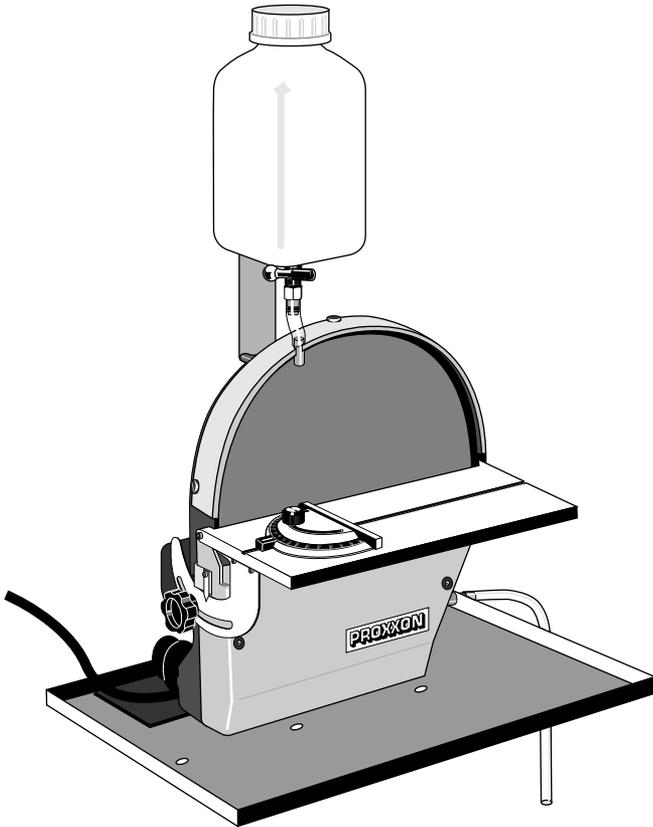


PROXXON

TG 250/E



Manual

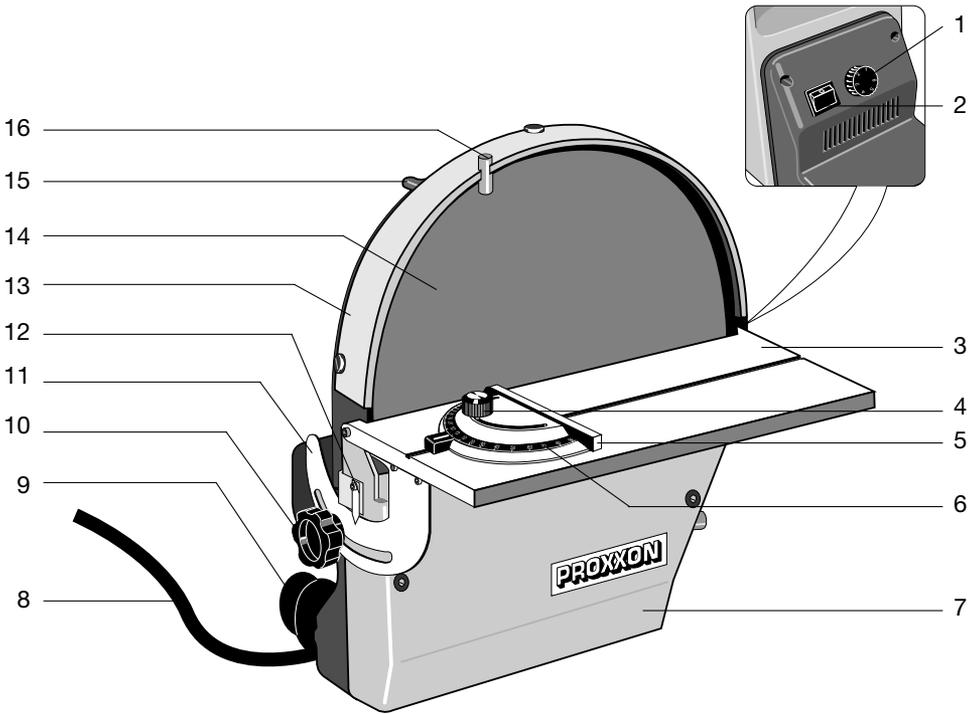


Fig. 1

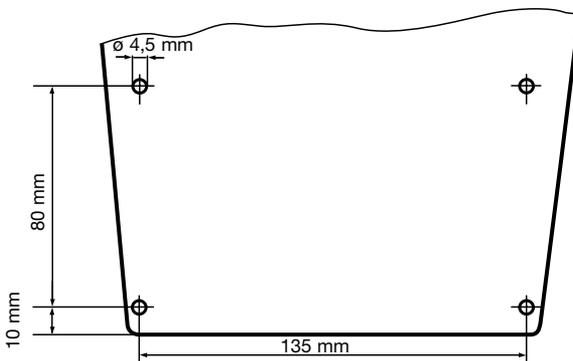


Fig. 2

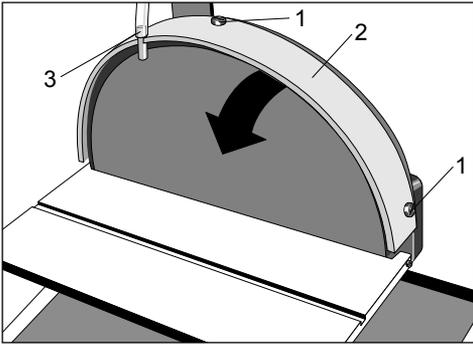


Fig. 3

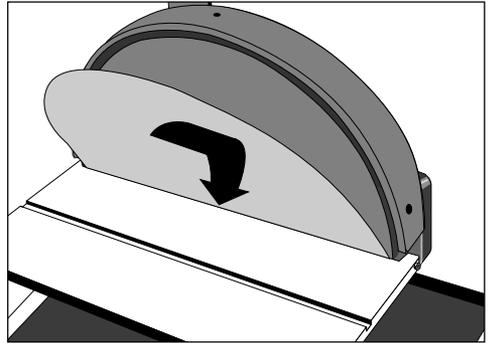


Fig. 4

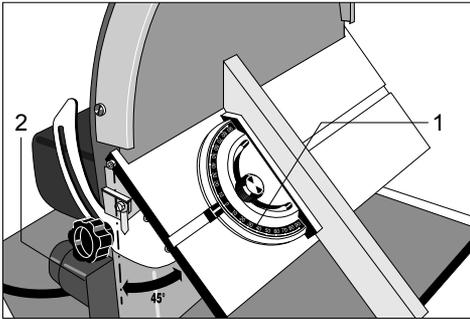


Fig. 5

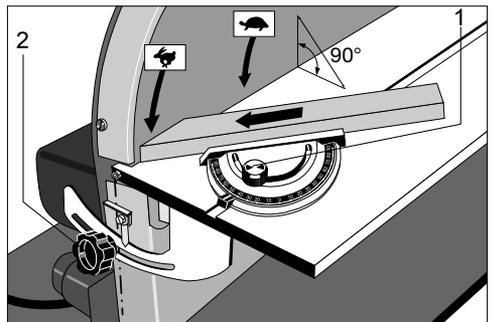


Fig. 6

Foreword

Dear customer!

The Proxxon TG 250/E disk sander is a high-quality tool for accurate sanding of a wide variety of materials. Please read the enclosed safety guidelines and operating instructions to ensure efficient and safe working practices.

This instruction manual covers:

- safety regulations
- operation and maintenance
- spare parts list

Please read carefully!

Using this instruction manual will

- **make it easier for you** to get used to the machine,
- **help prevent** faults occurring due to improper use and
- **increase** the service life of your machine.

Keep this instruction manual in an easily accessible place. Only operate this machine if you are qualified to do so and follow the guidelines in this instruction manual.

PROXXON does not accept responsibility for the safe functioning of the machine

1. if it is handled in a manner which constitutes improper use,
2. if it is used for other purposes which are not specified in the instruction manual,
3. if the safety regulations are not observed.
4. Warranty claims are invalid if the machine is incorrectly operated, or the machine has not been sufficiently maintained.

In the interests of your safety, please always observe the safety regulations.

Only use genuine PROXXON spare parts.

We reserve the right to make further alterations for the purpose of technical progress.

We wish you every success with your machine.

Safety regulations

IMPORTANT

1. Ensure the workplace is tidy.
2. Check the unit for damage before use.
3. (connection cable, protective devices, etc.), have defective parts replaced by qualified personnel.
4. This unit corresponds to the pertinent safety regulations.
5. Repairs (e.g., replacement of the power supply lead) may only
6. be performed by a qualified electrician.
7. Never work without the safety equipment fitted.
8. Do not use electrical power tools in the rain, in damp surroundings or in the vicinity of flammable liquids or gases.
9. Only use the tool when the handle is dry and free from grease.
10. Avoid contact with earthed components, e.g., pipes, radiators, ovens and refrigerators.
11. Protect the connection lead from heat and sharp edges and
12. route it so it cannot be damaged.
13. Do not remove the plug from the socket by pulling on the cable.
14. Do not pick up the unit by the cable.
15. Keep children and third parties away from the workplace.
16. Keep tools in childsafe locations when not in use.
17. Do not overload the tool.
18. Do not use the tool to perform operations for which it is not suitable.
19. Replace blunt tools in good time.
20. Visually inspect application tools to ensure they are in good working order and suitable for the task prior to setting up the job.
21. Fasten tools securely.
22. Clean the unit thoroughly following all work.
23. Disconnect the plug from the power supply when the unit is not in use, before performing maintenance, tool replacement or repair work.
24. Only plug the unit in when the unit is switched off.
25. Always wear protective goggles (danger of tool breakage).
26. If necessary, wear a protective dust mask.
27. Only use appropriate working clothes (no loose sleeves, ties, jewellery).
28. Wear a hair net if you have long hair.
29. Only use accessories and spare parts recommended by PROXXON.
30. Observe the max. permitted rotational speed.
31. If necessary, use dust extract equipment.
32. Do not use the tool when you are tired or under the influence of alcohol.
33. Keep fingers away from rotating or fast moving tools (saws, etc.).
34. Keep the operation instructions in a safe place.

General safety instructions

Read and become familiar with this entire instructions manual. Learn the tool's applications, limitations and possible hazards.

1. KEEP GUARDS IN PLACE and in working order.
2. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
3. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
4. DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
5. KEEP CHILDREN AWAY. All visitors should be kept safe distance from work area.
6. MAKE WORKSHOP KID PROOF with padlocks, master switches, or by removing starter keys.
7. DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.
8. USE RIGHT TOOL. Don't force tool or attachment to do a job for which it was not designed.
9. USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord. Exception No. 1: The reference to the table and the table itself may be omitted if a statement indicating the appropriate gage and length is incorporated into the instruction.
Exception No. 2: The information regarding extension cords need not be provided for a permanently connected tool.
10. WEAR PROPER APPAREL. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewellery which may get caught in moving parts. Non-slip footwear is recommended.
Wear protective hair covering to contain long hair.
Exception: The reference to gloves may be omitted from the instructions for a grinder.
11. ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
12. SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
13. DON'T OVERREACH. Keep proper footing and balance at all times.
14. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
15. DISCONNECT TOOLS before servicing; when changing accessories, such as blades, bits, cutters, and the like.
16. REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure switch is in off position before plugging in.

17. USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
18. NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
19. CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
20. DIRECTION OF FEED. Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
21. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. Don't leave tool until it comes to a complete stop.

Warning

For Your Own Safety Read Instruction Manual Before Operating Sander

Additional safety instructions for sander:

- a) Wear eye protection.
- b) Support workpiece on worktable.
- c) Maintain 1/16 inch maximum clearance between table and sanding belt or disc.
- d) Avoid kickback by sanding in accordance with the directional arrows.

GROUNDING INSTRUCTIONS:

1. All grounded, cord-connected tools:

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug.

The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify the plug provided – if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal. Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only 3-wire extension cords that have 3prong grounding plugs and 3pole receptacles that accept the tool's plug.

Repair or replace damaged or worn cord immediately.

2. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating less than 150 volts:

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch A in Figure 7. The tool has a grounding plug that looks like the plug illustrated in Sketch A in Figure 7. A temporary adapter, which looks like the adapter illustrated in Sketches B and C, may be used to connect this plug to a 2-pole receptacle as shown in Sketch B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

Grounding methods

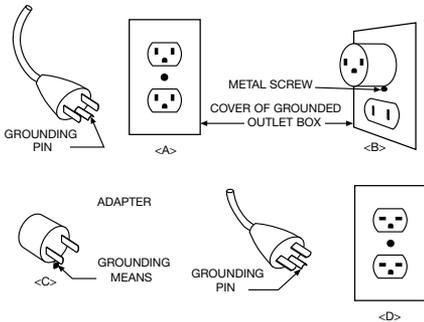


Fig. 7

Table 1
Minimum gage for cord

Effective date for Table 1 changed from November 1, 1995 to November 11, 1996

Ampere Rating		Volts	Total length of cord in feet			
			25 ft.	50 ft.	100 ft.	150 ft.
		120 V	25 ft.	50 ft.	100 ft.	150 ft.
		240 V	50 ft.	100 ft.	200 ft.	300 ft.
More Than	Not More Than	AWG				
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Recommended	

Legend (fig, 1)

1. Speed controller
2. On/off switch
3. Working table
4. Angular limit stop clamping bolt
5. Angular limit stop
6. Angular limit stop scale
7. Housing
8. Mains cable
9. Spigots for duct extract unit
10. Clamping bolt for working table adjustment
11. Working table adjustment scale
12. Indicator needle
13. Protective cover
14. Disk sander disk with abrasive disk
15. Spigots for cooling unit
16. Spigots for coolant pipes

Description of the Unit

This disk sander can be used to precisely grind all types of wood, non-ferrous metals, steel, plastic, cork, rubber and glass. The stepless speed control permits the grinding characteristics to be optimally matched to any material.

The working table is manufactured from die-cast aluminium with a ground surface finish. Self-adhesive abrasive disks can be readily replaced. The disk sander has dual ball-bearing mounts and the front face of the unit is plane-turned.

Warning !

This Disk sander is for indoor use only. Do not expose to rain or use in damp locations.

Warning !

For your safety, never connect the plug to the power source receptacle until the assembly and adjustment steps are completed, and you have read and understood the safety and operating instructions.

Technical data

Grinding speed:	250 - 750 m/min
Abrasive disk:	Ø 250 mm
Max. grinding height:	135 mm
Table adjustment:	15° upwards, 45° downwards
Noise level:	72 dB(A)
Vibration:	2.5 m/s ²
Working table:	275 x 105 mm
Overall size:	330 x 280 x 230 mm

Motor:

Voltage:	115 V / 60 Hz
Power consumption:	200 Watt

Unit Assembly

Warning!

To avoid injury from unexpected starting or electrical shock, do not plug the power cord into a power source receptacle during unpacking and assembly. This cord must remain unplugged whenever you are working on the disk sander.

Warning!

If any part is missing or damaged, do not plug the disk sander in until the missing or damaged part is replaced, and assembly is complete. To avoid electrical shock, use only identical replacement parts when servicing double insulated tools.

Warning!

Do not attempt to modify this tool or create accessories not recommended for use with this tool. Any such alternation or modification is misuse and could result in hazardous condition leading to possible serious injury.

1. Remove the disk sander from the packaging and check if any parts are missing.
2. Fasten unit using fastening bolts onto a stable workbench or working surface, as per fig. 2.

Adjust Angular Indicator

Warning!

For your own safety, do not plug the tool into the power source receptacle or insert the switch key, until the parts are correctly installed and adjustments have been made.

1. Slightly release clamping bolt **10** (fig.1) and align the working table **3** to precisely 90° (using a square) (fig. 6). Retighten the clamping bolt.
2. Check and if necessary correct the zero setting of the indicator **12** (fig. 1), after releasing the clamping bolts.

Note:

Perform a grinding test before performing precision work.

3. Grind a piece of wood and check the angle, if necessary readjust the working table **3** (fig. 1) and the indicator **12**.

Replacing the Abrasive Disk

Warning!

To avoid injury from accidental start, make sure the switch is in the OFF position and the plug is not connected to the power source receptacle before changing any parts or discs.

Remove the abrasive disk

Caution!

Disconnect the mains plug from the power socket.

Warning!

For your own safety, use only abrasive discs sized and recommended for this disk grinder. Follow the instructions that accompany the disk grinder.

Note:

The protective cover must be removed when changing the abrasive disk.

1. Detach the liquid cooling system pipes from the spigots **3** (fig. 3) on the protective cover if present. Release the fastening bolts **1** and remove the protective cover **2**.
2. Detach the abrasive disk from the grinding plate using a blunt knife or a chisel and remove the abrasive disk halfway.

The disk can be easily removed from the plate by heating the adhesive with a hot-air blower.

Important!

Do not damage the grinding plate!

3. Turn the grinding plate approx. 180° and remove the rest of the disk.

Attaching New Sheet of Abrasive Material

Note:

Thoroughly clean the grinding plate before applying the new abrasive disk.

Warning!

Use only accessories recommended for this disk sander. Follow the instructions that accompany accessories. Use of improper accessories may cause hazards.

1. Pull off half of the protective foil for the new abrasive disk.
2. Insert the abrasive disk halves with the protective foil between the working table and the grinding plate (fig. 4).

Note:

When applying the abrasive disk on the grinding plate, start from the centre and work outwards.

3. Apply the top half of the abrasive disk on the grinding plate precisely in the correct position.
4. Rotate the grinding plate approx. 180°, remove the second half or the protective foil and use the same procedure to apply the disk.
5. Reattach the protective cover.

Working with the Disk sander

Important!

Safe and precision working practice can only be ensured with the unit properly secured!
Do not leave the unit switched on if unsupervised.

1. Switch on the disk sander.
2. Adjust the rotational speed of the disk sander using the speed controller **1** (fig. 1).
3. Place the work piece on the working table, guide it gently and carefully.
4. Always exert pressure on the working table rather than against the abrasive disk.

Note:

Please note the following items in order to ensure good grinding results:

1. Do not overload the unit (if the fuse blows, only use an original fuse (1.25 T) as a replacement)!
2. The disk sander is primarily designed for grinding precise angles. The more accurately the work piece is pre-cut, the quicker and easier it will be to produce precise angles and the less abrasive disks will be required to perform the task.
3. Please note the dissimilar grinding speeds for the abrasive disk (fig. 6):
inner diameter = low speed
outer diameter = high speed
4. The abrasive disk turns in an anti-clockwise direction. For this reason, only grind on the left half of the working table.

Important!

Only use abrasive disks which are in a flawless condition. Replace worn abrasive disks promptly.

Grinding a Mitre with the Working Table Inclined

1. Release the clamping bolt **2** (fig. 5) and set the working table to the desired angle (e.g., 45°).
2. Tighten clamping bolt 2.
3. Set angular limit stop **1** (fig. 5) to position "0"

With horizontally set working table

1. Release the clamping bolt **2** (fig. 6) and set the working table horizontally (indicator at "0").
2. Tighten clamping bolt 2.
3. Set the angular limit stop **1** (fig. 6) to the desired angle (e.g., 45°).

Liquid Cooling System

We recommend that the liquid cooling system is attached when grinding iron, steel and non-ferrous metals, as well as stone, tiles, ceramics (not included in scope of supply, available as an accessory).

The heat arising from grinding operations is dissipated by supplying coolant, thus improving the resulting surface quality.

Dust Extract Connection

In order to permit a dust-free working environment, the disk sander is equipped with a vacuum cleaner connection for dust extraction.

Important!

When using both a vacuum cleaner (as a dust extract unit) and the liquid cooling unit, ensure that the vacuum cleaner is suitable for aqua cleaning as well.

1. Connect the vacuum cleaner hose to the connection spigot **9** (fig. 1).
2. Switch on the vacuum cleaner.
3. Switch on the disk sander, grind the work piece.

Cleaning and Care

Your disk sander was developed for minimal maintenance, however regular cleaning is required to ensure a long trouble-free service life.

Caution!

Always disconnect the mains plug prior to cleaning and maintenance operations.

1. Regularly inspect the mains cable for damage.
2. Ensure the abrasive disk is securely seated and in perfect condition, if necessary replace the abrasive disk.
3. Thoroughly clean the disk sander after use.

Warning!

To avoid fire or toxic reaction, never use gasoline, naphtha, acetone, lacquer thinner, or similar highly volatile solvents to clean the disk sander.

Do not allow brake fluids, gasoline, or penetrating oils to come in contact with the plastic parts. They contain chemicals that can damage or destroy plastics.

Turn switch OFF and always remove plug from power source before making any adjustments or repairs.

All electrical or mechanical repairs should be done only by qualified service technicians.

When servicing use only PROXXON replacement parts. Use of any other parts may create a hazard or cause product damage.

Any attempt to repair or replace electrical parts on this disk sander may create a hazard unless repair is done by a qualified service technician. Repair service is available at your PROXXON service center (You find the address at address at the back of this manual)