

**K 55 18M bl /  
KSS50 18M bl**

170628.1119/e

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**mafell**



MAF02161/a



MAF02155/a

#### WARNING

**Lesen Sie alle Sicherheitshinweise und Anweisungen.** Versäumnisse bei der Einhaltung der Sicherheitshinweise und Anweisungen können elektrischen Schlag, Brand und/oder schwere Verletzungen verursachen. **Bewahren Sie alle Sicherheitshinweise und Anweisungen für die Zukunft auf.**

#### WARNING

**Please read all safety instructions and directions.** Failure to comply with the safety instructions and directions can cause electric shock, fire and/or serious injuries. **Please retain all safety instructions and directions for future reference.**

#### AVERTISSEMENT

**Veillez lire toutes les consignes de sécurité et instructions.** Tout non-respect des consignes de sécurité et instructions risque d'être à l'origine de décharges électriques, d'incendies et/ou de blessures graves. **Conservez toutes les consignes et instructions pour pouvoir les relire à tout moment.**

#### AVVERTENZA

**Leggere tutte le avvertenze di sicurezza e le istruzioni.** La mancanza del rispetto delle avvertenze di sicurezza e delle istruzioni possono causare scossa elettrica, incendio e/o gravi lesioni. **Conservare tutte le avvertenze di sicurezza e le istruzioni per il futuro.**

#### WAARSCHUWING

**Lees alle veiligheidsaanwijzingen en instructies.** Nalatigheid bij het naleven van de veiligheidsinstructies en aanwijzingen kan elektrische schok, brand en/of ernstige letsels veroorzaken. **Bewaar alle veiligheidsaanwijzingen en instructies voor later gebruik.**

#### ADVERTENCIA

**Lea todas las indicaciones de seguridad e instrucciones.** Si no se cumplen las indicaciones de seguridad e instrucciones, se pueden producir descargas eléctricas, incendios y/o lesiones graves. **Guarde todas las indicaciones de seguridad e instrucciones para el futuro.**

#### VAROITUS

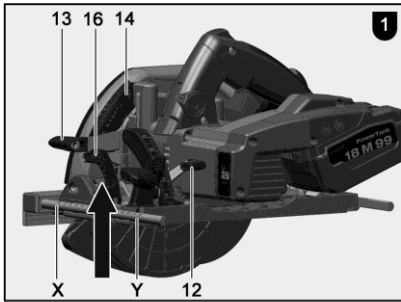
**Lue kaikki turvaohjeet ja käyttöohjeet.** Laiminlyönti turvaohjeiden ja käyttöohjeiden noudattamisessa voi aiheuttaa sähköiskun, tulipalon ja/tai vakavia vammoja. **Säilytä kaikki turvaohjeet ja käyttöohjeet tulevaisuuden varalle.**

#### WARNING

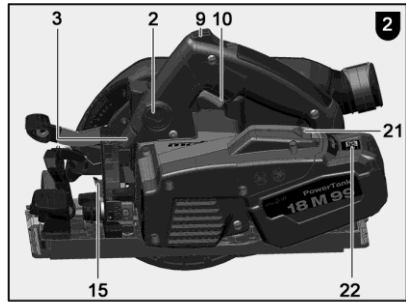
**Läs alla säkerhetsanvisningar och anvisningar.** Underlåtenhet att följa säkerhetsanvisningar och anvisningar kan orsaka elstöt, brand och/eller allvariga personskador. **Behåll alla säkerhetsanvisningar och anvisning för framtida användning.**

#### ADVARSEL

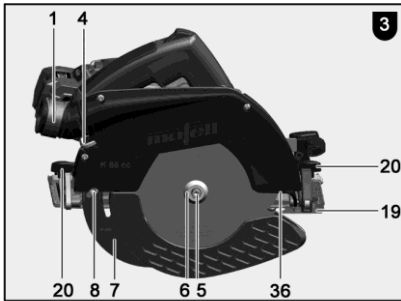
**Læs alle sikkerhedshenvisninger og instruktioner.** En manglende overholdelse af sikkerhedshenvisningerne og instruktionerne kan føre til elektrisk stød, brand og/eller alvorlige kvæstelser. **Opbevar alle sikkerhedshenvisninger og instruktioner til fremtidig brug.**



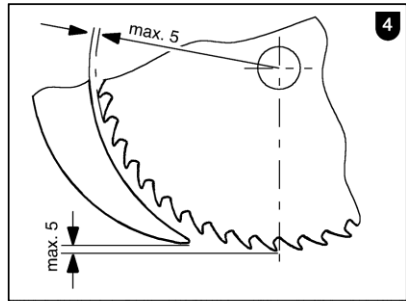
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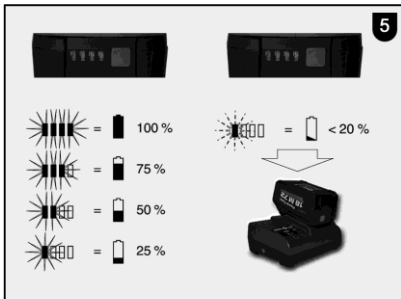
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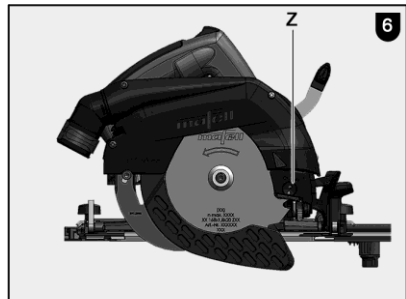
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MAF00806/a



MAF02153/a



MAF02157/b

#### D - EG Konformitätserklärung

Wir bescheinigen hiermit, dass die Maschine K55 18M bl 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 K55 18M bl 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 K55 18M bl 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 K55 18M bl 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 K55 18M bl 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 K55 18M bl 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-vaatimustenmukaisuusvakuutus

Vakuutamme täten, että kone K55 18M bl 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 K55 18M bl 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 K55 18M bl 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 K55 18M bl 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 K55 18M bl 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 K55 18M bl 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 K55 18M bl ustreza navedenim direktivam EU. Pri konstrukciji in izdelavi so uporabljeni našteti standardi. Za sestavo tehnične dokumentacije je pooblaščen podjetje: Mafell AG



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

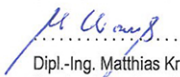
EN 62841-1, EN 62841-2-5, EN 55011, EN 12100,  
EN 847-1

K55 18M bl

Art.-Nr.: 91B501, 91B502, 91B521, 91B525

Mafell AG

D - 78727 Oberndorf, den 30.08.2019

  
Dipl.-Ing. Matthias Krauss  
Vorstandsvorsitzender / CEO

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

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

EN 62841-1, EN 62841-2-5, EN 55011, EN 12100,  
EN 847-1

KSS50 18M bl

Art.-Nr.: 91B601, 91B602, 91B621, 91B623, 91B625,  
91B648

Mafell AG

D - 78727 Oberndorf, den 30.08.2019

  
.....  
Dipl.-Ing. Matthias Krauss  
Vorstandsvorsitzender / CEO

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

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## 1 Signs and symbols



**This symbol appears at places where you will find instructions for your own 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

K 55 18M bl with Art.-No. 91B501, 91B502, 91B521, 91B525

KSS50 18M bl with Art.-No. 91B601, 91B602, 91B621, 91B623, 91B625, 91B648

### 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

### 2.2 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.



To reduce the risk of injury, please read the operating instructions.



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](http://www.cordless-alliance-system.com)

### 2.3 Technical data

#### K 55 18M bl

Nominal voltage	18 V <sup>==</sup>
Saw blade speed while idling	4450 rpm
Cutting depth 0°/30°/45°	58 / 56 / 48 mm (2.38 / 2.20 / 1.89 in.)
Tilting saw unit	0° – 45°
Saw blade diameter max./min.	168 / 157 mm (6.61 / 6.18 in.)
Saw blade body thickness	1.2 mm (0.05 in.)
Tool cutting width	1.8 mm (0.07 in.)
Saw blade mounting hole	20 mm (0.79 in.)
Hose connector diameter	35 mm (1.38 in.)
Weight with rechargeable battery (without parallel stop)	4.3 kg (9.48 lbs)
Dimensions (W x L x H)	234 x 330 x 258 mm (9.21 x 12.99 x 10.16 in.)

#### KSS50 18M bl

Nominal voltage	18 V <sup>==</sup>
Saw blade speed while idling	4450 rpm
Cutting depth 0° /30° /45°	58 / 56 / 48 mm (2.28 / 2.20 / 1.89 in.)
Tilting saw unit	0° – 45°
Saw blade diameter max./min.	168 / 157 mm (6.61 / 6.18 in.)
Saw blade body thickness	1.2 mm (0.05 in.)
Tool cutting width	1.8 mm (0.07 in.)
Saw blade mounting hole	20 mm (0.79 in.)
Hose connector diameter	35 mm (1.38 in.)
Weight with rechargeable battery (without parallel stop)	4.3 kg (9.48 lbs)
Dimensions (W x L x H)	246 x 330 x 258 mm (9.67 x 12.99 x 10.16 in.)

#### as cross-cutting system

Cutting depth 0° /30° /45°	52 / 50 / 42 mm (2.05 / 1.97 / 1.65 in.)
Cutting length at 12/49.5 mm (0.47/1.95 in.) workpiece thickness	470/400 mm (18.50/15.75 in.)
Weight with guiding device and rechargeable battery	5.7 kg (12.57 lbs)
Dimensions incl. guiding device (WxLxH)	257 x 751 x 258 mm (10.12 x 29.57 x 10.16 in.)

### 2.4 Emissions

The values stated are emission levels. Although there is a correlation between emission and imission level, it cannot be reliably derived from this whether additional precautions are necessary. Factors influencing the current imission level existing at the workplace comprise the duration of exposure, the room characteristic, other sources of noise, etc. such as e.g. the number of machines and other adjacent machining operations. In addition, the permissible imission level may differ from country to country. This information is nevertheless suitable for providing the machine user with an improved assessment of the hazard and risk.

### 2.4.1 Noise emission specifications

Noise emission values determined according to EN 62841:

Sound pressure level	$L_{PA} = 90 \text{ dB (A)}$
Uncertainty	$K_{PA} = 3 \text{ dB (A)}$
Sound power level	$L_{PA} = 101 \text{ dB (A)}$
Uncertainty	$K_{PA} = 3 \text{ dB (A)}$

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

### 2.4.2 Vibration specifications

The typical hand-arm vibration is less than  $2.5 \text{ m/s}^2$ .

## 2.5 Scope of supply

Portable circular saw K 55 18M bl complete with:

- 1 carbide-tipped circular saw blade  $\varnothing 168 \text{ mm}$  (6 39/64 in.), 24 teeth
- 1 riving knife/splitter (thickness 1.2 mm / 3/64 in.)
- 1 service tool in bracket on the machine
- 1 operating manual
- 1 folder "Safety instructions"
- 1 carrying case
- 1 chip bag
- 1 charger APS 18M for Art.No. 91B501, 91B521, 91B525
- 2 rechargeable batteries 18 M 99 LiHD for Art.No. 91B501, 91B521, 91B525

Cross-cutting system KSS50 18M bl complete with:

- 1 carbide-tipped circular saw blade  $\varnothing 168 \text{ mm}$  (6 39/64 in.), 32 teeth
- 1 riving knife / splitter (thickness 1.5 mm / 0.06 in.)
- 1 service tool in bracket on the machine
- 1 operating manual
- 1 folder "Safety instructions"
- 1 carrying case
- 1 charger APS 18M for Art.No. 91B601, 91B621, 91B625
- 2 rechargeable batteries 18 M 99 LiHD for Art.No. 91B601, 91B621, 91B625

## 2.6 Safety devices



### Danger

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

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

The machine is equipped with the following safety devices:



## 2.7 Use according to intended purpose

The K 55 18M bl / KSS50 18M bl is exclusively suited 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. Only use the saw blades approved by Mafell in accordance with EN 847-1 in the specified  $\varnothing$ -range

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 saw blades with a speed marking that corresponds to or is higher than the speed specified on the power tool

Use only original Metabo or CAS (Cordless Alliance System) battery packs and accessories.

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

## 2.8 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 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.

- 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!

### General instructions:

- 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.
- Examine the workpiece for foreign objects. Never attempt to cut into nails or other metal objects.
- 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:**

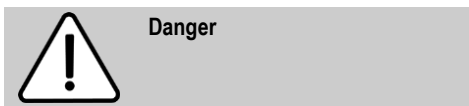
- Cracked and misshapen saw blades.
- Saw blades made of high speed steel (HSS saw blades).
- Blunt saw blades as they impose an excessive load on the motor.
- Saw blades with a base body with a thickness greater than, or a cutting width (setting) less than, the thickness of the riving knife / splitter.
- 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.

**Instructions on operation:**

**Sawing method**



- **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.

- **Hold the power tool by insulated gripping surfaces, when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will also make exposed metal parts of the power tool "live" and could give the operator 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.

## Kickback causes and related warnings

- kickback is a sudden reaction to a pinched, jammed or misaligned saw blade, causing an 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.
  - **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.

## 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 retracting handle 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 the retracting handle 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.

## 4 Setting / Adjustment

### 4.1 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 the MAFELL – APS 18 chargers for recharging.

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

A description of how to start up and charge the APS 18 can be found in the appended instructions "APS 18 rechargeable power station".

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.

### 4.2 Fitting the rechargeable battery

Slide the charged rechargeable battery into the battery guide next to the handle until it perceptibly engages.



Before using the machine, convince yourself that the rechargeable battery is firmly seated in the machine.

### 4.3 Removing the rechargeable battery

Unlock the rechargeable battery by pressing the locking lever 21 (Fig. 2) and pull it out of the battery guide.



Do not use force to do so.

### 4.4 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 inside diameter of hose connector 1 (Fig. 3) is 35 mm (1 3/8 in.).

The chip bag can be used for self-generated dust extraction when briefly carrying out work that generates a low amount of dust.

### 4.5 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 especially along the grain in soft or hard wood:**

- Circular saw blade carbide Ø 168 x 1.8 x 20 mm (6 39/64 x 0.07 x 0.79 in.), 16 teeth

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

- Circular saw blade carbide Ø 168 x 1.8 x 20 mm (6 39/64 x 0.07 x 0.79 in.), 24 teeth

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

- Circular saw blade carbide Ø 168 x 1.8 x 20 mm (6 39/64 x 0.07 x 0.79 in.), 32 teeth

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

- Circular saw blade carbide Ø 168 x 1.8 x 20 mm (6 39/64 x 0.07 x 0.79 in.), 56 teeth

### 4.6 Saw blade change



#### Danger

Unplug the rechargeable battery for all service work.

- Press the push-button 2 (Fig. 2) and pull the locking lever 3 (Fig. 2) upwards. Now the saw shaft is locked in position and the shift lever locked.
- Using the Allen key 4 (brackets Fig. 3) release the flange screw 5 (Fig. 3) **counter clockwise**. Remove the screw and the front clamping flange 6 (Fig. 3).
- Now you can remove the saw blade after opening the retractable saw guard.
- The clamping flanges must be free of adhering parts.
- Pay attention to the sense of rotation when inserting the saw blade.
- Afterwards, mount the clamping flange, attach the flange screw and tighten it by **clockwise** turning.

### 4.7 Riving knife/splitter



#### Danger

Unplug the rechargeable battery for all service work.

The riving knife/splitter 7 (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 8 (Fig. 3) with the Allen key 4 that is included in the supply (Fig. 3).
- Adjust the riving knife/splitter by moving it in its longitudinal groove and retighten the screw afterwards.

## 5 Operation

### 5.1 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".

## 5.2 Switching on and off

- **Switching on:** Press the switch-on lock 9 (Fig. 2) forward to unlock it. Then actuate switch trigger 10 (Fig. 2) when the switch-on lock is pressed.

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

- **Switching off:** Release switch trigger 10 (Fig. 2) to switch off the machine.

## 5.3 Light



### Caution

Do not stare into the burning lamp!

The power tool is equipped with a light module 36 (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.

When the machine is ready for operation, the light module automatically switches the light on when the machine is moved or switches it off when the machine is standing still for longer periods.

## 5.4 Cutting depth adjustment

The cutting depth is continuously variable between 0 and 55 mm.

**Proceed as follows to adjust it:**

- Unfasten the clamping lever 12 (Fig. 1).
- Set the cutting depth with the plunge lever 13 (Fig. 1).
- The set depth can be read off scale 14 (Fig. 1). The bevelled edge of the plunge lever serves as indicator.
- Retighten the fastening screw 12 (Fig. 1).



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

## 5.5 Setting for bevel cuts

For bevel cuts, the saw unit can be set to any angle between 0° and 45°.

- In order to incline it, bring the machine into home position and support it such that it is possible to tilt the saw unit.
- Release the lever 15 (Fig. 2).
- Adjust the angle according to the scale on the segment for tilting.
- Retighten the lever 15 (Fig. 2) afterwards.

## 5.6 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!

- Unfasten the clamping lever 12 (Fig. 1) and put the machine in the topmost position with plunge lever 13 (Fig. 1).
- Completely open the retractable saw guard with the pre-feed lever 16 (Fig. 1), 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 13 (Fig. 1) downwards. This causes the saw blade to plunge vertically into the workpiece. While doing so, the plunge depth can be read off the scale 14 (Fig. 1). 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 17 (Fig. 2) and set the stop bar 18 (Fig. 2) downwards up to the limit stop.
- Retighten the clamping screw. After completion of the plunge work, set the stop bar into the top position.

### 5.7 Sawing according to tracings without guide rail

You can detach the machine from the guide rail towards the rear by pressing the ratchet 24 (Fig. 6).

The retractable marking indicator 19 (Fig. 3) is automatically adjusted for bevel cuts as well. The tracing edge corresponds to the saw blade's inside. For diagonal cuts, the marking can be viewed through the opening on the left-hand side of the upper saw guard (arrow, fig. 1).

- 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 5.2) 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 10 (Fig. 2).

### 5.8 Sawing with the parallel stop

The parallel stop serves to saw parallel to an already existing edge. The limit stop can be attached to the left or right of the machine. While doing so, the cutting range amounts to 33 - 130 mm on the right-hand side (reading indicator "X" Fig. 1) and to 163 - 300 mm on the left-hand side (reading edge at indicator edge "Y" Fig. 1).

- You can adjust the cutting width after releasing the wing screws 20 (Fig. 3) 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 guide that is fastened on the workpiece.

### 5.9 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 - 40 mm (0.47 - 1.57 in.) and on the left-hand side to approx. 30 - 210 mm (1.18 - 8.27 in.).

- You can adjust the cutting width after releasing the wing screws 20 (Fig. 3) by moving the limit stop accordingly and afterwards retightening the wing screws.

## 6 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.

### 6.1 Storage

If the machine is not used for a longer period of time, it has to be carefully cleaned. Spray bright metal parts with a rust inhibitor.

### 6.2 Transport

The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements. The user can transport the batteries by road without further requirements.

When being transported by third parties (e.g.: air transport or forwarding agency), special requirements on packaging and labelling must be observed. For preparation of the item being shipped, consulting an expert for hazardous material is required.

Dispatch batteries only when the housing is undamaged. Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging.

Please also observe possibly more detailed national regulations.

### 6.3 Disposal of rechargeable batteries/batteries



The machine, rechargeable batteries, accessories and packaging should be sorted for environmental-friendly recycling.

Do not dispose of power tools and batteries/rechargeable batteries into household waste!

## 7 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, contact your dealer or the MAFELL customer service.

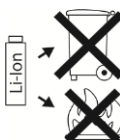
Defect	Cause	Elimination
Machine cannot be switched on	Discharge the rechargeable battery	Charge the rechargeable battery
	Rechargeable battery not engaged in end position	Allow rechargeable battery to engage completely
Rechargeable battery almost empty, an LED on the rechargeable battery is flashing.	Electronic system protects the rechargeable battery from deep discharge.	Check, press button 22 (Fig. 2 + 5). 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 (constant bleeping). It will go out after max. 30 seconds or after the switch trigger is released.	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.

### Only for EC countries:



According to the European Guideline 2002/96/EC, power tools that are no longer usable, and according to the European Guideline 2006/66/EC, defective or used battery packs/batteries, must be collected separately and disposed of in an environmentally correct manner.

### Battery packs/batteries:



### Li-Ion:

Please observe the instructions in section "Transport", page Fehler! Textmarke nicht definiert..

Subject to change without notice.



Defect	Cause	Elimination
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. 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.
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	
	Poor machine guidance	Use parallel stop
	Uneven workpiece surface	Straighten the surface
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	
	Extended operation without extraction	Connect machine to an external extraction, e.g. portable dust extractor
Sudden smoke emission from the motor casing	Overload of the machine's electronic system	Interrupt the power supply by removing the battery pack. The smoke emission stops. <b>Do not insert a rechargeable battery! Avoid inhaling the smoke!</b>

## 8 Optional accessories

- Saw blade carbide Ø 168 x 1.8 x 20 mm (6 39/64 x 0.07 x 0.79 in.), 16 teeth (longitudinal cut) Order No. 092 476
- Saw blade carbide Ø 168 x 1.8 x 20 mm (6 39/64 x 0.07 x 0.79 in.), 24 teeth (longitudinal and crosscuts) Order No. 092 478
- Saw blade - TCT Ø 168 x 1.8 x 20 mm (6 39/64 x 0.07 x 0.79 in.), 32 teeth (cross cut) Order No. 092 480
- Saw blade - TCT Ø 168 x 1.8 x 20 mm (6 39/64 x 0.07 x 0.79 in.), 56 teeth (fine cut) Order No. 092 482
- Guide rail F80, 800 mm (31.50 in.) long Order No. 204 380
- Guide rail F110, 1100 mm (43.31 in.) long Order No. 204 381
- Guide rail F160, 1600 mm (62.99 in.) long Order No. 204 365
- Guide rail F210, 2100 mm (82.68 in.) long Order No. 204 382
- Guide rail F310, 3100 mm (122.05 in.) long Order No. 204 383
- Sliding bevel F-WA Order No. 205 357
- Akku-PowerTank 18 M 144 LiHD Order No. 094498
- Akku-PowerTank 18 M 99 LiHD Order No. 094503
- Accessories for guide rail:
  - Screw clamp F-SZ100MM (2 x) Order No. 205 399
  - Connecting piece F-VS Order No. 204 363
  - Rail bag F160 Order No. 204 626
- Rail bag kit F80/160 consisting of: F80 + F160 + connecting piece + 2 screw clamps + rail bag Order No. 204 748
- Rail bag kit F80/160 with sliding bevel consisting of: F80 + F160 + connecting piece + sliding bevel + 2 screw clamps + rail bag Order No. 204 749
- Rail bag kit F160/160 consisting of: 2 x F160 + connecting piece + 2 screw clamps + rail bag Order No. 204 805
- Backlash stop F-RS Order No. 202 867
- Roller edge guide UA Order No. 206 073
- parallel stop K55-PA Order No. 206 825
- Rechargeable power station APS 18M + Order No. 094 439
- Rechargeable power station APS 18M + GB Order No. 094 440
- guiding device M Order No. 208 170
- guiding device ML Order No. 204 378

## 9 Exploded drawing and spare parts list

The corresponding information in respect of spare parts can be found on our homepage: [www.mafell.com](http://www.mafell.com)