

# INSTRUCTION MANUAL

67002c

Read all the instruction carefully before you use the appliance and keep it for future use.



**MARKSMAN**  
QUALITY TOOLS

## 2000W ANGLE GRINDER



**230V~50Hz**

**2000W 6000RPM**

**230MM DISC**

**13 AMP fuse (max) must be fitted to plug attached to this cable.**



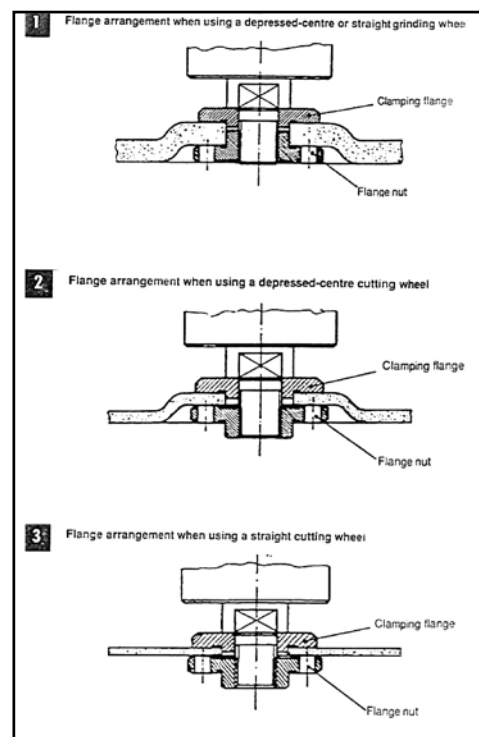
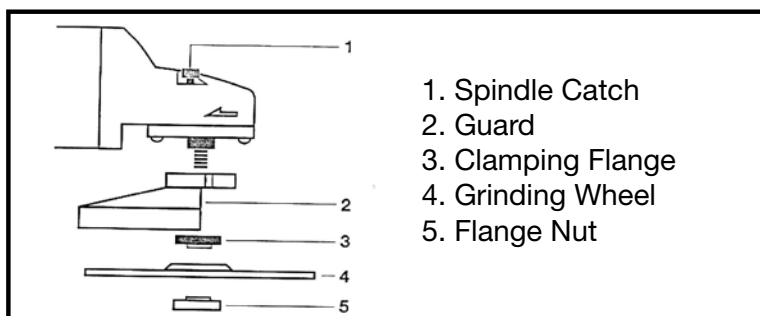
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MARKSMAN B20 3BT UK

## IMPORTANT SAFEGUARDS

Please read these operating instructions before using the tool for the first time and keep them with the tool at all times.

### Overview



Technical Data 67002c			
Voltage/Frequency:	230V- 50Hz	Drive Spindle Tread:	M14
Input power:	2000w	Sound Pressure Level LPA:	89 dB(A)
No-load speed:	6000/min <sup>-1</sup>	Vibration:	<2.5 m/s <sup>2</sup>
Disc size:	Ø230mm	Weight:	2.2kg

### General Safety Instructions for Electric Tools

This device is to be exclusively for private use! It is not fit for commercial use!

**Warning: when working with electrical devices the following prevention and safety instructions are to be observed to avoid fires, electric shocks and physical injuries!**

#### For safe working:

- Keep the working area in order.
- Disorder in the working area can give rise to dangers of accidents! Pay attention to the ambient conditions.
- Do not leave electric tools under the rain.
- Do not use these in humid or wet surroundings.
- Make sure that there is enough light! Make sure that the working area is visible at a glance!
- Do not use electric tools in areas subject to the risk of fires! Protect yourself against electric shocks.
- Avoid coming into contact with earth parts (e.g. pipes, radiators, stoves, refrigerators).
- In case of extreme application conditions (e.g. high humidity, presence of metal particles, etc.) the electrical safety of the device can be improved by connecting an isolation transformer or a fault current circuit breaker.

- Keep children away.
- Do not let other people touch the tool or the cable.
- Keep other people out of the working area! Make sure that the tool is stored . safely.
- Unused electric tools are to be kept in a dry, secure place, out of the reach of children.
- Do not overload the electric tool! It works better and safer within the indicated capacity range! Use the right electric tool.
- Do not use weak tools or adapters for heavy jobs. Do not use tools for purposes or jobs for which these are not intended. For example. hand circular saws are not be used to cut trees or branches. Always wear suitable working cloths.
- Do not wear baggy cloths or jewellery! Risk of being caught by moving parts.
- When working outside. it is advisable to wear rubber gloves and skid-proof shoes.
- If you have long hair, wear a hairnet! Use protective goggles.
- Always wear a breathing mask during jobs producing dust! Connect the vacuum system (if available).
- If devices for the connection of vacuum and collection systems are available,” make sure that these are connected and used correctly.
- Do not tamper with the cable.
- Do not carry the tool by the cable and do not use it to pull the plug out of the socket.
- Protect the cable against heat sources, oil and sharp edges! Secure the tool.
- Use chucking devices or a vise to keep the tool still! The tool can thus be held in place more safely than by hand and the tool can be used with both hands.
- Avoid unusual body postures! Always stand firmly in place and keep your balance! Always keep the tool in good order.
- Always keep tools sharp and clean to work correctly and safely.
- Follow the maintenance and tool change instructions.
- Check the plug and cable on a regular basis and have a qualified technician change these in case of damage.
- Check the extension cable on a regular basis and replace it if damaged.
- Remove the plug out from the socket! After use, before maintenance and when changing accessories such as saw blades, drills cutters, etc.! Do not leave protruding tool keys.
- Make sure before turning on the tool that the key or setting gauge is removed.
- Avoid the accidental starting of the tool.
- Never carry an electric tool connected to the power mains with your finger on the switch.
- Make sure that the switch is off when connecting to the mains! If using extension cable outdoors: Use only certified and duly marked extension cables outdoors.
- Always be careful! Pay attention to your work! Proceed carefully. Do not use the tool if you are not concentrated.
- Check the tool for damages.
- Before using the tool the next time check that the protection devices or slightly damaged parts are in good working conditions! Check whether the moving parts function correctly, that these are not jammed or whether any parts are damaged.
- All the parts to be correctly mounted and meet all the requirements for the proper functioning of the electric tool.
- Damaged protection devices and parts are to be repaired or changed by a qualified technician provided that the operating instructions do not specify otherwise.

- Damaged switches are to be replaced in a customer service shop! Do not use electric tools that cannot be switched on or off.

## **WARNING!**

- For your own safety always use only the accessories and attachments specified in the operating instructions or recommended or specified by the tool manufacturer!
- The use of accessories and attachments other than those specified in the operating instructions can cause injuries! .
- Always have your tool repaired by certified technicians!
- This tool meets the relevant safety requirements!
- Repairs are to be carried out only by qualified technicians with original spare parts to avoid the risk of injuries to the user caused by improper repairs!
- Hearing protection: In case of a sound pressure greater than 85.0 dB(A) wear hearing protection to avoid damage to your hearing!

## **Special Safety Instructions**

- Do not use the machine without the protective cover! Ensure that this is fitted correctly!
- Check whether the mounting flanges and the disk have been inserted correctly and are not damaged!
- Ensure that the speed of the machine is high enough for the accessories. Allow a newly mounted abrasive wheel to run without a load for at least thirty seconds! Please keep the safety instructions in a safe place!
- Please ensure that the voltage of the mains power supply corresponds to that stated on the type plate. The tool is equipped with a three pin plug!
- Only use a suitable extension cable when this is absolutely necessary! The use of an unsuitable extension cable carries with it the danger of fire or an electric shock! If an extension cable has to be used, ensure that it is correctly wired and in good condition!
- Your machine is double insulated. This means that two completely independent types of insulation prevent you from coming into contact with live metal parts. This measure represents a high degree of protection against an electric shock.
- When working with this machine it is advisable to use ear protection!

## **OPERATING INSTRUCTIONS RIGHT ANGLED GRINDER**

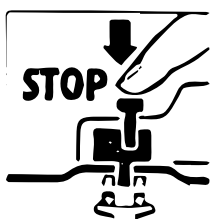
**The machine is light, handy, totally insulated and designed to comply with the international specification, provided it is serviced and used as described in this instruction book.**

### **Power supply**

Before using the machine for the first time, check that the voltage marked on the rating plate is the same as your mains voltage. It must never be used in different voltage than specified.

### **Switch**

To help prevent accidents, the right-angled grinder is equipped with a safety switch. To turn on the machine, push the switch forward and push down until it latches in place. To turn the grinder off, push the switch down. It will then jump back in its original position.



### **Replacing the grinding wheel**

Pull the power plug out of mains socket. Simple wheel change by spindle lock: Press the spindle lock and allow the grinding wheel to latch in place. Open the flange nut with the face spanner. Change the grinding or cutting wheel and tighten the flange nut with the face spanner.

**IMPORTANT: Only ever press the spindle lock when the motor and grinding spindle are at standstill. The spindle lock must be kept pressed while the wheel is changed.**

For grinding or cutting wheels up to approx. 3 mm thick, screw on the flange nut with the flat side facing the grinding or cutting wheel.

### **Test run for new grinding wheels**

Allow the angle grinder to run in idle for at least 1 minute with the grinding or cutting wheel fitted in place. Vibrating wheel must be replaced immediately.

### **Motor**

It is vital for the motor to be well ventilated during operation. Ensure that the ventilation holes are clean and unobtrusive at all times.

### **Carbon brushes**

Carbon brushes that are broken, burned, or shorter than 5 mm are to be replaced using the same spec brushes. Always replace brushes in pairs.

### **Grinding wheels**

Never use the grinding or cutting wheel bigger than the specified diameter. Before using the a grinding or cutting wheel, check its rated speed. The wheel's rated speed must be higher than the idle speed of the grinder.

**Use only grinding and cutting wheels that are approved for a maximum speed of 11,000 rpm and a peripheral speed of 80 m/sec.**

### **Operating modes**

#### **Rough grinding:**

For the best rough grinding results hold the grinding wheel at an angle of between 30° and 40° to the work piece surface and guide back and forth over the work piece in steady movements.

#### **Cutting:**

When you use the angle grinder for cutting purposes, avoid tilting it in the cutting plane. The cutting wheel must have a clean cutting edge. A diamond-cutting wheel is best used to cut hard stone.

**It is prohibited to use the machine asbestos materials.**

**Never use a cutting wheel for rough grinding.**

### **Overload**

The motor of your right angle grinding machine may be damaged when overloaded. This results from excessive working pressure over a prolonged period. Therefore you should not try to accelerate your working speed by increasing pressure on your machine. The abrasive disks work more efficiently if only slight pressure is exerted on the grinding machine, thus avoiding a drop in the grinding speed.

### **Maintenance**

- The protective cover, air slits and motor housing should be kept as free of dirt and dust as possible.
- Rub off the device with a clean cloth or use compressed air at a low pressure to blowout any dust or dirt. Excessive amounts of metal dust may result in electricity from the internal components being conducted on to exposed metal parts!
- Do not subject the grinding machine to any overload! Overloading will lead to a reduction in the speed and performance and cause the machine to overheat! If this should happen, switch the grinding machine off and let it cool down for approximately 30 minutes or to room temperature!

NOTE: Turning off the grinding machine while it is being subjected to a load will reduce the working life of the operating switch!

## **Cleaning and Care**

- Before cleaning the machine I remove the mains plug from the socket and turn the on and off switch (1) to position (0) !
- For cleaning purposes, only use a slightly damp but not wet cloth!
- Do not use any abrasive additives (petrol, turpentine etc) as these may damage the plastic housing!
- A mild soap is suitable for cleaning the machine!
- Ensure that no moisture is allowed to get inside the machine.
- After cleaning, wipe the machine with a dry cloth!

## **SAFETY INSTRUCTIONS**

**Warning!** When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury, including the following. Read all these instructions before attempting to operate this product and save these instructions.

### **For safe operation:**

- 01. Keep work area clean** - Cluttered areas and benches invite injuries.
- 02. Consider work area environment** - Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit. Don't use power tools in presence of flammable liquids or gases.
- 03. Guard against electric shock** - Prevent body contact with earth surfaces (e.g. pipes, radiators, ranges refrigerators)
- 04. Keep children away** - Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.
- 05. Store idle Tools** - When not in use, tools should be stored in dry, high, or locked-up place, out of the reach of children.
- 06. Don't force tool** - It will do the job better and safer at the rate for which it was intended.
- 07. Use the right tool** - Don't force small tools or attachments to do the job of heavy duty tool. Don't use tools for purposes not intended for example, don't use circular saw for cutting tree limbs or logs.
- 08. Dress properly** - Do not wear loose clothing or jewellery. They can be caught in moving parts. Rubber gloves and nonskid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
- 09. Use safety glasses** - Also use face or dust mask if cutting operation is dusty.
- 10. Do not abuse the cord** - Never Carry tool by cord or yank it to disconnect it from receptacle, Keep cord from heat, oil and sharp edges.
- 11. Secure work** - Use clamps or a vice to hold work, it's safer than using your hand and it frees both hands to operate tool.
- 12. Do not overreach** - Keep proper footing and balance at all times.
- 13. Maintain tools with care** - Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorised service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean and free from oil and grease.
- 14. Disconnect tools** - When not in use, before servicing, and when changing accessories such as blades, bits and cutters.
- 15. Remove adjusting keys and wrenches** - Form the habit of checking to see that keys

and adjusting wrenches are removed from tool before turning it on.

- 16. Avoid unintentional starting** - Don't Carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.
- 17. Outdoor use extension cords** - When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
- 18. Stay alert** - Watch what you are doing, Use common sense. Do not operate tool when you are tired.
- 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 by an authorised service centre unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by an authorised service centre. Do not use tool if switch does not turn it on and off.
- 20. Warning** - The use of any other accessory or attachment other than that recommended in this operating instruction might present a risk of personal injury.
- 21. Have your tool repaired by an expert** - This electric appliance is in accordance with the relevant safety rules. Only experts may carry out repairing of electric appliances otherwise it may cause considerable danger for the user.
- 22. connect the dust extraction device** - Wherever there are facilities for fitting a dust extraction system, make sure it is connected and used.
- 23. Noise level** - The noise level of this power tool is measured according to IEC 59 co 11, IEC 704, DIN 45635 Part 21, NFS 31081 (84/537IEWG). Noise level at work area can exceed 85 dB (A). In that case operators should protect themselves against damage to hearing - wear ear defenders.

#### **WARNING:**

**THIS PRODUCT OPERATES AT 230 VOLT AC SINGLE PHASE MAINS VOLTAGE.  
READ ALL THE SAFETY INSTRUCTIONS BEFORE USING THE MACHINERY.  
OBSERVE ALL THE LOCAL SAFETY REGULATIONS.**

This product is "CE" marked and complies with all the relevant European CE directives for LVD, EMC and Machinery safety.

## **UK PLUG REWIRING**

Your appliance operates on 220-240V-50Hz AC Mains and comes fitted with a 3-pin BSI Approved plug, so that it is ready for use by simply plugging into AC Mains. Should you need to change or refit a plug, proceed as follows:

### **IMPORTANT:**

The wires in the mains lead are coloured in accordance with the following code:

BLUE : NEUTRAL (N)

BROWN : LIVE (L)

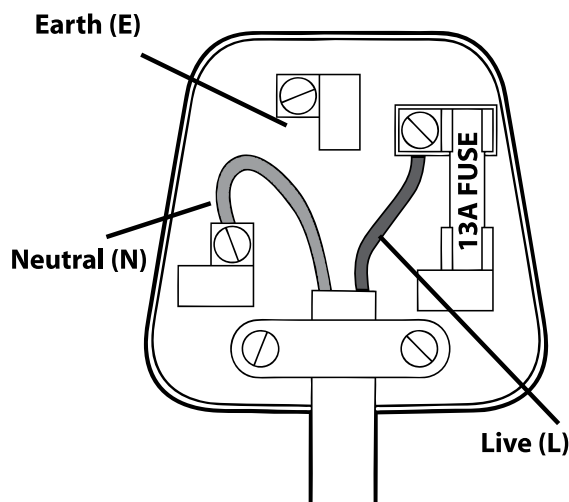
As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter "N" or coloured BLACK.

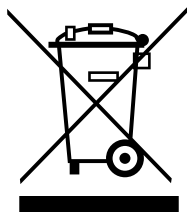
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter "L" or coloured RED.

Always ensure that the Mains Cord is located into the Plug through the Cord Guard or Cable Clamp, and that the Cord Guard screws are tightened to clamp the Cord (outer sheath and inner coloured wires) in position in the Plug. Make sure the Plug top is also fitted securely.

This appliance must be protected by a 13-amp fuse in a 13-amp type (BS1363) plug. Should you need to replace the fuse, use only an ASTA approved BS 1362 fuse.



### **CORRECT DISPOSAL OF THIS PRODUCT**



This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

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