



Original operating instructions
Bench Drill

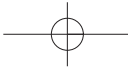
Einhell®

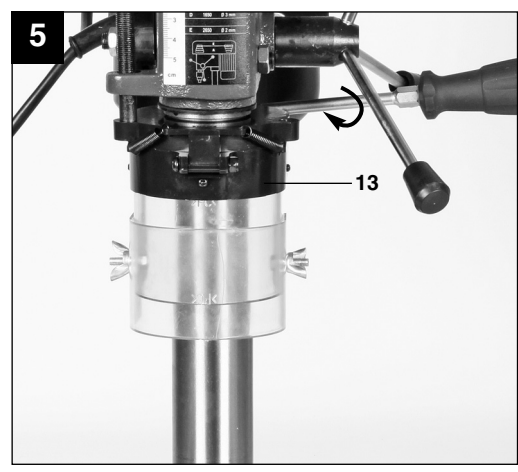
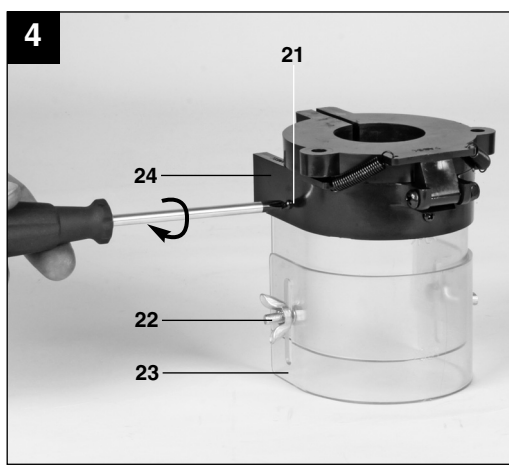
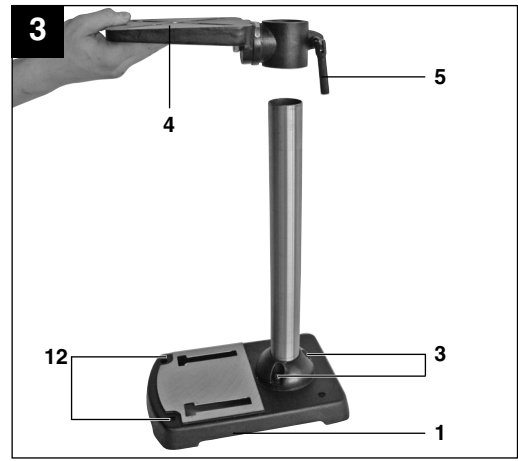
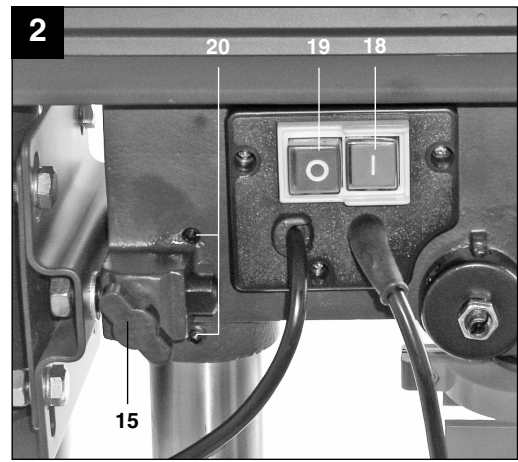
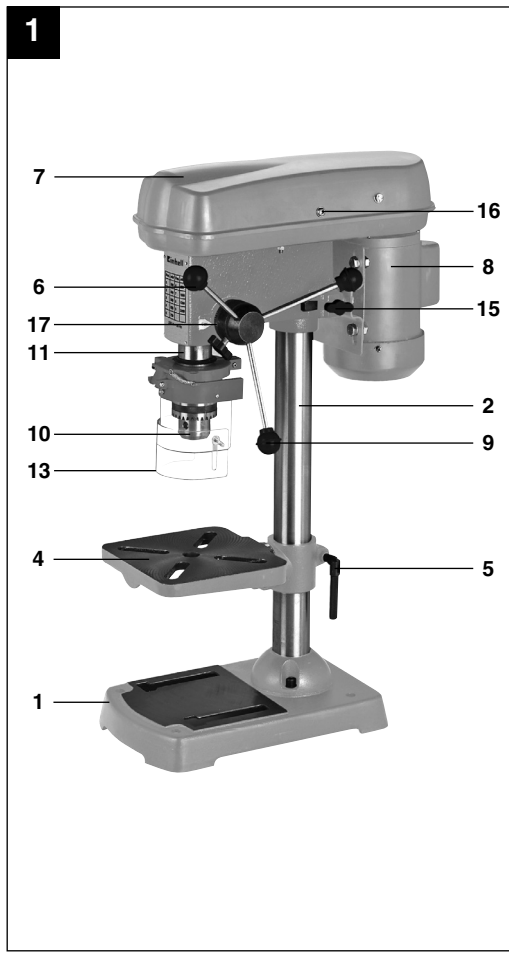
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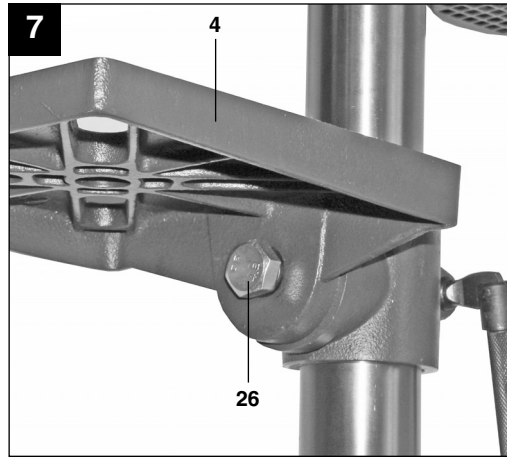
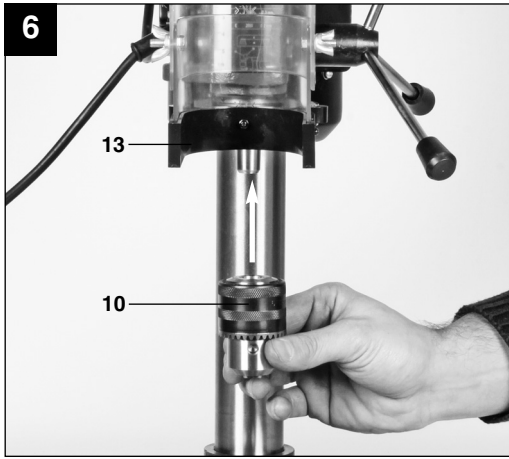
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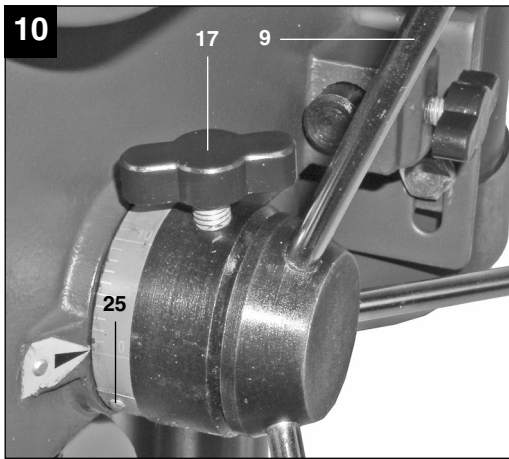
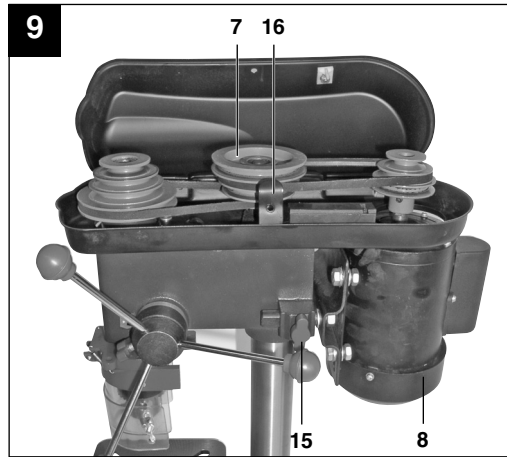
BT-BD 501







Pos.	min ⁻¹	Pos.	min ⁻¹	Pos.	min ⁻¹
A-4	280	B-4	450	A-3	540
C-4	620	A-2	720	B-3	870
C-2	1550	B-1	1700	C-1	2350



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“Caution - Read the operating instructions to reduce the risk of injury”



Wear ear-muffs.

The impact of noise can cause damage to hearing.



Wear safety goggles.

Sparks generated during working or splinters, chips and dust emitted by the device can cause loss of sight.

⚠ Important.

When using the equipment, a few safety precautions must be observed to avoid injuries and damage. Please read the complete operating instructions and safety information with due care. Keep this manual in a safe place so that the information is available at all times. If you give the equipment to any other person, hand over these operating instructions and the safety information as well. We cannot accept any liability for damage or accidents which arise due to a failure to follow these instructions and the safety information.

1. Safety information

Please refer to the booklet included in delivery for the safety information.

⚠ CAUTION

Read all the safety information and instructions. Failure to follow the safety information and instructions may result in an electric shock, fire and/or serious injury. Keep all the safety information and instructions in a safe place for future use.

2. Layout (Fig. 1)

1. Machine base
2. Pillar
3. Fixing screw
4. Drill table
5. Clamping screw
6. Machine head
7. V-belt
8. Motor
9. Grip knobs
10. Scroll chuck
11. Spindle
12. Mounting holes
13. Folding chip guard
15. Tightening screw
16. Screw
17. Clamping screw
18. ON switch
19. OFF switch
20. Grub screw

3. Items supplied

- Open the packaging and take out the equipment with care.
- Remove the packaging material and any packaging and/or transportation braces (if available).
- Check to see if all items are supplied.
- Inspect the equipment and accessories for transport damage.
- If possible, please keep the packaging until the end of the guarantee period.

IMPORTANT

The equipment and packaging material are not toys. Do not let children play with plastic bags, foils or small parts. There is a danger of swallowing or suffocating!

- Pillar drill
- Scroll chuck
- Drill chuck key
- Folding chip guard
- Drill table
- Original operating instructions
- Safety instructions

4. Intended use

This pillar drill is designed for drilling metal, plastic, wood and similar materials. It is intended for use in the private sector only.

Food and harmful materials may not be processed with the equipment. The drill chuck is only designed for use with drill bits and tools with a shaft diameter of 1.5 to 16 mm, and for cylindrical tool shanks. Tools with a tapered shank can also be used. The equipment is intended for use by adults only.

The equipment is to be used only for its prescribed purpose. Any other use is deemed to be a case of misuse. The user / operator and not the manufacturer will be liable for any damage or injuries of any kind caused as a result of this.

Please note that our equipment has not been designed for use in commercial, trade or industrial applications. Our warranty will be voided if the equipment is used in commercial, trade or industrial businesses or for equivalent purposes.

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5. Technical data

Nominal input voltage	230V ~ 50 Hz
Power rating	500 W
Operating mode	S2 15 min.
Motor speed	1,400 rpm
Output speed	280 – 2,350 rpm
Speed levels	9
Drill chuck mount	B 16
Scroll chuck	Ø 1,5 - 16 mm
Max. shaft diameter	16 mm
Reach	115 mm
Drill depth	50 mm
Pillar diameter	46 mm
Height	650 mm
Weight	21.5 kg
L_{pA} sound pressure level	61.5 dB(A)
L_{WA} sound power level	74.5 dB(A)
K_{pA} uncertainty	3 dB
K_{WA} uncertainty	3 dB

Sound and vibration

Sound and vibration values were measured in accordance with EN 61029.

Load factor:

A load factor of S2 15 min (intermittent periodic duty) means that you may operate the motor continuously at its nominal power level (500 W) for no longer than the time stipulated on the specifications label (15 minutes ON period).

If you fail to observe this time limit the motor will overheat. During the OFF period the motor will cool again to its starting temperature.

Keep the noise emissions and vibrations to a minimum.

- Only use appliances which are in perfect working order.
- Service and clean the appliance regularly.
- Adapt your working style to suit the appliance.
- Do not overload the appliance.
- Have the appliance serviced whenever necessary.
- Switch the appliance off when it is not in use.
- Wear protective gloves.

Residual risks

Even if you use this electric power tool in accordance with instructions, certain residual risks cannot be ruled out. The following hazards may arise in connection with the equipment's construction and layout:

1. Damage to hearing if no suitable ear protection is used.

6. Before starting the equipment

6.1. Assembling the machine

- Position the machine base (1).
- Fasten mounting flange with pillar (2) using three screws (3) and washers to drill base (1).
- Push the drill table (4) with drill table clamp shaft onto the pillar (2) (Fig. 3). Lock the drill table into the desired position using the clamping screw (5).
- Place drill head (6) with V-belt cover (7) and motor (8) onto the drill pillar and fasten using the Allen screws (20).
- Screw the three ball-shaped handles (9) onto the feeder cross handle.

Note: All bare parts are greased in order to protect them from corrosion. Before mounting the drill chuck (10) onto the spindle (11), both parts must be completely degreased using an environmentally friendly solvent. This ensures optimal transmission of power.

6.2. Installing the machine (Fig. 1)

Before you use the drill for the first time it must be permanently fixed in position. Use both mounting holes (12) in the base plate to do this. Ensure that the equipment is freely accessible for operation, adjustment and maintenance.

Note: The fixing screws may only be tightened to a point where they do not distort or deform the base plate. Excessive tension can lead to fracture.

6.3. Hinged chip guard (Fig. 4-6)

Unscrew the three screws (21). Push the transparent cover (23) into the groove of the red mounting frame (24) and fasten it again with the screws (21). Then use the clamping screw to fasten the folding chip guard (13) to the machine. Finally swing up the chip guard, push the scroll chuck (10) with a jerk onto the taper and check that the tool is securely seated. The height of the cover (23) is infinitely adjustable and can be locked using both thumb screws (22). The chip guard (13) can be flipped upwards to change drill bits, however ensure that the chip guard (13) is back in its initial position before restarting the equipment.

6.4. Prior to using the machine for the first time ensure that the voltage of the mains supply complies with the specifications on the rating plate. Connect the equipment only to a socket with the properly installed earthing contact. The drill is equipped with a no-volt trip that is designed to protect the operator from an undesired restart following a drop in voltage. Should this happen, the equipment must be physically restarted.

7. Operation

7.1. General (Fig. 2)

To switch on the equipment, push in the green On button "I" (18); the drill starts up. To switch off, press the red Off button "O" (19); the drill shuts down. Ensure that you do not overload the equipment. If the sound of the motor drops in pitch during operation, it is being overloaded. Do not overload the equipment to the point where the motor comes to a standstill.

7.2. Fitting tools to the drill chuck (Fig. 1)

Make sure that the power plug is removed from the socket-outlet before changing tools. Only cylindrical tools with the stipulated maximum shaft diameter may be clamped in the drill chuck (10). Only use a tool that is sharp and free of defects. Do not use tools whose shaft is damaged or which are deformed or flawed in any other way. Use only accessories and attachments that are specified in the operating instructions or have been approved by the manufacturer.

7.3. Using the quick-change drill chuck

Your drill is equipped with a gear-toothed drill chuck (10). In order to insert a drill bit, flip up the chip guard (13), insert the drill bit, then tighten down the drill chuck using the supplied chuck key. Pull out the chuck key. Ensure that the clamped tool is firmly seated.

Important. Do not leave the chuck key in the clamp hole. Doing so will cause the chuck key to be catapulted out, which could cause injury.

7.4. Setting the speed (Fig. 1/8/9)

First switch the equipment off, then pull the power plug. The various spindle speeds can be set by moving the V-belt.

Proceed as follows:

- Remove the screw (16) in order to open the V-belt cover (7).
- Slacken the tightening screw (15) and push the motor (8) in the direction of the machine head.

- Move the V-belt to the desired position.
- Refer to table (Fig. 8) for the recommended speeds.
- Tighten the V-belt by pushing the motor (8) away from the drill head (6). Screw the tightening screw (16) back down again. The tension is properly set when the V-belt flexes in the middle by approx. 1 cm when pressed.
- Close the V-belt cover and screw down using the screw (16). The V-belt cover (7) must always be locked tight, as the equipment is equipped with a safety switch that only allows the equipment to be turned when the V-belt cover (7) is closed.

Important. Never let the pillar drill run when the V-belt cover is open. Always pull power plug before opening the cover. Never touch the V-belt when it is rotating.

7.4.1 Drill depth stop (Fig. 10)

The drilling spindle has a swivelling scale ring (25) for setting the drill depth. Only adjust the setting when the equipment is at a standstill.

- Press the drilling spindle (11) downwards until the tip of the drill bit touches the workpiece.
- Slacken the clamping screw (17) and turn the scale ring (25) forwards until it stops.
- Turn the scale ring (25) back to the desired drill depth, then lock this setting into place using the clamping screw (17).

Important. When setting the drill depth of a cylindrical hole you must add the length of the drill tip.

7.5. Setting the angle of the drill table (Fig. 7)

- Slacken the carriage bolt (26) under the drill table (4).
- Set the drill table (4) to the desired angle.
- Tighten down the carriage bolt (26) in order to lock the drill table (4) into this position.

7.6. Setting the height of the drill table (Fig. 1)

- Slacken the tightening screw (5).
- Set the drill table (4) to the desired height by pressing down or lifting up and simultaneously (gently) pushing to the left or right.
- Screw the tightening screw (5) back down again.

7.7 Clamping the workpiece

As a general rule, use a machine vice or another suitable clamping device to lock a workpiece into position. Never hold the workpiece in place with your hand! When drilling, the workpiece should be able to travel on the drill table (4) for self-centering purposes. Ensure that the workpiece cannot rotate. This is best achieved by placing the

workpiece/machine vice on a sturdy block. Important. Sheetmetal parts must be clamped in to prevent them from being torn up. Properly set the height and angle of the drill table for each workpiece. There must be enough distance between the upper edge of the workpiece and tip of the drill bit.

7.8 Working speeds

Ensure that you drill at the proper speed. Drill speed is dependent on the diameter of the drill bit and the material it is made from.

The table below acts as a guide for selecting the proper speed for drill bits made from various materials.

Note: The rotational speeds shown are merely suggested values.

Drill bit Ø	Cast iron	Steel	Iron	Aluminum	Bronze
3	2550	1600	2230	9500	8000
4	1900	1200	1680	7200	6000
5	1530	955	1340	5700	4800
6	1270	800	1100	4800	4000
7	1090	680	960	4100	3400
8	960	600	840	3600	3000
9	850	530	740	3200	2650
10	765	480	670	2860	2400
11	700	435	610	2600	2170
12	640	400	560	2400	2000
13	590	370	515	2200	1840
14	545	340	480	2000	1700
16	480	300	420	1800	1500
18	425	265	370	1600	1300
20	380	240	335	1400	1200
22	350	220	305	1300	1100
25	305	190	270	1150	950

7.9 Countersinking and center-drilling

With this drill you can also perform countersinking and center-drilling jobs. Please observe that countersinking should be performed at the lowest speed, while a high speed is required for center-drilling.

7.10 Woodworking

Please note that sawdust must be properly evacuated when working with wood, as it can be a health hazard. Ensure that you wear a suitable dust mask when performing work that generates dust.

8. Replacing the power cable

If the power cable for this equipment is damaged, it must be replaced by the manufacturer or its after-sales service or similarly trained personnel to avoid danger.

9. Cleaning, maintenance and ordering of spare parts

Always pull out the mains power plug before starting any cleaning work.

9.1 Cleaning

- The drill is maintenance-free to a large extent. Keep the equipment clean. Pull the power plug before doing any cleaning and maintenance work on the appliance. Do not use any harsh, abrasive solvents to clean. Ensure that no liquid seeps into the equipment. Regrease all bare parts when the work is finished. The drill pillar, blank parts of the column, and the drill table especially should be regreased at regular intervals. Use a standard, acid-free lubricating grease to do this. Important: Do not use your household trash can as a receptacle for oil and grease-soaked cleaning rags or grease and oil sludge. Dispose of these toxic materials in an environmentally-friendly fashion. Regularly check and clean the ventilation holes. Store the equipment in a dry room. Should the equipment become damaged, do not try to repair it yourself. Leave this work to the hands of a qualified electrical technician.
- We recommend that you clean the equipment immediately after you use it.
- Clean the appliance regularly with a damp cloth and some soft soap. Do not use cleaning agents or solvents; these may be aggressive to the plastic parts in the appliance. Ensure that no water can get into the interior of the equipment.

9.2 Servicing

There are no parts inside the equipment which require additional maintenance.

9.3 Ordering replacement parts:

Please provide the following information on all orders for spare parts:

- Model/type of the equipment
- Article number of the equipment
- ID number of the equipment
- Spare part number of the required spare part

For our latest prices and information please go to www.einhell.com.au

10. Storage

Store the equipment and accessories out of children's reach in a dark and dry place at above freezing temperature. The ideal storage temperature is between 5 and 30 °C. Store the electric tool in its original packaging.

11. Disposal and recycling

The equipment is supplied in packaging to prevent it from being damaged in transit. The raw materials in this packaging can be reused or recycled. The equipment and its accessories are made of various types of material, such as metal and plastic. Defective components must be disposed of as special waste. Ask your dealer or your local council.

The guarantee provided in this Guarantee Certificate is given by Einhell Australia Pty Limited
ACN 134 632 858 of 6/166 Wellington Street, Collingwood, Victoria (Telephone number 1300 922 271)
(Einhell Express Guarantee).

GUARANTEE CERTIFICATE

Dear Customer,

All of our products undergo strict quality checks. In the unlikely event that your device develops a fault, please contact our service department at the address shown on this guarantee certificate. Of course, if you would prefer to call us then we are also happy to offer our assistance under the service number printed below. Please note the following terms under which claims under the Einhell Express Guarantee can be made:

1. The benefits conferred by the Einhell Express Guarantee are in addition to all rights and remedies which you may be entitled to under the Australian Consumer Law, and any other statutory rights you may have under other applicable laws. This Einhell Express Guarantee does not exclude, restrict or modify any such rights or remedies.

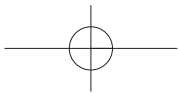
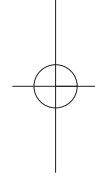
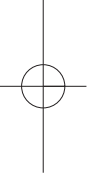
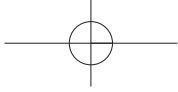
We do not charge you for the Einhell Express Guarantee.

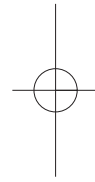
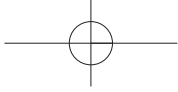
2. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
3. The Einhell Express Guarantee only covers problems caused by material or manufacturing defects, and our liability under the Einhell Express Guarantee is limited, at our discretion, to the rectification of these defects or replacement of the product. Please note that the product has not been designed for use in commercial, trade or industrial applications. Consequently, the Einhell Express Guarantee will not apply if the product is used in commercial, trade or industrial applications or for other equivalent activities.
4. The following are also excluded from the Einhell Express Guarantee: compensation for transport damage, damage caused by failure to comply with the installation/assembly instructions or damage caused by unprofessional installation, failure to comply with the operating instructions (e.g. connection to the wrong mains voltage or current type), misuse or inappropriate use (such as overloading of the product or use of non-approved tools or accessories), failure to comply with the maintenance and safety regulations, ingress of foreign bodies into the product (e.g. sand, stones or dust), effects of force or external influences (e.g. damage caused by the product being dropped) and normal wear resulting from proper operation of the product. The Einhell Express Guarantee will also not apply if any attempt is made to tamper with the product.
5. The Einhell Express Guarantee is valid for a period of 2 years starting from the purchase date of the product. Claims made under the Einhell Express Guarantee should be submitted before the end of this guarantee period and within two weeks of the defect being noticed. No claims under the Einhell Express Guarantee will be accepted if submitted after the end of this guarantee period. The original guarantee period remains applicable to the device even if repairs are carried out or parts are replaced. In such cases, the work performed or parts fitted will not result in an extension of the guarantee period for the Einhell Express Guarantee, and the Einhell Express Guarantee will not apply for the work performed or parts fitted. This also applies when an on-site service is used.
6. To make a claim under the Einhell Express Guarantee, please send the relevant product postage-free to the address shown below and enclose either the original or a copy of your sales receipt or another dated proof of purchase. It would help us if you could describe the nature of the problem in as much detail as possible. If the defect is covered by the Einhell Express Guarantee, your product will be repaired immediately and returned to you, or we will send you a new device (at our election).

Any costs incurred by you in making a claim under this Einhell Express Guarantee, unless specified otherwise in this guarantee certificate, must be borne by you.

Of course, we are also happy to offer a chargeable repair service for any defects which are not covered by the scope of the Einhell Express Guarantee or for products which are no longer covered by the Einhell Express Guarantee. To take advantage of this service, please send the product to our service address.

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