

# PROXXON

## IBS/A



## Manual

Fig. 1



Fig. 2

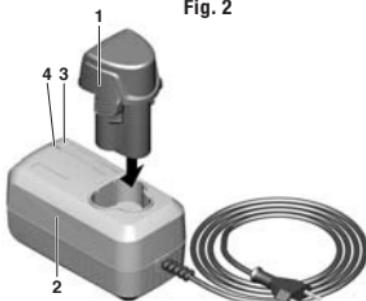


Fig. 3

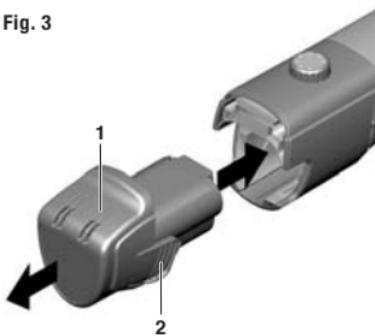


Fig. 4

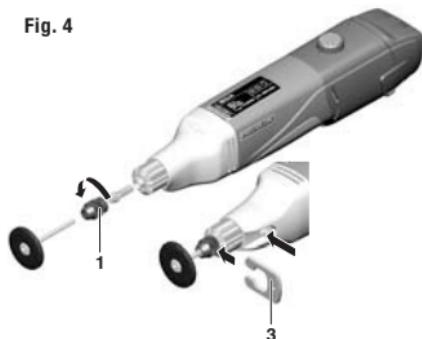
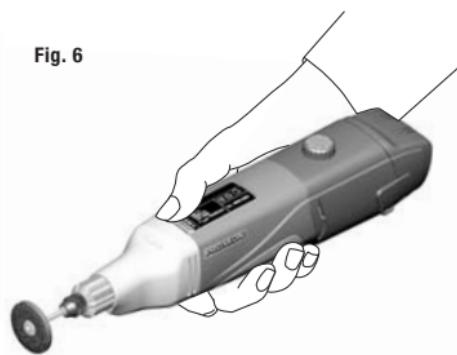


Fig. 5



Fig. 6





## Translation of the Original Operating Instructions PROXXON - IBS/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 simplifies 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 influences 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 !**

### **Battery tool use and care**

**Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

**Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.

**When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.

**Under abusive conditions, liquid may be ejected from the battery; avoid contact.** If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.

### **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 common for grinding, sanding, wire brushing, polishing, carving or abrasive cutting-off operations:**

**a) This power tool is intended to function as a grinder, sander, wire brush, polisher, carving or cut-off tool.** Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

**b) Do not use accessories which are not specifically designed and recommended by the tool manufacturer.** Just because the accessory can be attached to your power tool, it does not assure safe operation.

**c) The rated speed of the grinding accessories must be at least equal to the maximum speed marked on the power tool.** Grinding accessories running faster than their rated speed can break and fly apart.

**d) The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** Incorrectly sized accessories cannot be adequately controlled.

**e) The arbour size of wheels, sanding drums or any other accessory must properly fit the spindle or collet of the power tool.** Accessories that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.

**f) Mandrel mounted wheels, sanding drums, cutters or other accessories must be fully inserted into the collet or chuck.** If the mandrel is insufficiently held and/or the overhang of the wheel is too long, the mounted wheel may become loose and be ejected at high velocity.

**g) Do not use a damaged accessory.** Before each use inspect the accessory such as abrasive wheels for chips and cracks, sanding drum for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute. Damaged accessories will normally break apart during this test time.

**h) Wear personal protective equipment.** Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments. The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtrating particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.

**i) Keep bystanders a safe distance away from work area.** Anyone entering the work area must wear personal protective equipment. Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.

**j) Hold power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

**k) Always hold the tool firmly in your hand(s) during the start-up.** The reaction torque of the motor, as it accelerates to full speed, can cause the tool to twist.

**l) Use clamps to support workpiece whenever practical.** Never hold a small workpiece in one hand and the tool in the other hand while in use. Clamping a small workpiece allows you to use your hand(s) to control the tool. Round material such as dowel rods, pipes or tubing have a tendency to roll while being cut, and may cause the bit to bind or jump toward you.

**m) Position the cord clear of the spinning accessory.** If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.

**n) Never lay the power tool down until the accessory has come to a complete stop.** The spinning accessory may grab the surface and pull the power tool out of your control.

**o) After changing the bits or making any adjustments, make sure the collet nut, chuck or any other adjustment devices are securely tightened.** Loose adjustment devices can unexpectedly shift, causing loss of control, loose rotating components will be violently thrown.

**p) Do not run the power tool while carrying it at your side.** Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.

**q) Regularly clean the power tool's air vents.** The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.

**r) Do not operate the power tool near flammable materials.** Sparks could ignite these materials.

**s) Do not use accessories that require liquid coolants.** Using water or other liquid coolants may result in electrocution or shock.

### **Kickback and related warnings**

Kickback is a sudden reaction to a pinched or snagged rotating wheel, sanding band, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

**a) Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces.** The operator can control kickback forces, if proper precautions are taken.

**b) Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.** Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.

**c) Do not attach a toothed saw blade.** Such blades create frequent kickback and loss of control.

**d) Always feed the bit into the material in the same direction as the cutting edge is exiting from the material (which is the same direction as the chips are thrown).** Feeding the tool in the wrong direction causes the cutting edge of the bit to climb out of the work and pull the tool in the direction of this feed.

**e) When using rotary files, cut-off wheels, high-speed cutters or tungsten carbide cutters, always have the work securely clamped.**

These wheels will grab if they become slightly canted in the groove, and can kickback. When a cut-off wheel grabs, the wheel itself usually breaks. When a rotary file, high-speed cutter or tungsten carbide cutter grabs, it may jump from the groove and you could lose control of the tool.

### **Safety warnings specific for grinding and abrasive cutting-off operations:**

**a) Use only wheel types that are recommended for your power tool and only for recommended applications. For example: do not grind with the side of a cut-off wheel.** Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.

**b) For threaded abrasive cones and plugs use only undamaged wheel mandrels with an unrelieved shoulder flange that are of correct size and length.** Proper mandrels will reduce the possibility of breakage.

**c) Do not “jam” a cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut.** Overstressing the wheel increases the loading and susceptibility to twisting or snagging of the wheel in the cut and the possibility of kickback or wheel breakage.

**d) Do not position your hand in line with and behind the rotating wheel.** When the wheel, at the point of operation, is moving away from your hand, the possible kickback may propel the spinning wheel and the power tool directly at you.

**e) When wheel is pinched, snagged or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur.** Investigate and take corrective action to eliminate the cause of wheel pinching or snagging.

**f) Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully re-enter the cut.** The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.

**g) Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback.** Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.

**h) Use extra caution when making a “pocket cut” into existing walls or other blind areas.** The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.

**Safety warnings specific for wire brushing operations:**

**a) Be aware that wire bristles are thrown by the brush even during ordinary operation. Do not overstress the wires by applying excessive load to the brush.** The wire bristles can easily penetrate light clothing and/or skin.

**b) Allow brushes to run at operating speed for at least one minute before using them. During this time no one is to stand in front or in line with the brush.** Loose bristles or wires will be discharged during the run-in time.

**c) Direct the discharge of the spinning wire brush away from you.** Small particles and tiny wire fragments may be discharged at high velocity during the use of these brushes and may become imbedded in your skin.

Only for use in dry rooms



Charger LG/A  
Protection class II device



**WARNING**  
Always wear protective goggles



Do not dispose of the device charger and battery with household rubbish!



### Description of the machine

The PROXXON IBS/A industrial drill/grinder is the ideal device for micro drilling, milling, grinding, polishing, brushing, removing rust, engraving, chasing and separating. You can work on any type of material such as steel, non-ferrous metals, glass, wood, minerals and ceramics: You will find the matching tool for any task in our comprehensive range of accessories. 34 bits and cutters (with 2.35 mm shaft) are included in the scope of delivery.

The precision drill spindle is supported free from play through two precision ball bearings in the aluminium die-cast head: This guarantees a long service life and accurate concentricity.

A quiet, permanently excited special motor with electronic speed control ensures maximum performance at minimum size, the speed range of 7,000 to 23,000 revolutions per minute permits great flexibility while working. The compact high-strength housing is made of glass-fibre reinforced polyamide.

With the 20 mm fit at the front device end, the device can be clamped into e.g. drill stand or other device holders from our range.

The flat end cap of the battery enables the tool to stand upright as well.

The supplied steel collet chuck makes it easy to change tools and offers a significantly greater concentric accuracy than a drill chuck.

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. Rotational speed regulating knob with On/Off switch
2. Lock button
3. Sleeve nut for steel collet
4. Fit for drill stand (Ø 20 mm)
5. Steel collet chucks
6. Key for chucks
7. Battery
8. Battery release button
9. Charger

## 2 Technical data

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### Device:

Length: approx. 270 mm (with battery)  
approx. 235 mm (without battery)

Weight: approx. 700 g (with battery)  
approx. 520 g (without battery)

Fit: Ø 20 mm

Voltage:	10.8 V
Rotational speed:	7,000 – 23,000/min
Noise generation:	< 70 dB(A)
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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### IBS/A (29800)

- 1 pc. IBS/A industrial drill/grinder
- 1 pc. Charger
- 1 pc. Battery
- 1 pc. Storage case
- 1 pc. Operating instructions
- 1 pc. Safety guidelines
- 1 pc. Key
- 6 pcs. Collets (1.0-1.5-2.0-2.4-3.0 and 3.2 mm)
- 1 pc. Round grinding pin Ø 5mm
- 1 pc. Cylinder grinding pin Ø 6mm
- 1 pc. Cylinder grinding pin Ø 2.5 mm
- 1 pc. Cup grinding pin Ø 7mm
- 1 pc. Tungsten carbide micro drill Ø 0.5 mm
- 1 pc. Tungsten carbide micro drill Ø 1 mm
- 1 pc. Diamond-coated grinding pin Ø 1.8 mm
- 1 pc. Finishing miller, ball shaped Ø 2.3 mm
- 2 pcs. Sanding disc Ø 22mm (pink colour) of high-grade corundum, for steel, cast iron, HSS steels
- 2 pcs. Sanding disc Ø 22mm (grey) For engraving and frosting of glass, ceramic and stellites, also for grinding of hard metal, white cast iron and high-alloy steels

- 1 pc. Polishing disc for acrylic glass and Plexiglas
- 1 pc. Brass brush for machining brass, brass alloys, copper, precious metals, semi-precious stones, plastic and wood. For cleaning electronic components and printed circuit boards.
- 10 pcs. Corundum cutting discs for cutting alloyed and non-alloyed steel, stainless steels and non-ferrous metals. Can also be used to cut wood and plastic.
- 1 pc. Clamping arbour shaft diameter Ø 3.2 mm

#### **IBS/A (29802)**

- 1 pc. IBS/A industrial drill/grinder
- 1 pc. Operating instructions
- 1 pc. Safety guidelines
- 1 pc. Key
- 6 pcs. Collets (1.0-1.5-2.0-2.4-3.0 and 3.2 mm)

## **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 it if 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:**

- Wear a protective mask if large amounts of dust or harmful dusts accumulate.
- A correct and consistent speed achieves a high grinding performance, not excessive contact pressure!
- By tendency: Bits and cutters with smaller diameters require higher speeds than those with a larger diameter.
- Caution: You absolutely must observe the permissible maximum speed of the bits and cutters! The tool can break when the maximum permissible speed is exceeded. Flying parts can cause damage and severe injuries!
- Never press the lock button while the device is operating.
- A collet chuck is inserted in the spindle of the device ex works!

- Depending on the collet size, bits and cutters may have a shaft diameter of max. 3.2 mm.
- Insert the tools are far as possible when clamping. Ensure that the shaft of the tool does not stand out more than 30 mm from the collet. Protruding shafts bend easily and cause rough running.
- Do not in any case use bits and cutters with an arbour length of more than 55 mm!
- When using collets, always make sure that the collet chuck and the utilised tool have the same shaft diameter! The arbour of the tool must be seated firmly and securely in the collet!
- 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!
- When storing the bits and cutters, make sure they are reliably protected from damage!

### **Clamping and changing the tool (Fig. 4):**

#### **Caution:**

Always remove the battery before exchanging tools!

1. Turn sleeve nut 1 slightly whilst simultaneously pressing the lock button until it engages.
2. Release the nut for a few rotations and exchange the tool.
3. If the collet chuck needs to be replaced as well, screw off the nut entirely, exchange the collet and screw on the nut lightly by hand.
4. Insert the bits and cutters and tighten with the supplied wrench 3.

The IBS/A industrial drill/grinder was ergonomically designed to make it easy to handle and guide precisely. The thread of the collet chuck nut is countersunk in the machine housing. Using a drill chuck is not possible for this reason.

## Working with the device

1. To activate, operate the rotary button 1 (Fig. 1) and set the right speed for the work. Applicable in principle, tools with smaller diameters must be operated at higher speeds, and tools with greater diameters at lower speeds in order to achieve optimal results.
2. If you would like to guide the device by hand while working, hold it like a ballpoint pen whilst milling or engraving. Do not cover the ventilation slots (Fig. 5). For coarser work, hold the device like the shaft of a hammer (Fig. 6).

An ideal working environment is achieved if the device is clamped by its 20 mm fit in a drill stand or in one of the universal holders from the Proxxon range.

A diversity of additional fields of application develop when combining your professional grinder IBS/A with other machines and devices!

## 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**

Name and address of the manufacturer:

PROXXON S.A.  
6-10, Härebierg  
L-6868 Wecker

Product designation: IBS/A  
Article No.: 29800/29802

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

**EU EMC Directive 2016/30/EU**

DIN EN 55014-1 / 05.2012  
DIN EN 55014-2 / 01.2016  
DIN EN 61000-3-2 / 03.2015  
DIN EN 61000-3-3 / 03.2014  
DIN EN 61000-4-2/12.2009  
DIN EN 61000-4-3/04.2011  
DIN EN 61000-4-4/04.2013  
DIN EN 61000-4-5/03.2015  
DIN EN 61000-4-6/08.2014  
DIN EN 61000-4-11/02.2005

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

DIN EN 60745-1 / 01.2010  
DIN EN 60745-2-23 / 11.2013

Date: 24/10/2016

Dipl.-Ing. Jörg Wagner



PROXXON S.A.  
Appliance Safety Division

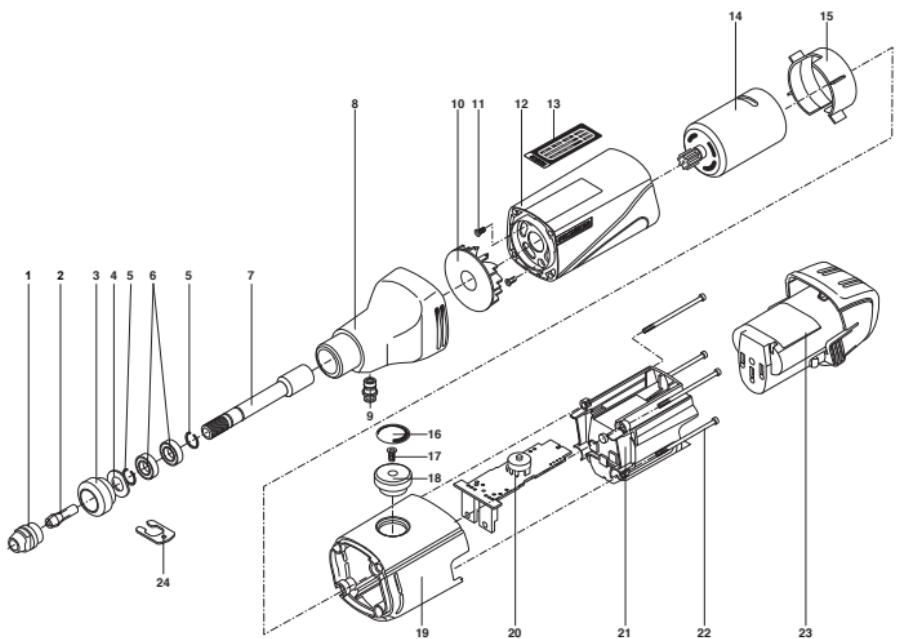
The CE document authorized agent is identi-  
cal with the signatory.

## **Spare Parts List**

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### **PROXXON IBS/A**

<b>ET - Nr.:</b>	<b>Description:</b>
29800-01	Swivel nut
29800-02	Collet (accessory)
29800-03	Swivel nut
29800-04	Wave washer
29800-05	Locking ring
29800-06	Ball bearing
29800-07	Shaft
29800-08	Housing front part
29800-09	Lock button
29800-10	Fan
29800-11	Motor fastening screws
29800-12	Motor housing
29800-13	Label
29800-14	Motor with pinion
29800-15	Centring ring
29800-16	Label
29800-17	Screw
29800-18	Regulating knob
29800-19	Rear housing cap
29800-20	Board
29800-21	Battery socket
29800-22	Housing screw
29800-23	Battery
29800-24	Wrench
29800-98	Article packaging
29800-99	Operating instructions incl. Safety instructions



# PROXXON



## 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).