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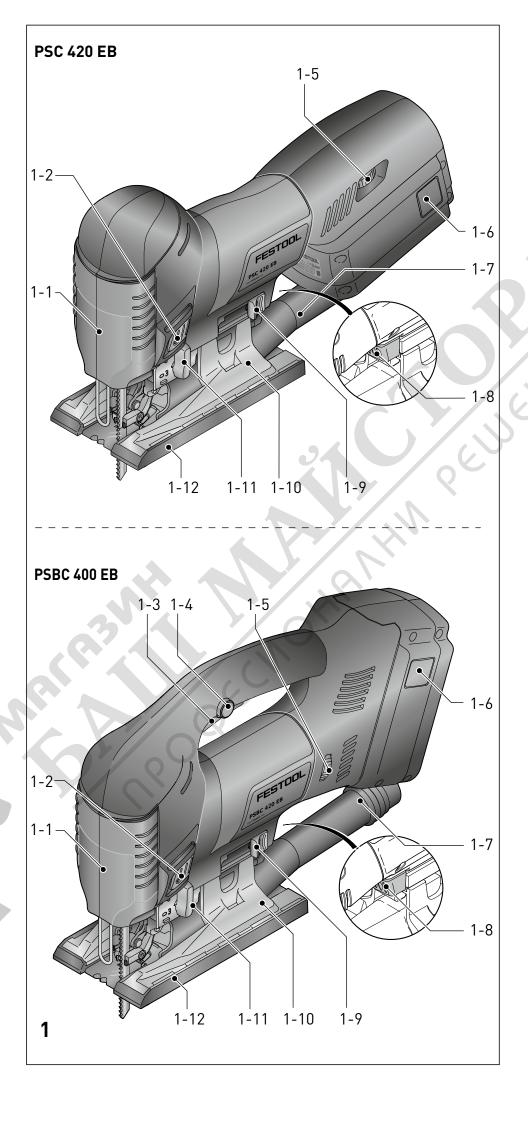
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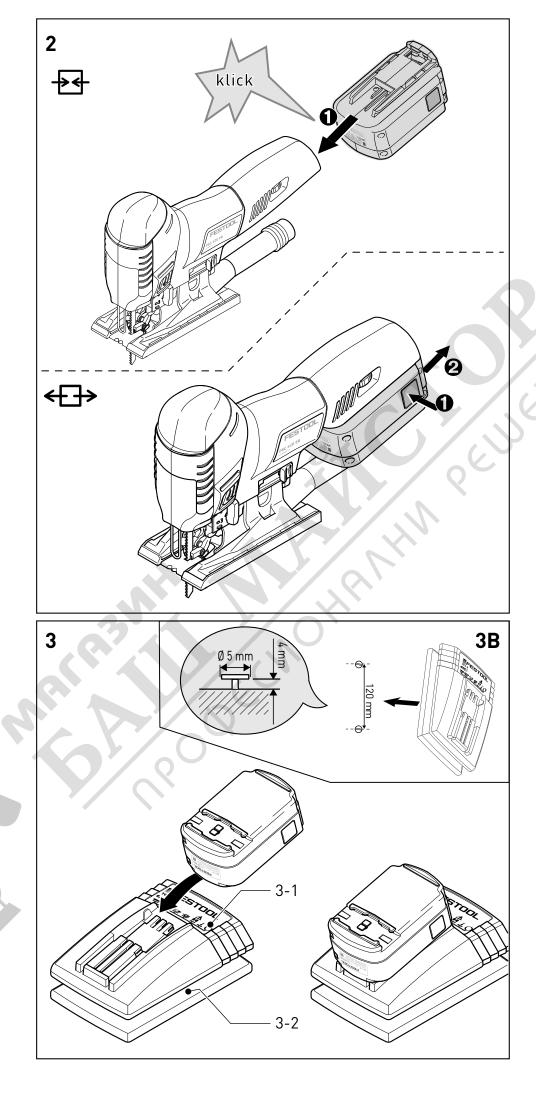
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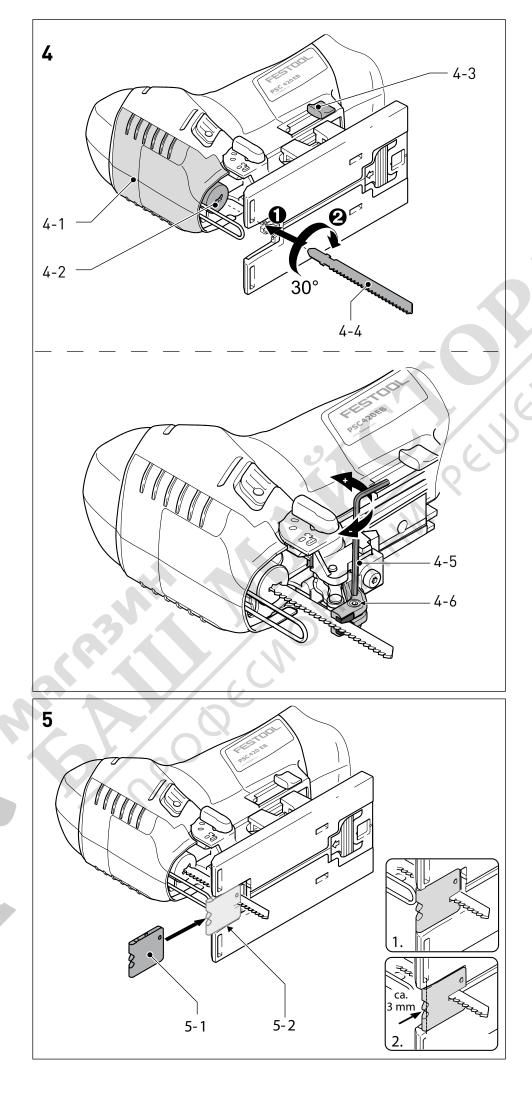
CARVEX
PSC 420 EB
PSBC 420 EB

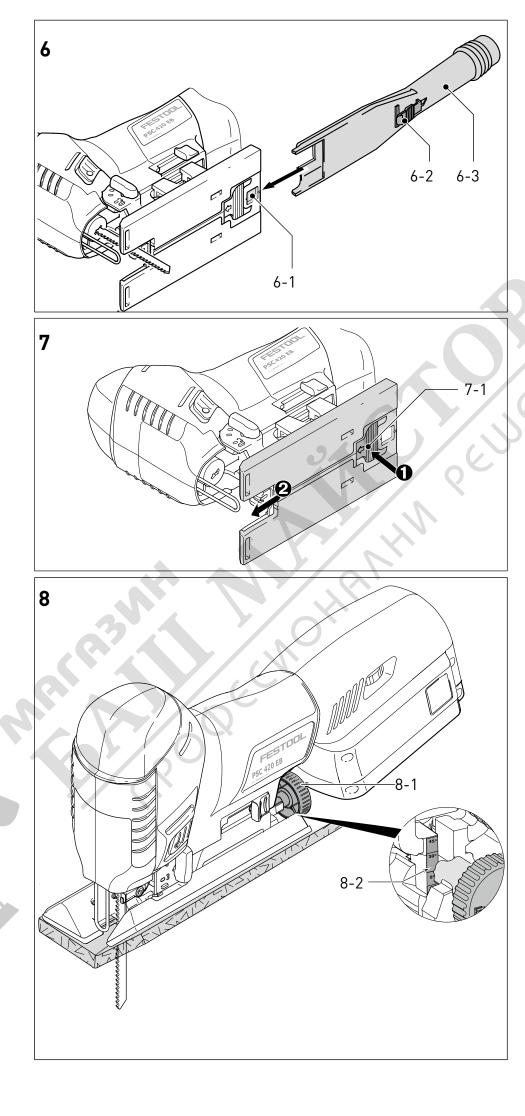


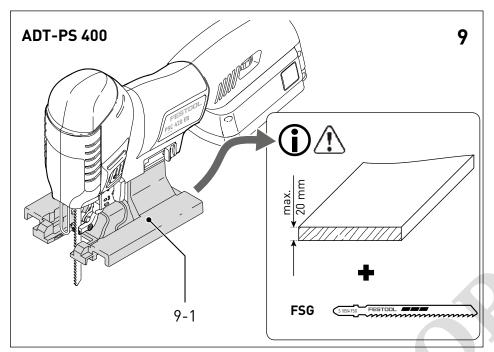


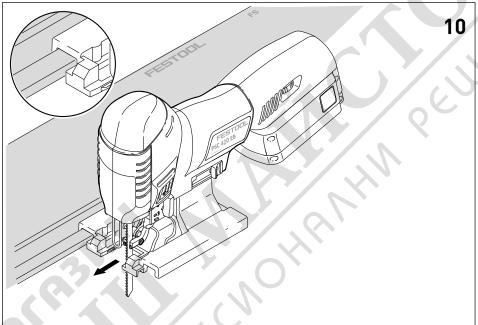


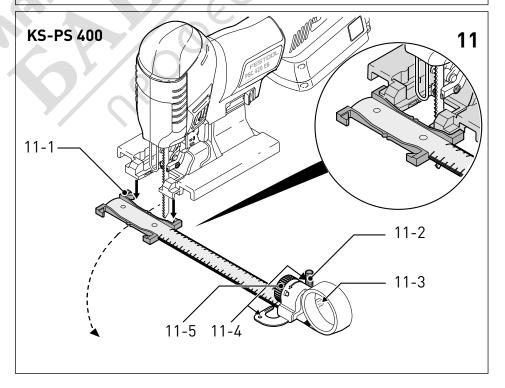














TCL 3		
		BPC 12, BPC 15, BPC 18 BPS 12, BPS 15, BPS 18 BP 12, BP 15, BP 18
	V~	220 - 240
	Hz	50/60
	V=	10,8 - 18
[А	3
Q=	°C	-5 - 45
		II

(b)		\rightarrow
Lilon 4,2 Ah	min.	~ 70
Lilon 5,2 Ah	min.	~ 90





Lilon 5,2 Ah	min.		~ 90
		BPC 15 Li	BPC 18 Li
		BPC 15 Li C15, T15+3, Ti 15, TSC 55, PSC 420, PSBC 420, KAL II	BPC 18 Li T18+3, PDC 18, DRC 18, DWC 18, BHC 18, TSC 55, PSC 420, PSBC 420, KAL II
	V=	C15, T15+3, Ti 15, TSC 55, PSC 420,	T18+3, PDC 18, DRC 18, DWC 18, BHC 18, TSC 55, PSC 420,
	V= Ah	C15, T15+3, Ti 15, TSC 55, PSC 420, PSBC 420, KAL II	T18+3, PDC 18, DRC 18, DWC 18, BHC 18, TSC 55, PSC 420, PSBC 420, KAL II

Original operating manual

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1 **Symbols**

Symbol Significance



Warning of general danger



Risk of electric shock



Read operating instructions and safety notices!



Wear ear protection.



Wear protective gloves.



Wear a dust mask.



Wear protective goggles.



Do not dispose of with domestic waste.



Tip or advice



Handling instruction



Mains voltage (input) and frequency



Voltage (output)



Rapid charging max.



Permitted temperature range



Safety class II



Charging times Capacity



Weight

2 Safety instructions

2.1 General safety instructions

WARNING! Read all safety warnings and all **instructions.** Failure to follow the warnings and instructions 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 Battery pack and charger safety instruc-

- This charger can be operated by persons with reduced physical, sensory or mental capabilities or a lack of practical experience and knowledge, provided they are supervised or have been instructed to use the machine safely and understand the dangers of machine operation. Children are not allowed use or play with the ma-
- Do not open the battery pack or the charger!
- Prevent metal parts (e.g. metal chips) or fluids from entering the charger!
- Do not use power adapters or battery packs form other manufacturers to operate the cordless power tool. Do not use any charger from other manufacturers for charging the battery pack. The use of impermissible accessories may result in electric shock and / or serious accidents!
- Protect the battery pack from excessive heat > 50 °C or constant heat sources such as sunlight or naked flames!
- Never use water to extinguish burning li-ion battery packs! Use sand or a fire blanket.
- Protect the machine from moisture.
- Protect the cable from heat, oil and sharp edges.
- Check the plug and the cable regularly and should either become damaged, in order to avoid a hazard, have them replaced by an authorised after-sales service workshop.

2.3 Machine-related safety instructions

- Hold power tool by insulated gripping surface, when performing an operation where the cutting accessory may contact hidden wiring. Cutting accessory contacting "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Festool electric power tools must only be installed on work tables provided by Festool for this purpose. If the tool is installed in another, or

self-made, work table, it can become unstable and result in serious accidents.

- Wait until the power tool stops completely until placing it down. The tool can become entangled and lead to a loss of control of the power tool.
- Deformed or cracked saw blades and saw blades with blunt or broken cutting edges must not be used.
- Always place the pendulum jigsaw on the workpiece with the saw blade running.









- Wear suitable protection such as ear protection, safety goggles, a dust mask for work which generates dust, and protective gloves when working with raw materials and when changing tools.
- Always secure the workpiece in such a manner that it cannot move while being sawed.
- Harmful/poisonous dust may arise when working (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 applicable in your country.

Wear a P2 respiratory mask to protect your health.



- Always connect the machine to a dust extractor when work involves dust generation.
- Stroboscopic light can cause epileptic seizures.
 Do not use this machine if you are susceptible to epileptic seizures.
- Do not look into the stroboscope light. Looking into the light source can damage your vision.

2.4 Metal processing



When processing metal, the following measures must be taken for safety reasons:

- Connect the machine to a suitable dust extractor.
- Regularly remove dust deposits in the motor housing.
- Use a metal saw blade.
- Close the chip guard.



Wear protective goggles.

2.5 Emission levels

Levels determined in accordance with EN 60745 are typically:

Sound pressure level $L_{PA} = 88 \text{ dB(A)}$ Noise level $L_{WA} = 99 \text{ dB(A)}$ Measuring uncertainty allowance

ce

CAUTION

Operating noise

Damage to hearing

▶ Use ear protection!

Vibration emission value a_h (vector sum for three directions) and uncertainty K measured in accordance with EN 60745:

	PSC 420 EB	PSBC 420 EB
Sawing wood	d	V . //
Handle	$a_h = 6.0 \text{ m/s}^2$	$a_h = 10.0 \text{ m/s}^2$
	$K = 2.0 \text{ m/s}^2$	$K = 2,0 \text{ m/s}^2$
Gear head	$a_h = 11,0 \text{ m/s}^2$	
	$K = 2.0 \text{ m/s}^2$	(6,
Sawing meta	al	\mathcal{Y}
Handle	$a_h = 7.0 \text{ m/s}^2$	a _h = 11,0 m/s ²
	$K = 2,0 \text{ m/s}^2$	$K = 2,0 \text{ m/s}^2$
Gear head	$a_h = 12,0 \text{ m/s}^2$	
	$K = 2,0 \text{ m/s}^2$	

The specified emissions values (vibration, noise)

- are used to compare machines.
- They are also used for making preliminary estimates regarding vibration and noise loads during operation.
- They represent the primary applications of the power tool.

Increase possible for other applications, with other insertion tools or if not maintained adequately. Take note of idling and downtimes of machine!

3 Intended use

Jigsaws are designed for sawing wood and similar materials similar to wood. With the special saw blades offered by Festool, these machines can also be used for sawing plastic, steel, aluminium, nonferrous metal and ceramic plates.

Charger TCL 3 suitable for

- charging Festool battery packs: BP, BPS and BPC (NiMH, NiCd, li-ion are recognised automatically.)
- indoor use only.



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

4 Technical data

Cordless jigsaws	PSC 420 EB	PSBC 420 EB
Motor voltage	10,8 - 18	3 V
Stroke speed	1500 - 3800 rpm	1000 - 3800 rpm
Stroke length	26 mm	
Pendulum stroke	4 steps	5
max. inclination (only with accessory angle table WT-PS 400)	45° to both	sides
max. cutting depth (depending on saw blade)		
Wood	120 mn	n
Aluminium	20 mm	
Steel	10 mm	
Weight without battery pack	1,8 kg	7/9
Safety class	□ /I	

6.3

(i) Further technical data on the charger and battery packs can be found on page 7.

5	Machine features		
[1-1]	Chip guard		
[1-2]	On/Off switch		
[1-3]	Variable speed trigger (only PSBC 420 EB)		
[1-4]	Switch lock (only PSBC 420 EB)		
[1-5]	Adjusting wheel for stroke speed control		
[1-6]	Buttons for releasing the battery pack		
[1-7]	Extractor connector		
[1-8]	Saw table change lever		
[1-9]	Saw blade ejection		
[1-10]	Replaceable saw table		
[1-11]	Pendulum stroke switch		
[1-12]	Base runner		
[3-1]	LED-Display		
[3-2]	Cable holder		
[3B]	Wall mount for charger		
	The specified illustrations appear at the beginning		
of the O	perating Instructions.		

The battery pack is delivered partially charged. To guarantee the full battery power, charge it completely before using it for the first time.

Charging the battery pack [3A]

The electric power tool has one button [1-2] on

The PSBC 420 EB also has a variable speed trigger [1-3] with switch lock [1-4]. For continuous opera-

Switch on/off

each side for switching on/off.

tion, use the button [1-2].

The LED [3-1] on the charger indicates the respective operating status of the charger.

Charger is ready to use.

Battery pack is charged to maximum capacity.

Battery pack is charged with reduced current. Li-ion is charged to 80 %.

Charging process has finished or will not resume because the current charging state is more than 80%.

General fault indicator, e.g. incomplete contact, short circuit, defective battery pack, etc.

6 Operation

6.1 Charger cable holder [3-2]

Unwind the cable completely from the recess before using the charger.

6.2 Changing the battery pack [2]

The cordless jigsaws can be charged using any Festool battery pack from the **BPC** series.



Risk of injury! Always remove the belt clip from battery packs from the BPC series prior to use.



LED red - lit continuously

Battery temperature is outside the permitted range.

7 Settings



WARNING

Risk of injury

▶ Always disconnect the battery pack before performing any type of work on the machine!

7.1 Changing tools





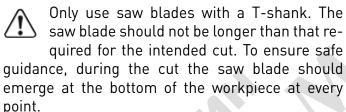
CAUTION

Hot and sharp tools

Risk of injury

- ▶ Do not use insert tools that are blunt or defec-
- ► Wear protective gloves.

Selecting saw blade



(i) Only use cross-set saw blades when using the angle and adapter table. We recommend Festool saw blade S 105/4 FSG.

Inserting saw blade



Always disconnect the battery pack from the machine before every tool change!

- ▶If necessary, lift up the chip guard [4-1].
- ▶ Slide the saw blade [4-4] into the opening [4-2] as far as the stop with its teeth in the cutting direction.
- Turn the saw blade [4-4] clockwise approx. 30°.

Check that the saw blade is secure. A loose saw blade can fall out and cause an injury.

(i) If the saw blade is very small, it is advisable to remove the saw base (see chapter 7.4) before inserting the saw blade.

Adjust the saw blade guide after every saw blade change:

The saw blade guide was designed to improve guidance of the saw blade.

▶ Remove the saw base (see chapter 7.4).

► Tighten the screw [4-6] using the Allen key [4-5] until the jaws are almost touching the saw blade.

NOTE

Damage to the machine or saw blade

▶ Do not tighten the screw [4-6] too firmly! It must be possible to move the saw blade slightly.

Ejecting saw blade

- (i) When ejecting the saw blade, hold the electric power tool such that no persons or animals can be injured.
- ▶ Push the saw blade ejection [4-3] forwards as far as the stop.
- (i) A tool change is only possible when the tool holder is located in the upper position!

If the saw blade is stuck and cannot be changed: Operate the jigsaw at high speed for 3 - 10 seconds. Actuate the saw blade ejection [4-3] again.

7.2 Using the chip guard

The chip guard [4-1] prevents chips flying away and improves the efficiency of the chip extraction system.

Using minimal pressure, push the chip guard [4-1] downwards.

7.3 Inserting the splinterguard

The splinterguard prevents the edges of the material from splintering during the cut, even at the end where the saw blade exits the material.

- Switch off the machine and slide the splinterquard [5-1] into the quide [5-2] and up to the saw blade,
- Switch on the jigsaw,
- ▶ On a level surface, slide in the splinterguard (not using your hand!) while the machine is operating until it is flush with the front edge of the saw base (speed setting 5). This beds in the splinterguard.
- (i) When it is worn, push the splinterguard approx. 3 mm further to the rear and continue using it.
- To guarantee reliable operation of the splinterguard, it must seal tightly on both sides of the saw blade. A new splinterquard should therefore be fitted after every saw blade change to quarantee splinter-free cuts.

7.4 Changing saw table

- ▶ Open the change lever [1-8].
- Removing the saw table downwards.

Assembly is performed in reverse sequence to removal. Ensure that the saw table is firmly seated in the guide.

Instead of the saw table, the angle table WT-PS 400 or adaptation table ADT-PS 400 can be installed at the support.



Never saw without the saw table, or one of the other tables offered in the Festool accessories program.

7.5 Dust extraction

WARNING

Dust hazard

- ▶ Dust can be hazardous to health. Always work with a dust extractor.
- ► Always read applicable national regulations before extracting hazardous dust.

The extraction adapter **[6-3]** allows jigsaws to be connected to a dust extractor (hose diameter 27 mm).

- ► Insert the extraction adapter into the rear opening of the saw table so that the hook [6-2] engages in the [6-1] recess.
- ► To remove the extraction adapter, press the hook [6-2].
- Due to the low power consumption of the machine (low energy consumption), dust extractors with an automatic switch-on function will sometimes only start up when the actual cut is made.
- ➤ Set the dust extractor to continuous operation for special applications (e.g. low stroke rate, soft wood).

7.6 Adjusting the pendulum stroke

The pendulum stroke on pendulum jigsaws can be adjusted to machine different materials with the correct rate of advance. Select the required setting using the pendulum stroke switch [1-11]:

Position 0 = pendulum stroke off

Position 3 = maximum pendulum stroke

Recommended pendulum stroke setting

Softwood, chip board, wood fibreboard	1 - 3
Blockboard, plywood, plastic	1 - 2
Ceramics	0
Aluminium, non-ferrous metals	0 - 2
Steel, hardwood	0 - 1

7.7 Stroke speed control

The number of strokes can be adjusted steplessly with the adjusting wheel **[1-5]** between 1500 and 3800 rpm (PSBC 420 EB: 1000 - 3800 rpm). This enables you to optimise the cutting speed to suit the respective material.

In position **A**, the automatic load detection is activated: The stroke speed is reduced in idling and is controlled to the highest value when the blade enters the workpiece.

Recommended stroke speed (position of the adjusting wheel)

Hard and soft wood, plywood board, plywood, chip board	А
Hardboard	4 - A
Plastic	3 - A
Ceramic, aluminium, non-ferrous metals	3 - 5
Steel	2 - 4

8 Working with the machine



CAUTION

Material with high dust generation (e.g. plaster-board)

Damage to machine through dust penetration, risk of injury

▶ Do not work overhead!

When working on small or thin workpieces, always use a stable base, or the CMS module (accessory).

When working, hold the electric power tool by the handle and guide it along the desired cutting line. For precise cuts and smooth running, use two hands to guide the electric power tool.

Free saw guidance along a scribe mark

The triangular pointer on the splinterguard **[5-1]** indicates the cutting line of the saw blade. This facilitates sawing along a scribe mark.

8.1 Lighting



WARNING

The stroboscope light may make it difficult to determine the saw blade position

Risk of injury

► Ensure the work area is well illuminated.

A continuous light or stroboscope is installed for illuminating the cutting line:

up to approx. 2100 rpm: continuous light from approx. 2100 rpm: stroboscope light

(i) In overhead position (+/- 45°), the lighting is switched off completely.

If required, you can adjust the lighting:

- Plug in the electric power tool.
- ▶ Press both buttons simultaneously [1-2] and hold for approx. 10 s until a beep sounds.
- Release both buttons [1-2].
- Press the left button (on the pendulum stroke side) to select the stroke speed and consequently the desired operating mode:

Mode	Indication during configuration	Behaviour during operation
1	Light flashes	With stroboscope (standard)
2	Light on	Permanent light without strobo-scope
3	Light off	Light switched off

▶ Press the right button to save the setting.

8.2 Acoustic warning signals

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



Battery flat or machine overloaded.

- Change the battery.
- Place the machine under reduced stress.



peep peep

Machine is overheating.

- You must allow the machine to cool before using again.



Lilon battery pack is faulty or has overheated.

peep peep peep _ Once the battery pack has cooled, perform a functional check using the charger.

Service and maintenance



WARNING

Risk of injury, electric shock

- ► Always disconnect the battery pack from the machine before any maintenance or care work!
- ► All maintenance and repair work which requires the motor housing to be opened, must only be carried out by an authorised service workshop.



Customer service and repair only through manufacturer or service workshops: Please find the nearest address at: www.festool.com/service



Use only original Festool spare parts! Order No. at: www.festool.com/service



Damaged safety devices and components must be repaired or replaced in a recognised specialist workshop, unless otherwise indicated in the operating manual.

Observe the following instructions:

- Keep the air slits on the machine and the charger free and clean to ensure adequate cooling.
- Keep the contacts on the machine, charger and battery pack clean.
- Check the guidance roller regularly for wear.
- Regularly remove dust deposits from the chip guard.
- Regularly clean the base runner to prevent scratches and cores on the surface.

Information on battery packs

- Store in a cool, dry place at a temperature between 5 °C and 25 °C.
- Protect battery packs from moisture, water and
- Do not leave flat battery packs in a charger disconnected from the mains power supply for longer than one month. Danger of deep discharge!
- If you intend to store li-ion battery packs for longer periods without use, you should charge them to 40 % capacity (approx. 15 min charging time).
- To avoid short circuits the battery pack should be stored in the packaging supplied.
- Significantly shorter operating times after each charge indicate that the battery pack is worn and should be replaced with a new one.

10 Accessories

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

10.1 Saw blades, other accessories

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

10.2 Sawing with special base runners

The special base runners protect high-quality surfaces against scratches and scores.

- Press in the base runner at position [7-1].
- ▶ At the same time, push the base runner for-
- ▶ Mount another base runner and push it to the rear until it engages.

10.3 Sawing with the angle table

The angle table WT-PS 400 is used for cutting pipes or interior and exterior angles up to 45°.



Dust extraction is not possible when sawing with the angle table!

Installing the angle table

- ▶ Remove the saw base [1-10], (see chapter 7.4).
- ▶ Position the angle table against the saw base support.
- ► Close the lever [1-8].

Ensure that the angle table is firmly seated in the quide.

Setting the angle

► Turn the adjusting wheel [8-1] to select the reguired angle.

You can select the angles -45°, 0° and +45° on the scale [8-2].



WARNING

Sawing cutting depths

Risk of injury

- ► Select the saw blade length and cutting depth so that the saw blade remains plunged in the workpiece.
- (i) For 90° cuts, we recommend setting the angle table to a small negative angle to guarantee smooth operation.

10.4 Sawing with the adaptation table

The adaptation table ADT-PS 400 is used for fitting your jigsaw on the Festool guide rail and the circle cutter KS-PS 400.



With guide rail and circle cutter: do not exceed max. material thickness of 20 mm and always use cross-set saw blades (FSG).

Installing the adaptation table

- ▶ Remove the saw table [1-10], (see chapter 7.4).
- ▶ Mount the adaptation table [9-1] on the saw table support.

► Close the change lever [1-8].

Ensure that the adaptation table is firmly seated in the guide.

(i) Use the extractor connector [1-7] also with the adaptation table.

Adaptation to the guide rail FS 2

The Festool guide system FS 2 (Fig. [10]) makes it much easier to manufacture straight precision cuts.

▶ Place the jigsaw with attached adaptation table [9-1] on the guide rail.

Adaptation to the circle cutter

The circle cutter can be used to create circular cuts with a diameter between 120 and 3000 mm. The circle cutter can be installed from both sides on the adaptation table.

- ▶ Place the jigsaw with attached adaptation table on the adapter [11-1] on the circle cutter.
- ▶ Insert the centring mandrel [11-2] in the hole [11-4] on the circle cutter aligned with the saw blade.
- ► Clamp the measuring tape to the circle cutter using the rotary knob [11-5].

Recommended when using the circle cutter:

- Cut in an anticlockwise direction.
- Work at a slow rate of advance.
- ► Set the pendulum stroke [1-11] to 0 1.
- ➤ Set the stroke rate [1-5] to 1 5.
- (i) Store the centring mandrel in the depot [11-3].

11 **Transport**

The lithium-ion batteries are subject to the requirements of the legislation on hazardous goods. A liion battery pack alone falls below the applicable limit value and certified as per UN manual ST/SG/ AC.10/11/rev. 3 part III, subsection 38.3. However, dangerous goods regulations may apply when several battery packs are transported For shipping by third parties (e.g. air transport or freight forwarding company) special requirements with regard to packaging and labelling must be observed. For the preparation of the package an expert on hazardous goods must be consulted. Please observe any further national regulations.

Only return the battery pack if the housing is undamaged. Tape over the exposed contacts and wrap the battery pack so that it cannot move inside the packaging.

12 **Environment**



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

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

Return used or faulty battery packs to your local specialist retailer, Festool after-sales service or nearest public waste management facility (observe applicable regulations). Batteries must be discharged on return. Battery packs will then be recycled.

EU only: In accordance with the European Directive on batteries and implementation in national law, defective or used battery packs/batteries must be collected separately and handed in for environmentally friendly recycling.

Information on REACh: www.festool.com/reach

EU Declaration of Conformity 13

Cordless jigsaws	Serial no.
PSBC 420 EB	10003824
PSC 420 EB	10003823, 10005015
Year of CE mark 2012	

We declare under sole responsibility that this product complies with all the relevant requirements in the following directives, standards and normative documents:

2006/42/EC, 2004/108/EC, 2011/65/EU, EN 60745-1, EN EN 60745-2-11, EN 55014-1, EN 55014-2.

Charger	Serial no.
TCL 3	10002345, 10004911
Year of CE mark: 2013	

We declare under sole responsibility that this product complies with all the relevant requirements in the following directives, standards and normative documents:

2004/108/EC, 2006/95/EC, 2011/65/EU, EN 60335-1, EN 60335-2-29, EN 61000-3-2, EN 61000-3-3, EN 55014-1, EN 55014-2.

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2014-11-20