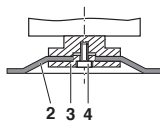
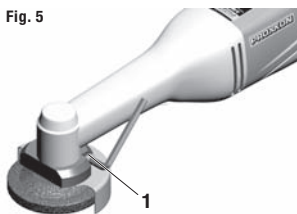
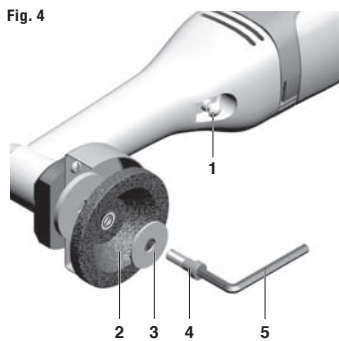
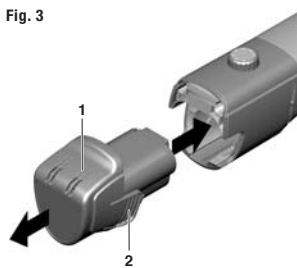
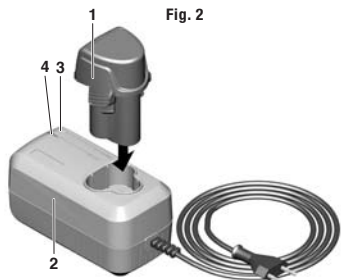
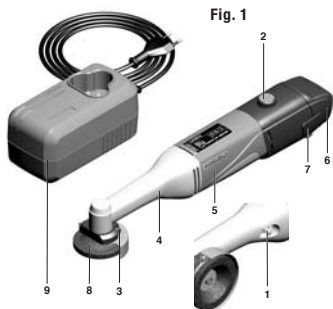


# PROXXON

## LHW/A



## Manual





## Translation of the Original Operating Instructions Battery-powered long-neck angle grinder LHW/A

Dear customer!

*Always keep these operating instructions and the enclosed safety guidelines within reach.*

*Only use this device with exact knowledge of it and comply with the instructions and safety guidelines!*

*This is necessary to ensure safe operation and, secondly, it facilitates familiarisation with the device and its functions.*

*Proxxon assumes no liability for the safe function of the device in the case of:*

- handling that does not comply with normal intended use,
- use for other purposes not mentioned in the manual,
- incorrectly executed repairs,
- failure to heed safety instructions,
- external effects for which the manufacturer is not responsible.

*We recommend using PROXXON original spare parts for all repair and maintenance work. Repairs should only be performed by qualified skilled personnel!*

*Please note: All information contained in these operating instructions - especially the technical data - corresponds to the status at the time of printing.*

*We reserve the right to make further developments in the interest of technical progress. We wish you every success with the device.*

### **WARNING!**

**Read all safety warnings and instructions.** Failure to follow all safety warnings and instructions listed below may result in electric shock, fire and/or serious injury.



## **KEEP ALL SAFETY WARNINGS AND INSTRUCTIONS FOR THE FUTURE !**

### **Safety guidelines for all operations**

- a.) This power tool can be used as grinder, sander and abrasive cutting-off tool. Please observe all safety guidelines, instructions, illustrations and data provided with the device.** Failure to follow instructions listed below may result in electric shock, fire and/or serious injuries.
- b.) This power tool is not suitable for working with wire brushes and polishing.** Uses for which the power tool is not intended can cause hazards and injuries.
- c.) Do not use accessories which are not designed or recommended by the manufacturer specifically for this power tool.** Just because the accessory can be attached to your power tool does not assure safe use.
- d.) The rated speed of the bits and cutters must be at least equal to the maximum speed specified on the power tool.** Accessories that turn faster than their rated speed can break and fly apart.
- e.) The outside diameter and thickness of the bits and cutters must be within the capacity rating of your power tool.** Incorrectly sized bits and cutters cannot be adequately guarded or controlled.
- f.) The arbour size of discs, flanges, grinding discs or other accessories must properly fit the grinding spindle of your power tool.** Bits and cutters that do not fit the grinding spindle of the power tool properly will turn unevenly, vibrate very strongly and cause loss of control.
- g.) Do not use damaged bits and cutters. Before each use, inspect bits and cutters such as sanding discs for chips and cracks, grinding discs for cracks, strong**

wear or tear, wire brushes for loose or broken wires. If the power tool or bits and cutters are dropped, check for damage or install undamaged bits and cutters. After you have inspected and installed the bits and cutters, keep yourself and any other persons in the vicinity away from the plane of the rotating bits and cutters and run the device at maximum rotational speed for one minute. Damaged bits and cutters usually break during this test time.

**h.) Wear protective equipment. Depending on the application, use full face protection, eye protection or protective goggles. If appropriate, wear a dust mask, hearing protection, protective gloves or a special apron capable of stopping small abrasive and material particles.** The eyes are to be protected from flying debris generated during various operations. Dust masks or respirators must filter the dust generated during the operation. If you are exposed to loud noise for a long time, you may suffer hearing loss.

**i.) Keep other people at a safe distance away from your work area. Anyone who enters the working area must wear personal protective equipment.** Fragments of the work piece or broken bits and cutters can fly away and cause injuries even beyond the immediate area of work.

**j.) Hold the device only by its insulated grip surfaces if you perform work where the bits and cutters could contact hidden power cables or your own mains cable.** Contact with a live cable can energize metal device parts and cause electric shock.

**k.) Keep the mains cable away from rotating bits and cutters.** If you lose control of the device, the mains cable could be cut or snagged, and your hand or your arm could get pulled into the rotating bits and cutters.

**l.) Never set down the power tool until the bits and cutters come to a complete stop.** Turning bits and cutters grab the depositing

surface and pull the power tool out of your control.

**m.) Do not allow the power tool to run while you are carrying it.** Your clothing could get snagged accidentally in the rotating bits and cutters, causing the power tool to pierce your body.

**n.) Regularly clean the ventilation slits of your power tool.** The motor fan sucks dust into the housing and a strong accumulation of metal dust can cause electrical hazards.

**o.) Do not use the power tool in the vicinity of combustible materials.** Sparks could ignite these materials.

**p.) Do not use bits and cutters that require liquid coolants.** The use of water or other liquid coolants can cause electric shock.

#### **Additional safety guidelines on grinding and abrasive cutting**

**a.) Special safety guidelines on grinding and abrasive cutting:**

**b.) Use only the grinding tools approved for your power tool and the protective guard designed for these grinding tools.** Grinding tools that are not designated for the power tool cannot be adequately guarded and are therefore unsafe.

**c.) The protective guard must be attached securely to the power tool and adjusted in such a way as to achieve maximum safety, i.e. the smallest possible part of the grinding tool is open to the operator.** The protective guard is meant to protect the operator from fragments and accidental contact with the grinding tool.

**d.) Grinding tools may only be used for the recommended applications. For example: Never grind with the lateral surface of a cutting disc.** Cutting discs are intended for removing material with the edge of the disc.

Lateral forces on these grinding tools can shatter them.

- e.) **Always use undamaged clamping flanges in the correct size and shape for your selected sanding disc.** Suitable flanges support the sanding disc and reduce the danger of sanding disc breakage. Flanges for cutting discs can differ from other sanding disc flanges.
- f.) **Do not use worn sanding discs from larger power tools.** Sanding discs for larger power tools are not designed for higher rotational speeds of smaller power tools and can shatter.

#### Further special safety guidelines on abrasive cutting:

- a.) **Avoid jamming the cutting disc or applying too great contact pressure. Do not make excessively deep cuts.** Overstressing the cutting disc increases its load and its susceptibility to twisting or jamming and thus the possibility of recoil or grinding tool breakage.
- b.) **Avoid the area in front of and behind the rotating cutting disc.** If you move the cutting disc in the work piece away from you, recoil may catapult the power tool with the rotating disc directly towards you.
- c.) **If the cutting disc binds or if you interrupt work, switch off the device and hold it still until the disc has come to a complete stop. Never attempt to pull the running cutting disc out of the cut, otherwise recoil may occur.** Determine and eliminate the cause for binding.
- d.) **Do not switch the power tool back on as long as it is in the work piece. Allow the cutting disc to reach its full rotational speed before carefully continuing the cut.** Otherwise, the disc can get snagged, jump out of the work piece or cause recoil.
- e.) **Support sheets or large work pieces to minimize the risk of recoil caused by a**

**jammed cutting disc.** Large work pieces can sag under their own weight. The work piece must be supported on both sides of the disc; namely near the separating cut as well as at the edge.

- f.) **Be especially careful when making “pocket cuts” in existing walls or other blind areas.** The dipping cutting disc can cause recoil when cutting into gas or water lines, electric cables or other objects.

#### Special safety guidelines on sanding:

- a.) **Do not use any overdimensioned sanding disc papers, but comply with manufacturer's specifications on sanding paper size.** Sanding papers that extend beyond the grinding disc can cause injuries as well as lead to binding, tearing of the sanding discs or recoil.

For your safety, always wear hearing protection while working!



Use only in dry rooms



Charger  
Protection class II device



Please do not dispose of this electrical device, the charger and the battery with the household waste!



#### WARNING

Always wear protective goggles



#### Description of the machine

The user who frequently uses his long-neck angle grinder in cramped spaces will appreciate the device. A slender shape, imposing power and a comprehensive range of accessories make the LHW/A the ideal tool for deburring, rough-machining, precision polishing, rounding off edges, colour removal, removing rust, separating small parts and sharpening of tools. The LHW/A can easily machine many materials, such as for example steel, non-ferrous metals, glass, wood and ceramics. Ideally suited

for model, tool and mould construction, but also, for example, in the motor vehicle sector or for repairs to vehicles. The flat end cap of the battery enables the tool to stand upright as well.

The deflection is achieved through the precise, double ball-bearing bevel gear. It is driven by a powerful special motor which is efficiently force-cooled against overheating. A sanding disc of high-grade corundum (grit 60), a fan sander (grit 100) and a fabric-reinforced cutting disc are included.

Powerful batteries in lithium-ion technology and 2.6 Ah capacity guarantee continuous, high performance work. To charge the battery, it is simply inserted into the charger and is ready for operation again within approx. 1 hour. For your safety the process is thermally monitored.

## 1 Key (Fig. 1)

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1. Lock button
2. Rotational speed regulating knob with On/Off switch
3. Protective guard
4. Gear head
5. Motor housing
6. Battery
7. Battery release button
8. Sanding disc
9. Charger

## 2 Technical data

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### Device:

Rotational speed:	max. 16.000/min
Voltage:	10.8 V
Disc diameter:	max. 50 mm
Length:	approx. 320 mm
Weight:	approx. 800 g
Noise generation:	≤ 78 dB (A)
General measuring uncertainty:	K=3dB
Grip vibration:	≤ 2.5 m/s <sup>2</sup>

### Charger:

Mains voltage:	100-240 V~, 50/60Hz
Output voltage:	12.6 V
Charging current:	1 A

### Battery:

Rechargeable lithium-ion battery	
Nominal/charging voltage:	10.8V/12.6V
Energy/Capacity:	28.19Wh/2.61Ah
	3 INR 19/66

Please note that the sound and vibration measurements in particular have been performed with Proxxon bits and cutters. When using third-party brands we cannot guarantee compliance with the statements given here!

## 3 Scope of delivery

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### LHW/A (29815):

- 1 pc. Battery-powered long-neck angle grinder LHW/A
- 1 pc. Charger
- 1 pc. Lithium-ion battery
- 1 pc. Operating instructions
- 1 pc. Safety guidelines
- 1 pc. Storage case
- 1 pc. High-grade corundum sanding disc (K 60)
- 1 pc. Fan sander (K 100)
- 1 pc. Cutting disc (fabric reinforced)
- 1 pc. Allen key

### LHW/A (29817):

- 1 pc. Battery-powered long-neck angle grinder LHW/A
- 1 pc. Operating instructions
- 1 pc. Safety guidelines
- 1 pc. High-grade corundum sanding disc (K 60)
- 1 pc. Fan sander (K 100)
- 1 pc. Cutting disc (fabric reinforced)
- 1 pc. Allen key

## 4 Commissioning and operation

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Charging the battery (Fig. 2 and 3)

### **Caution:**

Before starting up, read the warning instructions and the labels attached to the charger and the battery!

- Do not disassemble the battery or break the housing! Electrolytes could leak out and cause injuries! If electrolyte gets into your eyes, rinse them with clean water and seek medical attention immediately!
- Protect battery from overheating! Defects could be the result.
- Never short-circuit the battery! Strong currents could overheat the battery. Burns or a defect could be the possible result. When storing the batteries, ensure that the electric contacts cannot establish a conductive connection.
- Do not put the battery in open fire! The battery can explode.
- Never subject the battery to liquids!

### **Caution:**

Please note that your Proxxon power tool may only be operated with the appropriate Proxxon battery and that the charger is to be used exclusively for the charging of these batteries. Furthermore, no other charger may be used to charge the Proxxon battery: The respective Proxxon components are optimally coordinated.

Please note: The device, battery and charge are also separately available at retailers!

When delivered, the battery is partially charged and must be charged completely before commissioning the device. To do so, proceed as follows:

1. Insert the plug of the charger.
2. Insert battery 1 in the charger 2 as shown in Fig. 2.
3. The yellow light-emitting diode 3 signals the charging process. When completed, the green light-emitting diode 4 lights up.
4. Remove the completely charged battery from the charger.
5. Insert battery 1 as shown in Fig. 3 in the housing opening of the device until it engages.

To protect the battery from harmful total discharge while in operation, the charge status is permanently monitored electronically and the device will switch off before it reaches the critical discharge condition. The battery will now need to be recharged. Do not attempt to put the device back into operation with a discharged battery!

6. To charge, press the release buttons 2, pull out the battery to the rear and carry out steps 1-5.

The charging process can be interrupted at any time and continued without damage to the battery.

### **Caution:**

Drastically reduced operating times after the charging process indicates that the battery needs to be replaced!

If after inserting the battery into its designated opening the light-emitting diode flashes instead of glowing yellow continuously, the cause may be a too high temperature, a defect, or the total discharge of the battery.

- If the battery is too hot, the charging process will start automatically after it cools down.
- If, on the other hand, the battery has a normal temperature but is totally discharged, the charger will check if it still draws power or if it is already defective.
- If the battery can be recovered, the yellow light-emitting diode will glow continuously after some time, signalling the successful charging process.
- If the yellow light-emitting diode flashes, the battery is defective and needs to be disposed of; see also "Note on disposal within the EU" later on in these instructions.

### **General handling of the device:**

#### **CAUTION!**

- Do not work with damaged or worn bits and cutters! Make sure the tools are in perfect condition. Damaged or worn tools can break and cause injuries!
- Never press the lock button if the bits and cutters are still rotating.
- Please note: The utilised bits and cutters may

- not exceed a maximum diameter of 50 mm!
- Make sure that the permissible maximum speed of the bits and cutters does not undershoot the speed of the device! The tool can break when the maximum permissible speed is exceeded. Flying parts can cause damage and severe injuries!
  - Never work without dust protection mask and safety glasses. Some dusts have a hazardous effect! Materials containing asbestos may not be machined!
  - Do not work with damaged tools!
  - Ensure the work piece is fixed securely! Loose work pieces should be clamped in a suitable fixture. This prevents the work pieces from flying about.
  - A correct and uniform speed achieves a high grinding performance, not excessive contact pressure! Excessive pressure is to be avoided: it only stresses the device and can even damage the bits and cutters!
  - Hold the device without covering the ventilation slots. If it overheats, you absolutely must shut off the device and allow it to cool down.
  - Do not use the cutting disc for rough-machining. Risk of fracture!
  - Work only with a correctly adjusted protective guard!

## Replacing the sanding or cutting disc

Pre-assembled with a fan sander with grain 100 and 50 mm diameter, ideal for grinding and smoothing malleable cast iron, grey cast iron, stainless steel, steel, non-ferrous metal, wood and plastic.

The supplied high-grade corundum sanding disc is ideal for roughing, grinding, sharpening and removing rust from metal or non-ferrous metal, and the included corundum-bound cutting disc is perfect for abrasive cutting of steel, non-ferrous metal, plastic or wood.

We also have a great number of additional problem solvers in our comprehensive range of accessories.

### **CAUTION!**

Always remove the battery before beginning adjusting or assembling work!

1. Press the lock button 1 (Fig. 4).
2. Turn fastening screw 4 with an Allen key 5 until the lock button engages.
3. Twist out fastening screw 4, remove centring disc 3 and disc 2.
4. Mount new disc. Check to ensure the disc is seated correctly in the centring shoulder of the centring disc.
5. Press lock button 1 and tighten fastening screw 4.

## Adjust protective guard

### **CAUTION!**

Always remove the battery before beginning adjusting or assembling work!

1. Release fastening screw 1 (Fig. 5) and move protective guard in the required direction.
2. Re-tighten the fastening screw. Check to ensure the sanding disc is seated correctly in the centring shoulder of the centring disc.

## Working with the device

Switch on the device by pressing the rotational speed regulating knob 2 (Fig. 1) and adjust to the appropriate speed.

For best results in rough-machine grinding, apply the sanding disc at an angle of 30° to 40° to the grinding surface and move evenly back and forth over the work piece.

For cutting work, do not jam the sanding disc in the cutting level.

## 5 Maintenance, cleaning and care

### **Caution:**

Remove the battery from device before any assembly, adjustment, maintenance measure or repair!

### **Note:**

Every device is dirtied by dust when working with wood. Cleaning is therefore essential. To ensure a long service life, however, the machine should be



cleaned with a soft cloth or brush after each use. Mild soap or other suitable cleaning agent may be used in this context. Solvents or cleaning agents containing alcohol (e.g. petrol, cleaning alcohols etc.) should be avoided, since these can attack plastic casings.

Always keep the apertures required for cooling the motor free of dust and dirt.

### **Service note**

Please note: The mains power input for the charger may only be replaced by our Proxxon Service Department or a qualified specialist!

## **6 Accessories**

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For more detailed information on accessories, please request our device catalogue from the address specified on the last page in the warranty information.

### **Please note in general:**

Proxxon bits and cutters have been designed to work with our machines, which makes them optimal for their use.

We will not assume any liability whatsoever for the safe and proper function of our devices when using third-party bits and cutters!

## **7 Disposal:**

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Please do not dispose of this machine in household waste! The device contains valuable materials which can be recycled. If you have questions concerning this topic, please contact your municipal disposal company or other appropriate municipal institutions.

### **Note on disposal within the EU:**

Please note that in accordance with the EU directive 2012/19/EU and the EU directive 2006/66/EC, defective or consumed accumulators and no longer operational electrical devices must be disposed of separately from household waste

and must be sent for reuse in an environmentally responsible manner!

## **8 CE Declaration of conformity**

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Name and address of the manufacturer:  
PROXXON S.A.  
6-10, Härebjerg  
L-6868 Wecker

Product designation: LHW/A  
Article No.: 29815/29817

On our sole responsibility, we declare that this product conforms to the following directives and normative documents:

### **EU EMC Directive 2014/30/EU**

DIN EN 55014-1 / 05.2012  
DIN EN 55014-2 / 11.2014  
DIN EN 61000-3-2 / 03.2015  
DIN EN 61000-3-3 / 03.2014

### **EU Machinery Directive 2006/42/EC**

DIN EN 60745-1 / 01.2010  
DIN EN 60745-2-3 / 04.2015

Date: 22/07/2016

Dipl.-Ing. Jörg Wagner



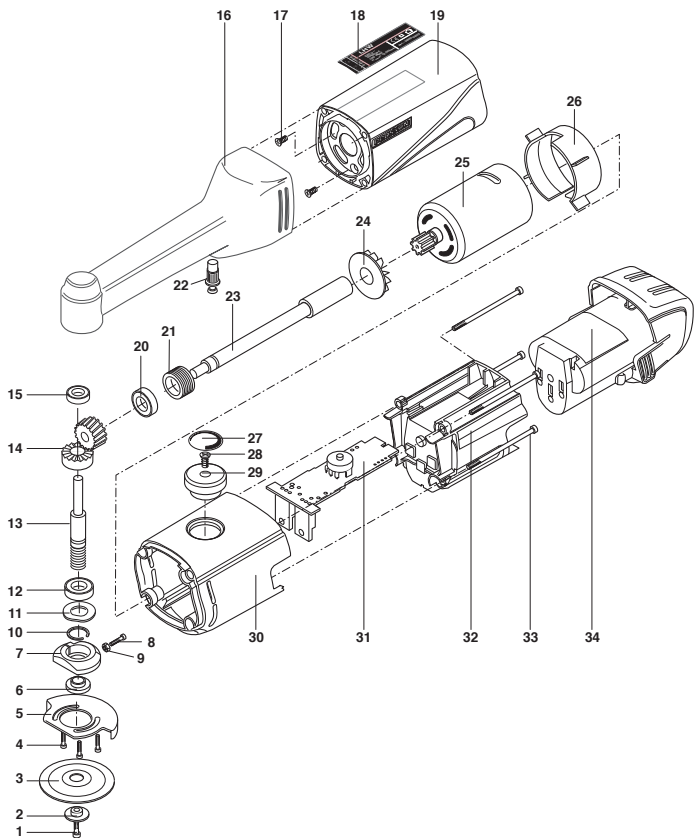
PROXXON S.A.  
Appliance Safety Division  
The CE document authorized agent is identical with the signatory.

## Spare Parts List

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### PROXXON LHW/A

<b>ET - Nr.:</b>	<b>Description:</b>
29815-01	Hex socket head screw
29815-02	Washer
29815-03	Grinding disc
29815-04	Screw
29815-05	Protective Guard
29815-06	Washer
29815-07	Flange
29815-08	Screw
29815-09	Nut
29815-10	Circlips
29815-11	Corrugated washer
29815-12	Bearing
29815-13	Shaft, short
29815-14	Angular gear
29815-15	Bearing
29815-16	Head incl. stop button
29815-17	Motor screw
29815-18	Label
29815-19	Motor casing
29815-20	Bearing
29815-21	Nut
29815-22	Locking pin
29815-23	Shaft, long
29815-24	Fan
29815-25	Motor incl. pignon
29815-26	Support ring
29815-27	Label
29815-28	Screw
29815-29	Speed adjusting knob
29815-30	Casing cap
29815-31	Board
29815-32	Battery socket
29815-33	Casing screw
29815-34	Battery
29815-98	Plastic case
29815-99	Manual incl. safety instructions



# PROXXON

**GB** **Service note**

All PROXXON products are thoroughly inspected after production. Should a defect occur nevertheless, please contact the dealer from whom you purchased the product. Only the dealer is responsible for handling all legal warranty claims which refer exclusively to material and manufacturer error.

Improper use, such as capacity overload, damage due to outside influences and normal wear are excluded from the warranty.

You will find further notes regarding „Service and Spare Parts Management“ at [www.proxxon.com](http://www.proxxon.com).