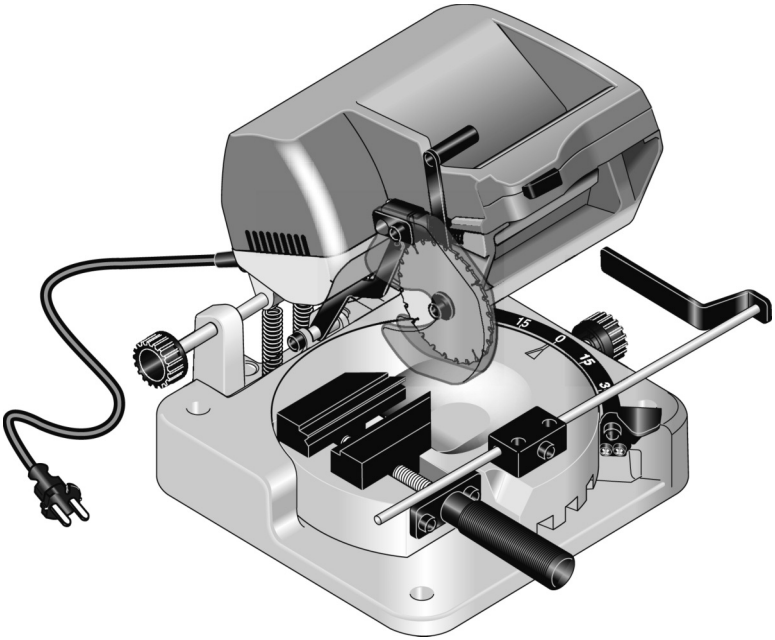
PROXXON

KGS 80



MANUAL

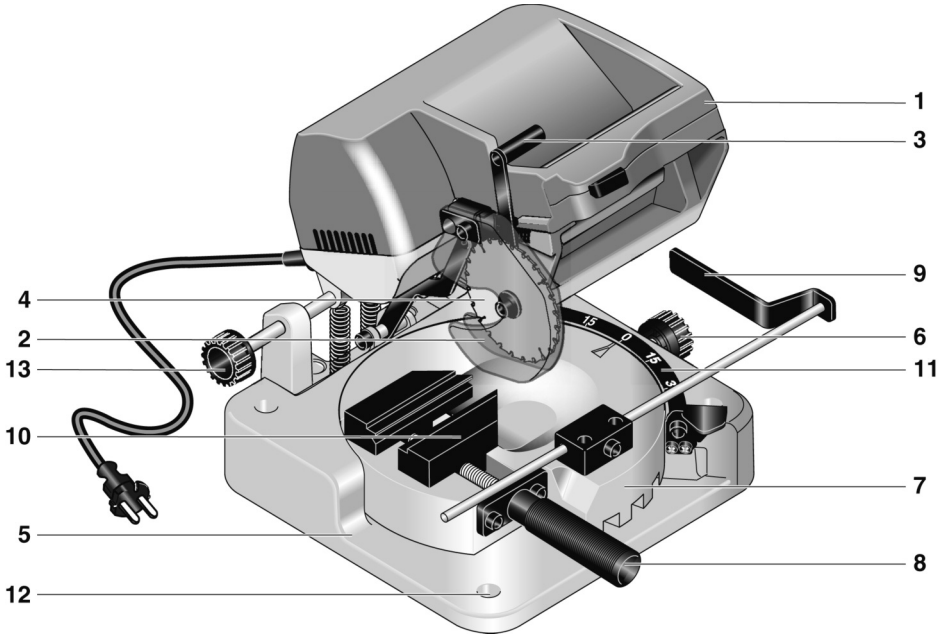


Fig. 1

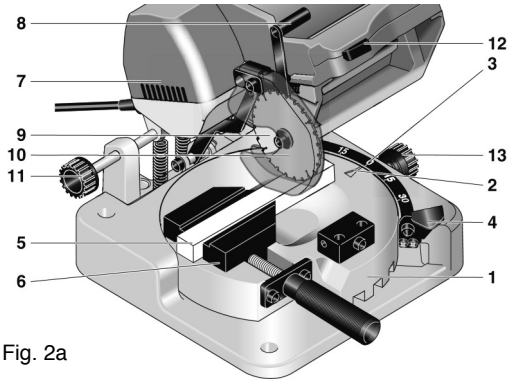


Fig. 2a

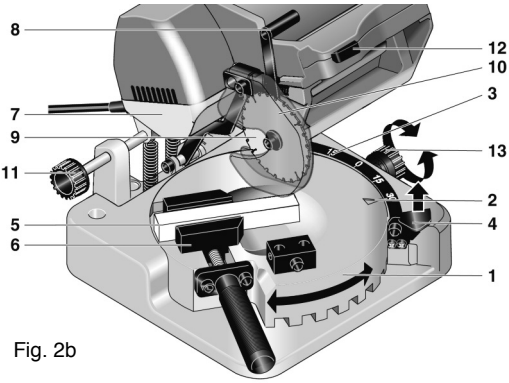


Fig. 2b

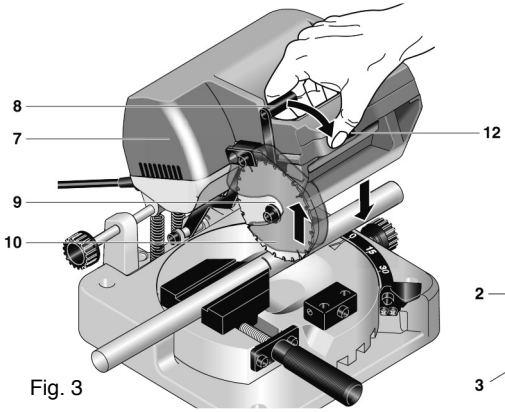


Fig. 3

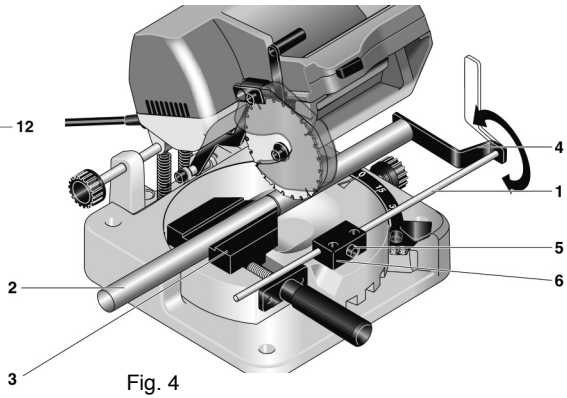


Fig. 4

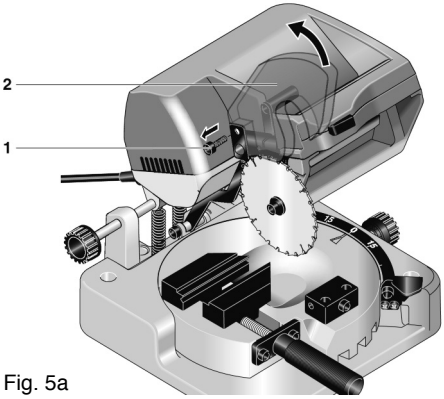


Fig. 5a

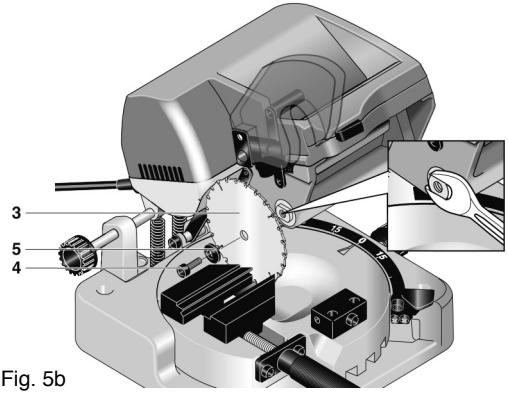


Fig. 5b

GB **Translation of the Original Operating Instructions**
KGS 80 Crosscut and mitre saw

Contents:

Dear Customer!

Using these instructions

- makes it easier to get familiar with the device
- prevents malfunctions caused by improper handling, and
- engthens the service life of your device.

Please keep these instructions readily accessible at all times.
Use the device only when you have understood it exactly and always adhere to the instructions.

PROXXON is not liable for the safe functioning of the device in cases of:

- handling that does not conform to the usual usage,
- purposes of use not designated in the instructions,
- disregard of the safety instructions.

You are not entitled to guarantee claims in cases of:
- operator errors,
- inadequate maintenance.

For your own safety, please follow the safety instructions exactly.
Use only genuine PROXXON replacement parts.
We reserve the right to make improvements in the sense of technical progress. We wish you much 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 !

1 Specific safety notes

Caution!

Damaged or deformed saw blades may not be used.
Use only saw blades recommended by the manufacturer and which correspond to EN 847.
Use only saw blades that have been properly sharpened. Comply with the maximum rotational speed specified on the saw blade.

Please remember that there are several rules that reduce the noise development of the machine:
Always select the correct saw blade for your work task! Of particular importance is that the blade is suitable for the material to be sawn.
Clamp the work pieces to be sawn as short as possible! If a work piece projects too far out of the vice, it can vibrate and cause noise.
Use the saw head adjustment to set the distance as described in the chapter "General notes on setting the saw head".

2 General view (fig. 1)

1. Saw head
2. Saw blade cover
3. Locking lever
4. Saw blade
5. Device base
6. Clamping screw
7. Turntable
8. Spindle for clamping fixture
9. Limit stop
10. Clamping fixture
11. Scale
12. Fastening bores
13. Adjusting screw for saw head

3 Description of machine

Thank you for purchasing the PROXXON KGS 80 Crosscut and mitre saw.

The saw is not only excellently suited for small yet fine applications for separating wood, non-ferrous metals and plastics, but also larger round and square materials can be easily cut in two no matter whether with a straight cut or with a precise and freely adjustable mitre.

The work piece is clamped in the integrated vice for sawing and separating. The centrically clamped jaws ensure that the imaginary centre line of the vice opening – therefore the centre of the work piece - will always “hit“ the centre of the saw blade independent of the selected work piece width.

Clamping round materials is no problem. The prismatic groove ensures the safe and reliable clamping of round materials. For thin, yet relatively wide work pieces (up to 65 mm) there is another groove on the top of the clamping jaw.
The round table itself is swivel-mounted: An angle of plus/minus 45° produces all desired mitres and the scale on the right also enables exact and easy monitoring of the angle setting. The round table has serrations every 15°, but any and all "intermediate steps" can be set and fixed with a clamping fixture. Crosscutting work pieces by using the limit stop is also possible with this device.
The saw head is kept in its upper home position by spring tension. Important: For even greater flexibility, the saw head can also be laterally adjusted on the side using a knurled screw. This minimises the "free" length of the work piece outside the vice jaws, and for angle cuts this ensures that the saw blade does not collide with the vice jaws.

For saw head operation, i.e. to swivel the saw head down while working with the saw, the mechanical safety catch located on the saw head in its home position must be unlocked for your safety. To prevent accidental operation and therefore minimise the risk of injuries, the saw head is arrested in its upper position and can be unlocked with a small lever at the horizontal grip.
This also unlocks the mechanical safety catch for the swivelling saw blade protection: This folds itself up when the saw head is lowered to the work piece. The ergonomically placed on/off button can then be pressed easily and without risk.

4 Technical data

Dimensions and weights:

Device base:	approx. 230 x 230 mm
Device base height:	approx. 50 mm
Height:	approx. 215 mm (in resting position of the separating head)
Width:	approx. 300 mm (saw head at far right)
Jaw length of vice:	80 mm
Span width:	max. 45 mm
Weight:	approx. 6 kg
Ø saw blade:	80 mm
Saw blade drill hole:	10 mm

Motor:

Voltage:	230 Volt, 50 Hz
Power consumption:	200 watt
Rotational speed:	6000/min
Cutting speed:	approx. 17 m/sec
Noise emission of device during operation:	
Sound pressure level Lpa:	89.7dB(A)
Sound power level Lwa	102.7dB(A)
Vibration:	2.262 m/s²
Uncertainty K:	1.5 m/s²

Warning!
Depending on the operating conditions while operating the device, the actually occurring emissions could differ from the values specified above!

Warning:
- To reduce vibrations, make sure your tool and the cutting disc or the saw blade are in proper condition!
- Stop operation of the tool immediately if excessive vibration occurs!
- An unsuitable cutting disc or unsuitable saw blade can cause excessive vibrations. Use only the appropriate saw blades and cutting discs!
- Take breaks if necessary when working with the device!

For use in dry environments only 

Please do not dispose off the machine! 

Always wear hearing protection when working with the device! 

5 Before beginning work

Note:
Safe and precise work is only then possible if the device has been properly fastened with screws to a worktop. There are drill holes in the heel plate for this purpose.

Caution!
When fixing or transporting the device, always disconnect the mains plug!

Danger!
Never operate the crosscut and mitre saw without wearing protective goggles!
Never use the crosscut and mitre saw to cut materials other than wood, non-ferrous metals or plastics.
Only choose saw blades suitable for the material to be cut.

6 Working with the KGS 80 Crosscut and mitre saw

6.1 Cutting capacity

Work can begin after the device has been fixed to a stable base. Additional preparations are not necessary and the work piece to be separated can be clamped into the vice and cut in two. Please note the following maximum sizes in dependence on the sawing angle:

Cutting capacity at 90° (right-angled cut):			Cutting capacity at 45° (mitre cut):		
For material thicknesses up to (in mm)	Maximum material width (in mm)	Round material: (in mm)	For material thicknesses up to (in mm)	Maximum material width (in mm)	Round material: (in mm)
10	65		5	36	
18	50		10	30	
21	40		15	25	
25	25	Ø max. 25	20	18	Ø max. 20

How to read the table:
If, for example, you would like to cut a 30 mm squared timber in two at a 45° angle, it may only have a maximum depth of 10 mm. Please note that these are only standard values.

Caution:
Risk of injury! Work pieces that have been clamped too short could tear loose and fly about!
Please ensure that the work piece is always securely clamped in the vice while you are working! Make sure you have sufficient clamping length and sufficient work piece size! A too short clamping length reduces the clamping force.

6.2 Sawing

6.2.1 General notes on setting the saw head

To achieve the shortest possible clamping length of the clamped work piece, the position of the saw head can be adjusted by using the knurled screw 11 (fig. 2a/b). This enables the saw blade to be guided as close to the clamping fixture 6 as possible. Cuts will then be especially clean and precise if there is only a small gap between the restraint and the saw blade level.
Before every use, make certain that the saw head is not set so that the saw blade will collide with the jaws of the clamping fixture when swivelling the saw head down (e.g. by shutting down the saw head when machine is off. Caution: disconnect the mains plug here)! Risk of injury!

Caution!
Do not remove any cutting scraps or other work piece parts from the cutting area as long as the machine is running and the saw blade is not in its home position.

6.2.2 Straight and mitre cuts

6.2.2.1 If you would like to produce straight cuts (see fig. 2a)
1. Make sure that turntable 1 (see fig. 2a) is in the 0° position: Arrow marking 2 must point to the 0° marking on scale 3 in the device base. If not, then please set as follows: (Caution: Please make sure that knurled screw 13 is released!)
2. Release stop lever 4 by lifting it and guide turntable 1 to the corresponding position. Let go of stop lever 4. Caution! The turntable will lock in place at 0°. If necessary, move turntable back and forth a bit with released stop lever until the stop lever catches.
3. Insert work piece 5 in clamping fixture 6, align and tighten. Pay attention to the desired length of the „free“ end!
4. For perfect alignment, saw head 7 of the switched off (!) device after locking lever 8 has been unlocked (pull to the front) can be swivelled down so far that saw blade 9 at the automatic swivelled-away saw blade protection 10 just barely touches the work piece (see also fig. 3). This enables a better estimation of the future length of the work piece.
5. For exact adjustment, saw head 7 can be finely toggled by using knurled screw 11.

Caution!
Please make sure here that the saw blade 9 will never collide with the jaws of clamping fixture 6!

Please note:
Crosscutting with the supplied length stop is no problem! How this works is described in “Working with the Length Stop”.

6. See fig. 3: After locking lever 8 has been released and the on/off button 12 has been pressed, swivel saw head 7 down and cut the work piece into two as shown in Fig. 3. The saw blade protection swivels up.

6.2.2.2 If you would like to produce mitre cuts: (See fig. 2b):
1. Release knurled screw 13 and lift up stop lever 4. Now set turntable 1 to the desired angle. Please use scale 3 and orient yourself using arrow marking 2 on turntable 1. The 15° graduations are provided with serrations, and stop lever 4 must be released so that they can become effective. Intermediate settings can also be set and fixed using knurled screw 13.
2. Insert work piece 5 in clamping fixture 6, align and tighten. Pay attention to the desired length of the „free“ end here as well!
3. For perfect alignment, saw head 7 of the switched off (!) device after locking lever 8 has been unlocked (pull to the front) can be swivelled down so far that saw blade 9 at the automatic swivelled-away saw blade protection 10 just barely touches the work piece (see also fig. 3). This enables a better estimation of the future length of the work piece. For exact adjustment, the saw head can be finely toggled by using knurled screw 11.

Caution!
Please make sure that the saw blade will never collide with the jaws of clamping fixture 6!

Please note:
Crosscutting with the supplied length stop is no problem! How this works is described in “Working with the Length Stop”.

4. After block lever 8 has been released and the on/off button 12 has been pressed, swivel saw head 7 down and cut the work piece in two as shown in fig. 3. The saw blade protection swivels up.

Caution!
The rotational speed, and not the contact pressure, generates the high cutting performance! Never work with force! This places an unnecessary load on the machine mechanics and leads to bad results and increased wear!

6.2.3 Working with the Length Stop (see fig. 4)

The KGS 80 crosscut and mitre saw is supplied with an adjustable length stop 1. Any number of work pieces of equal length can be cut off. Work piece 2 to be cut off is inserted in clamping fixture 3, pushed up to the limit plate 4 and then clamped. After the work piece has been cut off and the vice has been loosened, the material is pushed up to the limit stop again, clamped with the vice and then cut off. This can be repeated any number of times.

This is how to set the limit stop:

1. Allen screw 5 is released using an Allen key (included in delivery). Limit stop 1 can then be pushed in guide 6 up to the desired length. Make sure that limit plate 4 is properly aligned and that it hits the work piece correctly when “limit stopped”!
2. Clamp limit stop 1 with Allen screw 5.

If the limit stop is not required, it can be completely removed after releasing screw 5.
The desired position of the limit stop can be determined, for example, by appropriately marking a work piece, clamping it so that the saw blade hits the marking exactly and then by aligning the limit stop accordingly. This enables the exact reproduction length for the desired number of the subsequent work pieces.

Caution!
After the work piece has been aligned and clamped, fold limit plate 4 away during work (see fig. 4) to prevent the separated work pieces from jamming!

7 Care and Maintenance

7.1 Replacing the saw blade (see fig. 5a and 5b):

If the saw blade is worn or you wish to use another type or a cutting disc, you can quickly and easily exchange them.
Please note:
Replacement saw blades and a corundum cutting disc for the machine can be obtained on the market.

Please see our device catalogue or consult your nearest dealer!

Caution!
Disconnect the mains plug for all care and maintenance works!

1. Unscrew Allen screw 1 in saw blade protection 2 and fold saw blade protection up as shown in fig. 5a.
2. Using an Allen key, unscrew screw 4 in the centre of saw blade 3 (see fig. 5b). Hold the shaft at the flat spot with an open-ended spanner, Attention: Left-handed-thread!
3. Remove old saw blade. Mind flat washer 5 here.
4. Attach new saw blade and tighten with flat washer 5 and screw 4.

Caution!
Pay close attention to the running direction of the saw blade. When viewed from the front side of the saw, the teeth must point downwards!

Be careful when using the corundum cutting disc (accessories, item no.: 28 729):
The corundum cutting disc is very sensitive to bending. Do not touch the disc when releasing or tightening the fastening screw. The disc breaks very easily.

5. Fold down saw blade protection 2 once more and tighten using Allen screw 1.

Caution!
Disconnect the mains plug for all care and maintenance works!

7.2 Cleaning

Caution!
Always disconnect the mains plug before doing any cleaning, setting, maintenance or repair works!

Note:
The machine is mostly maintenance free. For a long service life, the device should be cleaned after every use with a soft cloth, hand brush or a soft brush. Even a vacuum cleaner can be recommended.

External cleaning of the housing can be carried out using a soft, possibly moist cloth. While doing so, a mild detergent or other suitable cleansing agent can be used. Do not use solvents or cleansing agents containing alcohol (e.g. benzene, cleaning alcohol, etc.) as these can corrode the plastic housings.

8 Disposal

Please do not dispose of the device in domestic waste! The device contains valuable substances that can be recycled. If you have any questions about this, please contact your local waste management enterprise or other corresponding municipal facilities.

9 EC Declaration of Conformity

Name and address:
PROXXON S.A.
6-10, Härebierg
L-6868 Wecker

Product designation: **KGS 80**
Article No.: **27160**

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

EU EMC Directive **2014/30/EC**
DIN EN 55014-1 / 05.2012
DIN EN 55014-2 / 02.2016
DIN EN 61000-3-2 / 03.2015
DIN EN 61000-3-3 / 03.2014

EU Machinery Directive **2006/42/EC**
DIN EN 62841-1/07.2016
DIN EN ISO 12100:2011-03
DIN EN ISO 12100/08.2013
Correction 1

Date: 14.11.2016

Dipl.-Ing. Jörg Wagner

PROXXON S.A.
Machine Safety Department

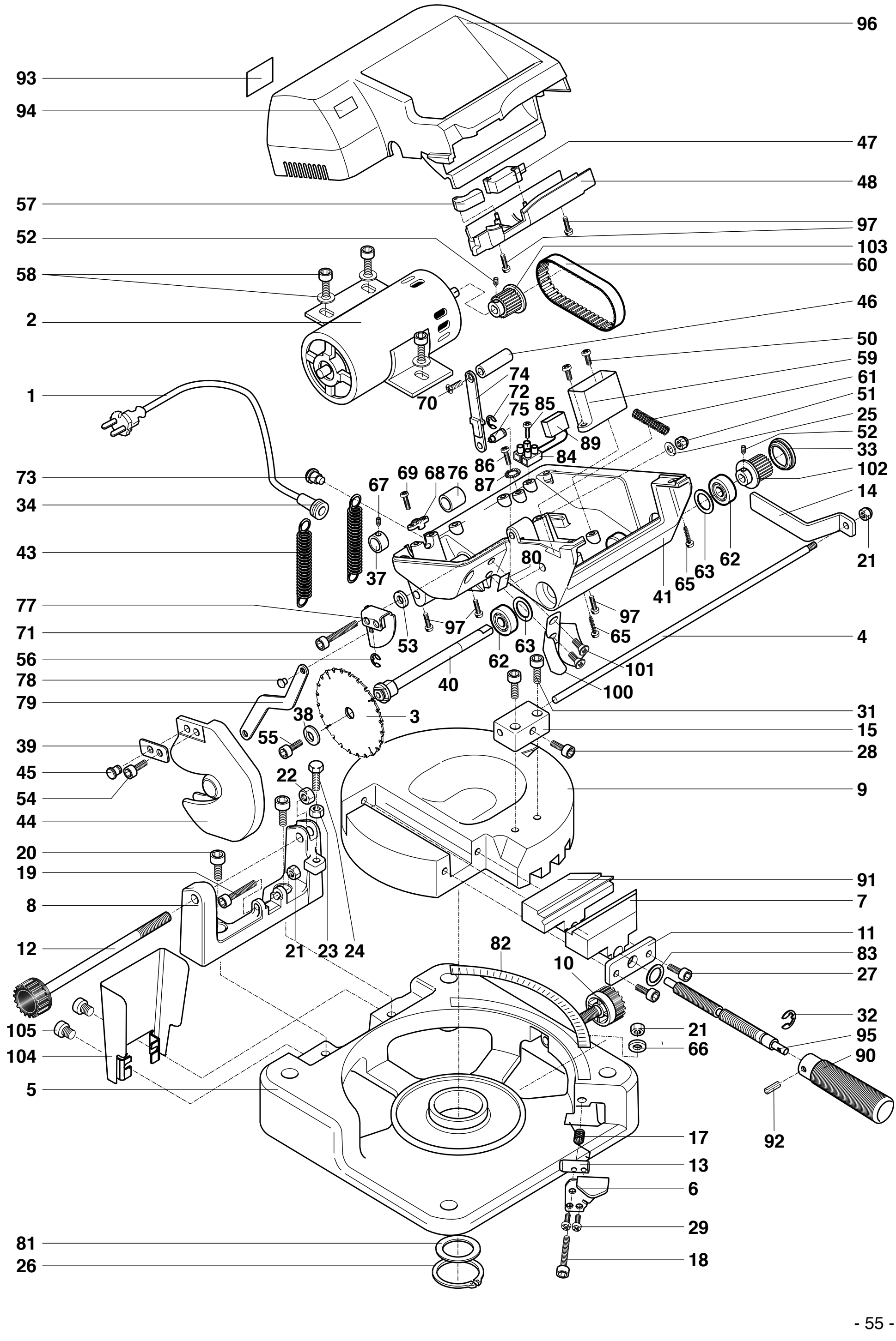
The CE document authorized agent is identical with the signatory.

Spare Parts List

PROXXON KGS 80

ET - Nr.:	Description
27160 - 01	Mains cable
27160 - 02	Motor
27160 - 03	Saw blade
27160 - 04	Bar from limit stop
27160 - 05	Base plate
27160 - 06	Anchor plate
27160 - 07	Jaw
27160 - 08	Tilting foot
27160 - 09	Round table
27160 - 10	Knurled screw
27160 - 11	Sheet
27160 - 12	Adjusting screw
27160 - 13	Sheet
27160 - 14	Limit plate
27160 - 15	Mount
27160 - 17	Spring
27160 - 18	Cheese-head screw
27160 - 19	Cheese-head screw
27160 - 20	Cheese-head screw
27160 - 21	Hexagon nut
27160 - 22	Hexagon nut
27160 - 23	Hexagon nut
27160 - 24	Hexagon screw
27160 - 25	Disc
27160 - 26	Locking ring
27160 - 27	Cheese-head screw
27160 - 28	Cheese-head screw
27160 - 29	Screw
27160 - 31	Cheese-head screw
27160 - 32	Locking ring
27160 - 33	Covering cap
27160 - 34	Anti-kink sleeve
27160 - 37	Socket
27160 - 38	Disc
27160 - 39	Shimplate
27160 - 40	Shaft
27160 - 41	Housing bottom part
27160 - 43	Tension spring
27160 - 44	Saw blade guard
27160 - 45	Pin
27160 - 46	Grip
27160 - 47	Switch
27160 - 48	Grip cover
27160 - 49	Screw
27160 - 50	Screw
27160 - 51	Nut
27160 - 52	Headless screw
27160 - 53	Disc
27160 - 54	Cheese-head screw
27160 - 55	Cheese-head screw

ET - Nr.:	Description
27160 - 56	Locking ring
27160 - 57	Knob
27160 - 58	Screw
27160 - 59	Board
27160 - 60	Toothed belt wheel
27160 - 61	Pressure spring
27160 - 62	Ball bearing
27160 - 63	Wave spring
27160 - 65	Screw
27160 - 66	Disc
27160 - 67	Headless screw
27160 - 68	Strain relief clamp
27160 - 69	Screw
27160 - 70	Screw
27160 - 71	Cheese-head screw
27160 - 72	Locking ring
27160 - 73	Pin
27160 - 74	Lever
27160 - 75	Axis
27160 - 76	Ferrite ring
27160 - 77	Retaining plate
27160 - 78	Pin
27160 - 79	Lever
27160 - 80	Felt sticker
27160 - 81	Spacer ring
27160 - 82	Scale sticker
27160 - 83	Disc
27160 - 84	Clamp
27160 - 85	Screw
27160 - 86	Screw
27160 - 87	Toothed washer
27160 - 89	Capacitor
27160 - 90	Turning handle
27160 - 91	Vice jaw
27160 - 92	Pin
27160 - 93	Rating plate
27160 - 94	PROXXON Label
27160 - 95	Threaded rod
27160 - 96	Housing cover
27160 - 97	Screw
27160 - 99	Instructions
27160 - 100	Safety plate
27160 - 101	Screw
27160 - 102	Toothed belt wheel
27160 - 103	Toothed belt wheel
27160 - 104	Cover
27160 - 105	Screw


96
93
94
47
48
57
97
52
103
58
60
2
46
50
59
61
1
74
72
75
85
70
51
25
89
52
33
84
86
87
102
73
69
68
76
14
67
34
43
37
80
62
63
21
65
41
77
97
97
71
53
65
56
62
63
4
101
78
40
100
79
38
3
31
55
15
39
28
45
22
54
9
44
20
19
91
8
7
21
23
24
12
82
11
10
83
27
32
105
21
95
104
66
90
5
17
92
13
6
29
81
18
26

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 for each country regarding "Service and Spare Parts Management" at www.proxxon.com.

Art.-Nr. 27160-99 Rev. 11/2016