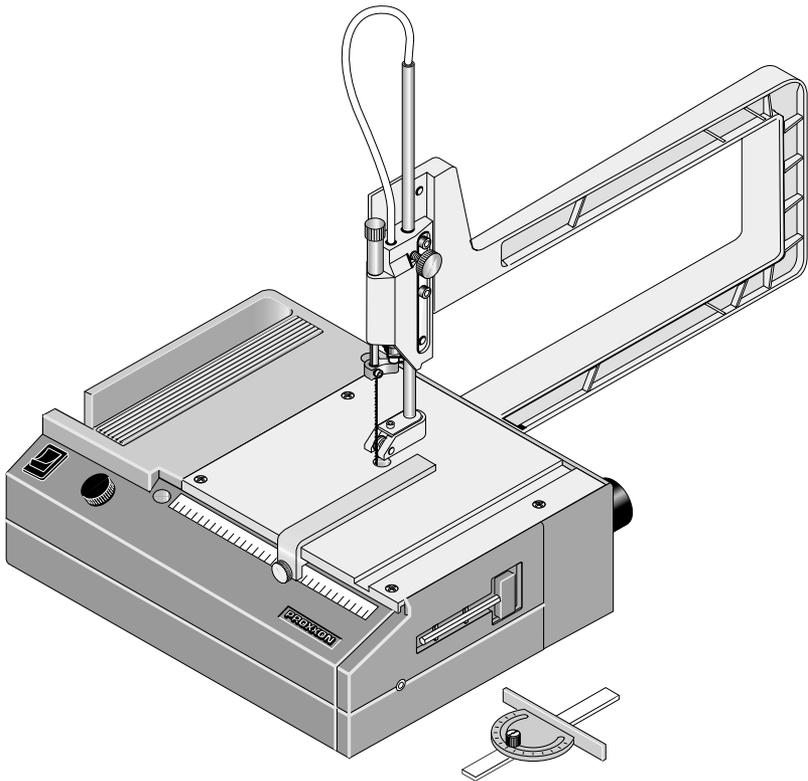


PROXXON

DS 115/E



Manual

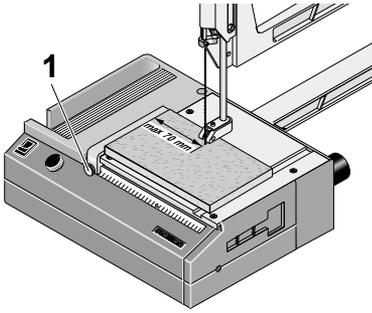


Fig. 6

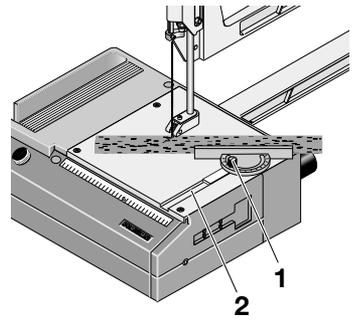


Fig. 7

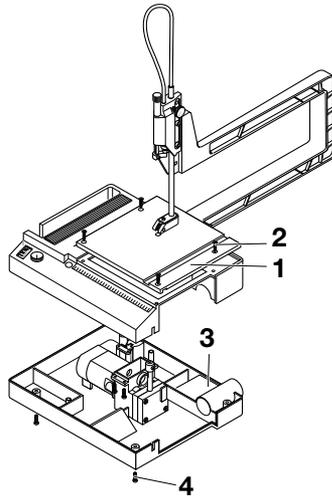


Fig. 8

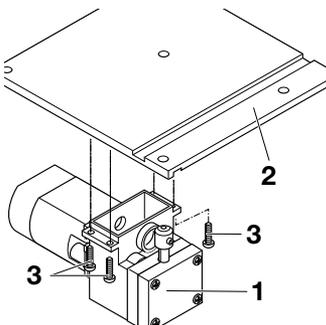


Fig. 9

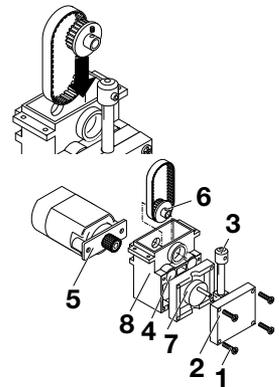


Fig. 10

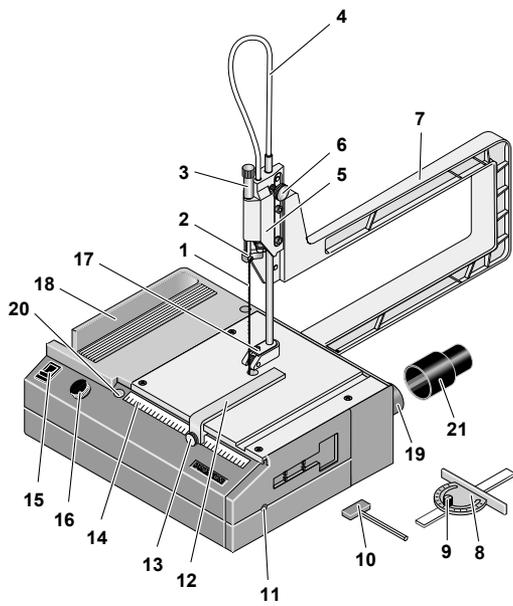


Fig. 1

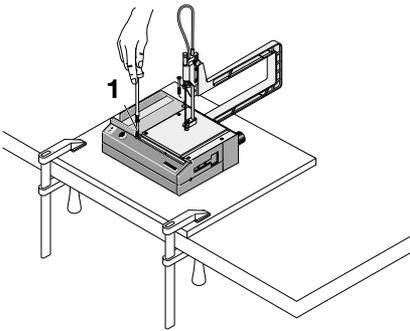


Fig. 2

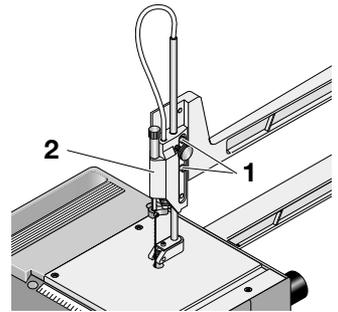


Fig. 3

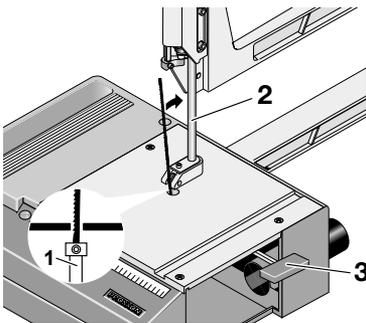


Fig. 4

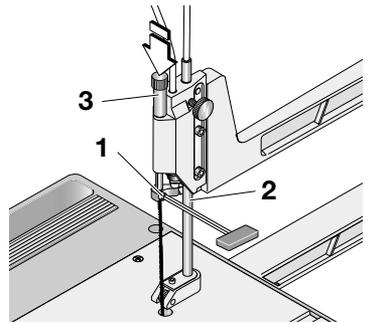


Fig. 5

Operating Instructions

Scroll saw DS 115/E

Foreword

Dear Customer,

The PROXXON scroll saw DS 115/E is the ideal device for curved cuts in wood, plastic or non-ferrous metals. To use the saw safely and correctly, please read the attached safety regulations and control note carefully before using the device.

This instruction manual covers:

- safety regulations
- operation and maintenance
- spare parts list

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Please read carefully!

Using this instruction manual will

- make it easier for you to get used to the machine,
- help prevent faults occurring due to improper use and
- increase the service life of your machine.

General safety instructions

Read and become familiar with this entire instructions manual.

Learn the tool's applications, limitations and possible hazards.

1. **KEEP GUARDS IN PLACE** and in working order.
2. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
3. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
4. **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
5. **CHILDREN AWAY.** All visitors should be kept a safe distance from work area.
6. **MAKE WORKSHOP KID PROOF** with padlocks, master switches, or by removing starter keys.
7. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
8. **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.
9. **USE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord. Exception No. 1: The reference to the table and the table itself may be omitted if a statement indicating the appropriate gage and length is incorporated into the instruction. Exception No. 2: The information regarding extension cords need not be provided for a permanently connected tool.
10. **WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewellery which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Exception: The reference to gloves may be omitted from the instructions for a grinder.
11. **ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
12. **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
13. **DON'T OVERREACH.** Keep proper footing and balance at all times.

14. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
15. **DISCONNECT TOOLS** before servicing; when changing accessories, such as blades, bits, cutters, and the like.
16. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in off position before plugging in.
17. **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
18. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
19. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function -check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
20. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
21. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.

Table 1
Minimum gage for cord

Ampere Rating		Volts	Total length of cord in feet			
			25 ft.	50 ft.	100 ft.	150 ft.
		120 V	25 ft.	50 ft.	100 ft.	150 ft.
		240 V	50 ft.	100 ft.	200 ft.	300 ft.
		AWG				
More Than	Not More Than		18	16	16	14
0	6		18	16	14	12
6	10		16	16	14	12
10	12		14	12	Not Recommended	
12	16					

Additional safety instructions

IMPORTANT

1. Ensure the workplace is tidy.
2. Check the unit for damage before use
3. (connection cable, protective devices, etc.), have defective parts replaced by qualified personnel.
4. This unit corresponds to the pertinent safety regulations. Repairs (e.g., replacement of the power supply lead) may only be performed by a qualified electrician
5. Never work without the safety equipment fitted.
6. Do not use electrical power tools in the rain, in damp surroundings or in the vicinity of flammable liquids or gases.
7. Only use the tool when the handle is dry and free from grease.
8. Avoid contact with earthed components, e.g., pipes, radiators, ovens and refrigerators.
9. Protect the connection lead from heat and sharp edges and route it so it cannot be damaged.
10. Do not remove the plug from the socket by pulling on the cable.
11. Do not pick up the unit by the cable.
12. Keep children and third parties away from the workplace.
13. Keep tools in childsafe locations when not in use.
14. Do not overload the tool.
15. Do not use the tool to perform operations for which it is not suitable.
16. Replace blunt tools in good time.
17. Visually inspect application tools to ensure they are in good working order and suitable for the task prior to setting up the job.
18. Fasten tools securely.
19. Clean the unit thoroughly following all work
20. Disconnect the plug from the power supply when the unit is not in use, before performing maintenance, tool replacement or repair work.
21. Only plug the unit in when the unit is switched off.
22. Always wear protective goggles (danger of tool breakage).
23. If necessary, wear a protective dust mask.
24. Only use appropriate working clothes (no loose sleeves, ties, jewellery).

25. Wear a hair net if you have long hair.
26. Only use accessories and spare parts recommended by PROXXON
27. Observe the max. permitted rotational speed
28. If necessary, use dust-extracting equipment
29. Do not use the tool when you are tired or under the influence of alcohol.
30. Keep fingers away from rotating or fast moving tools (saws, etc.)
31. Keep the operation instructions in a safe place.

This machine is for indoor use only. Do not expose to rain or use in damp locations.

Use only accessories recommended for this scroll saw. Follow the instructions that accompany accessories. Use of improper accessories may cause hazards.

Do not attempt to modify this tool or create accessories not recommended for use with this tool. Any such alteration or modification is misuse and could result in hazardous condition leading to possible serious injury.

To avoid injury from unexpected starting or electrical shock, do not plug the power cord into a power source receptacle during unpacking and assembly. This cord must remain unplugged whenever you are working on the scroll saw.

If any part is missing or damaged, do not plug the scroll saw in until the missing or damaged part is replaced, and assembly is complete. To avoid electrical shock, use only identical replacement parts when servicing grounded tools.

For your safety, never connect the plug to the power source receptacle until the assembly and adjustment steps are completed, and you have read and understood the safety and operating instructions.

To avoid injury from accidental start, make sure the switch is in the OFF position and the plug is not connected to the power source receptacle before changing any parts or tools (i. e. saw blade)

To avoid injury from accidental start, make sure the switch is in the OFF position and the plug is not connected to the power source receptacle before making any adjustments.

For your own safety, do not plug the tool into the power source receptacle or insert the switch key, until the parts are correctly installed and adjustments have been made.

For your own safety, use only saw blades sized and recommended for this scroll saw. Follow the instructions that accompany the saw blades.

To avoid fire or toxic reaction, never use gasoline, naphtha, acetone, lacquer thinner, or similar highly volatile solvents to clean the scroll saw .

Do not allow brake fluids, gasoline, or penetrating oils to come in contact with the plastic parts. They contain chemicals that can damage or destroy plastics.

Only qualified service technicians should do all electrical or mechanical repairs.

When servicing use only PROXXON replacement parts. Use of any other parts may create a hazard or cause product damage.

Any attempt to repair or replace electrical parts on this scroll saw may create a hazard unless repair is done by a qualified service technician. Repair service is available at your PROXXON service center (You find the address at the back of this manual)

Safety instructions for all double insulated tools:

1. Replacement Parts:
When servicing use only identical replacement parts.
2. Polarized Plugs
To reduce the risk of electric shock, this equipment has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

Additional safety instructions for table saws:

WARNING!

For Your Own Safety Read Instruction Manual Before Operating Saw!

1. Wear eye protection.
2. Use sawblade guard and spreader for every operation for which it can be used, including all through sawing.
3. Keep hands out of the line of saw blade.
4. Use a pushstick when required.
5. Know how to reduce risk of kickback
6. Do not perform any operation freehand.
7. Never reach around or over saw blade.

Note:

Keep this instruction manual in an easily accessible place. Only operate this machine if you are qualified to do so and follow the guidelines in this instruction manual.

PROXXON does not accept responsibility for the safe functioning of the machine:

- if it is handled in a manner which constitutes improper use,
- if it is used for other purposes which are not specified in the instruction manual,
- if the safety regulations are not observed.

Warranty claims are invalid if

1. the machine is incorrectly operated,
2. the machine has not been sufficiently maintained.

In the interests of your safety, please always observe the safety regulations. Only use genuine PROXXON spare parts. We reserve the right to make further alterations for the purpose of technical progress. We wish you every success with your machine.

Description of the machine

The DS 115/E cuts soft wood up to max. 40 mm, hardwood up to 10 mm, boards and non-ferrous metals up to 2 mm. Electronic speed regulation enables adaptation of the stroke rate to suit the material to be sawed. Thanks to the vertical adjustment, saw blades of different lengths can be used (60 to 140 mm). The integrated blowing device reliably ensures a clear view of the sawing line.

The basic equipment includes:

- Five saw blades with different teeth
- Longitudinal stop
- Angle stop
- Two fixing bolts
- Rubber adapter for the vacuum cleaner connection
- A hexagon key.

We recommend original PROXXON replacement saw blades.

General view (Fig. 1):

1. Saw blade
2. Upper locking ring
3. Tightening screw for saw blade
4. Air hose
5. Vertical adjustment
6. Clamping screw for guide bar
7. Saw bow
8. Angle stop
9. Clamping screw
10. Hexagon key
11. Sliding door with plug
12. Longitudinal stop
13. Clamping screw
14. Scale for longitudinal stop
15. On/off switch
16. Speed regulation
17. Saw blade guide and air duct
18. Storage box for saw blades
19. Pipe union for vacuum cleaner
20. Holes for attachment
21. Rubber adapter for vacuum cleaner connection

Technical data

No. of strokes:	150 - 2500/min
Vertical lift :	7 mm
Generated noise:	≤ 70dB/A
Weight:	2.8 kg

Dimensions :

Bearing surface:	160x160 mm
Reach:	300 mm

Motor:

Revolutions:	8,000/min
Voltage:	115 V 60Hz
Performance:	85 watt

Double insulated tool
For indoor use only!



Operation

Before start-up:

Mounting the machine

The scroll saw must be fastened onto a sturdy wooden board using the enclosed fixing bolts 1 (Fig. 2) The board can then be fixed onto a sturdy table using two fastening clamps.

Fastening the saw bow

Fasten the saw bow with the two screws included onto the rear side of the machine.

Vertical adjustment

The DS 115/E has vertical adjustment, so saw blades of different lengths can be used (60 to 140 mm). Higher stability of the blade is achieved by using shorter saw blades (the blade does not deflect to the rear under pressure). This is particularly important when sawing boards or non-ferrous metals. In such cases, we recommend shortening the saw blade with pliers to a length of 60 mm (danger of injury – wear safety goggles) and fixing the vertical adjustment on the lower position.

1. Release screws 1 (Fig. 3).
2. Bring the vertical adjustment 2 into the required position.
3. Re-tighten the screws 1.

Fitting the saw blade

1. Open the sliding door 11 (Fig. 1).
2. Attach the device to the mains and briefly switch on. Switch off the device in such a way that the lower locking ring 1 (Fig. 4) remains in the top position. Several attempts may be necessary here.
3. Pull out the mains plugs
4. Unscrew the screw with the Allen key 3 at the lower locking ring by max. 2 revolutions.
5. Insert the saw blade with teeth facing downward so far into the lower locking ring, until the first teeth are below the upper edge of the work surface.
6. Align the saw blade perpendicularly at the saw blade guide 2 and tighten the screw at the locking ring.

7. Unscrew the screw at the upper locking ring 1 (Fig. 5) by max. 2 revolutions.
8. Insert the saw blade into the upper locking ring.
9. Push down the tightening screw for the saw blade 3 so far, that the saw blade is positioned approx. 10 mm deep in the locking ring.
10. Tighten the screw at the locking ring.
11. Check that the saw blade guide 2 (Fig. 5) is positioned correctly against the saw blade.
12. Tension the saw blade using the tightening screw 3. The necessary voltage is dependent on the thickness and type of material to be processed. It is best to find the correct voltage by trial and error.
13. Close the sliding door 11 (Fig. 1).
14. Insert the mains plugs.

Connecting the vacuum cleaner

For longer periods of operation, we recommend connecting the saw to a vacuum cleaner. To this end, connect the vacuum cleaner at the connection tube 19 (Fig. 1) using the attached rubber adapter.

Working with the scroll saw

1. Set the stroke rate with the speed regulation 16 (Fig. 1). High stroke rate for wood, aluminum, brass and boards. Low stroke rates for plastics, particularly thin materials and for extremely fine work.
2. Adjust the saw blade guide. For this, release screw 6 (Fig. 1), set the saw blade guide 17 (Fig. 1) as deeply as possible and re-tighten the screw.
3. When sawing, press the work piece firmly onto the work surface, in order to avoid vibrations. Then saw the work piece with feeling and with little feed.
Thus: high pressure against the work top – little pressure against the saw blade.
4. When sawing with the longitudinal stop, release the clamping screw 1 (Fig. 6), set the stop and retighten the clamping screw.
5. When sawing with the angle stop, release the clamping screw 1 (Fig. 7), adjust the angles according to the scale and retighten the clamping screw. Then press the work piece lightly against the stop and slide the stop along the groove 2.

Note:

please remember that with a scroll saw, the saw blade fundamentally tries to follow the grain of the wood. For frequent even cuts, a circular saw is therefore always preferable to a scroll saw.

Maintenance

Important

Pull out the mains plug prior to commencing all maintenance and repair work.

Warning!

Turn switch OFF and always remove plug from power source before making any adjustments or repairs.

If any part is missing or damaged, do not plug the tool in until the missing or damaged part is replaced, and assembly is complete. To avoid electrical shock, use only identical replacement parts when servicing double insulated tools.

Warning!

To avoid fire or toxic reaction, never use gasoline, naphtha, acetone, lacquer thinner, or similar highly volatile solvents to clean the circular saw.

Do not allow brake fluids, gasoline, or penetrating oils to come in contact with the plastic parts. They contain chemicals that can damage or destroy plastics!

All electrical or mechanical repairs (expect the changing of the belt) should be done only by qualified service technicians.

When servicing use only PROXXON replacement parts.

Use of any other parts may create a hazard or cause product damage.

Any attempt to repair or replace electrical parts on this tool may create a hazard unless repair is done by a qualified service technician.

Repair service is available at your PROXXON service center

(You find the address at address at the back of this manual).

Replacing the toothed belt

Important

Pull out the mains plug prior to commencing all maintenance and repair work.

If the toothed belts becomes worn it is possible to change it yourself. You can order replacement belts from the PROXXON central service team (address on the rear side of these instructions).

1. Remove mains plug.
2. Remove the saw blade.
3. Unscrew screws 2 (Fig. 8) in the work top.
4. Unscrew screws 4 in the lower part of the housing 3.
5. Unscrew screws 3 (Fig. 9) and remove the work top 2 from the transmission 1.
6. Unscrew screws 1 (Fig. 10) and remove the guide plate 2 with pistons 3.
7. Unscrew the motor attachment screws 4 inside the transmission case 8 and pull out the motor 5 with pinion.
8. Unscrew the motor threaded pins of the toothed washer 6 using an Allen key and pull out the shaft with eccentric cam.
9. Remove toothed washer 6 and insert new toothed belts.
10. Position the toothed washer 6 with toothed belts in the transmission case in such a way that the shaft with eccentric cam can be re-inserted.
11. Insert the motor 5 back in the transmission case and put the toothed belts on the motor pinion (this requires sensitive fingers and patience).
12. Re-bolt the motor with the transmission case.
13. Grease piston 3 with the eccentric cam, fasten guide plate 2.
14. Tighten the threaded pin of the toothed washer 6.
15. Re-screw the transmission to the work top, attach the lower part of the housing and fasten the work top to the housing.