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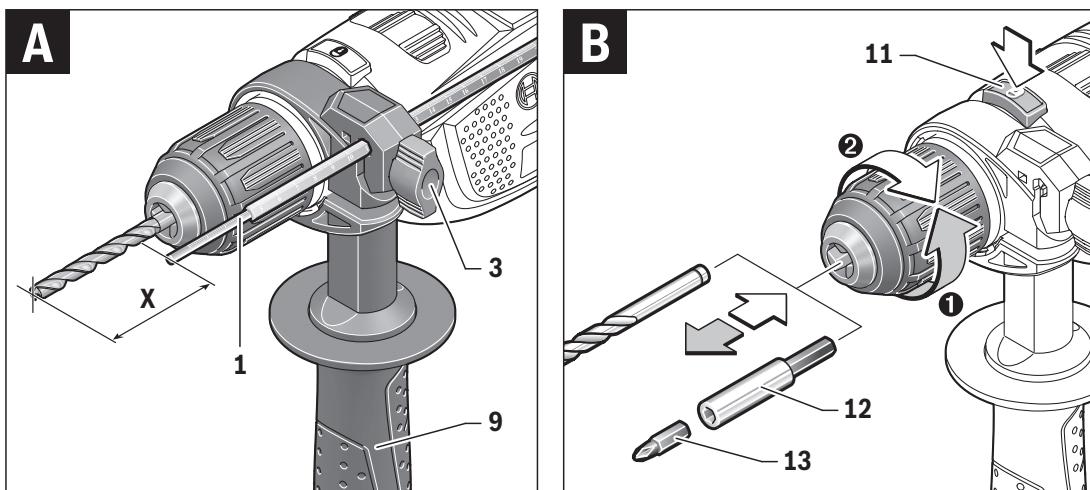
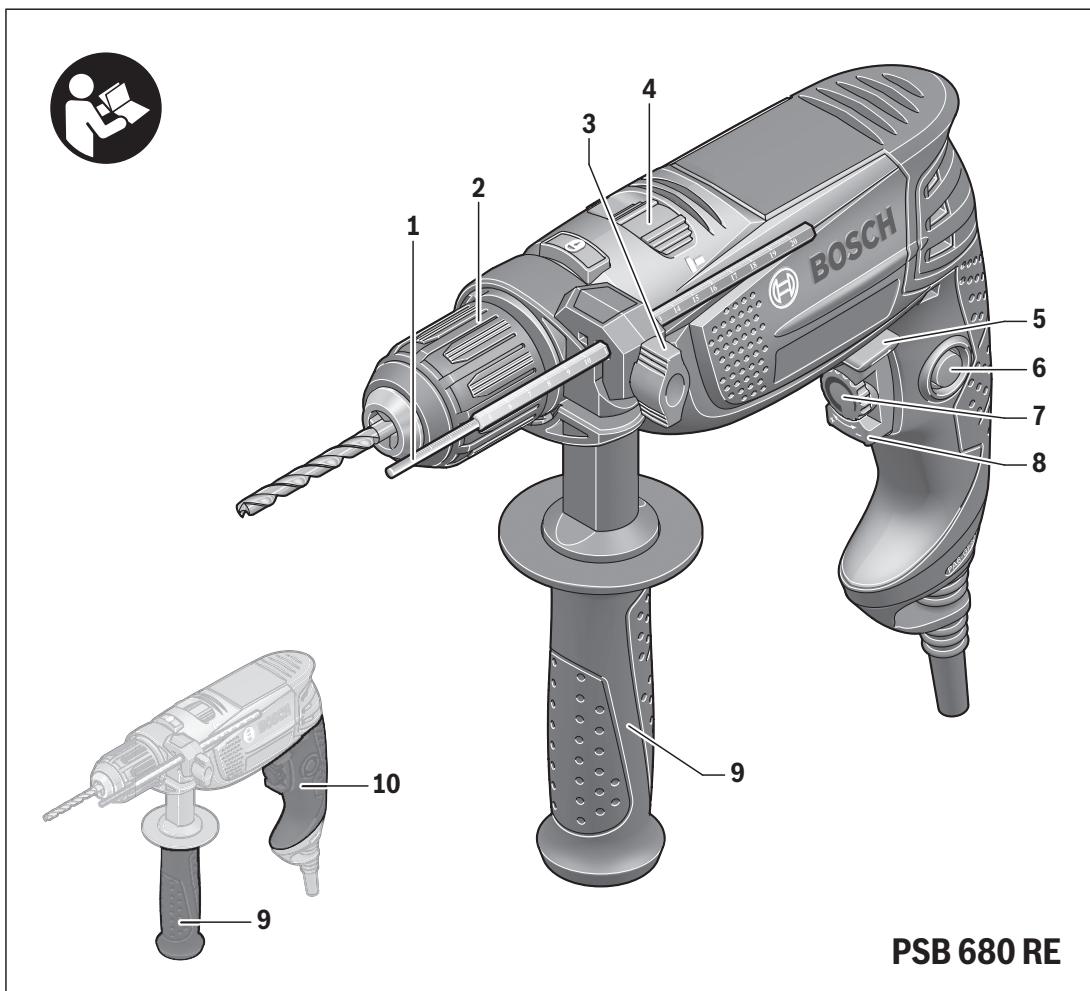
## PSB 680 RE

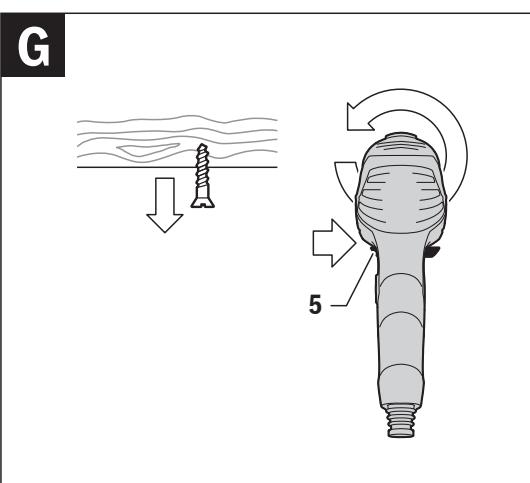
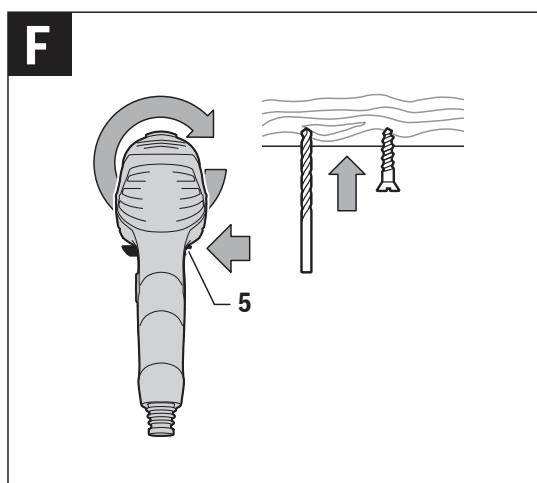
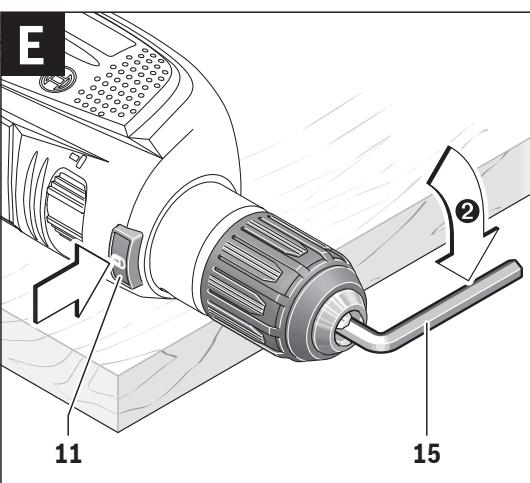
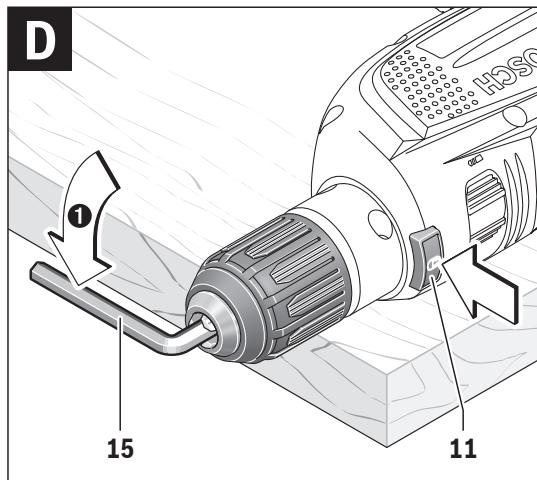
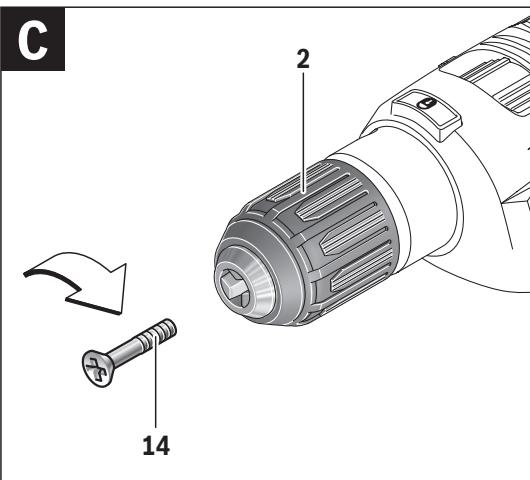


en Original instructions



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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.

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## 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 power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- ▶ **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.
- ▶ **Switch off the power tool immediately when the tool insert jams. Be prepared for high reaction torque that can cause kickback.** The tool insert jams when:
  - the power tool is subject to overload or
  - it becomes wedged in the workpiece.
- ▶ **Hold the machine with a firm grip.** High reaction torque can briefly occur while driving in and loosening screws.
- ▶ **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.

## 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 Depth stop
- 2 Keyless chuck
- 3 Wing bolt for depth stop adjustment
- 4 "Drilling/Impact Drilling" selector switch
- 5 Rotational direction switch
- 6 Lock-on button for On/Off switch
- 7 Thumbwheel for speed preselection
- 8 On/Off switch
- 9 Auxiliary handle (insulated gripping surface)
- 10 Handle (insulated gripping surface)
- 11 Spindle lock button
- 12 Universal bit holder\*
- 13 Screwdriver bit\*
- 14 Securing screw for keyless chuck
- 15 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.

\*\*Commercially available (not included in the delivery scope)

## Technical Data

| Impact Drill                     | PSB 680 RE        |           |
|----------------------------------|-------------------|-----------|
| Article number                   | 3 603 A29 0..     |           |
| Rated power input                | W                 | 680       |
| Output power                     | W                 | 330       |
| No-load speed                    | min <sup>-1</sup> | 0 – 3000  |
| Rated speed                      | min <sup>-1</sup> | 2241      |
| Impact rate                      | min <sup>-1</sup> | 0 – 48000 |
| Rated torque                     | Nm                | 1.4       |
| Torque at max. output power      | Nm                | 9.0       |
| Speed preselection               |                   | ●         |
| Right/left rotation              |                   | ●         |
| Keyless drill chuck              |                   | ●         |
| Spindle collar dia.              | mm                | 43        |
| Max. drilling dia.               |                   |           |
| – Concrete                       | mm                | 14        |
| – Steel                          | mm                | 13        |
| – Wood                           | mm                | 35        |
| – with extraction device mounted | mm                | 13        |
| Chuck clamping range             | mm                | 1.5 – 13  |

The specifications apply to a rated voltage [U] of 240 V. These specifications may vary at different voltages and in country-specific versions.

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| Impact Drill  | PSB 680 RE |
|---|------------|
| Weight according to EPTA-Procedure 01:2014  | kg 1.7     |
| Protection class  | □ / II     |
| The specifications apply to a rated voltage [U] of 240 V. These specifications may vary at different voltages and in country-specific versions. |            |

## Assembly

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

### Dust 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.

- It is recommended to wear a P2 filter-class respirator. Observe the relevant regulations in your country for the materials to be worked.

### Auxiliary Handle

► Operate your machine only with the auxiliary handle 9. The auxiliary handle 9 can be set to any position for a secure and low-fatigue working posture.

- Turn the bottom part of the auxiliary handle 9 in counter-clockwise direction and swivel the auxiliary handle 9 to the desired position. Then retighten the bottom part of the auxiliary handle 9 by turning in clockwise direction.

### Adjusting the Drilling Depth (see figure A)

The required drilling depth X can be set with the depth stop 1.

- Loosen the wing bolt for the depth stop adjustment 3 and insert the depth stop rod into the auxiliary handle 9. The knurled surface of the depth stop 1 must face downward.
- 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.
- Retighten the wing bolt for the depth stop adjustment 3 again.

### Changing the Tool

#### Keyless Chuck (see figure B)

► Press the spindle lock button 11 only when the machine is at a standstill.

The drill spindle is locked by pressing the spindle lock button 11. This makes quick and easy changing of the tool in the drill chuck possible.

- Open the keyless chuck 2 by turning in rotation direction 1, until the tool can be inserted. Insert the tool.

- Firmly tighten the collar of the keyless chuck 2 by hand in rotation direction 2. This automatically locks the drill chuck.

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

### Screwdriver Tools

When working with screwdriver bits 13, a universal bit holder 12 should always be used. Use only screwdriver bits that fit the screw head.

- For driving screws, always position the "Drilling/Impact Drilling" selector switch 4 to the "Drilling" symbol.

### Replacing the Drill Chuck

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

#### Removing the Securing Screw (see figure C)

- The keyless chuck 2 is secured with a securing screw 14 against unintentional loosening from the drill spindle. Completely open the keyless chuck 2 and unscrew the securing screw 14 in clockwise direction. **Please note that the securing screw has a left-hand thread.**
- If the securing screw 14 is seated tightly, apply a screwdriver to the screw head and loosen the securing screw by giving a blow onto the handle of the screwdriver.

#### Removing the Drill Chuck (see figure D)

- Clamp the short end of a hex key 15 into the keyless chuck 2.
- Place the machine on a firm surface, e. g. a workbench. Hold the machine firmly, press the spindle lock button 11 and loosen the keyless chuck 2 by turning the Hex key 15 in rotation direction 1. Loosen a tight keyless chuck by giving the long end of the Hex key 15 a light blow. Remove the Hex key from the keyless chuck and completely unscrew the keyless chuck.

#### Mounting the Drill Chuck (see figure E)

The keyless chuck is mounted in reverse order.

**⚠ The drill chuck must be tightened with a tightening torque of approx. 25 – 35 Nm.**

- Screw the securing screw 14 in anti-clockwise direction into the opened keyless chuck. Always use a new securing screw, as the threads are covered with a thread-locking compound that loses its effect after multiple usage.

## 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 and 240 V.

### Reversing the rotational direction (see figure F – G)

The rotational direction switch 5 is used to reverse the rotational direction of the machine. However, this is not possible with the On/Off switch 8 actuated.

- **Right Rotation:** For drilling and driving in screws, push the rotational direction switch **5** left to the stop.
- **Left Rotation:** For loosening and unscrewing screws and nuts, press the rotational direction switch **5** through to the right stop.

### Setting the operating mode



#### Drilling and Screwdriving

Set the selector switch **4** to the "Drilling" symbol.



#### Impact Drilling

Set the selector switch **4** to the "Impact drilling" symbol.

The selector switch **4** engages noticeably and can also be actuated with the machine running.

### Switching On and Off

- To **start** the machine, press the On/Off switch **8** and keep it pressed.
- To lock the **pressed** On/Off switch **8**, press the lock-on button **6**.
- To **switch off** the machine, release the On/Off switch **8** or when it is locked with the lock-on button **6**, briefly press the On/Off switch **8** and then release it.

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

### Adjusting the Speed/Impact Rate

The speed/impact rate of the switched on power tool can be variably adjusted, depending on how far the On/Off switch **8** is pressed.

Light pressure on the On/Off switch **8** results in low speed/impact rate. Further pressure on the switch increases the speed/impact rate.

### Preselecting the Speed/Impact Rate

With the thumbwheel for speed preselection **7**, the required speed/impact rate can be preselected even during operation. The required speed/impact rate 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.

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.

## 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 orders, please always include the 10-digit article number given on the nameplate of the product.

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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!

**Subject to change without notice.**

