension cord suitable for outdoor use. These cords are rated for outdoor use and reduce the risk of electric shock.
- Do not use AC only rated tools with a DC power supply. While the tool may appear to work. The electrical components of the AC rated tool are likely to fail and rate a hazard to the operator.

#### **PERSONAL SAFETY**

- Stay alert, watch what you are doing and use common sense when operating a power tool.
   Do not use tool while 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 for appropriate conditions will reduce
  personal injuries.
- **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. Air vents may cover moving parts and should be avoided.

- Avoid accidental starting. Ensure the switch is in the off position before plugging in.
   Carrying power tool with your finger on the switch or plugging in power tools that have the switch on invites accidents.
- Remove any adjusting keys or wrenches before turning the power tool on. A wrench or key that is left attached to a rotating part of the tool may result in personal injury.
- **Do not overreach.** Maintain proper footing and balance at all times. Loss of balance can cause an injury in an unexpected situation.
- If devices are provided for connection of dust extraction and collection facilities, ensure these are connected and properly used.

  Use of these devices can reduce dust related hazards.
- **Do not use a ladder or unstable support.** Stable footing on a solid surface enables better control of the tool in unexpected situations.
- Keep tool handles dry, clean and free from oil and grease. Slippery handles cannot safely control the tool.

#### **TOOL USE AND CARE**

- Secure the work piece. Use clamp or other practical way to hold the work piece to a stable platform. Holding the work piece by hand or against your body is unstable and may lead to loss of control.
- Do not force the power tool. The tool will perform the job better and safer at the feed
  rate for which it is designed. Forcing the tool could possibly damage the tool and may result in
  personal injury.
- Use the correct power tool for the job. Don't force the tool or attachment to do a job for which it is not designed.
- Do not use tool if switch does not turn it on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired or replaced by an authorized service center.
- Turn power tool off, and disconnect the plug from the power source and/or battery pack from the power tool before making any adjustments, changing the accessories, or storing the tools. Such preventive safety measures reduce the risk of an accidental start up which may cause personal injury.
- Store idle tool out of reach of children and other inexperienced persons. It is dangerous in the hand of untrained users.
- Maintain power tools with care. Check for proper alignment and binding of moving
  parts, component breaks, and any other conditions that may affect the tool's operation. A guard
  or any other part that is damaged must be properly repaired or replaced by an authorized service
  center to avoid risk of personal injury.
- Use recommended accessories. Using accessories and attachments not recommended by the manufacturer or intended for use on this type tool may cause damage to the tool or result in personal injury to the user. Consult the operator's manual for recommended accessories.

- **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- Feed the work piece in the correct direction and speed. Feed the work
  piece into a blade, cutter, or abrasive surface against the direction of the cutting tool's direction
  of rotation only. Incorrectly feeding the work piece in the same direction may cause the work
  piece to be thrown out at high speed.
- Never leave the tool running unattended, turn the power off. Do not leave the tool until it comes to a complete stop.
- Never start the power tool when any rotating component is in contact with the work piece.

WARNING: USE OF THIS TOOL CAN GENERATE AND DISBURSE DUST OR OTHER AIRBORNE PARTICLES, INCLUDING WOOD DUST, CRYSTALLINE SILICA DUST AND ASBESTOS. Direct particles away from face and body. Always operate tool in a well-ventilated area and provide for proper dust removal. Use dust collection system wherever possible. Exposure to the dust may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing the dust, and avoid prolonged contact with the dust. Allowing dust to get into your mouth or eyes, or lay on your skin may promote absorption of harmful material. Always use properly fitting NIOSH/OSHA approved respiratory protection appropriate for dust exposure, and wash exposed areas with soap and water.

#### 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.
- **Service your power tool periodically.** When cleaning a tool, be careful not to disassemble any portion of the tool since internal wires may be misplaced or pinched.

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# SAVE THESE INSTRUCTIONS

#### **EXTENSION CORDS**

**Grounded tools require a three wire extension cord.** Double insulated tools can use either a two or three wire extension cord. As the distance from the power supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage. Refer to the table shown below to determine the required minimum wire size.

The smaller the gauge number of the wire, the greater the capacity of the cord. For example: a 14-gauge cord can carry a higher current than a 16-gauge cord. When using more than one extension cord to make up the total length, be sure each cord contains at least the minimum wire size required. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum wire size.

## **Guidelines for Using Extension Cords**

- If you are using an extension cord outdoors, be sure it is marked with the suffix "W-A" ("W" in Canada) to indicate that it is acceptable for outdoor use.
- Be sure your extension cord is properly wired and in good electrical condition. Always replace a
  damaged extension cord or have it repaired by a qualified person before using it.
- · Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.

Recommended Minimum Wire Gauge for Extension Cords (120 Volt)									
Nameplate Amperes (At Full Load)	Extension Cord Length								
	25 Feet	50 Feet	75 Feet	100 Feet	150 Feet	200 Feet			
0-2.0	18	18	18	18	16	16			
2.1-3.4	18	18	18	16	14	14			
3.5-5.0	18	18	16	14	12	12			
5.1-7.0	18	16	14	12	12	10			
7.1–12.0	18	14	12	10	8	8			
12.1-16.0	14	12	10	10	8	6			
16.1-20.0	12	10	8	8	6	6			

# SPECIFIC SAFETY RULES FOR RANDOM ORBITAL SANDERS

WARNING: DO NOT LET COMFORT OR FAMILIARITY WITH PRODUCT (GAINED FROM REPEATED USE) REPLACE STRICT ADHERENCE TO PRODUCT SAFETY RULES. If you use this tool unsafely or incorrectly, you can suffer serious personal injury!

- Always hold the tool firmly in your hands before switching the tool
   "ON". The reaction to the torque of the motor as it accelerates to full speed may cause the tool
   to twist.
- Do not leave the tool running. Operate the tool only when hand-held.
- This tool has not been waterproofed, so do not use water on the workpiece surfaces.
- Ventilate your work area adequately when you perform sanding operations.
- Wear eye and hearing protection. Always use safety glasses with side shields.
   Unless otherwise specified, everyday glasses provide only limited impact resistance, they are not safety glasses. Use only certified safety equipment; eye protection equipment should comply with ANSI z87.1 standards. Protective hearing equipment should comply with ANSI s3.19 standards.
- **Protect your lungs.** Wear a face or dust mask if the operation is dusty. Following this rule will reduce the risk of personal injury.

# SAFETY RULES FOR PAINT REMOVAL

WARNING: Extreme care should be taken when removing paint. The peelings, residue, and vapors of paint may contain lead, which is poisonous. Exposure to even low levels of lead can cause irreversible brain and nervous system damage. Young and unborn children are particularly vulnerable.

Before beginning any paint removal process you should determine whether the paint you are removing contains lead. This can be done by your local health department or by a professional who uses a paint analyzer to check for lead.

# **A** WARNING: Lead-based paint should only be removed by a professional.

## Persons removing paint should follow these guidelines

- Keep the work area well ventilated. Open the windows and put an exhaust fan in one
  of them. Be sure the fan is moving air from inside to outside.
- Remove or cover any carpets, rugs, furniture, clothing, cooking utensils, and air ducts.
- Place drop cloths in the work area to catch any paint chips or peelings. Wear protective clothing such as extra work shirts, overalls and hats.
- Work in one room at a time. Furnishings should be removed or placed in the center
  of the room and covered. Work areas should be sealed off from the rest of the dwelling by sealing
  doorways with drop cloths.
- Children, pregnant or potentially pregnant women and nursing mothers should not be present in the work area until the work is done and all cleanup is complete.
- Keep food and drink out of the work area. Wash hands, arms, and face and rinse mouth before eating and drinking. Do not smoke or chew gum or tobacco in the work area.
- Clean up all removed paint and dust by wet mopping the floors. Use
  a wet cloth to clean all walls, sills and any other surfaces where paint or dust is clinging. Do not
  sweep, dry dust or vacuum. Use a high phosphate detergent or trisodium (TSP) to wash and mop
  areas.
- At the end of each work session, put the paint chips and debris in a double plastic bag, close it with tape or twist ties and dispose properly.
- Remove protective clothing and work shoes in the work area to avoid carrying dust into the rest of the dwelling. Wash work clothes separately. Wipe shoes off with a wet rag, and then wash that rag with the work clothes. Wash hair and body thoroughly with soap and water.

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## SAVE THESE INSTRUCTIONS



# UNPACKING AND CONTENT

IMPORTANT: Due to modern mass production techniques, it is unlikely the tool is faulty or that a part is missing. If you find anything wrong, do not operate the tool until the parts have been replaced or the fault has been rectified. Failure to do so could result in serious personal injury.

# **Contents in Package:**

4. Sanding Pad

Description	QTY	Description		QTY
Sander	1	Dust Bag	1	
Sanding disc	1			
Operator's Manual	1			

#### **OPERATION**

**WARNING:** Always check that the power supply corresponds to the voltage on the rating name plate.

WARNING: Always be sure that the tool is switched off and unplugged before adjusting, adding accessories, or checking a function on the tool.

### **Switch Action**

**WARNING:** Before plugging in the tool, always check to see that the tool is switched off.

The switch can be locked in "ON" position for ease of operator comfort during extended use. Apply caution when locking tool in "ON" position and maintain a firm grasp on the tool. Your sander is equipped with a clear, flexible plastic boot that covers the "ON/OFF" switch; this is referred to as a "dust-protected switch". It is not uncommon for sanders to collect large amounts of airborne sawdust in the switch area, which, if not cleared out, may cause the switch to become non-functional. The dust protected switch, on the other hand, can not accumulate dust in the switch area.

To start the sander, press down the "I" (ON) side of the switch. To stop the sander, press down the "O" (OFF) side of the switch.

## **Installing and Removing Abrasive Paper:**

**WARNING:** Always be sure that the tool is switched off and unplugged before performing any work on the tool.

Your random orbital sander is equipped to accept 5" hook & loop backed abrasives with five or eight dust extraction holes. Abrasive paper with eight dust extraction holes is suggested to maximize your sanders dust collection capabilities.

▲ WARNING: Always use hook & loop system abrasive discs. Never attempt to use pressure-sensitive abrasive discs.

#### To install the abrasive disc

- 1. Remove any dirt or foreign material from the pad.
- 2. Attach the abrasive disc to the pad using the hook & loop system on the disc and pad.
- Press the disc firmly onto pad. Being careful to align the holes in the abrasive disc with those in the pad.
- 4. Place the sander onto a piece of scrap material with the abrasive disc contacting the surface. Then start and operate the sander momentarily while pressing down firmly to seat the disc to the pad.

**WARNING:** Failing to properly seat disc to pad may result in the disc being thrown from the pad and cause personal injury.

To remove the abrasive disc, peel the disc away from the pad.

NOTE: Hook and loop abrasive discs are reusable while usable abrasive grit remains on the disc surface. If you intend on reusing a disc, store it in a protective bag or other method which will protect the back of the pad from collecting dust or other debris. Any damage to or debris collection on the loop portion of the disc will affect its ability to stay attached to the sanders pad when reinstalled.

A WARNING: Never operate the sander without an abrasive disc installed, doing so will damage the pad and affect its ability to firmly hold abrasive discs during use and possibly causing personal injury.

## **Dust Collect Bag**

**A** WARNING: Never operate this tool without the dust collection bag installed when using perforated abrasive paper.

The dust collection bag is located in the rear of your sander. As mentioned in the previous section, sanding dust is drawn up into the holes punched in the abrasive paper, then through the matching holes in the sanding pad and into the dust bag where it's collected during sanding operations. As the dust collection bag fills beyond half full the dust collection system becomes less efficient. Therefore, for more efficient performance, empty the dust bag when it becomes half full.

## To Empty the Dust Collection Bag

- Unplug the sander from the power source.
- Remove the dust bag from its rear mount by gripping the sander with one hand and the dust bag with your other hand. Then pull the dust bag straight back.
- To empty the bag you simply turn it on end with round mounting tube at the front of the bag pointing downward and shake the content from the bag into a container.

## To Reinstall the Dust Collection Bag:

- Unplug the sander from the power source.
- Insert the mounting tube into the dust exhaust port at the rear of the sander until it is firmly set in place.

# **Sanding Operation**

Your sander smooths the workpiece surface by the pad moving in tiny circles at high speed. This type of sanding action called "orbital motion", giving your sander a very fast cutting action for quick removal of large amounts of stock, especially with the coarser grit abrasive papers. On most sanding jobs, orbital motion gives you the ability to sand in any direction irrespective of the wood's grain. However, to attain a better finish, it is best to sand "with" the grain.

This sander is designed to be held either around the main housing or a palm grip on top of the housing. During long periods of sanding you may find it helpful to relieve hand fatigue by periodically alternating your grip between the two holding styles.

**NOTE:** When holding the sander in the palm grip style, try positioning your hand and fingers to minimize covering the upper motor cooling vents.

#### To Use the Sander

- Clamp or otherwise secure the workpiece to prevent it from moving while you're sanding.
- Hold the tool in front and away from you and clear of the workpiece. Start the sander by pressing the switch to the "I" (ON) position and let it come up to full speed.
- Slowly lower your sander onto the workpiece, the move the sander in slow forward & backward
  strokes. Do not force or push the tool down on the workpiece, the weight of the tool is sufficient
  pressure, allowing the motor and abrasive paper to operate at their most efficient speed. Excessive
  pressure causes the motor to slow down, preventing the abrasive from cutting effectively and
  causes the abrasive to prematurely wear out. When the motor is slowed by excessive pressure the

- motor will quickly overheat and possibly cause motor damage in addition to producing an inferior workpiece surface.
- Do not sand in on spot too long. The sander can easily remove too much material, producing an
  uneven surface. Use long sweeping strokes while sanding, gradually moving to progressively finer
  grit abrasive paper until the desired surface finish is achieved.
- Your sander's lightweight and comfortable palm grip make it ideal for doing work overhead and on vertical surfaces, although these positions will affect dust collection efficiency.
- When your ready to change paper or are finished with a job, lift the sander away from the work surface, press the switch into the "0" (OFF) position, then unplug the sander while changing paper and/or to prevent inadvertently starting prior to tool storage.

### **MAINTENANCE**

#### **CLEANING**

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.

WARNING: Do not at any time let brake fluids, gasoline, petroleumbased products, penetrating oils, etc., come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic which may result in serious personal injury.

Electric tools used on fiberglass material, wallboard, spackling compounds, or plaster are subject to accelerated wear and possible premature failure because the fiberglass chips and grindings are highly abrasive to bearings, brushes, commutators, etc. Consequently, we do not recommended using this tool for extended work on these types of materials. However, if you do work with any of these materials, it is extremely important to clean the tool using compressed air.

#### LUBRICATION

This tool is permanently lubricated at the factory and requires no additional lubrication.

### TWO-YEAR WARRANTY

This product is warranted free from defects in material and workmanship for 2 years after date of purchase. This limited warranty does not cover normal wear and tear or damage from neglect or accident. The original purchaser is covered by this warranty and it is not transferable. Prior to returning your tool to store location of purchase, please call our Toll-Free Help Line for possible solutions. THIS PRODUCT IS NOT WARRANTED IF USED FOR INDUSTRIAL OR COMMERCIAL PURPOSES. ACCESSORIES INCLUDED IN THIS KIT ARE NOT COVERED BY THE 2 YEAR WARRANTY.

# **TOLL-FREE HELP LINE**

For questions about this or any other GENESIS Product, please call Toll-Free: 888-552-8665. Or visit our web site: www.richpowerinc.com

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