



Professional HEAVY DUTY

GRW 18V-160

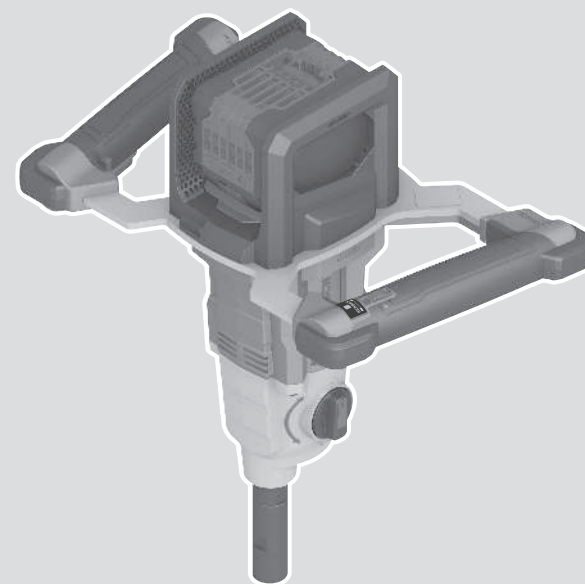
Robert Bosch Power Tools GmbH
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GERMANY

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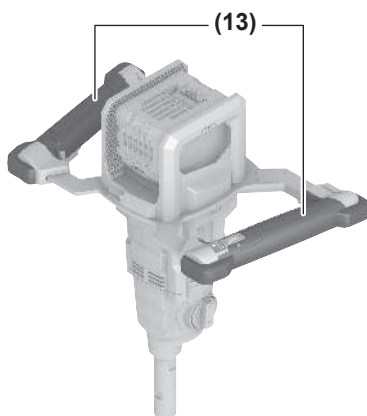
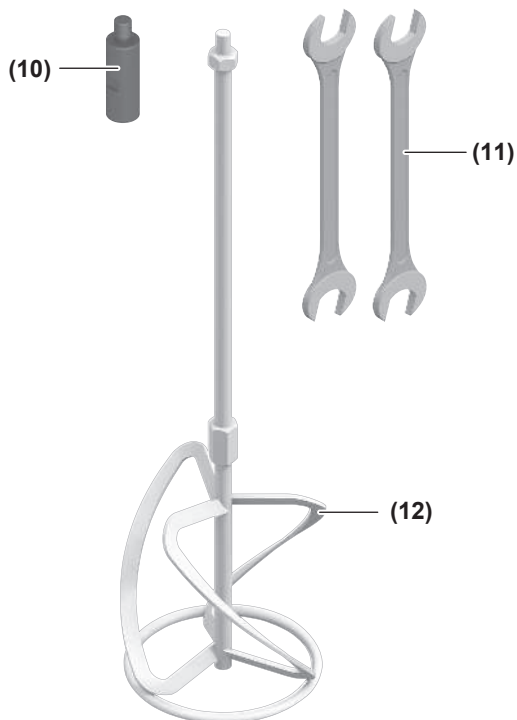
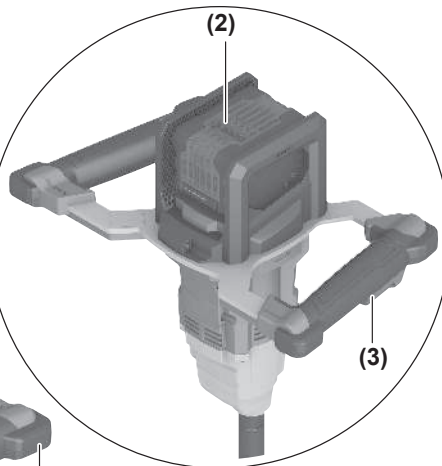
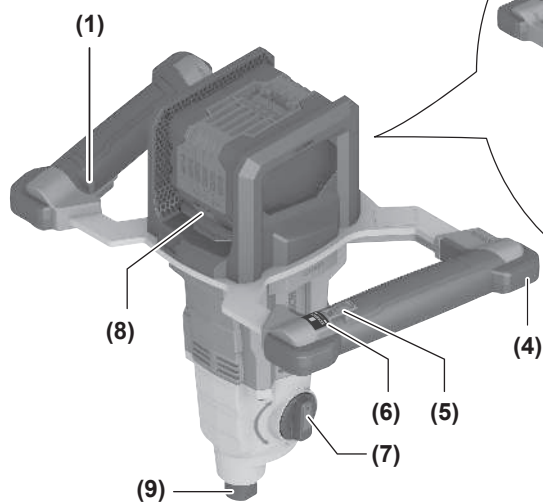
1 609 2A 9J3



en Original instructions







English

Safety instructions

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.

Work area safety

- ▶ **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- ▶ **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- ▶ **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

Electrical safety

- ▶ **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

Personal safety

- ▶ **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.
- ▶ **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
- ▶ **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 engaging power tools that have the switch on invites accidents.
- ▶ **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.
- ▶ **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.

- ▶ **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.
- ▶ **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.
- ▶ **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.

Power tool use and care

- ▶ **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.
- ▶ **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.
- ▶ **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.
- ▶ **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.
- ▶ **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.
- ▶ **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- ▶ **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.
- ▶ **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.

Battery tool use and care

- ▶ **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

- ▶ **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- ▶ **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
- ▶ **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.
- ▶ **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
- ▶ **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 130°C may cause explosion.
- ▶ **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

Service

- ▶ **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.
- ▶ **Never service damaged battery packs.** Service of battery packs should only be performed by the manufacturer or authorized service providers.

Mixer safety instructions

- ▶ **Hold the tool with both hands at the intended handles.** Loss of control can cause personal injury.
- ▶ **Ensure sufficient ventilation when mixing flammable materials to avoid a hazardous atmosphere.** Developing vapour may be inhaled or be ignited by the sparks the power tool produces.
- ▶ **Do not mix food.** Power tools and their accessories are not designed for processing food.
- ▶ **Ensure that the mixing container is placed in a firm and secure position.** A container that is not properly secured may move unexpectedly.
- ▶ **Follow the instructions and warnings for the material to be mixed.** Material to be mixed may be harmful.
- ▶ **Do not reach into the mixing container with your hands or insert any other objects into it while mixing.** Contact with the mixer basket may lead to serious personal injury.
- ▶ **Start up and run down the tool in the mixing container only.** The mixer basket may bend or spin in an uncontrolled manner.

- ▶ **Do not use on explosive materials (e.g. highly flammable solvents).** Power tools produce sparks which can ignite fumes.
- ▶ **Follow the instructions and warnings in the safety data sheets (SDS) of the mixing material.** The mixing material may be harmful.
- ▶ **Do not use the power tool when it is connected to a stand.** Bench-mounted operation of the power tool is not permitted.
- ▶ **In case of damage and improper use of the battery, vapours may be emitted. The battery can set alight or explode.** Ensure the area is well ventilated and seek medical attention should you experience any adverse effects. The vapours may irritate the respiratory system.
- ▶ **Do not modify or open the battery.** There is a risk of short-circuiting.
- ▶ **The battery can be damaged by pointed objects such as nails or screwdrivers or by force applied externally.** An internal short circuit may occur, causing the battery to burn, smoke, explode or overheat.
- ▶ **Only use the battery in the manufacturer's products.** This is the only way in which you can protect the battery against dangerous overload.



Protect the rechargeable battery against heat, e.g. including prolonged sun exposure, fire, water, and moisture. There is a risk of explosion and short circuit.

Product Description and Specifications



Read all the safety and general instructions.

Failure to observe the safety and general instructions may result in electric shock, fire and/or serious injury.

Please observe the illustrations at the beginning of this operating manual.

Intended use

The power tool is suitable for mixing construction materials in powder form, such as mortar, plaster, adhesives and paints and varnishes which do not contain solvents, as well as similar substances.

Product features

The numbering of the product features refers to the diagram of the power tool on the graphics page.

- (1) Lock-off function for on/off switch
- (2) Rechargeable battery^{a)}
- (3) On/off switch
- (4) Impact protection
- (5) Speed preselection thumbwheel
- (6) LED for KickBack Control

- (7) Gear selector switch
 - (8) Battery release button^{a)}
 - (9) Drive spindle
 - (10) Extension piece 7 cm
 - (11) Open-ended spanner 22 x 24 mm
 - (12) Mixer paddle^{a)}
 - (13) Handle (insulated gripping surface)
- a) **This accessory is not part of the standard scope of delivery.**

Technical Data

Mixer	GRW 18V-160	
Article number	3 601 AC3 0..	
Rated voltage	V=	18
Mechanical gear selection		●
Soft start		●
Speed preselection		●
Constant electronic control		●
KickBack Control		●
No-load speed ^{A)}		
– First gear	min ⁻¹	0–530
– Second gear	min ⁻¹	0–720
Tool holder		M14
Maximum mixer paddle diameter		
– First gear	mm	160
– Second gear	mm	140
Weight ^{B)}	kg	4.8
Recommended ambient temperature during charging	°C	0 to +35
Permitted ambient temperature during operation ^{C)} and during storage	°C	–20 to +50
Compatible rechargeable batteries	GBA 18V... ProCORE18V... EXPERT 18V... EXBA18V... CORE18V...	
Recommended rechargeable batteries for maximum performance	ProCORE18V... ≥ 5.5 Ah	
Recommended battery chargers	GAL 18... GAL 36... GAL 12V/18...	

MixerGRW 18V-160

GAX 18...
EXAL 18...

A) Measured at 20–25 °C with rechargeable battery **ProCORE18V 8.0Ah**

B) Without rechargeable battery (you can find the battery weight at www.bosch-professional.com.)

C) Limited performance at temperatures < 0 °C

Values can vary depending on the product, scope of application and environmental conditions. To find out more, visit www.bosch-professional.com/wac.

Noise/vibration information

Noise emission values determined according to **EN 62841-2-10**.

Typically, the A-weighted noise level of the power tool is: Sound pressure level **78 dB(A)**; sound power level **86 dB(A)**. Uncertainty K = **3 dB**.

Wear hearing protection!

Vibration values a_h (continuous vibrations), p_f (repeated shock vibrations) and uncertainty K determined according to **EN 62841-2-10**:

a_h = **0.6 m/s²** (K = **1.5 m/s²**), p_f = **24 m/s²** (K = **3 m/s²**)

The vibration level and noise emission value given in these instructions have been measured in accordance with a standardised measuring procedure and may be used to compare power tools. They may also be used for a preliminary estimation of vibration and noise emissions.

The stated vibration level and noise emission value represent the main applications of the power tool. However, if the power tool is used for other applications, with different accessories or is poorly maintained, the vibration level and noise emission value may differ. This may significantly increase the vibration and noise emissions over the total working period.

To estimate vibration and noise emissions accurately, the times when the tool is switched off or when it is running but not actually being used should also be taken into account. This may significantly reduce vibration and noise emissions over the total working period.

Implement additional safety measures to protect the operator from the effects of vibration, such as servicing the power tool and accessories, keeping their hands warm, and organising workflows correctly.

Rechargeable battery

Bosch sells some cordless power tools without a rechargeable battery. You can tell whether a rechargeable battery is included with the power tool by looking at the packaging.

Charging the battery

► **Use only the chargers listed in the technical data.** Only these chargers are matched to the lithium-ion battery of your power tool.

Note: Lithium-ion rechargeable batteries are supplied partially charged according to international transport regulations. To ensure full rechargeable battery capacity, fully charge the rechargeable battery before using your tool for the first time.

Inserting the Battery

Push the charged battery into the battery holder until it clicks into place.

Removing the Battery

To remove the rechargeable battery, press the battery release button and pull the battery out. **Do not use force to do this.**

The rechargeable battery has two locking levels to prevent the battery from falling out if the battery release button is pressed unintentionally. The rechargeable battery is held in place by a spring when fitted in the power tool.

Battery charge indicator

Note: Not all battery types have a battery charge indicator. The green LEDs on the battery charge indicator indicate the state of charge of the battery. For safety reasons, it is only possible to check the state of charge when the power tool is not in operation.

Press the button for the battery charge indicator  or  to show the state of charge. This is also possible when the battery is removed.

If no LED lights up after pressing the button for the battery charge indicator, then the battery is defective and must be replaced.

The state of charge of the battery is also displayed on the user interface Status indications.

Rechargeable battery type GBA 18V... | GBA18V...



LED	Capacity
3 × continuous green light	60–100 %
2 × continuous green light	30–60 %
1 × continuous green light	5–30 %
1 × flashing green light	0–5 %

Battery model ProCORE18V... | EXPERT18V... | EXBA18V... | CORE18V...



LED	Capacity
5 × continuous green light	80–100 %
4 × continuous green light	60–80 %
3 × continuous green light	40–60 %
2 × continuous green light	20–40 %
1 × continuous green light	5–20 %

LED	Capacity
1 × flashing green light	0–5 %

Battery defect risk detection

EXPERT18V... | EXBA18V...

In addition to the state of charge of the rechargeable battery, the LEDs on the battery charge indicator can also indicate the risk of a battery defect.

To activate the function, press and hold the button for the battery charge indicator  for 3 seconds. The analysis of the battery is signalled by a moving light on the battery charge indicator. The result of is shown on the battery charge indicator.



1 LED: The rechargeable battery has a high defect risk. Performance and runtime may already be reduced. Replacing the rechargeable battery is recommended.



5 LEDs: The rechargeable battery is in good condition and has a low defect risk.

Please note: The rechargeable battery defect risk assessment works in a binary manner and offers a simplified status assessment, indicating either that the rechargeable battery is in good condition or that the rechargeable battery has an increased defect risk. A percentage of the battery status is not shown.

Recommendations for Optimal Handling of the Battery

Protect the battery against moisture and water.

Only store the battery within a temperature range of –20 to 50 °C. Do not leave the battery in your car in the summer, for example.

Occasionally clean the ventilation slots on the battery using a soft brush that is clean and dry.

A significantly reduced operating time after charging indicates that the battery has deteriorated and must be replaced.

Follow the instructions on correct disposal.

Assembly

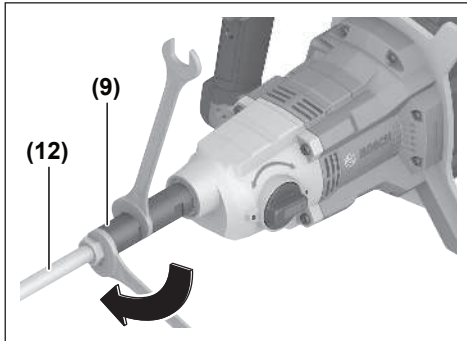
Using the Extension Piece

The 7 cm extension piece **(10)** can be used to increase the work height of the tool to facilitate ergonomic work for taller users.

To do this, turn the extension piece **(10)** onto the drive spindle **(9)** and tighten it with the open-ended spanner **(11)**.

Changing the Tool

Mixer paddle with M14 male thread



Screw the stirrer paddle (12) into the drive spindle (9). To do this, hold the drive spindle (9) with an open-ended spanner (width across flats 22 mm), and tighten the stirrer paddle (12) with a second open-ended spanner (width across flats 22 mm or 24 mm).

The mixer paddle is disassembled in reverse order.

Operation

Starting Operation

Dusts, e. g. mineral dusts, can be harmful to health. Touching or breathing in this dust can trigger allergic reactions and/or cause respiratory illnesses in the user or in people in the near vicinity.

Materials containing asbestos may only be machined by specialists.

- Provide good ventilation at the workplace.
- It is advisable to wear a P2 filter class breathing mask.

The regulations on the material being machined that apply in the country of use must be observed.

Mechanical gear selection

- **Operate the gear selector switch only when the power tool is not in use.**

Turn the gear selector switch (7) in the direction of the arrow to the required gear (1 or 2).

You can preselect two speed ranges with the gear selector switch (7).



First gear:

Low speed range, high torque, maximum mixer paddle diameter 160 mm
Ideal for working with tough or solid materials



Second gear:

High speed range, low torque, maximum mixer paddle diameter 140 mm
Ideal for working with light or liquid materials

Switching on/off

To **start** the power tool, first press the lock-off button (1), then press the on/off switch (3) and keep it pressed.

To **switch off** the power tool, release the on/off switch (3).

Adjusting the Speed

Adjusting the Speed with the On/Off Switch

You can adjust the speed of the power tool when it is on by pressing in the on/off switch (3) to varying extents.

Slight pressure on the on/off switch (3) results in a low rotational speed. Increased pressure on the switch causes an increase in speed.

Adjusting the Speed with the Speed Preselection Thumbwheel

The required speed can also be preselected with the thumbwheel (5) (even during operation).

The speed needed depends on the mixing material that is to be mixed and the work conditions.

Soft start

The electronic soft start slowly increases the speed if the on/off switch (3) is pressed. This prevents the mixing material that is to be mixed from splashing.

Constant Electronic control



The electronic system of the power tool keeps the mixer paddle speed constant in the set range across a wide load range. This guarantees a uniform performance.

Rapid Shut-off (KickBack Control)



The rapid shut-off function (KickBack Control) gives the user greater control over the power tool and offers them better protection than power tools that do not have KickBack Control. The power tool will switch off if it suddenly and unforeseeably rotates around the axis of rotation.

The rapid shut-off is indicated by the LED of the KickBack control (6) on the power tool flashing red.

To **switch the tool back on**, release the on/off switch and then press it again.

- **It will no longer be possible to switch the power tool on if the KickBack Control function is faulty. Have the power tool serviced by a qualified repair person using only original replacement parts.**

Work instructions for mixing

- **Avoid splashing the material.** Otherwise you could slip and lose control of the power tool.

- ▶ **Avoid continuously operating the power tool at reduced speed.** Otherwise the motor of the power tool could overheat.
- ▶ **Store the power tool in a safe place.** Ensure that it cannot fall over. The power tool may become damaged if this happens.

Choosing the Mixer Paddle

Selection of the mixer paddle is dependent on the material that is to be mixed.

For materials with low viscosity, e.g. emulsion paint, varnishes, adhesive, grouting compound or cement slurry, use a mixer paddle with a left-hand spiral. The material is mixed from the top downwards in a mixer paddle with a left-hand spiral. The mixer paddle is pushed upwards. Materials with low viscosity are mixed in a way which minimises splashing. For materials with high viscosity, e.g. ready-mixed plaster, concrete, cement, screed, filler or epoxy resin, use a mixer paddle with right-hand spiral. The material is moved from the bottom upwards in a mixer paddle with a right-hand spiral. The mixer paddle works its way into the mixture. Materials with high viscosity are mixed thoroughly.

Move the power tool up and down when working. Clean the mixer paddle after use.

Only for EU countries and United Kingdom:

Electrical and electronic equipment or used batteries that are no longer suitable for use must be collected separately and disposed of in an environmentally friendly manner. Use the designated collection systems. Incorrect disposal may cause harmful effects on the environment and human health, due to the potential presence of hazardous substances.

Maintenance and Service

Maintenance and Cleaning

- ▶ **Before carrying out any work on the power tool (e.g. maintenance, tool change etc.), remove the battery from the power tool.** There is risk of injury from unintentionally pressing the on/off switch.
- ▶ **To ensure safe and efficient operation, always keep the power tool and the ventilation slots clean.**

After-Sales Service and Application Service

Great Britain

Tel. Service: (0344) 7360109

GB Importer:

Robert Bosch Ltd.
Broadwater Park
North Orbital Road
Uxbridge
UB9 5HJ

In all correspondence and spare parts orders, please always include the 10-digit article number given on the nameplate of the product.

Disposal

Power tools, rechargeable batteries, accessories and packaging should be sorted for environmental-friendly recycling.



Do not dispose of power tools and batteries/rechargeable batteries into household waste!



M14, 120 mm

2 608 000 842

M14, 140 mm

2 608 000 843

M14, 160 mm

2 608 000 845



M 14, Ø 120 mm

2 607 990 016

M 14, Ø 140 mm

3 609 201 038

M 14, Ø 160 mm

2 607 990 017

M 14, Ø 140 mm (INOX)

2 607 990 023



M 14, Ø 120 mm

2 607 990 014

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STM32F0xx_DFP MDK-ARM, v2.1.1

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