

CHOP AND MITRE SAW



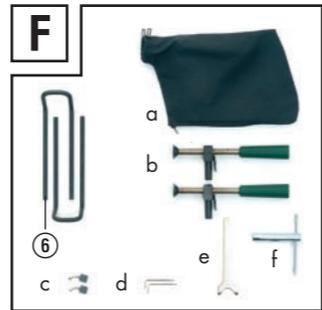
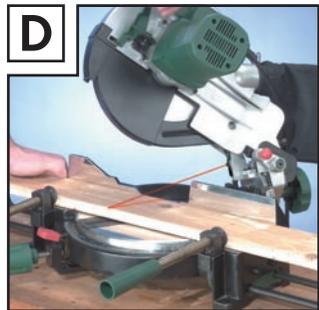
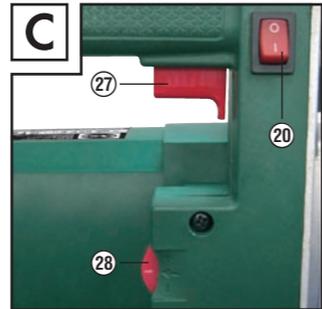
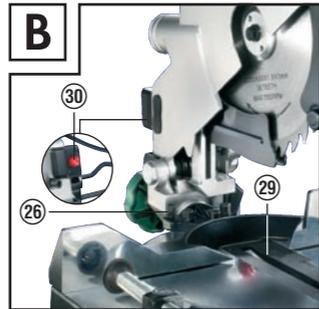
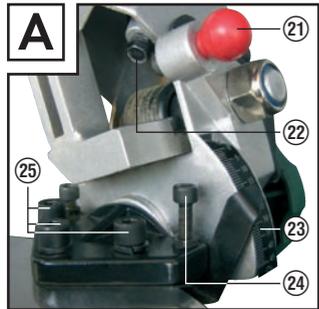
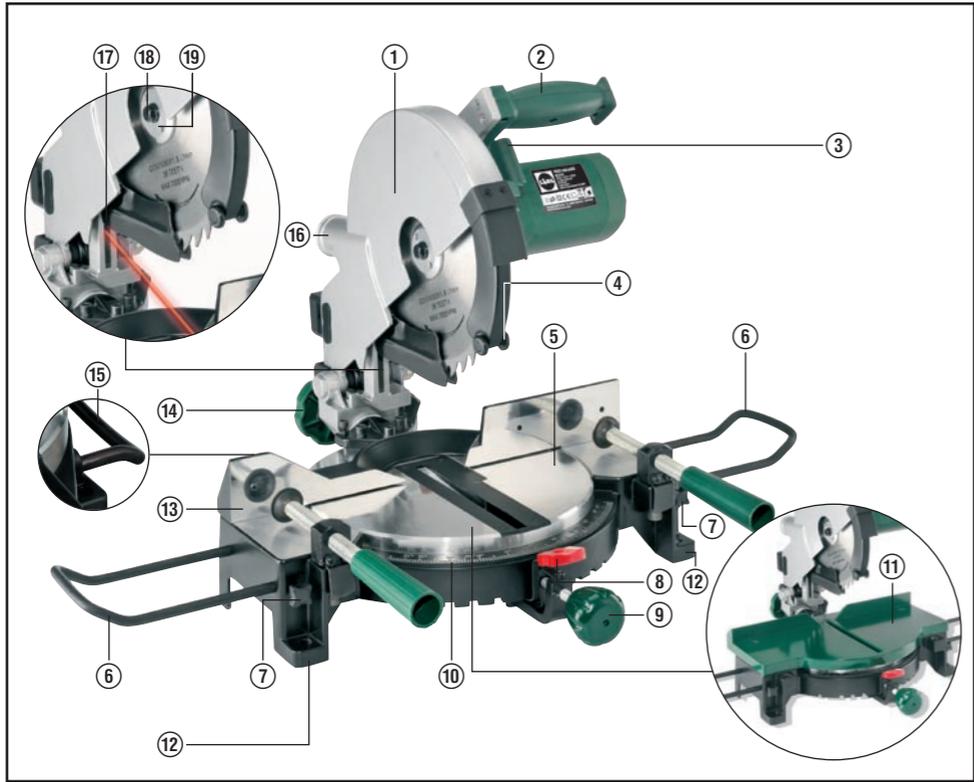
- Ⓒ Before you begin reading this information, please unfold the page with the illustrations
Ⓔ and familiarize yourself with all functions of the tool.

Kompernaß GmbH
Burgstraße 21
D-44867 Bochum (Germany)

Ⓒ **CHOP AND MITRE SAW**
Ⓔ **PKGS 1450 LASER**
Operating and safety instructions

GB/IE Operating and safety instructions

Page 5



	Before reading, unfold the page containing the illustrations and familiarise yourself with all functions of the device.		
The following icons / symbols are used in this instruction manual:			
	Read instruction manual!	W	Watt (performance)
	Observe caution and safety notes!	n₀	Rated idle running speed
	Caution – electric shock! Dangerous electric current – danger to life!	  	wear ear protectors, a breathing/ dust mask and safety glasses.
	Caution, laser! Do not expose yourself to laser radiation.		Protection category II
V~	Voltage		To work safely

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Chop and mitre saw

PKGS 1450 LASER

Chop, mitre and combination cuts

■ Introduction

■ Your safety



Please make sure you familiarise yourself fully with the way the device works before you use it for the first time and that you understand how to handle electrical power tools correctly. Further details can be found in the operating instructions.

In addition, you must also observe the general safety advice contained in the accompanying booklet. Keep these instructions in a safe place. If you pass the device on to anyone else, please ensure that you also pass on all the documentation.

■ Proper use

For sawing solid wood, chipboard and plastic. With the laminate cutting attachment ⑪ in place the machine is suitable for laminate and material up to 20 cm wide. Please note that the blade pre-installed in the saw as supplied is intended for use with wood only. Any other use or modification to the device shall be considered as improper use and could give rise to considerable dangers. The manufacturer will not accept liability for loss or damage arising from improper use. Not suitable for commercial use.

■ Features and equipment

- ① Saw motor unit
- ② Switch handle
- ③ Safety lever
- ④ Sliding roller (with automatic blade guard)
- ⑤ Saw table
- ⑥ Lateral support stirrup
- ⑦ Lateral support stirrup clamp screws
- ⑧ Mitre angle stop
- ⑨ Saw table setting knob
- ⑩ Mitre angle scale
- ⑪ Laminate cutting attachment
- ⑫ Mounting holes
- ⑬ Stop plate
- ⑭ Saw motor unit setting knob
- ⑮ Rear support stirrup
- ⑯ Sawdust removal connector
- ⑰ Laser beam emission opening
- ⑱ Screw (for attaching the saw blade)
- ⑲ Outside flange
- ⑳ Laser On / Off switch (Fig. C)
- ㉑ Transport lock (Fig. A)
- ㉒ Saw blade depth setting screw (Fig. A)
- ㉓ Scale on the saw motor unit (Fig. A)
- ㉔ Mitre angle / 0° setting screw (Fig. A)
- ㉕ Saw motor unit mounting screws (Fig. A)
- ㉖ Mitre angle / 45° setting screw (Fig. B)
- ㉗ On / Off switch (Fig. C)
- ㉘ Rotation speed selector wheel (Fig. C)
- ㉙ Table insert (Fig. B)
- ㉚ Laser setting screw (Fig. B)

■ Included items

- 1 Chop and mitre saw
- 1 Laminate cutting attachment ⑪
- 2 Lateral support stirrups ⑥
- 1 Sawdust collection bag (a)
- 2 Screw clamps (b)
- 2 Carbon brushes (c) (see section on maintenance)
- 2 Allen keys (d), sizes 5 mm and 6 mm
- 1 Locking spanner (e)
- 1 Socket spanner (13 mm) (f)
- 1 Universal saw blade: 250 x 30 x 2.35 mm,
80 HM - teeth (3.2 mm)
- 1 Saw blade for wood
(supplied installed): 250 x 30 x 1.8 mm,
36 HM - teeth (3.0 mm)
- 1 Operating instructions
- 1 Booklet "Guarantee and service"
- 1 Booklet "Containing general safety advice"

■ Replaceable parts

You can replace the following parts yourself. When you do this always observe the relevant operating instructions and safety advice.

- Sawdust collection bag (a)
- Laminate cutting attachment ⑪
- Stop plate ⑬
- Saw blade

Have any other maintenance and repair tasks carried out by our service centre or an accredited electrical equipment repair centre.

■ Technical information

Nominal output:	1450 W
Nominal voltage:	230 V ~ 50 Hz
Nominal speed:	n_0 1800 - 4500 min ⁻¹
Circumferential speed:	24 m/s – 55 m/s
Weight:	14.5 kg
Protection class:	II/□
Sound pressure level:	$L_p = 95.5$ dB (A)
Sound power level:	$L_w = 108.5$ dB (A)
Vibration:	2.5 m/s ²
Saw blade for wood (supplied installed):	250 x 30 x 1.8 mm, 36 HM - teeth (3.0 mm)
Universal saw blade:	250 x 30 x 2.35 mm, 80 HM - teeth (3.2 mm)

Cutting capacity:

Cutting width:	max. 140 mm (without laminate cutting attachment)
	max. 200 mm (with laminate cutting attachment)
Cutting depth:	max. 65 mm

■ Safety



Safety advice relating specifically to this saw

- Ensure that the device is always used in accordance with the advice in these operating instructions and only by persons over 18 years of age.
-  Keep children away from the device. Store the device indoors in an enclosed, dry place where it cannot be reached by children.
- In addition, you must also read the advice in the accompanying booklet containing safety advice before using the device for the first time.
- Check that all moving parts on the tool are working properly, can move freely and are not damaged. All parts must be correctly attached and fulfil all the requirements necessary to allow the electrical tool to operate properly.
- Carry out the following before each use:
 - check the saw for damaged parts or safety equipment and if necessary have them replaced by an electrician.
 - check the saw blade for quality/condition, sharpness, cleanliness and free movement.
 - check that the saw blade is properly attached and does not wobble. Attach the saw blade by placing the locking spanner (e) on the outer flange ⑩ and tightening the screw (for attaching the saw blade) ⑬ counter-clockwise.



To avoid danger to life from electric shock:

-  Do not operate the device if the mains lead or mains plug is damaged. **Caution!** A damaged mains lead presents a serious danger to life from electric shock. The service centre for your country is shown in the guarantee documentation.
- Have repairs carried out only by an electrician or the relevant service centre.

-  Do not operate the device if it is damp and do not use it in a damp environment.



Protecting yourself from laser radiation:

Note: This product is a Class 1 Laser/Protection Class III device. The radiation output under circumstances of proper use does not present any danger.

- The chop and mitre saw is fitted with a laser. Do not replace this laser with one of another type. Repairs must be carried out only by one of our authorised service partners.
- Do not look directly into the laser beam or into the opening from which it is emitted.
- Never direct the laser beam on to reflective surfaces or at people or animals. Even a brief look into a laser beam can damage your eyes.
- Never open the laser unit housing.



To avoid the danger of injury, burning and dangers to your health:

- Always check the device first under no-load conditions. If you notice any strange noises or vibrations from the device, switch it off immediately and pull the plug out of the mains socket. Never use the device if it shows any of these types of problems. Take it to be checked and if necessarily repaired by an electrician.
- Use the machine only on the materials given in the section on proper use.
- Check that the saw motor unit ① is securely attached.
- Use the machine only if the safety equipment is properly positioned in its place as intended, the machine is in good condition and has been properly maintained.
- Always keep the mains lead away from the working area of the machine and lead away the mains lead from the rear.
-  Look after your health – wear ear protectors, safety glasses and a breathing/dust mask.
- Never hold the saw at the rear. Remove sawing

waste, parts of workpieces or clamped objects only when the machine's mains plug is removed from the mains socket and the saw has come to a standstill.

- Do not cut workpieces too small. Your hand must always be at least 10 cm away from the saw blade.
- Do not attempt to saw extremely small workpieces.
- Ensure that your work area is well lit (250 - 300 Lux). Do not use the device in places where there is a danger of fire or explosion, for example near inflammable liquids or gases.
- If the table insert ⑨ is damaged have it replaced immediately.
Danger! If the table insert is damaged it could lead to the danger of small objects blocking the saw blade by becoming trapped between the table insert ⑨ and the saw blade. If the table insert is damaged have it replaced immediately by our customer service department.



To work safely:

- Use the machine only for the purposes indicated and within the stipulated performance limits. Do not overload the machine.
- Keep the handle clean, dry and free of oil and grease.
- Ensure that the automatic blade guard ④ is functioning properly and can move freely. Never clamp the automatic blade guard so that it remains open.
- Always select a saw blade that is suitable for the material you intend to cut.
- Support longer workpieces in such a way that they are at the same level as the surface of the saw table ⑤.
- Secure the machine after use with the transport lock ⑩.
- Use the screw clamps (b) or other clamping devices so that an awkwardly shaped workpiece cannot rotate or move whilst you are sawing it. The workpiece must be firmly clamped against the base of the table and the stop plate so that there are no gaps between the turntable and workpiece or between the stop plate and the workpiece.

- Always ensure that all the clamps and stops are firmly held in place.
- Never saw through more than one workpiece at a time.
- Ensure that the saw blade has reached full speed before starting your cut and avoid using too much force. In that way you will prevent the saw blade from being blocked.

■ Operation

■ Assembly

Do not connect the chop and mitre saw to the mains before you have worked through the following assembly instructions and completely assembled the device.

1. Slide the lateral support stirrups ⑥ into the openings provided for them on the left and right of the saw table ⑤ until they meet the stop and then fully tighten the clamp screws ⑦.
2. Screw the saw table setting knob ⑨ into the threaded hole provided.
3. Loosen the saw table setting knob ⑨ again. Press the mitre angle stop ⑧ and turn the saw table ⑤ using the saw table setting knob ⑨ into the basic position (0° setting).
4. When the mitre angle stop ⑧ has engaged in the basic position (0° setting), turn the saw table setting knob ⑨ to tighten it again.
5. Lightly press the switch handle ② downwards and pull out the transport lock ⑩. The saw motor unit ① tips upwards.
6. Ensure that the machine is standing in a stable position and check that the floor around the machine is flat, clean and free of loose particles such as sawdust chippings and sawing waste. Using the four mounting holes ⑫ provided, fasten the chop and mitre saw on to a firm, level surface.
7. If you have not fastened the machine tightly down to a working surface, pull out the rear support stirrup ⑮ as far as possible to provide maximum support to the machine.

■ Checking and setting your saw

Warning! Always disconnect the mains supply (by pulling the plug out of the mains socket) before you change any settings or check the condition of the machine.

1. Parallel saw blade

- Check that the saw blade is correctly installed; it must be parallel to the sawing slot in the table. To make any necessary settings proceed as follows;
- Bring the saw table ⑤ into the basic position (0° setting). Release the transport restraint by lightly pressing the saw motor unit ① downwards and pulling out the transport lock ⑩. Unlock the machine by pushing the safety lever ③ to the right. Lower the saw motor unit ① and check that the side face of the saw blade is parallel with the left hand edge of the sawing slot in the table. The blade and the edge must be absolutely parallel to one another. If necessary you can change the setting by loosening the three mounting screws ⑮ directly behind the saw blade (see Fig. A) using the supplied 6 mm Allen key (d) and bring the saw motor unit ① into parallel alignment. Then retighten the mounting screws.

2. Stop plate

- It is particularly necessary to check the stop plate ⑬ if it has been removed from the machine and put back again. The stop plate must be perpendicular (at 90°) to the saw blade. This setting can only be made after the saw blade has been set as described above. To check the stop plate ⑬, we recommend that you use a set square. Set one end of the set square against the stop plate and the other end against the side face of the saw blade. If necessary you can change the setting as follows:
- Loosen the two screws on the rear face of the stop plate ⑬ using the supplied 6 mm Allen key (d) and bring the stop plate ⑬ into a perpendicular (90°) alignment to the side face of the saw blade. Tighten the screws again.

3. Saw blade depth



Wear protective gloves!

- Check the depth of the saw blade by first lowering the saw motor unit ① as far down as possible. Then try turning the saw blade manually. It must be able to turn freely. If the saw blade does not turn freely, carry out the necessary adjustment by turning the setting screw ⑳.

4a. Mitre setting 0°

- If necessary you can adjust the 0° mitre stop. Bring the saw table ⑤ into the basic position (0° setting). With the saw motor unit ① lowered, compare the alignment of the side face of the saw blade with the workpiece support surface of the table using a set square.

To make the adjustment, first loosen the lock nut on the setting screw ㉔ (see Fig. A) and then turn the screw with the supplied 5 mm Allen key (d). Take off the Allen key – readjust until the saw blade is at 90° to the saw table. Tighten the locknut on the setting screw ㉔. The saw blade must be at right angles to the saw table and the scale on the saw motor unit ① must read 0°.

4b. Mitre setting 45° (inclined cut setting)

- Set the saw table ⑤ into the basic position (0° setting). Loosen the setting knob ㉒ and incline the saw motor unit ① until the 45° setting on the scale ㉓ on the saw motor unit is reached. Retighten the setting knob ㉓ and lower the saw motor unit ①.
- Use a combination set square to check the angle of the side face of the saw blade with respect to the workpiece support area of the saw table. To make the adjustment first loosen the lock nut on the setting screw ㉖ (see Fig. B) and then turn the screw with the supplied 5 mm Allen key (d). Take off the Allen key – readjust until the saw blade is at 45° to the saw table. Tighten the locknut on the setting screw ㉖.

5. Adjusting the pointer on the scale ㉓

If the pointer when it is in the basic setting is not in line with the 0° marking on the scale then adjust the pointer as follows:

- First make sure that the basic settings 0° and 45° have been carried out correctly as described in sections 4a and 4b.
- Loosen the setting knob ㉒ and incline the saw motor unit ① into the 45° setting.
- Loosen the pointer screw with a cross-head screwdriver and adjust the pointer until it is in line with the 45° marking and tighten the screw again. After you have returned the saw motor unit ① into the 0° position, the pointer should again be exactly in line with the 0° marking on the scale. If necessary repeat the adjustment process until the pointer is correctly set.

■ Operation

Take note of the mains voltage! The voltage must agree with that shown on the machine rating plate (equipment shown as 230V can also be connected to 220V).

■ Connecting a dust extraction device

The dust created when sawing can be inflammable, explosive and hazardous to health. Some dusts are carcinogenic. Use a suitable dust extraction device designed for the purpose and wear a dust protection mask.



Wear a dust mask!

External vacuum extraction:

- Connect a vacuum extraction device of a type specifically suitable for dust extraction to the sawdust removal connector ㉞. Ensure that you connect and use it properly.

Sawdust collection bag (a):

- Attach the sawdust collection bag (a) to the sawdust removal connector ㉞ by pressing the lugs of the wire ring together. Engage the wire ring in the groove provided in the sawdust removal connector.
- To remove the sawdust collection bag (a) from the sawdust removal connector ㉞ you also press the lugs of the wire ring together.

Empty the sawdust collection bag regularly.
Open the zip fastener to empty the bag.

■ Unlocking and switching the machine on and off

- Unlock the machine by pushing the safety lever ③ to the right.

Switching on:

- Press the On/Off switch ⑳ and keep it pressed.

Note: There is a delay in the machine starting up



Switching off:

- Release the On/Off switch ⑳.
- Secure the machine again by moving the saw motor unit ① downwards and pressing the transport lock ㉑ to the left.

■ Switching the laser on and off and adjusting it



Avoiding harm from the laser beam!

The laser beam indicates the cutting line of the saw blade. Align the marks on your workpiece with the track of the laser beam.

Switching on:

- Press the laser On/Off switch ㉒ into position I.

Switching off:

- Press the laser On/Off switch ㉒ into position O.

Adjusting the laser beam:

- Turn the laser setting screw ㉓ to adjust the laser beam.

■ Setting the speed

You can pre-select the speed you require using the rotation speed selector wheel ㉔.

Increasing speed:

- Turn the rotation speed selector wheel ㉔ towards marking 6 or in the + direction (6 = highest speed).

Reducing speed:

- Turn the rotation speed selector wheel ㉔ towards marking 1 or in the – direction (1 = lowest speed).

■ Transporting the machine

- Before you transport the machine always lock the transport restraint by engaging the transport lock ㉕ with the saw motor unit ① lowered. When you carry the machine always hold it by the base.

■ Attaching the laminate cutting attachment and cutting laminate

The patented laminate cutting attachment ⑪ allows you to cut laminate to your required lengths quickly and cleanly. Note that the laminate cutting attachment ⑪ is designed exclusively for laminate and a material width of up to 20 cm. It is suitable for almost all types of commercially available laminate floor coverings.

- Loosen the two stop plate ⑬ setting screws using the supplied 6 mm Allen key (d) and remove the stop plate.
- Insert in its place the laminate cutting attachment ⑪ and screw it to the saw table ⑤.
- Place the laminate flush against the edge of the stop of the laminate cutting attachment ⑪.

■ Mitre cuts – turning the saw table

- Loosen the setting knob for saw table ⑨. Press the mitre angle stop ⑧ and turn the saw table ⑤ using the saw table setting knob ⑨ to the left or right into the desired position. Release the mitre angle stop ⑧ again and tighten the saw table setting knob ⑨.

For use with standard cuts, the mitre angle scale ⑩ has easily engaged fixed stop points for the most common positions, 0°, 15°, 22.5°, 30° and 45°.

■ Inclined cuts – inclining the saw motor unit

With the PKGS 1450 LASER you can make inclined cuts between 90° and 45°.

- Loosen the setting knob ⑭ and using the scale on the saw motor unit ⑳ set the angle for your inclined cut. After you have set the angle and before you make your cut make sure that you tighten the setting knob ⑭ again.

■ Making a combination cut

To make a combination cut you have to incline the saw motor unit ① and turn the saw table (see the sections “Mitre cuts” and “Inclined cuts”).

■ Changing a saw blade

Warning! Always make sure that the mains plug is out of the socket before doing any work on the device. With the saw motor unit lowered, first lock the machine by engaging the transport lock ㉓.

- Always ensure that the saw blades you use are as described in the section “Included items”, comply with EN 847-1 and are properly sharpened. Always use saw blades that have a diameter of 250 mm and blade flanges specified for this saw. Saw blades with hardened metal teeth must have a positive cutting angle.
- Do not use saw blades that have deep hook teeth.
- Do not use saw blades that are recommended for use at less than 4500 revolutions per minute.
- Do not use saw blades that are made from HSS (high-speed steel). Do not use saw blades that are damaged or deformed.
- Do not use spacer pieces or spindle rings in order to allow other sizes of saw blade to be fitted.

Saw blades must be protected during transport to prevent injury.



Wear protective gloves!

- Insert the locking spanner (e) into the outer flange ⑲ and hold it in place.
- Place the wrench/socket spanner (f) into the screw head and release the screw by turning it clockwise. Remove the screw ⑱ and the outer flange ⑲.
- Unlock the device by pulling out the transport lock ㉓ and carefully tilting the saw motor unit ① upwards. Caution - danger of injury! The saw blade may have become loose.
- Unlock the automatic blade guard ④ by pushing the safety lever ③ to the right. Push the automatic blade guard ④ upwards.
- Now you can remove the blade by moving it downwards.

The process for installing a saw blade is the reverse (put on the flange, tighten the screw in the counter-clockwise direction). Always check that you have inserted the saw blade so that it rotates in the correct direction. You will find the direction of rotation marked on the saw blade and the saw motor unit ①.

Saw blade parameters:

Diameter x bore:	250 x 30 mm
Blade width:	1.8 - 2.35 mm
Tooth width:	max. 3.0 - 3.2 mm

■ Tips and tricks

- Never position a curved workpiece in such a way that it curves away from the stop plate ⑲. Any gap between the stop plate and the workpiece would cause the saw blade to be blocked during the cutting process.

You can find further practical tips on electrical tools in the accompanying booklet containing safety advice.

■ Cleaning

■ Maintenance and cleaning

Warning! Always make sure that the mains plug is out of the socket before doing any work on the device.

- When replacement becomes necessary the supplied spare carbon brushes (c) must be installed only by an authorised electrician.
- Clean the sliding roller and the automatic blade guard ④ so that they move freely.
- Do not allow any liquids to enter the machine. Use a cloth or a thin brush to clean the housing. Remove dust/splinters by blowing with compressed air.

■ Disposal



The packaging is made from environmentally-friendly material and can be disposed off at your local recycling plant.



Do not dispose of electrical tools with the household rubbish!

In accordance with European Directive 2002/96/EC about waste electrical and electronic equipment and its transposition into national legislation, worn out electrical tools must be collected separately and taken for environmentally compatible recycling.

Please contact your local council office to find out about disposal facilities for your worn-out electrical tools.

■ Information

■ Service

The service centre for your country is shown in the guarantee documentation.

■ Manufacturers' declaration of conformity C E

We, Kompernaß GmbH, Burgstr. 21, D-44867 Bochum, Germany, declare that this product complies with the following EU directives:

Machinery Directive: (98/37/EC)

EC Low Voltage Directive (2006/95/EEG)

Electromagnetic compatibility: (89/336/EEC)

Applicable harmonised standards:

EN55014-1
 EN55014-2
 EN61000-3-2
 EN61000-3-3
 EN61000-6-1
 EN61000-6-3
 EN61029-1
 EN61029-2-9
 EN60825-1

Description of the product:

Chop and mitre saw PKGS 1450 LASER

Bochum, 31.07.2007

Hans Kompernaß
 - Managing Director -

We reserve the right to make technical modifications in the course of further development.

