

FLEXI SHARP

Portek^{LTD}
www.portek.co.uk



Read and fully understand the instructions before operating the Portek Flexisharp

**Li-ion Battery Powered
Chainsaw Sharpener**



portek.co.uk

Operators Handbook

Before you start

READ AND UNDERSTAND THIS MANUAL FULLY BEFORE OPERATING THE FLEXISHARP



This user manual accompanies this chainsaw Sharpener and contains important information on setup and handling.

Before using the equipment, read the user manual carefully. This particularly applies to the safety notes. Failure to do so may result in personal injury or damage to the equipment.

Store the user manual for further use.

This graphic accompanied by the words **WARNING** and **DANGER** highlights an act or a condition which can lead to **SERIOUS INJURY**



ALWAYS WEAR EYE PROTECTION.

Residual risks

This machine is only designed for sharpening chainsaws. Before commissioning, the device must be fixed to a workbench or another similar surface. Use the chain - saw sharpener only if you fully understand all the functions and can perform without restrictions or have received appropriate instructions. Respect technical data and safety precautions.

Do not use this product in any other way as stated for normal use. Not observing general regulations in force and instructions from this manual does not make the manufacturer liable for damages.

Please note that our equipment has not been designed for commercial, trade or industrial use. If the equipment is used in commercial, trade or industrial operation or for similar activities, we cannot assume any liability.

Specifications, descriptions and illustrative material in this manual are as accurate as known at the time of publication, but are subject to change without notice. Illustrations may include optional equipment and accessories, and may not include all standard equipment.

ALWAYS WEAR SAFETY CLOTHING IN CONJUNCTION WITH HAND, EYE, HEARING AND FOOT PROTECTION TO HSE/EN SPECIFICATIONS



Important safety information

Residual risks

Even when the device is used properly and all safety regulations are complied with, there still may be some residual risks.

- Noise emissions
- Dust emissions
- Vibrations to hand and arms
- Danger of burns
- Tool and workpiece heat up during operation.
- Risk of injury
- Sharp tools and workpiece edges

Symbols



Denotes risk of personal injury or damage to the tool.



Read instruction manual before use.



Wear eye protection.



Do not use the appliance in the rain or in wet places.



Danger! Do not touch the grinding wheel



Children shall not play with the appliance.



Information of the acoustic power level.



Dispose appliances according to the regulation and requirement of local council.



Do not dispose of batteries in household waste, fire (risk of explosion) or water. Damaged batteries may damage the environment and your health if toxic fumes or liquids leak out.

Dispose of batteries in discharged condition.

Dispose of batteries in accordance with the local regulations. Take batteries to an old battery collection point where they will be recycled in an environmentally friendly manner.

Flexisharp



1. Chain stopper
2. Chain stopper setting screw
3. Scale for setting grinding angle
4. Locking screw for grinding angle setting
5. Chain carrier
6. Chain setting wheel
7. Setting screw for limiting depth
8. Grinding wheel
9. On/Off switch
10. LED working light
11. Battery
12. Charger
13. Grinding wheel cover
14. Grinding wheel shield



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General Safety Information



Read all safety warnings. Failure to follow the warnings may result in serious injury or even death.

1. Keep children and bystanders away while operating a power tool. Distractions cause a loss of control.
2. Check for signs of wear or damage, before using the tool and after any impact, and repair as necessary.
3. The tool is designed for use by adults. Young people over 16 years may use the tool under supervision only.
4. The manufacturer is not liable for damage which is caused through inappropriate use or incorrect operation.

1. Work area safety

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- 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.

2. Electrical safety

- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the charger cord. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- The use of a RCD (residual current device) with a rated residual current of 30 mA or less is advised for additional safety when using the charging unit.



3. Personal Safety

- 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.



WARNING! Wear ear protectors. Exposure to noise can cause hearing loss.

WARNING! Use protective equipment. Always wear safety glasses when working with the machine.

- The use of protective clothing is recommended, such as dust mask, protective gloves, sturdy non-slip footwear, helmet and ear defenders. Wear a hairnet if you have long hair. It is recommended to wear gloves, sturdy non slipping shoes and apron.
- Prevent unintentional starting. Ensure the switch is in the off- before connecting to battery pack, picking up, adjusting or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- Never reach into the danger area of the machine when it is running. Chips and splinters must not be removed while the machine is running.



WARNING! Always allow the cut-off wheel to come to a stop

4. 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.



Safety Warnings for Chainsaw Sharpener

- 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 was designed.

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.

- 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 preventive safety measures reduce the risk of starting the power tool accidentally.
- **WARNING!** The adjusting nut must be tightened before starting to work with the machine.
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- **WARNING!** Always use the protective shields on the machine. Do not remove the transparent front guard. If the transparent front guard is damaged or missing, re-turn tool to authorized service station for replacement.
- Do not use a damaged grinding wheel. Before each use inspect the wheel for chips and cracks or excess wear. The grinding wheel must be properly mounted and turn freely. Perform a test run for at least 30 seconds without load. Do not use damaged, out of round or vibrating grinding wheels.
- Immediately switch off the machine in case of considerable vibrations or if other malfunctions occur. Check the machine in order to find out the cause.
- The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.



Safety Warnings for Battery

- Charge a rechargeable battery unit using only the charger supplied by the manufacturer. There is the danger of fire if other types of rechargeable battery units are used.
- When they are not being used, store rechargeable battery units away from paperclips, coins, keys, nails, screws or other small metal objects that could cause the contacts to be bridged. Short circuiting the contacts of a rechargeable battery unit may result in heat damage or fire.

Fluids may leak out of rechargeable battery units if they are misused. If this happens, avoid contact with the fluid. If contact occurs, flush the affected area with water. Seek additional medical help if any of the fluid gets into your eyes. Escaping battery fluid may cause skin irritation or burns.

- The battery pack supplied with your cordless tool is not charged. The battery pack has to be charged before you use the tool for the first time.
- For optimum battery performance avoid low discharge cycles. Charge the battery pack frequently.
- Store the battery pack in a cool place, ideally at 15°C. The battery must be charged for storage until the second led is lit. Charging needs to be done when the light gets down to 1 led.



Store battery with at least 2 leds lit



Safety Warnings for Battery

- Lithium-ion batteries are subject to a natural ageing process. The battery pack must be replaced at the latest when its capacity falls to just 80% of its capacity when new. Weakened cells in an aged battery pack are no longer capable of meeting the high power requirements and therefore pose a safety risk.
- Do not throw battery packs into an open fire. There is a risk of explosion!
- Do not ignite the battery pack or expose it to fire.
- Do not exhaustively discharge batteries. Exhaustive discharge will damage the battery cells. The most common cause of exhaustive discharge is lengthy storage or non-use of partly discharged batteries. Stop working as soon as the performance of the battery falls noticeably or the electronic protection system triggers. Place the battery pack in storage only after it has been fully charged.
- Protect batteries and the tool from overloads. Overloads will quickly result in overheating and cell damage inside the battery housing without this overheating actually being apparent externally. Avoid damage and shocks. Replace batteries which have been dropped from a height of more than one metre or which have been exposed to violent shocks without delay, even if the housing of the battery pack appears to be undamaged. The battery cells inside the battery may have suffered serious damage. In this respect, please also read the waste disposal information.
- If the battery pack suffers overloading and overheating, the integrated protective cut-off will switch off the equipment for safety reasons. Important. Do not press the ON/OFF switch any more if the protective cut-off has actuated. This may damage the battery pack.
- Use only original battery packs. The use of other batteries may result in injuries, explosion and a fire risk.



Safety instructions for charge and charging process

- Please check the data marked on the rating plate of the battery charger. Be sure to connect the battery charger to a power supply with the voltage marked on the rating plate. Never connect it to a different mains voltage.
- Protect the battery charger and its cable from damage and sharp edges. Have damaged cables repaired without delay by a qualified electrician.
- Do not use damaged battery chargers.
- In heavy use the battery pack will become warm. Allow the battery pack to cool to room temperature before commencing with the charging.
- Do not over-charge batteries. Do not exceed the maximum charging times. These charging times only apply to discharged batteries. Frequent insertion of a charged or partly charged battery pack will result in over-charging and cell damage. Do not leave batteries in the charger for days on end.
- Never use or charge batteries if you suspect that the last time they were charged was more than 12 months previously. There is a high probability that the battery pack has already suffered dangerous damage (exhaustive discharge).
- Charging batteries at a temperature below 10°C will cause chemical damage to the cell and may cause a fire.
- Do not use batteries which have heated during the charging process, as the battery cells may have suffered dangerous damage.
- Do not use batteries which have suffered curvature or deformation during the charging process or which show other non-typical symptoms (gassing, hissing, cracking...).
- Never fully discharge the battery pack (recommended depth of discharge max. 80%)
A complete discharge of the battery pack will lead to premature ageing of the battery cells.

12 Charging the Battery

Identify all the parts packaged in the carton against the parts list. Remove all protective materials and place parts on a non-abrasive surface to avoid scratching. Please contact your dealer if anything is missing. Improper handling or assembly may result in damage to the chainsaw sharpener or serious injury through faulty assembly.

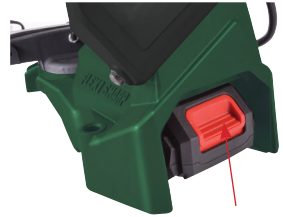
Assemble the chainsaw sharpener on a stable, non-abrasive surface such as worktable to avoid damaging the item.

Charging the battery pack

The battery is protected from exhaustive discharge. An integrated protective circuit automatically switches off the equipment when the battery is flat.

Warning! Do not actuate the On/Off switch any more if the protective circuit has tripped. This may damage the battery.

1. Remove the battery pack from the equipment, pressing the pushlock button downwards to do so.
2. Check that your mains voltage is the same as that marked on the rating plate of the battery charger. To ensure that the battery pack provides long service you should take care to recharge it promptly.



Battery release

You must recharge the battery pack when you notice that the power of the chain sharpener drops. You can additionally see the level of charge by looking at the battery.



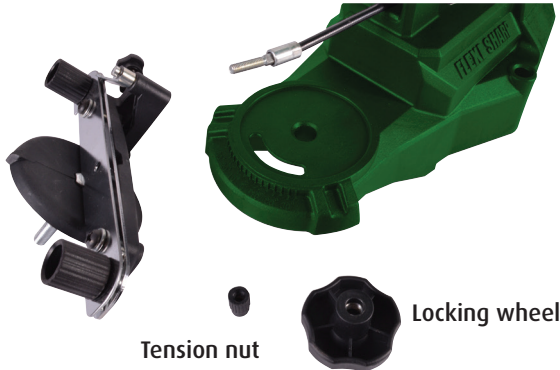
Press button for battery charging condition

It has a battery check function activated by pressing as shown in picture below. Three led advises power level. It is advised to recharge the battery when it reaches 1 led only. Never fully discharge the battery pack. Never fully discharge the battery pack by leaving a used battery for extended time without a small amount of charging. This may cause the battery pack to develop a defect. Always store with 1 or 2 led's worth of charge for optimum life of battery.

The Flexisharp is supplied partly assembled, please assemble the machine as follows:

1. Remove the large locking wheel from the chain guide assembly and place the bolt end through the hole in the unit base. Replace the locking wheel on to the bolt and adjust to the required angle before fully tightening. When installing the Flexisharp on to a work bench, make sure that the locking screw is easily accessible.

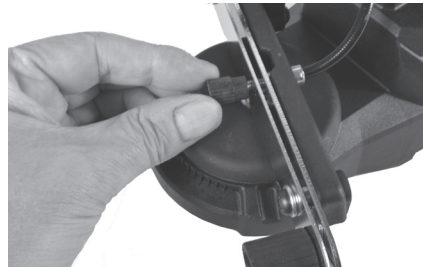
Chain clamp assembly



Tension nut

Locking wheel

2. Remove the plastic tension nut from the end of the tension cable. Pull the cable through the chain guide clamping piece and replace the plastic tension nut.



Work Surface Mounting

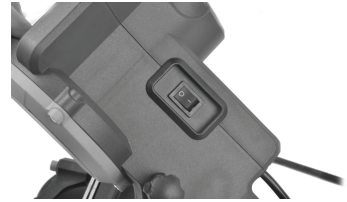
3. Place the unit base on to a solid, level work surface. Ensure the base extends out far enough over the edge so that the chain can hang freely and you have easy access to the vice angle adjustment screw underneath. Mount the base to the work surface through the two 9mm (1/4") mounting holes (bolts not included).
4. The Flexisharp is assembled and ready for use. The pre-installed grinding wheel is for universal use. To replace a grinding wheel see "Grinding Wheel Replacement" section

Operation

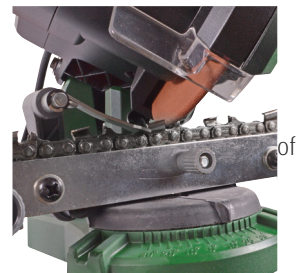


WARNING: Before installing the battery, make sure the machine is switched '**OFF**' to avoid unintended starting.

1. Clean the chain before sharpening. Inspect the chain for the most worn-out cutter tooth and start sharpening with this tooth. The most worn-out tooth is important in order to sharpen all other teeth to the same depth!
2. Lift up the chain stop, position the chain and secure the chain between the clamping piece of the chain guide assembly. Fold down the chain stop and pull back the first cutter tooth against the chain stop. Make sure the chain is between both guide boards so that the chain can not tilt to the side.
3. Check the necessary filing angle according to the specifications for the chain. Adjust the filing angle on the chain guide assembly to 25° - 30° or to the required angle and tighten the locking screw.
4. Lower the motor housing so that the grinding wheel skims the chain tooth. Hold it in this position while you tighten the screw so that the grinding wheel will only go down to that point, fix this position with the locking screw.
5. Switch 'ON' the Flexisharp by pressing firmly. Use the handle to bring the grinding wheel down towards the chain tooth. As you bring down the motor housing the tension cable will automatically clamp the chain between the metal chain boards.
6. After sharpening one tooth, turn off the machine. Lift the motor housing, to release the clamp boards, and move the chain so that the next link is positioned against the chain stop. Mark the first cutter tooth with chalk, then sharpen every second tooth in one direction. Repeat this process until you have sharpened all of the links set up for this angle.
7. Change the cutting angle to 30° or to the required angle the opposite direction of the remaining chain cutter teeth.



ON/OFF switch



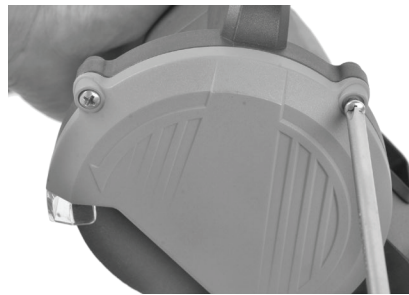
To avoid malfunction, damage or injury always use a suitable grinding wheel that is in good condition. Do not use a grinding wheel that is chipped, cracked, or worn. You can check if the wheel has cracks not visible to the human eye by hanging it up by the central hole and tapping it with a non-metal object (ie: screwdriver handle). If it is in good condition it will produce a metallic sound. A dull sound indicates a crack or break. Make sure before carrying out any work on the Flexisharp that the battery is removed.

Replacement Portek Grinding Wheels are available:

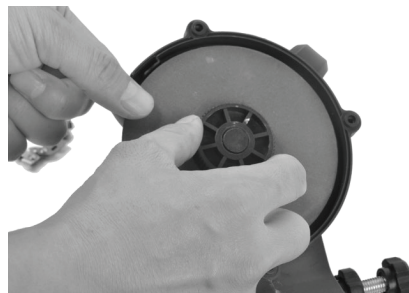
4.5mm thick wheel part number 092/01 and 3.2mm thick wheel part number 092/02

Changing the Grinding Wheel

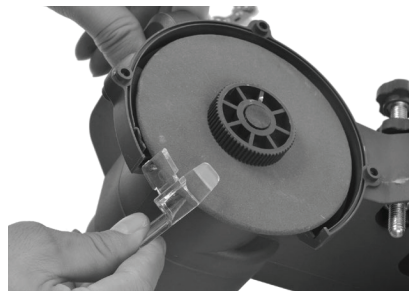
1. Switch off the machine and remove battery.
2. Remove the grinding wheel protective cover by unscrewing the 3 retaining screws.
3. Hold the grinding wheel firmly with one hand and loosen the locking nut.
4. Remove the old grinding wheel and replace with a new one. Tighten the fixing nut but do not over tighten - over tightening may cause the wheel to crack or break. Only use grinding wheels with an outer diameter of 108mm and inner diameter of 23mm. The grinding speed of replacement grinding wheel must meet or exceed the RPM rating of the machine.
5. Remount the grinding wheel protective cover onto the machine. Never operate the Flexisharp without the grinding wheel cover in place. Keep away from the wheel when it is turning, and make sure no one is standing close, in the line of the wheel rotation trajectory. If the grinding wheel vibrates on start up, turn off the machine immediately and check that the grinding wheel is mounted securely!
- 6 Never try to stop the grinding wheel with your hands, even if you are wearing safety gloves. The grinding wheel will cut through gloves and your hand, causing serious injury. Replace the grinding wheel when it grinds down to a diameter of 95mm.



Remove cover



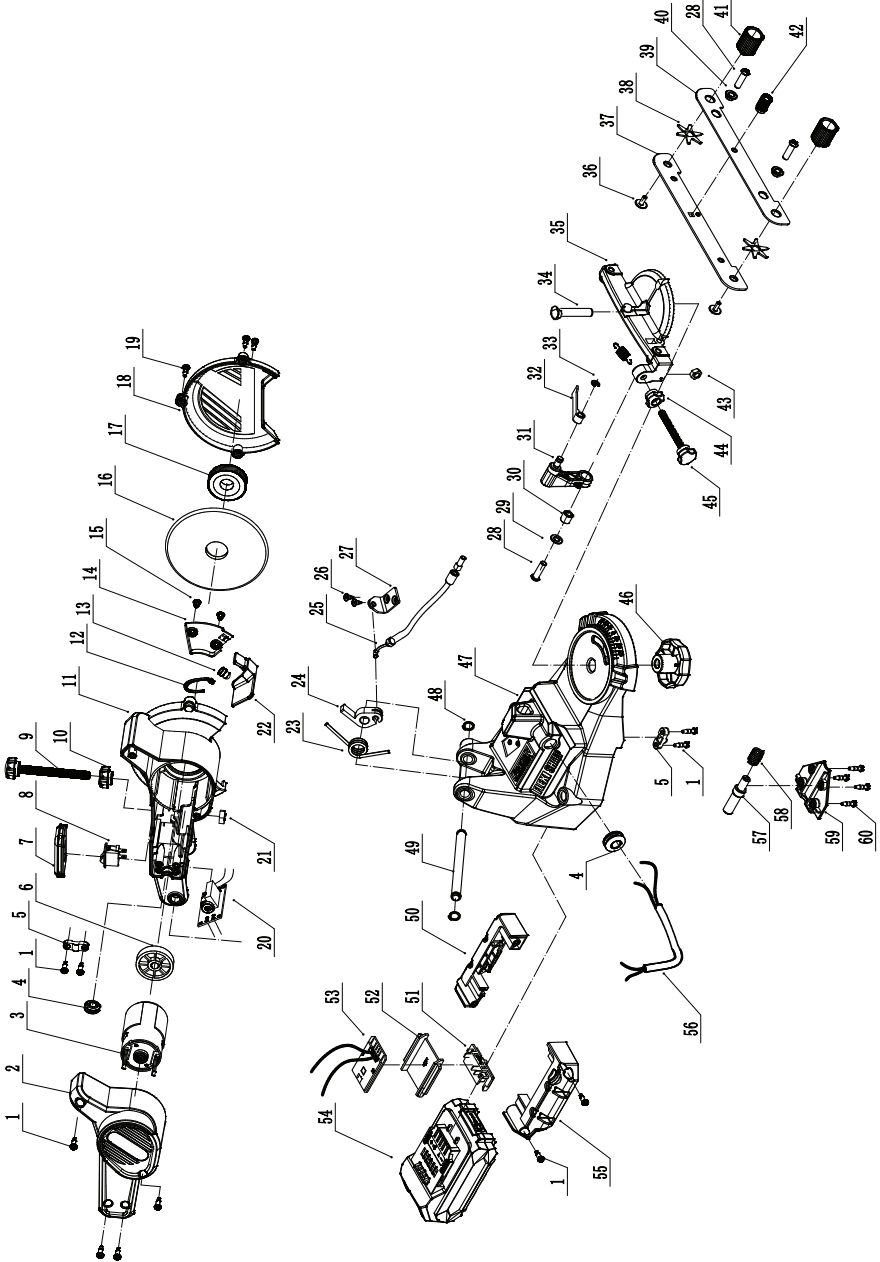
Release wheel by loosening locking nut



Replace with new wheel and ensure protective shield is in place.

Parts List

PART NO.	DESCRIPTION	QTY	PART NO.	DESCRIPTION	QTY
1	Screw ST4.2 × 14	10	31	Swing Arm	1
2	Motor cover	1	32	Chain Stop	1
3	Motor	1	33	Washer 4	1
4	Power cord	2	34	Screw M8 x45	1
5	Cord Pressing Plate	2	35	Chain Saw Frame	1
6	Grinding Wheel Base	1	36	Screw ST4.8×10	2
7	Switch Plate	1	37	Inner Clamping Piece	1
8	Switch	1	38	Chain Wheel	2
9	Screw	1	39	Outer Clamping Piece	1
10	Nut	1	40	Pad	2
11	Housing	1	41	Transmission Shaft	2
12	LED Light	1	42	Nut M5	1
13	LED Cover	1	43	Nut	1
14	LED Clamp	1	44	Nut M6	1
15	Screw ST4.2 × 8	2	45	Screw M6	1
16	Grinding Wheel	1	46	Nut	1
17	Grinding Lock Cap	1	47	Base	1
18	Grinding Wheel Cover	1	48	Washer 9	2
19	Screw ST4.2 × 14	3	49	Pivot Pin 9	1
20	PCB	1	50	Right Battery Pack Interface	1
21	Nut M8	1	51	Contact Stand	1
22	Gauge Cover	1	52	Baffle	1
23	Torsion Spring	1	53	Discharge Protection Plate	1
24	Pull Rod	1	54	Battery Pack	1
25	Cable	1	55	Left Battery Pack Interface	1
26	Screw ST4.2 × 12	2	56	Cable	1
27	Baffle	1	57	Chain Stop	1
28	Screw ST5.5 × 20	3	58	Spring	1
29	Wash	1	59	Clamp	1
30	Steel Bushing	1	60	Screw ST4.2 × 12	4



Technical data

Battery voltage	20 V
Input power:	50W
No-load speed	6500 min ⁻¹
Grinding disk diameter	108 mm
Grinding disk thickness max.	3.2 mm
hole diameter	23 mm
Weight without battery/Charging equipment	1.7 kg
Sound pressure level L _{pA}	54.1 dB (A)
Sound power level L _{WA}	67.1 dB (A)
Uncertainty	K = 3 dB (A)

The sound levels have been determined in accordance with noise measuring process



Main Unit

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.



Li-ion

Li-ion Battery

Do not dispose of batteries in household waste, fire (risk of explosion) or water. Damaged batteries may damage the environment and your health if toxic fumes or liquids leak out. Dispose of batteries in discharged condition. Dispose of batteries in accordance with the local regulations. Take batteries to an old battery collection point where they will be recycled in an environmentally friendly manner.

PROBLEM	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
LED light isn't bright, machine cannot work	1.Battery not charged 2.Battery pack not installed properly 3.Switch damaged	1.Charge the battery 2.Remove and insert the battery pack again 3.Replace with new switch
LED light is bright, machine cannot work	1.Connection terminal loose 2.Motor damaged	1.Replace the connection terminal 2.Replace a new motor
LED light isn't bright machine is working	1.Connection terminal loose 2.Motor damaged	1.Replace the terminal connection 2.Replace a new motor
Machine shaking	1.Wheel shaking or damaged 2.Wheel nut loose or slipping	1.Replace the wheel 2.Replace the nut

Declaration of Conformity

EC Declaration of Conformity

Portek Ltd, Bryn Hall, Knolton Bryn, Overton on Dee, Wrexham, LL13 0LF
declare that the machinery named below conforms to the requirements of
EC Council Machinery Directive, Annex II

Designation of Machinery: Portek Chainsaw Sharpener

Relevant EC Council Directives:
2006/42/EC (Machinery Directive)
2014/30/EU (Electromagnetic Compatibility Directive)

Applied Harmonised Standards:
BS EN ISO 12100:2010
BS EN 62841-3-4:2016

The unit complies with all applicable Essential Requirements of the Directives.

Signature of Manufacturer's Representative:



Declaration made by Steve Morris
Design Engineer on 02/07/2018.



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