

Original Operating Instructions  
Drag, Crosscut and Miter Saw

**Einhell**<sup>®</sup>

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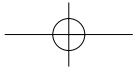
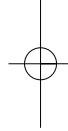
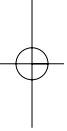
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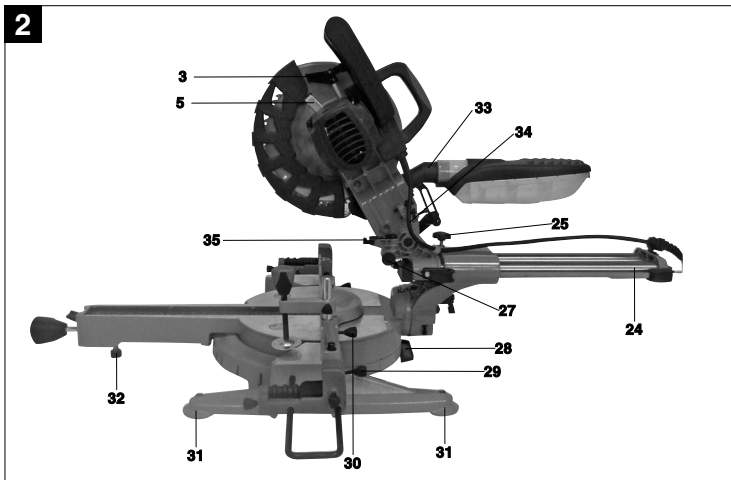
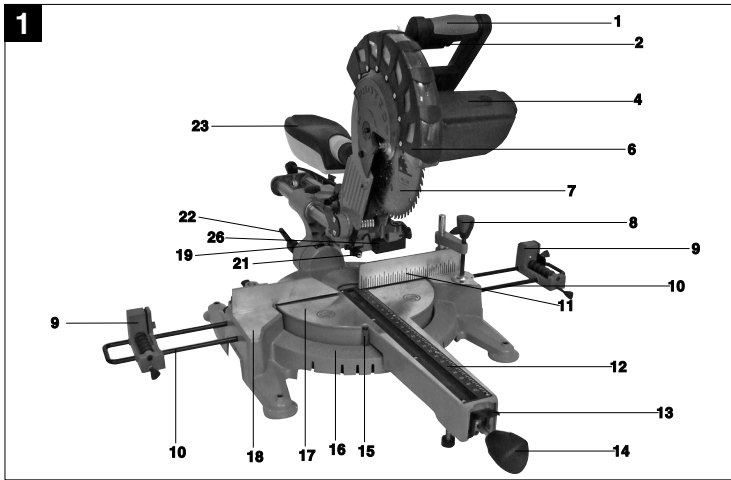
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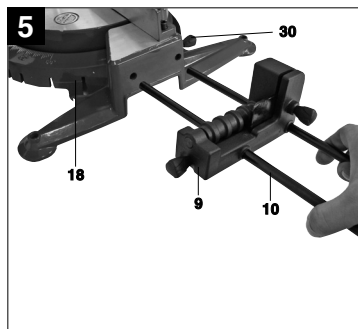
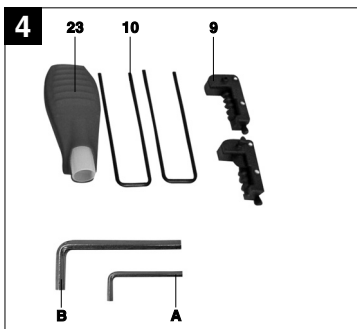
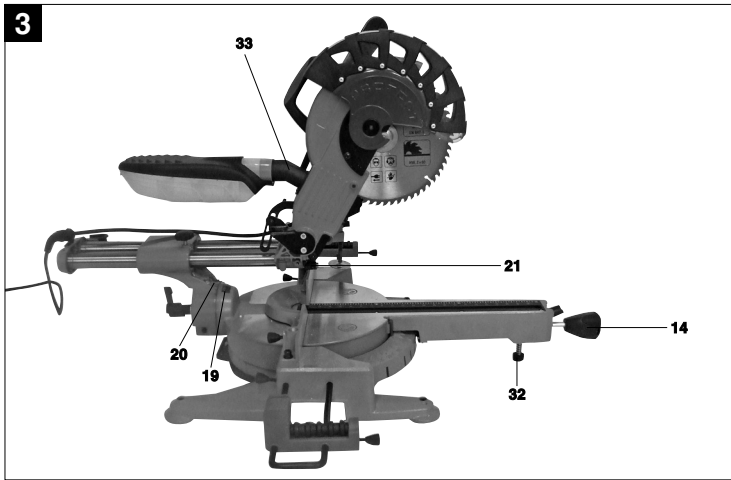
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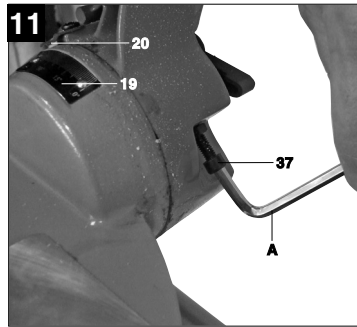
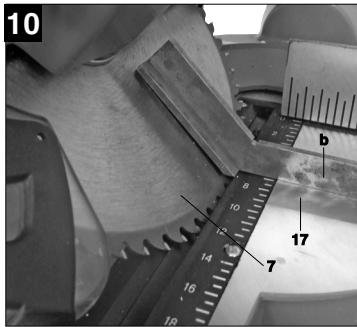
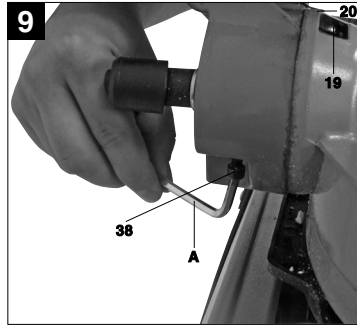
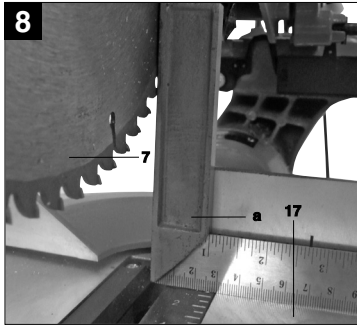
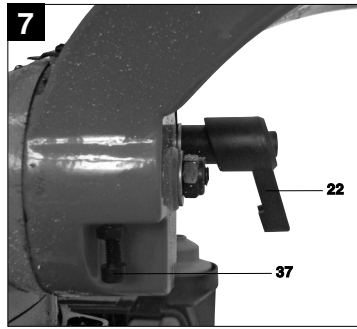
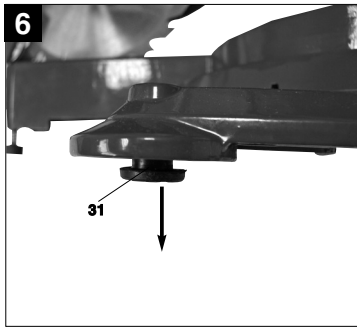


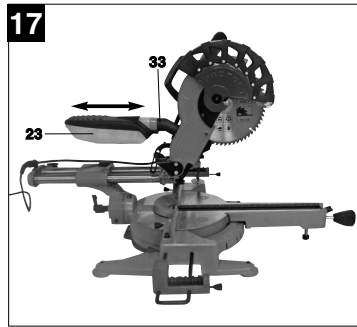
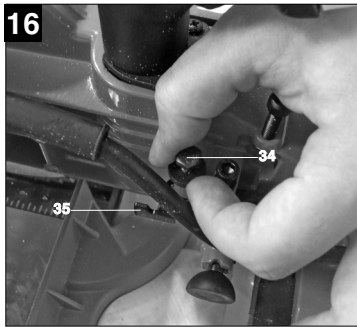
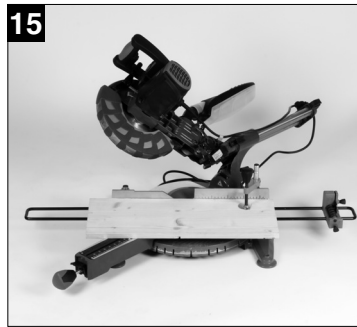
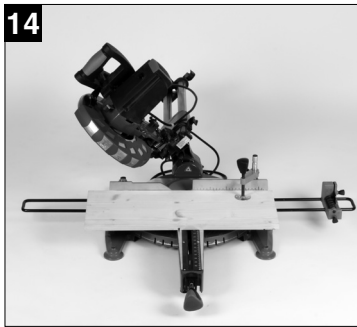
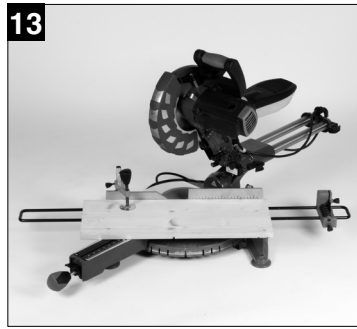
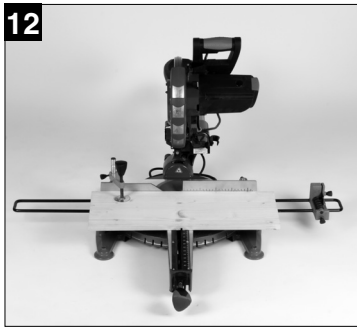
Ⓢ Read and follow the operating instructions and safety information before using for the first time.

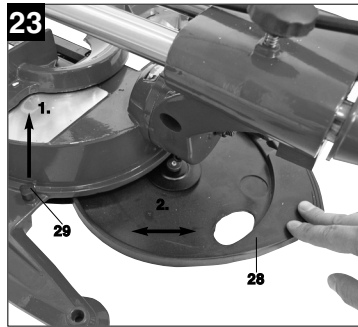
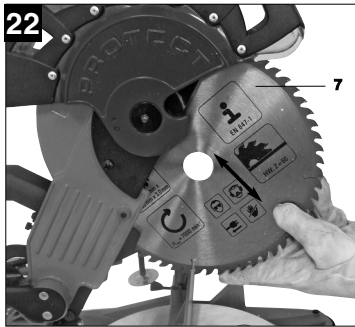
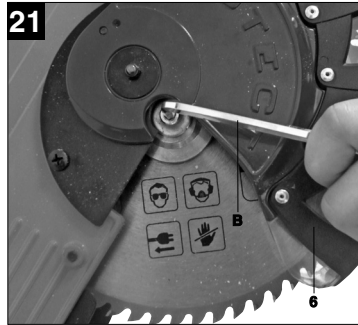
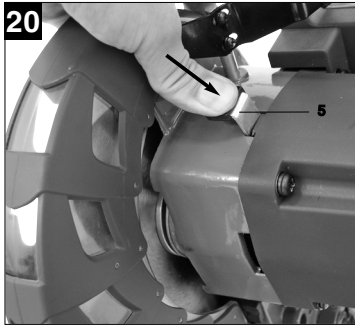
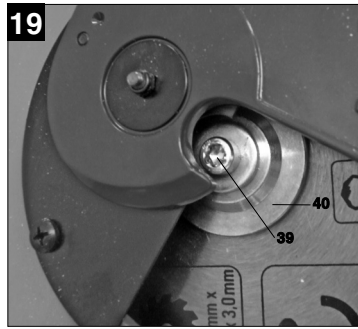
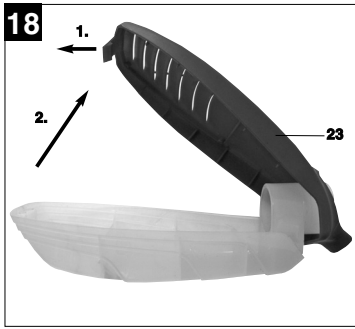


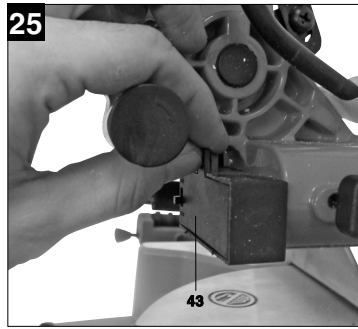
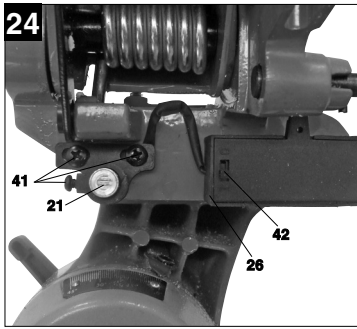
















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**GB****⚠ Important!**

When using equipment, a few safety precautions must be observed to avoid injuries and damage. Please read the complete operating manual 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, give them these operating instructions as well.

We accept no liability for damage or accidents which arise due to non-observance of these instructions and the safety information.

**1. Safety information**

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

**⚠ CAUTION!**

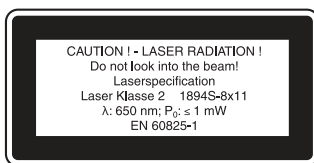
**Read all safety regulations and instructions.**

Any errors made in following the safety regulations and instructions may result in an electric shock, fire and/or serious injury.

**Keep all safety regulations and instructions in a safe place for future use.**

**1.1 Special instructions for the laser**

**Important: Laser radiation**  
**Do not look into the beam**  
**Laser class 2**



- Never look directly into the laser path.
- Never direct the laser beam at reflecting surfaces or persons or animals. Even a low output laser beam can inflict injury on the eye.
- Caution: It is vital to follow the work procedures described in these instructions. Using the equipment in any other way may result in hazardous exposure to laser radiation.
- Never open laser module.
- When the crosscut saw is not going to be used for an extended period of time, the batteries should be removed.
- Do not make any modifications to the laser that are designed to increase the laser's power.

- The manufacturer cannot accept any liability for damaged caused by a failure to comply with the safety information.

**2. Layout****2.1 Drag, crosscut and miter saw (Fig. 1-3)**

1. Handle
2. ON/OFF switch
3. Release lever
4. Machine head
5. Saw shaft lock
6. Movable blade guard
7. Saw blade
8. Clamping device
9. Roller support with limit stop
10. Holding bar for roller support
11. Stop rail
12. Bench insert with scale for cutting length
13. Locking lever
14. Locking grip
15. Pointer
16. Scale
17. Turntable
18. Fixed saw bench
19. Scale
20. Pointer
21. Laser
22. Locking screw
23. Chip collection box
24. Drag guide
25. Fixing screw for drag guide
26. Laser battery compartment
27. Locking pin
28. Storage compartment for saw blades
29. Locking knob for storage compartment
30. Locking screw for workpiece support
31. Rubber buffer
32. Support foot
33. Extractor adapter
34. Knurled screw for limiting cutting depth
35. Stop for limiting cutting depth

**3. Supplied package (Fig. 1. 5)**

- Drag, crosscut and miter saw
- Clamping device (8)
- Roller support with limit stop (9)
- 2 x Holding bars for roller support (10)
- Chip collection box (23)
- Allen key (A)
- Allen key (B)



#### 4. Proper use

The drag, circular crosscut and miter saw is designed to crosscut wood and plastic suitable for the machine's size. The saw is not designed for cutting firewood.

The machine 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 machine is used in commercial, trade or industrial businesses or for equivalent purposes.

The machine is to be operated only with suitable saw blades. It is prohibited to use any type of cutting-off wheel.

To use the machine properly you must also observe the safety regulations, the assembly instructions and the operating instructions to be found in this manual. All persons who use and service the machine have to be acquainted with this manual and must be informed about its potential hazards.

It is also imperative to observe the accident prevention regulations in force in your area.

The same applies for the general rules of occupational health and safety.

The manufacturer shall not be liable for any changes made to the machine nor for any damage resulting from such changes.

Even when the machine is used as prescribed it is still impossible to eliminate certain residual risk factors. The following hazards may arise in connection with the machine's construction and design:

- Contact with the saw blade in the uncovered saw zone.
- Reaching into the running saw blade (cut injuries).
- Kick-back of workpieces and parts of workpieces.
- Saw blade fracturing.
- Catapulting of faulty carbide tips from the saw blade.
- Damage to hearing if essential ear-muffs are not worn.
- Harmful emissions of wood dust when the machine is used in closed rooms.

#### 5. Technical data

Asynchronous motor	240V~ 50 Hz
Output	2200 W
Operating mode	S6 40%
Idle speed $n_0$	4800 min <sup>-1</sup>
Carbide-tipped saw blade	ø 250 x ø 30 x 3 mm
Number of teeth	48
Tilting range	-52° / 0° / +60°
Mitre cuts	0° to 45° to the left
Sawing width at 90°	430 x 75 mm
Sawing width at 45°	300 x 75 mm
Sawing width at 2 x 45° (double mitre cuts)	300 x 40 mm
Weight	22 kg
Laser class	2
Laser wave length	650 nm
Laser output	≤ 1 mW
Laser module power supply	2 x 1.5 V Micro (AAA)

#### Sound and vibration

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

$L_{pA}$ sound pressure level	98,5 dB(A)
$K_{pA}$ uncertainty	3 dB
$L_{WA}$ sound power level	111 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 61029.

Vibration emission value  $a_h = 1.148 \text{ m/s}^2$

K uncertainty = 1.5 m/s<sup>2</sup>

#### Warning!

The specified vibration value was established in accordance with a standardized testing method. It may change according to how the electric equipment is used and may exceed the specified value in exceptional circumstances.

The specified vibration value can be used to compare the equipment with other electric power tools.

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The specified vibration value can be used for initial assessment of a harmful effect.

#### 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.

#### 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. 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.

Operating mode S6 40%: Continuous operation with idling (cycle time 10 minutes). To ensure that the motor does not become excessively hot it may only be operated for 40% of the cycle at the specified rating and must then be allowed to idle for 60% of the cycle.

## 6. Before starting the equipment

### 6.1 General

- The machine must be firmly mounted in working position, e.g. on a workbench, or similar. For this pull the four rubber stoppers (32) from the bottom side of the saw (Figure 5) and insert 4 screws through the feets to fix it on a stable surface.
- All the covers and safety devices have to be properly fitted before the machine is switched on.
- It must be possible for the saw blade to run freely.
- When working with wood that has been processed before, watch out for foreign bodies such as nails or screws etc.
- Before you actuate the On/Off switch, make sure that the saw blade is correctly fitted and that the machine's moving parts run smoothly.
- Before you connect the machine to the power

supply, make sure the data on the rating plate is the same as that for your mains.

### 6.2 Assembling the saw (Fig. 1-3; 5)

- To adjust the turntable (17), loosen the locking grip (14) by approx. 2 turns, which frees the turntable (17).
- Press the locking lever (13), turn the turntable (17) and scale pointer (15) to the desired angular setting on the dial (16) and lock into place with the locking grip (14). The saw has locking positions at angular positions of -45°, -30°, -22,5°, -15°, 0°, 15°, 22,5°, 30°, 45° and 60° at which the locking lever can be engaged.
- To release the saw from its position at the bottom, pull the locking pin (27) out of the motor mounting while pressing down lightly on the machine head (4). Turn the locking pin (27) through 90° before you release it so that the saw remains released.
- Swing the machine head (4) up until the release lever (3) latches into place.
- The clamping device (8) can be fitted on either the left or right of the fixed saw bench (18).
- Undo the locking screws for the workpiece support (30).
- Guide the roller support with limit stop (9) over one of the holding bars for the roller support (10) and secure it to the fixed saw bench (18), tightening the appropriate locking screw (30) (Fig. 5).
- Fit the second holding bar for the roller support (10) on the opposite side of the saw and secure it with the appropriate locking screw (30).
- When the locking screw (22) is loosened, you can tilt the machine head (4) to the left by up to 45°.
- The support foot (32) is designed to ensure that the saw cannot tip forwards during use. To do this, unscrew the support foot (32) until it touches the support surface of the saw.

### 6.3 Final adjustment of the stop for crosscut 90° (Fig. 1, 7 - 9)

- Fasten the turntable (17) in 0° position.
- Undo the securing screw (22) and tilt the machine head (4) as far to the right as possible using the handle (1).
- Place the 90° angular stop (a) between the saw blade (7) and the turntable (17).
- Undo the counter nut (36) and adjust the adjustment screw (38) until the angle between the saw blade (7) and the turntable (17) is 90°.
- Retighten the counter nut (36) to secure this setting.
- Finally check the position of the pointer (20) on the scale (19). If necessary undo the pointer (20) with a Philips screwdriver, set it to the 0° position



on the scale (19) and tighten the retaining screw again.

- An angular stop is not supplied.

#### 6.4 Final adjustment of the stop for meter cut 45° (Fig. 1, 7, 10, 11)

- Fasten the turntable (17) in 0° position.
- Undo the securing screw (22) and tilt the machine head (4) to the right to an angle of 45° using the handle (1).
- Place the 45° stop angle (b) between the blade (7) and the turntable (17).
- Adjust the adjustment screw (37) until the angle between the saw blade (7) and the turntable (17) is 45°.
- An angular stop is not supplied.

### 7. Operation

#### 7.1 Crosscut 90° and turntable 0° (Fig. 1 – 3, 12)

For cutting widths up to 100 mm it is possible to fix the saw's drag function in its rear position with the fixing screw for drag guide (25). If the cutting width exceeds 100 mm you must ensure that the fixing screw for the drag guide (25) is undone and that the machine head (4) can be moved.

- Move the machine head (4) to its upper position.
- Use the handle (1) to push back the machine head (4) and fix it in this position if required (dependent on the cutting width).
- Place the piece of wood to be cut at the stop rail (11) and on the turntable (17).
- Lock the material with the clamping device (8) on the fixed saw bench (18) to prevent the material from moving during the cutting operation.
- Push down the release lever (3) to release the machine head (4).
- Press the ON/OFF switch (2) to start the motor.
- If the drag guide (25) is fixed: Move the machine head (4) downwards evenly and with gentle pressure using the handle (1) until the saw blade (7) has cut through the workpiece.
- If the drag guide (25) is not fixed: Pull the machine head (4) as far as possible forwards and then lower it evenly and with gently pressure using the handle (1). Now push the machine head (4) slowly and evenly right to the rear until the saw blade (7) has cut right through the workpiece.
- When the cutting operation is completed, move the machine head (4) back to its upper (home) position and release the ON/OFF button (2).

**Important.** The integral resetting springs will automatically lift the machine head. Do not simply let go of the handle (1) after cutting, but allow the

machine head (4) to rise slowly, applying slight counterpressure as it does so.

#### 7.2 Crosscut 90° and turntable 0° - 45° (Fig. 1 – 3, 13)

The crosscut saw can be used to make angular cuts of 0° - 52° to the left and 0 - 60° to the right relative to the stop rail.

- Release the turntable (17) by slackening the locking grip (14).
- Press the locking lever (13), turn the turntable (17) and scale pointer (15) to the desired angular setting on the dial (16) and lock into place with the locking grip (14). The saw has locking positions at angular positions of -45°, -30°, -22,5°, -15°, 0°, 15°, 22,5°, 30°, 45° and 60° at which the locking lever can be engaged.
- Retighten the locking grip (14) to secure the turntable (17) in place.
- Cut as described under section 7.1.

#### 7.3 Miter cut 0°- 45° and turntable 0° (Fig. 1 – 3, 14)

The crosscut saw can be used to make miter cuts of 0° - 45° in relation to the work surface.

- Remove the clamping device (8) if necessary or fit it on the opposite side of the fixed saw bench (18).
- Move the machine head (4) to its upper position.
- Fasten the turntable (17) in 0° position.
- Undo the locking screw (22) and use the handle (1) to tilt the machine head (4) to the left until the pointer (20) points to the required angle on the scale (19).
- Retighten the locking screw (22) and make the cut as described in section 7.1.

#### 7.4 Miter cut 0°- 45° and turntable 0° - 45° (Fig. 1 – 3, 15)

The crosscut saw can be used to make miter cuts of 0° - 45° to the left relative to the work surface and, at the same time, 0° - 52° to the left or 0° - 60° to the right of the stop rail (double miter cut).

- Remove the clamping device (8) if necessary or fit it on the opposite side of the fixed saw bench (18).
- Move the machine head (4) to its upper position.
- Release the turntable (17) by slackening the locking grip (14).
- Use the handle (1) to adjust the turntable (17) to the angle required (in this connection see also section 7.2).
- Retighten the locking grip (14) to secure the turntable in place.
- Undo the locking screw (22) and use the handle (1) to tilt the machine head (4) to the left until it

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coincides with the required angle value (in this connection see also section 7.3).

- Re-tighten the locking screw (22).
- Cut as described under section 7.1.

#### 7.5 Limiting the cutting depth (Fig. 16)

- The cutting depth can be infinitely adjusted using the screw (34). Undo the knurled nut on the screw (34) and move the stop for limiting the cutting depth (35) to the outside. Set the required cutting depth by tightening or undoing the screw (34) and then tighten the knurled nut on the screw (34).
- Check the adjustment by making a test cut.

#### 7.6 Chip collection box (Fig. 17, 18 / Item 23)

The saw is equipped with a chip collection box (23) for sawdust and chips. The chip collection box (23) can be connected to the extractor adaptor (33). To empty the chip collection box (23), open it as shown in Fig. 19 and carefully tap it to empty the contents.

A suitable dust extraction device may also be connected to the extractor adaptor (33).

#### 7.7 Changing the saw blade (Fig. 1, 19 – 22)

##### Remove the power plug!

- Swing the machine head (4) upwards and lock it in this position using the locking pin (27).
- Press the release lever (3) and swing up the saw blade guard (6) to the point where the recess in the saw blade guard (6) is above the flange bolt (39).
- Press the saw shaft lock (5) with one hand while holding the wrench (B) on the flange bolt (39) with the other.
- Firmly press on the saw shaft lock (5) and slowly rotate the flange bolt (39) in clockwise direction. The saw shaft lock (5) engages after no more than one rotation.
- Now, using a little more force, slacken the flange bolt (39) in the clockwise direction.
- Undo the flange bolt (39) and remove it and then take off the outer flange (40).
- Take the saw blade (7) off the inner flange and pull it out downwards.
- Carefully clean the flange bolt (39), outer flange (40) and inner flange.
- Fit and fasten the new saw blade (7) in reverse order.
- **Important.** The cutting angle of the teeth, in other words the direction of rotation of the saw blade (7) must coincide with the direction of the arrow on the housing.
- Check to make sure that all safety devices are properly mounted and in good working condition

before you begin working with the saw again.

- **Important.** Every time that you change the saw blade, check to see that it spins freely in the table insert (12) in both perpendicular and 45° angle settings.
- **Important.** The saw blade (7) must be changed and aligned correctly.

#### 7.8 Storage compartment for spare saw blade (Fig. 23 / Item 28)

The saw is equipped with a storage compartment (28) for a spare saw blade. To open the storage compartment (28), pull the locking knob (29) on the rear of the saw while pulling the storage compartment (28) out at the same time.

#### 7.9 Using the laser (Fig. 24, 25 / Item 21)

**To switch on:** Move the laser ON/OFF switch (42) into the "I" position to switch on the laser (21). A laser line is projected on to the workpiece you wish to machine, providing an exact guide for the cut.

**To switch off:** Move the laser ON/OFF switch (42) into the "0" position.

**Adjusting the laser:** Undoing the screws (41) slightly allows the laser to be adjusted if necessary. Tighten the screws again after you have completed the adjustment work. **Important.** Never look directly into the LED light!

**Replacing the battery:** Ensure that laser (21) is switched off. Remove the battery compartment cover (43). Remove the spent batteries and replace them with new ones (2 x 1.5 V type R02, LR 03 Micro, AAA). Check that the battery terminals are positioned correctly. Close the battery compartment again.

#### 7.10 Transport (Fig. 1 – 3)

- Tighten the locking grip (14) to lock the turntable (17).
- Press the release lever (3), push the machine head (4) to the rear and lock it with the locking bolt (27). The saw is now locked in its lower position.
- Secure the drag function of the saw in its rear position using the fixing screw for the drag guide (25).
- Carry the machine using the fixed saw bench (18).
- Follow the instructions set out in point 6.2 to erect the machine again.

#### 7.11 Battery disposal

Recycle the packaging. Ensure that you sort the materials for recycling. Do not dispose of batteries in household waste. All consumers have a duty to dispose of batteries properly at the appropriate collection points. Send your spent batteries to iSC GmbH, Eschenstrasse 6 in D-94405 Landau. You can

then be sure that the equipment will be correctly disposed of by the manufacturer.

### 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

- 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.

#### 9.2 Carbon brushes

In case of excessive sparking, have the carbon brushes checked only by a qualified electrician. Important! The carbon brushes should not be replaced by anyone but a qualified electrician.

#### 9.3 Maintenance

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

#### 9.4 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.isc-gmbh.info](http://www.isc-gmbh.info)

### 10. Disposal and recycling

The unit is supplied in packaging to prevent its being damaged in transit. This packaging is raw material and can therefore be reused or can be returned to the raw material system.

The unit 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.

### 11. Battery disposal

Batteries contain materials that are potentially harmful to the environment. Never place batteries in your household refuse, in fire or in water. Batteries should be collected, recycled or disposed of by environment-friendly means. Seek advice on correct disposal from local waste authorities.





- Ⓢ Never place any electric tools in your household refuse.  
Seek advice on correct disposal from local waste authorities.



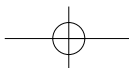
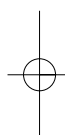
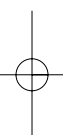


Ⓢ Technical changes subject to change





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# **GUARANTEE CERTIFICATE**

## Dear Customer,

All of our products undergo strict quality checks to ensure that they reach you in perfect condition. In the unlikely event that your device develops a fault, please contact our service department at the address shown on this guarantee card. 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 guarantee claims can be made:

1. These guarantee terms cover additional guarantee rights and do not affect your statutory warranty rights. We do not charge you for this guarantee.
2. Our guarantee only covers problems caused by material or manufacturing defects, and it is restricted to the rectification of these defects or replacement of the device. Please note that our devices have not been designed for use in commercial, trade or industrial applications. Consequently, the guarantee is invalidated if the equipment is used in commercial, trade or industrial applications or for other equivalent activities. The following are also excluded from our 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 device or use of non-approved tools or accessories), failure to comply with the maintenance and safety regulations, ingress of foreign bodies into the device (e.g. sand, stones or dust), effects of force or external influences (e.g. damage caused by the device being dropped) and normal wear resulting from proper operation of the device.  
  
The guarantee is rendered null and void if any attempt is made to tamper with the device.
3. The guarantee is valid for a period of 2 years starting from the purchase date of the device. Guarantee claims should be submitted before the end of the guarantee period within two weeks of the defect being noticed. No guarantee claims will be accepted after the end of the 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, and no new guarantee will become active for the work performed or parts fitted. This also applies when an on-site service is used.
4. In order to assert your guarantee claim, please send your defective device postage-free to the address shown below. Please enclose either the original or a copy of your sales receipt or another dated proof of purchase. Please keep your sales receipt in a safe place, as it is your 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 our guarantee then your device will either be repaired immediately and returned to you, or we will send you a new device.

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

**EINHELL AUSTRALIA PTY LTD**  
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Phone: 1300 922 271



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