TP-RO 18/55 Li BL

DE **Originalbetriebsanleitung**
Akku-Oberfräse

EN **Original operating instructions**
Cordless router

FR **Instructions d'origine**
Défonceuse sans fil

IT **Istruzioni per l'uso originali**
Fresatrice verticale a batteria

DA/NO **Original betjeningsvejledning**
Akku-overfræser

SV **Original-bruksanvisning**
Batteridriven handöverfräs

CS **Originální návod k obsluze**
Akumulátorová horní frézka

SK **Originálny návod na obsluhu**
Akumulátorová horná fréza

NL **Originele handleiding**
Accu bovenfrees

ES **Manual de instrucciones original**
Fresadora vertical inalámbrica

FI **Alkuperäiskäyttöohje**
Akkukäyttöinen pintajyrsin

SL **Originalna navodila za uporabo**
Baterijski površinski rezkar

HU **Eredeti használati utasítás**
Akkus-felsőmaró

RO **Instrucțiuni de utilizare originale**
Mașină de frezat cu acumulator

EL **Πρωτότυπες Οδηγίες χρήσης**
Καθετη φρεζα με μπαταρια

PT **Manual de instruções original**
Tupia sem fio

HR/BS **Originalne upute za uporabu**
Baterijska utorna glodalica

SR **Originalna uputstva za upotrebu**
Akumulatorska ručna glodalica za drvo

PL **Instrukcją oryginalną**
Akumulatorowa frezarka górnowrzecionowa

TR **Orijinal Kullanma Talimatı**
Akülü dik freze

RU **Оригинальное руководство по эксплуатации**
Фрезер аккумуляторный

ET **Originaalkasutusjuhend**
Akuga ülafrees

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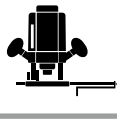

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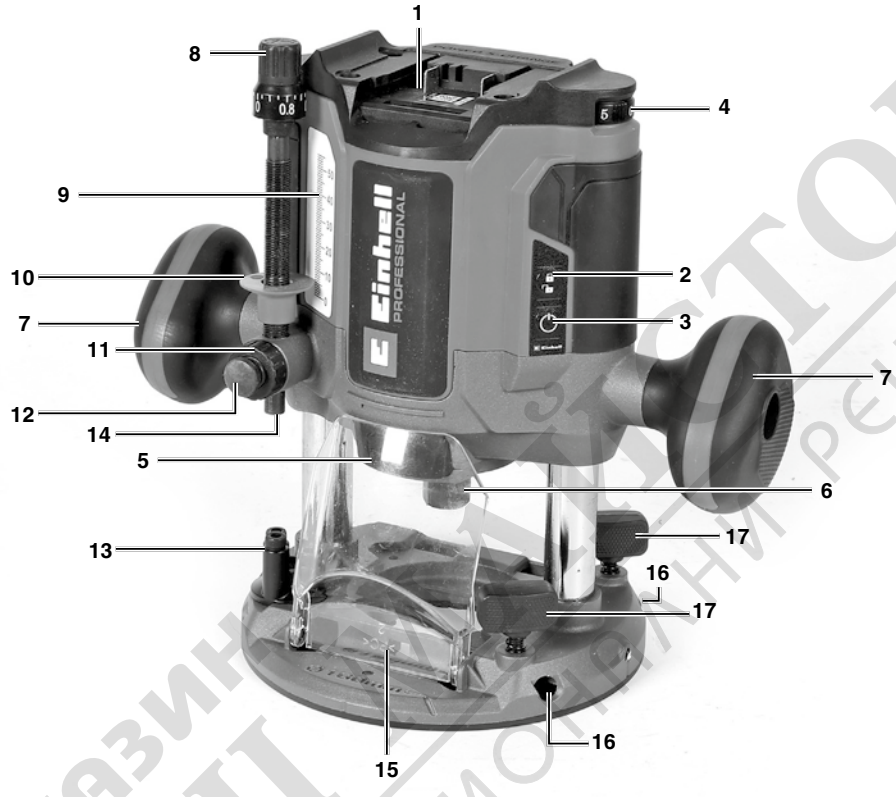

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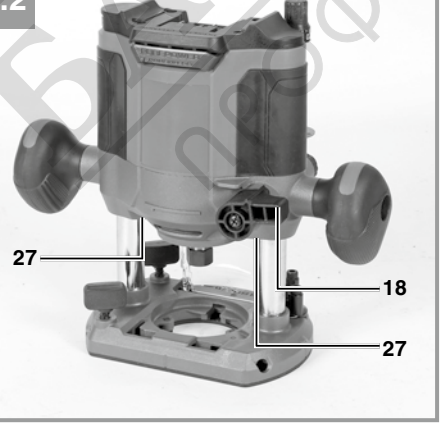

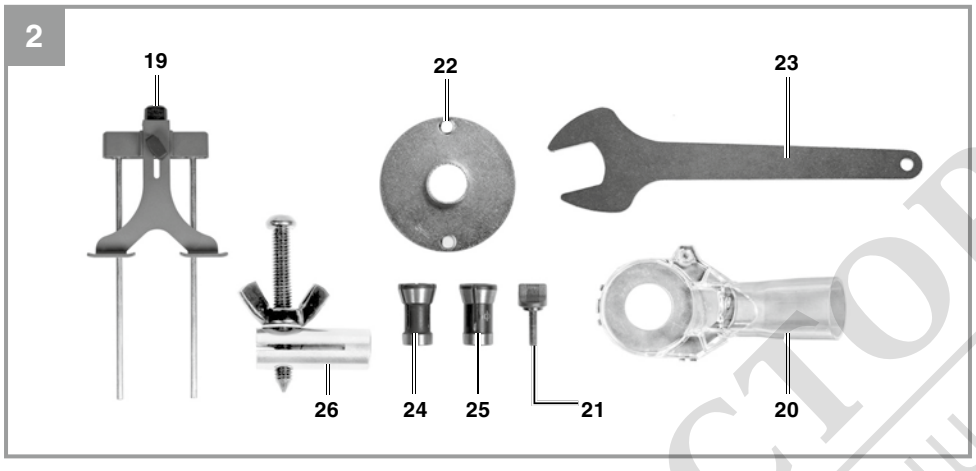

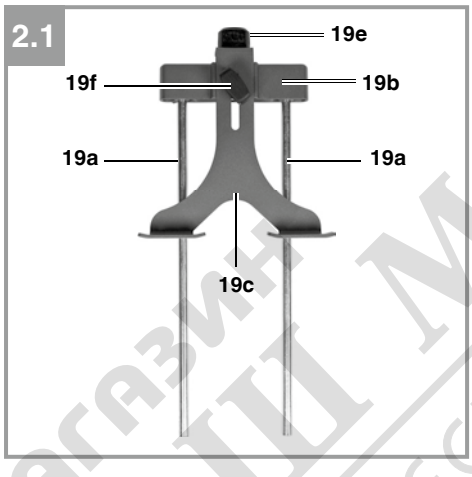

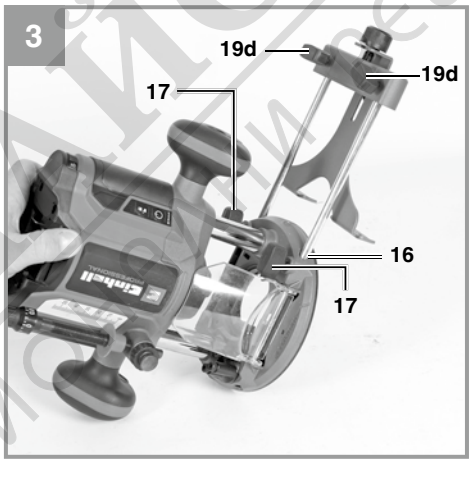

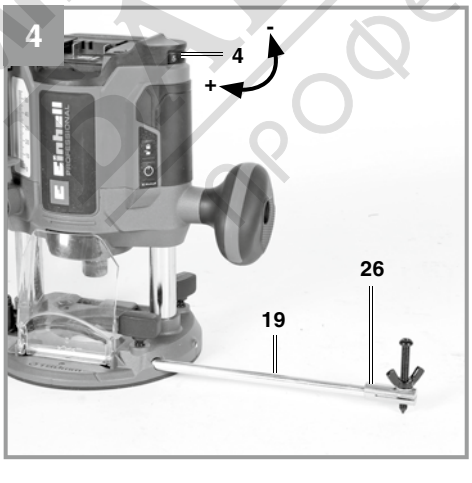

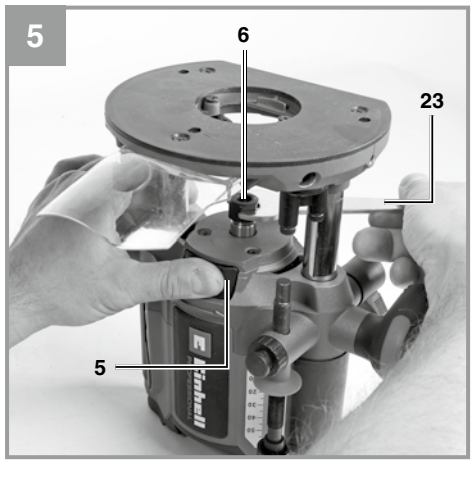

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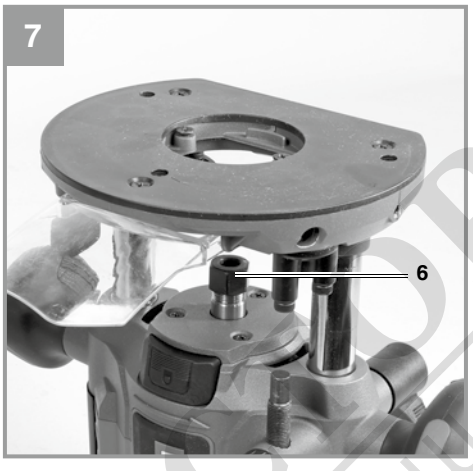

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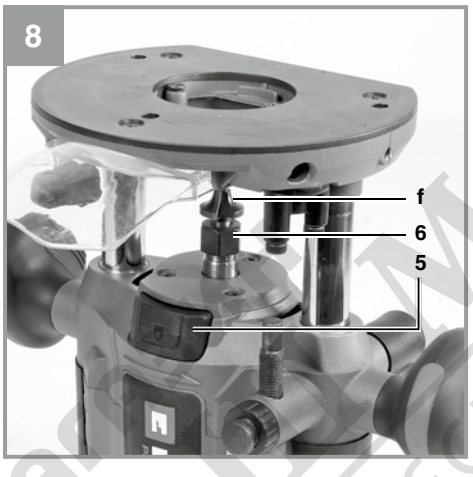

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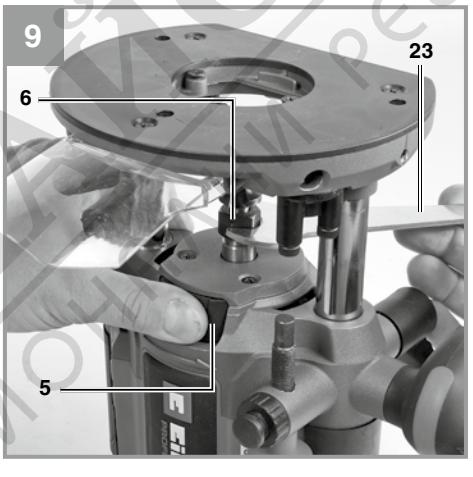

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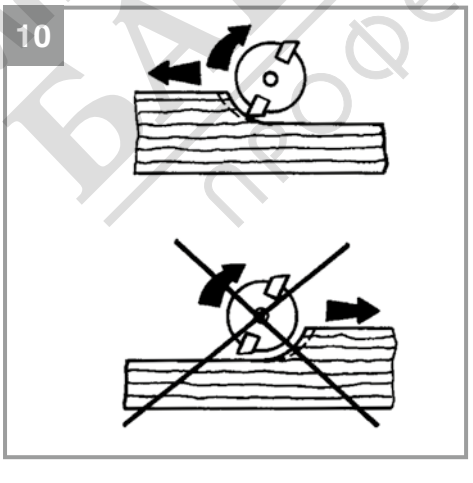

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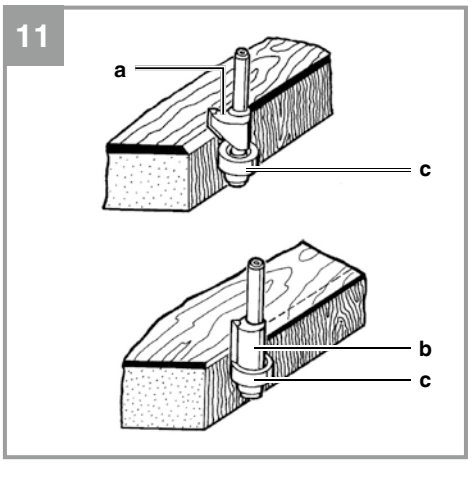

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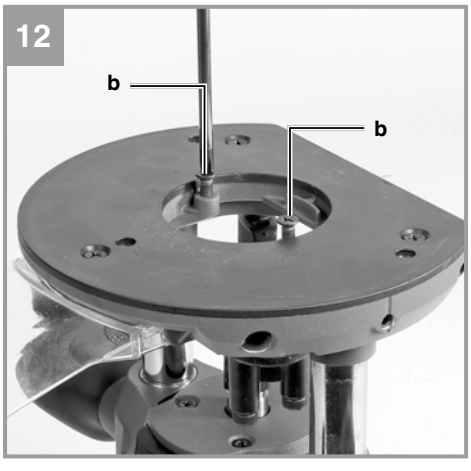

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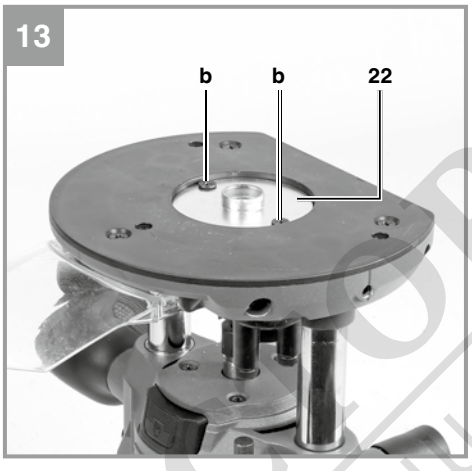

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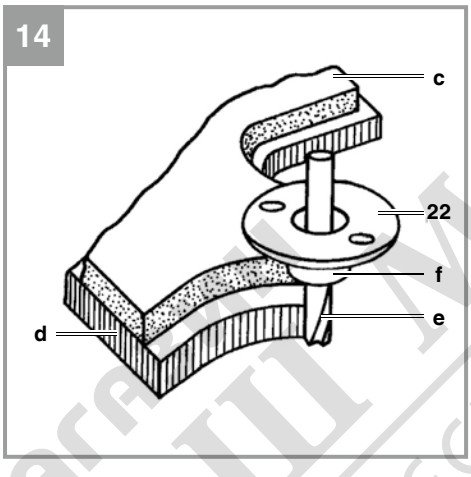

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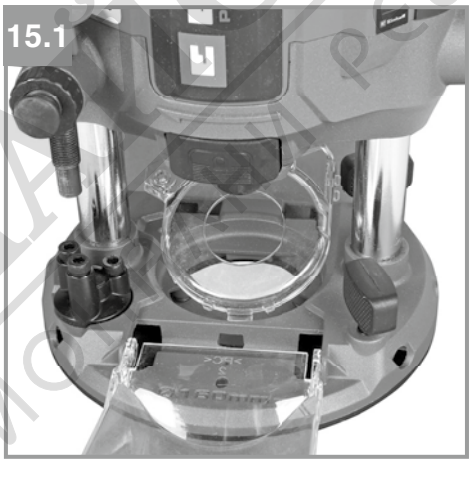

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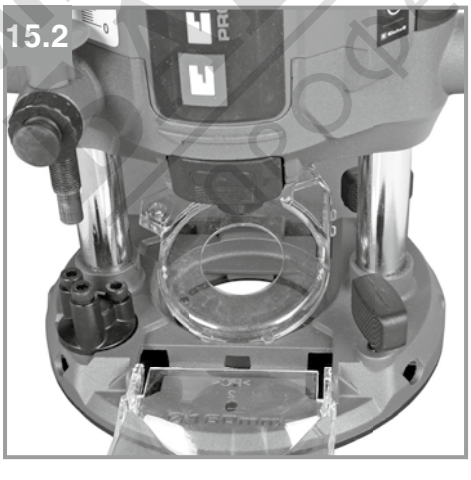

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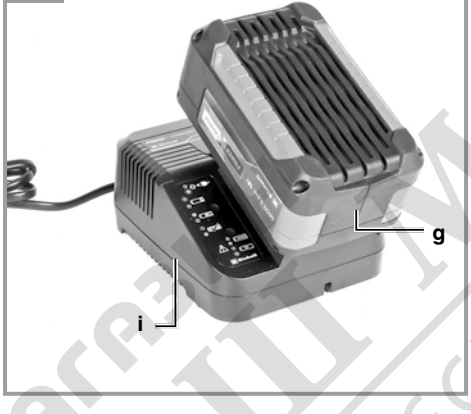

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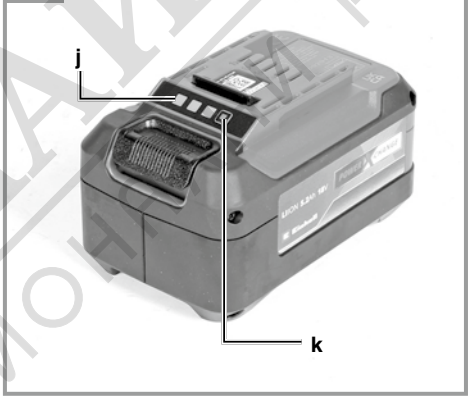

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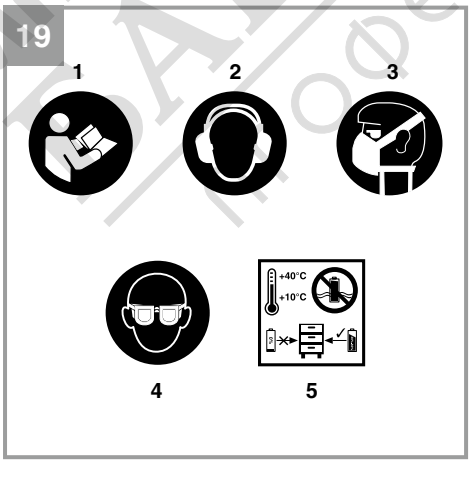


Danger!
When using the equipment, a few safety precautions must be observed to avoid injuries and damage. Please read the complete operating instructions and safety regulations with due care. Keep this manual in a safe place, so that the information is available at all times. If you give the equipment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

Explanation of the symbols used (see Fig. 19)
1. **Danger!** - Read the operating instructions to reduce the risk of injury.
2. **Caution! Wear ear-muffs.** The impact of noise can cause damage to hearing.
3. **Caution! Wear a breathing mask.** Dust which is injurious to health can be generated when working on wood and other materials. Never use the device to work on any materials containing asbestos!
4. **Caution! Wear safety goggles.** Sparks generated during working or splinters, chips and dust emitted by the device can cause loss of sight.
5. Store the batteries only in dry rooms with an ambient temperature of +10°C to +40°C. Place only fully charged batteries in storage (charged at least 40%).

1. Safety regulations

The corresponding safety information can be found in the enclosed booklet.
WARNING!
Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.
Save all warnings and instructions for future reference.

2. Layout and items supplied

2.1 Layout (Fig. 1+2)
1. Battery mount
2. Unlock button
3. On/Off switch
4. Speed control
5. Spindle lock
6. Clamp nut
7. Handles
8. Precision adjustment device
9. Scale
10. Display
11. Lock nut
12. Depth setting
13. Limit stop
14. Depth stop
15. Safety guard
16. Guide for parallel stop
17. Fastening screws for parallel stop
18. Clamp lever
19. Parallel stop
20. Extractor adapter
21. Fastening screw for extractor adapter
22. Copy sleeve
23. Open-ended wrench
24. Clamp 6mm
25. Clamp 8mm
26. Compass point
27. LED lamp

2.2 Items supplied
Please check that the article is complete as specified in the scope of delivery. If parts are missing, please contact our service center or the sales outlet where you made your purchase at the latest within 5 working days after purchasing the product and upon presentation of a valid bill of purchase. Also, refer to the warranty table in the service information at the end of the operating instructions.

- 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.

Danger!
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!

- Cordless router
- Extractor adapter
- Compass point

- Clamping sleeve 6+8mm
- Parallel stop
- Open-ended wrench
- Safety guard
- Original operating instructions
- Safety instructions

3. Proper use

This cordless router is designed primarily for the machining of wood and plastic. Its uses include the cutting out of knots, the cutting of slots, the forming of recesses, the copying of curves and lettering, flush-trimming, etc. This cordless router is not allowed to be used for the machining of metal, stone, etc.

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.

4. Technical data

Motor power supply: ..... 18 V
Idling speed: .....10,000 - 30,000 min^{-1}
Stroke height: ..... 55 mm (routing depth)
Clamp: ..... Ø 8 mm and Ø 6 mm
For routing cutters max.: ..... 30 mm
Weight Cordless router: .....2.5 kg

Danger!
Sound and vibration
Sound and vibration values were measured in accordance with EN 62841.

L_{pA} sound pressure level ..... 82.5 dB(A)
K_{pA} uncertainty ..... 3 dB
L_{WA} sound power level ..... 90.5 dB(A)
K_{WA} uncertainty ..... 3 dB

Wear ear-muffs.
The impact of noise can cause damage to hearing.

Total vibration values (vector sum of three directions) determined in accordance with EN 62841.

Handle
Vibration emission value $a_h \leq 2.5$ m/s²
K uncertainty = 1.5 m/s²

The stated vibration emission levels and stated noise emission values were measured in accordance with a set of standardized criteria and can be used to compare one power tool with another.

The stated vibration emission levels and stated noise emission values can also be used to make an initial assessment of exposure.

Warning:
The vibration and noise emission levels may vary from the level specified during actual use, depending on the way in which the power tool is used, especially the type of workpiece it is used for.

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.

Limit the operating time!
All stages of the operating cycle must be considered (for example, times in which the electric tools are switched off and times in which the tool is switched on but operates without load).

Caution!
Residual risks
Even if you use this electric power tool in accordance with instructions, certain residual risks cannot be rules out. The following hazards may arise in connection with the equipment's construction and layout:
1. Lung damage if no suitable protective dust mask is used.
2. Damage to hearing if no suitable ear protection is used.

3. Health damage caused by hand-arm vibrations if the equipment is used over a prolonged period or is not properly guided and maintained.

5. Before starting the equipment

Warning!
Always pull out the battery before making adjustments to the equipment.
All covers and safety devices must be properly fitted before the equipment is switched on.

5.1 Fitting the extraction socket (Fig. 15/Item 20)
Caution! For health and safety reasons it is imperative that you use a dust extractor.

- Connect your cordless tool to a domestic vacuum cleaner or a dust extractor using the extraction socket (20). This will ensure optimum dust extraction from the workpiece. The benefits are that you will protect both the equipment and your own health. Your work area will also be cleaner and safer.
- Dust created when working may be dangerous. Refer to the section entitled “Safety instructions”.
- The vacuum cleaner you use for the vacuum extraction must be suitable for the material you are machining. Use a special vacuum cleaner if you are handling harmful materials.
- Use the retaining hook to attach the extractor adapter (20) to the routing shoe and secure it with the fastening screw for the extractor adapter (21).
- The extractor adapter (20) can be connected to extractor units (vacuum cleaners) with a suction hose.
- The internal diameter of the extractor adapter is 36 mm. Now fit a suction hose of matching size to the extractor adapter.

5.2 Safety cover
The safety cover (15) protects you from accidental contact with the cutter while allowing you to see where you are cutting. If necessary, simply flip the safety cover forwards.

5.3 Fitting the parallel stop (Fig. 2+3/ Item 19)
- Push both guide rails (19a) into the parallel stop holder (19b) and fasten them with the two fastening screws (19d).
- Insert the parallel stop (18) into the guide for the parallel stop (16) as shown in Fig. 3, set the required distance and tighten the two fastening screws for the parallel stop (17).
- The precision adjustment device (19e) can be used to further adjust the distance as needed.
- To do this, loosen the fastening screw for the precision adjustment device (19f) and adjust the distance.
- Then retighten the fastening screw for the precision adjustment device.

5.4 Fitting the compass point (Fig. 4/ Item 26)
- You can cut circular areas using the compass point (26).
- To do this, one of the two guide rails (19a) of the parallel stop is needed.
- Loosen one of the fastening screws (19d) and remove one of the guide rails (19a).
- Then mount the compass point (26) on the guide rail (19a) as shown in Fig. 4
- Set the compass point to the required height by turning the screw and tighten the wingnut.
- The guide rail can now be inserted into the cordless router as shown in Fig. 4 and the distance set.

5.5 Fitting/removing the cutting tool (Fig. 5-9)
Warning! Remove the battery.
Caution! When you have finished working with the router, the cutting tool will stay very hot for a relatively long time!
Caution! Cutters are very sharp. Wear protective gloves at all times when handling cutting tools.

- Cutters with a shaft diameter of 6 mm and 8 mm can be used in the cordless router. Most cutters are available in both sizes.
- You can use cutters made of the following materials:
  - HSS - suitable for cutting softwood
  - TCT - suitable for cutting hardwood, particle board and plastic
- Select the appropriate cutting tool for the job in hand.
- **When using the cutters for the first time:** Remove the plastic packaging from the cutter heads.
- Clean the nut, clamp and shaft of the cutter before fitting it.

- Undo the clamp nut (6) using the open-ended wrench (23).
- If a cutter is already fitted in the clamp (24/25), remove it.
- Select the appropriate cutting tool (f) for the job in hand.
- Select the appropriate clamp (24/25) for the cutter you want to use.
- Now insert the clamp (24/25) in the cutting spindle (Fig. 6).
- Refit the clamp nut (6) (Fig. 7).
- Guide the cutter shaft into the clamp (Fig. 8).
- While pressing down on the spindle lock (5), tighten the clamp nut (6) (Fig. 9).
- The cutter must be inserted into the clamp (24/25) by at least 20mm.
- Before you use the equipment, check that the cutting tool is secure and runs true.

5.6 Adjusting the end stops (Fig. 1/Item 13)
The end stops (13) can be adjusted in height according to requirements. To do so, use a hex key to turn the screw on the end stop (13) to the required stop height.
Warning! Remove the setting and assembly tools again before starting the machine.

5.7 Fitting the copy sleeve (Fig. 12-13/ Item 22)
- Secure the copy sleeve (22) to the routing shoe using the two countersunk screws (b).
- The copy sleeve (22) will be guided along the template (c) by the guide ring (f).
- The workpiece (d) must be larger by the difference of “external edge of guide ring” and “external edge of router” (e) to obtain a precise copy.

6. Operation

- Never use a low-quality or damaged cutter. Use only cutting tools with a shaft diameter of 6 mm or 8 mm. The cutters must also be designed for the respective idling speed.
- Secure the workpiece so that it cannot be thrown through the air as you work on it. Use clamps or a vise.
- Never cut over metal parts, screws, nails etc.

6.1 On/Off switch (Fig. 1/Item 3)
For safety reasons, the cordless router is equipped with a safety lock-off.
- To switch on, press the unlock/lock button (2). The LED lamp (27) will begin to shine by way of confirmation.
- Now press the On/Off switch (3) within the next 10 seconds.
- If the On/Off switch is not pressed for longer than 10 seconds, the LED lamp (27) will go out and the equipment cannot be switched on.
- To switch off, press either the unlock/lock button (2) or the On/Off switch (3).

6.2 Speed control (Fig. 4/Item 4)
The most suitable speed depends on the material you want to cut and on the diameter of the cutter. Use the speed control switch (4) to select a speed between 10,000 and 30,000 min^{-1}. You can choose from 6 different switch positions.

The speeds in the various switch positions are as follows:
Switch position 1: approx. 10,000 min^{-1} (minimum speed)
Switch position 2: approx. 14,000 min^{-1}
Switch position 3: approx. 19,000 min^{-1}
Switch position 4: approx. 22,000 min^{-1}
Switch position 5: approx. 25,000 min^{-1}
Switch position 6: approx. 30,000 min^{-1} (maximum speed)

To increase the speed:
Move the speed controller (4) in the plus direction.

To decrease the speed:
Move the speed controller (4) in the minus direction.

6.3 Adjusting the routing depth (Fig. 1)
- Place the machine on the workpiece.
- Undo the lock nut (11) and the clamp lever (18).
- Slowly move the machine downwards and press the depth adjuster (12) until the cutter makes contact with the workpiece.
- Tighten the clamp lever (18).
- Set the precision adjustment device (8) accordingly to 0.
- Set the end stop (13) so that the depth stop (14) lies above the lowest set end stop (13).
- Press the depth adjuster (12) to lower the depth stop (14) until it touches the end stop (13). Then tighten the lock nut (11) and re-

lease the clamp lever (18).
- Set the pointer (10) to the zero point on the scale (9).
- Undo the lock nut (11). Push up the depth stop (14) until the pointer (10) shows the required routing depth on the scale (9). Retighten the lock nut (11).
- Test the setting by performing a test cut on a piece of scrap material.
- Now the routing depth can be finely adjusted. Begin by turning the precision adjustment device (8) to the required dimension.

Turn the precise adjustment device (8) counter-clockwise:
The routing depth is raised

Turn the precision adjustment device (8) clockwise:
The routing depth is lowered

Turning the precision adjustment device (8) by one increment is equivalent to changing the routing depth by 0.1mm; one full turn is equivalent to 1mm.

6.4 Routing
- To avoid damage to the router, make sure there are no foreign objects attached to the workpiece.
- Hold both of the router's handles (7).
- Place the cordless router on the workpiece.
- Set the routing depth as explained in section 6.3.
- Select the speed as explained in section 6.2 and switch on the equipment (see section 6.1)
- Test the equipment's settings on a scrap piece of material.
- Let the equipment reach full speed. Only then should you lower the cutter to its working height and lock the equipment with the clamp lever (18).

Cutting direction: The cutting tool turns clockwise. To avoid accidents you must always cut against the direction in which the tool turns (Fig. 10).

Feed speed: It is very important to machine the workpiece at the correct feed speed. We recommend that before you machine the actual workpiece, you carry out several trial cuts on a scrapped piece of the same material. This is the easiest way to find the best working speed for the workpiece.

Feed speed too low:
The cutter might overheat. If you are cutting inflammable material such as wood, the workpiece might ignite.

Feed speed too high:
The cutter might become damaged. Cutting quality: Rough and uneven.

Allow the cutter to come to a complete standstill before removing the workpiece or putting down the router.

6.5 Step-by-step routing
Step-by-step routing makes sense when processing hard material and performing deep cuts.
- Adjust the end stops as explained in section 5.6.
- To carry out a routing job in several steps you must then set the routing depth as explained in section 6.3 before turning the end stop (13) so that the depth stop (14) lies above the highest end stop (13).
- Now perform a cut in this setting. When the first cut is completed, set the end stop (13) so that the depth stop (14) lies above the middle end stop. Now perform a cut in this setting as well.
- Finally, set the lowest end stop and complete the cutting.

6.6 Cutting circles with the compass point (26)
Proceed as follows to cut circles around a centerpoint:
- Fit and adjust the compass point (26) as explained in section 5.4.
- Place the compass point (26) on the centerpoint of the circle you want to cut and press it in place.
- Perform the cut as described in section 6.4.

6.7 Making cuts with the parallel stop (19)
Proceed as follows to cut along a straight outer edge of a workpiece:
- Fit the parallel stop (19) as explained in section 5.3.
- Move the parallel stop (19) along the outer edge of the workpiece.
- Perform the cut as explained in section 6.4.

6.8 Making cuts freehand
The cordless router can also be used without any guides. You can use it freehand on creative jobs such as the production of lettering.

- Use a very flat cutter setting for this purpose!
- Check the direction in which the cutter is turning while you machine the workpiece (Fig. 10).

6.9 Cutting shapes and edges (Fig. 11)
- Special cutters with a guide ring can be used for cutting shapes (a) and edges (b).
- Fit the cutter.
- Carefully move the machine against the workpiece.
- Using gentle pressure, move the guide journal or ball bearing (c) along the workpiece.

Warning:
For deep cuts, carry out the work in several steps according to the material in question. Hold the equipment in two hands during all cutting work.

6.10 Charging the LI battery pack (Fig. 16-17)
1. Remove the battery pack (g) from the handle, pressing the pushlock buttons (h) downwards to do so.
2. Check that your mains voltage is the same as that marked on the rating plate of the battery charger. Insert the power plug of the charger (i) into the mains socket outlet. The green LED will then begin to flash.
3. Push the battery pack onto the battery charger.

In section “Charger indicator” you will find a table with an explanation of the LED indicator on the charger.

If the battery pack fails to become charged, please check
- whether there is voltage at the socket-outlet
- whether there is proper contact at the charging contacts on the charger.

If the battery still fails to become charged, please return
- the charger
- the battery pack

to our Customer Service Department.

To ensure that items are properly packaged and delivered when you send them to us, please contact our customer service or the point of sale at which the equipment was purchased.

When shipping or disposing of batteries and cordless tools, always ensure that they are packed individually in plastic bags to prevent short circuits and fires.

To ensure that the battery pack provides long service, you should take care to recharge it promptly. You must recharge the battery pack when you notice that the performance of the device drops. Never allow the battery pack to become fully discharged. This will cause it to develop a defect.

6.11 Battery capacity indicator (Fig. 18/Item j)
Press the battery capacity indicator switch (k). The battery capacity indicator (j) shows the charge status of the battery using 3 LEDs.

All 3 LEDs are lit:
The battery is fully charged.

2 or 1 LED(s) are lit:
The battery has an adequate remaining charge.

1 LED flashes:
The battery is empty, recharge the battery.

All LEDs blink:
The battery temperature is too low. Remove the battery from the equipment, keep it at room temperature for one day. If the fault reoccurs, this means that the rechargeable battery has undergone exhaustive discharge and is defective. Remove the battery from the equipment. Never use or charge a defective battery.

7. Cleaning, maintenance and ordering of spare parts

Hazard!
Always pull out the battery pack before starting any cleaning work.

7.1 Cleaning

- Keep all safety devices, air vents and the motor housing free of dirt and dust as far as possible. Wipe the equipment with a clean cloth or blow it with compressed air at low pressure.
- We recommend that you clean the device immediately each time you have finished using it.
- Clean the equipment regularly with a moist cloth and some soft soap. Do not use cleaning agents or solvents; these could attack the plastic parts of the equipment. Ensure that no water can seep into the device. The ingress of water into an electric tool increases the risk of an electric shock.

7.2 Maintenance

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

7.3 Ordering replacement parts:

Please quote the following data when ordering replacement parts:

- Type of machine
- Article number of the machine
- Identification number of the machine
- Replacement part number of the part required

For our latest prices and information please go to www.Einhell-Service.com

8. 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. Never place defective equipment in your household refuse. The equipment should be taken to a suitable collection center for proper disposal. If you do not know the whereabouts of such a collection point, you should ask in your local council offices.

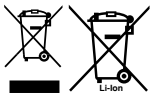
9. Storage

Store the equipment and accessories 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.

10. Charger indicator

Indicator status		Explanations and actions
Red LED	**Green LED**	
Off	Flashing	**Ready for use** The charger is connected to the mains and is ready for use; there is no battery pack in the charger
On	Off	**Charging** The charger is charging the battery pack in quick charge mode. The charging times are shown directly on the charger. **Important!** The actual charging times may vary slightly from the stated charging times depending on the existing battery charge.
Off	On	**The battery is charged and ready for use. (READY TO GO)** The unit then changes over to gentle charging mode until the battery is fully charged. To do this, leave the rechargeable battery on the charger for approx. 15 minutes longer. **Action:** Take the battery pack out of the charger. Disconnect the charger from the mains supply.
Flashing	Off	**Adapted charging** The charger is in gentle charging mode. For safety reasons the charging is performed less quickly and takes more time. The reasons can be: - The rechargeable battery has not been used for a very long time. - The battery temperature is outside the ideal range. **Action:** Wait for the charging to be completed; you can still continue to charge the battery pack.
Flashing	Flashing	**Fault** Charging is no longer possible. The battery pack is defective. **Action:** Never charge a defective battery pack. Take the battery pack out of the charger.
On	On	**Temperature fault** The battery pack is too hot (e.g. due to direct sunshine) or too cold (below 0° C). **Action:** Remove the battery pack and keep it at room temperature (approx. 20° C) for one day .

Disposal



Power tools, rechargeable batteries, accessories and packaging should be sorted for environmental-friendly recycling.
Do not dispose of power tools and batteries/rechargeable batteries into household waste!

Only for EU countries:
According to the Directive 2012/19/EU on waste electrical and electronic equipment and its transposition into national law, power tools that are no longer usable, and, according to the Directive 2006/66/EC, defective or drained batteries must be collected separately and disposed of in an environmentally correct manner.
If disposed incorrectly, waste electrical and electronic equipment may have harmful effects on the environment and human health, due to the potential presence of hazardous substances.

Only for United Kingdom:
According to The Waste Electrical and Electronic Equipment Regulations 2013 (SI 2013/3113) (as amended) and the Waste Batteries and Accumulators Regulations 2009 (SI 2009/890) (as amended), products that are no longer usable must be collected separately and disposed of in an environmentally friendly manner.

Subject to technical changes

Service information

We have competent service partners in all countries named on the guarantee certificate whose contact details can also be found on the guarantee certificate. These partners will help you with all service requests such as repairs, spare and wearing part orders or the purchase of consumables.

Please note that the following parts of this product are subject to normal or natural wear and that the following parts are therefore also required for use as consumables.

Category	Example
Wear parts*	Battery
Consumables*	
Missing parts	

* Not necessarily included in the scope of delivery!

In the effect of defects or faults, please register the problem on the internet at www.Einhell-Service.com. Please ensure that you provide a precise description of the problem and answer the following questions in all cases:

- Did the equipment work at all or was it defective from the beginning?
- Did you notice anything (symptom or defect) prior to the failure?
- What malfunction does the equipment have in your opinion (main symptom)? Describe this malfunction.