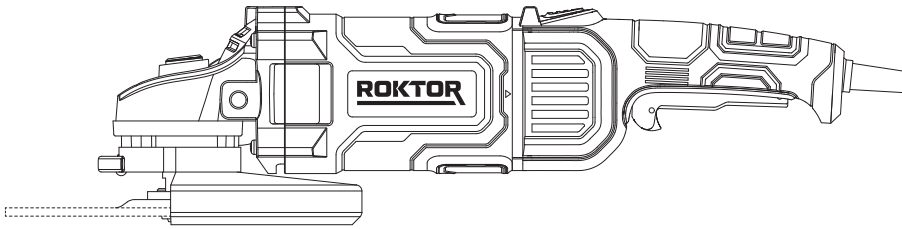
ROKTOR

ORIGINAL USER INSTRUCTIONS

2200W 230mm ANGLE GRINDER

SKU: AB765



READ BEFORE USE
PLEASE KEEP THESE INSTRUCTIONS FOR FURTHER REFERENCE

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Email: roktor.support@positecgroup.com

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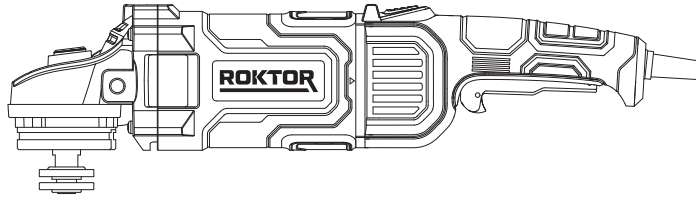
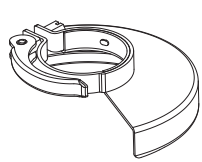
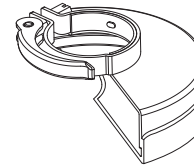
WHAT'S IN THE BOX



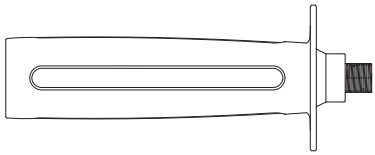
Angle grinder



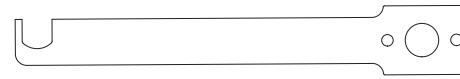
Quick release wheel guard for grinding



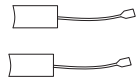
Quick release wheel guard for cutting



Auxiliary handle



Spanner



Carbon brushes

User instruction manual

SPECIFICATIONS

- 230V~50Hz
- 3 position auxiliary handle
- Rotating rear handle
- Soft start

TECHNICAL DATA

SKU/Model	AB765 (PGA230G11.1)
Rated voltage	230V~50Hz
Rated power rate	2200W
No-load speed	6500 /min
Plug	BS plug
Protection class	⧈ /II
Spindle thread size	M14
Disc size	230mm
Disc bore size	22.23mm
Net weight approx.(kg)	6.65 kg
A weighted sound pressure L_{pA} (K_{pA} = 3 dB(A))	96,8 dB(A)
A weighted sound power L_{wA} (K_{wA} = 3 dB(A))	104,8 dB(A)
Vibration level a_h (K = 1,5 m/s²) Surface grinding or abrasive cutting off	$a_{h,AG}$ = 8,52 m/s²

The declared vibration total value has been measured in accordance with a standard test method and may be used for comparing one tool with another;
The declared vibration total value may also be used in a preliminary assessment of exposure.

WARNING: The vibration and noise emissions during actual use of the power tool can differ from the declared value depending on the ways in which the tool is used, dependant what kind of workpiece is processed dependant on the following examples and other variations on how the tool is used:

- How the tool is used and the materials being cut.
- The tool being in good condition and well maintained.
- The use of 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 and noise 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 and noise exposure risk.
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 and noise accessories.
Plan your work schedule to spread any high vibration tool use across a number of days.

EXPLANATIONS AND SYMBOLS, CAUTIONS AND WARNINGS

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

Class II device - Double Insulation

Risk of damage or injury if the instructions in this manual are not followed

Immediately disconnect the plug from the power outlet if it is damaged, and for all maintenance operations.

Wear eye protection

Wear ear protection

Wear dust mask

Always wear gloves

Always operate with two hands

Do not use the guard for cut-off operations

The product complies with the applicable European Directives and an evaluation method of conformity for these Directives was carried out.

UK Conformity Assessed

IMPORTANT SAFETY WARNINGS

CAUTION – To reduce risk of injury, user must read instruction manual

GENERAL POWER TOOL SAFETY WARNINGS

WARNING: 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.*

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 adaptor 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) 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 and clothing 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.*
h) **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** *A careless action can cause severe injury within a fraction of a second.*

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 remove the battery pack, if detachable, 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 and accessories. 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.*
h) **Keep handles and grasping surfaces dry, clean and free from oil and grease.** *Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.*

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.*

ANGLE GRINDER SAFETY WARNINGS

Safety warnings common for grinding or cutting-off operations:

a) **This power tool is intended to function as a grinder or cut-off tool. 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 sanding, wire brushing, polishing or hole cutting are not 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 convert this power tool to operate in a way which is not specifically designed and specified by the tool manufacturer.** *Such a conversion may result in a loss of control and cause serious personal injury.*

d) **Do not use accessories which are not specifically designed and specified 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 break and 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 dimensions of the accessory mounting must fit the dimensions of the mounting hardware of the power tool.** *Accessories 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 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.*

i) **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 applications. The dust mask or respirator must be capable of filtrating particles generated by the particular application. 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 workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.*

k) **Hold the 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 could give the operator an electric shock.*

l) **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.*

m) **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.*

n) **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.*

o) **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.*

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

q) **Do not use accessories that require liquid coolants.** *Using water or other liquid coolants may*

result in electrocution or shock.

r) **Your hand must hold on the handle when you are working.** *Always use the auxiliary handles supplied with the tool. 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 with both hands on the power tool and position your body and arms 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, segmented diamond wheel with a peripheral gap greater than 10 mm or toothed saw blade.** *Such blades create frequent kickback and loss of control.*

ADDITIONAL SAFETY INSTRUCTIONS FOR GRINDING AND CUTTING-OFF OPERATIONS

Safety warnings specific for grinding and cutting-off operations:

a) **Use only wheel types that are specified for your power tool and the specific guard designed for the selected wheel.** *Wheels for which the power tool was not designed cannot be adequately guarded and are unsafe.*

b) **The grinding surface of centre depressed wheels must be mounted below the plane of the guard lip.** *An improperly mounted wheel that projects through the plane of the guard lip cannot be adequately protected.*

c) **The guard must be securely attached to the power tool and positioned for maximum safety, so the least amount of wheel is exposed towards the operator.** *The guard helps to protect the operator from broken wheel fragments, accidental contact with wheel and sparks that could ignite clothing.*

d) **Wheels must be used only for specified applications. For example: do not grind with the side of cut-off wheel.** *Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.*

e) **Always use undamaged wheel flanges that are of correct size and shape for your selected wheel.** *Proper wheel flanges support the wheel thus reducing the possibility of wheel breakage. Flanges for cut-off wheels may be different from grinding wheel flanges.*

f) **Do not use worn down wheels from larger power tools.** *A wheel intended for larger power tool is not suitable for the higher speed of a smaller tool and may burst.*

g) **When using dual purpose wheels always use the correct guard for the application being**

performed. *Failure to use the correct guard may not provide the desired level of guarding, which could lead to serious injury.*

h) Warning! Grinding thin sheets of metal or other easily vibrating structures with a large surface can result in a total noise emission much higher (up to 15 dB) than the declared noise emission values. Such workpieces should as far as possible be prevented from emitting sound by suitable measures such as the application of heavy flexible damping mats. The increased noise emission is also to be considered for both the risk assessment of noise exposure and selecting adequate hearing protection.

ADDITIONAL SAFETY INSTRUCTIONS FOR CUTTING-OFF OPERATIONS

Additional safety warnings specific for cutting-off operations:

a) Do not "jam" the cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut. *Overstressing the wheel increases the loading and susceptibility to twisting or binding of the wheel in the cut and the possibility of kickback or wheel breakage.*

b) Do not position your body in line with and behind the rotating wheel. *When the wheel, at the point of operation, is moving away from your body, the possible kickback may propel the spinning wheel and the power tool directly at you.*

c) When the wheel is binding or when interrupting a cut for any reason, switch off the power tool and hold it motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur. *Investigate and take corrective action to eliminate the cause of wheel binding.*

d) Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully re-enter the cut. *The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.*

e) Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback. *Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.*

f) Use extra caution when making a "pocket cut" into existing walls or other blind areas. *The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.*

g) Do not attempt to do curved cutting. *Overstressing the wheel increases the loading and susceptibility to twisting or binding of the wheel in the cut and the possibility of kickback orwheel breakage, which can lead to serious injury.*

ADDITIONAL SAFETY RULES FOR ANGLE GRINDER

WARNING: Make sure the handle in the locked position before start the angle grinder. Rotating the handle is permitted only in the switched off condition.

SAFETY WARNINGS FOR BONDED ABRASIVE WHEELS

General

Abrasives are breakable and shall therefore be handled with utmost care! The use of damaged or improperly mounted or used abrasives is dangerous and can cause serious injuries.

Delivery, handling and storage

Abrasives shall be handled and transported with care.

Abrasives shall be stored in such a manner that they are not subjected to mechanical damages and harmful environmental influences.

Selection of abrasives

Information on the label or the abrasive as well as restrictions of use, safety indications or any other instruction shall be followed. In case of doubt concerning the selection of abrasives, the user shall request information from the manufacturer or supplier.

Visual inspection and ring test

Abrasives shall be subjected to a visual inspection as received before mounting.

In addition, a ring test shall be executed for abrasives with diameter > 80 mm.
Damaged abrasives shall not be used.

Mounting, before starting and information for grinding

The mounting of abrasives shall be carried out according to the instructions provided by both the abrasive and the machine manufacturer. Special attention shall be drawn to the fact that mounting of abrasives is to be carried out by a qualified trained person. Each time after mounting, the abrasive shall be test run for a reasonable time – the specified maximum operating speed of the abrasive shall not be exceeded.

The following information applies to professional users only but is good practice for all users:

ADDITIONAL SAFETY WARNING FOR CONSTRUCTION DUST

The updated Control of Substances Hazardous to Health Regulations 1st October 2012 now also targets to reduce the risks associated with silica, wood and gypsum dusts.
Construction workers are one of the at risk groups within this because of the dust that they breathe: silica dust is not just a nuisance; it is a real risk to your lungs!
Silica is a natural mineral present in large amounts in things like sand, sandstone and granite. It is also commonly found in many construction materials such as concrete and mortar. The silica is broken into very fine dust (also known as Respirable Crystalline Silica or RCS) during many common tasks such as cutting, drilling and grinding. Breathing in very fine particles of crystalline silica can lead to the development of:

· Lung cancer
· Silicosis
· Chronic Obstructive Pulmonary Disorder / Chronic obstructive pulmonary disease (COPD)

And breathing in fine particles of wood dust can lead to the development of Asthma. The risk of lung disease is linked to people who regularly breathe construction dust over a period of time, not on the odd occasion.
To protect the lungs, the COSHH Regulations sets a limit on the amount of dust - when compared to a penny it is tiny - like a small pinch of salt.
This limit is the legal maximum; the most you can breathe after the right controls have been used.

HOW TO REDUCE THE AMOUNT OF DUST?

a) Reduce the amount of cutting by using the best sizes of building products.
b) Use a less powerful tool e.g. a block cutter instead of angle grinder.
c) Using a different method of work altogether – e.g. using a nail gun to directly fasten cable trays instead of drilling holes first.
Please always work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles and use the dust extraction facility at all times.

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

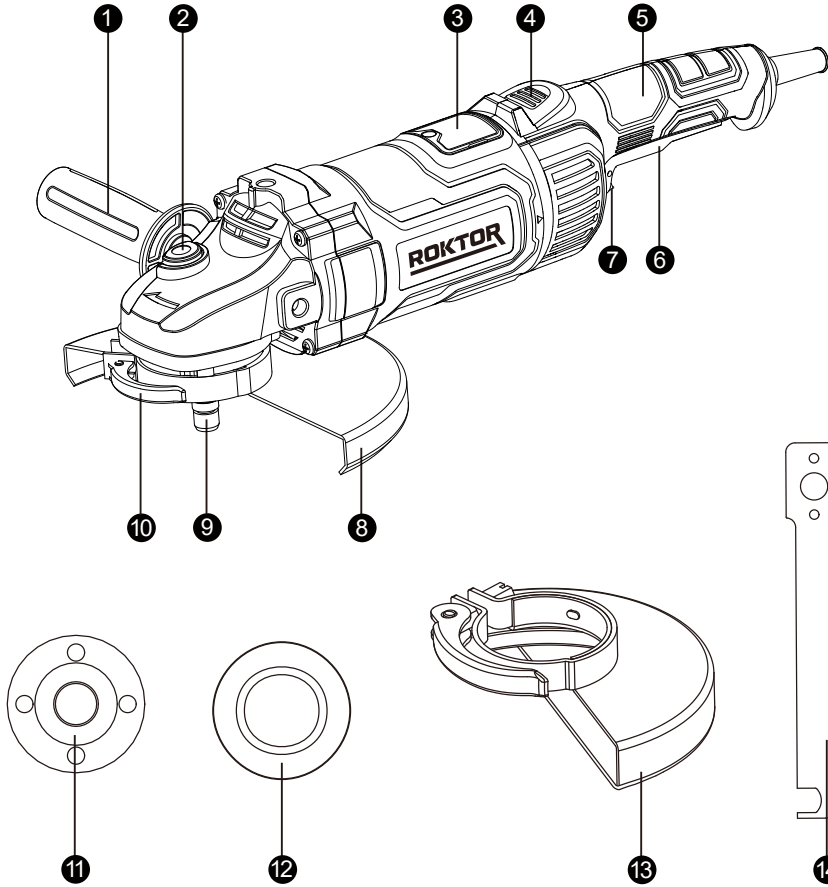
· Lead from lead-based paints.
· Crystalline silica from bricks and cement and other masonry products.
· Arsenic and chromium from chemically treated timber.

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 dust masks that are specially designed to filter microscopic particles and use the dust extraction facility at all times.

For more information please see the HSE website:
http://www.hse.gov.uk/construction or
http://www.hse.gov.uk/pubns/cis69.pdf

PRODUCT DESCRIPTION AND IDENTIFICATIONS



1. **Auxiliary handle**
2. **Spindle lock button**
3. **Carbon brush cap**
4. **Turnable handle lock button**
5. **Turnable handle**
6. **On/off switch**
7. **On/off switch lock lever**
8. **Wheel guard for grinding**
9. **Spindle**
10. **Guard clamping lever**
11. **Outer flange**
12. **Inner flange**
13. **Wheel guard for cutting**
14. **Spanner**

ASSEMBLY AND OPERATING INSTRUCTIONS

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

The tool is packaged with some parts that are unattached and require a little, simple assembly.

WARNING: Do not operate until fully assembled and with all parts correctly attached. Handle with extreme care.

ASSEMBLY

WARNING: Disconnect the power supply before carrying out any operation on the machine.

1. INSTALLING AND ADJUSTING THE WHEEL GUARD (SEE FIG. 1 & 2)

WARNING: For work with grinding or cutting discs, the wheel guard must be mounted.

- Wheel guard for grinding

The coded projection on the wheel guard ensures that only a guard that fits the machine type can be mounted.

Open the clamping lever. Place the wheel guard with coded projection into the coded groove on the spindle of the machine head and rotate to the required position (working position).

To fasten the wheel guard, close the clamping lever. The closed side of the wheel guard must always point to the operator.

NOTE: With the clamping lever open, the clamp adjusting nut can be adjusted to ensure the guard is securely clamped after the clamping lever is finally closed.

- Wheel guard for cutting

The wheel guard for cutting is mounted in the same manner as the wheel guard for grinding.

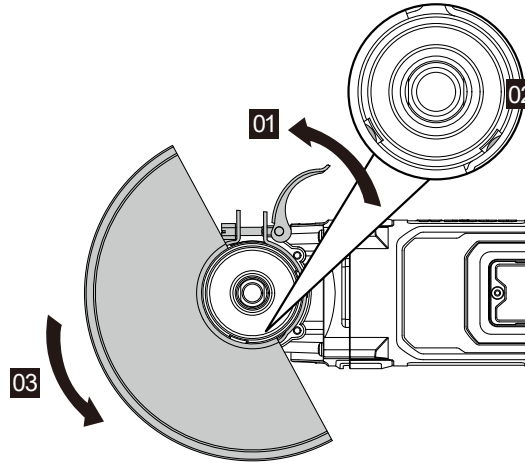


Figure 1

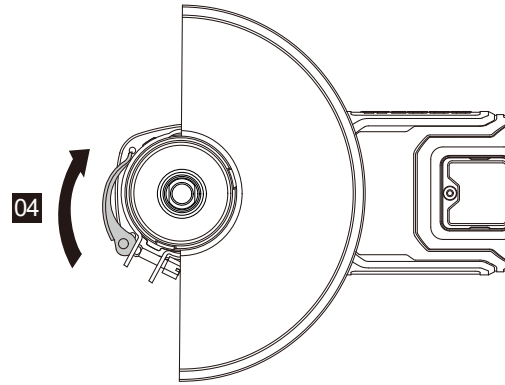


Figure 2

2. INSTALLING AND ADJUSTING AUXILIARY HANDLE (SEE FIG. 3)

NOTE: This handle should be used at all times to maintain complete control of the tool.

You have the option of three working positions to provide the safest and most comfortable control of your angle grinder.

- Top (upper position): Suitable for horizontal cutting or vertical grinding operations, often used for complex-angle workpieces.
- Left side: Ideal for right-hand holding, providing stable support and control.
- Right side: Suitable for left-hand holding, convenient for left-handed users or specific operational needs.

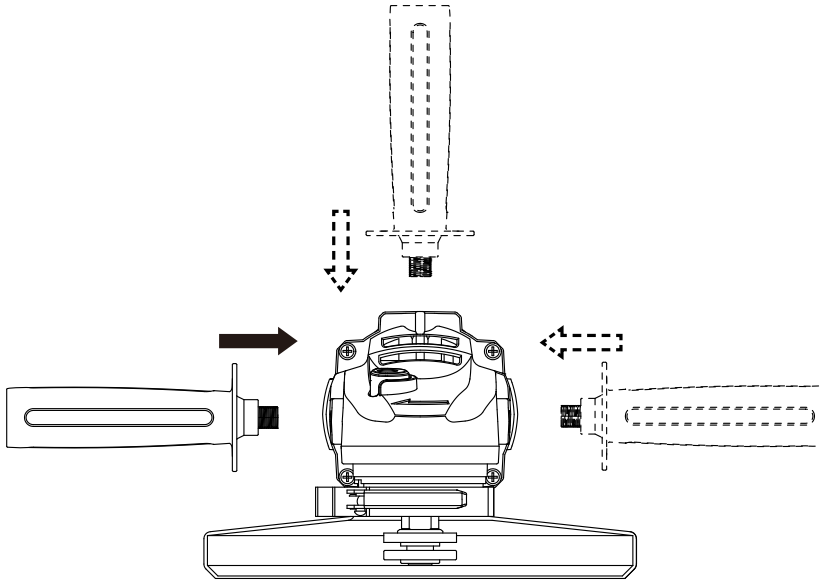


Figure 3

3. FITTING THE DISCS (NOT SUPPLIED) (SEE FIG. 4 - 6)

Put the inner flange onto the tool spindle. Ensure it is located on the two flats of spindle.

Place the disc on the tool spindle and inner flange. Ensure it is correctly located. Fit the threaded outer flange making sure it is facing in the correct direction for the type of disc fitted.

For grinding discs, the flange is fitted with the raised portion facing towards the disc.

For cutting discs, the flange is fitted with the raised portion facing away from the disc.

Press in the spindle lock button and rotate the spindle by hand until it is locked. Keeping the lock button pressed in, tighten the outer flange with the spanner provided.

WARNING: Spindle lock button must only be used when changing a disc. Never press it when the disc is rotating!

WARNING: After mounting the grinder tool and before switch on, check that the grinding tool is correctly mounted and that it can be turn freely, make sure that the grinding tool does not graze against the protecting guard or other parts.

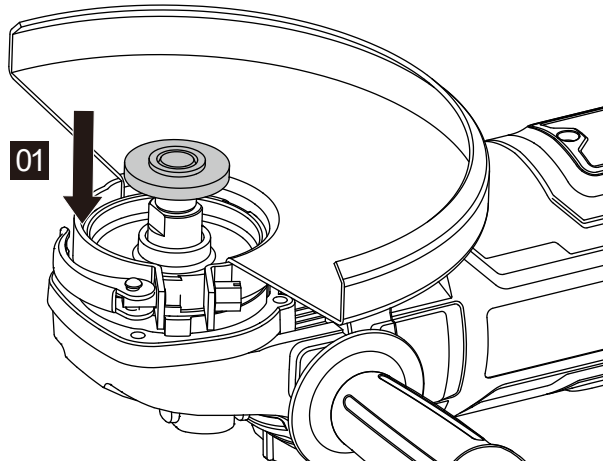


Figure 4

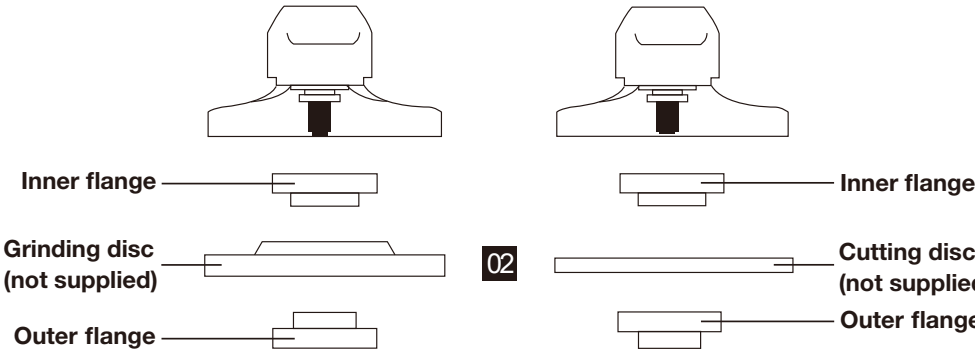


Figure 5

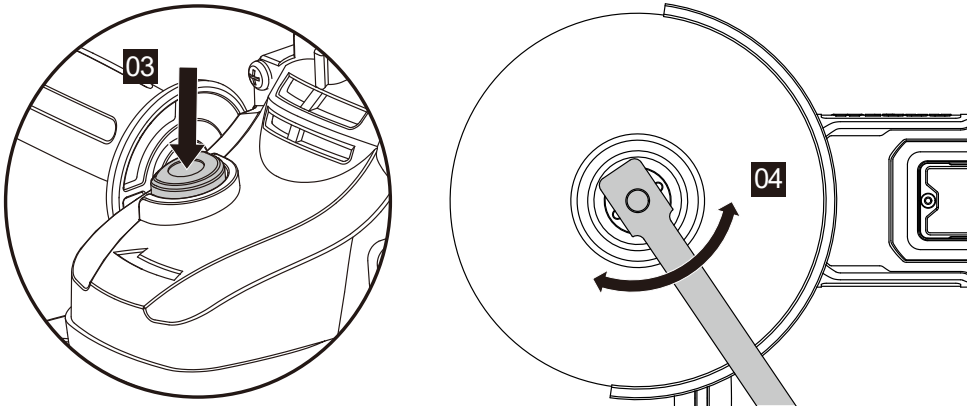


Figure 6

OPERATION
INTENDED USE
The machine is intended for cutting, roughing and brushing metal and stone materials without using water. For cutting metal, a special protection guard for cutting must be used.

1. HAND GRIP AREAS (SEE FIG. 7)
Always hold your angle grinder firmly with both hands when operating.

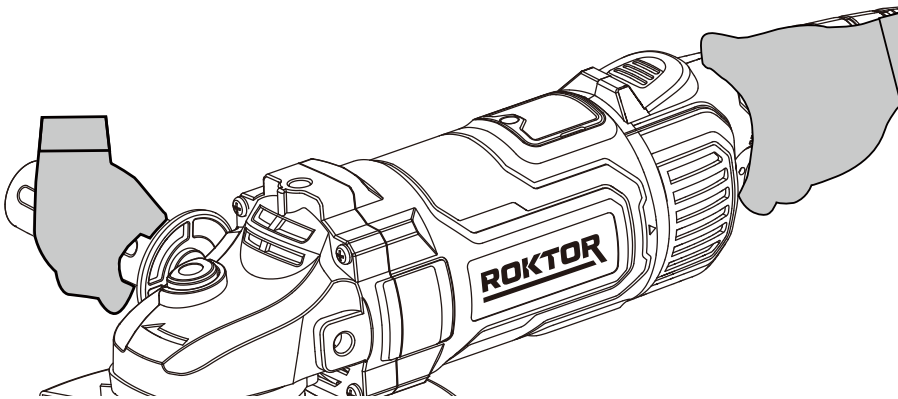


Figure 7

2. SAFETY LOCK-OFF SWITCH (SEE FIG. 8)
Your switch is locked off to prevent accidental starting. With your hand on the on/off switch, use your finger to push lock lever forward and then depress on/off switch. Then release lever. Your tool is now on. To switch off, just release on/off switch.

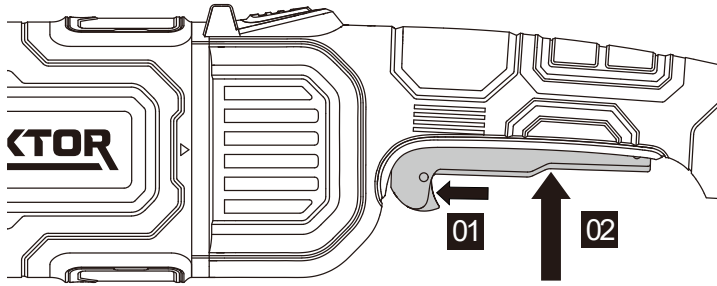


Figure 8

3. USING THE TURNABLE HANDLE (SEE FIG. 9)

WARNING: Make sure the handle in the locked position before start the angle grinder.

WARNING: Rotating the handle is permitted only when the grinder spindle is at a standstill!

To best suit the different working positions, your angle grinder is equipped with a turnable handle. Press the rear of the lock button on the turnable handle and you can rotate the handle 90° to left or right. Then release the lock button. A click will be heard when the handle is then fully locked in place.

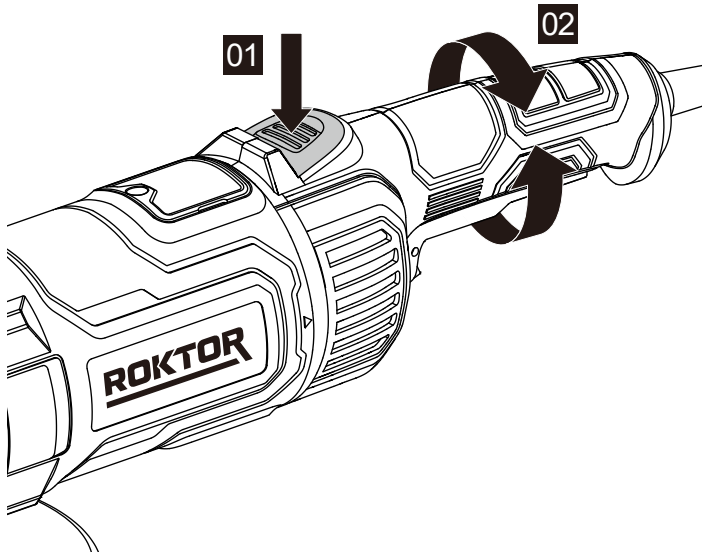


Figure 9

4. GRINDING (SEE FIG. 10)

WARNING: Do not switch the grinder on whilst the disc is in contact with the workpiece. Allow the disc to reach full speed before starting to grind.

Hold your angle grinder with one hand on the main handle and other hand firmly around the auxiliary handle.

Always position the guard so that as much of the exposed disc as possible is pointing away from you.

NOTE: Be prepared for a stream of sparks when the disc touches the metal.

For best tool control, material removal and minimum overloading, maintain an angle between the disc and work surface of approximately 15°-30° when grinding.

Use caution when working into corners as contact with the intersecting surface may cause the grinder to jump or twist.

When grinding is complete allow the workpiece to cool. Do not touch the hot surface.

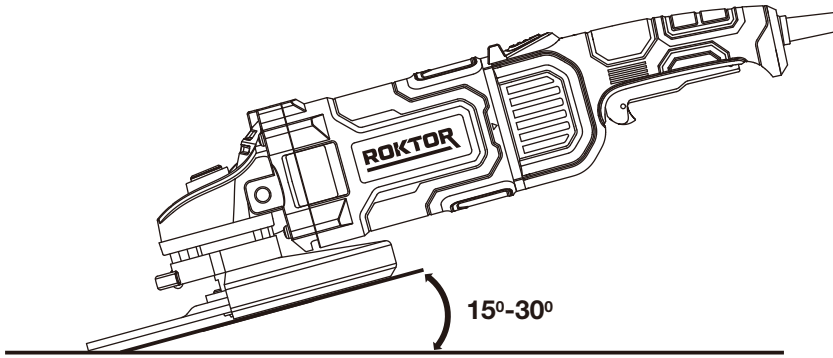


Figure 10

5. CUTTING (SEE FIG. 11)

When cutting, do not press, tilt or oscillate the tool.

Work with moderate feed, adapted to the material being cut.

Do not reduce the speed of running down cutting discs by applying sideward pressure.

The direction in which the cutting is performed is important.

The tool must always work in an up-grinding motion.

Therefore, never move the tool in the other direction! Otherwise, the danger exists of it being pushed uncontrolled out of the cut.

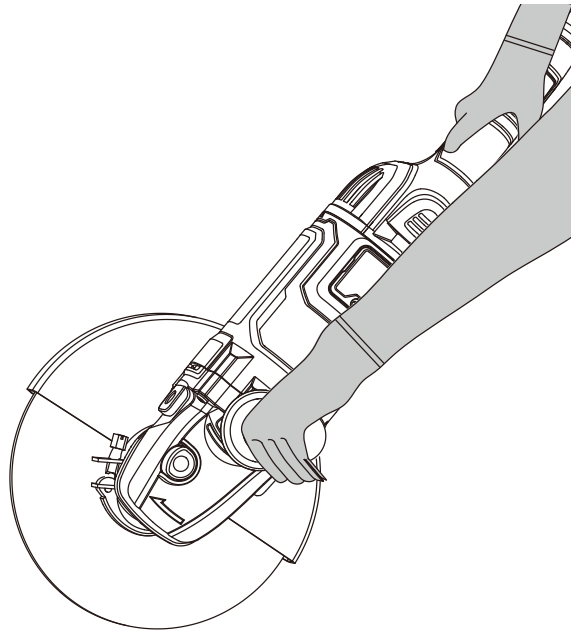


Figure 11

6. REPLACING THE BRUSHES (SEE FIG. 12)

Remove the screw securing the motor brush cover. Remove the cover, gently lift out, and pull the spade connector free. Hold back the coil spring and slide the worn brush out of the housing, carefully release the spring. Locate the replacement brush, (in the same orientation) whilst again holding back the coil spring. Ensure the brush is located and free to move, release the spring; it should now sit within the groove on the brush. Re-attach the spade connector to the terminal, replace the cover and secure.

NOTE: Brushes should be replaced in pairs.

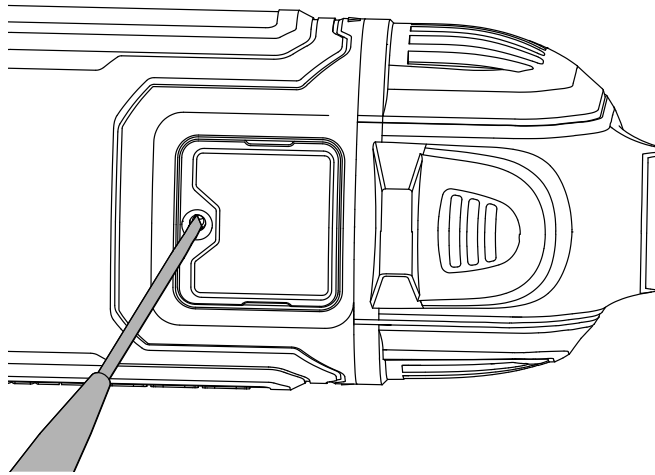


Figure 12

7. SOFT START

WARNING: Make sure the disc has achieved full speed before starting grinding or cutting operations.

Internal electronic components allow the motor speed to increase slowly, which reduces the "twisting" effect on your wrists due to the high power motor.

8. OVERLOAD

Overloading will cause damage to the motor of your angle grinder. This can happen if your angle grinder is subjected to heavy use for prolonged periods of time.

Never attempt to exert too much pressure on your angle grinder to speed up your work.

The abrasive discs operate more efficiently when light pressure is exerted, thus avoiding a drop in the speed of your angle grinder.

If your angle grinder becomes too hot, run it no load for 2-3 minutes until it has cooled to normal operation temperature.

9. WORKING HINTS FOR YOUR ANGLE GRINDER

1) Always start at no load to achieve maximum speed then start working.
2) Do not force the disc to work faster, reducing the disc's moving speed means longer working time.
3) Always work with a 15-30 angle between disc and workpiece. Larger angles will cut ridges into the workpiece and affect the surface finish. Move the angle grinder across and back and forth over the workpiece.
4) When using a cutting disc, never change the cutting angle otherwise you will stall the disc and angle grinder motor or break the disc. When cutting, only cut in the opposite direction to the disc rotation. If you cut in the same direction as the disc rotation, the disc may push itself out of the cut slot.
5) When cutting very hard material, best results can be achieved with a diamond disc.
6) When using a diamond disc, it will become very hot. If this happens, you will see a full ring of sparks around the rotating disc. Stop cutting and allow to cool at no load speed for 2-3 minutes.
7) Always ensure the workpiece is firmly held or clamped to prevent movement.

CARE AND CLEANING

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.

- Disconnect the power and allow the tool rotation to stop.
- Use only a damp cloth to clean the enclosure.
- Do not use any chemical or abrasive cleaners.
- When the tool is not used for long periods of time, it should be protected from dust and stored in a clean dry place.
- Clean it with soft cloth. If the dust is uneasy to wipe away, rub it with soap water.
- **WARNING!** unplug the tool before cleaning.

TROUBLESHOOTING

Use this section to help you to try and solve any problems you may have:

PROBLEM	POSSIBLE CAUSES	REMEDIES
The tool is not operating.	• The plug is not fully inserted into the wall outlet. • Faulty power switch	• Make sure that the plug is fully inserted into the base AC wall outlet. • Contact Customer Service Centre.
Power loss or weak performance	• Incorrect or dull grinding disc • Blocked ventilation	• Use the right, sharp disc. • Clean ventilation ports.
Grinder stops suddenly.	• Overheating protection triggered • The plug is not fully inserted into the wall outlet. • Faulty power switch	• Let it cool down and restart. • Make sure that the plug is fully inserted into the base AC wall outlet. • Contact Customer Service Centre.
Disc won't spin.	• Incorrect disc installation • Spindle lock engaged	• Reinstall the disc properly • Ensure spindle lock is released.
Grinder wheel wobbles or vibrates.	• Incorrectly mounted disc	• Reinstall and secure the disc.

NOTE: IF YOU EXPERIENCE A PROBLEM WITH YOUR POWER TOOL, PLEASE DO NOT ATTEMPT TO OPEN OR REPAIR THE POWER TOOL YOURSELF. DOING SO MAY VOID THE WARRANTY AND COULD CAUSE DAMAGE OR PERSONAL INJURY. IF THE PROBLEM STILL PERSISTS, PLEASE CONTACT US BY REFERRING TO THE SERVICE & SUPPORT INFORMATION ON THE FOLLOWING PAGE.

DECLARATION OF CONFORMITY / PERFORMANCE

Product Code: AB765 (PGA230G11.1)
Product Description: 2200W 230mm Angle Grinder

1. Toolstation (company number 04372131)
This declaration of conformity is issued under the sole responsibility of Toolstation

2. Object of the declaration
The object of the declaration described above is in conformity with the relevant Community harmonisation legislation:

- Supply of Machinery (Safety) Regulations 2008
- Electromagnetic Compatibility Regulations 2016
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations

3. References to the relevant standards used (or references to the specifications in relation to which conformity is declared):
- BS EN 62841-1
- BS EN IEC 62841-2-3
- BS EN IEC 55014-1
- BS EN IEC 55014-2
- BS EN IEC 61000-3-2
- BS EN 61000-3-3
- BS EN IEC 63000

4. Additional information:
Signed for and on behalf of Toolstation Limited

ENVIRONMENTAL INFORMATION

The symbol on the product or its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste for recycling, please contact your local authority, or where you purchased your product.

WARRANTY

Toolstation products deliver reliable service for normal, household use in domestic settings. All Toolstation products are individually tested before leaving the factory.
Your product is under warranty for 2 years from the date of purchase or the date of delivery of the product, if later.

The warranty is subject to the following provisions:

- The warranty does not cover accidental damage, misuse, parts, knobs, or consumable items.
- The product must be correctly installed and operated in accordance with the instructions contained in this manual.
- It must be used solely for domestic purpose.
- The warranty will be rendered invalid if the product is re-sold or has been damaged by inexpert repair.
- Specifications are subject to change without notice.
- The manufacturer disclaims any liability for incidental or consequential damages.
- The warranty is in addition to, and does not diminish your statutory or legal rights.

CUSTOMER SUPPORT

Helpline: +44 3331 880059
Email: roktor.support@positecgroup.com

Made in China