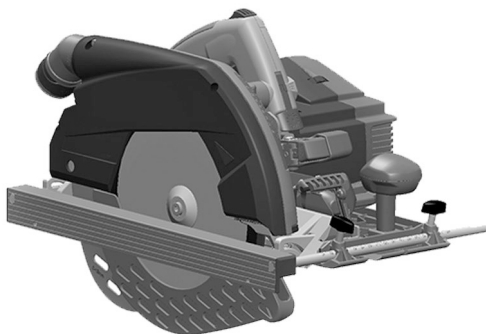
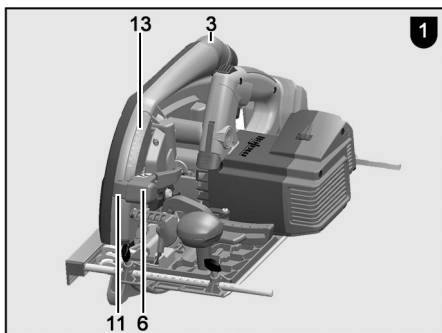
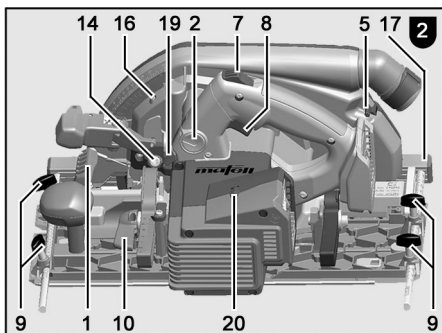


de	Handkreissäge	Originalbetriebsanleitung	5
en	Portable circular saw	Translation of the original operating instructions	20
fr	Scie circulaire portative	Traduction de la notice d'emploi originale	35
it	Sega circolare portatile	Traduzione delle istruzioni d'uso originali	50
nl	Handcirkelzaag	Vertaling van de originele gebruiksaanwijzing	65
es	Sierra circular manual	Traducción del manual de instrucciones original	80
fi	Käsisirkkeli	Käännös alkuperäiskäyttöohjeesta	95
sv	Cirkelsåg	Översättning av originalbruksanvisningen	109
da	Håndrundsav	Oversættelse af den originale betjeningsvejledning	123
ru	Ручная дисковая пила	Перевод оригинальной инструкции по эксплуатации	137
pl	Pilarka tarczowa	Tłumaczenie oryginalnej instrukcji obsługi	153
cs	Ruční kotoučová pila	Překlad původního provozního návodu	168
sl	Ročna krožna žaga	Prevod izvirnih navodil za uporabo	182
sk	Ručná kruhová píla	Preklad originálneho návodu na používanie	195

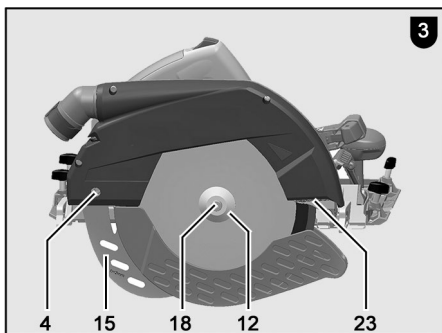




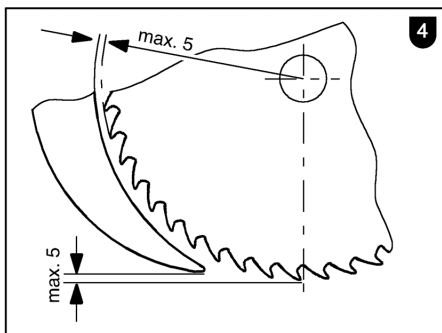
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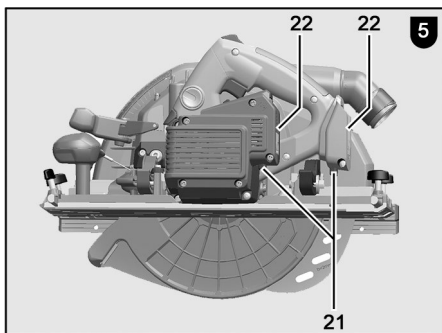
MAF02382/a



MAF02383/a



MAF00806/a



MAF02384/a

D - EG Konformitätserklärung

Wir bescheinigen hiermit, dass die Maschine K 85-18 den angeführten EU-Richtlinien entspricht. Bei Konstruktion und Bau wurden die gelisteten Normen angewendet. Bevollmächtigter für die Zusammenstellung der technischen Unterlagen: Mafell AG

GB - EC Declaration of Conformity

We herewith confirm that the machine K 85-18 complies with the EU directives quoted. The standards listed were used for design and construction. Empowered person for the configuration of the technical documents: Mafell AG

F - Déclaration CE de conformité

Nous déclarons par la présente que la machine K 85-18 est conforme aux directives CE applicables comme suit. Lors de la construction, les règlements suivants ont été utilisés. Plénipotentiaires pour l'assemblage des documentations techniques: Mafell AG

I - Dichiarazione di conformità CE

Con la presente certifichiamo che la macchina K 85-18 è conforme alle seguenti direttive CE applicabili. Nella progettazione e la costruzione sono state applicate le seguenti norme. Responsabile per la composizione della documentazione tecnica: Mafell AG

NL - EG conformiteitsverklaring

Wij bevestigen hiermede dat de machine K 85-18 aan de vermelde EU-richtlijnen beantwoord. Bij constructie en bouw werden de vermelde normen toegepast. Gemachtigde voor de samenstelling van de technische documenten: Mafell AG

E - Declaración de conformidad CE

Con la presente se certifica que la máquina K 85-18 cumple las directivas europeas mencionadas, las cuales forman la base tanto del diseño constructivo como de los procesos de fabricación. Apoderado legal para la compilación de la documentación técnica: Mafell AG

FIN - EY-vaatimusten mukaisuusvakuutus

Vakuutamme täten, että kone K 85-18 vastaa mainittujen EU-direktiivien vaatimuksia. Sen suunnittelussa ja valmistuksessa on sovellettu luettelossa ilmoitettuja standardeja. Teknisten asiakirjojen laatimiseen valtuutettu henkilö: Mafell AG

S - EG Konformitetsförklaring

Vi intygar härmed att maskinen K 85-18 uppfyller angivna EU direktiv. De angivna normerna användes vid konstruktion och tillverkning. Befullmäktigad för sammanställningen av den tekniska dokumentationen: Mafell AG

DK - EU overensstemmelseserklæring

Vi attesterer hermed, at maskinen K 85-18 opfylder de angivne EU-direktiver. Konstruktion og bygning er udført iht. de angivne standarder. Person, der er befuldmægtiget til at sammenstille det tekniske materiale: Mafell AG

RUS - Сертификат соответствия ЕС

Настоящим подтверждаем, что машина K 85-18 отвечает требованиям указанных директив ЕС. При проектировании и изготовлении применялись перечисленные нормы. Уполномоченный представитель по составлению технической документации: Mafell AG

PL - Deklaracja zgodności UE

Niniejszym potwierdzamy, że maszyna K 85-18 spełnia wymagania wyszczególnionych dyrektyw UE. W trakcie konstrukcji urządzenia zastosowano przedstawione normy. Pełnomocnik odpowiedzialny za zestawienie dokumentacji technicznej: Mafell AG

CZ - PROHLÁŠENÍ O SHODĚ

Tímto prohlašujeme, že stroj K 85-18 splňuje pokyny uvedených směrnic EU. Při plánování a sestavení byly využity uvedené normy. Za sestavení technických podkladů zodpovídá: Mafell AG

SLO - ES izjava o skladnosti

S tem izjavljamo, da stroj K 85-18 ustreza navedenim direktivam EU. Pri konstrukciji in izdelavi so uporabljeni naštetí standardi. Za sestavo tehnične dokumentacije je pooblašeno podjetje: Mafell AG

SVK - Vyhlásenie o zhode

Týmto potvrdzujeme, že stroj K 85-18 zodpovedá uvedeným smerniciam EÚ. Pri projektovaní a stavbe boli použité normy uvedené v zozname. Osoba poverená vyhotovením technických podkladov: Mafell AG



2006/42/EG
2014/30/EU
2011/65/EU

EN 62841-1, EN 62841-2-5, EN 55014-1, EN 55014-2,
EN ISO 12100, EN 847-1

K 85-18

Art.-Nr.: 91E302, 91E303

Mafell AG

Beffendorfer Str. 4

D - 78727 Oberndorf, den 11.10.2024

Dipl.-Ing. (FH) Thorsten Bühl
Vorstandsvorsitzender / CEO

i. V. Dipl.-Ing. Harald Schmid, MBA
Leitung Entwicklung und Konstruktion

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1 Signs and symbols



This symbol is found in all places where you will find information for your safety.

Non-compliance with these instructions may result in very serious injuries.



This symbol indicates a potentially hazardous situation.

If this situation is not avoided, the product or objects in its vicinity may get damaged.



This symbol indicates tips for the user and other useful information.

2 Product information

Art.-No. 91E302, 91E303

2.1 Manufacturer's data

MAFELL AG, Beffendorfer Straße 4, D-78727 Oberndorf / Neckar, Phone +49 (0)7423/812-0, Fax +49 (0)7423/812-218, e-mail: mafell@mafell.de

2.2 Rechargeable battery specifications

The CE Declaration of Conformity with regard to the rechargeable batteries can be found on our website www.mafell.com in the footer area under the header Legal Matters, Declaration of Conformity.

2.3 Machine identification

All details required for machine identification are available on the attached rating plate.



CE symbol to document compliance with the basic safety and health requirements according to Appendix I of the Machinery Directive.



For EU countries only

Do not dispose of electrical tools together with domestic waste!

In accordance with the European directive 2002/96/EC on waste electrical and electronic equipment and transposition into national law, obsolete electrical tools must be collected separately and recycled in an environmentally-compatible manner.



Read the operating instructions. This reduces the risk of injury.



Protect the rechargeable battery from heat, excessive solar radiation, fire, frost, water and humidity.

Protect rechargeable battery packs from humidity!



Protect rechargeable battery packs from fire!

There is danger of explosion!



Cordless Alliance System (=CAS) is a cross-manufacturer battery pack system. Further information is available at www.cordless-alliance-system.com

2.4 Technical data

Nominal voltage	2 x 18 V DC
Speed during idling	2800 – 5200 rpm
Cutting depth 0°/30°/45°/60°	88/75/61/44 mm (3.23/2.72/2.16/1.50 in.)
Tilting saw unit	0°– 60°
Saw blade diameter max/min	237/220 mm (9.33 / 8.66 in.)
Saw blade base body thickness	2.0 mm (0.08 in.)
Tool cutting width	2.5 mm (0.08 in.)
Saw blade mounting hole	30 mm (0.08 in.)
Hose connector diameter	35 mm (0.08 in.)
Weight with rechargeable battery (without parallel stop)	8.1 kg (17.86 lbs)
Dimensions (W x L x H)	264 x 414 x 305 mm (10.63 x 16.30 x 12.01 inches)

2.5 Emissions

The declared noise emission values have been measured in accordance with EN 62841-1 and EN 62841-2-5 and may be used for comparing the tool with another and also in a preliminary assessment of exposure.



Danger

The noise emissions during actual use of the power tool can differ from the declared values depending on the ways in which the tool is used especially what kind of workpiece is processed.

Always wear hearing protection, even when the power tool is running idle in addition to the trigger time!

2.5.1 Noise emission specifications

Noise emission values determined according to EN 62841-1 and EN 62841-2-5:

Sound pressure level	$L_{PA} = 94 \text{ dB (A)}$
Uncertainty	$K_{PA} = 3,0 \text{ dB (A)}$
Sound power level	$L_{PA} = 102 \text{ dB (A)}$
Uncertainty	$K_{PA} = 3,0 \text{ dB (A)}$

The noise measurement was recorded using the saw blade included in the standard equipment.

2.5.2 Vibration specifications

The typical hand-arm vibration is less than 2.5 m/s^2 .

2.6 Scope of supply

Portable circular saw K 85-18 complete with:

- 1 carbide-tipped circular saw blade Ø 237 mm (6 1/4 in.), 12 teeth
- 1 riving knife / splitter (thickness 2.0 mm/3.32 in.)
- 1 parallel guide fence
- 1 service tool in bracket on the machine
- 1 operating manual
- 1 folder "Safety instructions"
- 1 carrying case

2.7 Safety devices



Danger

These devices are required for the machine's safe operation and may not be removed or rendered inoperative.

Before operating the machine, check the safety devices for function and possible damage. Do not use the machine with missing or ineffective safety devices.

The machine is equipped with the following safety devices:

- Upper stationary saw guard
- Lower retractable saw guard
- Large base plate
- Handles
- Riving knife / splitter
- Index mechanism and electrical brake
- Hose connector

2.8 Use according to intended purpose

The K 85-18 is exclusively suitable for longitudinal and cross cutting of solid wood.

Panel materials such as chip board, core board and medium density fibre board can also be processed. Use approved saw blades according to EN 847-1.

Processing wood fibre insulation materials and synthetic materials (polystyrene) is also possible.

Any other use than described above is not permissible. The manufacturer cannot be held liable for any damage arising from such other use.

So as to use the machine as intended, comply with the operating, maintenance and repair instructions specified by Mafell.

Only use original Mafell / CAS rechargeable batteries and accessories.

Battery packs marked with CAS are 100% compatible with CAS devices (Cordless Alliance System).

2.9 Residual risks



Danger

Even if used in accordance with its intended purpose and despite conforming with the safety instructions, residual risks caused by the intended use that can lead to health consequences will always remain.

- Touching the saw blade in the vicinity of the starting aperture below the base plate.
- Touching the part of the saw blade that protrudes below the workpiece when cutting.
- Touching of turning parts from the side: saw blade, clamping flange and flange screw.
- Machine backlash if the blade gets stuck in the workpiece.
- Breakage of the saw blade and risk of the blade or pieces of the blade being hurled away.
- Touching live parts with the housing open and the rechargeable battery not removed.
- Accidental activation if rechargeable battery is not unplugged.
- Hearing can be impaired when working for long periods without ear protectors.
- Emission of harmful wood dusts during longer operation without extraction.

3 Safety instructions



Danger

Always observe the following safety instructions and the safety regulations applicable in the respective country of use!

Please also read the safety information in the enclosed folder 070500 "Safety instructions" (according to standard 62841-1).

- Children and adolescents must not operate this machine. This rule does not apply to young persons receiving training and being supervised by an expert.
- Never work without the protection devices stipulated for the respective operating sequence and do not effect any modifications on the machine that could impair safety.
- Protect the machine and the rechargeable batteries from humidity!
- Do not throw the rechargeable batteries into a fire!
- Do not use any defective or deformed rechargeable batteries!
- Do not open the rechargeable batteries!
- Do not touch the contacts of the rechargeable batteries and do not short-circuit them!
- A slightly acidic, combustible liquid may leak from defective li-ion rechargeable batteries! If any battery liquid is leaking and comes in contact with the skin, immediately rinse with a copious amount of water. If any battery liquid gets into your eyes, rinse with clean water and immediately consult a doctor for medical treatment!
- Remove the rechargeable batteries from the machine before carrying out any setting, retooling, maintenance or cleaning tasks.
- Ensure that the machine is switched off when you push in the rechargeable battery.
- Please remove the rechargeable battery from the machine if the machine is put down, transported or stored unattended.

Do not use:

- Cracked and misshapen saw blades.
- Saw blades made of high speed steel (HSS saw blades).

- Blunt saw blades as they impose an excessive load on the motor.
- Saw blades with a base body with a thickness greater than, or a cutting width (setting) less than, the thickness of the riving knife / splitter.
- Saw blades which are not suitable for the saw blade's idling speed.
- Grinding discs

Instructions on the use of personal protective equipment:

- Always wear ear protectors during work.
- Always wear a dust mask during work.
- Always wear protective goggles during work.

Instructions on operation:

Cutting procedures



Danger

- **Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing.** If both hands are holding the saw, they cannot be cut by the blade.
- **Do not reach underneath the workpiece.** The guard cannot protect you from the blade below the workpiece.
- **Adjust the cutting depth to the thickness of the workpiece.** Less than a full tooth of the blade teeth should be visible below the workpiece.
- **Never hold the workpiece in your hands or across your leg while cutting. Secure the workpiece to a stable platform.** It is important to support the work properly to minimise body exposure, blade binding, or loss of control.
- **Always hold the power tool by the insulated gripping surfaces when carrying out work during which the bit may hit concealed power lines.** Contact with a live power line also energises the metal parts of the power tool and leads to an electric shock.
- **When ripping, always use a rip fence or straight edge guide.** This improves the accuracy of cut and reduces the chance of blade binding.

- **Always use blades with correct size and shape (diamond versus round) of arbour holes.** Blades that do not match the mounting hardware of the saw will run off-centre, causing loss of control.
- **Never use damaged or incorrect blade washers or bolt.** The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.
- **Support large panels to minimise the risk of blade pinching and kickback.** Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.
- **Do not use dull or damaged blades.** Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.
- **Blade depth and bevel adjusting locking levers must be tight and secure before making the cut.** If blade adjustment shifts while cutting, it may cause binding and kickback.
- **Use extra caution when sawing into existing walls or other blind areas.** The protruding blade may cut objects that can cause kickback.

Kickback causes and related warnings

- kickback is a sudden reaction to a pinched, jammed or misaligned saw blade, causing uncontrolled saw to lift up and out of the workpiece toward the operator;
- When the blade is pinched or jammed tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator;
- if the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

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

- **Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces. Position your body to either side of the blade, but not in line with the blade.** Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.
- **When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.** Investigate and take corrective actions to eliminate the cause of blade binding.
- **When restarting a saw in the workpiece, centre the saw blade in the kerf so that the saw teeth are not engaged into the material.** If a saw blade binds, it may walk up or kickback from the workpiece as the saw is restarted.
- **Check the lower guard for proper closing before each use. Do not operate the saw if the lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position.** If the saw is accidentally dropped, the lower guard may be bent. Raise the lower guard with the pre-feed lever and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.
- **Check the operation of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use.** Lower guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.
- **The lower guard may be retracted manually only for special cuts such as "plunge cuts" and "compound cuts".** Raise the lower guard by pre-feed lever and as soon as the blade enters the material, the lower guard must be released. For all other sawing, the lower guard should operate automatically.
- **Always observe that the lower guard is covering the blade before placing the saw down on bench or floor.** An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.

Lower guard function

- **Check the lower guard for proper closing before each use. Do not operate the saw if the lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position.** If the saw is accidentally dropped, the lower guard may be bent. Raise the lower guard with the pre-feed lever and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.
- **Check the operation of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use.** Lower guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.
- **The lower guard may be retracted manually only for special cuts such as "plunge cuts" and "compound cuts".** Raise the lower guard by pre-feed lever and as soon as the blade enters the material, the lower guard must be released. For all other sawing, the lower guard should operate automatically.
- **Always observe that the lower guard is covering the blade before placing the saw down on bench or floor.** An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.

Riving knife function

- **Use the appropriate saw blade for the riving knife.** For the riving knife to function, the body of the

blade must be thinner than the riving knife and the cutting width of the blade must be wider than the thickness of the riving knife.

- **Adjust the riving knife as described in this instruction manual.** Incorrect spacing, positioning and alignment can make the riving knife ineffective in preventing kickback.
- **Always use the riving knife except when plunge cutting.** The riving knife must be replaced after plunge cutting. The riving knife causes interference during plunge cutting and can create kickback.
- **For the riving knife to work, it must be engaged in the workpiece.** The riving knife is ineffective in preventing kickback during short cuts.
- **Do not operate the saw if the riving knife is bent** Even a light interference can slow the closing rate of a guard.

Instructions on service and maintenance:

- Regularly cleaning the machine, especially the adjusting devices and guides, constitutes an important safety factor.
- Only original MAFELL spare parts and accessories may be used. Otherwise the manufacturer will not accept any warranty claims and cannot be held liable.
- Risk of injury when changing the saw blade! There is a risk of injury from touching the sharp teeth of the saw blade when changing the saw blade. Wear protective gloves. Exercise caution when changing the saw blade.

4 Layout

4.1 Depicted components
(see Fig. 1-5)

- (1) Pre-feed lever
- (2) Push-button
- (3) Hose connector
- (4) Screw
- (5) Hexagon screwdriver
- (6) Plunge lever
- (7) Switch-on lock
- (8) Shift lever
- (9) Wing screws
- (10) Clamping lever
- (11) Push-button
- (12) Clamping flange
- (13) Scale
- (14) Clamping screw
- (15) Riving knife/splitter
- (16) Stop bar
- (17) Parallel guide fence
- (18) Flange screw
- (19) Locking lever
- (20) Setting wheel
- (21) Unlocking mechanism rechargeable battery
- (22) Rechargeable battery
- (23) Light module

5 Setting / adjustment

5.1 Charging the rechargeable battery

Check whether the rated voltage of the rechargeable battery agrees with the information specified on the machine.

Rechargeable battery and charger are matched to each other. Only use original Mafell / CAS rechargeable batteries and chargers.

Before using a new machine, first of all charge the rechargeable battery.



The charging operation is described in the instructions supplied with the charger.

The rechargeable battery is equipped with a temperature monitoring system. This guarantees that the rechargeable battery is only charged in the temperature range between 0°C and 50°C. This achieves a long service life for the rechargeable battery.

A considerably shortened operating time per charging procedure indicates that the rechargeable battery is spent and needs to be replaced.



Danger

Explosion hazard

Protect the rechargeable battery from heat, fire and moisture.

Do not place the rechargeable battery onto heating appliances and do not expose the rechargeable battery to strong solar radiation for a longer period of time. Temperatures above 50°C are detrimental to the rechargeable battery. Allow a heated rechargeable battery to cool down before charging it.

The optimum storage temperature ranges between 10°C and 30°C.



Do not open the rechargeable battery and protect it from impacts. Keep the rechargeable battery in a dry and frost-proof place.



Danger

Cover the rechargeable battery's contacts if it is stored outside the charger. There is a fire and explosion hazard in case of a short circuit caused by metallic bridging.



Follow the instructions for the protection of the environment.

5.2 Fitting the rechargeable battery

Before inserting, check whether the rated voltage of the rechargeable battery agrees with the information specified on the machine.



Danger

There is an explosion hazard if the rechargeable battery is replaced incorrectly. Only replace the rechargeable battery with the same or equivalent type.

Slide the two rechargeable batteries one after the other into the two battery guides - next to the handle and at the rear of the handle - until the rechargeable batteries perceptibly engage.



Before using the machine, convince yourself that the rechargeable batteries are firmly seated in the machine.

5.3 Removing the rechargeable battery

Unlock the rechargeable batteries one after the other by pressing push button 21 (Fig. 5) and pull them out.



Do not use force to do so.

5.4 Chip extraction



Danger

Substances that are harmful to health must be taken up with an M-suction device.

Connect the machine to a suitable external dust extractor during all work generating a considerable amount of dust. The air velocity must be at least 20 m/s (65.6 ft / sec.).

The internal diameter of hose connector 3 (Fig. 1) is 35 mm (1 3/8 in.).

5.5 Saw blade selection

Use a sharp tool to obtain a good cut quality and select a tool from the following list according to material and application:

For cuts along and across the grain in soft or hard wood:

- Circular saw blade carbide Ø 237 x 2.5 x 30 mm, 24 teeth

For cuts especially along the grain in soft or hard wood:

- Circular saw blade carbide Ø 237 x 2.5 x 30 mm, 12 teeth

For cuts especially across the grain in soft or hard wood:

- Circular saw blade carbide Ø 237 x 2.5 x 30 mm, 56 teeth

5.6 Saw blade change



Danger

Unplug the rechargeable battery for all service work.

Risk of injury even if the saw wire is standing still. Wear protective gloves!

- Press the push-button 2 (Fig. 2) and pull the locking lever 19 upwards. Now the saw shaft is locked in position and the gearshift lever locked. You can lock the retractable saw guard in an open position with the aid of the pre-feed lever 1 (Fig. 2) or manually to make the tool change easier.
- Using the Allen key 5 (bracket Fig. 2), release the flange screw 18 (Fig. 3) **counter clockwise**. Now

remove both the screw and the front clamping flange 12.

- You can now remove the saw blade.
- The clamping flanges must be free of adhering parts.
- Pay attention to the sense of rotation when inserting the saw blade.
- Afterwards, push on the clamping flange, apply the flange screw and tighten it by turning it **clockwise**.
- Close the retractable saw guard. To do so, press the locking lever 19 (Fig. 2) downwards.

5.7 Riving knife/splitter



Danger

Unplug the rechargeable battery for all service work.

The riving knife / splitter 15 (Fig. 3) prevents the saw blade from jamming during longitudinal cutting. The correct distance to the saw blade is shown in (Fig. 4).

- For adjustment purposes, release the screw 4 (Fig. 3) with the Allen key 5 that is included in the supply (Fig. 2)
- Adjust the riving knife/splitter by moving it in its longitudinal groove and retighten the screw afterwards.

6 Operation



During operation and given corresponding conditions - in particular if the air is dry, or if materials such as coated board materials are used and there is no anti-static suction hose - electrostatic discharges via the operator can occur. The electronic system's protective function is activated and the machine goes into a safe state. The machine switches off automatically.

6.1 Initial operation

Personnel entrusted to work with the machine must be made aware of the operating instructions, calling particular attention to the chapter "Safety instructions".

6.2 Switching on and off

- **Switching on:** Press the switch-on lock 7 (Fig. 2) forward to unlock it. Then, with the switch-on lock depressed, press shift lever 8.

As this is a switch without locking device, the machine will only run for as long as this shift lever is pressed.

The built-in electronic system provides for jerk-free acceleration when the machine is switched on and under load readjusts the speed to the fixed setting.

In addition, this electronic system adjusts the motor down in case of overload, i.e. the saw blade will stop.

Switch the machine off then. Then switch the machine on again and continue sawing at a reduced feed speed.

The setting wheel 20 (Fig. 2) can be used to adjust the saw blade speed in a continuously variable manner between 2800 and 5200 rpm.

Level	Speed rpm
1	2800
2	3250
3	3700
4	4100
5	4750
6	5200

Material groups

- Hardwood, softwood, plywood
 - Level: **4 - 6**
- Coated panel materials
 - Level: **4 - 6**
- Soft fibre
 - Level: **6**
- **Switching off:** To switch off, release the shift lever 8. The built-in automatic brake limits the saw blade slowing time to approx. 5 s. The switch-on lock automatically takes effect again and secures the portable circular saw against accidental switch-on.

6.3 Light

The power tool is equipped with a light module 23 (Fig. 3).

The light module is supplied with power for a certain period of time as soon as the machine is switched on, and is then ready for operation.

If the machine is at a standstill for a longer period of time, the light switches off automatically.

6.4 Cutting depth adjustment

The cutting depth is continuously variable between 0 and 88 mm.

Proceed as follows:

- Press the push-button 11 (Fig. 1) and adjust the cutting depth with the plunge lever 6.
- The cutting depth can be read off scale 13 on the cover. The surface of plunge lever 6 with the red background serves as indicator.



Always set the cutting depth approx. 2 to 5 mm (5/64 to 13/64 in.) larger than the material thickness to be cut.

6.5 Setting for bevel cuts

For bevel cuts, the saw unit can be set to any angle between 0° and 60°.

- In order to incline it, bring the machine into home position and support it such that it is possible to tilt the saw unit.
- Unfasten the clamping lever 10 (Fig. 2).
- Adjust the angle according to the scale on the swivel segment.
- Then tighten the wing bolt 10.

6.6 Plunge cuts



Danger

Risk of backlash during plunge cuts! Prior to plunging, place the machine with the rear edge of its base plate against a limit stop fastened on the workpiece. Keep a firm hold on the machine handle during plunging and push the saw lightly forward!

- Press the push-button 11 (Fig. 1) and put the machine in the topmost position with plunge lever 6.
- Completely open the retractable saw guard with the pre-feed lever 1 (Fig. 2), so that the machine can be placed onto the workpiece to be processed. The saw blade is now freely suspended above the material and can be aligned with the marking.
- Switch on the machine and press the plunge lever 6 (Fig. 1) downwards. This causes the saw blade to plunge vertically into the workpiece. The plunging depth can be read from scale 13. The riving knife / splitter swings up and away when the blade enters the workpiece. As soon as the slit behind the saw blade is cleared during the forward motion of the machine, the riving knife reverts to its normal position.



In case of repetitive plunge cuts of the same depth, the plunging depth can be preset.

Proceed as follows:

- Set the machine to the desired cutting depth.
- Open the clamping screw 14 (Fig. 2) and set the stop bar 16 downwards up to the limit stop.
- Retighten the clamping screw. After completion of the plunge work, set the stop bar into the top position.

6.7 Sawing according to tracings

The pivoting part is equipped with a tracing edge for 0° - 60°. This tracing edge corresponds to the saw blade's inside. For bevel cuts, the tracing can be viewed through the opening below the plunge lever 6.

- Hold the machine by its handles and place the front part of its base plate onto the workpiece.
- Switch on the portable circular saw (see chapter 6.2) and slide the machine evenly forward in the direction of the cut.
- When the cut is completed, switch off the saw by releasing the switch trigger 8 (Fig. 2)

6.8 Sawing with the parallel stop

The parallel stop 17 (Fig. 2) serves to cut parallel to an already existing edge. The limit stop can be attached to the left or right of the machine. The cutting range on the right-hand side amounts to 47 - 200 mm (1 27/32 - 7 7/8 in.) and on the left-hand side to 195 - 405 mm (7

43/64 - 15 15/16 in.). In the range 195 - 260 mm (7 43/64 - 10 15/64 in.), the machine must be set approx. 10 mm (25/64 in.) to the top, so that the machine can be pushed under the motor casing.

- You can adjust the cutting width after releasing the wing screws 9 (Fig. 2) by moving the limit stop accordingly and afterwards retightening the wing screws.

In addition, by simply turning it around (guide face for the workpiece edge points upwards), the parallel stop can also be used as double support to improve guidance of the portable circular saw. Now the machine can be guided along a lath that is fastened on the workpiece.

6.9 Working with the roller edge guide

The roller edge guide serves to work parallel to an already existing edge. The limit stop can be attached to the left or right of the machine. The cutting range on the right-hand side amounts to approx. 12 - 48 mm (15/32 - 1 57/64 in.) and on the left-hand side to approx. 40 - 280 mm (1 37/64 - 11 15/64 in.).

- You can adjust the cutting width after releasing the wing screws 9 (Fig. 2) by moving the limit stop accordingly and afterwards retightening the wing screws.

7 Service and maintenance



Danger

Unplug the rechargeable battery for all service work.

MAFELL machines are designed to be low in maintenance.

The ball bearings used are greased for life. When the machine has been in operation for a longer period of time, we recommend to hand the machine in at an authorised MAFELL customer service shop for inspection.

Only use our special grease, order No. 049040 (1 kg tin) for all greasing points.

7.1 Storage

Clean the machine thoroughly if the machine is not used for a longer period of time. Spray blank metal parts with a rust-proofing agent.

7.2 Transport

The included Li-ion rechargeable batteries are subject to the requirements of dangerous goods legislation. The rechargeable batteries can be transported by the user on the road without any further requirements.

For the dispatch by third parties (e.g.: air transport or forwarding agent), special requirements for packaging and labelling must be observed. In this case, a dangerous goods expert must be consulted when preparing the package.

Only dispatch rechargeable batteries if their housing is undamaged. Tape open contacts and pack the rechargeable battery so that it does not move in the packaging.

Please also observe any further national regulations.

7.3 Disposal of rechargeable batteries/batteries



Electrical tools, rechargeable batteries, accessories and packaging should be recycled in an environmentally friendly manner.

Do not dispose of electrical tools together with domestic waste!

For EU countries only:



According to the European Directive 2002/96/EC, power tools that are no longer serviceable, and according to the European Directive 2006/66/EC, defective or used rechargeable batteries/batteries must be collected separately and recycled in an environmentally sound manner.

Return unusable rechargeable batteries/batteries directly to:

Germany

Stiftung

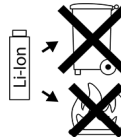
GRS Batterien

Heidenkampsweg 44

20097 Hamburg

Germany

Rechargeable batteries/batteries:



Li-ion:

Please comply with the information in Section "Transport", page 31.

Subject to changes.

8 Troubleshooting



Danger

Determining the causes for existing defects and eliminating these always requires increased attention and caution. Unplug the rechargeable battery beforehand!

Some of the most frequent defects and their causes are listed in the following chart. In case of other defects, please contact your dealer or the MAFELL customer service directly.

Defect	Cause	Elimination
Machine cannot be switched on	Discharge the rechargeable battery	Charge the rechargeable battery
	Rechargeable battery not engaged in end position	Allow rechargeable battery to engage completely
	The second rechargeable battery is missing	Insert both rechargeable batteries correctly and ensure they are properly seated
Rechargeable battery almost empty, an LED on the rechargeable battery is flashing.	Electronic system protects the rechargeable battery from deep discharge.	To check its state of charge, press the button on the rechargeable battery. If only one LED is still glowing, recharge the rechargeable battery.
Overload, machine switches off.	A sustained load has overheated the machine or the rechargeable battery. A warning signal is sounded (beep tone). As long as the machine or the rechargeable battery have not cooled down, every further attempt to switch on the machine will result in another beep tone.	Allow the machine and the rechargeable battery to cool down. The rechargeable battery can be cooled down much faster with a charger with air cooling. The machine can also be cooled down much faster by using a different rechargeable battery and idling the machine.
The machine switches off at a sudden increase in load.	The sudden increase in load also causes the current that is required for the machine to rise. A warning signal is sounded (beep tone). This rise in current, which occurs when there is a sudden blockage or backlash, is measured and then leads to the machine being switched off.	Switch off the machine by releasing the switch trigger. Afterwards, you can switch the machine back on again and resume work as normal. Try to avoid further blockages.
The machine switches off during operation	Electrostatic charge. The electronic system's protective function is activated and the machine goes into a safe state. The machine switches off.	Use an anti-static suction hose

Defect	Cause	Elimination
Saw blade jams as the machine is advanced	Feed rate too fast	Reduce feed speed
	Blunt saw blade	Release the switch immediately. Remove the machine from the workpiece and replace the saw blade
	Tension in the workpiece	Heightened caution during sawing, risk of backlash increases.
	Poor machine guidance	Use parallel guide fence
	Uneven workpiece surface	Straighten the surface
Saw blade vibrates in the work piece	Saw blade not correctly adjusted	Retighten saw blade
	Work piece not fastened	Fasten work piece with clamps
Saw blade stops - motor continues to turn	Saw blade not correctly fastened	Retighten saw blade
Burn marks on the cut surfaces	The saw blade used is unsuitable for the task or blunt	Replace saw blade
Chip ejection blocked	Wood is too damp	Clean chip ejection
	Extended cutting operation without extraction	Connect machine to an external extraction, e.g. portable dust extractor
Lower mobile protective cover does not close or closes only slowly	Chips and pieces of wood in the bottom mobile protective cover	Remove chips and pieces of wood
Sudden smoke emission from the motor casing	Overload of the machine's electronic system	<p>Interrupt the power supply by removing the battery pack. The smoke emission stops.</p> <p>Do not insert a rechargeable battery! Avoid inhaling the smoke!</p>

9 Optional accessories

- Saw blade carbide Ø 237 x 2.5 x 30 mm, 12 teeth (longitudinal cut)	Order No. 092590
- Saw blade carbide Ø 237 x 2.5 x 30 mm, 24 teeth (longitudinal and cross cuts)	Order No. 092591
- Saw blade carbide Ø 237 x 2.5 x 30 mm, 56 teeth (cross cut)	Order No. 092592
- Guide rail F80, 800 mm long	Order No. 204380
- Guide rail F110, 1100 mm long	Order No. 204381
- Guide rail F160, 1600 mm long	Order No. 204365
- Guide rail F210, 2100 mm long	Order No. 204382
- Guide rail F310, 3100 mm long	Order No. 204383
- Sliding bevel segment F-WA	Order No. 205357
- Accessories for guide rail:	
- Screw clamp F-SZ180MM (2 x)	Order No. 207770
- Connecting piece F-VS	Order No. 204363
- Rail bag TZ-FST1600	Order No. 095257
- Rail bag kit F80/160 with sliding bevel segment consisting of: F80 + F160 + connecting piece + sliding bevel + 2 screw clamps + rail bag	Order No. 209592
- Rail bag kit F160/160 consisting of: 2 x F160 + connecting piece + 2 screw clamps + rail bag	Order No. 209591
- Parallel stop, K85-PA.	Order No. 205323
- Roller edge guide K85-UA	Order No. 205166
- guiding device L	Order No. 208171
- Rechargeable battery PowerTank 18 M 72 LiHD	Order No. 094500
- Rechargeable battery PowerTank 18 M 72 LiHDX	Order No. 094523
- Rechargeable battery PowerTank 18 M 99 LiHD	Order No. 094503
- Rechargeable battery PowerTank 18 M 144 LiHD	Order No. 094498
- Rechargeable battery PowerTank 18 M 144 LiHDX	Order No. 094520
- Rechargeable power station APS M	Order No. 094492
- Rechargeable power station APS M+	Order No. 094509
- Rechargeable power station APS M+ (GB)	Order No. 094511

10 Exploded drawing and spare parts list

The corresponding information in respect of spare parts can be found on our homepage: www.mafell.com