

QU24262

35806

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Ideas that work.

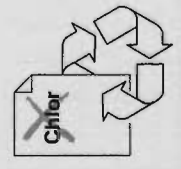
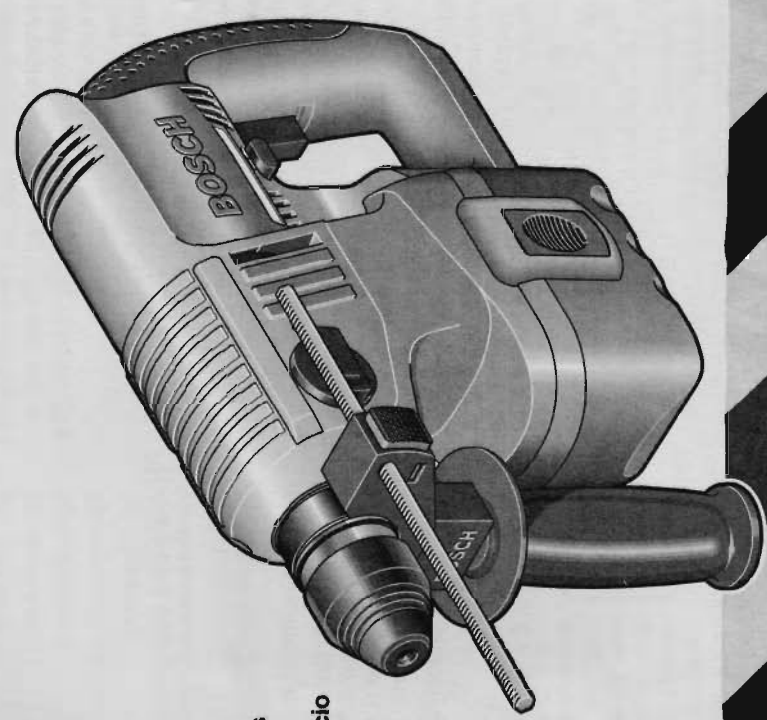
* Des idées en action.

GBH 24 V GBH 24 VF PROFESSIONAL

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Ideas that work.

* Des idées en action.

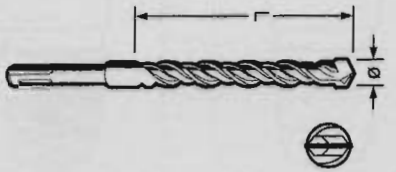
- Bedienungsanleitung
- Operating instructions
- Instructions d'emploi
- Instrucciones de servicio
- Manual de instruções
- Istruzioni d'uso
- Gebruiksaanwijzing
- Betjeningsvejledning
- Bruksanvisning
- Brukerveiledningen
- Käyttöohje
- Οδηγία χειρισμού
- Kullanım kılavuzu



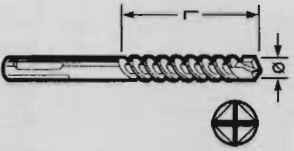
Robert Bosch GmbH
Geschäftsbereich Elektrowerkzeuge
70745 Leinfelden-Echterdingen
www.bosch-pt.com

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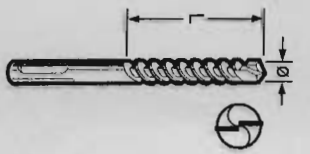




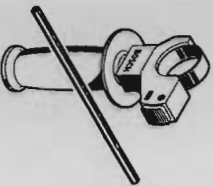
Ø L (mm) (mm)		Ø L (mm) (mm)			
3,5	50	2 608 597 773	10	50	1 618 596 176
4	50	1 618 596 231	10	100	1 618 596 177
4	100	2 608 597 774	10	150	1 618 596 265
5	50	1 618 596 164	10	200	1 618 596 178
5	100	1 618 596 189	10	250	1 618 596 315
5	150	2 608 596 199	10	300	1 618 596 266
5,5	50	1 618 596 165	10	400	1 618 596 267
5,5	100	2 608 596 146	10	550	2 608 596 117
5,5	150	2 608 597 775	11	100	1 618 596 179
5,5	200	2 608 597 776	11	150	1 618 596 316
6	50	1 618 596 166	11	200	1 618 596 180
6	100	1 618 596 167	11	250	2 608 597 781
6	150	2 608 596 115	12	100	1 618 596 181
6	200	2 608 597 777	12	150	1 618 596 268
6,5	50	1 618 596 168	12	200	1 618 596 182
6,5	100	1 618 596 169	12	250	2 608 597 782
6,5	150	2 608 597 778	12	400	1 618 596 269
6,5	200	2 608 597 779	13	100	1 618 596 183
6,5	250	2 608 597 780	13	150	1 618 596 318
7	50	1 618 596 170	13	200	1 618 596 184
7	100	1 618 596 171	14	100	1 618 596 185
7	150	2 608 597 130	14	150	1 618 596 270
8	50	1 618 596 172	14	200	1 618 596 186
8	100	1 618 596 173	14	250	1 618 596 271
8	150	1 618 596 174	14	400	2 608 596 118
8	200	1 618 596 264	15	100	1 618 596 187
8	400	2 608 596 116	15	200	1 618 596 188
8	550	2 608 596 183	16	150	1 618 596 185
9	100	2 608 596 158	16	250	1 618 596 186
9	150	1 618 596 175			



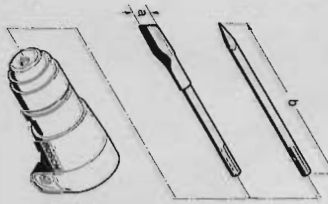
Ø	L	(mm)	(mm)
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18	200	2 608 597 001	
18	400	2 608 597 002	
20	200	2 608 597 003	
20	400	2 608 597 004	



Ø L (mm) (mm)		Ø L (mm) (mm)			
10	950	2 608 597 122	18	400	1 618 596 260
12	550	1 618 596 224	18	550	2 608 596 120
12	950	2 608 597 123	18	750	2 608 596 122
14	550	1 618 596 225	18	950	2 608 597 126
14	950	2 608 597 124	19	150	1 618 596 205
15	400	1 618 596 257	19	250	1 618 596 320
16	400	1 618 596 259	19	400	1 618 596 261
16	550	1 618 596 226	20	150	1 618 596 207
16	750	1 618 596 227	20	250	1 618 596 262
16	950	2 608 597 125	20	400	1 618 596 263
17	150	1 618 596 203	20	550	1 618 596 321
18	150	1 618 596 204	20	950	2 608 597 127
18	250	1 618 596 319			



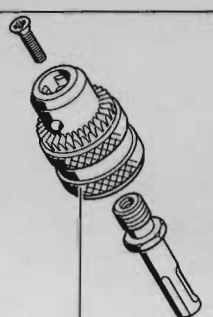
2 602 025 120
2 603 001 010



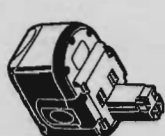
a = Ø 16 mm
b = 250 mm
1 618 600 009
a = 22 mm
b = 250 mm
1 618 600 010



1 605 439 002



1 617 000 132



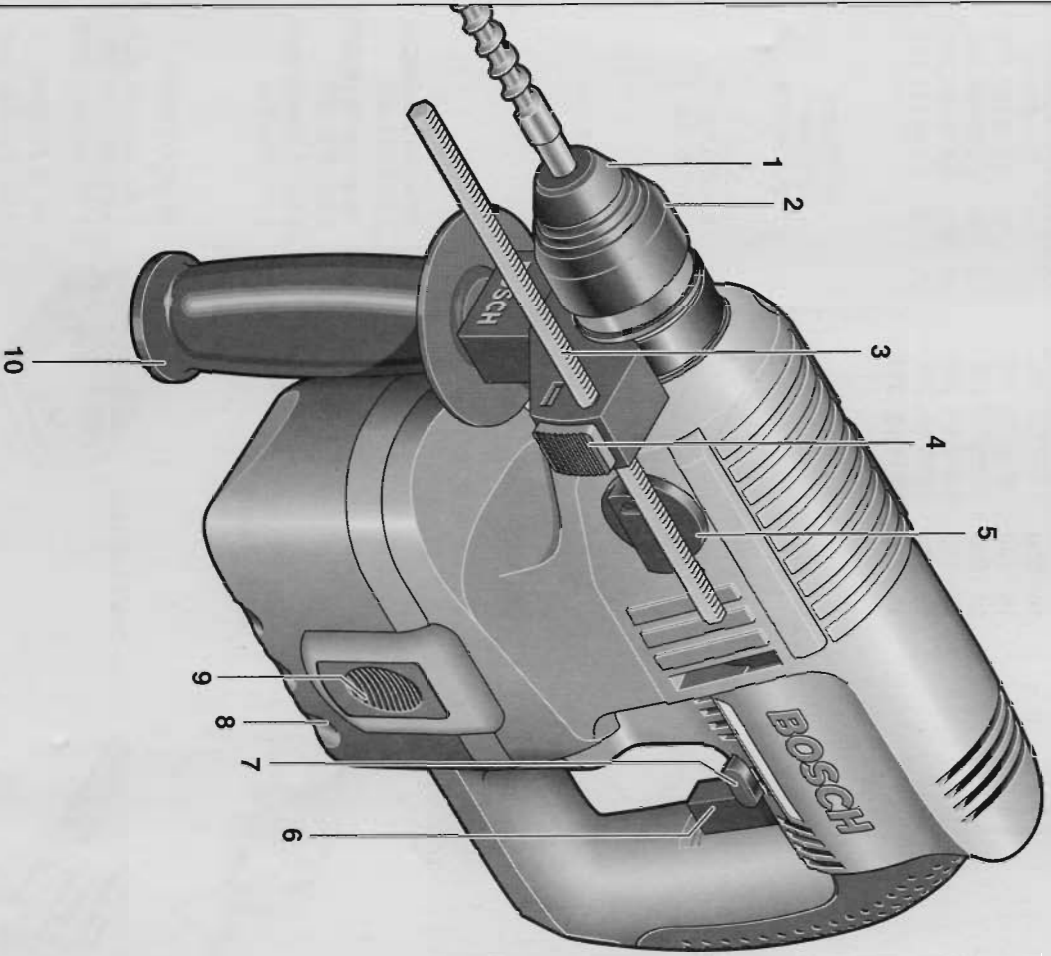
24 V-2,0 Ah (NiCd)
2 607 335 446
24 V-2,6 Ah (NiMH)
2 607 335 562
24 V-3,0 Ah (NiMH)
2 607 335 510



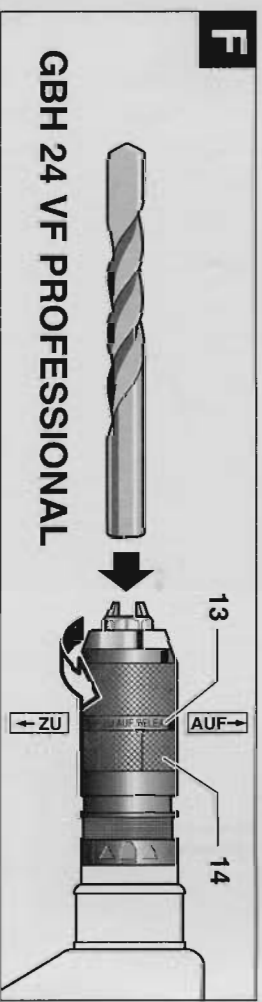
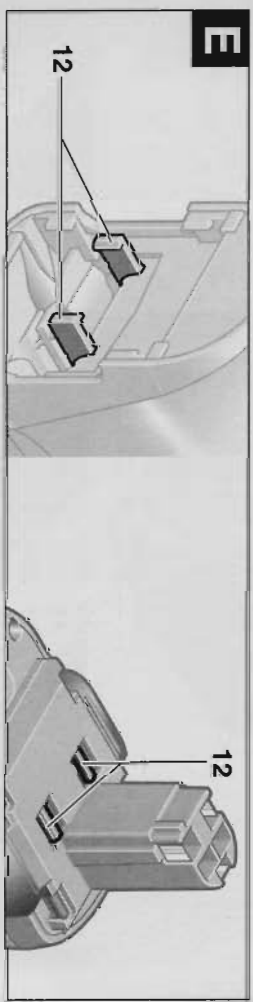
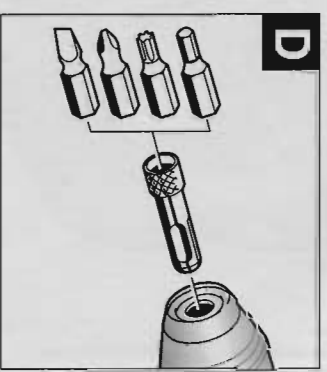
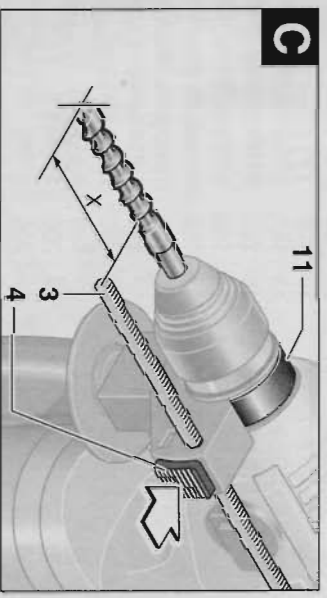
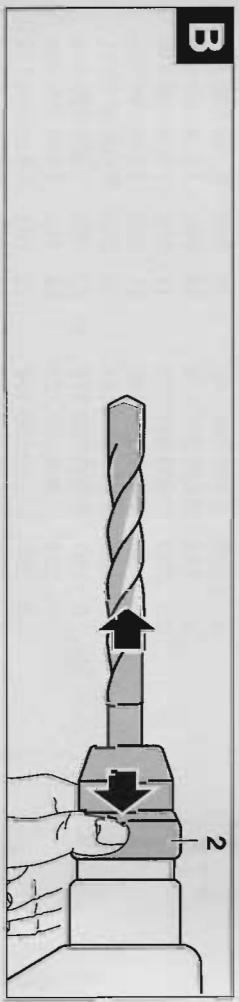
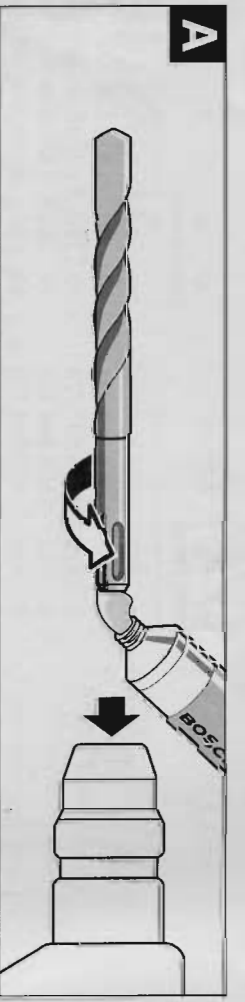
2 607 000 206



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)



GBH 24 V PROFESSIONAL
GBH 24 VF PROFESSIONAL



Tool Specifications

Rotary Hammer	GBH 24 V PROFESSIONAL
Order number	0 611 256 ...
Rotary Hammer	GBH 24 V F PROFESSIONAL
Order number	0 611 262 ...
Rated input power	[W] 350
Output power	[W] 270
Rated speed	[rpm] 0–1 000
Impact rate	[bpm] 0–4 400
Impact energy per stroke	[J] 1.3
Tool holder	SDS-plus
Spindle collar diameter	[mm] 43
Drilling output:	
- Concrete (wrist drill bit)	[mm] 4–20
- Wood	[mm] max. 20
- Steel	[mm] max. 10
Weight with battery, approx.	[kg] 3.8
Battery	NiCd
Order number	2 607 335 446
Temperature control	NTC
Rated voltage	[V] 24
Capacity	[Ah] 2.0
Weight, approx.	[kg] 1.4
Battery	NiMH
Order number	2 607 335 562
Temperature control	NTC
Rated voltage	[V] 24
Capacity	[Ah] 2.6
Weight, approx.	[kg] 1.3
Battery	NiMH
Order number	2 607 335 510
Temperature control	NTC
Rated voltage	[V] 24
Capacity	[Ah] 3.0
Weight, approx.	[kg] 1.4

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 Depth stop
 - 4 Push-button for depth-stop adjustment
 - 5 Impact stop switch
 - 6 On/Off switch
 - 7 Rotational direction switch
 - 8 Battery
 - 9 Battery unlocking button
 - 10 Auxiliary handle
 - 11 Clamping band
 - 12 Auxiliary hooks
 - 13 Interlock
 - 14 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.



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 designed 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.

- Operate the machine only with the auxiliary handle 10.

- 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.

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 screwdriving and thread cutting.

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 8, press the unlocking buttons 9 and pull out the battery downwards. Do not exert any force.

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.

Auxiliary Handle/Depth Stop (see figure C)

- Operate the machine only with the auxiliary handle 10.

Loosen the handle by turning to the left. Rotate the auxiliary handle 10 and adapt to the working position. Make sure that the clamping band 11 of the auxiliary handle remains in the groove.

Afterwards tighten the handle again by turning in clockwise direction.

The drilling depth can be set with the depth stop 3.

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 3 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 A)

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 B)

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

Initial Operation

Inserting the Battery

Set the rotational direction switch 7 to the centre position (lock-off). Insert the charged battery 8 into the handle until it can be felt to engage and is seated flush on the machine.

Switching On and Off

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



The machine runs with variable speed between 0 and maximum, depending on the pressure applied to the On/Off switch 6. Light pressure on the On/Off switch 6 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 6.

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 7 only at a standstill.

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

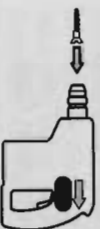


Right Rotation

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

- Operate the impact stop switch 5 only when at a standstill.

Set the impact stop switch 5 to the desired position:



Drilling



Hammer drilling

Electric Brake

When releasing the On/Off switch 6 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 6. The screw head does not penetrate into the material then.

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

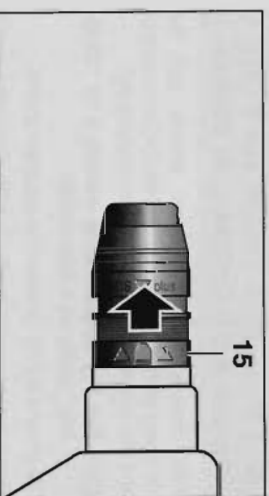
The SDS-plus tool holder can easily be replaced by the keyless chuck supplied with the machine. The keyless chuck serves for rapid insertion of the tools without the SDS-plus (e. g. round shaft drill, screwdriver bits).

- ⚠ 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 15 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 VF)

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 13 clockwise **AUF**.

Open chuck by turning it counter-clockwise.

Clamping the Tool

Insert the tool and manually close chuck while holding knurled ring 14.

Lock chuck by turning interlock 13 counter-clockwise **ZU**.

Set the impact stop switch 5 to "Drill".

Removing the Keyless Chuck

Tightly grip the chuck locking ring 15 and pull it strongly in the direction of the arrow.

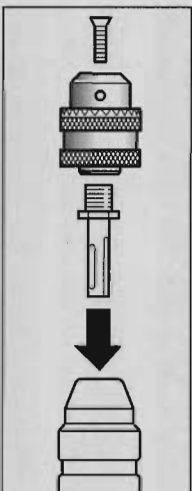
Key Type Drill Chuck for Tool Inserts with Cylindrical Shank

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 motion into the tool holder until it latches. The chuck locks itself. Check the locking by pulling on the chuck.



Screwdriving (see figure D)

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 6.

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.

Due to wear of the battery locking latches or incomplete inserting of the battery 8 into the battery port, the battery can drop into the auxiliary hooks 12. In case the auxiliary hooks 12 of the machine or the battery are damaged, neither machine nor battery may be used further, but are to be sent to an authorised service centre for Bosch power tools (see figure E).

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

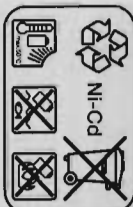


Recycle raw materials instead of disposing as waste

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.

Nickel-metalhydride-battery: If your product is equipped with a nickel-metalhydride-battery, the battery can be disposed of through the local waste disposal system for solid waste materials.

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 5HU

- 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

Exploded views and information on spare parts can be found under:

www.bosch-pl.com

Great Britain

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

- 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 Ltd.
RBAU/SPT2
1555 Centre Road
P.O. Box 66 Clayton
3168 Clayton/Victoria

- Service: +61 (0)1 / 800 804 777
- Fax: +61 (0)1 / 800 819 520
- www.bosch.com.au
- E-Mail: CustomerSupportSPT@au.bosch.com

New Zealand

Robert Bosch Limited
14-16 Constellation Drive
Mairangi Bay
Auckland
New Zealand

- Service: +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 03

Dr. Egbert Schneider
Senior Vice President
Engineering

Dr. Eckerhard Strötgen
Head of Product
Certification

Robert Bosch GmbH, Geschäftsbereich Elektrowerkzeuge

Subject to change without notice

QU2426Z

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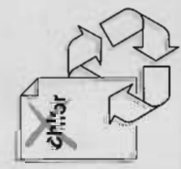
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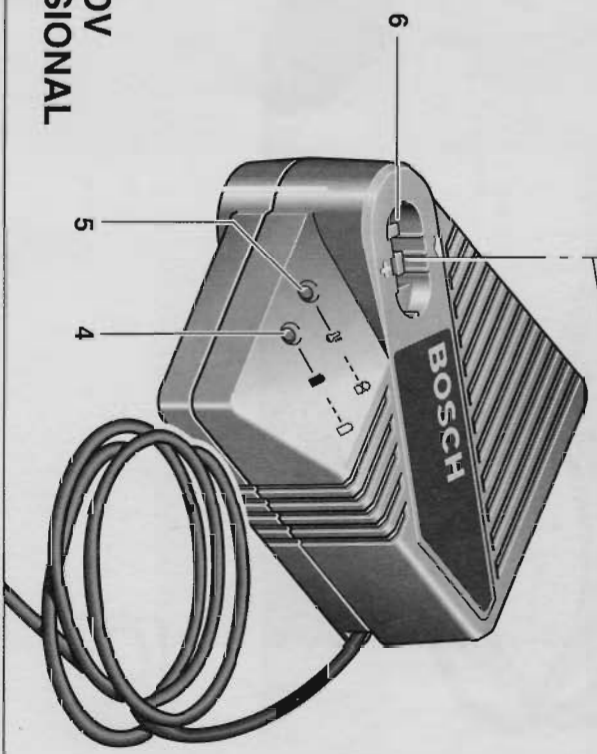
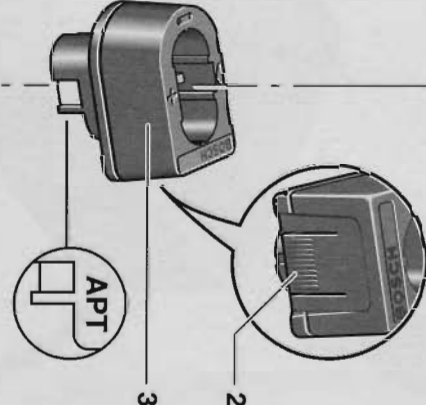
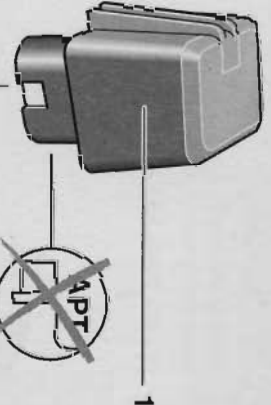
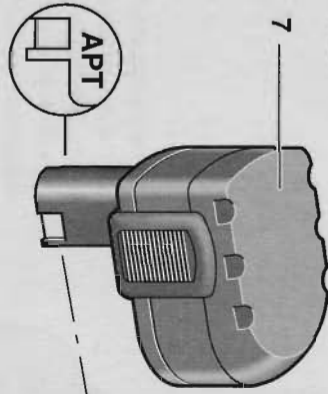
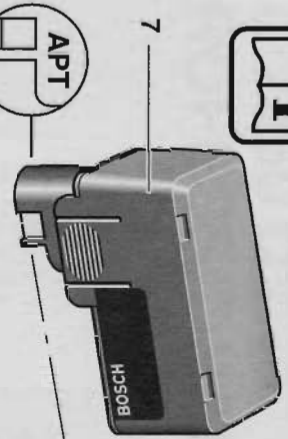
Bedienungsanleitung
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 Bruksanvisning
 Brukerveiledningen
 Käyttöohje
 Οδηγία χειρισμού
 Kullanim kilavuzu



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 Geschäftsbereich Elektrowerkzeuge
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**AL 2450 DV
PROFESSIONAL**

Unit Specifications

Battery Charger

AL 2450 DV
PROFESSIONAL
2 607 225 0..

Article number
Voltage range of chargeable batteries (automatic voltage detection)

[V=] 7.2–24

Charging current:

Rapid charging (max.)

[A] 5.0

Trickle charging (approx.)

[mA] 100

Allowable charging temperature range

[°C] 0–45

Charging time per battery capacity (NiMH/NiCd) approx.

1.2 Ah [min] 15

1.3 Ah [min] 16

1.4 Ah [min] 18

1.5 Ah [min] 19

1.7 Ah [min] 22

2.0 Ah [min] 27

2.4 Ah [min] 30

2.6 Ah [min] 33

3.0 Ah [min] 38

Weight according to EPTA-Procedure

01/2003 [kg] 0.8

Protection class / II

Please observe the article number on the type plate of your machine. The trade names of the individual machines may vary.

Device Elements

The numbering of the device elements refers to the representation of the device on the graphic page.

Please open the fold-out page with the representation of the device and leave it open while you are reading the operating instructions.

1 Battery pack (without contact APT)*

2 Unlocking button*

3 Adapter (not included in the delivery)*

4 Green charging indicator

5 Red charge control LED

6 Charging compartment

7 Battery pack (with contact APT)*

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



For Your Safety



Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

SAVE THESE INSTRUCTIONS.

- **Protect the battery charger from rain and moisture.** The penetration of water in a battery charger increases the risk of electric shock.
- **Do not charge batteries of other manufacturers.** The battery charger is only suitable for the charging of Bosch batteries (NiCd/NiMH) with a voltage range of 7.2 V to 24 V. Danger of fire and explosion.
- **Keep the battery charger clean.** Contamination may cause the danger of electric shock.
- **Check the battery charger, cable and plug each time before using.** Do not use the battery charger when defects are detected. Do not open the battery charger yourself and have it repaired only by qualified personnel using original spare parts. Damaged battery chargers, cables and plugs increase the risk of electric shock.
- **Do not operate the battery charger on easily inflammable surfaces (e.g. paper, textiles, etc.) or combustible environments.** There is danger of fire due to the heating of the battery charger during charging.

Starting Operation

Observe correct mains voltage: The voltage of the power source must agree with the voltage specified on the nameplate of the unit. Equipment marked with 230 V can also be connected to 220 V.

Charging Procedure

The charging procedure starts as soon as the mains plug is plugged into the socket and the battery 7 is inserted into the charging compartment 6.

To charge Bosch batteries without contact APTs 1, an additional adapter 3 must be used.

To remove the adapter 3 from the charging compartment 6, press the unlocking button 2.

Due to the intelligent charging method, the charging condition of the battery is automatically detected and the battery is charged with the optimum charging current, depending on battery temperature and voltage.

This gives longer life to the battery and always leaves it fully charged when kept in the charger for storage.

Control of the charging procedure is indicated via the charge control LEDs 5 and 4:

Rapid-charging procedure

The rapid-charging procedure is indicated by **flashing of the green charge control LED 4**.

The battery is fully charged as soon as the green charge control LED 4 switches from flashing to being lit continuously.

Afterwards the battery can be removed for immediate use.

The rapid-charging procedure is possible only when the temperature of the battery is between 0 °C and 45 °C.

Trickle-charging procedure

The trickle-charging procedure is indicated by **continuous lighting of the green charge control LED 4**.

With the battery fully charged, the charger immediately switches to trickle-charge mode. This equalizes the natural running-down of the battery again.

Battery Temperature below 0 °C and above 45 °C

Continuous lighting of the **red LED 5** indicates that the battery temperature is not within the rapid-charging temperature range of 0 °C - 45 °C. As soon as the allowable temperature range is reached, the battery charger automatically switches to rapid charging.

Fault Finding and Trouble-Shooting

No charging procedure possible due to defective battery

If a different malfunction of the charging procedure is present, this will be indicated through **flashing of the red charge control LED 5**.

The charging procedure can not be started and the battery cannot be charged.

Possible cause of trouble:

- The contacts of the battery are contaminated.
 - ⇒ Corrective measure: Clean the contacts (e. g. by inserting and removing the battery several times) or replace the battery, as required.
- The battery is defective, due to a disconnection in the battery (individual cells).
 - ⇒ Corrective measure: Replace the battery.

The LED indicators 4 or 5 do not light up

The charge control LEDs 4 and 5 respectively, do not light up after inserting the mains plug into the socket.

Possible cause of trouble:

- The charger plug is not inserted (properly).
 - ⇒ Corrective measure: Insert the plug (fully) into the socket.
- Socket, cable or charger are defective.
 - ⇒ Corrective measure: Check the mains voltage and if necessary, have the battery charger checked by an authorized customer service station for Bosch power tools.

Practical Advice

- With continuous or several repetitive charging cycles without interruption, the charger can warm up. This is not meaningful and does not indicate a technical defect of the unit.
- 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/dis-charging cycles.
- A significantly reduced working period after charging indicates that the batteries are used and must be replaced.

Maintenance and Cleaning

The unit is maintenance free. Always keep the unit and the ventilation slots clean.

If the device 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 article number given on the nameplate of the machine.

Environmental Protection



Recycle raw materials instead of disposing as waste

The device, 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 categorised recycling.

Service and Customer Assistance

Exploded views and information on spare parts can be found under:

www.bosch-pt.com

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