BIHUI®

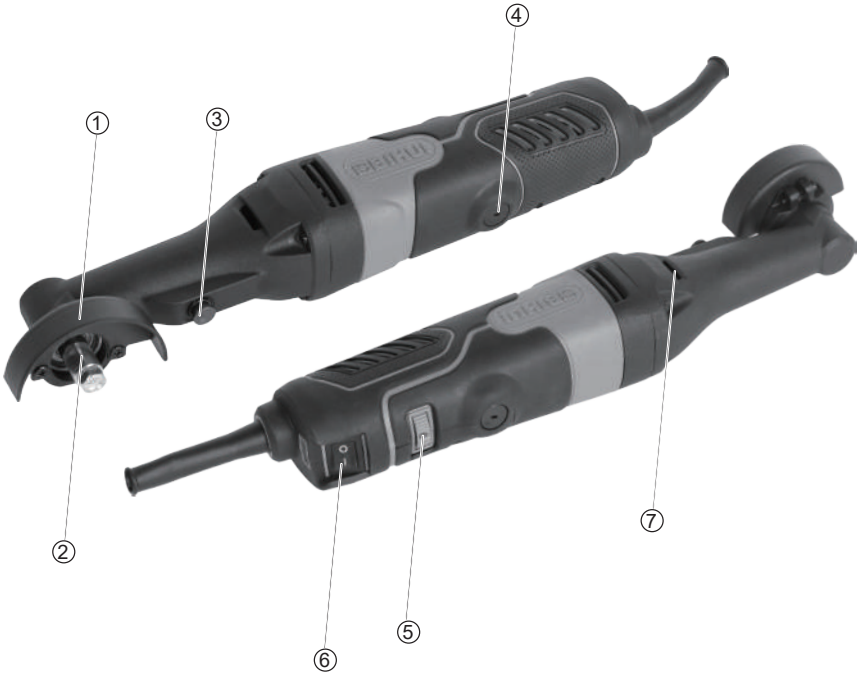
**AGMN100**
**AGMN100-PLUS**

# **EN** Mini Angle Grinder




**Using Video**

## Overview

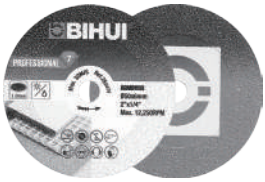


## Scope of Delivery

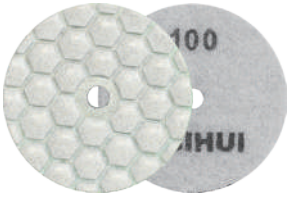
**A**



**B**




**C**




**D**




**E**



**F**




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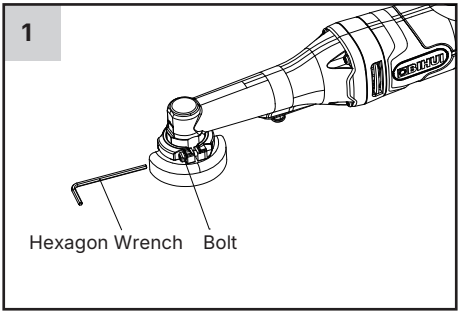
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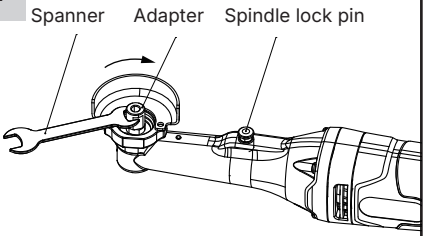
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## Operation

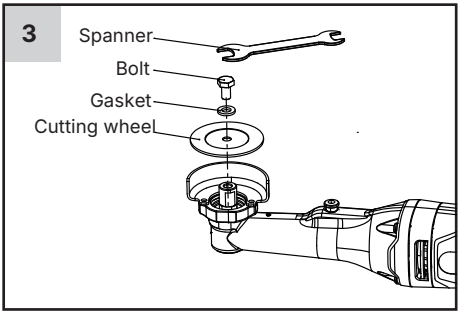
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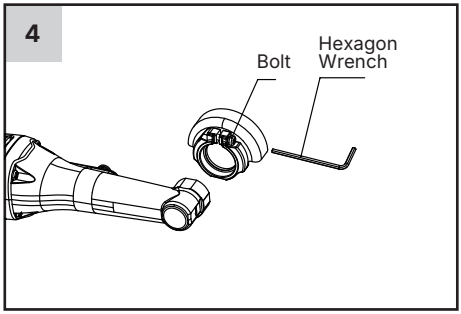

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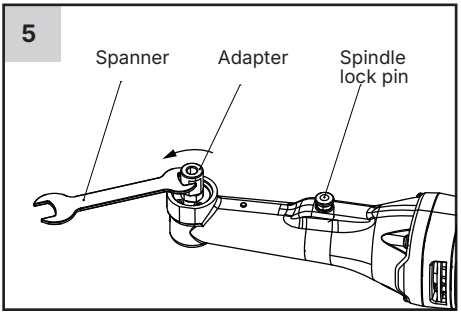

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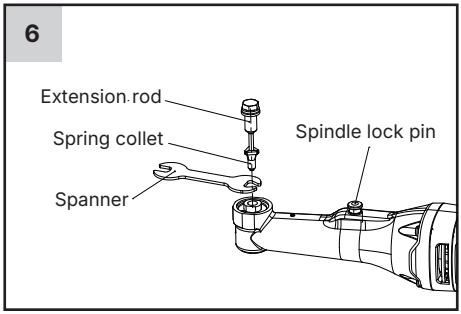

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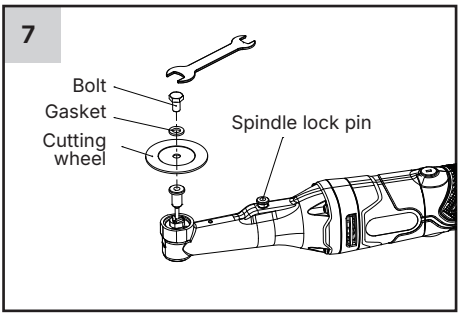

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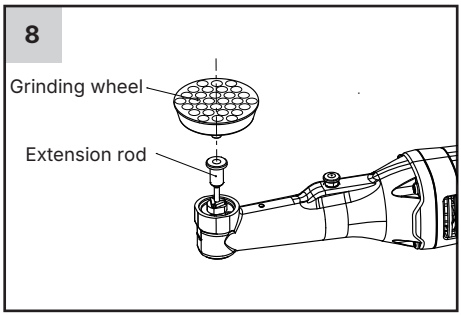

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7




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## Table of Contents

Table of Contents ..... 5
Intended Use ..... 5
Safety ..... 5
Your Device at a Glance ..... 7
Operation ..... 8
Cleaning ..... 8
Storage ..... 8
Troubleshooting and Help ..... 9
Disposal ..... 10
Technical Specifications ..... 10

## Intended Use

This device is intended for cutting, polishing or grinding with qualified spare parts on variety of materials specially in tight area.

## Safety

⚠ **Read all safety instructions and warnings provided with power tool.** Failure to follow the instructions below may result in electric shock, fire and / or serious injury.

**Keep all warnings and instructions for future reference.** The term "power tool" used in the safety instructions refers to mains operated power tools (with power cord) or to battery operated tools (without power cord).

### General safety warnings for power tools

**Safety in work area**

- **Keep your work area clean and well lit. Disarray or unlit work areas can lead to accidents.**
- **Do not work with the power tool in a potentially explosive environment in which flammable liquids, gases or dusts are present. Power tools generate sparks that can ignite the dust or fumes.**
- **Keep children and bystanders away while using the power tool. Distractions can result in a loss of control.**

**Electrical Safety**

- **The plug of the power tool must fit into the socket. The plug must not be changed in any way.** Do not use adapter plugs together with electrically grounded power tools. Unmodified plugs and matching sockets reduce the risk of electric shock.
- **Avoid body contact with grounded surfaces such as pipes, heaters, stoves, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
- **Keep power tools away from rain or moisture.** The penetration of water into a power tool increases the risk of electric shock.
- **Do not misuse the power cord to carry the power tool, hang it up, or unplug it from the power outlet.** Keep the connection cable away from heat, oil, sharp edges or moving parts. Damaged or entangled leads increase the risk of electric shock.
- **When working outdoors with a power tool, only use extension cables that are also suitable for outdoor use.** Using an extension cord suitable for outdoor use reduces the risk of electric shock.
- **If operation of the power tool in a damp environment is unavoidable, use a residual current device.** Using a residual current circuit breaker reduces the risk of electric shock.

**Personal Safety**

- **Be attentive, pay attention to what you are doing and be reasonable about working with a power tool. Do not use a power tool when you are tired or under the influence of drugs, alcohol or medication.** A moment of carelessness when using the power tool can cause serious injury.
- **Wear personal protective equipment and always safety goggles.** Wearing personal protective equipment such as a dust mask, non-slip safety shoes, hard hat or ear protection, depending on the type and use of the power tool, reduces the risk of personal injury.
- **Avoid unintentional startup. Make sure that the power tool is switched off before connecting, receiving or carrying it to the power supply and / or the battery.** Keeping your finger on the switch when you are wearing the power tool or plugging the power tool into power can cause an accident.
- **Remove setting tools or wrenches before turning on the power tool.** A tool or key located in a rotating part of the power tool can cause injury.
- **Avoid an abnormal posture. Ensure a secure footing and maintain balance at all times.** This allows you to better control the power tool in unexpected situations.

- **Wear suitable clothing. Do not wear loose clothing or jewelry.** Keep hair and clothing away from moving parts. Loose clothing, jewelry or long hair can be caught by moving parts.
- **If dust extraction and collection equipment can be installed, they must be connected and used properly.** Using a dust extractor can reduce dust hazards.
- **Do not weigh yourself in false safety and do not overstep the safety rules for power tools, even if you are familiar with the power tool after many uses.** Careless action can lead to serious injuries within fractions of a second

**Use and care of the power tool**

- **Do not overload the power tool. Use the appropriate power tool for your work.** With the right power tool you work better and safer in the specified power range.
- **Do not use a power tool whose switch is defective.** A power tool that can not be turned on or off is dangerous and must be repaired.
- **Unplug the power cord and / or remove a detachable battery before making any adjustments to the device, changing the tool bits, or putting the power tool away.** This precaution prevents the unintentional start of the power tool.
- **Store unused power tools out of the reach of children. Do not allow persons to use the power tool that are unfamiliar or have not read these instructions.** Power tools are dangerous when used by inexperienced people.
- **Maintain power tools and insert tools with care. Check that moving parts are working properly and do not jam, that parts are broken or damaged enough to impair the functioning of the power tool. Have damaged parts repaired before using the power tool.** Many accidents are caused by badly maintained power tools.
- **Keep cutting tools sharp and clean.** Carefully maintained cutting tools with sharp cutting edges become less jammed and easier to guide.
- **Use power tools, accessories, tools etc. according to these instructions. Take into account the working conditions and the activity to be performed.** The use of power tools for other than intended applications can lead to dangerous situations.
- **Keep handles and grips dry, clean and free of oil and grease.** Slippery handles and gripping surfaces do not allow safe operation and control of the power tool in unforeseen situations.

**Use and care of the battery tool**

- **Charge the batteries only with chargers recommended by the manufacturer.** A charger suitable for a particular type of battery may cause a fire when used with other batteries.
- **Use only the appropriate batteries in the power tools.** Use of other batteries may cause injury or fire.
- **Keep the unused battery away from paper clips, coins, keys, nails, screws, or other small metal objects that could cause the contacts to bridge.** A short circuit between the battery contacts can cause burns or fire.
- **If used incorrectly, liquid may leak from the battery. Avoid contact with it. In case of accidental contact, rinse with water. If the fluid gets into your eyes, seek additional medical attention.** Leaking battery fluid may cause skin irritation or burns.
- **Do not use a damaged or modified battery.** Damaged or altered batteries can behave unpredictably and cause fire, explosion or injury.
- **Do not expose a battery to fire or high temperatures.** Fire or temperatures over 130 ° C can cause an explosion.
- **Follow all charging instructions and never charge the battery or the cordless tool outside the temperature range specified in the operating instructions.** Incorrect charging or charging outside the permitted temperature range can destroy the battery and increase the risk of fire.

**Service**

- **Only have your power tool repaired by qualified personnel and only with original spare parts.** This ensures that the safety of the power tool is maintained.
- **Never use damaged batteries.** All battery maintenance should only be done by the manufacturer or authorized service centers. Follow the instructions for lubricating and changing accessories.

**Additional safety warning from the manufacturer**

**DO NOT let comfort or familiarity with product (gained from repeated use ) replace strict adherence to grinder safety rules. If you use this tool unsafely or incorrectly, you can suffer serious personal injury.**

- **Always use proper guard with grinding wheel.** A guard protects operator from broken wheel fragments.
- **Accessories must be rated for at least the speed recommended on the tool warning label.** Wheels and other accessories running over rated speed can fly apart and cause injury.

- **Hold tool by Insulated gripping surfaces when performing and operation where the cutting tool may contact hidden wiring or its own cord.**
  Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
- **When using depressed center grinding wheels, be sure to use only fiberglass reinforced wheels.**
- **Always use safety glasses or goggles. Ordinary eye or sun glasses are NOT safety glasses.**
- **Check the wheel carefully for cracks or damaged before operation.** Replace cracked or damaged wheel immediately. Run the tool (with guard) at no load for about a minute, holding too away from others. If wheel is flawed, it will likely separate during this test.
- **Use only flanges specified for this tool.**
- **Be careful not to damage the spindle, the flange (especially the installing surface) or the out flange.**
  Damage to these parts could result in wheel breakage.
- **NEVER use tool with wood cutting blades or other saw blades.** Such blades when used on a grinder frequently kick and cause loss of control leading to personal injury.
- **Hold the tool firmly.**
- **Keep hands away from rotating parts.**
- **Make sure cord is clean of wheel.** Do not wrap cord around your arm or wrist. If control of tool is lost, cord may become wrapped around you and cause personal injury
- **Make sure the wheel is not contacting the workpiece before the switch is turned on.**
- **Before using the tool on an actual workpiece let it run for a while.** Watch for vibration or wobbling that could indicate poor installation or a poorly balanced wheel.
- **Use the specified surface of the wheel to perform the grinding.**
- **Watch out for flying sparks.** Hold the tool so that sparks fly away from you and other persons on flammable materials.
- **Do not leave the tool running.** Operate the tool only when hand-held.
- **Do not touch the workpiece Immediately after operation; it may be extremely not and could burn your skin.**
- **ALWAYS wear proper apparel including long sleeve shirts. Leather gloves and shop aprons to protect skin from contact with not grindings.**
- **Use of this tool to grind or sand some products Paints and wood could expose user to dust containing hazardous substances. Use appropriate respiratory protection.**

### Explanation of Symbols

Symbols on your device must not be removed or covered. Any illegible markings on the device must be replaced immediately.


Read and follow the instructions before use.


CE mark


SGS mark


RCM mark


Class II machine.

### Personal protective equipment


Wear safety glasses when working with the device.


Wear hearing protection when working with the device.


Wear protective gloves when working with the device.


Wear safety shoes when working with the device.

## Your Device at a Glance

Note: The actual appearance of your device may differ from the illustrations.

**→ Overview - p. 2**

1. Dust Cover
2. Bolt
3. Spindle Lock Pin
4. Carbon Brush
5. Speed Control Gear
6. On/Off Button
7. Heat Emission Hole

### Scope of Delivery

**→ Scope of delivery - p. 3**

A. Mini Angle Grinder
B. Ø50mm Brazed Diamond Cutting Blade
C. #100 Dry Polishing Pad
D. Velcro Polishing Pad Holder
E. Installation tools & Accessories

**Plus Version**

F. Ø45mm Sintered Diamond Cutting Blade
G. Ø1.5mm Diamond Grinding Rod

### Not Shown

Carry Bag
User Manual

## Operation



→ Operation - p. 2

**Wheel guard**

→ p. 4, Fig. 1

-Power off: unplug the power plug of the angle grinder first
-Check the protective cover: confirm that the model of the protective cover matches the angle grinder
- Loosen the screws first to ensure that the protective cover fits into the appropriate position
-Rotate the protective cover to the appropriate position and tighten the bolts with a hexagon screw spanner

**Installing or removing grinding wheel**

→ p. 4, Fig. 2

-Power off: unplug the power plug of the angle grinder first
-When using a grinding cutting wheel, it is essential to only use the protective cover and M5 to M6 adapter provided with the machine, which are specially designed for the cutting wheel
- To tighten the adapter, first firmly press the spindle lock to prevent the spindle from rotating, and then use the spanner to tighten it clockwise.

→ p. 4, Fig. 3

- Place the cutting /grinding wheel on the adapter, then put in the gasket provided randomly and tighten the screws onto the spindle.

**Extension and Polishing Pad Installation**

→ p. 4, Fig. 4

- Power off: unplug the power plug of the angle grinder first
- When using the extension rod, please remove the grinding wheel cover first

→ p. 4, Fig. 5

- Since the extension rod needs to be used in conjunction with a spring collet to replace the adapter, first firmly press the spindle lock to prevent the spindle from rotating, and then use the spanner to unscrew the adapter anticlockwise.

→ p. 4, Fig. 6

- Please insert the extension rod into the spring collet, and then screw the extension rod clockwise onto the machine. To tighten the spring collet, first firmly press the spindle lock to prevent the spindle from rotating, and then use the spanner to tighten it clockwise.

→ p. 4, Fig. 7

- Please unscrew the hexagonal nut on the extension rod, place the cutting wheel steadily, and put the gasket between the cutting wheel and the hexagonal nut for use. To better tighten the hexagonal nut, please firmly press the spindle lock and use a spanner to tighten the hexagonal nut clockwise.

→ p. 4, Fig. 8

- If you need to install a velcro holder, simply remove the hexagonal nut, gasket and cutting wheel, and then tighten the velcro adapter directly.
- Polishing pad can simply apply on the velcro holder, then the machine is ready for polishing.

**Accessories Application**

1. Narrow space: Directly use M5 Hexagon screw
- Ø50mm brazed diamond blade cutting depth: 11mm
- Ø45mm sintered diamond blade cutting depth: 9mm

2. Non-narrow space: Only use M5-M6 connecting shaft
- Ø50mm brazed diamond blade cutting depth: 18.5mm
- Ø45mm sintered diamond blade cutting depth: 15.mm

3. Non-narrow space: Use Ø3mm connecting rod
- Ø50mm brazed diamond blade cutting depth: 18.5mm
- Ø45mm sintered diamond blade cutting depth: 15.mm

## Cleaning

**Caution!** Always be sure that the tool is switch off and unplugging before attempting to perform inspection and maintenance.

- The tool and its air vents have to be keep clean, regularly clean the tool's air vents or whenever the vents start to become obstructed.
- Check the all screws if be loosened or no periodically.
- Usually check the cord insulation if broken or not.

## Storage

Store the device in a dry, dust-free location.

## Troubleshooting and Help

If something doesn't work...

**DANGER! Risk of injury!** Improper repairs can cause your device to no longer function safely. This puts you and those around you at risk.

Often，it's just minor errors that cause a malfunction. You can usually fix them easily yourself. Please check following table first before contacting your dealer. This will save you a lot of effort and possibly costs.

| Problems | Reasons | Solution |
|---|---|---|
| The machine cannot be started | The power is not connected or the socket is faulty | Check if the power socket is powered on and replace it for testing |
| | Severely worn or poor contact carbon brushes | Open the carbon brush compartment cover and check the length of the carbon brush(replace if less than 5mm) |
| Too much spark when working | The carbon brush has poor contact with the commutator | Clean or replace the carbon brushes(recommended to replace in pairs) to ensure a tight fit with the commutator |
| | Dirty or worn commutator(copper head)surface | Gently polish the surface of the commutator with fine sandpaper and clean the carbon powder |
| | Too heavy motor load(such as too hard grinding material) | Replace the grinding/cutting wheels with suitable ones to avoid overloading operation |
| Grinding/cutting wheels are prone to falling off or getting locked | Grinding/cutting wheels are prone to falling off or getting locked | Use a special wrench to tighten the nut (note the rotation direction: lock clockwise) |
| | The aperture of the grinding /cutting wheels does not match the main shaft | Confirm that the grinding /cutting wheels aperture (such as Ø6mm) matches the machine |

| | |
|---|---|
| Safety Instructions | Ensure that the power supply voltage matches the rated voltage of the angle grinder (such as 230v) |
| | It is prohibited to remove the protective cover or use damaged grinding /cutting discs |
| | Seam cleaning and cutting at gear 6; otherwise, it will definitely cause overheating and burn out the machine. The speed adjustment is only for grinding use |
| | Be sure to disconnect the power supply before replacing the parts! |
| | Non-professionals are not allowed to disassemble the motor or gearbox |

## Disposal

### Disposal of the device



Devices marked with the symbol shown here must not be disposed of with household waste. You are required to dispose of such electrical and electronic equipment waste separately.

- Please contact your local authority for information about regulated disposal options.
- Remove all batteries and rechargeable batteries before disposal.

By disposing of old devices separately, you can recycle or reuse them in other ways. This helps prevent potentially-harmful substances from entering the environment.

### Dispose of packaging



The packaging consists of cardboard and accordingly marked plastics that can be recycled.

## Technical Specifications

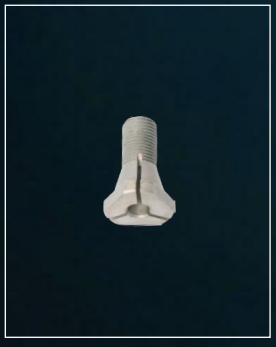
| Item number | AGMN100/AGMN100-PLUS |
|---|---|
| Rated Voltage | 120V/60Hz(USA)<br>220V~230V/50Hz~60Hz |
| Rated Power | 220W |
| Max No-load Speed | 19,000RPM |
| Six-speed Adjustment | 7,000RPM/8,500RPM/10,500RPM/<br>14,000RPM/16,000RPM/19,000RPM* |
| Max. Blade Size | Ø50mm |

**Note:** Appearance and technical data may differ due to product improvements.

*± 15% Rate Deviation

# **User Guide** for 2-inch Mini Angle Grinder Accessories

## How to use accessories with the product

| Image | Correct | Incorrect |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |

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