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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 a dust mask.

Wear protective gloves.

Wear protective goggles.

Do not remove the sticker.

Direction of rotation of saw and the saw blade

Wood

Laminate, mineral materials

Aluminium, plastic

Adjustment marking for storing the preset profile setting rail

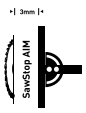
Handle area

Position markings for sliding table plastic holders

SawStop AIM technology

Saw blade diameter

Cutting width and standard blade thickness



When sawing cutting widths of ⩽ 3 mm, the SawStop AIM technology is triggered or the TKS 80 EBS does not start.

The saw blade and cartridge must not touch!

Electronics with adjustable, constant speed and temperature monitoring

Electro-dynamic run-down brake

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.

Do not dispose of it with domestic waste.

Tip or advice

Handling instruction

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 warnings for bench-mounted circular saws

1) Guarding related warnings

- **Keep guards in place. Guards must be in working order and be properly mounted.** A guard that is loose, damaged, or is not functioning correctly must be repaired or replaced.
- **Always use saw blade guard, riving knife and anti-kickback device for every through–cutting operation.** For through-cutting operations where the saw blade cuts completely through the thickness of the workpiece, the guard and other safety devices help reduce the risk of injury.
- **Immediately reattach the guarding system after completing an operation (such as rabbeting, dadoing or resawing cuts) which requires removal of the guard, riving knife and/or anti-kickback device.** The guard, riving knife, and anti-kickback device help to reduce the risk of injury.
- **Make sure the saw blade is not contacting the guard, riving knife or the workpiece before the switch is turned on.** Inadvertent contact of these items with the saw blade could cause a hazardous condition.
- **Adjust the riving knife as described in this instruction manual.** Incorrect spacing, positioning and alignment can make the riving knife ineffective in reducing the likelihood of kickback.
- **For the riving knife and anti-kickback device to work, they must be engaged in the workpiece.** The riving knife and anti-kickback device are ineffective when cutting workpieces that are too short to be engaged with the riving knife and anti-kickback device. Under these conditions a kickback cannot be prevented by the riving knife and anti-kickback device.
- **Use the appropriate saw blade for the riving knife.** For the riving knife to function properly, the saw blade diameter must match the appropriate riving knife and the body of the saw blade must be thinner than the thickness of the riving knife and the cutting width of the saw blade must be wider than the thickness of the riving knife.

2) Cutting procedures warnings

- **DANGER: Never place your fingers or hands in the vicinity or in line with the saw blade.** A moment of inattention or a slip could direct your hand towards the saw blade and result in serious personal injury.
- **Feed the workpiece into the saw blade or cutter only against the direction of rotation.** Feeding the workpiece in the same direction that the saw blade is rotating above the table may result in the workpiece, and your hand, being pulled into the saw blade.
- **Never use the mitre gauge to feed the workpiece when ripping and do not use the rip fence as a length stop when cross cutting with the mitre gauge.** Guiding the workpiece with the rip fence and the mitre gauge at the same time increases the likelihood of saw blade binding and kickback.
- **When ripping, always apply the workpiece feeding force between the fence and the saw blade. Use a push stick when the distance between the fence and the saw blade is less than 150 mm, and use a push block when this distance is less than 50 mm.** "Work helping" devices will keep your hand at a safe distance from the saw blade.
- **Use only the push stick provided by the manufacturer or constructed in accordance with the instructions.** This push stick provides sufficient distance of the hand from the saw blade.
- **Never use a damaged or cut push stick.** A damaged push stick may break causing your hand to slip into the saw blade.
- **Do not perform any operation "freehand". Always use either the rip fence or the mitre gauge to position and guide the workpiece.** "Freehand" means using your hands to support or guide the workpiece, in lieu of a rip fence or mitre gauge. Freehand sawing leads to misalignment, binding and kickback.
- **Never reach around or over a rotating saw blade.** Reaching for a workpiece may lead to accidental contact with the moving saw blade.
- **Provide auxiliary workpiece support to the rear and/or sides of the saw table for long and/or wide workpieces to keep them level.** A long and/or wide workpiece has a tendency to pivot on the table's edge, causing loss of control, saw blade binding and kickback.
- **Feed workpiece at an even pace. Do not bend or twist the workpiece. If jamming occurs, turn the tool off immediately, un-**

plug the tool then clear the jam. Jamming the saw blade by the workpiece can cause kickback or stall the motor.

- **Do not remove pieces of cut-off material while the saw is running.** The material may become trapped between the fence or inside the saw blade guard and the saw blade pulling your fingers into the saw blade. Turn the saw off and wait until the saw blade stops before removing material.
- **Use an auxiliary fence in contact with the table top when ripping workpieces less than 2 mm thick.** A thin workpiece may wedge under the rip fence and create a kickback.

3) Kickback causes and related warnings

Kickback is a sudden reaction of the workpiece due to a pinched, jammed saw blade or misaligned line of cut in the workpiece with respect to the saw blade or when a part of the workpiece binds between the saw blade and the rip fence or other fixed object.

Most frequently during kickback, the workpiece is lifted from the table by the rear portion of the saw blade and is propelled towards 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.

- **Never stand directly in line with the saw blade. Always position your body on the same side of the saw blade as the fence.** Kickback may propel the workpiece at high velocity towards anyone standing in front and in line with the saw blade.
- **Never reach over or in back of the saw blade to pull or to support the workpiece.** Accidental contact with the saw blade may occur or kickback may drag your fingers into the saw blade.
- **Never hold and press the workpiece that is being cut off against the rotating saw blade.** Pressing the workpiece being cut off against the saw blade will create a binding condition and kickback.
- **Align the fence to be parallel with the saw blade.** A misaligned fence will pinch the workpiece against the saw blade and create kickback.
- **Use a featherboard to guide the workpiece against the table and fence when making non-through cuts such as rabbeting, dadoing or resawing cuts.** A featherboard helps to control the workpiece in the event of a kickback.
- **Use extra caution when making a cut into blind areas of assembled workpieces.** The protruding saw blade may cut objects that can cause kickback.
- **Support large panels to minimise the risk of saw blade pinching and kickback.** Large panels tend to sag under their own weight. Support(s) must be placed under all portions of the panel overhanging the table top.
- **Use extra caution when cutting a workpiece that is twisted, knotted, warped or does not have a straight edge to guide it with a mitre gauge or along the fence.** A warped, knotted, or twisted workpiece is unstable and causes misalignment of the kerf with the saw blade, binding and kickback.
- **Never cut more than one workpiece, stacked vertically or horizontally.** The saw blade could pick up one or more pieces and cause kickback.
- **When restarting the saw with the saw blade in the workpiece, centre the saw blade in the kerf so that the saw teeth are not engaged in the material.** If the saw blade binds, it may lift up the workpiece and cause kickback when the saw is restarted.
- **Keep saw blades clean, sharp, and with sufficient set. Never use warped saw blades or saw blades with cracked or broken teeth.** Sharp and properly set saw blades minimise binding, stalling and kickback.

4) Table saw operating procedure warnings

- **Turn off the table saw and disconnect the power cord when removing the table insert, changing the saw blade or making adjustments to the riving knife or saw blade guard, and when the machine is left unattended.** Precautionary measures will avoid accidents.
- **Never leave the table saw running unattended. Turn it off and don't leave the tool until it comes to a complete stop.** An unattended running saw is an uncontrolled hazard.
- **Locate the table saw in a well-lit and level area where you can maintain good footing**

and balance. It should be installed in an area that provides enough room to easily handle the size of your workpiece. Cramped, dark areas, and uneven slippery floors invite accidents.

- **Frequently clean and remove sawdust from under the saw table and/or the dust collection device.** Accumulated sawdust is combustible and may self-ignite.
- **The table saw must be secured.** A table saw that is not properly secured may move or tip over.
- **Remove tools, wood scraps, etc. from the table before the table saw is turned on.** Distraction or a potential jam can be dangerous.
- **Always use saw blades with correct size and shape (diamond versus round) of arbour holes.** Saw blades that do not match the mounting hardware of the saw will run off-centre, causing loss of control.
- **Never use damaged or incorrect saw blade mounting means such as flanges, saw blade washers, bolts or nuts.** These mounting means were specially designed for your saw, for safe operation and optimum performance.
- **Never stand on the table saw, do not use it as a stepping stool.** Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.
- **Make sure that the saw blade is installed to rotate in the proper direction. Do not use grinding wheels, wire brushes, or abrasive wheels on a table saw.** Improper saw blade installation or use of accessories not recommended may cause serious injury.

2.3 Further safety instructions

-

  Wear suitable personal protective equipment: Ear protection, protective goggles, dust mask for work that generates dust and protective gloves for changing tools.
- Faults on the power tool, including the separating guards or the tool, must be reported to maintenance staff immediately. The machine must not be used until the fault has been eliminated.
- Check the plug and cable on a regular basis and, if they are damaged, have them replaced by an authorised customer service workshop.
- Use of your own aids e.g. rulers, etc. is not permitted.
- **Only for AS/NZS:** The tool shall always be supplied via residual current device with a rated residual current of 30 mA or less.

2.4 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!

2.5 Aluminium processing

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

- Install an upstream residual-current circuit breaker (RCD, PRCD).
- Connect the power tool to a suitable dust extractor.
- Regularly clean dust deposits from the motor housing on the power tool.
- Use an aluminium saw blade.

Wear protective goggles.

2.6 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.

2.7 Emission levels

The levels determined in accordance with EN 62841 are typically:

Sound pressure level	L_{PA} = 87 dB(A)
Sound power level	L_{WA} = 102 dB(A)
Uncertainty	K = 3 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

The emission values may deviate from the specified values. This is dependent on how the tool is used and the type of workpiece being machined.

► The actual load during the entire operating cycle must be evaluated.
► Depending on the actual load, suitable protective measures must be defined in order to protect the operator.

3 Intended use

The TKS 80 EBS is designed as a transportable power tool for sawing wood, laminated wooden panels, non-ferrous metals and plastic.

NOTICE

SawStop AIM technology is triggered

► When sawing non-ferrous metals, wet, statically charged or conductive materials, deactivate the SawStop AIM technology (bypass mode).

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 Festool saw blades that are designed for use in this power tool.

- Saw blade dimensions: 254 x 30 x 2.4 mm
- Cutting width > 2.2 mm (corresponds to the kerf width)
- Locating bore, dia. 30 mm
- Standard blade thickness < 1.8 mm
- Saw blade with chip angle of ≥ 15°
- Suitable for speeds of 3500 rpm or above

Festool saw blades comply with EN 847-1.

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

Saw blades made of high-alloy high-speed steel (HSS steel) and grooving saw blades must not be used.

3.2 Cartridges

Only use Festool cartridges that are designed for use in this power tool.

4 Technical data

Bench-mounted circular saw		TKS 80 EBS
Power		
TKS 80 EBS 220–240 V	EU (without DK), GB	2200 W
TKS 80 EBS 230 V	CH, ZA	1900 W
TKS 80 EBS 230 V	DK, AUS	2000 W
Speed (no-load)		1700–3500 rpm
Locating bore		Dia. 30 mm
Cutting height at 90°/45°/47°		0–80 mm/0–56 mm/0–54 mm
Inclination angle		-2°–47°
Table dimensions (L x W)		690 x 580 mm
Table height, legs unfolded		900 mm
Table height, legs folded away		385 mm
Weight as per EPTA procedure 01:2014		37.0 kg

5 Parts of the device

[1-1] Accessory holder
[1-2] Side handle areas
[1-3] 4 V-profiles
[1-4] Spacer wedge for grooving
[1-5] Table insert
[1-6] Spacer wedge with guard support
[1-7] Guard
[1-8] Safety sticker
[1-9] Preset profile setting rail
[1-10] Fine adjustment
[1-11] Inclination angle setting
[1-12] Rotary knobs for foldaway legs
[1-13] Scale
[1-14] Cutting height setting
[1-15] Angle indicator
[1-16] Push stick holder
[1-17] Foldaway legs
[1-18] Closing flap
[1-19] Switch panel
[1-20] Transport rollers
[1-21] Shipping protection

The illustrations specified are located at the beginning and end of the operating instructions.

6 Set-up/start-up

CAUTION

Heavy transport packaging with bench-mounted circular saw

Risk of injury

► The transport packaging with the bench-mounted circular saw must be carried and unpacked by two people.

6.1 Setting up the TKS 80 EBS

WARNING

Unauthorised voltage or frequency

Risk of accidents

► The mains voltage and the frequency of the power source must correspond to the specifications on the name plate.
► Before each use of the power tool, check the power cable and the mains plug. Any damage must only be rectified by a specialist workshop.
► For use outdoors, only use the approved extension cable and cable connections.

WARNING

Power tool tips over on uneven ground

Risk of accidents

► Ensure that the power tool is securely positioned.
The floor must be level, with a max. gradient of 10°, and free of loose objects (e.g. chips and offcuts).

Foldaway legs

CAUTION

Crushing injuries to hands or fingers when folding the foldaway legs in or out

► Wear protective gloves.

► Open the rotary knobs for the foldaway legs **[1-12]** as far as they will go.
► Fold the foldaway legs **[1-17]** out or in.
► Screw in the rotary knobs for the foldaway legs **[1-12]** tight.

If the TKS 80 EBS wobbles, the length of a leg can be adjusted by turning the end cap **[1-18]** until the machine stands securely.

Removable legs

WARNING

Risk of accidents due to tilting power tool

► Always use the removable legs* together with an extension table* or a sliding table*.

* Not included in the scope of delivery.

6.2 Prior to commissioning

► Remove all packaging material, including packaging material underneath the table.
► Pull out the shipping protection **[1-21]**.
► Remove the safety sticker **[1-8]**.
► Remove the pre-installed spacer wedge for grooving **[1-4]** (see section 9.8) and store it in the accessory holder **[1-1]**.
► If necessary, replace the pre-installed universal saw blade with a saw blade for the material to be sawed (see section 9.11).
► Fit the spacer wedge with guard (see section 9.8).
► Fit the preset profile setting rail (see section 9.5).

6.3 Switching on/off

WARNING

SawStop AIM technology only works with protective conductor terminal and with connected, earthed power source

Risk of injury

► Make sure that power is not supplied via the SYS-PST 1500 or a transformer, for example.

NOTICE

SawStop AIM technology is triggered

► Only switch on the TKS 80 EBS if the saw blade is not in contact with the workpiece, accessories or other objects.
► Only use accessories intended for the TKS 80 EBS.

Warming phase

Electronics too cold: Ambient temperatures of < 5 °C may delay the start of the TKS 80 EBS .

► Try starting again after a few minutes.

Switching on

► To switch on the machine, press the green main switch **[2-1]**.

*The green LED **[2-4]** lights up constantly.*
*The red LED **[2-5]** flashes slowly.*
The TKS 80 EBS is carrying out a self-check.

► Wait until the status of the LEDs changes.

*The green LED **[2-4]** lights up constantly.*
*The red LED **[2-5]** is not lit.*
The TKS 80 EBS is in standby mode.

► Press the green START button **[2-3]**

The TKS 80 EBS is operational. SawStop AIM technology is activated.

WARNING

SawStop AIM technology is not triggered

► Only touch the saw blade when the machine has come to a complete standstill if there is a power failure or drop in voltage after switching it on.

Switching off

► To switch off sawing mode, press the red STOP button **[2-2]**.

*The green LED **[2-4]** flashes rapidly.*
*The red LED **[2-5]** is not lit.*

► Wait until the saw blade has come to a stop.

NOTICE

SawStop AIM technology is triggered

► Do not touch the saw blade when it is coming to a stop. The SawStop AIM technology is still active and is triggered upon contact.

*The green LED **[2-4]** lights up constantly.*
*The red LED **[2-5]** is not lit.*
The TKS 80 EBS is in standby mode.

► Press the green main switch **[2-1]**.

The TKS 80 EBS is non-operational.

7 Transportation

CAUTION

Heavy bench-mounted circular saw
Risk of injury

► The bench-mounted circular saw must be carried by two people.
► Hold it by the handle areas on the side **[3-3]** for transport. Never take hold of and transport the power tool by the guard.

► Store the accessories included in the scope of delivery in the accessory holders or the brackets provided for that purpose (**Fig. 3a, 3b, 3c**).

Accessory holder	
Spacer wedge with guard	**[3-1]**
Spacer wedge for grooving	**[3-2]**
Cartridge	**[3-4]**
Push stick	**[3-5]**
Preset profile setting rail (Take note of the adjustment markings **[3-6]** for storing the preset profile setting rail.)	**[3-7]**
Power cable	
Power cable brackets	**[3-8]**
Power cable	**[3-9]**
Tool	
Hex key	**[3-10]**
Spanner for the spindle flange	**[3-11]**
Spanner for the spindle nut	**[3-12]**

► Remove accessories not included in the scope of delivery.

► Fold in the foldaway legs (see section 6.1).

The TKS 80 EBS can be transported.

7.1 Transport rollers

The TKS 80 EBS is equipped with transport rollers **[1-20]** for moving it over short distances.

► Hold the TKS 80 EBS by the handle areas on the side **[1-2]** and pull it into the required position.

8 SawStop AIM technology

The SawStop AIM technology can prevent the most serious cutting injuries.

The core component of the SawStop AIM technology is a cartridge that drives an aluminium block into the saw blade with the aid of a spring. The mechanism is triggered by a capacitative sensor when it comes into contact with human skin or any other conductive materials during operation.

The SawStop AIM technology only works with a protective earth connection and an earthed power source. Make sure that power is not supplied via the SYS PowerStation or a transformer, for example.

ⓘ Working with the TKS 80 EBS is only possible if the cartridge is inserted.

WARNING

Noise generated when the SawStop AIM technology is triggered
Risk of accidents

► Use ear protection.

NOTICE

SawStop AIM technology is triggered

► Do not let the saw blade come into contact with the stopper or the cross stop.

NOTICE

SawStop AIM technology is triggered or the TKS 80 EBS does not start.
Distance between saw blade and fence too small.

► When sawing cutting widths of ⩽ 3 mm, use a support ⩾ 19 mm.

8.1 Function monitoring

The SawStop AIM technology continuously monitors the regular operation of the saw. The LED lights show the current operating status.

LED status in standby

	The green LED **[2-4]** lights up constantly.	The bench-mounted circular saw starts up in approx. 10 seconds.
	The red LED **[2-5]** flashes slowly.	

	The green LED **[2-4]** lights up constantly.	The bench-mounted circular saw is ready to use and is in standby mode.
	The red LED **[2-5]** is not lit.	

	The green LED **[2-4]** flashes rapidly.	Restart protection When activating bypass mode, the yellow SawStop AIM switch was released too early. ► To rectify the fault, press the red STOP button.
	(alternating)	
	The red LED **[2-5]** flashes rapidly.	

	The green LED **[2-4]** lights up constantly.	Contact with the saw blade in standby. ► Remove the contact trigger and wait approx. 5 seconds until the fault is rectified. **Or:** Distance between saw blade and fence too small. ► When sawing cutting widths of ⩽ 3 mm, use a support ⩾ 19 mm.
	The red LED **[2-5]** flashes rapidly.	

	The green LED **[2-4]** is not lit.	Cartridge locking device fault. ► Switch off the bench-mounted circular saw and check the cartridge locking device.
	The red LED **[2-5]** flashes slowly.	

	The green LED **[2-4]** flashes slowly.	Saw blade missing or too small. ► Switch off the bench-mounted circular saw and insert a suitable saw blade (see section 3).
	The red LED **[2-5]** lights up constantly.	

	The green LED **[2-4]** is not lit.	Replace the cartridge. ► Switch off the bench-mounted circular saw. If the fault is still not rectified, insert a new cartridge. **Or:** Electronics too cold: Warming phase at ambient temperatures < 5 °C. ► Try starting again after a few minutes.
	The red LED **[2-5]** lights up constantly.	

LED status during operation

	The green LED **[2-4]** flashes rapidly.	The saw blade comes to a stop. ⓘ The SawStop AIM technology is active and is triggered upon contact.
	The red LED **[2-5]** is not lit.	

	The green LED **[2-4]** flashes slowly.	Activated bypass mode.
	The red LED **[2-5]** is not lit.	

	The green LED **[2-4]** flashes slowly.	Contact with the saw blade while bypass mode is activated The fault is rectified if the saw blade comes to a stop.
	The red LED **[2-5]** flashes rapidly.	

LED status in standby or during operation

	The green LED **[2-4]** is not lit.	Workpiece too damp. ► Switch off the bench-mounted circular saw and dry the workpiece or continue sawing in bypass mode.
	The red LED **[2-5]** flashes rapidly.	

	The green LED **[2-4]** flashes rapidly.	The saw blade comes to a stop during sawing. ► Switch the bench-mounted circular saw off and on and saw the workpiece more slowly. **Or:** The bench-mounted circular saw is operational and the yellow SawStop AIM switch has been pressed. ► Switch the bench-mounted circular saw off and on.
	The red LED **[2-5]** lights up constantly.	

8.2 Activating the SawStop AIM technology

ⓘ The SawStop AIM technology is activated upon delivery and after each time the saw is put back into operation.

► Press the red STOP button **[2-2]**.

The SawStop AIM technology is activated.

8.3 Bypass mode (deactivated SawStop AIM technology)

ⓘ Only use bypass mode to saw conductive materials. Activate the SawStop AIM technology again once finished.

Activating bypass mode

► Press and hold the yellow SawStop AIM switch **[2-6]**.

*The red LED **[2-5]** flashes once, and then immediately*

► press the green START button **[2-3]**.

The TKS 80 EBS starts up.

*The red LED **[2-5]** flashes again once.*

► Release the yellow SawStop AIM switch **[2-6]** and the green START button **[2-3]**.

*The green LED **[2-4]** flashes slowly.*

*The red LED **[2-5]** is not lit.*

The TKS 80 EBS is ready for use in bypass mode.

Deactivating bypass mode (activating the SawStop AIM technology)

► Press the red STOP button **[2-2]**.

The SawStop AIM technology is activated.

8.4 Checking the conductivity of the material

The conductivity of the material can be checked in advance without triggering the SawStop AIM technology.

► Press the green main switch **[2-1]**.

The TKS 80 EBS is ready to use.

► Position the material against the saw blade.

*The green LED **[2-4]** lights up constantly.*

*The red LED **[2-5]** flashes rapidly.*

***Material is conductive:** Work in bypass mode (see section 8.3).*

*The green LED **[2-4]** lights up constantly.*

*The red LED **[2-5]** is not lit.*

***Material is not conductive:** Work with SawStop AIM technology active (see section 8.2).*

8.5 Triggered SawStop AIM technology

WARNING

Risk of injury due to uncontrolled start-up of the bench-mounted circular saw

► Always disconnect the mains plug from the socket before performing any work on the machine.

Return information for triggered SawStop AIM technology

The cartridges save electronic data measured when the technology was triggered. If you return the activated cartridge to Festool, we can retrieve that data to analyze how the electronics and software performed.

If we confirm that your cartridge activated due to skin contact, you get the chance to receive a free replacement cartridge. Festool reserves the right to decide about such cases individually.

Please let us know your name and a contact opportunity (email address, phone number, address), so that we can get in touch with you by phone or in writing.

For information on data protection at Festool please check our website: www.festool.co.uk

Changing the cartridge and saw blade

When the SawStop AIM technology is triggered, the cartridge drives an aluminium block into the saw blade and the saw blade comes to a stop under the table.

WARNING

Risk of injury from ejected parts

- The cartridge **and** the saw blade must be replaced.

  Never use warped saw blades or saw blades with cracked or broken teeth.

- Remove the table insert (see section 9.6).
- Remove the spacer wedge (see section 9.8).
- Turn the cutting height setting **[4-2]** to the minimum of 0 mm and turn it further against the resistance.

  Turn the cutting height setting **[4-2]** to the maximum of 80 mm.

The cutting height is set to the maximum of 80 mm.

- Turn the cartridge locking device **[4-4]** clockwise by one quarter of a rotation and pull it out **[4-5]**.
- Undo the spindle nut **[4-6]** and remove the flange **[4-7]** of the saw blade.
- Use the spanner **[4-8]** as a lever to carefully push the saw blade out of the tool spindle **[4-10]**.

  Use the spanner **[4-9]** as a lever to carefully push the cartridge out of the fastening pins **[4-11]**.

  Repeat both steps until the saw blade and the cartridge have been successfully removed.
- Fit a new cartridge (see section 9.12).
- Fit a new saw blade (see section 9.11).
- Fit the table insert (see section 9.6).
- Fit the spacer wedge (see section 9.8).

9 Additional settings/functions

WARNING

Risk of injury, electric shock

- Before all work on the power tool always switch off the power tool, remove the mains plug from the socket and then wait until the saw blade has come to a standstill.

9.1 Electronics

The TKS 80 EBS is monitored electronically with the following properties:

Smooth start-up

The electronically controlled smooth start-up function ensures that the power tool starts up smoothly. The limited starting current ensures that even standard household fuses are not triggered.

Speed control

You can regulate the speed within the continuously variable speed range using the adjusting wheel **[2-7]** (see section 4). This enables you to optimise the cutting speed to suit the respective material.

Speed range per material	
Wood	6
Laminate, mineral materials	2–5
Aluminium, plastic	3–6

The preselected motor speed is kept constant through electronic control. This ensures a uniform cutting speed even when under load.

Overload safety device

The power supply is restricted if the power tool is overloaded to extremes. The power supply is disconnected completely if the motor jams for some time. You will need to remove the load and/or switch off the power tool before you can use it again.

Temperature cut-out

To avoid the motor overheating, the power consumption is limited at an excessive motor temperature (e.g. if the pressure is too high while working). If the temperature continues to rise, the power tool switches off. It can only be switched on again once the motor has cooled sufficiently.

Brake

The saw blade is stopped electronically within approx. 3 seconds of switching off the machine.

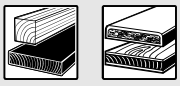
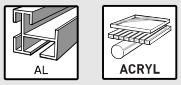
Restart protection

The built-in restart protection prevents the power tool from starting up again automatically if the power is disconnected during continuous use. To put the power tool back into operation, it must first be switched off and then on again.

9.2 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	
Blue	Aluminium, plastic	

9.3 Setting the cutting height

To set the cutting height anywhere between 0 mm–80 mm:

► Turn the cutting height setting **[5-5]**.

+ Increases the cutting height to 80 mm

- Decreases the cutting height to 0 mm

ⓘ To ensure a precise saw cut, set the cutting height 2 mm–5 mm greater than the workpiece thickness.

For concealed cuts, the cutting height is set in accordance with the required depth of the concealed cut.

9.4 Setting the inclination angle

The saw blade can be swivelled between 0° and 45°, and can be precisely adjusted by ±2° to -2° and 47°.

► Press and hold the inclination angle setting **[5-3]** against the cutting height setting **[5-5]**.
► Move the inclination angle setting **[5-3]** along the scale **[5-1]** until the angle indicator **[5-2]** points to the required angle.
► Release the inclination angle setting **[5-3]** and cutting height setting **[5-5]**.

For precision trimming work, swivel out the saw blade by 2° beyond the two end positions in each case:

Fine adjustment

► Set the inclination angle to 0° to set a fine adjustment of up to -2°.
Set the inclination angle to 45° to set a fine adjustment of up to 47°.
► Turn the rotary handle for fine adjustment **[5-4]**.

\+ End position up to 47°

\- End position up to -2°

0 Zero position
End positions 0° and 45° are active.

9.5 Preset profile setting rail

The preset profile setting rail can be set as a rip fence (**Fig. 6a**) and as a cross stop or angle stop (**Fig. 6b**).

WARNING

Risk of accidents due to tools

► The stop rail **[6-7]** must not protrude into the cutting areas.
► All screws and rotary knobs of the preset profile setting rail must be firmly tightened when sawing.

Installation of the preset profile setting rail

The supplied preset profile setting rail can be attached to all four V-profiles **[6-12]**.

► Release the rotary knob **[6-1]**.
► Insert the preset profile setting rail **[6-10]** into a V-profile **[6-12]**.
► Adjust the hexagon socket head screws **[6-9]** to stabilise the preset profile setting rail **[6-10]** guidance in the V-profile **[6-12]**.
► Adjust the ball bearing **[6-13]** in order to adjust the preset profile setting rail **[6-10]**.
► Slide the preset profile setting rail **[6-10]** in the V-profile **[6-12]** until the preset profile setting rail **[6-10]** covers the field marked in green on the table side **[6-11]**.
► Tighten the rotary knob **[6-1]**.

Preset profile setting rail as rip fence

► Undo the screw **[6-4]**.
► Lift the fixing pin **[6-3]**.
► Set the angle **[6-5]** to 0° using the scale.
► Click the fixing pin **[6-3]** into place.
► Tighten the screw **[6-4]**.
► Undo the screw **[6-6]**.

- ► Adjust the stop rail **[6-7]** in such a way that the triangular arrow lies within the green sticker **[6-8]**.
- ► Tighten the screw **[6-6]**.

*The rip fence (**Fig. 6a**) is ready to use.*

Preset profile setting rail as high or low stopper

ⓘ The preset profile setting rail can be used as a high or low stopper. To do this, the stop rail is inserted either upright or flat.

The low stopper is used to prevent a collision with the guard, e.g. in the case of mitre cuts with a saw blade swivelled to 45°.

- ► Undo the screw **[6-6]**.
- ► Pull out the stop rail **[6-7]**, flip it and insert it again.
- ► Adjust the stop rail **[6-7]** in such a way that the triangular arrow lies within the green sticker **[6-8]**.
- ► Tighten the screw **[6-6]**.

Setting the cutting width

- ► Loosen the screw **[6-15]**.
- ► Set the required cutting width.
- ► Tighten the screw **[6-15]**.

Cutting width ⩽ 3 mm

NOTICE

SawStop AIM technology is triggered or the TKS 80 EBS does not start.

Distance between saw blade and fence too small.

- ► When sawing cutting widths of ⩽ 3 mm, use a support ⩾ 19 mm.

Preset profile setting rail as a sliding mechanism

- ► Release the rotary knob **[6-1]**.

*The preset profile setting rail **[6-10]** can be moved along the V-profile **[6-12]** as a sliding mechanism.*

Preset profile setting rail as a cross and angle stop

- ► Release the rotary knob **[6-1]**.
- ► Undo the screw **[6-4]**.
- ► Lift the fixing pin **[6-3]** and set the stop rail **[6-7]** to the required angle using the scale **[6-5]**.
- ► Click the fixing pin **[6-3]** into place.
- ► Tighten the screw **[6-4]**.
- ► Undo the screw **[6-15]**.
- ► Move the stop rail **[6-7]** out of the cutting area.
- ► Tighten the screw **[6-15]**.

*The preset profile setting rail **[6-10]** can be moved along the V-profile **[6-12]** as a sliding mechanism.*

*The cross and angle stop (**Fig. 6b**) is ready for use.*

Adjusting the preset profile setting rail: Setting the parallelism

- ► Set the stop rail **[6-7]** at a right angle to the saw blade (see section 9.5).
- ► Undo the hexagon socket head screws **[6-14]**.
- ► Place a protractor between the saw blade and the sliding handle **[6-2]**.
- ► Using the protractor, adjust the sliding handle **[6-2]** to 90°.
- ► Tighten the hexagon socket head screws **[6-14]**.

9.6 Table insert

Removing the table insert

- ► Open the table insert **[7-1]** with a spanner **[7-2]** in the direction of the arrow.
- ► Remove the table insert **[7-1]**.

Fitting the table insert

- ► Insert the table insert **[7-1]** into the table and lock it into place.

WARNING

Risk of accidents due to kickback

- ► Make sure that the table insert is correctly inserted and forms an even surface with the saw table.

9.7 Guard

Fitting the guard

- ► Set the saw blade to maximum cutting height (see section 9.3).
- ► Set the inclination angle to 0° (see section 9.4).
- ► Unscrew the screw **[8-2]** from the guard **[8-1]**.
- ► ❶ Insert the lengthwise pin situated in the guard **[8-1]** into the groove **[8-4]** of the spacer wedge **[8-5]**.
- ► Re-insert the screw **[8-2]** into the guard **[8-1]** and through the hole in the spacer wedge **[8-3]** and tighten it.

Removing the guard

- ► Set the saw blade to maximum cutting height (see section 9.3).

- ► Set the inclination angle to 0° (see section 9.4).
- ► Tighten the guard **[8-1]** and unscrew the screw **[8-2]**.
- ► ❷ Pull the lengthwise pin situated in the guard out of the groove **[8-4]** of the spacer wedge **[8-5]** and remove the guard **[8-1]**.
- ► Re-insert the screw **[8-2]** into the guard **[8-1]** and tighten it.

Setting the guard

- ► Release the rotary knob **[8-8]**.
- ► To adjust the preset profile setting rail, lock the side splinter guard of the guard **[8-6]** with the snap-in nose **[8-7]** in the top position.
- ► ❸ Lift the guard into the top position and tighten the rotary knob **[8-8]**.
- ► ❹ After adjusting the preset profile setting rail, loosen the rotary knob **[8-8]** again and unhook the side splinter guard of the guard **[8-6]**.

ⓘ The guard **[8-1]** and the splinter guard of the guard **[8-6]** must lie freely on the plate.

9.8 Replacing the riving knife

ⓘ Use a riving knife with guard **[9-1]** for rip and angled cuts.
Use a riving knife for grooving **[9-2]** for non-through cutting.

WARNING

Risk of accidents due to kickback

- ► The safety equipment must be re-installed immediately after work that requires the spacer wedge with protective cover to be removed.

With fitted table insert

- ► Set the cutting height to the maximum of 80 mm (see section 9.3).
- ► Remove the hex key **[9-4]** from the holder **[9-5]**.
- ► Fully insert the hex key **[9-4]** into the opening **[9-3]**.
- ► Turn the hex key **[9-4]** clockwise as far as it will go.
- ► Remove and/or replace the riving knife (**Fig. 9c**).
- ► Turn the hex key **[9-4]** anticlockwise as far as it will go.
- ► Remove the hex key **[9-4]** and store it in the holder **[9-5]**.

With removed table insert

- ► Turn the lever handle **[9-6]** clockwise as far as it will go.
- ► Remove and/or replace the riving knife (**Fig. 9c**).
- ► Turn the lever handle **[9-6]** anticlockwise as far as it will go.

9.9 Dust extraction

WARNING

Hazardous dust

Damage to the respiratory passage

- ► Always work with an extractor.
- ► Comply with national regulations.
- ► Wear a dust mask.

The TKS 80 EBS has two vacuum connections with bayonet coupling:

An upper vacuum connection **[10-1]** with a diameter of 27 mm and a lower vacuum connection **[10-4]** with a diameter of 36 mm.

- ► To guide the upper extractor hose, attach the extractor hose holder **[10-2]** to one of the V profiles.

The extractor set **[10-3]** joins both vacuum connections to enable a Festool mobile dust extractor with an adapter of 50 mm in diameter to be connected.

9.10 Saw blade cover

Opening the saw blade cover

- ► Loosen the screw **[11-1]** and remove both keys.
- ► Release the rotary knob **[11-2]**.
- ► Open the top **[11-3]** with a spanner for the spindle flange **[11-5]** or with a suitable screwdriver.
- ► Open the saw blade cover **[11-4]**.

Closing the saw blade cover

- ► Insert the saw blade cover **[11-4]**.
- ► Close the top **[11-3]** with a spanner for the spindle flange **[11-5]**.
- ► Insert both open-ended spanners and tighten the screw **[11-1]**.
- ► Tighten the rotary knob **[11-2]**.

9.11 Changing the saw blade

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.

ⓘ The sawing power and cutting quality are heavily dependent on the condition and tooth shape of the saw blade. This means that only sharp saw blades that are suitable for the material to be machined should be used.

Removing the saw blade

- ► Open the saw blade cover (see section 9.10).
- ► Remove the table insert (see section 9.6)
- ► Set the maximum cutting height (see section 9.3).
- ► Use the two spanners **[12-1]** to loosen the saw blade **[12-2]** from the tool spindle **[12-3]**.
- ► Remove the spindle nut **[12-5]** and spindle flange **[12-4]** from the tool spindle **[12-3]**.
- ► Remove the saw blade **[12-2]** from the tool spindle **[12-3]**.

A new or different saw blade can be fitted.

WARNING

Risk of accidents due to loose rotating saw blade

- ► The direction of rotation of the saw blade and saw must match (see the direction of the arrow).
- ► The writing on the saw blade must be visible.
- ► Tighten the spindle flange **[12-4]** and spindle nut **[12-5]** to a tightening torque of ⩾ 25 Nm.

Fitting the saw blade

- ► Place a new or different saw blade **[12-6]** on the tool spindle **[12-3]**.
- ► Attach the spindle flange **[12-4]** to the tool spindle **[12-3]** and tighten the spindle nut **[12-5]** with the two spanners **[12-1]**.

  ⓘ The saw blade and cartridge must not touch.
- ► Fit the table insert (see section 9.6).
- ► Close the saw blade cover (see section 9.10).

9.12 Changing the cartridge

Removing the cartridge

- ► Open the saw blade cover (see section 9.10).
- ► Set the inclination angle to 0° (see section 9.4).
- ► ❶ Turn the cartridge locking device **[13-1]** clockwise by one quarter of a rotation.
- ► ❷ Remove the cartridge locking device **[13-1]**.
- ► ❸ Remove the cartridge **[13-3]** from the fastening pins **[13-2]**.

WARNING

SawStop AIM technology is not triggered

- ► Never use a cartridge that has been damaged or dropped.

Fitting the cartridge

- ► ❶ Remove the protective cap **[13-4]** from the new cartridge.
- ► ❷ Place the cartridge **[13-6]** on the fastening pins **[13-5]**.
- ► ❸ Insert the cartridge lock **[13-7]**.
- ► ❹ Turn the cartridge lock **[13-7]** anticlockwise by one quarter of a rotation.

  ⓘ The saw blade and cartridge must not touch.
- ► Close the saw blade cover (see section 9.10).

10 Working with the electric power tool

10.1 Safe working

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

Safety devices

- Only use the power tool if all safety devices are in their correct positions and the power tool is in good condition and has been well maintained.
- Always use the supplied spacer wedges and the guard. Ensure that they are set correctly as described in the operating manual. If a spacer wedge is set incorrectly and components that are required for safety reasons (such as the guard) are removed, this may result in serious injuries.

- There must not be any damage to the plate and table insert (e.g. cuts in the sawing gap). If a plate or table insert is damaged, replace it immediately.
- Never work without using a table insert.

Working position

- Correct working position:
  - At the front on the side of the operator;
  - Head-on to the saw;
  - Beside the line of cut.
- Risk of injury from ejected parts. Any persons standing in the vicinity of the saw may be injured. Maintain distance from the saw.

Putting down and ready to work

- To avoid tripping, hang the power cord on the power cord holders (see section 7) and put the mobile dust extractor down near the power tool.

Protective gloves

- Do not wear protective gloves when sawing. Protective gloves may become caught in the saw blade and pull the hand into the saw blade.

Speed

- To prevent the saw blade from overheating or the plastic from melting, set the correct speed for the cutting material and do not use excess pressure when cutting.

Electronics

- 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.

Workpieces

- Do not work with oversized and heavy workpieces that could damage the tool.
- Support long workpieces on the receiving side.

Area of the saw blade

- Keep the cutting area behind the saw blade free of offcuts or other workpiece parts.
- Do not remove offcuts or other workpiece parts from the cutting area while the bench-mounted circular saw is still running or before the saw blade stops moving.
- If the saw blade is jammed, switch the machine off immediately and disconnect the mains plug. Do not remove the jammed workpiece until you have done this.

10.2 Push stick

WARNING

Risk of accidents due to rotating saw blade

► At a distance of 50–150 mm between the stop rail **[14-2]** and the saw blade **[14-3]**, always make use of the push stick **[14-1]** supplied.

ⓘ Store the push stick **[14-1]** in the push stick holder **[14-4]** when not in use.

10.3 Rip cuts

► Use the riving knife with the guard for rip cuts (see section 9.8).
► Set the preset profile setting rail as a rip fence (see section 9.5).
► Guide the workpiece to the fence.

10.4 Cuts along the mitre

ⓘ For workpieces with a width of ⩽ 150 mm, only use right-hand stop rails. This guarantees increased space between the stop rail and the saw blade

► Use the spacer wedge with guard (see section 9.8).
► Set the preset profile setting rail as a stopper (see section 9.5).
► Set the inclination angle of the saw blade (see section 9.4).
► Guide the workpiece along the fence.

10.5 Angled cuts

► For angled cuts, use the spacer wedge with protective cover (see section 9.8).
► Use the preset profile setting rail as a cross and angle stop (see section 9.5).
► Use the stop to guide the workpiece along.

10.6 Non-through cutting

WARNING

Risk of accidents due to kickback

► The safety equipment must be re-installed immediately after work that requires the spacer wedge with protective cover to be removed.

ⓘ Complicated concealed non-through cutting operations, e.g. plunge cutting and plowing, are not permitted.

ⓘ For non-through cutting, use a feather-board* to ensure that the workpiece is pressed tightly against the table during the cutting process.

* Not included in the scope of delivery.

For non-through cutting, use the spacer wedge for grooving (see section 9.8).

Grooving

- ► Adjusting the grooving width (see section 9.3).
- ► Set the preset profile setting rail as a rip fence (see section 9.5).
- ► Guide the workpiece along the stop.
- ► Repeat the process until the required grooving depth is achieved.

Rebating

ⓘ Saw the first cut into the thin side of the workpiece.

- ► Set the cutting height for the first cut (see section 9.3).
- ► Set the preset profile setting rail as a rip fence (see section 9.5).

The first cut can be made into the thin side of the workpiece.

- ► Turn the workpiece.
- ► Set the cutting height for the second cut (see section 9.3).
- ► Set the preset profile setting rail as a rip fence (see section 9.5).

ⓘ Select the clearance to the rip fence in such a way that the groove that has already been sawed is not on the side of the stop.

The second cut on the thin side of the workpiece can be produced.

11 Storage

- ► Pull the mains plug out of the socket.
- ► Remove the extractor hose.
- ► Store the accessories included in the scope of delivery the accessory holders or the brackets provided for that purpose (see section 7).
- ► Remove accessories not included in the scope of delivery.
- ► Do not store the TKS 80 EBS outside.

⚠ CAUTION

Cuts due to protruding parts

- ► Store the bench-mounted circular saw in an upright position.

12 Service and maintenance

⚠ WARNING

Risk of injury, electric shock

- ► Always pull the mains plug from the socket before performing any servicing and maintenance work.
- ► All maintenance and repair work which requires the motor housing to be opened should always be carried out by an authorised service workshop.

⚠ WARNING

Incorrect testing may damage the machine and injure users

- ► Special information is required for testing the electrical safety. This is available from your country's Festool 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

- ► Damaged safety devices and components must be repaired or replaced in a recognised specialist workshop, unless otherwise indicated in the operating instructions.
- ► To ensure constant air circulation, always keep the cooling air openings in the housing clean and free of blockages.
- ► Use an extractor to remove dust deposits.
- ► If the extraction channel becomes clogged with wood splinters:
  - ▷ Open the saw blade cover (see section 9.10).
  - ▷ Extract the blockage by means of suction on the saw blade cover.
- ► Wind up the power cable again once the work is complete (**Fig. 3b**).

The tool is equipped with special self-disconnecting carbon brushes. If they wear out, the

power supply is disconnected automatically and the tool stops.

13 Accessories

Use only original Festool accessories.

Refer to the Festool catalogue for the order numbers of accessories and tools or find them online at www.festool.co.uk.

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.:

- Saw blades for different materials.
- Width extension table
- Length extension table
- Sliding table
- Rip fence

14 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.com/reach

15 General information

Imported into the UK by

Festool UK Ltd
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