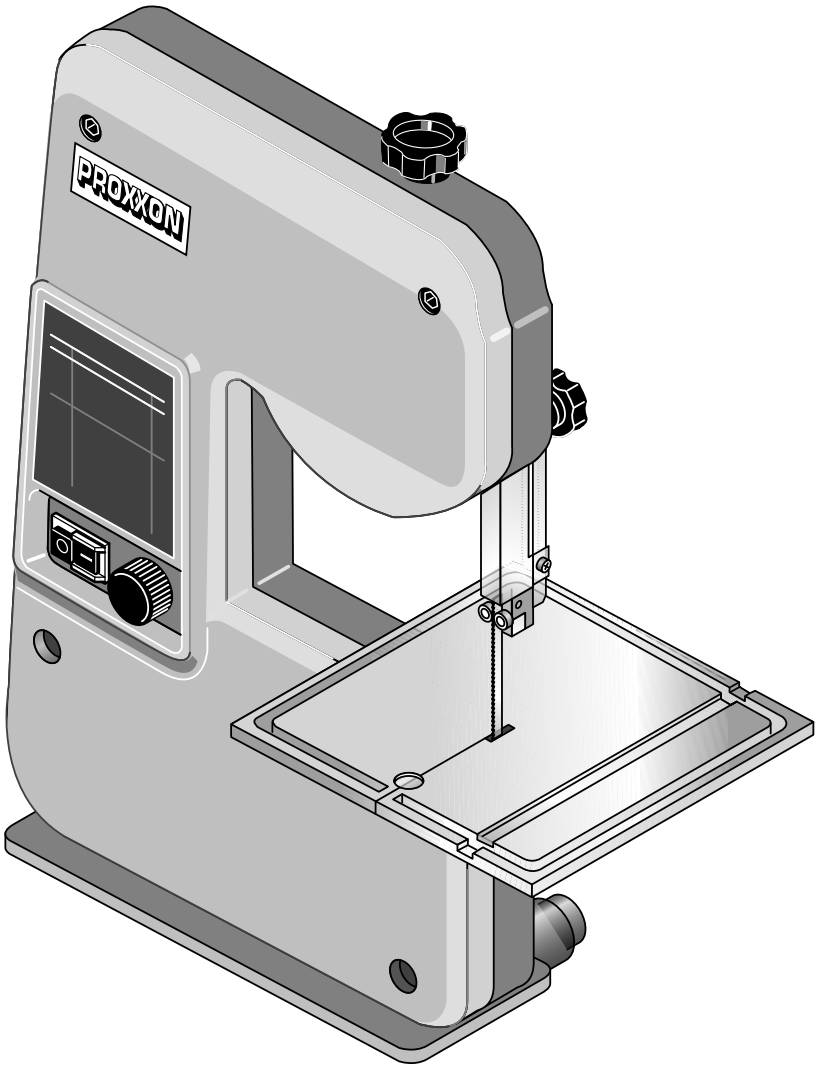
PROXXON

MBS 240/E



Manual

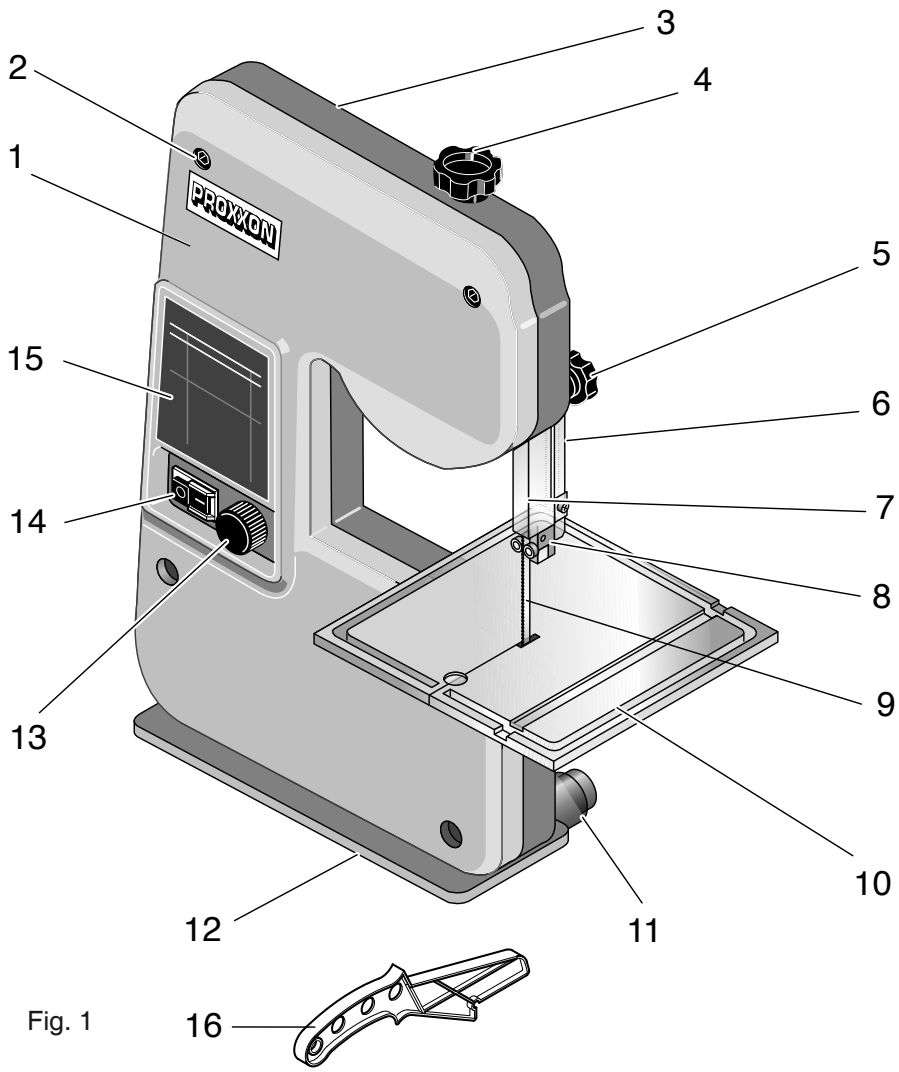


Fig. 1

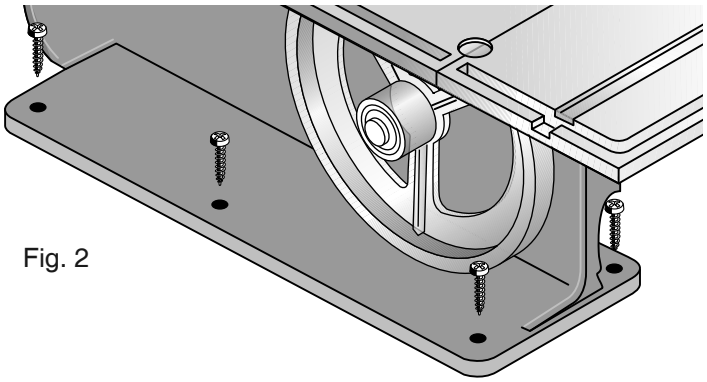


Fig. 2

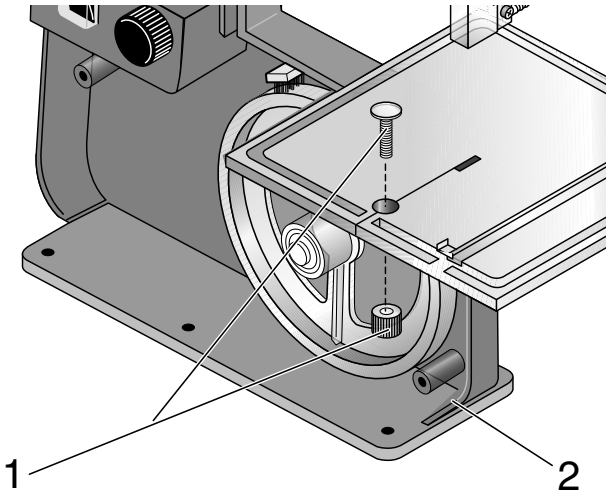
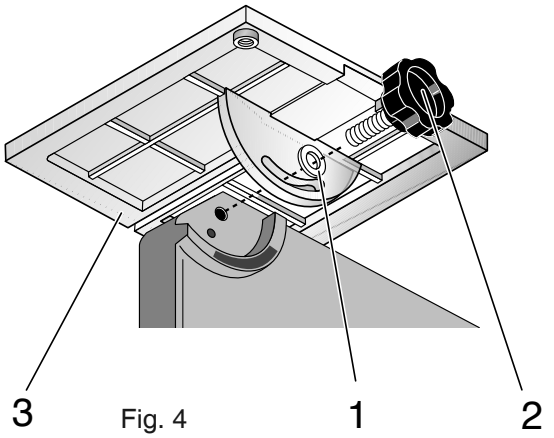


Fig. 3



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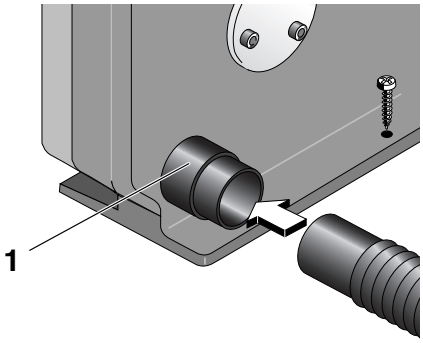

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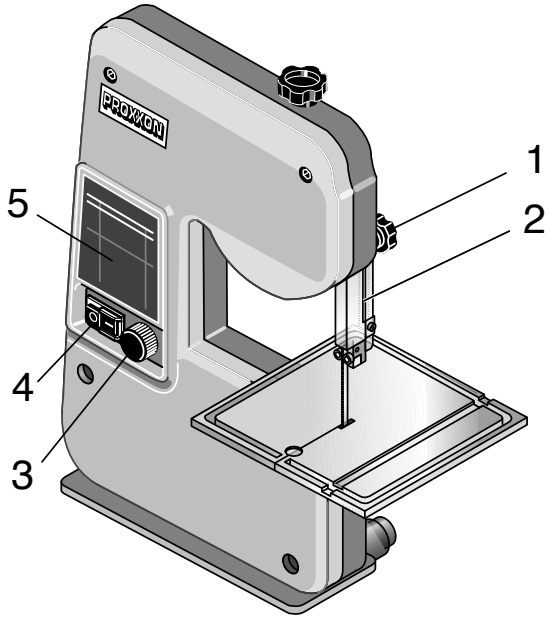

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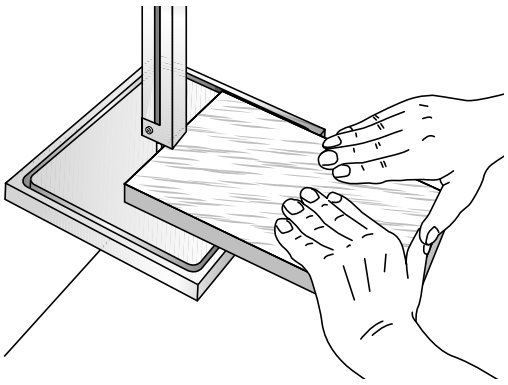


Fig. 7

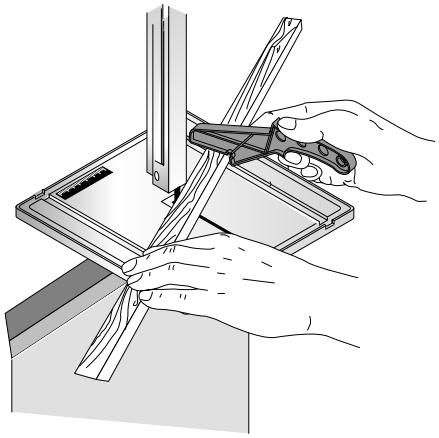


Fig. 8

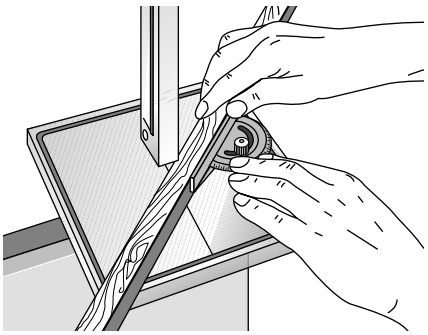
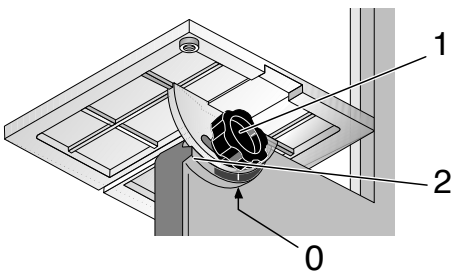


Fig. 9



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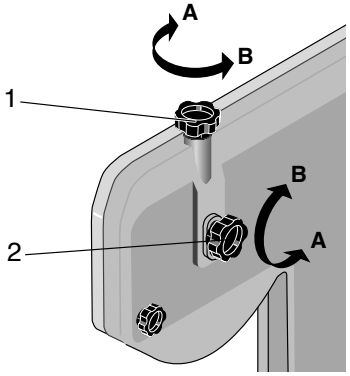


Fig. 11

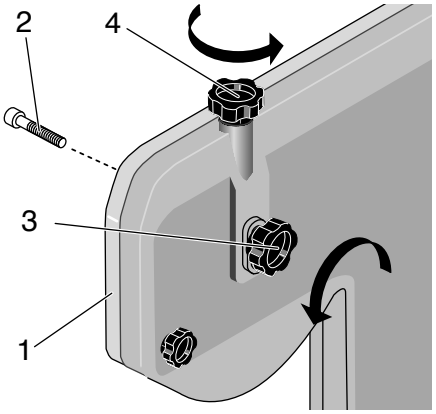


Fig. 12

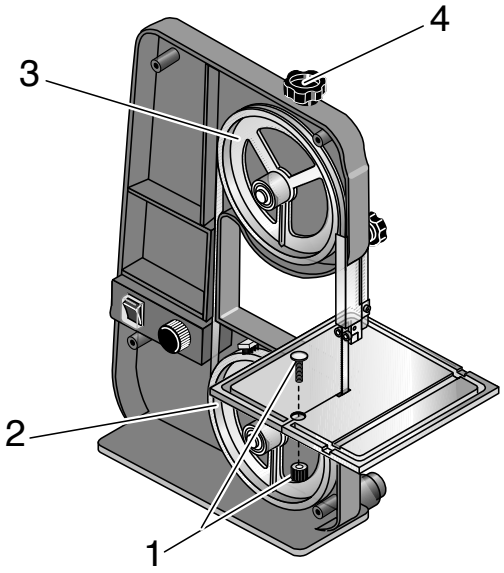


Fig. 13

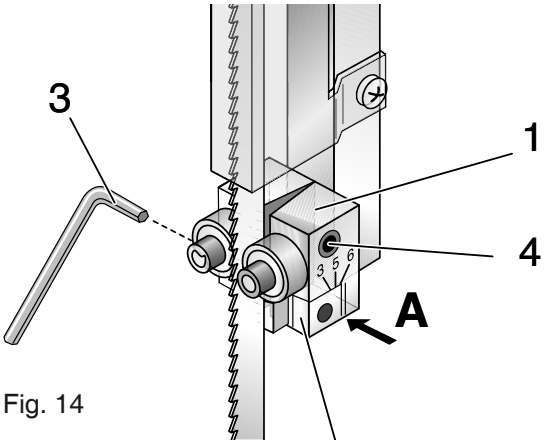


Fig. 14

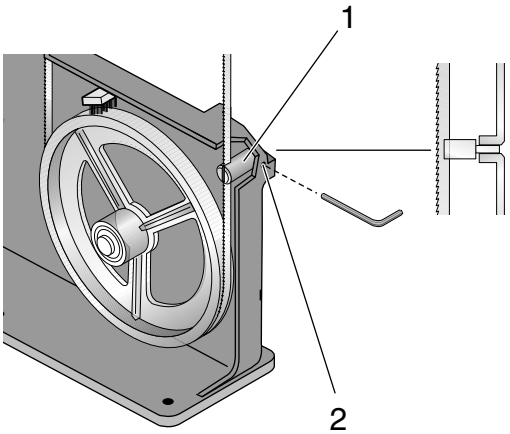


Fig. 15

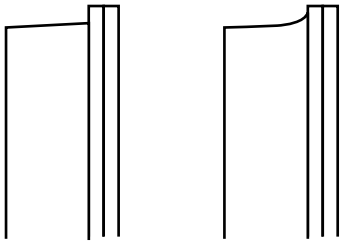


Fig. 16

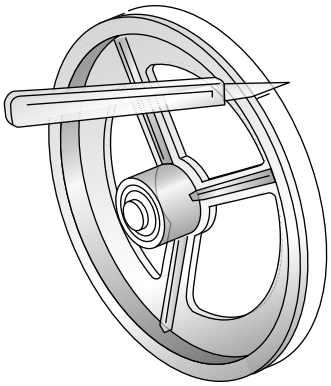


Fig. 17

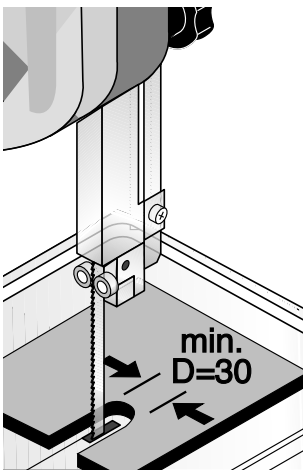


Fig. 19

GB Translation of the Original Operating Instructions

Dear Customer,

The use of these instructions

- makes it easier to become acquainted with the device,
- prevents malfunctions due to improper handling, and
- increases the service life of your device.

Always keep these instructions close to hand.

Only operate this device with exact knowledge of it and comply with the instructions.

PROXXON will not be liable for the safe function of the device for:

- handling that does not comply with the usual intended use,
- other application uses that are not stated in the instructions,
- disregard of the safety regulations,

You will not have any warranty claims for:

- operating errors,
- lack of maintenance.

For your safety, please comply with the safety regulations without fail.

Only use original PROXXON spare parts.

 We wish you much success with the device.

Description of the machine

The Micro bandsaw MBS 240/E cuts steel, non-ferrous metal, wood and plastic and equipped with a diamond band it will also cut glass and ceramics.

The MBS 240/E has a 230 volt motor with electronic speed control to set the correct band speed for optimal work results.

The work table can be adjusted to any angular position from 0° to 45°, thus enabling clean and precise cuts.

The diagram shows the control range for most materials. We recommend original PROXXON replacement saw bands.

Legend (Fig. 1)

1. Housing cover
2. Fastening screw
3. Housing
4. Adjusting screw
5. Clamping screw
6. Guide rod
7. Saw blade cover
8. Saw band guide
9. Saw band
10. Work table
11. Suction connection
12. Device base
13. Adjusting knob
14. Device switch
15. Diagram
16. Push-rod

Scope of delivery:

1 pc. Bandsaw MBS 240/E

1 pc. Angle stop

1 pc. Rubber connecting piece

1 pc. Push-rod

1 pc. Work table including fastening screw

1 pc. Operating manual with safety instructions

Technical data

Rated voltage:	220-240 Volt 50 Hz
Rated input:	85 watt
Protection class:	IP 24
Short-term operation	KB 15 min
Band speed:	20 - 250 m/min, infinitely adjustable
Noise generation	Lpa = 91 dB Lwa= 91 dB (A)
Dimensions:	
Weight:	approx. 6.6 kg
Work table:	200 x 200 mm, tiltable 0° - 45°
Throat:	150 mm
Workpiece height:	max. 80 mm
Saw band dimensions:	1,065 x 3 to 6 mm

Only for use in dry rooms!

Do not dispose of the electrical device in the household waste!

Please disconnect the mains plug before opening the housing!

Commissioning

Setting up the device

Unpack the Micro bandsaw and check the scope of delivery for completeness.

Caution!

Do not connect the device to the 230 volt mains yet!

Important:

Please note that all adjusting and mounting work on the saw may only be done if the mains plug is not plugged in!

When transporting, please handle the saw with the necessary caution and never use separating safety mechanisms to lift or even carry the device!

This could damage the mechanisms, causing them to become inoperative. Risk of injury!

Caution:

When transporting the saw, always make sure that the saw band guide with the saw band guard is in the bottommost position (see section "Adjusting the position of the upper saw band guard")

For safety reasons, use 5 wood screws to screw the device to a sturdy work table (Fig. 2).

Assembling the work table

Unscrew the brass screw plug 1 at the sawing gap (Fig. 3) of the work table.

1. Insert the work table 3 (Fig. 4) into the designated cut-out and fasten with the star knob screw (2) and the flat washer (1). Please pay attention to the angle display! For straight cuts, adjust the marking to "0".
2. Screw the brass screw plug 1 (Fig. 3) back on.

Things to know about commissioning and on working

Caution:

Always wear hearing protection when working with the device!

- Please remember that there are several rules that reduce the noise development of the machine: Always select the correct saw band for your work task! It is particularly important that the band is suitable for the material to be sawn.
- The bandsaw must be connected to a dust extraction.
- The saw may not be operated when its housing is open!
- The saw band guide 8 (Fig. 1) must be guided as close to the work piece as possible. See "Adjusting the upper saw band guide".
- When sawing round materials, please bear in mind that these could turn with the movement of the saw band and therefore must be held particularly tightly!
- Please use a suitable holding device for the work piece!
- Before beginning the sawing work, you absolutely must adjust the correct speed for the saw band and the material to be sawn!
- Try to keep the saw band from blocking. This operating state stresses the machine mechanics and causes increased wear to the drive components. Blocking can be prevented by adjusting the feed speed, the saw band speed and the feed force to the requirements of the work piece, especially with regard to the material.
- Never slow down the band speed through too high a feed. If the saw band does block and stop, simply reduce the feed force a bit to permit it to “run free” again.
- In general: High band speed for thin material, and low band speed for thicker material.
- Adapt the belt speed or belt tension in case of occurring vibration.
- Use only flawless saw bands; immediately replace dull and distorted saw bands.
- Never let the device run unsupervised!
- Caution: When working with larger work pieces, make sure these pieces are guided securely and that they are supported beyond the saw table, if required!

Using a vacuum cleaner

Caution!

It is recommended to always work with the dust extraction! This not only guarantees clean work, it also reduces the hazardous effect of some dusts!

In addition, chips accumulated inside the saw can cause excess wear and malfunctions!

1. Push the supplied rubber connecting piece 1 onto the housing connecting piece (Fig. 5).
2. Connect the vacuum cleaner to the rubber connecting piece 1.

Another small tip:

When using the Proxxon CW-matic vacuum cleaner, manual switching on and off is no longer necessary. The CW-matic is fitted with an automatic control device which switches on and off automatically when the power tool is switched on and off.

Sawing

1. Connect the device to the mains supply.
2. Switch on the device with the switch 4 (Fig. 6).
3. Adjust the band speed with the controller 3. See diagram 5 for the optimal band speed. Please note: The specified values are only reference points.

Free hand sawing

Press the work piece on the work table and guide with sensitivity and without much force (Fig. 7). Exert more pressure on the work table and less pressure against the saw band. If necessary, use the included push-rod as illustrated in Fig. 8

Caution:

When sawing round materials, please bear in mind that these could turn with the movement of the saw band and therefore must be held particularly tightly!

Please use a suitable holding device for the work piece!

Sawing with the angle stop

Caution:

Please note that all adjusting and mounting work on the saw may only be done if the mains plug is not plugged in!

1. Adjust the required angle at the limit stop. Lightly guide the work piece against the saw band (Fig. 9).

Mitre cuts

For mitre cuts, the work table can be tilted from 0° to 45°.

1. Release the clamping screw 1 (Fig. 10) and tilt the work table to the required angle position.
2. Read the graduated number on the scale 2.
3. Tighten the clamping screw 1.

Maintenance, settings and care

Adjusting the saw band tension

Caution:

Too great a tension can damage the device and tear the saw band apart!

The saw band is tensioned correctly if it runs smoothly and without vibration (no "fluttering").

1. Unscrew the clamping screw 2 (Fig. 11) by half a revolution in direction A.
2. Turning the adjusting screw 1 in direction (A) tensions the saw band, turning it in direction (B) loosens it. A too greatly tensioned saw band can tear apart and damage the device.
3. Tighten the clamping screw 2.

Replacing the saw band

Please make sure the saw band is always in perfect condition:

- Deformed or damaged saw bands are dangerous to work with and must not be used!
- Please replace worn saw bands immediately! We recommend original Proxxon saw bands.
- You will find our range of products in the Micromot device catalogue or on the Internet at www.proxxon.com.

Caution:

- Please note that saw bands can have very sharp edges! To avoid injuries, always wear gloves when handling saw bands.
- The band guide must be adjusted when you install a wider or narrower saw band (see "Adjusting the saw band guide").
- The band may not run off the rolls crookedly.

Caution:

Switch off the device and pull the mains plug before replacing the saw band

1. Unscrew the four Allen screws 2 (Fig. 12) and remove the housing cover 1.
2. Unscrew the brass screw plug 1 (Fig. 13).
3. Unscrew the clamping screw 3 (Fig. 12) by half a revolution.
4. Turn the adjusting screw 4 (Fig. 13) until the saw band can be removed from the wheels 2 and 3 (Fig. 13)
5. Insert the new saw band with the smooth side into the sawing gap so that the saw teeth point down (towards the sawing table).
6. Turn the adjusting screw 4 (Fig. 12/13) until the saw band is lightly tensioned.
7. Tighten the clamping screw 3 (Fig. 12) and replace the brass screw plug 1 (Fig. 13).

8. Check if the band runs correctly in the lower guide 1 (Fig. 15). The guide slot must be exactly perpendicular. Adjust the band guide by releasing the clamping screw (as described in the section "Checking and adjusting the lower saw band guide").
9. Mount the housing cover 1, tighten the Allen screws 2.
10. Readjust the saw band tension as necessary.

Adjusting the upper saw band guide

Caution:

Only work on the saw band guide when the machine is switched off and the mains plug is pulled.

Adjusting the position of the upper saw band guide

Before work, please adjust the saw band guide so that it is as close to the work piece as possible. Adjustments are made as follows:

1. Release the screw 1 (Fig. 6)
2. Push the saw band guide 2 to the desired position
3. Re-tighten the screw 1

Adjusting the upper saw band guide to the respective saw band width:

The factory has adjusted the saw band guide to the standard saw band. When using accessory bands with different dimensions, it may be necessary to adjust the bearings of the saw band guide.

1. Slightly release the Allen screw 3 (fig. 14).
2. Push the adjusting piece 2 so that the rear edge of the saw band runs off along the rear bearing. Use the number markings as orientation. Edge A should be at the position of the number that represents the saw band width.
3. Tighten the Allen head screw 3!

Adjusting the upper saw band guide to the respective saw band thickness:

1. The saw band thickness is corrected with the setting screw 4 (Fig. 14). Make sure that the band is guided properly, but that it never jams!

Checking and adjusting the lower saw band guide

The band runs in a slot in the lower band guide. The factory has adjusted the band guide so that the slot is exactly perpendicular.

This is the correct setting. If exceptional cases make it necessary to readjust the band guide 1 (Fig. 15), then please proceed as follows:

1. Unscrew the four Allen screws 2 (Fig. 12) and remove the housing cover 1.
2. Release the screw 2 (Fig. 15) with an Allen key and turn the band guide to the correct position.
3. Re-tighten the screw 2.
4. Screw the housing cover back on.

Replacing the plastic rings of the running wheels

The running wheels are covered by a plastic ring to protect the saw bands. The plastic rings are wearing parts and must be replaced as needed. Therefore, regularly check the plastic rings. If "hollow abrasion" is determined, replace the corresponding ring (Fig. 16).

1. Disassemble the front housing part and remove the saw band as described in the section "Replacing the saw band"
2. Cut through the worn plastic ring (Fig. 17) with a sharp, heated blade.
3. Heat the new plastic ring in hot water (not boiling) for approx. 10 minutes and fit on.
4. Replace and tension the band, and reassemble the front housing part.

Operation with the diamond saw band

Things to know about working with diamond saw bands

Only proper cooling of the diamond band will ensure optimally cut glass or ceramics and enable a long service life of the band.

Appropriately, this can be done with a brush: This enables you to dose the coolant economically and precisely, thus preventing an inappropriate amount from getting into the machine. When working, simply set a glass of water next to the machine and cool the band with economic brush strokes at regular intervals.

It is not possible to cut radii less than 15 mm! (see Fig. 19).

Important:

Do not use diamond saw bands for metal, plastic or wood.

Caution:

The adjustment of the saw blade width (see also the chapter "Adjusting the upper saw band guide to the respective saw band width or thickness") must be done differently for the diamond band: In any case make sure that the actual diamond coating is not touched by one of the bearings. Therefore, adjust the thickness rather generously.

Cleaning, maintenance and care

Caution:

Do not begin to clean the machine - and especially not the saw band - as long as the machine is still running! This could result in injuries.

The machine is largely maintenance free. To ensure a long service life, however, the machine should be cleaned with a soft, possibly moist cloth, handbrush or paintbrush after each time it is used.

The use of a vacuum cleaner is also recommended here. Caution!

The outside of the housing can be cleaned with a soft, possibly damp cloth.

In this process, mild soap or another suitable cleaning agent can be used.

Solvents or cleaning agents containing alcohol (e.g. petrol, cleaning alcohols etc.) should be avoided, since these can attack the plastic cases.

Changing the table insert

Please pay attention to the condition of the red plastic table insert (see pos. 22 in the exploded drawing at the end of this manual)! This must be in perfect condition. Deformed and worn table inserts must be replaced. We offer the table insert as a spare part for this.

Disposal:

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

EC Declaration of Conformity

Name and address:	PROXXON S.A. 6-10, Härebierg L-6868 Wecker
Product designation:	MBS 240/E
Article No.:	27172

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

EU EMC Directive 2004/108/EC
DIN EN 55014-1 / 05.20102
DIN EN 55014-2 / 06.2009
DIN EN 61000-3-2 / 03.2010
DIN EN 61000-3-3 / 07.2012

EU Machinery Directive 2006/42/EC
DIN EN 61029-1 / 01.2010

Date: 27.05.2013

Dipl.-Ing. Jörg Wagner

PROXXON S.A.
Appliance Safety Division

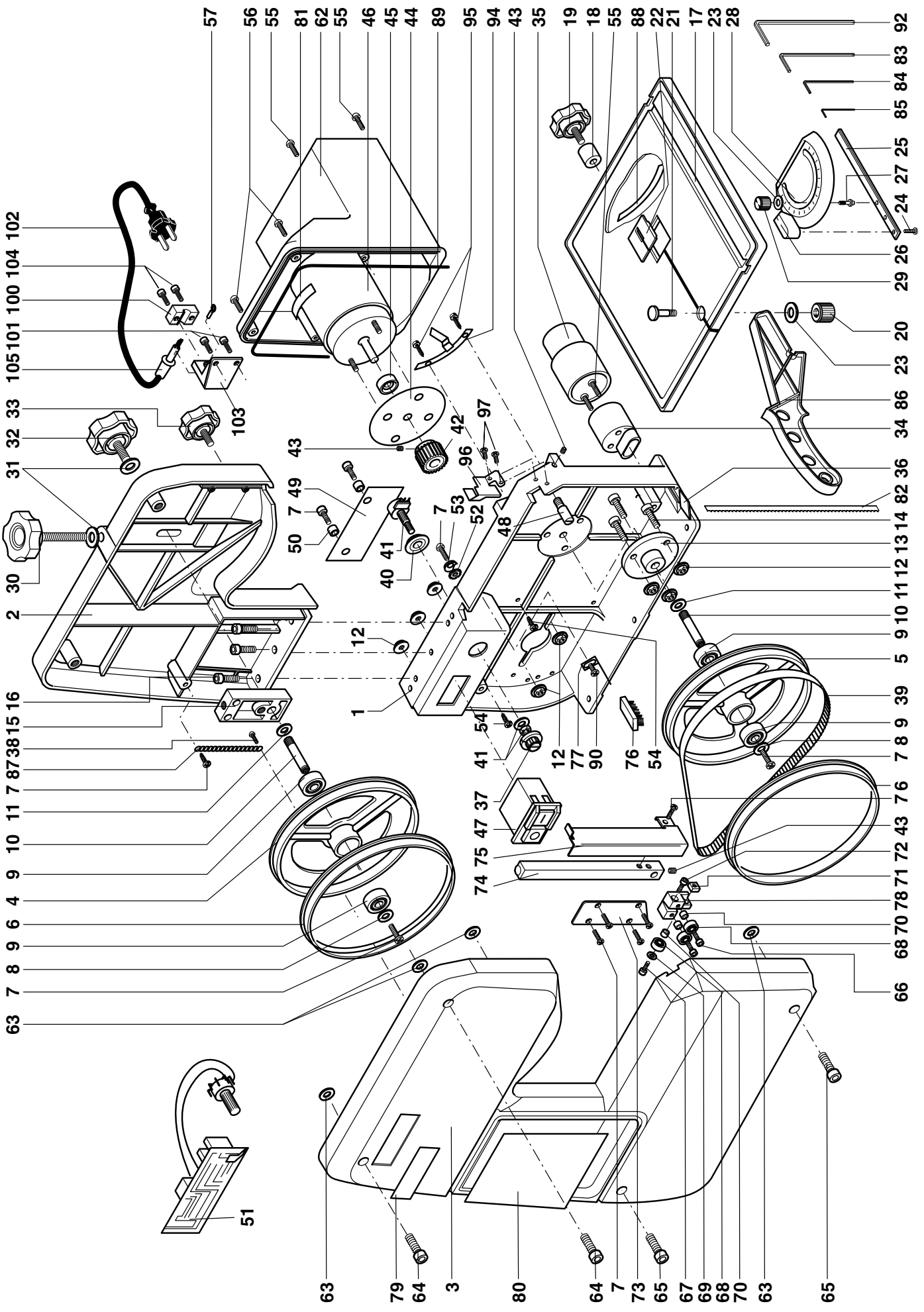
The CE document authorized agent is identical with the signatory.

Spare Parts List

ET-Nr.:	Description
27172 - 01	Lower frame
27172 - 02	Upper frame
27172 - 03	Front housing cover
27172 - 04	Upper running wheel
27172 - 05	Lower running wheel
27172 - 06	Hoop
27172 - 07	Screw
27172 - 08	Disc
27172 - 09	Bearing
27172 - 10	Shaft
27172 - 11	Disc
27172 - 12	Hexagon nut
27172 - 13	Flange
27172 - 14	Screw
27172 - 15	Clamping block for upper runner
27172 - 16	Housing screws
27172 - 17	Table
27172 - 18	Socket
27172 - 19	Rotary button
27172 - 20	Knurled nut
27172 - 21	Bolt
27172 - 22	Plastic insert
27172 - 23	Disc
27172 - 24	Countersunk screw
27172 - 25	Guide
27172 - 26	Indicator
27172 - 27	Bolt
27172 - 28	Angle stop
27172 - 29	Knurled screw
27172 - 30	Rotary button
27172 - 31	Disc
27172 - 32	Rotary button
27172 - 33	Rotary button
27172 - 34	Suction connection
27172 - 35	Rubber adapter
27172 - 36	Plate
27172 - 37	Rotary button
27172 - 38	Screw
27172 - 39	Toothed belt wheel
27172 - 40	Sealing disc
27172 - 41	Potentiometer, complete
27172 - 42	Pulley
27172 - 43	Set screw
27172 - 44	Sealing disc

ET-Nr.:	Description
27172 - 45	Cover
27172 - 46	Motor
27172 - 47	Switch
27172 - 48	Downer blade guide
27172 - 49	Insulating plate
27172 - 50	Insulating bushing
27172 - 51	Board
27172 - 52	Toothed washer
27172 - 53	Copper washer
27172 - 54	Screw
27172 - 55	Fastening screw
27172 - 56	Fastening screw
27172 - 57	Terminal
27172 - 62	Motor cover
27172 - 63	Retaining disc
27172 - 64	Housing screws
27172 - 65	Housing screws
27172 - 66	Screw
27172 - 67	Screw
27172 - 68	Bearing
27172 - 69	Disc
27172 - 70	Socket
27172 - 71	Square nut
27172 - 72	Screw
27172 - 73	Plate
27172 - 74	Guide rod
27172 - 75	Saw band guard
27172 - 76	Brush
27172 - 77	Holder for brush
27172 - 78	Blade guide
27172 - 79	PROXXON Label
27172 - 80	Speed table
27172 - 81	Rating plate for motor
27172 - 82	Saw band
27172 - 83	Allen key
27172 - 84	Allen key
27172 - 85	Allen key
27172 - 86	Work piece pusher
27172 - 87	Chain
27172 - 88	Label with angle scale
27172 - 89	Rubber seal
27172 - 90	Screw
27172 - 92	Allen key
27172 - 93	Nut with washer
27172 - 94	Pointer
27172 - 95	Screw
27172 - 96	Cover

ET-Nr.:	Description
27172 - 97	Screw
27172 - 99	Instructions (not shown)
27172 - 100	Clamp strain relief
27172 - 101	Screw
27172 - 102	Mains cable
27172 - 103	Holder strain relief
27172 - 104	Screw
27172 - 105	Support sleeve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103
43 42 97 96 49 7 50 41 40 7 53 52 48
12 1 54 41 12 77 90 76 54
37 47 74 75
51
63 79 64 3 80 64 7 73 65 67 69 68 70 63 65

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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.