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KSC 60 EB

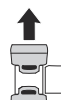


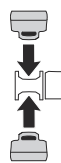
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1 Symbols


-  Warning of general danger
-  Warning of electric shock
-  Read the operating instructions and safety instructions.
-  Wear ear protection.
-  Wear protective gloves when changing tools!
-  Wear a dust mask.
-  Wear protective goggles.
-  Do not look directly at the light.
-  Direction of rotation of saw and the saw blade
-  Danger area! Keep hands away!
-  Cutting injury hazard caused by exposed saw blade
-  Risk of pinching fingers and hands!
-  Warning: Hot surface
-  Electro-dynamic run-down brake

 Removing the battery pack


 Inserting the battery pack


 Maximum power with two battery packs (36 V).

 Less power with one battery pack (18 V).


 Do not dispose of it with domestic waste.

 Tool contains a chip which stores data. See section [14.1](#)

 CE marking: Confirms the conformity of the power tool with the European Community directives.


 UKCA marking: The United Kingdom Conformity Assessed symbol is a marking for products being placed on the market in the United Kingdom. It is a manufacturers indication that the product is in conformance with the relevant regulations in the UK.

 Handling instruction

 Tip or advice

2 Safety warnings

2.1 General power tool safety warnings

 **WARNING! Read all safety warnings, instructions, illustrations and specifications provided with this power tool.** Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

2.2 Safety instructions for mitre saws

- **Mitre saws are intended to cut wood or wood-like products, they cannot be used with abrasive cut-off wheels for cutting ferrous material such as bars, rods, studs, etc.** Abrasive dust causes moving parts

- such as the lower guard to jam. Sparks from abrasive cutting will burn the lower guard, the kerf insert and other plastic parts.
- **Use clamps to support the workpiece whenever possible. If supporting the workpiece by hand, you must always keep your hand at least 100 mm from either side of the saw blade. Do not use this saw to cut pieces that are too small to be securely clamped or held by hand.** If your hand is placed too close to the saw blade, there is an increased risk of injury from blade contact.
 - **The workpiece must be stationary and clamped or held against both the fence and the table. Do not feed the workpiece into the blade or cut “freehand” in any way.** Unrestrained or moving workpieces could be thrown at high speeds, causing injury.
 - **Push the saw through the workpiece. Do not pull the saw through the workpiece. To make a cut, raise the saw head and pull it out over the workpiece without cutting start the motor, press the saw head down and push the saw through the workpiece.** Cutting on the pull stroke is likely to cause the saw blade to climb on top of the workpiece and violently throw the blade assembly towards the operator.
 - **Never cross your hand over the intended line of cutting either in front or behind the saw blade.** Supporting the workpiece “cross handed” i.e. holding the workpiece to the right of the saw blade with your left hand or vice versa is very dangerous.
 - **Do not reach behind the fence with either hand closer than 100 mm from either side of the saw blade, to remove wood scraps, or for any other reason while the blade is spinning.** The proximity of the spinning saw blade to your hand may not be obvious and you may be seriously injured.
 - **Inspect your workpiece before cutting. If the workpiece is bowed or warped, clamp it with the outside bowed face toward the fence. Always make certain that there is no gap between the workpiece, fence and table along the line of the cut.** Bent or warped workpieces can twist or shift and may cause binding on the spinning saw blade while cutting. There should be no nails or foreign objects in the workpiece.
 - **Do not use the saw until the table is clear of all tools, wood scraps, etc., except for the workpiece.** Small debris or loose pieces of wood or other objects that contact the revolving blade can be thrown with high speed.
 - **Cut only one workpiece at a time.** Stacked multiple workpieces cannot be adequately clamped or braced and may bind on the blade or shift during cutting.
 - **Ensure the mitre saw is mounted or placed on a level, firm work surface before use.** A level and firm work surface reduces the risk of the mitre saw becoming unstable.
 - **Plan your work. Every time you change the bevel or mitre angle setting, make sure the adjustable fence is set correctly to support the workpiece and will not interfere with the blade or the guarding system.** Without turning the tool “ON” and with no workpiece on the table, move the saw blade through a complete simulated cut to assure there will be no interference or danger of cutting the fence.
 - **Provide adequate support such as table extensions, saw horses, etc. for a workpiece that is wider or longer than the table top.** Workpieces longer or wider than the mitre saw table can tip if not securely supported. If the cut-off piece or workpiece tips, it can lift the lower guard or be thrown by the spinning blade.
 - **Do not use another person as a substitute for a table extension or as additional support.** Unstable support for the workpiece can cause the blade to bind or the workpiece to shift during the cutting operation pulling you and the helper into the spinning blade.
 - **The cut-off piece must not be jammed or pressed by any means against the spinning saw blade.** If confined, i.e. using length stops, the cut-off piece could get wedged against the blade and thrown violently.
 - **Always use a clamp or a fixture designed to properly support round material such as rods or tubing.** Rods have a tendency to roll while being cut, causing the blade to “bite” and pull the work with your hand into the blade.

- **Let the blade reach full speed before contacting the workpiece.** This will reduce the risk of the workpiece being thrown.
- **If the workpiece or blade becomes jammed, turn the mitre saw off. Wait for all moving parts to stop and disconnect the plug from the power source and/or remove the battery pack. Then work to free the jammed material.** Continued sawing with a jammed workpiece could cause loss of control or damage to the mitre saw.
- **After finishing the cut, release the switch, hold the saw head down and wait for the blade to stop before removing the cut-off piece.** Reaching with your hand near the coasting blade is dangerous.
- **Hold the handle firmly when making an incomplete cut or when releasing the switch before the saw head is completely in the down position.** The braking action of the saw may cause the saw head to be suddenly pulled downward, causing a risk of injury.

2.3 Safety instructions for the pre-assembled saw blade

Usage

- The maximum speed specified on the saw blade must not be exceeded and the speed range must be adhered to.
- The pre-installed saw blade is only designed for use in circular saws.
- Proceed with extreme care when unpacking, packing and handling the tool (e.g. installing it in the machine). There is a risk of injury from extremely sharp cutting edges!
- When handling the tool, wearing safety gloves provides a more secure hold of the tool and further reduces the risk of injury.
- Circular saw blades with cracked bodies must be replaced. Repair is not permitted.
- Circular saw blades with a combination design (soldered saw teeth) with saw tooth thickness smaller than 1 mm must no longer be used.
- **WARNING!** Do not use tools with visible cracks or blunt or damaged cutting edges.

Installation and mounting

- Tools must be clamped in such a way that they cannot come loose during operation.
- When assembling the tools, it must be ensured that the clamping takes place on the tool hub or the clamping surface of the

tool, and that the cutting edges do not come into contact with other components.

- Do not lengthen the key or tighten by hitting with a hammer.
- The clamping surfaces must be cleaned to remove contamination, grease, oil and water.
- Clamping screws must be tightened according to the manufacturer's instructions.
- Only securely installed rings, e.g. rings that have been pressed in or those that are held in position by an adhesive bond, may be used to adjust the hole diameter of circular saw blades to the spindle diameter of the machine. The use of loose rings is not permitted.


Service and maintenance

- Repairs and sanding work may only be carried out by Festool customer service workshops or experts.
- The tool design must not be changed.
- Deresinify and clean the tool regularly (cleaning agent with pH between 4.5 and 8).
- Blunt edges can be resharpened on the clamping surface to a minimum cutting edge thickness of 1 mm.
- Only transport the tool in suitable packaging – risk of injury!

2.4 Further safety instructions

- **Only use saw blades that correspond to the specifications for intended use.** Saw blades that do not fit correctly with the assembly parts will run unevenly and may cause fragments to break off from the material and be ejected. These fragments may hit the eyes of the user or any persons standing in the vicinity.
- **Only use saw blades with a chip angle $\leq 0^\circ$.** A chip angle $> 0^\circ$ will pull the saw into the workpiece. There is a risk of injury caused by saw kickback and the rotating workpiece.
- **Before each use, check that the pendulum guard is working correctly.** Only use this power tool when it is in perfect working order.
- **Never reach into the chip ejector with your hands.** Rotating parts may injure your hands.
- **Dust that is harmful to your health may be produced as you work (e.g. paint products containing lead and some types of wood).**

Contact with or inhalation of this dust may pose a risk for the operating personnel or persons in the vicinity. Observe the safety regulations that apply in your country.

-  Wear a P2 respiratory mask to protect your health. In enclosed spaces, ensure that there is sufficient ventilation and connect a mobile dust extractor.
- Replace any sawn-off or damaged limit stops. Damaged limit stops may be ejected when you work with the saw. Any persons standing in the vicinity of the saw may be injured.
- **Only use original Festool accessories and consumables.** Only accessories tested and approved by Festool are safe and perfectly adapted to the machine and application.
- The power tool should only be used indoors and in a dry environment.
- **Do not use power supply units or third-party battery packs to operate cordless power tools. Do not use third-party chargers to charge the battery packs.** The use of accessories not expressly authorised by the manufacturer can result in electric shocks and/or serious accidents.
- Check whether there are any signs of damage to the housing components, such as cracks or stress whitening. Have any damaged components repaired before using the power tool.



Do not look directly at the light. Optical radiation can damage the eyes.

- **Only for AS/NZS:** The tool shall always be supplied via residual current device with a rated residual current of 30 mA or less.


2.5 Other risks

In spite of compliance with all relevant design regulations, dangers may still present themselves when the machine is operated, e.g.:

- Touching rotating parts from the side: Saw blade, clamping flange, flange screw,
- Touching live parts when the housing is open and the mains plug is still plugged in,
- Workpiece parts being thrown off,
- Parts of damaged tools being thrown off,
- Noise emissions,
- Dust emissions.

2.6 Sawing aluminium

When sawing aluminium, the following measures must be taken for safety reasons:

-  Wear protective goggles.
- Connect the power tool to a suitable dust extractor with an antistatic suction hose.
- Regularly clean dust deposits from the motor housing on the power tool.
- Use an aluminium saw blade.
- When sawing panels, they must be lubricated with petroleum, but thin-walled profiles (up to 3 mm) can be sawed without lubrication.
- **Do not use water cooling.** This can cause a short-circuit.

2.7 Emission levels

The levels determined in accordance with EN 62841 are typically:

Sound pressure level $L_{PA} = 88 \text{ dB(A)}$

Sound power level $L_{WA} = 101 \text{ dB(A)}$

Uncertainty $K = 3 \text{ dB}$



CAUTION

Noise generated when working

Risk of damage to hearing

- Use ear protection.

The specified noise emission values

- have been measured in accordance with a standardised test procedure, can be used to compare one power tool with another,
- and can also be used for a provisional assessment of the load.



CAUTION

Depending on how the power tool is used, particularly which type of workpiece is being machined, the noise emitted by the power tool during use may deviate from the specified values.

- To protect the operator, safety measures should be defined based on load estimates obtained under real conditions of use. (All parts of the operating cycle must be taken into account here, including, for example, times in which the power tool is switched off or when it is switched on but idling.)

3 Intended use

The power tool is a stationary unit designed for sawing blocks of wood, plastic, non-ferrous metals and similar materials. Do not use it to

process other materials, in particular steel, concrete and mineral materials.

Materials containing asbestos must NOT be processed.

Do not use cutting or abrasive wheels.

This power tool may only be used by experts or instructed persons.



The user is liable for improper or non-intended use.

3.1 Saw blades

Only use saw blades with the following dimensions:

- Saw blades according to EN 847-1
- Saw blade diameter 216 mm
- Cutting width 2.3 mm
- Locating bore 30 mm
- Standard blade thickness 1.6 mm
- Suitable for speeds of up to 5000 rpm

Festool saw blades comply with EN 847-1.

Only saw materials for which the saw blade in question has been designed.

4 Technical data

Cordless compound mitre saw	KSC 60 EB
Motor voltage	18 - 2 x 18 V
Speed (idle) 1 x 18 V	1300–1800 rpm
Speed (idle) 2 x 18 V	1300–3500 rpm
Max. speed ^[2]	5000 rpm
Suitable battery packs	Festool series BP 18 ≥ 4 Ah
Max. mitre angle	60° left/right
Max. bevel angle	47/46° left/right
Weight excl. battery pack	17.1 kg

5 Parts of the device

- [1-1]** Switch-on lock
- [1-2]** On/off switch
- [1-3]** Safety button
- [1-4]** Handle
- [1-5]** Lever for groove depth limit
- [1-6]** Rotary knob for slide locking device

- [1-7]** Lever for transport locking device
- [1-8]** Spindle stop
- [1-9]** Stop ruler (both sides)
- [1-10]** Extension table (both sides)
- [1-11]** Rotary knobs for securing the extension table (both sides)
- [1-12]** Angle display for mitre cuts
- [1-13]** Lever for locking the mitre angle
- [1-14]** Rotary knob for securing the rotary base
- [1-15]** Rotary base
- [1-16]** Pendulum guard
- [2-1]** On/off switch for spot lighting
- [2-2]** Button to remove battery pack
- [2-3]** FSZ120 fastening clamp
- [2-4]** Bevel holder for clamping the bevel
- [2-5]** Bevel angle display
- [2-6]** Star handle for securing the bevel angle
- [2-7]** Carrying handle
- [2-8]** Key storage box for the hex key
- [2-9]** Extractor connector
- [2-10]** Battery pack capacity indicator
- [2-11]** Adjusting wheel for setting the speed

The illustrations specified are located at the beginning and end of the operating instructions. Accessories shown or described are not always included in the scope of delivery.

6 Commissioning

6.1 Initial commissioning



CAUTION

Risk of tilting!

- ▶ Ensure that the power tool is securely positioned.
- ▶ If required, observe the installation instructions for the MFT multifunction table or underframe UG-KAPEX KS 60.
- ▶ Remove the transport safety device **[3]**.
 - ▷ Remove the protective sleeve from the left-hand pulling rail **①**.

[2] Max. speed in the event of faulty electronics.

- ▷ Push the saw unit down, thus breaking through the cable ties that are securing it in place **2**.
- ▷ Remove the clamp from around the tilt locking device **3**.
- ▶ Set up the machine and move it into the working position.

6.2 Setting up and securing [4]



WARNING

Risk of injury

- ▶ Remove both battery packs from the power tool before performing any work on the power tool.

Secure the power tool in such a way that it cannot slip when you are working on it.

Support feet [4A]

Before securing, if required, install the A-SYS-KS60 support feet. Thanks to these support feet, the work surface on the rotary base is at the same height as a Systainer 1 and Systainer³ SYS3 M 112. These Systainers mean that long workpieces can then be supported.

You have the following options for securing:

- **Screws [4B]:** Use four screws to secure the machine to the work surface. Use the holes **[4B-1]** at the four support points on the saw table to do this.
- **Fastening clamps [4C]:** Use fastening clamps **[4C-1]** to secure the machine to the work surface. The support points are used to firmly secure the machine while taking the centre of gravity into consideration.
- **Clamping set (for MFT) [4D]:** Use the clamping set **[4D-2]** to secure the machine onto the Festool MFT 3 or MFT/Kapex (SZ-KS) multifunction table. The hexagonal holes **[4D-1]** close to the extension table on both sides are used for this.
- **Underframe UG-KAPEX KS 60 [4E]:** Observe the installation instructions that are enclosed with the underframe.

6.3 Working position



CAUTION

When the lever for the transport locking device [1-7] is pulled, the saw unit moves upwards quickly.

- ▶ Always hold on to the handle **[1-4]** when pulling the lever for the transport safety device.

Unlocking the machine (working position)

- ▶ Swivel the saw unit into a vertical position (saw blade is vertical) **[12]**.
- ▶ Move the saw unit downwards as far as the limit stop and hold it there.
- ▶ Pull the lever for the transport locking device **[1-7]**.
- ▶ Slowly guide the saw unit upwards.
- ▶ Insert the battery pack (see section 7).

The machine is ready for operation.

6.4 Switching on/off

- ▶ Move the machine into the working position or release the lock on the saw unit.
- ▶ Press and hold the safety button **[1-3]**.
- ▶ Press and hold the switch-on lock **[1-1]**.
- ▶ Press and hold the on/off switch **[1-2]**.

Press = ON


Release = OFF

7 Battery pack


Before using the battery pack, check that the battery interface is clean. Any contamination of the battery interface may impair correct contact and lead to the contacts being damaged.


A faulty contact may result in the machine overheating or being damaged.

[5A] Remove the battery pack.

[5B]  Insert the battery pack – until it clicks into place.

i **Please note:** The machine can only be operated under the following conditions **[5C]:**

 Both battery packs are used. Maximum power with two battery packs (36 V).

 Only the front battery pack is used. Less power with one battery pack (18 V).

i Further information about the charger and battery pack with capacity indicator can be found in the corresponding operating manual.

8 Settings



WARNING

Risk of injury

- ▶ Remove both battery packs from the power tool before performing any work on the power tool.

8.1 Speed control

You can continuously adjust the speed within the speed range using the adjusting wheel **[2-10]** (see "Technical data"). This enables you to optimise the cutting speed to suit each surface.

Speed range per material	
Solid wood (hard, soft)	6
Chipboard and hardboard	3-6
Laminated wood, blockboard, veneered and laminated panels	6
Laminate, mineral materials	4-6
Aluminium panels and profiles up to 15 mm	4-6
Plastics, fibre-reinforced plastics, paper and fabric	3-5
Acrylic glass	4-5

Current limiting

Current limiting prevents excessive current consumption under extreme overload, which can lead to a decrease in the motor speed. The motor immediately restarts after the load is removed.

Temperature cut-out

The power supply is restricted and the speed reduced if the motor exceeds a certain temperature. The power tool continues operating at reduced power to allow the ventilator to cool the motor quickly. The power tool starts up again automatically once the motor has cooled sufficiently.

8.2 Brake

The saw KSC 60 EB comes with an electronic brake. The saw blade is stopped electronically within approximately two seconds of switching off the machine.

8.3 Dust extraction



WARNING

Health hazard posed by dust

- ▶ Always work with an extractor.
- ▶ Comply with national regulations.
- ▶ When sawing carcinogenic materials, always connect a suitable extraction mobile in accordance with national regulations. Do not use the chip collection bag.

Blockages in the guard may impair safety features. To avoid blockages, it is therefore better

to work with a mobile dust extractor at full suction power.

Static charge may occur when sawing (e.g. MDF). If this is the case, work with a mobile dust extractor and an antistatic suction hose.

Festool mobile dust extractor

A Festool mobile dust extractor with a suction hose diameter of 27/32 mm or 36 mm (36 mm recommended due to the reduced risk of clogging) can be connected to the extractor connector **[6-1]**.

The adapter on a 27 diameter suction hose is inserted into the adapter **[6-4]**. The adapter on a 36 diameter suction hose is inserted over the adapter **[6-4]**.

CAUTION! A static charge may build up if no antistatic suction hose is used. The user may receive an electric shock and the power tool's electronics may be damaged.

8.4 Independent extraction

- ▶ Secure the connection piece **[6-2]** of the dust collection bag **[6-3]** at the extractor connector **[6-1]** with a clockwise rotation.
- ▶ To empty, remove the connection piece of the dust collection bag from the extractor connector with an anti-clockwise rotation.

8.5 Adjusting the table extension

- ▶ Open the rotary knob **[7-2]**.
- ▶ Pull out the table extension **[7-1]** far enough that the workpiece is laid out fully.
- ▶ Close the rotary knob.


ⓘ If, despite the table extension being extended as far as possible, the workpiece protrudes over the table, the workpiece must be supported by other means.

8.6 Setting the stop rulers [8]

For mitre cuts, you must adjust the stop rulers **[8A-1]** so that they do not impede the functionality of the pendulum guard or come into contact with the saw blade.

WARNING! Replace damaged stop rulers before using the saw.

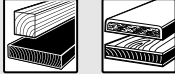

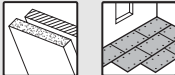
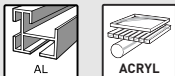
- ▶ Open the rotary knobs (on both sides) **[8A-2]**.
- ▶ Move the stop rulers **[8A-1]** in such a way that there is a maximum clearance of 8 mm from the saw blade.
- ▶ While the machine is switched off, lower the saw unit in a trial run to check whether the saw blade comes into contact with the stop rulers.
- ▶ Close the rotary knobs.

-  The contact surface of the stop rulers can be individually adjusted by screwing in suitable tap blocks **[8B]**. When doing so, ensure that the functionality of the saw is not restricted in any way.

8.7 Selecting the saw blade

Festool saw blades are identified by a coloured ring. The colour of the ring represents the material for which the saw blade is suited.

Refer to the necessary saw blade data (see section **3.1**).

Colour	Material	Symbol
Yellow	Wood	
Red	Laminate, mineral material	
Green	Plaster- and cement-bonded chipboard and fibreboard	
Blue	Aluminium, plastic	

8.8 Changing the saw blade



WARNING

Risk of injury

- ▶ Remove both battery packs from the power tool before performing any work on the power tool.



CAUTION

Risk of injury from hot and sharp insertion tool

- ▶ Do not use any blunt or faulty insertion tools.
- ▶ Wear protective gloves when handling an insertion tool.

Preparing the machine

- ▶ Move the saw unit into the rear position and lock it in place using the rotary knob **[9-3]**.
- ▶ Move the saw unit upwards until it reaches the limit stop.
- ▶ Pull the lever for the transport locking device **[9-2]**.
- ▶ Remove the hex key **[9-9]** from the holder in the key storage box **[9-11]**.

Removing the saw blade

- ▶ Press and hold the spindle stop **[9-1]**.

- ▶ Use the hex key **[9-9]** to turn the saw blade until the spindle stop clicks into place.
- ▶ Use the hex key to undo the screw **[9-8]** (**left-hand thread, turn in the direction of the arrow**).
- ▶ Remove the screw and flange **[9-7]**.
- ▶ Release the spindle stop.
- ▶ Press and hold the safety button **[9-4]**.
- ▶ Lift and hold the pendulum guard **[9-5]** with one hand.
- ▶ Remove the saw blade **[9-6]**.

Inserting the saw blade

WARNING! Check the screws and flange for contamination and only use clean and undamaged parts.

- ▶ Insert the new saw blade **[9-6]**.

WARNING! The writing on the saw blade must be visible. The saw blade's direction of rotation must correspond to the direction of the arrow **[9-10]**.

- ▶ Insert the flange **[9-7]** in such a way that the flange, holding thread and saw blade all interlock perfectly with each other.
- ▶ Press and hold the spindle stop **[9-1]**.
- ▶ Use the hex key **[9-9]** to turn the saw blade until the spindle stop clicks into place.
- ▶ Insert the screw **[9-8]** and tighten it against the direction of the arrow.



Risk of injury! Whenever you replace a saw blade, always check that it is secure in place. If a screw is loose, the saw blade may become detached.

9 Working with the electric power tool



WARNING

Flying tool parts/workpiece parts

Risk of injury

- ▶ Wear protective goggles.
- ▶ Ensure that no other persons are close to the machine while it is being used.
- ▶ Always clamp workpieces tightly.
- ▶ The clamps must be fully laid out.



WARNING

The pendulum guard does not close

Risk of injury

- ▶ Stop the sawing process.
- ▶ Remove the battery pack, remove offcuts. In the event of damage, remove the pendulum guard.

9.1 Safe working



When working on the machine, observe all of the safety warnings that are listed at the start as well as the following rules:

Before starting

- Ensure that the star handle **[2-6]** and the rotary knob **[1-14]** have been tightened.
- **CAUTION! Risk of overheating.** Before use, make sure that the battery pack is securely clicked into place
- Do not work on the power tool if its electronics are defective as this may lead to excessive speeds. You can tell if the electronics are defective if there is no smooth start-up, if it is not possible to regulate the speed and in the event of generation of smoke or the smell of burning from the machine.
- Check that the saw blade is securely in place.
- Always secure the workpiece in such a way that it cannot move during machining.
- Position the workpiece so that it is stress-free and level.

During work

- Correct working position:
 - At the front on the side of the operator;
 - Head-on to the saw;
 - Beside the line of cut.
- During operation, always hold the power tool tightly by the handle **[1-4]** in your operating hand. Always keep your free hand outside of the hazardous area.
- Adapt the infeed speed to prevent the cutters on the saw blade from overheating and prevent plastic materials from melting during cutting. The harder the material to be sawn, the lower the feed speed needs to be.
- Only guide the power tool towards the workpiece when it is switched on.

Checking that the pendulum guard can move

WARNING! The pendulum guard must always be able to move freely and close independently.

- ▶ Remove the battery pack.
- ▶ Take hold of the pendulum guard and, as a trial run, slide it into the saw unit.

The pendulum guard must be easy to move and must be almost fully lowered into the pendulum hood.

Cleaning the area of the saw blade

- ▶ Always keep the area around the pendulum guard clean.

- ▶ Clear dust and chippings by blowing out with compressed air or using a brush.

9.2 Acoustic warning signal

Acoustic warning signals sound and the machine switches off in the following operating states:



peep — —

Battery flat or machine overloaded:

- ▶ Change the battery
- ▶ Reduce the machine load

9.3 Clamping the workpiece [10]



WARNING

Risk of injury

- ▶ Note the workpiece's properties.

Securely in place – Place the workpieces on the stop ruler. Do not machine any workpieces that have not been securely clamped.

Size – Do not machine workpieces that are too small. In the interests of safety, the cut piece remaining should be **at least 30 mm** long. Small workpieces may be pulled backwards by the saw blade and into the gap between the saw blade and the stop ruler.

Correct support – Observe the maximum workpiece dimensions. Always use and secure extensions to the workpiece support. Otherwise, the workpiece may be subjected to internal stresses, which may lead to sudden deformations. Observe the information for workpiece dimensions (see section [9.4](#)).

Proceed as follows to clamp the workpiece

- ▶ Push the saw unit downwards until it reaches the limit stop.
- ▶ Pull the lever for the transport locking device **[10-1]**.
- ▶ Slowly guide the saw unit upwards.
- ▶ Place the workpiece so that it is flush with the stop ruler **[10-3]**.
- ▶ Use the fastening clamp **[10-2]** to secure the workpiece in place.
- ▶ Check that the workpiece is securely in place.

9.4 Observe the workpiece dimensions

Maximum workpiece dimensions without extension using accessory parts

Mitre/bevel angle, to scale	Height x width x length
0°/0°	60 x 305 x 720 mm
45°/0°	60 x 215 x 720 mm
0°/45° right	20 x 305 x 720 mm
0°/45° left	40 x 305 x 720 mm
45°/45° right	20 x 215 x 720 mm
45°/45° left	40 x 215 x 720 mm

Maximum workpiece dimensions when installing together with UG-KS60 and KA-KS60

The maximum height and width of the workpiece do not change if accessory parts are installed. The contact surface when installing the underframe must be the same as the contact surface when the extension table is extended.

Accessory part used	Length
UG-AD-KS60	720 mm
KA-KS60 (one side)	1880–2800 mm
KA-KS60 (both sides)	3360–5200 mm

Long workpieces

Provide extra support for any workpieces that protrude over the sawing surface:

- ▶ Provide extra support for any workpieces that protrude over the sawing surface:
- ▶ Adjust the extension table, see section 8.5.
- ▶ If the workpiece still protrudes, retract the extension table and install a KA-KS60 trimming attachment, or raise the compound mitre saw using A-SYS-KS60 screw-in feet and then support the workpieces using T-LOC SYS-MFT Systainers that are Systainer size 1.
- ▶ Use additional fastening clamps to secure the workpiece.

Thin workpieces

During sawing, thin workpieces may wobble or break.

- ▶ During sawing, thin workpieces may wobble or break.
- ▶ Reinforce the workpiece: Clamp it together with wood offcuts.

Heavy workpieces

- ▶ To guarantee the stability of the machine, even when sawing heavy workpieces, adjust

the support foot [10-4] so that it is flush with the base.

9.5 Compound mitre saws

The basic function of the compound mitre saw is to saw using a fixed saw unit with no inclination. Recommended: Workpieces up to a width of 70 mm.

The rotary knob [1-6] locks the saw unit so that it can no longer be moved forwards or backwards.

- ▶ Close the rotary knob for the slide locking device [1-6].
- ▶ Press and hold the safety button [1-3].
- ▶ Push the saw unit down and, when doing so, press and hold the On/Off switch [1-2].
- ▶ Only guide the saw unit towards the workpiece once the set speed has been reached.
- ▶ Cut the workpiece.
- ▶ Once the cut is complete, guide the saw unit back to its upwards position.
The pendulum guard closes automatically.
- ▶ Release the safety button and the On/Off switch.

Spot lighting

The spot lighting casts a shadow over the saw blade and onto the workpiece.

- ▶ Use the on/off switch [2-1] to activate this function.

The cutting line becomes visible when the saw unit is lowered.

- ⓘ The spot lighting switches off automatically after one hour.

9.6 Slide-sawing

When slide-sawing, the saw blade is guided to the workpiece from the front, which means the sawing is controlled and requires less effort. Recommended for workpieces wider than 70 mm.

Correct sawing process when slide-sawing



Avoid reverse cutting. When sawing, do not pull the lowered saw unit up to the body. The saw blade could hook in and the saw unit could accelerate towards the operator.

- ▶ Release the rotary knob for the slide locking device [1-6].
- ▶ Pull the saw unit to the limit stop.
- ▶ Press and hold the safety button [1-3].
- ▶ Push the saw unit down and, when doing so, press and hold the On/Off switch [1-2].
- ▶ Only guide the saw unit towards the workpiece once the set speed has been reached.

- ▶ Cut the workpiece; slide the saw unit through the workpiece until the limit stop.
- ▶ Once the cut is complete, guide the saw unit back to its upwards position.
The pendulum guard closes automatically.
- ▶ Release the safety button and the On/Off switch. Close the rotary knob.

9.7 Sawing the mitre angle [11]

Setting the standard mitre angle

The following mitre angles (left and right) automatically engage: **0°, 15°, 22.5°, 30°, 45°, 60°**

- ▶ Release the rotary knob ①.
- ▶ Press the detent lever but do not hook it into place ②.
- ▶ Rotate the rotary base into the required position ③; release the detent lever shortly before the required angle has been reached.

The rotary base easily clicks into place at the intended mitre angles.

- ▶ Close the rotary knob ④.

Setting individual mitre angles

- ▶ Release the rotary knob ①.
- ▶ Press the detent lever ② and let it click into place by pressing on it at the left.
- ▶ Continuously swivel the rotary base into the required position ③.
- ▶ Close the rotary knob ④.

9.8 Sawing inclined cuts [12]



Moving or removing the stop rulers ① may make it necessary to implement special settings for inclined cutting, see section 8.6.

Inclination to the left between 0° and 45°

- ▶ Loosen the star handle ②.
- ▶ Tilt the saw unit to the required cutting angle ④.
- ▶ Tighten the star handle ⑤.

Inclination to the right between 0° and 45°:

- ▶ Loosen the star handle ②.
- ▶ Press the release button ③; if required, relieve the tension by slightly tilting it in the opposite direction.
- ▶ Tilt the saw unit to the required cutting angle ④.
- ▶ Tighten the star handle ⑤.

46–47° inclination to the right/left (undercutting)

- ▶ Loosen the star handle ②.

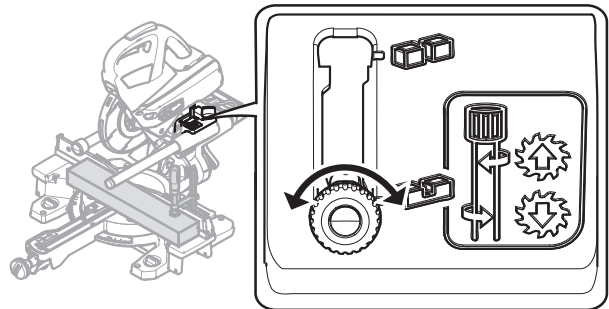
- ▶ Press the release button ③; if required, relieve the tension by slightly tilting it in the opposite direction.
- ▶ Tilt the saw unit to the limit stop ④.
- ▶ Press the release button again ③.
- ▶ Tilt the saw unit again ④.
- ▶ Tighten the star handle ⑤.

9.9 Sawing grooves

The continuously adjustable groove depth limit can be used to individually define groove areas using the total cutting depth. Grooving or facing is therefore possible at any height for any workpiece size.

- ① The round shape of the saw blade means that, when grooving, a slight cutting curve upwards is required. For grooving that is precisely horizontal, a tap block must be clamped between the workpiece and the stop ruler so that a clearance of 4 cm can be guaranteed.

- ▶ Move the machine into the working position.



- ① Only turn down the lever for the groove depth limit [1-5] if the saw unit is in the upper position (= working position).
- ▶ Pull the lever for the groove depth limit [1-5] all the way to the front.
The saw unit can now be pushed down only as far as the preset cutting depth.
- ▶ Turn the lever for the groove depth limit to set the required depth (**turn to the left = increase the groove depth, turn to the right = decrease the groove depth**)

Push down the saw unit as a trial run to check whether the groove depth limit is set to the required groove depth.

- ① Only push the saw unit down when the lever for the groove depth limit has engaged in one of the two end positions. Risk of damage to the power tool.
- ▶ Make the cuts.

- ▶ To deactivate the groove depth limit, reset the lever [1-5].

10 Maintenance and care



WARNING

Risk of injury, electric shock

- ▶ Remove both battery packs from the power tool before performing any work on the power tool.
- ▶ All maintenance and repair work which requires the motor housing to be opened should always be carried out by an authorised service workshop.



Customer service and repairs must only be carried out by the manufacturer or service workshops. Find the nearest address at:

www.festool.co.uk/service



Always use original Festool spare parts. Order no. at:

www.festool.co.uk/service

Observe the following instructions:

- ▶ Damaged safety devices and components must be repaired or replaced in a recognised specialist workshop, unless otherwise indicated in the operating instructions.
- ▶ Use an extractor on all openings of the power tool to remove wood chips and splinters. Sawing chips and small parts that get caught up in the sawing channel can be gently pulled out through the opening [13-4].
- ▶ To ensure constant air circulation, always keep the cooling air openings in the housing clean and free of blockages.
- ▶ Keep the contacts on the power tool, charger and battery pack clean.
- ▶ When working with plaster- and cement-bonded fibreboards, clean the tool particularly thoroughly. Clean the vents of the power tool and on/off switch using dry, oil-free compressed air. Otherwise, gypsum dust deposits may build up inside the power tool's housing and on the on/off switch and harden when exposed to humidity. This may impair the switching mechanism



Cleaning the machine regularly, especially the adjusting devices and guides, is an important safety factor.


10.1 Replacing the chip deflector [13]

- ① To ensure that dust and chips are collected properly, you must only work if a chip deflector is installed.

- ▶ Undo the screws [13-1] on the guard, remove the chip deflector and clamp.
- ▶ Attach the clamp [13-2] to the new chip deflector.
- ▶ Screw the chip deflector [13-3], along with the clamp, onto the guard.

10.2 Replacing the table top insert [14]

Always replace worn table top inserts. Never use the machine without table top inserts.

- ▶ Unscrew the position marking [14-3] for the bevel.
- ▶ Undo the screws [14-1] in the table top insert.
- ▶ Replace the table top insert [14-2] and position marking [14-3].
- ▶ Reattach the screws.
- ▶ Check that the position markings  lie on a line that, at the same time, must run at a right angle to the stop rulers.

10.3 Cleaning/replacing the spotlight window

The spot lighting lights up the cutting edge on the workpiece. Dust-intensive work may affect the power of the light. Proceed as follows to clean the spotlight [15]:

- ▶ Move the machine into the working position.
- ▶ Pull out the spotlight window [15-1] by hand, and clean/replace it.
- ▶ Reinsert the spotlight window.
The spotlight window audibly clicks into place.

11 Transportation



CAUTION

Risk of crushing

The saw unit may swing out/extend

- ▶ The machine must always be transported in the transport position that has been provided for this purpose.

**CAUTION****Risk of injury!**

The power tool may slip out of your hands when you are carrying it.

- ▶ Always carry the power tool with both hands, using the carrying handles [16] provided on both sides of the power tool.

11.1 Securing the machine (transport position)

- ▶ Remove the battery pack from the power tool.
- ▶ Move the saw unit into the rear position and lock it in place using the rotary knob [1-6].
- ▶ Swivel the saw unit into a vertical position.
 - ▷ Loosen the star handle [2-6].
 - ▷ Move the saw unit into a vertical position.
 - ▷ Tighten the star handle.
- ▶ Lock the saw unit in place.
 - ▷ Press and hold the safety button [1-3].
 - ▷ Move the saw unit downwards until it reaches the limit stop.
 - ▷ Pull the lever for the transport locking device [1-7].
 - ▷ Release the safety button.

The saw unit remains in the lower position.
- ▶ Swivel the rotary base into the right-hand position.
 - ▷ Release the rotary knob [1-14].
 - ▷ Press and hold the detent lever [1-13].
 - ▷ Swivel the rotary base [1-15] as far to the right as it will go.
 - ▷ Release the detent lever, close the rotary knob.

The machine is in the transport position [16].

11.2 Carrying handles provided

- Handle on the saw unit [16-1]
- Handle on the key storage box [16-3]
- Extension tables [16-2] (when fixed in place)

12 Accessories

The order numbers of the accessories and tools can be found in the Festool catalogue or on the Internet at "www.festool.com".

In addition to the accessories described, Festool also provides a comprehensive range of system accessories that allow you to use your saw more effectively and in diverse applications, e.g.:

- KA-KS60 trimming attachment

- UG-KAPEX KS 60 underframe
- UG-KS UNI underframe
- A-SYS-KS60 screw-in feet
- Clamping connection for MFT SZ-KS
- SM-KS60 bevel


12.1 Bevel SM-KS60 (available as an accessory depending on the model)

The bevel can be used to gauge any angle (e.g. between two walls). The bevel therefore forms the angle bisection.

Gauging the interior angle [17A]

- ▶ Open the locking device [17-2].
- ▶ Swivel the router [17-1] out in order to gauge the interior angle.
- ▶ Close the locking device.

The dashed mark [17-4] provides the angle bisection. The angle bisection can be transferred via the outside edges of the bevel to the position

markings  on the rotary base.

Gauging the exterior angle [17B]

- ▶ Open the locking device [17-2].
- ▶ Slide the aluminium profiles [17-3] on the router forwards.
- ▶ Swivel the router [17-1] out so that the aluminium profiles are at the exterior angle.
- ▶ Close the locking device.
- ▶ Slide the aluminium profiles for the two routers back again.

Transferring the angle [18]

- ▶ Place the bevel perfectly in place on one of the stop rulers ① and press down with your thumb.
- ▶ Release the rotary knob ②.
- ▶ Hook in the detent lever ③.
- ▶ Swivel the rotary base ④, until the outside edge of the bevel is congruent with the marking ⑤.

① To do so, the bevel must be positioned so that it is parallel to the stop of the compound mitre saw. At the same time, apply pressure to the stop ruler by pressing in the recessed grip with your thumb.

- ▶ Close the rotary knob ⑥, remove the bevel.

The angle is transferred, the sawing process can be started.

12.2 Saw blades, other accessories

In order to saw different materials quickly and cleanly, Festool offers saw blades for all applications and these are specially designed for your Festool saw.

13 Environment



Do not dispose of the device in the household waste! Recycle devices, accessories and packaging. Observe applicable national regulations.

EU only: In accordance with the European Directive on waste electrical and electronic equipment and implementation in national law, used power tools must be collected separately and handed in for environmentally friendly recycling.

Information on REACH: www.festool.co.uk/reach

14 General information

Imported into the UK by

Festool UK Ltd
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Bury St Edmunds
IP30 9XH
Great Britain

14.1 Information on data privacy

The power tool contains a chip which automatically stores machine and operating data. The data saved cannot be traced back directly to an individual.

The data can be read in a contactless manner using special devices and shall only be used by Festool for fault diagnosis, repair and warranty processing and for quality improvement or enhancement of the power tool. The data shall not be used in any other way without the express consent of the customer.

14.2 Bluetooth®

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