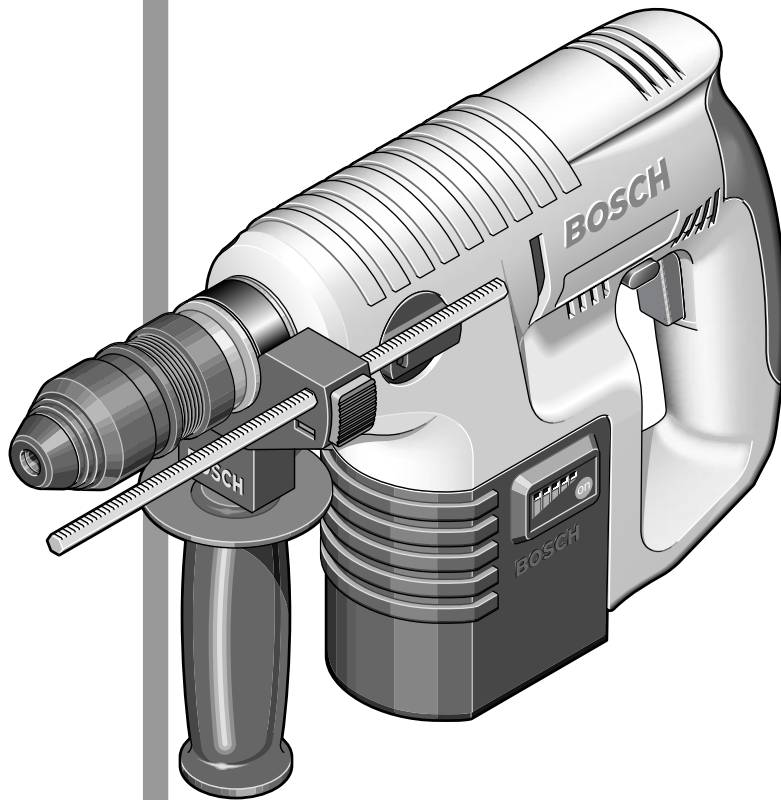


Bedienungsanleitung
Operating Instructions
Instructions d'emploi
Instrucciones de servicio
Manual de instruções
Istruzioni d'uso
Gebruiksaanwijzing
Betjeningsvejledning
Bruksanvisning
Brukerveiledningen
Käyttöohje
Οδηγία χειρισμού
Kullanım kılavuzu

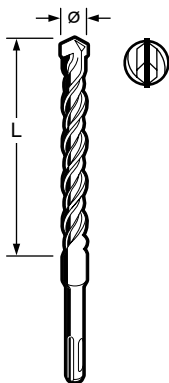
BOSCH

GBH 24 VFR GBH 24 VRE



Deutsch
English
Français
Español
Português
Italiano
Nederlands
Dansk
Svenska
Norsk
Suomi
Ελληνικά
Türkçe



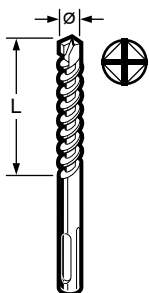


Ø L
(mm) (mm)

3,5	50	2 608 597 773
4	50	1 618 596 231
4	100	2 608 597 774
5	50	1 618 596 164
5	100	1 618 596 189
5	150	2 608 596 199
5,5	50	1 618 596 165
5,5	100	2 608 596 146
5,5	150	2 608 597 775
5,5	200	2 608 597 776
6	50	1 618 596 166
6	100	1 618 596 167
6	150	2 608 596 115
6	200	2 608 597 777
6,5	50	1 618 596 168
6,5	100	1 618 596 169
6,5	150	2 608 597 778
6,5	200	2 608 597 779
6,5	250	2 608 597 780
7	50	1 618 596 170
7	100	1 618 596 171
7	150	2 608 597 130
8	50	1 618 596 172
8	100	1 618 596 173
8	150	1 618 596 174
8	200	1 618 596 264
8	400	2 608 596 116
8	550	2 608 596 183
9	100	2 608 596 158
9	150	1 618 596 175

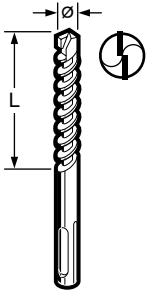
Ø L
(mm) (mm)

10	50	1 618 596 176
10	100	1 618 596 177
10	150	1 618 596 265
10	200	1 618 596 178
10	250	1 618 596 315
10	300	1 618 596 266
10	400	1 618 596 267
10	550	2 608 596 117
11	100	1 618 596 179
11	150	1 618 596 316
11	200	1 618 596 180
11	250	2 608 597 781
12	100	1 618 596 181
12	150	1 618 596 268
12	200	1 618 596 182
12	250	2 608 597 782
12	400	1 618 596 269
13	100	1 618 596 183
13	150	1 618 596 318
13	200	1 618 596 184
14	100	1 618 596 185
14	150	1 618 596 270
14	200	1 618 596 186
14	250	1 618 596 271
14	400	2 608 596 118
15	100	1 618 596 187
15	200	1 618 596 188
16	150	1 618 596 185
16	250	1 618 596 186



Ø L
(mm) (mm)

16	400	2 608 597 000
18	200	2 608 597 001
18	400	2 608 597 002
20	200	2 608 597 003
20	400	2 608 597 004

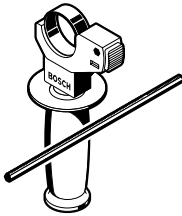


Ø L
(mm) (mm)

10	950	2 608 597 122
12	550	1 618 596 224
12	950	2 608 597 123
14	550	1 618 596 225
14	950	2 608 597 124
15	400	1 618 596 257
16	400	1 618 596 259
16	550	1 618 596 226
16	750	1 618 596 227
16	950	2 608 597 125
17	150	1 618 596 203
18	150	1 618 596 204
18	250	1 618 596 319

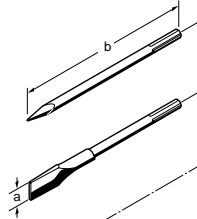
Ø L
(mm) (mm)

18	400	1 618 596 260
18	550	2 608 596 120
18	750	2 608 596 122
18	950	2 608 597 126
19	150	1 618 596 205
19	250	1 618 596 320
19	400	1 618 596 261
20	150	1 618 596 207
20	250	1 618 596 262
20	400	1 618 596 263
20	550	1 618 596 321
20	950	2 608 597 127



2 602 025 120

2 603 001 010

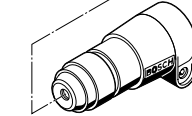


a = Ø 16 mm
b = 250 mm
1 618 600 009

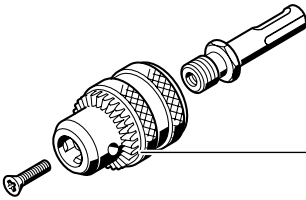
a = 22 mm
b = 250 mm
1 618 600 010



1 605 439 002

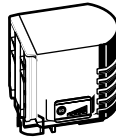


2 607 018 296



1 617 000 132

1 608 571 062
(Ø 1,5 – 13 mm)



24 V/1,7 Ah (NiCd)

2 607 335 082

24 V/3,0 Ah (NiCd)

2 607 335 216

AL 60 DV 2425

2 607 224 426 (EU)

2 607 224 428 (UK)

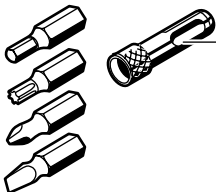
2 607 224 430 (AUS)

AL 15 FC 2498

2 607 224 484 (EU)

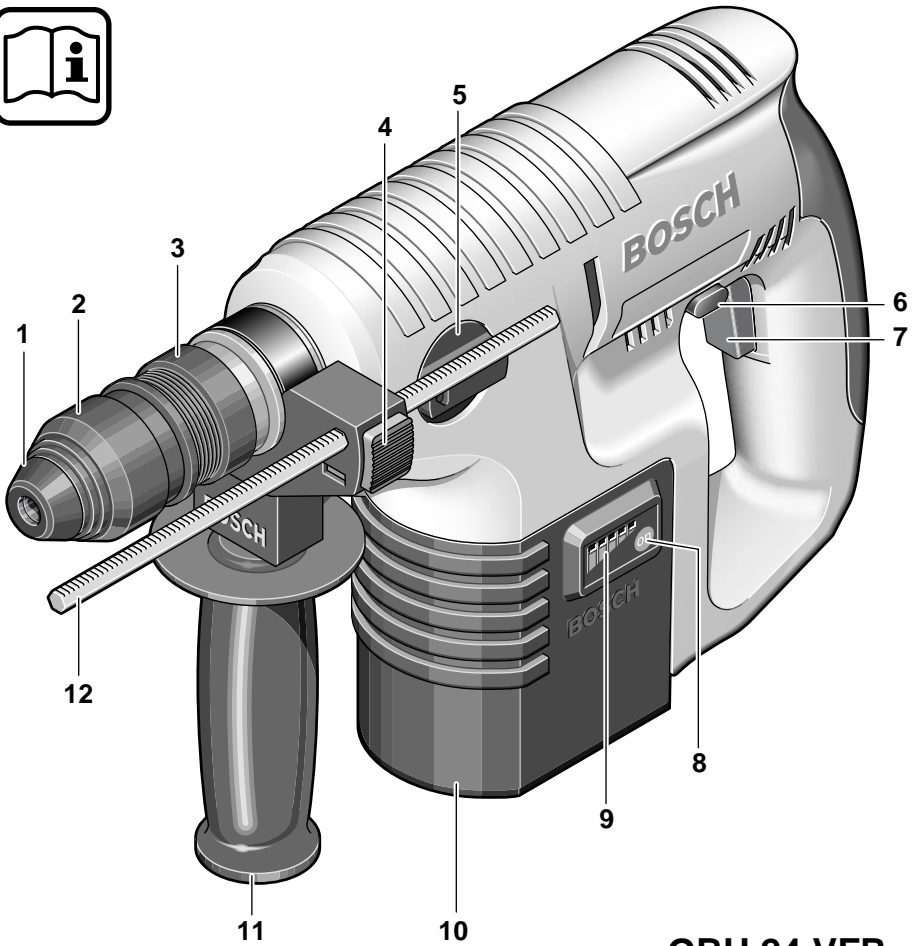
2 607 224 486 (UK)

2 607 224 488 (AUS)

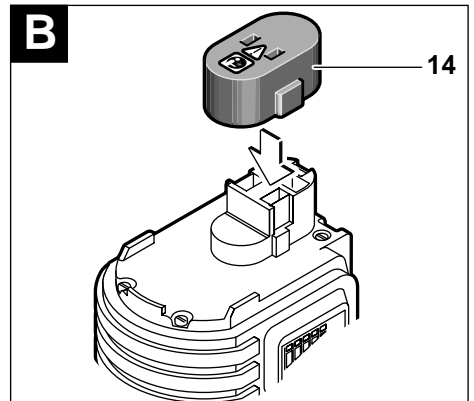
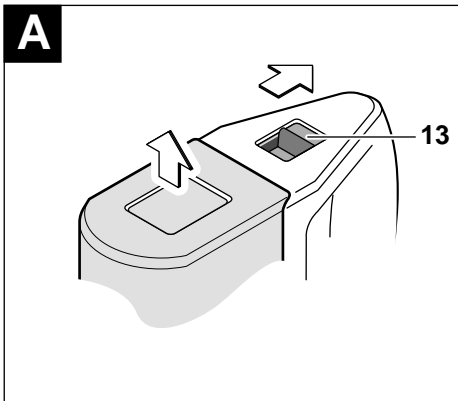


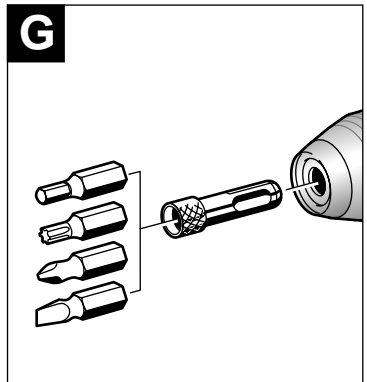
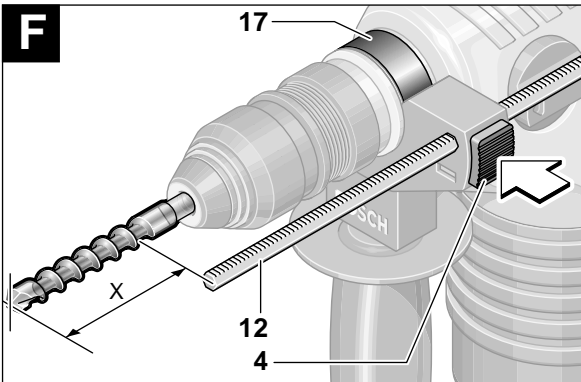
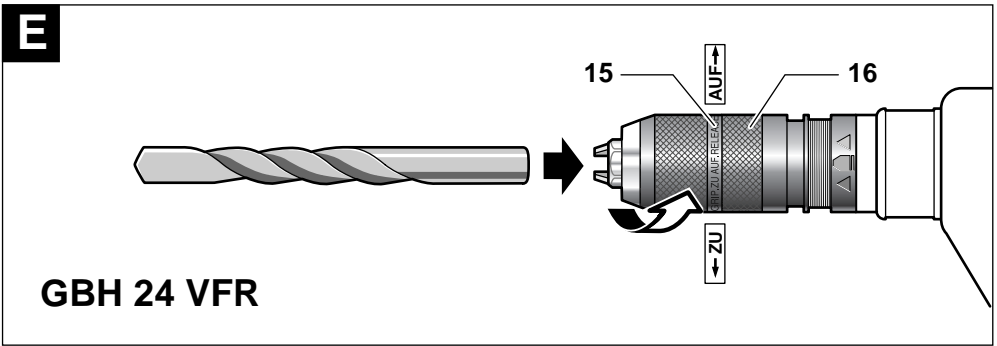
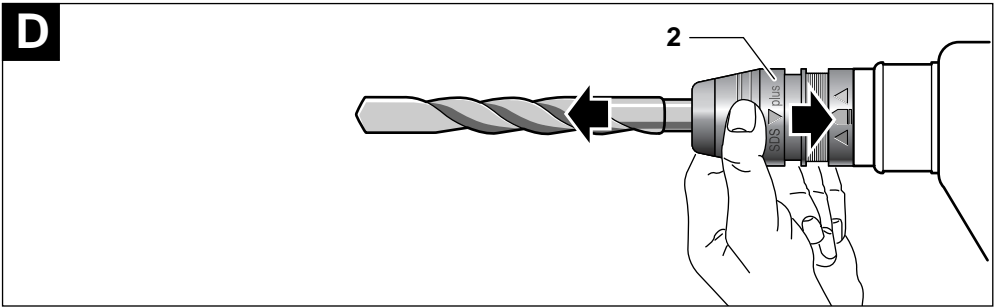
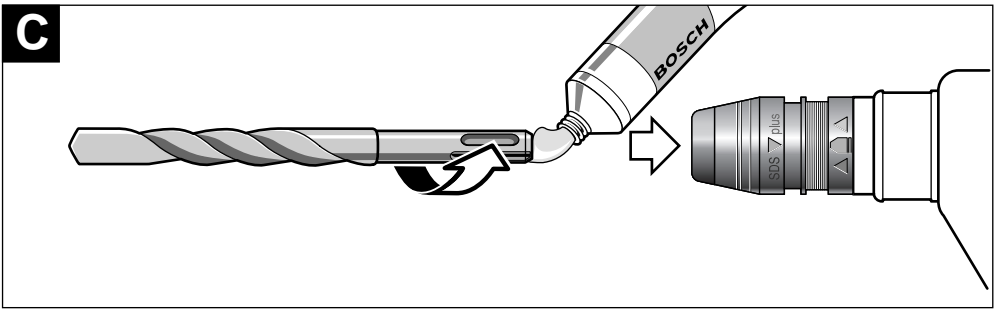
2 607 000 206





GBH 24 VFR





Tool Specifications

Rotary Hammer		GBH 24 VFR	GBH 24 VFR	GBH 24 VRE	GBH 24 VRE
Order number		0 611 261 7..	0 611 261 5..	0 611 260 7..	0 611 260 5..
Rated power	[W]	350	350	350	350
Output power	[W]	270	270	270	270
Rated speed	[rpm]	0–1 000	0–1 000	0–1 000	0–1 000
Impact rate	[bpm]	0–4 400	0–4 400	0–4 400	0–4 400
Impact energy per stroke	[J]	1.3	1.3	1.3	1.3
Tool holder		SDS-plus	SDS-plus	SDS-plus	SDS-plus
Drilling output:					
- Concrete (twist drill bit)	[mm]	4–20	4–20	4–20	4–20
- Wood	[mm]	max. 20	max. 20	max. 20	max. 20
- Steel	[mm]	max. 10	max. 10	max. 10	max. 10
Weight with battery, approx.	[kg]	3.5	4.2	3.5	4.2
Battery		NiCd	NiCd	NiCd	NiCd
Order number		2 607 335 082	2 607 335 216	2 607 335 082	2 607 335 216
Temperature control		NTC	NTC	NTC	NTC
Rated voltage	[V]	24	24	24	24
Capacity	[Ah]	1.7	3.0	1.7	3.0
Weight, approx.	[kg]	1.3	2.0	1.3	2.0

Please observe the order number of your machine. The trade names of the individual machines may vary.

Machine Elements

- 1 Dust protection cap
- 2 Locking sleeve
- 3 Chuck locking ring
- 4 Push-button for depth-stop adjustment
- 5 Impact stop switch
- 6 Rotational direction switch
- 7 On/Off switch
- 8 Button
- 9 Battery charge display
- 10 Battery
- 11 Auxiliary handle
- 12 Depth stop
- 13 Release button
- 14 Protective cap
- 15 Interlock
- 16 Knurled ring

Not all of the accessories illustrated or described are included as standard delivery.

Noise/Vibration Information

Measured values determined according to EN 50 144.

Typically the A-weighted noise levels of the product are: sound pressure level: 91 dB (A); sound power level: 104 dB (A).

Wear hearing protection!

The typically weighted acceleration is 11 m/s².

Intended Use

The machine is intended for hammer drilling in concrete, brick and stone. It is also suitable for drilling without impact in wood, metal, ceramic and plastic. Machines with electronic control and right/left rotation are also suitable for screw-driving and thread cutting.



For Your Safety

Working safely with this machine is possible only when the operating and safety information are read completely and the instructions contained therein are strictly followed. In addition, the general safety notes in the enclosed booklet must be observed. Before using for the first time, ask for a practical demonstration.

- Wear protective glasses and hearing protection.
- For long hair, wear hair protection. Work only with closely fitting clothes.
- Before each use, check the machine and battery. If damage is detected, do not use the machine. Have repairs performed only by a qualified technician. Never open the machine yourself.
- **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and 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.
- **Before any work on the machine itself (e. g. maintenance, tool change, etc.) as well as when transporting and storing, always set the rotational direction switch to the centre position.** Otherwise danger of injury is given when unintentionally actuating the On/Off switch.
- **Ensure the switch is in the off position before inserting battery pack.** Inserting the battery pack into power tools that have the switch on invites accidents.
- Convince yourself before using that the battery is securely seated in the machine.
- Do not strain the machine so heavily that it comes to a standstill.
- When working with the machine, always hold it firmly with both hands and provide for a secure stance.
- Use the machine only with the auxiliary handle 11.

- **Hold the power tool only by the insulated gripping surfaces, when performing an operation where the cutting tool may run into hidden wiring.**

Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.

- **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.

- Be careful when screwing in long screws; danger of sliding off.
- Set the machine against the screw/nut only when switched off.
- When screwdriving, operate in first gear as well as with a low speed.
- Always switch the machine off and wait until it has come to a standstill before placing it down.
- Never allow children to use the machine.
- Bosch is only able to ensure perfect operation of the machine if the original accessories intended for it are used.

Battery and Battery Charger

- **The enclosed operating instructions for the battery charger must be read carefully!**
- **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.
- Allow a heated battery to cool before charging.
- Protect the battery from heat and fire: Danger of explosion! Do not place the battery on radiators or expose to strong sun rays for a longer time; temperatures over 50 °C cause damage.
- Do not open the battery, and protect it from impact. Store in a dry and frost-free place.
- **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.
- Do not dispose of the battery in household waste or discard into fire or water.

Before Putting into Operation

Battery Charging

A battery that is new or has not been used for a longer period does not develop its full capacity until after approximately 5 charging/discharging cycles.

To remove the battery **10**, push back the release button **13** and pull the battery out downwards. **Do not exert any force** (see figure **A**).

Please refer to the enclosed "Battery Charger" instructions for the operation of the battery charger as well as for a description of the charging process.

The battery is equipped with an NTC temperature control which allows charging only within a temperature range of between 0 °C and 45 °C. A long battery service life is achieved in this manner.

A significantly reduced working period after charging indicates that the batteries are used and must be replaced.

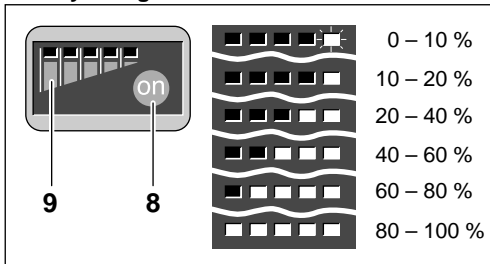
■ Observe the notes on environmental protection.

Battery Charge Display

The battery **10** is fitted with a battery charge display **9**. It indicates the charge of the battery at any given time during the working process.

By pressing the button **8**, the battery charge can also be checked when the battery has been removed, or when the machine is at a standstill. After approx. 4 seconds the battery charge display automatically turns off.

Battery charge:



When the first display element begins to flash (0–10 %) the battery is almost empty and must be recharged.

To maintain the accuracy of the display, occasionally discharge the battery until the speed of the machine is considerably reduced and the battery charge display has completely turned off. Frequent recharging after short intervals of use impairs the accuracy of the display.

Auxiliary Handle/Depth Stop (see figure **F**)

■ Use the machine only with the auxiliary handle **11**.

Loosen the handle by turning to the left. Rotate the auxiliary handle **11** and adapt to the working position. Make sure that the clamping band **17** of the auxiliary handle remains in the groove.

Firmly retighten the handle.

The drilling depth can be set with the depth stop **12**.

For this, press the push-button for the depth-stop adjustment **4**, adjust the required drilling depth **X** and release the push-button for the depth-stop adjustment **4** again.

The ribbing on depth stop **12** must point upwards.

Changing the Tool

■ Before any work on the machine itself, remove the battery.

With the SDS-plus tool holder, simpler and easier tool changing is possible without additional aids.

☞ **Grease the shank end of the tool regularly.**

The dust protection cap **1** largely prevents the entry of drilling dust during operation. When inserting the tool, take care that the dust protection cap **1** is not damaged.

A damaged dust protection cap should be changed immediately. We recommend having this carried out by an after-sales service.

☞ As a requirement of the system, the SDS-plus tool must rotate freely. At no-load speed, this leads to a certain amount of radial run-out.

This does not affect the accuracy of the drill hole, as the bit is automatically centred during drilling.

Inserting (see figure **C**)

Clean and grease the shank end of the tool.

Insert the tool in a twisting manner into the tool holder until it locks. Check if it has locked by pulling the tool.

Removing (see figure **D**)

Push back the locking sleeve **2** of the tool holder and remove the tool.

Initial Operation

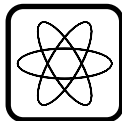
Inserting the Battery

Before re-inserting the battery **10** remove the protective cap **14** if necessary (see figure **B**).

Set the rotational direction switch **6** to the centre position (locked off). Slide the charged battery **10** into the handle until it can be felt to latch.

Switching On and Off

To **start** the machine, press the On/Off switch **7** and keep it depressed.



The machine runs with variable speed between 0 and maximum, depending on the pressure applied to the On/Off switch **7**. Light pressure on the On/Off switch **7** results in low rotational speed, thus allowing drilling to begin in a smooth, controlled manner. Further pressure on the switch results in an increase in speed.

To **switch off** the machine, release the On/Off switch **7**.

Do not strain the machine so heavily that it comes to a standstill.

■ The machine is not suitable for stationary operation, e. g., in a drill stand.

Overload Clutch

⚠ If the drill bit jams or edges, the drive to the drill spindle is interrupted.

Due to the arising forces **always hold the machine firmly with both hands and provide for a secure stance.**

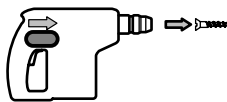
Before pulling out a stuck tool insert, first remove the machine from it.

Reversing the Rotational Direction



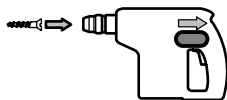
Operate the rotational direction switch **6 only at a standstill.**

The rotational direction switch **6** is used to reverse the rotational direction of the machine. However, this is not possible with the On/Off switch **7** actuated.



Right Rotation

Turn the rotational direction switch through to the left stop (normal operation: drilling, screw-driving, etc.).



Left Rotation

Press the rotational direction switch through to the right stop (for loosening and unscrewing screws and nuts).

Impact Stop Switch

■ **Set the impact stop switch **5** to “Drilling” (only at a standstill).**

Set the impact stop switch **5** to the desired position:



Drilling



Hammer drilling

Electric Brake

When releasing the On/Off switch **7** the speed of the drill chuck is reduced to a stop, thus preventing the run-on of the tool.

Any sparking occurring during this process in the area of the upper ventilation slots is normal and does not damage the machine.

For screwdriving applications, wait until the screw is flush with the material and then release the On/Off switch **7**. The screw head does not penetrate into the material then.

Change the SDS-plus Tool Holder (GBH 24 VFR)

The SDS-plus tool holder can easily be replaced by the keyless chuck supplied with the machine. The keyless chuck serves for rapid insertion of the tools without the SDS-plus (e. g. round shaft drill, screwdriver bits).

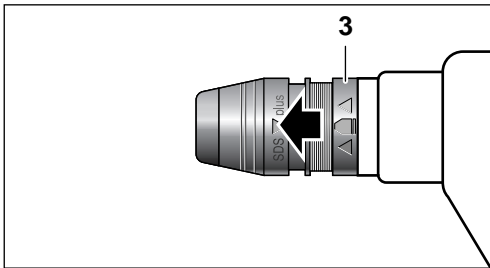


Do not hold the machine by the chuck!

Removal

■ **Danger of injury! Before removing the chuck, make sure to remove the tools or bits.**

Tightly grip the chuck locking ring **3** and pull strongly in the direction of the arrow. Remove the chuck.



Mounting

Using the whole hand, tightly grip the chuck. Twist it onto the taper shaft of the chuck until it is clearly heard to latch. The chuck automatically locks.

Check the locking function by pulling at the chuck.

Keyless Chuck for Tools with a Cylindrical Shaft (GBH 24 VFR)

Tools with a cylindrical shaft can be clamped using the keyless chuck.



The keyless chuck is not suitable for hammer drilling.

Mounting the Keyless Chuck

Remove the SDS-plus tool holder. Mount the keyless chuck in the same way as the SDS-plus tool holder.

Open the Keyless Chuck (see figure E)

Loosen chuck by turning the interlock **15** clockwise [AUF→].

Open chuck by turning it counter-clockwise.

Clamping the Tool

Insert the tool and manually close chuck while holding knurled ring **16**.

Lock chuck by turning interlock **15** counter-clockwise [←ZU].

Set the impact stop switch **5** to "Drill".

Removing the Keyless Chuck

Tightly grip the chuck locking ring **3** and pull it strongly in the direction of the arrow.

Key Type Drill Chuck for Tool Inserts with Cylindrical Shank (GBH 24 VRE)

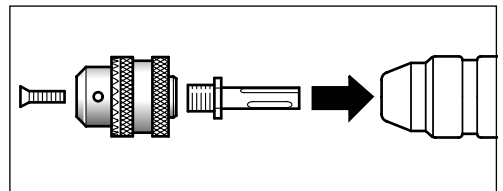
Tool inserts with cylindrical shank can be clamped with the key type drill chuck (accessory) and the corresponding adapter (accessory).



Set the impact stop switch **5 to "Drilling" (only at a standstill).**

Clean and lightly grease the adapter shank.

Insert the assembled chuck with a twisting manner into the tool holder until it latches. The chuck locks itself. Check the locking by pulling on the chuck.



Screwdriving (see figure G)


The machine is also suitable for occasional screwdriving applications, **however, not for screwdriving applications with extreme reductions of speed at which the overload clutch frequently responds.**

For screwdriving, the universal bit holder with SDS-plus shank (accessory) must be used.

- Set the impact stop switch **5** to "Drill".
- Set the direction of rotation to right-hand rotation.
- Regulate the speed with the On/Off switch **7**.

Maintenance and Cleaning

- Before any work on the machine itself, remove the battery.

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

- Keep the tool holder clean at all times.

Changing the Dust Protection Cap

A damaged dust protection cap should be changed immediately. We recommend having this carried out by an after-sales service.

If the machine should fail despite the care taken in manufacturing and testing procedures, repair should be carried out by an after-sales service centre for Bosch power tools.

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

Environmental Protection

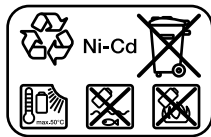


Recycle raw materials instead of disposing as waste

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

These instructions are printed on recycled paper manufactured without chlorine.

The plastic components are labelled for categorized recycling.



Nickel-cadmium-battery:

If your product is equipped with a nickel-cadmium-battery, the battery must be collected, recycled or disposed of in an environmentally-friendly way.

Defective or worn out batteries must be recycled according to the guidelines 91/157/EEC.

Batteries no longer suitable for use can be directly returned at:

Great Britain

Robert Bosch Ltd. (B.S.C.)
P.O. Box 98
Broadwater Park
North Orbital Road
Denham-Uxbridge
Middlesex UB 9 5HJ

☎ Service..... +44 (0) 18 95 / 83 87 82
☎ Advice line +44 (0) 18 95 / 83 87 91
Fax..... +44 (0) 18 95 / 83 87 89

Service and Customer Assistance

Great Britain

Robert Bosch Ltd. (B.S.C.)
P.O. Box 98
Broadwater Park
North Orbital Road
Denham-Uxbridge
Middlesex UB 9 5HJ

☎ Service..... +44 (0) 18 95 / 83 87 82
☎ Advice line +44 (0) 18 95 / 83 87 91
Fax..... +44 (0) 18 95 / 83 87 89

Ireland

Beaver Distribution Ltd.
Greenhills Road
Tallaght-Dublin 24

☎ Service..... +353 (0)1 / 414 9400
Fax..... +353 (0)1 / 459 8030

Australia

Robert Bosch Australia L.t.d.
RBAU/SPT2

1555 Centre Road
P.O. Box 66 Clayton
3168 Clayton/Victoria

☎ +61 (0)1 / 800 804 777
Fax..... +61 (0)1 / 800 819 520

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Mairangi Bay
Auckland
New Zealand

☎ +64 (0)9 / 47 86 158
Fax..... +64 (0)9 / 47 82 914

CE Declaration of Conformity

We declare under our sole responsibility that this product is in conformity with the following standards or standardization documents. EN 50 144 (Battery powered products) and EN 60 335 (Battery charger) according to the provisions of the directives 73/23/EEC, 89/336/EEC, 98/37/EC.

CE 02

Dr. Gerhard Felten Senior Vice President Engineering
Dr. Eckerhard Strötgen Head of Product Certification

ppa. Felsen i.v. Mötzen

Robert Bosch GmbH, Geschäftsbereich Elektrowerkzeuge

Subject to change without notice