

## ECNOHANH **GBH** Professional

2-28|2-28 F



- en Original instructions
- Notice originale fr
- Manual original pt
- cn 正本使用说明书
- tw 原始使用說明書
- ko 사용 설명서 원본 th หนังสือคู่มือการใช้งานฉบับต้นแบบ



- id Petunjuk-Petunjuk untuk Penggunaan Orisinal
- vi Bản gốc hướng dẫn sử dung
  - تعليمات التشغيل الأصلية ar
  - دفتزچه راهنمای اصلی fa



2|

English Page	3
Français Page	9
PortuguêsPágina	14
中文	20
中文	25
한국어	29
ภาษาไทยหน้า	34
Bahasa IndonesiaHalaman	40
Tiếng Việt	
صفحة عربي	
صفحه فارسی	63
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### English | 3

### English

### **General Power Tool Safety Warnings**

WARNING Read all safety warnings and all instructions. Failure to follow the warnings and

instructions 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 mainsoperated (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**

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- 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.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- 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 and moving parts. Damaged or entangled cords increase the risk of electric shock.
- 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.
- 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.

### 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 dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

Bosch Power Tools

- 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.
- 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, clothing and gloves 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.

### 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 the battery pack 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. 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.

### 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.

### 4 | English

### **Hammer Safety Warnings**

- Wear ear protectors. Exposure to noise can cause hearing loss.
- Use auxiliary handle(s), if supplied with the tool. Loss of control can cause personal injury.
- Hold the tool by the insulated gripping surfaces when performing operations where the application tool or the screw could contact hidden wiring or its own power cord. Contact with a "live" wire will also make exposed metal parts of the power tool "live" and shock the operator.
- Products sold in GB only: Your product is fitted with a BS 1363/A approved electric plug with internal fuse (ASTA approved to BS 1362).

If the plug is not suitable for your socket outlets, it should be cut off and an appropriate plug fitted in its place by an authorised customer service agent. The replacement plug should have the same fuse rating as the original plug. The severed plug must be disposed of to avoid a possible shock hazard and should never be inserted into a mains socket elsewhere.

**Products sold in AUS and NZ only:** Use a residual current device (RCD) with a rated residual current of 30 mA or less.

### Additional Safety and Working Instructions

- Observe correct mains voltage! The voltage of the power source must agree with the voltage specified on the nameplate of the machine. Power tools marked with 230 V can also be operated with 220 V.
- Use appropriate detectors to determine if utility lines are hidden in the work area or call the local utility company for assistance. Contact with electric lines can lead to fire and electric shock. Damaging a gas line can lead to explosion. Penetrating a water line causes property damage.
- Firmly tighten the auxiliary handle, hold the machine firmly with both hands while working and keep proper footing and balance at all times. The machine is securely guided with both hands.
- Secure the workpiece. A workpiece clamped with clamping devices or in a vice is held more secure than by hand.
- To save energy, only switch the power tool on when using it.
- For drilling without impact in wood, metal, ceramic and plastic as well as for screwdriving, tools without SDS-plus are used (e.g., drill bits with cylindrical shank). For these tools, a keyless chuck or a key type drill chuck are required.
- GBH 2-28 F: Only use quick change chucks with 3 identification grooves (standard delivery scope) or 2 identification grooves (accessory/spare part) see figure 1, page 65.
  - The quick change chuck is automatically locked. Check the locking effect by pulling the quick change chuck.

- Inserting SDS-plus Drilling Tools: Check the latching by pulling the tool.
- Replace a damaged dust protection cap immediately. The dust protection cap largely prevents the penetration of drilling dust into the tool holder during operation. When inserting the tool, pay attention that the dust protection cap is not damaged.
- Dust from materials such as lead-containing coatings, some wood types, minerals and metal can be harmful to one's health and cause allergic reactions, lead to respiratory infections and/or cancer. Materials containing asbestos may only be worked by specialists.
  - As far as possible, use a dust extraction system suitable for the material.
  - Provide for good ventilation of the working place.
  - It is recommended to wear a P2 filter-class respirator. Observe the relevant regulations in your country for the materials to be worked.
- Prevent dust accumulation at the workplace. Dust can easily ignite.
- If the application tool should become blocked, switch the machine off. Loosen the application tool.
- Before switching on the power tool, make sure that the application tool moves freely. When switching on with a blocked drilling tool, high torque reaction can occur.
- When working with the machine, always hold it firmly with both hands and provide for a secure stance. The power tool is guided more secure with both hands.
- Always wait until the machine has come to a complete stop before placing it down. The tool insert can jam and lead to loss of control over the power tool.
- The rapid shut-off feature (KickBack Control) provides better control over the power tool to increase user protection compared to power tools that do not have Kick-Back Control. The power tool will switch off if it suddenly and unforeseeably rotates around the drilling axis. To restart the machine, release the On/Off switch and then actuate again.

### Symbols

The following symbols are important for reading and understanding the operating instructions. Please take note of the symbols and their meaning. The correct interpretation of the symbols will help you to use the machine in a better and safer manner.

Meaning

# Symbol

GBH 2-28 GBH 2-28 F: Rotary Hammer Grey-marked area: Handle (insulated gripping surface)

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### English | 5

Meaning	Symbol
Article number	<b>↔</b> )•
	I
Read all safety warnings and all instruc- tions	0
Before any work on the machine itself, pull the mains plug from the socket out- let	<u>6</u>
Wear protective gloves	en o
Always wear ear protection.	đ
Wear safety glasses/goggles	13
KickBack Control	
Keyless drill chuck	SDS-plus P1
Movement direction	EHAN
Reaction direction	Ø
Prohibited action	B
Permitted action	
Next step of action	
Right/left rotation	
Drilling without impact	<b>Delivery Sco</b>
Hammer Drilling	Rotary hammer, aux Application tools an are not part of the si
Chiselling	A complete overviev
	cessories program.
	Article number   Read all safety warnings and all instructions   Before any work on the machine itself, pull the mains plug from the socket outlet   Wear protective gloves   Always wear ear protection.   Wear safety glasses/goggles   KickBack Control   Keyless drill chuck   Movement direction   Prohibited action   Permitted action   Next step of action   Right/left rotation   Drilling without impact   Hammer Drilling

Symbol	Meaning	
÷	Vario-Lock	
	Switching On	
0	Switching Off	
•	On/Off switch lock-on	
	Releasing the On/Off switch	
allo	Low speed/impact rate	
Ĩ	High speed/impact rate	
NB	Extraction	0
	Dust cup	1.0
SDS-plus	Tool holder	
P <sub>1</sub>	Rated power input	
ELAI	Impact energy per stroke according to EPTA-Procedure 05/2009	
n <sub>o</sub>	No-load speed	
Ø	Drilling diameter, max.	
	Concrete	
Ĩ	Steel	
WILL	Wood	
	Brickwork	
	Core bit	
_	Weight according to EPTA-Procedure 01:2014	
	Protection class	

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uxiliary handle and depth stop. nd other accessories shown or described standard delivery scope.

ew of accessories can be found in our ac-

### 6 | English

### **Intended Use**

The machine is intended for hammer drilling in concrete, bricks and masonry, as well as for light chiselling work. It is also suitable for drilling without impact in wood, metal, ceramics and plastic, as well as for screwdriving.

### **Mounting and Operation**

The following table indicates the action objectives for mounting and operation of the power tool. The instructions for each action objective are shown aside. Depending on the type of application, various instruction combinations are required. Observe the safety instructions.

**Technical Data** 

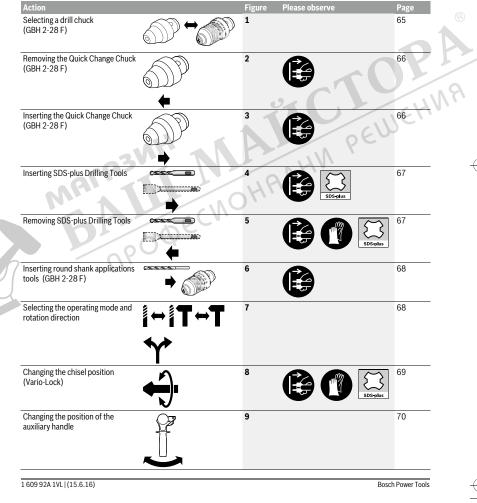
these values can vary.

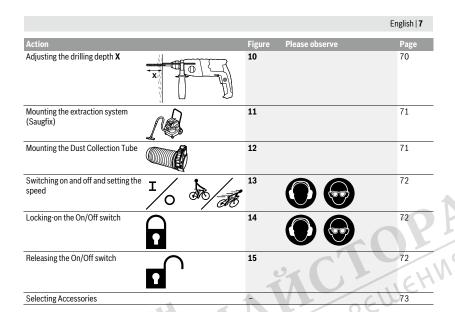
page 64.

The technical data of the machine are listed in the table on

The values given are valid for a nominal voltage [U] of 230 V.

For different voltages and models for specific countries,





### **Maintenance and Cleaning**

### ► For safe and proper working, always keep the machine and ventilation slots clean.

If the replacement of the supply cord is necessary, this has to be done by Bosch or an authorized Bosch service agent in order to avoid a safety hazard.

### After-sales Service and Application Service

Our after-sales service responds to your questions concerning maintenance and repair of your product as well as spare parts. Exploded views and information on spare parts can also be found under:

### www.bosch-pt.com

Bosch's application service team will gladly answer questions concerning our products and their accessories.

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

### People's Republic of China

### China Mainland

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### 8 | English

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