

Robert Bosch GmbH

Power Tools Division
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GERMANY

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GSB Professional

19-2 RE | 780



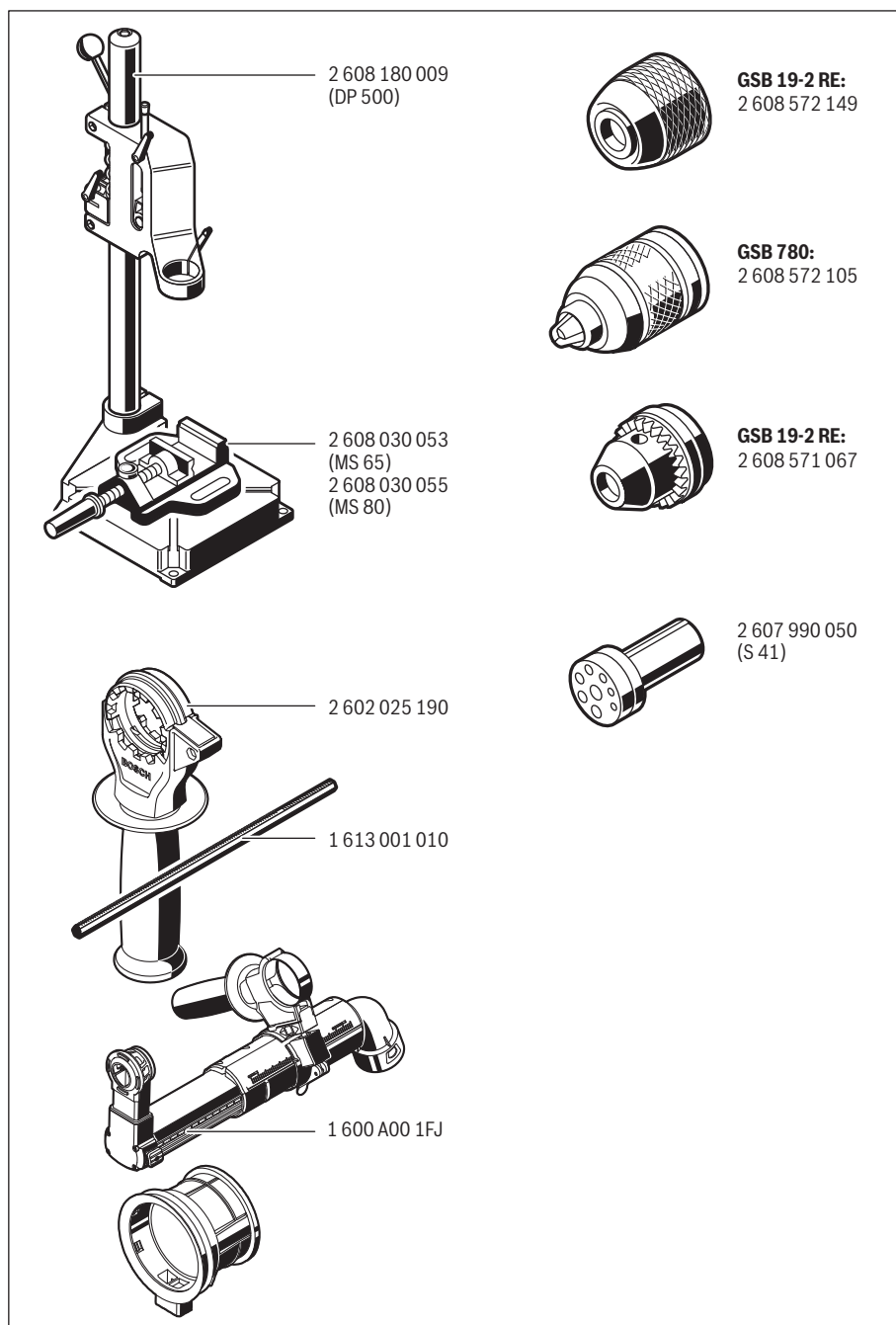
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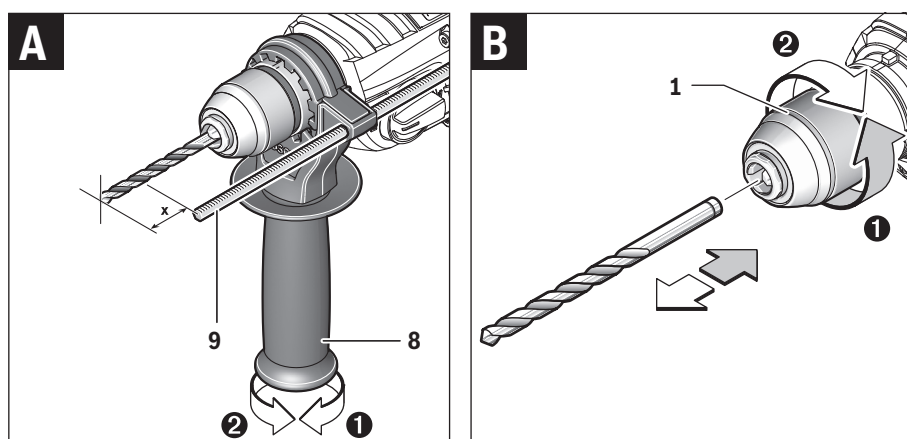
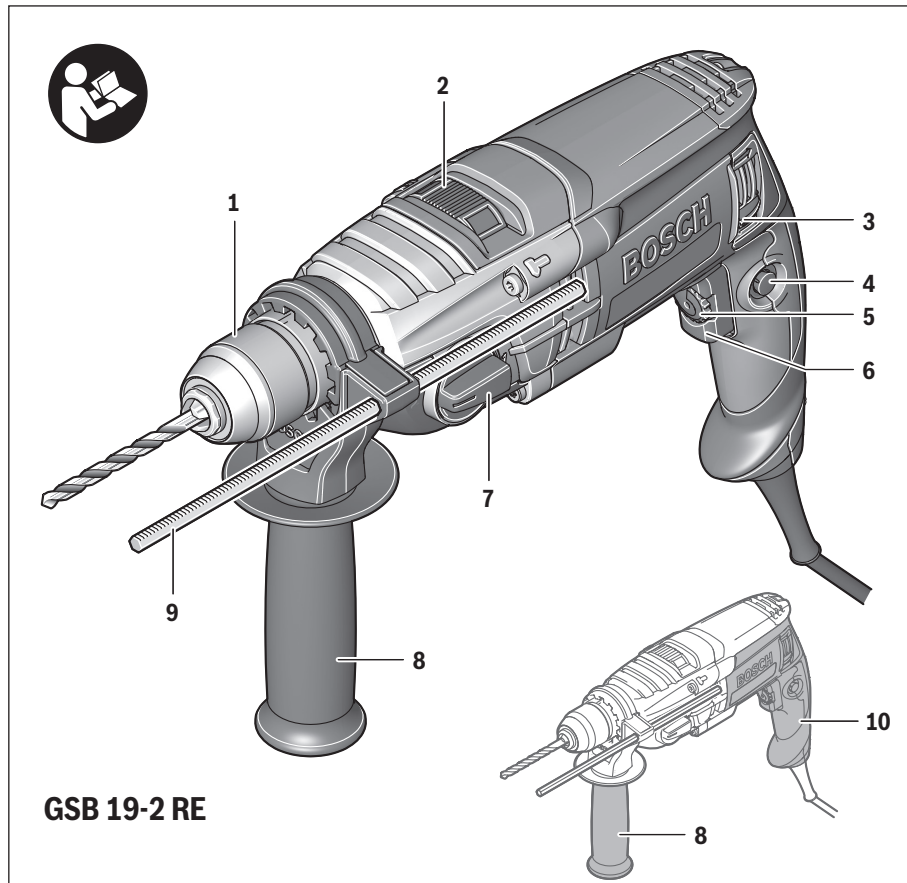
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fi Alkuperäiset ohjeet
el Πρωτότυπο οδηγιών χρήσης

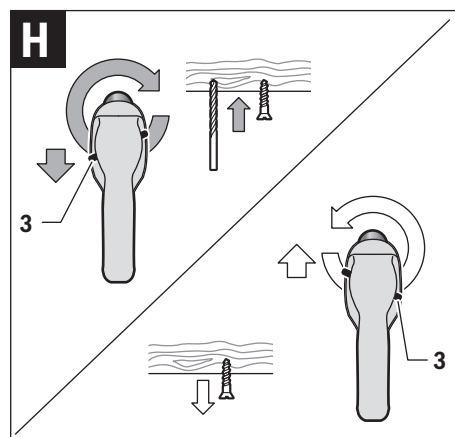
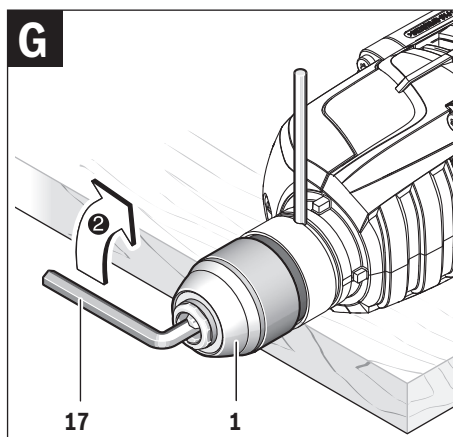
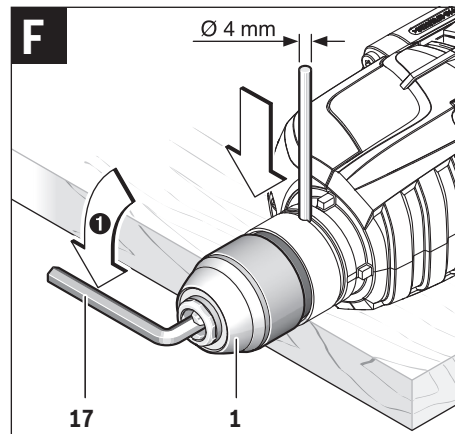
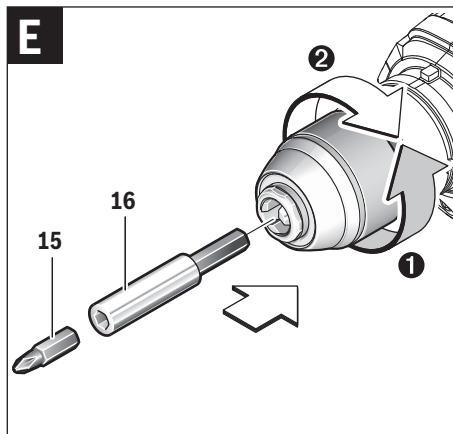
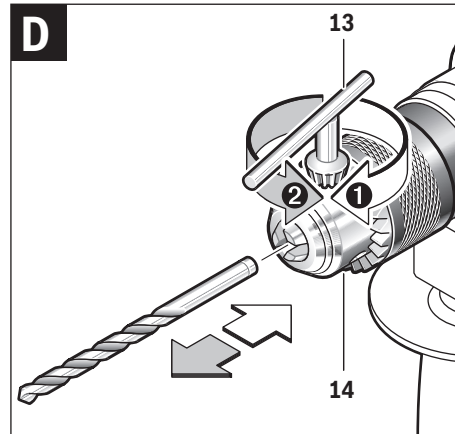
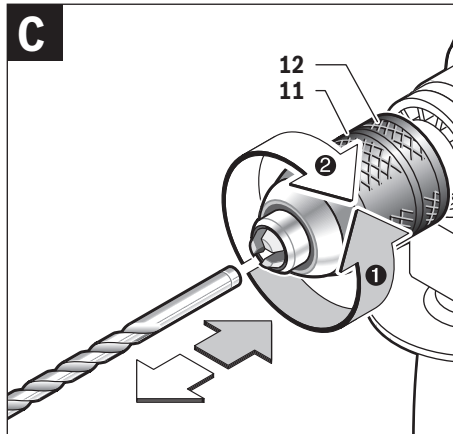
tr Orijinal işletme talimatı
pl Instrukcja oryginalna
cs Původní návod k používání
sk Pôvodný návod na použitie
hu Eredeti használati utasítás
ru Оригинальное руководство по
эксплуатации
uk Оригінальна інструкція з
експлуатації
kk Пайдалану нұсқаулығының
түпнұсқасы
ro Instrucțiuni originale
bg Оригинална инструкция

mk Оригинално упатство за работа
sr Originalno uputstvo za rad
sl Izvirna navodila
hr Originalne upute za rad
et Algupärane kasutusjuhend
lv Instrukcijas oriģinālvalodā
lt Originali instrukcija
ar تعليمات التشغيل الأصلية
fa دفترچه راهنمای اصلی









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English

Safety Notes

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 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

- ▶ **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.

▶ **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.

Safety Warnings for Drills

- ▶ **Wear ear protectors when impact drilling.** 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.
- ▶ **Use suitable 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 or may cause an electric shock.
- ▶ **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.
- ▶ **Secure the workpiece.** A workpiece clamped with clamping devices or in a vice is held more secure than by hand.
- ▶ **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.

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.

Product Description and Specifications



Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

While reading the operating instructions, unfold the graphics page for the machine and leave it open.

Intended Use

The machine is intended for impact drilling in brick, concrete and stone as well as for drilling in wood, metal and plastic. Machines with electronic control and right/left rotation are also suitable for screwdriving and thread-cutting.

Product Features

The numbering of the product features refers to the illustration of the machine on the graphics page.

- 1 Keyless chuck
- 2 "Drilling/Impact Drilling" selector switch
- 3 Rotational direction switch
- 4 Lock-on button for On/Off switch
- 5 Thumbwheel for speed preselection
- 6 On/Off switch
- 7 Gear selector
- 8 Auxiliary handle (insulated gripping surface)*
- 9 Depth stop*
- 10 Handle (insulated gripping surface)
- 11 Front sleeve*
- 12 Rear sleeve*
- 13 Chuck key*
- 14 Key type drill chuck*
- 15 Screwdriver bit*
- 16 Universal bit holder*
- 17 Hex key*

*Accessories shown or described are not part of the standard delivery scope of the product. A complete overview of accessories can be found in our accessories program.

Technical Data

Impact Drill		GSB 19-2 RE	GSB 19-2 RE	GSB 780
Article number		3 601 A7B 5..	3 601 A7B 6..	3 601 A7B 1..
Rated power input	W	850	850	780
Output power	W	430	430	390
No-load speed				
– 1st gear	min ⁻¹	0 – 1000	0 – 1000	0 – 1000
– 2nd gear	min ⁻¹	0 – 3000	0 – 3000	0 – 3000
Rated speed				
– 1st gear	min ⁻¹	800	800	850
– 2nd gear	min ⁻¹	2060	2060	2170
Impact frequency at no-load	min ⁻¹	51000	51000	51000

The values given are valid for a nominal voltage [U] of 230 V. For different voltages and models for specific countries, these values can vary.

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Impact Drill		GSB 19-2 RE	GSB 19-2 RE	GSB 780
Rated torque (1st/2nd gear)	Nm	5.2/2.0	5.2/2.0	4.1/1.6
Speed preselection		●	●	●
Right/left rotation		●	●	●
Key type drill chuck		–	●	–
Keyless drill chuck		●	–	●
Fully automatic spindle locking (Auto-lock)		●	–	–
Spindle collar dia.	mm	43	43	43
Maximum drilling diameter (1st/2nd gear)				
– Concrete	mm	18/13	18/13	18/13
– Brickwork	mm	20/15	20/15	20/15
– Steel	mm	13/8	13/8	13/8
– Wood	mm	40/25	40/25	40/25
Chuck clamping range	mm	1.5 – 13	1.5 – 13	1.5 – 13
Weight according to EPTA-Procedure 01/2003	kg	2.6	2.6	2.6
Protection class		□/II	□/II	□/II

The values given are valid for a nominal voltage [U] of 230 V. For different voltages and models for specific countries, these values can vary.

Noise/Vibration Information

Sound emission values determined according to EN 60745-2-1.

Typically the A-weighted noise levels of the product are:
Sound pressure level 95 dB(A); Sound power level 106 dB(A). Uncertainty K = 3 dB.

Wear hearing protection!

Vibration total values a_h (tri-ax vector sum) and uncertainty K determined according to EN 60745:

Drilling into metal: $a_h = 3.0 \text{ m/s}^2$, $K = 1.5 \text{ m/s}^2$,
Impact drilling into concrete: $a_h = 15 \text{ m/s}^2$, $K = 2.0 \text{ m/s}^2$,
Screwdriving without impact: $a_h < 2.5 \text{ m/s}^2$, $K = 1.5 \text{ m/s}^2$,
Tapping: $a_h < 2.5 \text{ m/s}^2$, $K = 1.5 \text{ m/s}^2$.

The vibration level given in this information sheet has been measured in accordance with a standardised test given in EN 60745 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure. The declared vibration emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or insertion tools or is poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period.

An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period. Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organisation of work patterns.

Declaration of Conformity

We declare under our sole responsibility that the product described under "Technical Data" is in conformity with all relevant provisions of the directives 2011/65/EU, 2014/30/EU, 2006/42/EC including their amendments and complies with the following standards: EN 60745-1, EN 60745-2-1.

Technical file (2006/42/EC) at:

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Executive Vice President
Engineering

Helmut Heinzelmann

Head of Product Certification
PT/ETM9

Henk Becker i.v. *Helmut Heinzelmann*

Robert Bosch GmbH, Power Tools Division
70764 Leinfelden-Echterdingen, GERMANY
17.04.2014

Assembly

- Before any work on the machine itself, pull the mains plug.

Auxiliary Handle (see figure A)

- Operate your machine only with the auxiliary handle 8.

The auxiliary handle 8 can be set in 12 positions to achieve a safe and low-fatigue working stance.

Turn the bottom part of the auxiliary handle 8 in rotation direction ① and push the auxiliary handle 8 forward until you can pivot it to the desired position. Then pull the auxiliary handle 8 back again and tighten it by turning the bottom part of the auxiliary handle in rotation direction ②.

Adjusting the Drilling Depth (see figure A)

The required drilling depth X can be set with the depth stop 9.

Turn the bottom part of the auxiliary handle 8 in anticlockwise direction and insert the depth stop 9.

Pull out the depth stop until the distance between the tip of the drill bit and the tip of the depth stop corresponds with the desired drilling depth X.

Afterwards, tighten the bottom part of the auxiliary handle **8** again by turning in clockwise direction.

The knurled surface of the depth stop **9** must face upward.

Changing the Tool

- **Wear protective gloves when changing the tool.** The drill chuck can become very hot during longer work periods.

Keyless Chuck (GSB 19-2 RE) (see figure B)

The drill spindle is locked when the On/Off switch **6** is not pressed. This makes quick, convenient and easy changing of the tool in the drill chuck possible.

Open the keyless chuck **1** by turning in rotation direction **1**, until the tool can be inserted. Insert the tool.

Firmly tighten the collar of the keyless chuck **1** by hand in rotation direction **2** until the locking action ("click") is no longer heard. This automatically locks the chuck.

The locking is released again to remove the tool when the collar is turned in the opposite direction.

Keyless Chuck (GSB 780) (see figure C)

Hold the rear sleeve **12** of the keyless chuck **1** tight and turn the front sleeve **11** in rotation direction **1**, until the tool can be inserted. Insert the tool.

Hold the rear sleeve **12** of the keyless chuck **1** tight and firmly turn the front sleeve **11** in rotation direction **2** by hand until the locking action is no longer heard. This automatically locks the drill chuck.

The locking is released again to remove the tool when the front sleeve **11** is turned in the opposite direction.

Key Type Drill Chuck (see figure D)

Open the key type drill chuck **14** by turning until the tool can be inserted. Insert the tool.

Insert the chuck key **13** into the corresponding holes of the key type drill chuck **14** and clamp the tool uniformly.

Screwdriver Tools (see figure E)

When working with screwdriver bits **15**, a universal bit holder **16** should always be used. Use only screwdriver bits that fit the screw head.

For driving screws, always position the "Drilling/Impact Drilling" selector switch **2** to the "Drilling" symbol.

Replacing the Drill Chuck

- **Before any work on the machine itself, pull the mains plug.**

Removing the Drill Chuck (see figure F)

Disassemble the auxiliary handle and set the gear selector **7** to the centre position between the 1st and 2nd gear.

Insert a steel pin with a diameter of Ø 4 mm and approx.

50 mm of length into the drill hole on the spindle neck in order to lock the drill spindle.

Clamp the short end of an Hex key **17** into the keyless chuck **1**.

Place the machine on a stable surface (e. g. a workbench).

Hold the machine firmly and loosen the keyless chuck **1** by turning the Hex key **17** in rotation direction **1**. Loosen a tight-seated keyless chuck by giving the long end of the Hex key **17** a light blow. Remove the Hex key from the keyless chuck and completely unscrew the keyless chuck.

For machines with key chuck, disassembly is carried out analogous as described above.

For machines with keyless chuck, an open-end spanner (size 19 mm) can be applied to the drill chuck instead of an Hex key.

Mounting the Drill Chuck (see figure G)

The keyless chuck/key type drill chuck is mounted in reverse order.

- **Remove the steel pin from the drill hole on the spindle neck after mounting is completed.**



The drill chuck must be tightened with a tightening torque of approx. 50 – 55 Nm.

Dust/Chip Extraction

- Dusts from materials such as lead-containing coatings, some wood types, minerals and metal can be harmful to one's health. Touching or breathing-in the dusts can cause allergic reactions and/or lead to respiratory infections of the user or bystanders.

Certain dusts, such as oak or beech dust, are considered as carcinogenic, especially in connection with wood-treatment additives (chromate, wood preservative). Materials containing asbestos may only be worked by specialists.

- 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.** Dusts can easily ignite.

Operation

Starting Operation

- **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.**

Reversing the rotational direction (see figure H)

- **Actuate the rotational direction switch **3** only when the machine is at a standstill.**

The rotational direction switch **3** is used to reverse the rotational direction of the machine. However, this is not possible with the On/Off switch **6** actuated.

Right rotation: For drilling and driving in screws, push the rotational direction switch **3** downward on the left side and at the same time upward on the right side.

Left rotation: For loosening and unscrewing screws and nuts, push the rotational direction switch **3** upward on the left side and at the same time downward on the right side.

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Setting the operating mode**Drilling and Screwdriving**

Set the selector switch **2** to the "Drilling" symbol.

**Impact Drilling**

Set the selector switch **2** to the "Impact drilling" symbol.

The selector switch **2** engages noticeably and can also be actuated with the machine running.

Gear selection, mechanical

- ▶ **The gear selector 7 can be actuated on machines running at low speed. However, this should not be done when the machine is stopped, at full load or running at maximum speed.**

Two speed ranges can be preselected with the gear selector **7**.

**Gear I:**

Low speed range; for working with large drilling diameter or for driving in screws.

**Gear II:**

High speed range; for working with small drilling diameter.

If the gear selector **7** cannot be fully engaged, lightly rotate the drive spindle with the drill bit by twisting the drill chuck.

Switching On and Off

To **start** the machine, press the On/Off switch **6** and keep it pressed.

To lock the **pressed** On/Off switch **6**, press the lock-on button **4**.

To **switch off** the machine, release the On/Off switch **6** or when it is locked with the lock-on button **4**, briefly press the On/Off switch **6** and then release it.

To save energy, only switch the power tool on when using it.

Safety Clutch

To limit high reaction torque, the power tool is equipped with a safety clutch (Anti-Rotation).

- ▶ **If the tool insert becomes caught or jammed, the drive to the drill spindle is interrupted. Because of the forces that occur, always hold the power tool firmly with both hands and provide for a secure stance.**
- ▶ **If the power tool jams, switch the machine off and loosen the tool insert. When switching the machine on with the drilling tool jammed, high reaction torques can occur.**

Adjusting the Speed/Impact Frequency

The speed/impact rate of the switched on power tool can be variably adjusted, depending on how far the On/Off switch **6** is pressed.

Light pressure on the On/Off switch **6** results in low speed/impact rate. Further pressure on the switch increases the speed/impact rate.

Preselecting the Speed/Impact Frequency

With the thumbwheel for speed preselection **5**, the required speed/impact frequency can be preselected even during operation.

The required speed/impact frequency depends on the material and the working conditions, and can be determined through practical testing.

Working Advice

- ▶ **Before any work on the machine itself, pull the mains plug.**
- ▶ **Apply the power tool to the screw/nut only when it is switched off.** Rotating tool inserts can slip off.

Tips

After longer periods of working at low speed, allow the machine to cool down by running it for approx. 3 minutes at maximum speed with no load.

For drilling in tiles, set the selector switch **2** to the "Drilling" symbol. Do not switch over to the symbol "Impact Drilling" or work with impact until after drilling through the tile.

Use carbide tipped drill bits when working in concrete, masonry and brick wall.

For drilling in metal, use only perfectly sharpened HSS drill bits (HSS = high-speed steel). The appropriate quality is guaranteed by the Bosch accessories program.

Twist drills from 2.5 – 10 mm can easily be sharpened with the drill bit sharpener (see accessories).

Maintenance and Service**Maintenance and Cleaning**

- ▶ **Before any work on the machine itself, pull the mains plug.**
- ▶ **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 order, please always include the 10-digit article number given on the type plate of the machine.

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At www.bosch-pt.co.uk you can order spare parts or arrange the collection of a product in need of servicing or repair.

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Disposal

The machine, accessories and packaging should be sorted for environmental-friendly recycling.

Do not dispose of power tools into household waste!

Only for EC countries:

According to the European Directive 2012/19/EU for Waste Electrical and Electronic Equipment and its implementation into national right, power tools that are no longer usable must be collected separately and disposed of in an environmentally correct manner.

Subject to change without notice.

Français**Avertissements de sécurité****Avertissements de sécurité généraux pour l'outil****⚠ AVERTISSEMENT**

Lire tous les avertissements de sécurité et toutes les instructions.

Ne pas suivre les avertissements et instructions peut donner lieu à un choc électrique, un incendie et/ou une blessure sérieuse.

Conserver tous les avertissements et toutes les instructions pour pouvoir s'y reporter ultérieurement.

Le terme « outil » dans les avertissements fait référence à votre outil électrique alimenté par le secteur (avec cordon d'alimentation) ou votre outil fonctionnant sur batterie (sans cordon d'alimentation).

Sécurité de la zone de travail

- ▶ **Conserver la zone de travail propre et bien éclairée.** Les zones en désordre ou sombres sont propices aux accidents.
- ▶ **Ne pas faire fonctionner les outils électriques en atmosphère explosive, par exemple en présence de liquides inflammables, de gaz ou de poussières.** Les outils électriques produisent des étincelles qui peuvent enflammer les poussières ou les fumées.
- ▶ **Maintenir les enfants et les personnes présentes à l'écart pendant l'utilisation de l'outil.** Les distractions peuvent vous faire perdre le contrôle de l'outil.

Sécurité électrique

- ▶ **Il faut que les fiches de l'outil électrique soient adaptées au socle. Ne jamais modifier la fiche de quelque façon que ce soit. Ne pas utiliser d'adaptateurs avec des outils à branchement de terre.** Des fiches non modifiées et des socles adaptés réduiront le risque de choc électrique.