# ENERGER





# **SAFETY AND OPERATING MANUAL**

**Original Instructions 7.0** 



Read all safety warnings and all instructions before use. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

#### **GENERAL SAFETY INSTRUCTIONS**



WARNING! Read all safety warnings designated by the symbol and all instructions.

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Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool

# 1) Work area

- a) **Keep work area clean and well lit**. Cluttered and dark areas invite accidents.
- b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- c) Keep Children and bystanders away while operating a power tool. Distractions can cause you to loose control.

# 2) Electrical safety

- a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and mat ching outlets will reduce risk of shock.
- b) Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering the power tool will increase the risk of electric shock.
- d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- e) When using a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

# 3) Personal safety

- a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use safety equipment. Always wear eye protection.** Safety equipm ent such a s d ust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries
- c) Avoid accidental starting. Ensure the switch is in the off-position before plugging in. Carrying power tools with your fingers on the switch or plugging in power tools that have the switch in invites accidents.
- d) Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of a power tool may result in personal injury.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f) Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can get caught in moving parts.
- g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust-related hazards

#### 4) Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it is designed.
- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such prevent ative safety measures reduce the risk of starting power tools accidentally.
- d) Store idle power tools out of reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- f) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and easier to control.
- g) Use the power tool, accessories and tool bits etc. in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation

# 5) Service

Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

#### SPECIAL SAFETY INSTRUCTIONS

- **1.Hold the power tool by insulated gripping surfaces only, because the cutter may contact its own cord.** Cutting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- 2.Use clamps or another practical way to secure and support the workpiece to a stable platform.
- Holding the work by your hand or against the body leaves it unstable and may lead to loss of control.
- 3. Remove the plug from the socket before carrying out any adjustment, servicing or maintenance.
- 4. Fully unwind extension cords to avoid potential overheating.
- 5. When an extension cord is required, please ensure it has the correct ampere rating for the power tool and that it is in a safe electrical condition.
- 6. Ensure the supply voltage is same as rating voltage.
- 7. The tool is double insulated for additional protection against a possible electrical insulation failure within the tool.
- 8. Always check walls and ceilings to avoid hidden power cables and pipes.
- 9. After long working periods, external metal parts and accessories could be hot.
- 10. Wear eye protection when operating this tool.
- 11. Always check the workpiece before operation and remove any obstructions such as nails, staples, screws, string, rags, cloths and other debris. Do not cut into nails, screws or other metal objects.
- 12. Check the position of power cables before commencing work ensuring they are well away from the work area.
- 13. Always use the cutter with correct diameter and in good conditions, tight them securely.
- 14.Do not use accessories which are not specifically designed and recommended by the tool manufacturer.
- 15. The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool. Accessories running faster than their rated speed can break and fly apart.
- 16. Always hold your tools by both hands.



#### **WARNING!**

Some dust created by power cutting and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products,
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

#### **NOISE INFORMATION**

#### Wear hearing protection!

Measured sound values determined according to EN 60745.

The noise figures quoted are emission levels and are not necessarily safe working levels. Whilst there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual level of exposure of work-force include the characteristics of the work room, the other sources of noise, etc. i.e. the number of machines and other adjacent processes, and the length of time for which an operator is exposed to the noise. Also the permissible exposure level can vary from country. This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.

#### **VIBRATION**

The European Physical Agents (Vibration) Directive has been brought in to help reduce hand arm vibration syndrome injuries to power tool users. The directive requires power tool manufacturers and suppliers to provide indicative vibration test results to enable users to make informed decisions as to the period of time a power tool can be used safely on a daily basis and the choice of tool.

Further advice can be found at www.hse.gov.uk

Vibration total values (triax vector sum) determined according to EN 60745:

 $a_h = 4.02 \text{m} / \text{s}^2$ 

Uncertainty  $K = 1.5 \text{ m/s}^2$ 

The declared vibration emission value should be used as a minimum level and should be used with the current guidance on vibration.

The declared vibration emission been measured in accordance with a standardised test stated above and may be used to compare one tool with another tool. The declared vibration emission value may also be used in a preliminary assessment of exposure.



#### **WARNING!**

The vibration emission value during actual use of the power tool can differ from the declared value depending on the ways in which the tool is used dependent on the following examples and other variations on how the tool is used:

How the tool is being used and the materials being cut.

The tool being in good condition and well maintained

The use of the correct accessory for the tool and ensuring it is sharp and in good condition.

The tightness of the grip on the handles.

And the tool is being used as intended by its design and these instructions.

While working with this power tool, hand/arm vibrations occur. Adopt the correct working practices in order to reduce the exposure to vibration.

This tool may cause hand-arm vibration syndrome if its use is not adequately managed.

#### **WARNING!**

Identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).

#### Vibration and noise reduction

To reduce noise and vibration emission, limit the time of operation, use low-vibration and low-noise operating modes as well as wear personal protective equipment.

Take the following points into account to minimize the vibration and noise exposure risks:

- 1. Only use the product as intended by its design and these instructions.
- 2. Ensure that the product is in good condition and well maintained.
- 3. Use correct application tools for the product and ensure they in good condition.
- 4. Keep tight grip on the handles/grip surface.
- 5. Maintain this product in accordance with these instructions and keep it well lubricated (where appropriate).
- 6.Plan your work schedule to spread any high vibration tool use across a number of days.

#### **Emergency**

Familiarise yourself with the use of this product by means of this instruction manual. Memorise the safety directions and follow them to the letter. This will help to prevent risks and hazards.

- 1. Always be alert when using this product, so that you can recognise and handle risks early. Fast intervention can prevent serious injury and damage to property.
- 2. Switch off and disconnect from the power supply if there is any malfunction. Have the product checked by a qualified specialist and repaired, if necessary, before you put it into operation again.

#### **Health Surveillance**

All employees should be part of an employer's health surveillance scheme to help identity any vibration related diseases at an early stage, prevent disease progression and help employees stay in work.

#### Residual risks

Even if you are operating this product in accordance with all the safety requirements, potential risks of injury and damage remain. The following dangers can arise in connection with the structure and design of this product:

- 1. Health defects resulting from vibration emission if the product is being used over long periods of time or not adequately managed and properly maintained.
- 2. Injuries and damage to property due to broken application tools or the sudden impact of hidden objects during use.
- 3. Danger of injury and property damage caused by flying objects.

#### **WARNING!**

This product produces an electromagnetic field during operation! This field may under some circumstances interfere with active or passive medical implants! To reduce the risk of serious or fatal injury, we recommend persons with medical implants to consult their doctor and the medical implant manufacturer before operating this product!

#### Important note

Be sure the supply is the same as the voltage given on the rating plate. Remove the mains plug before carrying out any adjustment or servicing.

#### Intended use

The router is designed for milling wood parts and material derived from wood, milling the edge or in the woods by using difference bits. With the exception of any other material which with risk of ignition, explosion or release of hazardous or dangerous to user and the environment.

# **SYMBOLS**

The symbols shown on the product has great significance for the safe use of the product.



WARNING - To reduce the risk of injury, user must read the instruction manual



Wear eye protection Wear ear protection Wear respiratory protection Wear safety gloves



Double insulation Class II

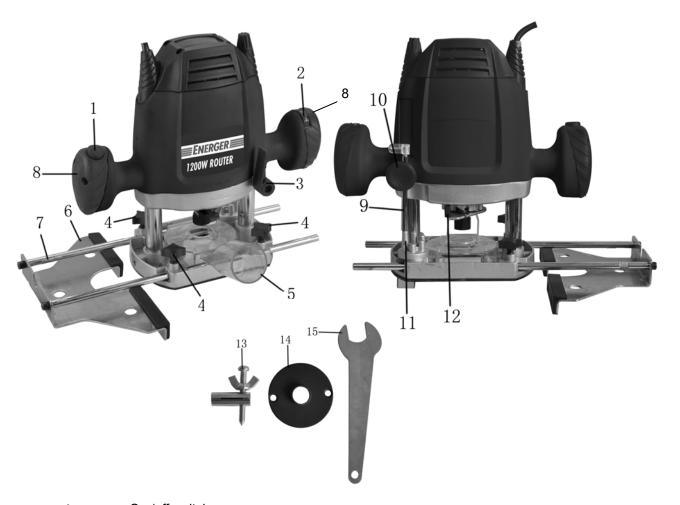


Conforms to all relevant safety standards.

yyWxx Manufacturing date code:

Year of manufacturing (20yy) and week of manufacturing (Wxx);

# **Components and controls**



1	On /off switch
2	Variable speed knob
3	Depth lock lever
4	Guide lock knob
5	Dust extraction adaptor
6	Parallel guide fence
7	Guide fence rods
8	Main handles
9	Depth gauge
10	Depth gauge lock knob
11	Adjustable turret depth stop
12	Spindle lock button
13	Centre pin
14	Template guide
15	Spanner

#### **TECHNICAL DATA**

Model ENB468 ROU Rated voltage 230-240V~50 Hz

Rated power 1200W

No load speed 9000-30000min<sup>-1</sup>
Collet size 1/4 inch / 6.35mm

Plunge depth 50mm Max cutter diameter 32mm

Weight 3.7kg

#### **NOISE DATA**

Sound pressure level:  $L_{PA}$  = 86.5dB (A) uncertainty K= 3dB (A) Sound power level:  $L_{WA}$  = 97.5dB (A) uncertainty K= 3dB (A)

Wear ear protection when sound pressure is over 80 dB(A)

#### **ACCESSOIRES**

The machine comes with the following accessories:

- 1 set Center pin
- 1 set Parallel guide
- 1 pc Template guide 30mm
- 1 pc 1/4 inch / 6.35mm collet
- 1 pc Depth gauge
- 1 pc Vacuum adaptor (using a 35mm tube).
- 1 pc Spanner

#### **BEFORE USE**

Before making assembly, changing and adjustment for any accessory, disconnect the tool from the mains supply to avoid any unintentional starting.

Please always check the mains supply voltage before use! It must correspond with the rating label on the appliance.

Remove any packing material and loose parts from unit.

Check the accessories before use. It should be fit with the machine and your purpose.

Never use any damaged or deformed bit in router.

Check the bit before use. It must be fixed correctly.

#### Router Bit Selection

Depending on processing and application, router bits are available in many different designs and qualities: Router bits made of high-speed steel (HSS) is suitable for the machining of soft materials, e. g. softwood and plastic.

Carbide tipped router bits (TCT) is particularly suitable for hard and abrasive materials, e. g. hard wood and aluminum.

#### Warning!

Use only routing tools with an allowable speed matching at least the highest no load speed of the machine. The shank diameter of the router bit must correspond with the rated diameter of the collet.

#### **ASSEMBLY INSTRUCTIONS**



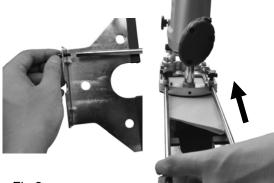


Fig.2 Fig.3





Fig.5



Fig.6

#### 1. Assembly of the Parallel Guide Fence

- 1.Remove the two hex screws from the end of the guide fence rods by rotating them anticlockwise.(Fig.1)
- 2. Fix the two guide fence rods onto the parallel guide fence by inserting the hex screws through the holes in the guide fence.(Fig.2)
- 3. Tighten the two hex screws by rotating them clockwise.

To install the parallel guide fence to the machine, just push the rod through the hole in the machine and then tighten the guide lock knob on the base.(Fig.3)

Release the guide lock knob, adjust the fence in your desired position and then tighten the knob.(Fig.4)

#### 2 Assembly of the center pin

- 1. Inserting the end of the parallel guide rod that without the hex screw through the hole in the center pin.
- 2. Secure by tightening the wing nut clockwise (Fig.5)

#### 3. Installing and Removing bit (Fig.6)

**CAUTION**: Always ensure that the router is switched off and unplugged from the mains supply before installing or removing router bits. It is recommended to wear protective gloves when inserting or replacing router bits.

- 1. The router is fitted with a 1/4 inch/ 6.35mm collet. Ensure the collet size is suitable for router bit shaft diameter.
- 2. Press spindle lock button and keep depressed. If required, turn the spindle by hand until the lock engages.
- 3. Loosen the collet nut by rotating it anti clockwise using the spanner provided.
- 4. Insert router bit. The shank of the router bit must be inserted at least 20 mm (shank length).
- 5. Tighten the collet nut with the spanner provided. Release the spindle lock button.

#### **CAUTION!**

Ensure the bit is firmly secured before commencing operation.

#### Warning!

Do not tighten the collet nut without a bit in place .ltmay break the collet.

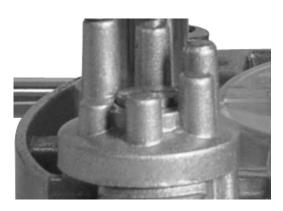


Fig.7

#### 5. Adjusting the Cutting Depth (Fig.7)

CAUTION: Always ensure that the router is switched off and unplugged from the mains supply before adjusting the cutting depth.

Depending on the cutting operation, the cutting depth can be preset in several steps.

The adjustment of the cutting depth may only be carried out when the router is switched off.

- 1. Place the router on the work-piece to be machined.
- 2. Turn the adjustable turret depth stop to the lowest position;
- 3. Loosen depth gauge lock knob, so that depth gauge can be moved freely.
- 4. Release the depth lock lever by turning and slowly lower the router until the router

bit touches the surface of the workpiece.

- 5. Lock the router in position by turning the depth lock.
- 6. Press depth gauge downwards until it touches the adjustable turret depth stop.
- 7. Adjust the depth gauge to the required routing depth and tighten the Depth gauge lock knob.
- 8. Release the depth lock lever and guide the router back up again.

The coarse adjustment of the cutting depth should be checked by a trial cut and corrected, if necessary.

#### **OPERATING INSTRUCTIONS**

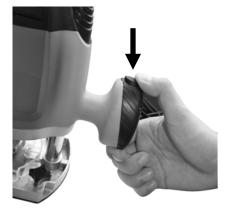


Fig.8





Fig.9

#### 1.On/Off switch(Fig.8)

To start cutting, simply press down the router until the depth gauge touches the adjustable turret depth stop. And then turning the depth lock lever to lock the cutting depth.

Use the On/Off switch to start the machine and keep holding it for continuous operation.

The machine can only be used by depressing the on /off switch continuously, preventing any unintentional operation.

To switch the machine off, release the On/Off switch.

## **CAUTION!**

Always hold the machine by both hands.

Never start the router with the bit in contact with the workpiece. Start cutting only after the motor reached its full speed.

Always carry out a test run before starting work and after every tool change! Always ensure that the tools are in good condition, correctly mounted and able to turn freely. The trial run should be at last 30 sec.

#### 2. Speed control (Fig.9)

The machine is equipped with a variable speed. Is located in the left of the machine, depending on what direction the router is facing, for convenient speed adjustment and improved safety. The speed can be adjusted by turning the control knob left or right of the machine.

Turn the variable speed knob to a higher number, or MAX for faster speed to increase speed. Turn it to a lower number, or MIN to reduce speed.

Use the fastest speed for cutting the material quickly. Use a low speed to reduce the rate of removal of material and increase the accuracy of finishing.

#### **CAUTION!**

Never adjust the working speed during working! Adjust the variable speed knob to suit different working materials. The tool cuts quicker and smoother at varying speeds when working in different timber materials or in plastic. Determine the optimum speed by making a trial cut in a scrap piece of material.

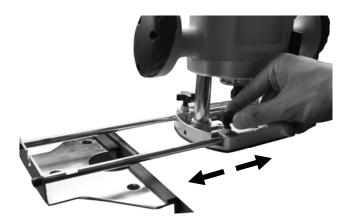


Fig.10



Fig.11

#### 3. Adjustable turret depth stop

The cutting depth can be adjusted by turret depth stop from 0-14mm.

To set the cutting depth, rotate this device to the required setting.

It is calibrated in 2.3mm per step/total 6 steps.

For deep cuts, it is recommended to carry out several cuts, each with less material removal. By using the adjustable turret depth stop, the cutting process can be divided into several steps. Set the adjustable turret depth stop in the lowest position, afterwards, the higher steps can be used for the last two cuts.

Pre-adjustment of varying cutting depth

If several different cutting depth are required for the machining of a work-piece, these can also be preset by using this device.

#### 4. Using the Parallel Guide Fence (Fig.10)

The parallel guide fence is an effective aid to cutting in a straight line when chamfering or grooving. To set the cutting width, Install the guide to the machine rotate the knob on the machine to the required width and then lock the guide.

**Note:** If the distance between the side of the work piece and the cutting position is too wide, or the side of the work piece is not straight, firmly clamp a straight board to the work piece and use this as a guide against the flat of the router base.

#### 5. Using the Dust Extraction Adaptor (Fig.11)

The dust will be collected by the dust suction function during use.

To assemble the dust tube adapter, please follow below steps:

- 1. Assemble dust extraction adapter onto the base plate with screws provided.
- 2. Connect the vacuum cleaner (using a 35mm tube) to the dust extraction port with adaptor provided. The dust will be collected by the vacuum.



Fig.12



Fig.13

#### 6. Using the Template Guide (Fig.12)

The template guide enables template and pattern routing on work-pieces.

Place the template guide over the hole in the centre of the base plate, and fasten it with the screws provided.

#### **CAUTION!**

These screws also hold the dust extraction adaptor in place. The dust extraction adaptor is located below the template guide.

#### WRNING!

Choose a router bit with a smaller diameter than the inner diameter of the template guide.

Set the router with template guide against the template.

- 1. Release the depth lock lever by turning and slowly put down the router toward the work-piece.
- 2. Guide router with projecting template guide along the template, applying light pressure.

#### CAUTION!

Please always measure the depth of template before cutting. The projecting height of the template guide must be put into template completely.

#### 7. Using the Centre pin (Fig.13)

- 1. To use the centre pin, insert one guide fence rod with the centre pin attached into the holes, either side of the base plate of the router.
- 2. Secure the guide fence rod to the router at the required length be rotating the parallel guide locking knob clockwise.

#### **TERMS OF USE**

When all precautions have been taken and the previous operations were done, you can start working. Always start the router before router bit contacts with the workpiece and stop it completely before put it down. Always secure the workpiece.

The stress on the machine should not be such that the speed is reduced by more than 25% for significant periods.

When overloaded happened, run the machine empty for 3 to 5 minutes to cool the engine.

#### **CARE AND MAINTENANCE**

Keep the ventilation openings clear and clean the product regularly. This machine requires no special mechanical maintenance such as greasing the bearings.

If something unusual occurs during use, switch off the supply and disconnect the plug. Inspect and repair the tool before using it again. The repairs must be carried out by a qualified technician.

# Repair of the tool must only be carried out by a qualified repair technician.

Repair or maintenance by unqualified personnel can lead to a risk of injury.

Use only identical spare parts for repairing a tool.

#### Caution!

If the supply cord of this power tool is damaged, it must be replaced by a specially prepared cord available through the service organization.

#### Care and cleaning

Cleaning of plastic parts is disconnected machines, using a soft damp cloth and a mild soap.

Never immerse the machine and do not use detergent, alcohol, petrol, etc..

In case of problems or for a deep cleaning, consult the manufacturer, its service agent or a similarly qualified person to avoid a hazard.

#### **STORING**

Store the machine, operating instructions and where necessary the accessories in the original packaging. In this way you will always have all the information and parts ready to hand.

Pack the device well or use the original packaging in order to avoid transit damage.

Always keep the machine in dry place.

#### **GUARANTEE**

This ENERGER product carries a guarantee of 12 months.

If your product develops a fault within this period, you should, in the first instance contact the retailer where the item was purchased.

This guarantee specifically excludes losses caused due to:

- Fair wear and tear
- Misuse or abuse
- Lack of routine maintenance
- Failure of consumable items
- Accidental damage
- Cosmetic damage
- Failure to follow manufacturer's guidelines
- Loss of use of the goods This guarantee does not affect your statutory rights.

This guarantee is only valid in the UK. For any enquiries relating to the guarantee please refer to your retailer.

## **ENVIRONMENTAL PROTECTION**



This product is marked with the selective sorting symbol on waste electrical and electronic equipment. This means that this product should not be disposed of with household waste but must be supported by a collection system in accordance with Directive 2002/96/EC. It will then be recycled or dismantled to minimize impacts on the environment, electrical and electronic products are potentially hazardous to the environment and human health due to the presence of hazardous substances.

# PLUG REPLACEMENT (UK & IRELAND ONLY)

If you need to replace the fitted plug then follow the instructions below.

#### **IMPORTANT**

The wires in the mains lead are colored in accordance with the following code:

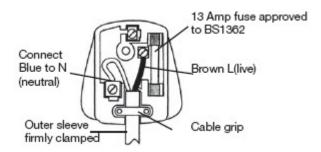
BLUE =NEUTRAL Brown = Live

As the colors of the wires in the mains lead of this appliance may not correspond with the colored markings identifying the terminals in your plug, proceed as follows. The wire which is colored blue must be connected to the terminal which is marked with N. The wire which is colored brown must be connected to the terminal which is marked with L.

## Warning:

Never connect live or neutral wires to the earth terminal of the plug. Only fit an approved 13AMP BS1363/A plug and the correct rated fuse.

**Note:** If a moulded plug is fitted and has to be removed take great care in disposing of the plug and severed cable, it must be destroyed to prevent engaging into a socket.





# **Declaration of Conformity**

We, Importer
Powersmith (UK) LTD.
Trade house, Mead Avenue, BA22 8RT

Declare that the product:

Designation: ROUTER 1200W

Model: ENB468ROU

Complies with the following Directives:

2004/108/EC Electromagnetic Compatibility Directive

2006/42/EC Machinery Directive

2006/95/EC Low Voltage Directive

2011/65/EU Restrictions of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment

2002/96/EC and 2003/108/EC Waste Electrical and Electronic Equipment

(WEEE)

Standards and technical specifications referred to:

EN 55014-1 EN 55014-2 EN 61000-3-2 EN 61000-3-3 EN60745-1 EN60745-2-17

Authorised Signatory and technical file holder

Date: 07/09/2012

Signature: P.C. Hand

CE

Name / title: Peter Harries / Quality Manager

Powersmith (UK) LTD. Trade House, Mead Avenue, BA22 8RT