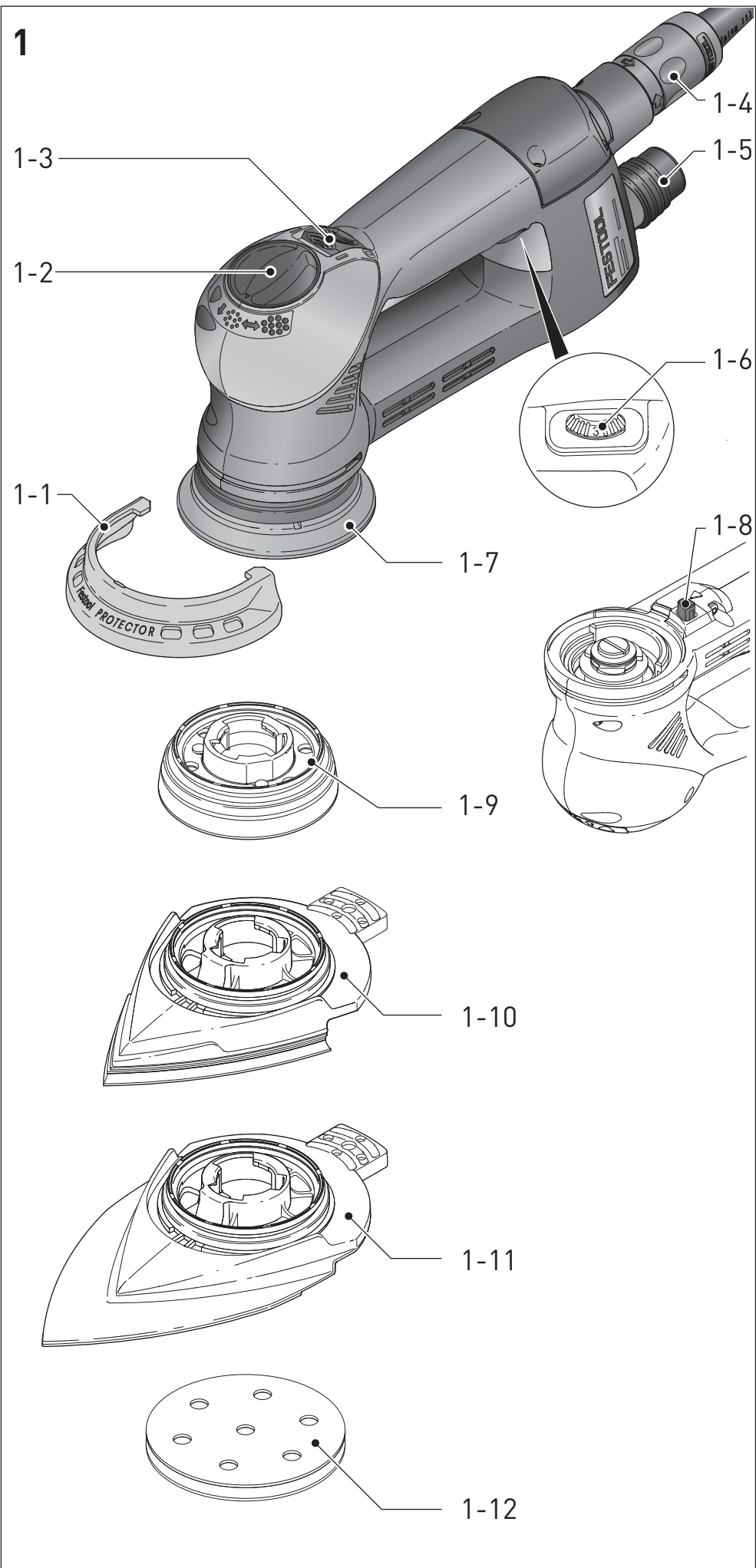
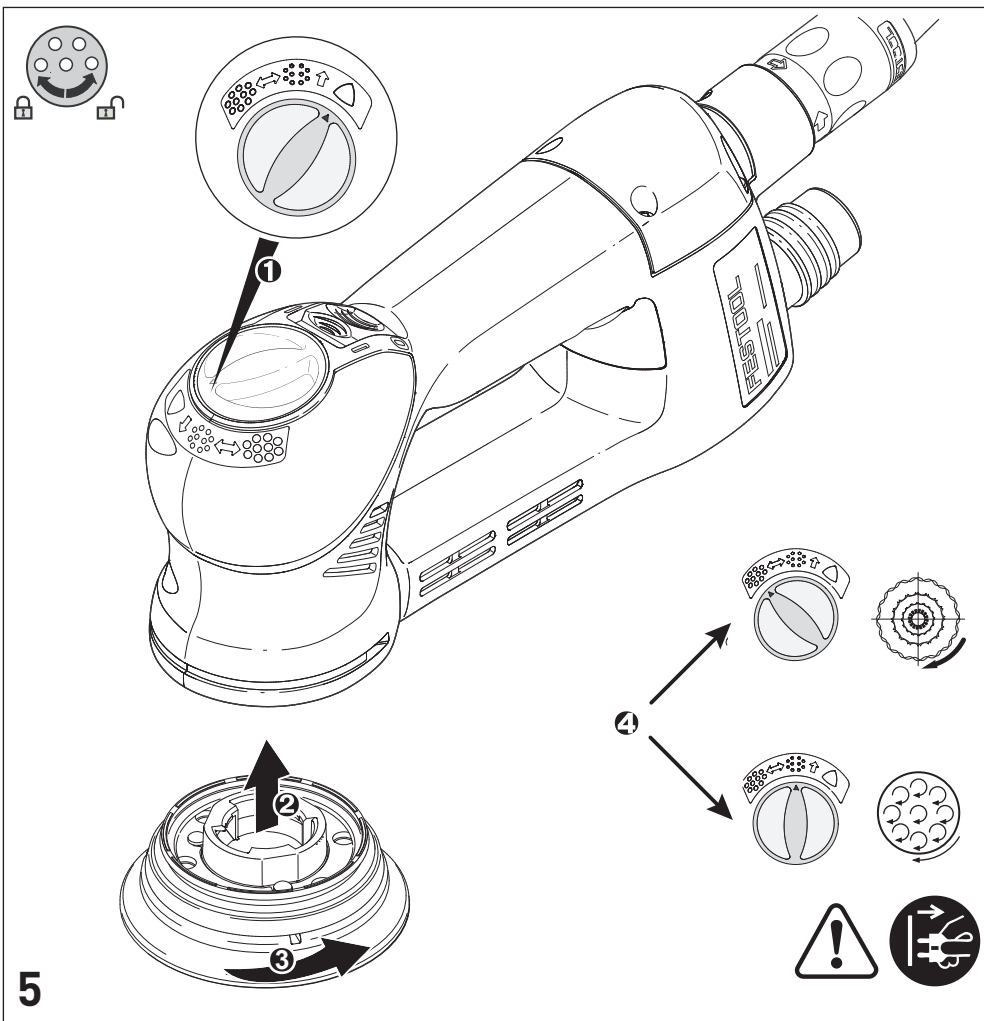
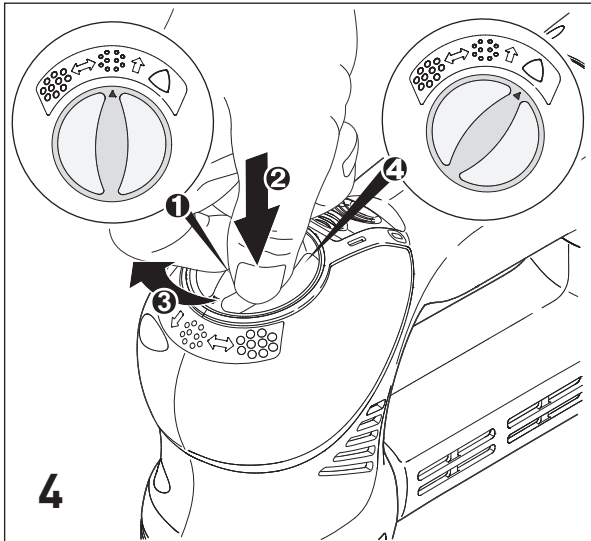
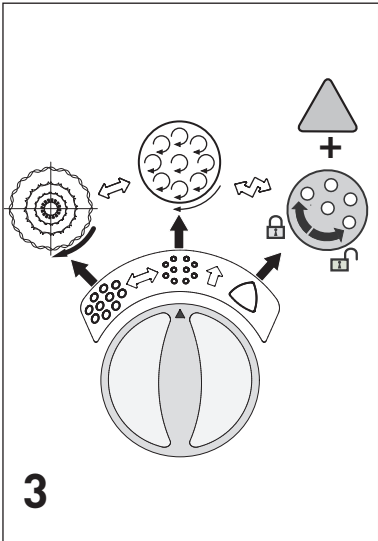
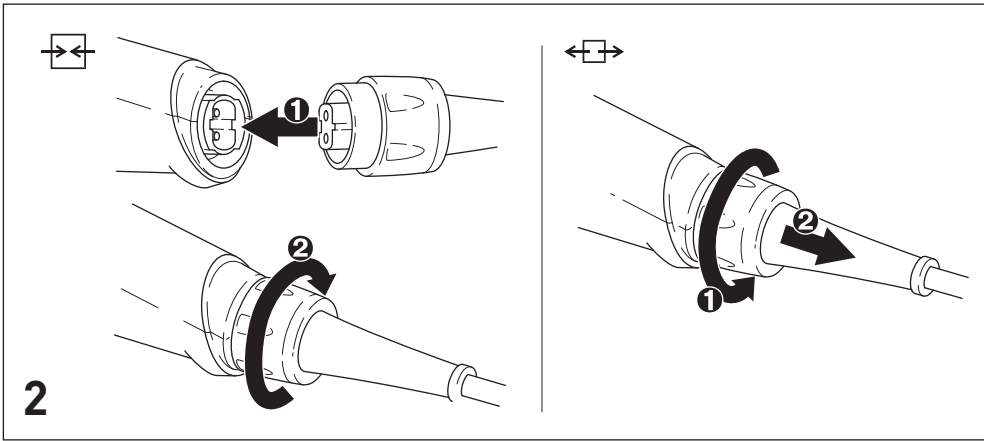


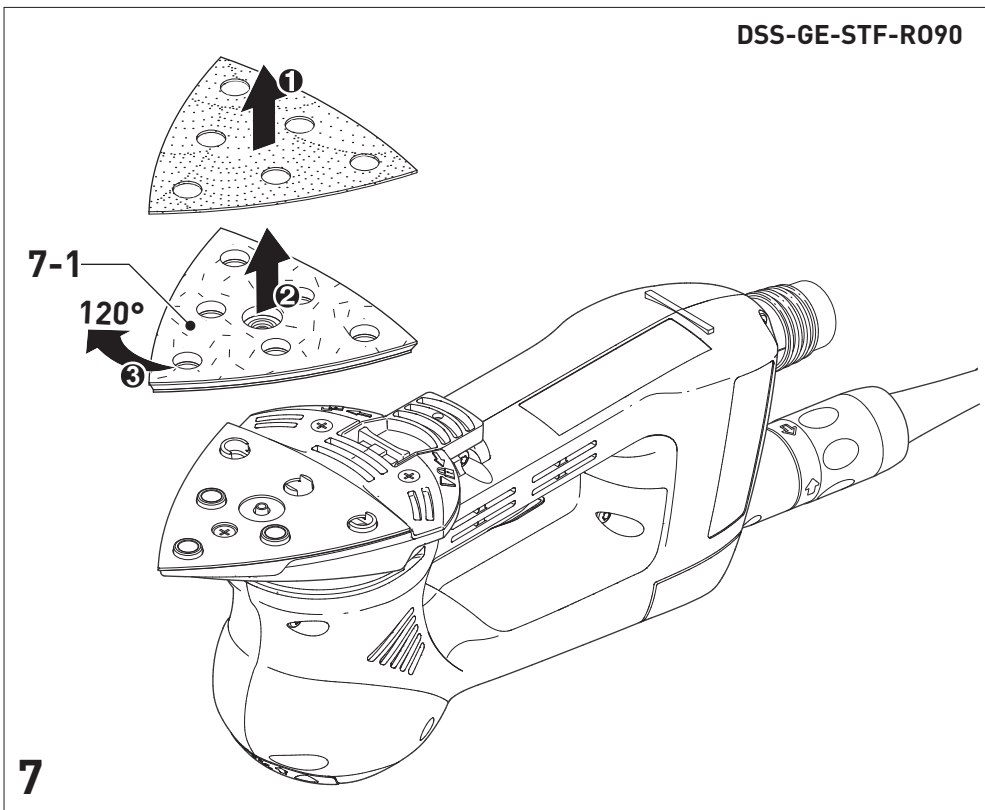
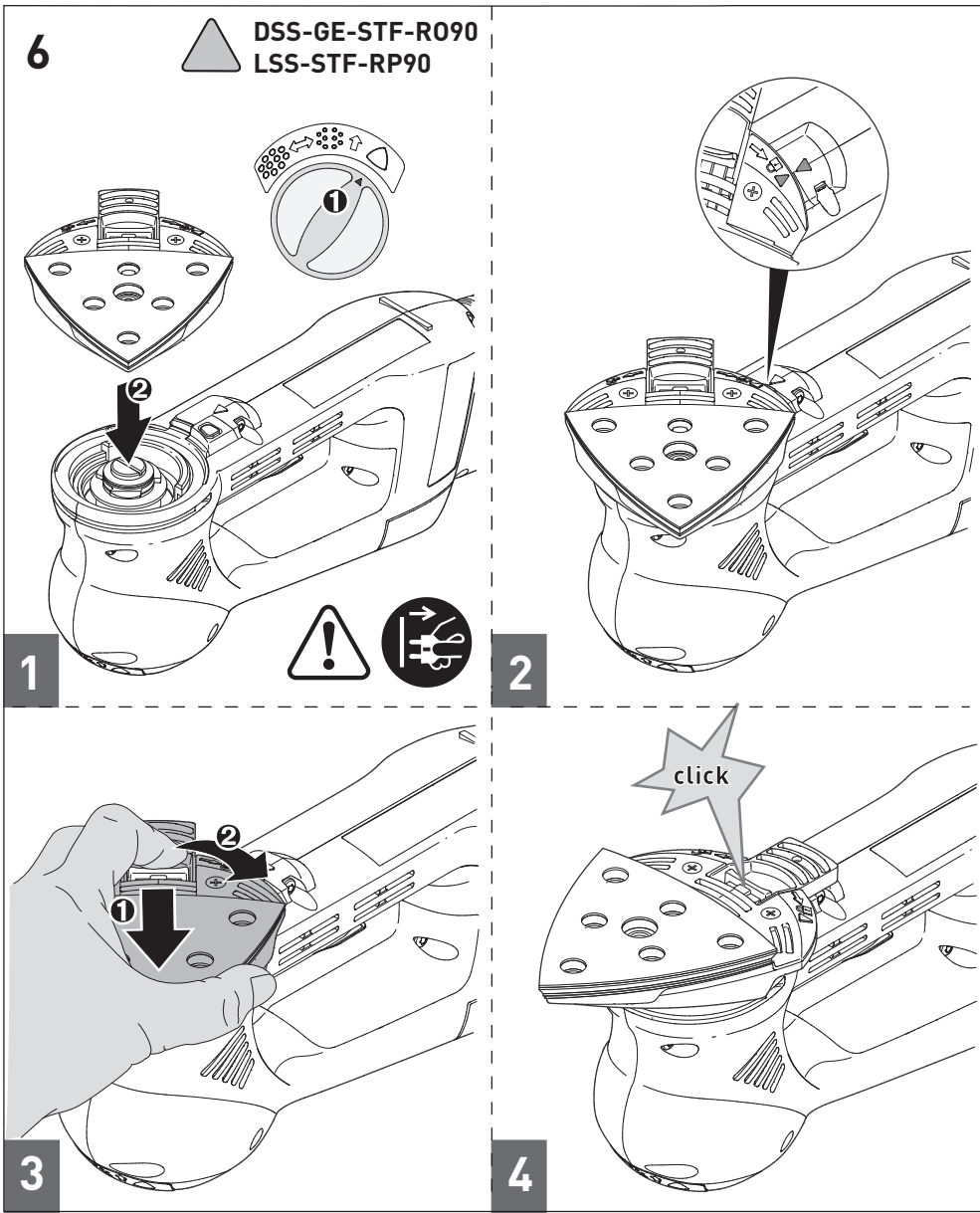
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en	Original Instructions - Gear-driven eccentric sander	13
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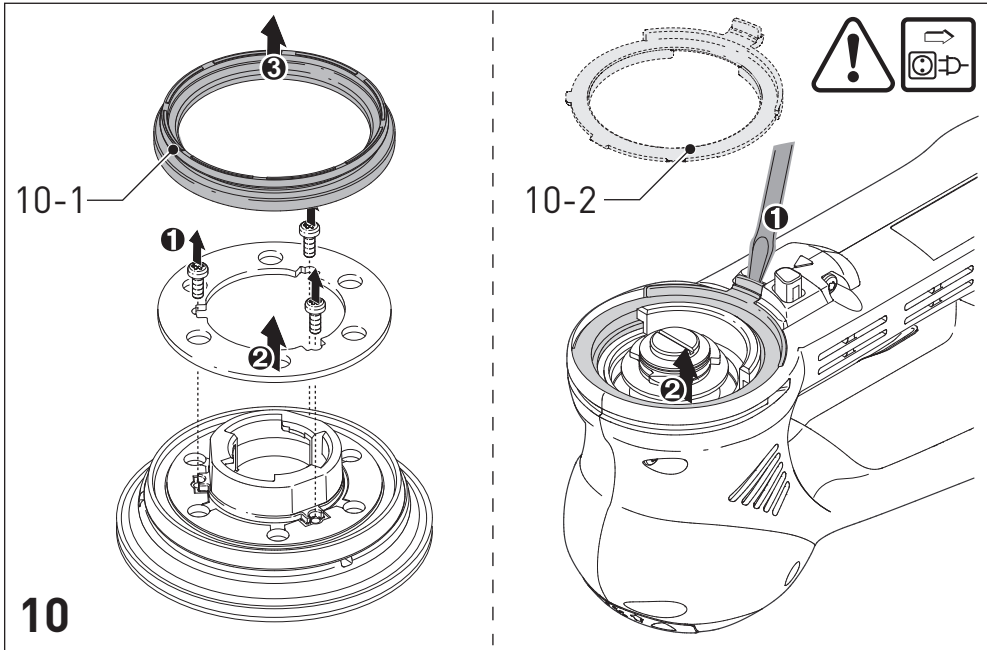
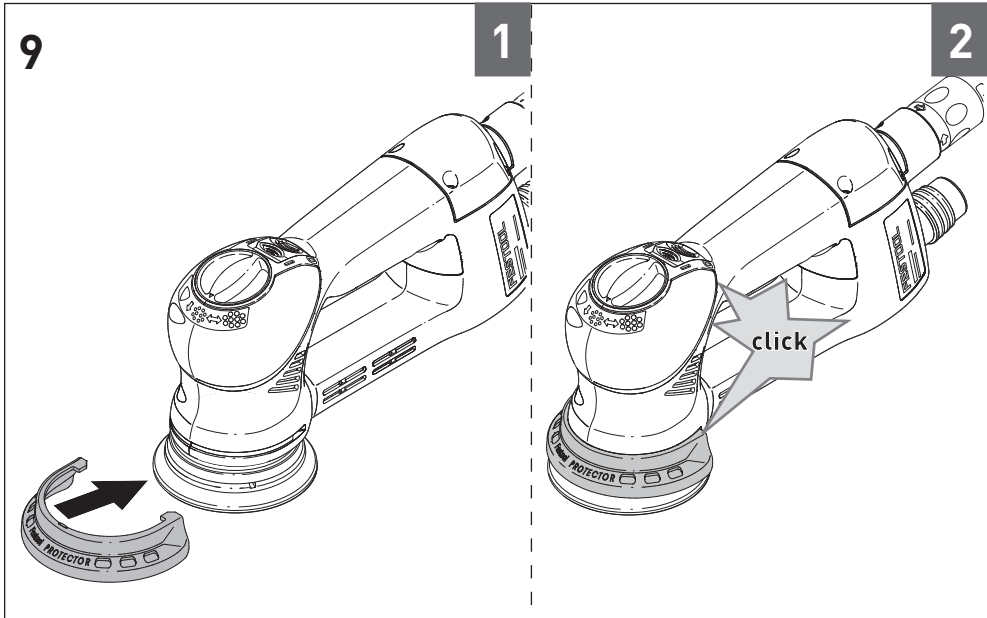
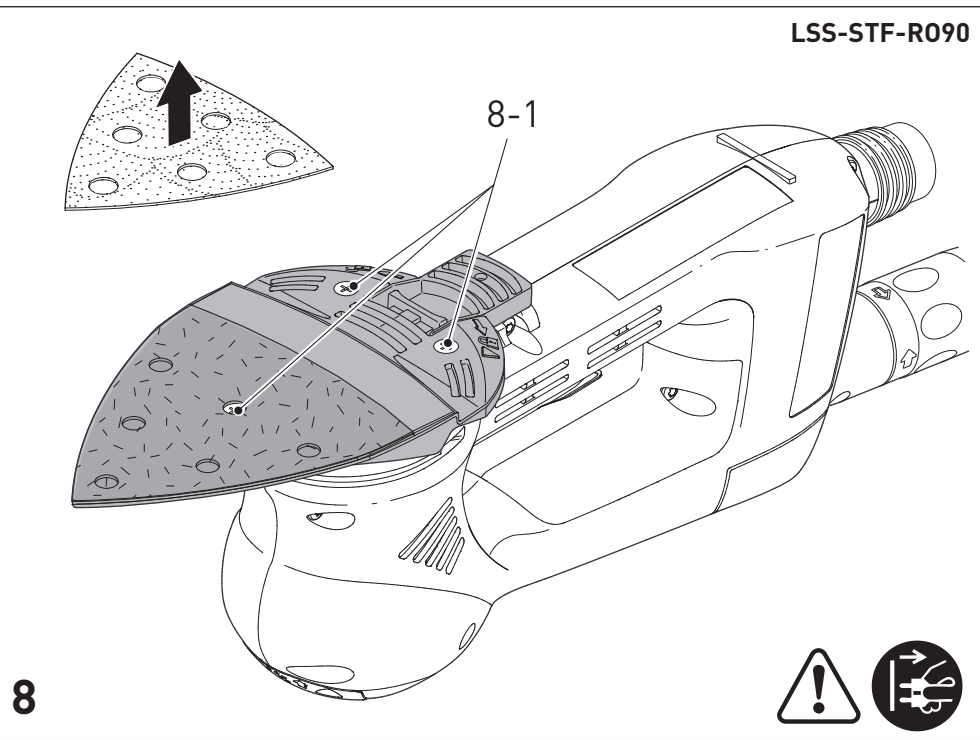
## ROTEX RO 90 DX FEQ











**Getriebe-Exzenterschleifer** **Seriennummer \***  
**Gear-driven eccentric sander** **Serial number \***  
**Ponceuse roto-excentrique** **N° de série \***  
**(T-Nr.)**

RO 90 DX FEQ 202873, 495618,  
496428

**de EG-Konformitätserklärung.** Wir erklären in alleiniger Verantwortung, dass dieses Produkt allen einschlägigen Bestimmungen der folgenden Richtlinien einschließlich ihrer Änderungen entspricht und mit den folgenden Normen übereinstimmt:

**en EC-Declaration of Conformity.** We declare under our sole responsibility that this product is in conformity with all relevant provisions of the following directives including their amendments and complies with the following standards:

**fr CE-Déclaration de conformité communautaire.** Nous déclarons sous notre propre responsabilité que ce produit est conforme aux normes ou documents de normalisation suivants:

**es CE-Declaración de conformidad.** Declaramos bajo nuestra exclusiva responsabilidad que este producto corresponde a las siguientes normas o documentos normalizados:

**it CE-Dichiarazione di conformità.** Dichiariamo sotto la nostra esclusiva responsabilità che il presente prodotto è conforme alle norme e ai documenti normativi seguenti:

**nl EG-conformiteitsverklaring.** Wij verklaren op eigen verantwoordelijkheid dat dit produkt voldoet aan de volgende normen of normatieve documenten:

**sv EG-konformitetsförklaring.** Vi förklarar i eget ansvar, att denna produkt stämmer överens med följande normer och normativa dokument:

**fi EY-standardinmukaisuusvakuutus.** Vakuutamme yksinvastuullisina, että tuote on seuraavien standardien ja normatiivisten ohjeiden mukainen:

**da EF-konformitetserklæring** Vi erklærer at have alene ansvaret for, at dette produkt er i overensstemmelse med de følgende normer eller normative dokumenter:

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**cs ES prohlášení o shodě:** Prohlašujeme s veškerou odpovědností, že tento výrobek je ve shodě s následujícími normami nebo normativními dokumenty:

**pl Deklaracja o zgodności z normami UE:** Niniejszym oświadczamy na własną odpowiedzialność, że produkt ten spełnia następujące normy lub dokumenty normatywne:

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

EN 62841-1: 2015 + AC: 2015

EN 62841-2-4: 2014 + AC: 2015

EN 55014-1: 2017

EN 55014-2: 2015

EN 61000-3-2: 2014

EN 61000-3-3: 2013

EN 50581: 2012

**CE Festool GmbH**  
Wertstr. 20, D-73240 Wendlingen  
GERMANY

Wendlingen, 2018-12-04



Dr. Wolfgang Knorr  
CTO



Ralf Brandt  
Head of Standardization & Approbation

\* im definierten Seriennummer-Bereich (S-Nr.) von 40000000 - 49999999

in the specified serial number range (S-Nr.) from 40000000 - 49999999

dans la plage de numéro de série (S-Nr.) de 40000000 - 49999999

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## 1 Symbols



Warning of general danger



Warning of electric shock



Read the operating manual and safety instructions.



Wear ear protection.



Wear a dust mask.



Wear protective goggles.



Connecting the mains power cable



Disconnecting the mains power cable



Pull out the mains plug



Do not dispose of it with domestic waste.



Safety class II



Tip or advice



Handling instruction

## 2 Safety warnings

### 2.1 General safety instructions for power tools



**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" used in the safety instructions refers to mains-powered power tools (with power cable) or battery-powered power tools (without power cable).

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

### 2.2 Machine-specific safety notices

- **Harmful/toxic dust may be produced during your work (e.g. paint containing lead, certain types of wood and metal).** A contact with or inhalation of this dust may pose a risk for the operating personnel or persons in the vicinity. Comply with the safety regulations that apply in your country. Connect the power tool to a suitable dust extractor.



Wear a P2 respiratory mask to protect your health.



Always wear protective goggles to protect against sanding hazards.

- If potentially explosive or self-igniting dust is produced during sanding, the machining instructions issued by the material manufacturer must always be followed.
- **Prevent liquid polishing agent (polish) from penetrating the tool.** The penetration of liquid polishing agent (polish) into the power tool increases the risk of electric shock.
- **If the power tool is dropped or falls, check for damage to the machine and sanding pad. Remove the sanding pad for closer inspection. Have the damaged parts repaired before use.** Broken sanding pads and damaged machines can cause injuries and machine instability.

### 2.3 Metal processing



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

- Install an upstream residual-current circuit breaker (FIG, PRCD).
- Connect the machine to a suitable dust extractor.
- Regularly remove dust deposits from the motor housing of the machine by blowing.





Wear protective goggles.

## 2.4 Emission levels

The levels determined in accordance with EN 62841 are typically:

Sound pressure level	$L_{PA} = 78 \text{ dB(A)}$
Sound power level	$L_{WA} = 89 \text{ dB(A)}$
Uncertainty	$K = 3 \text{ dB}$

  <b>CAUTION</b>
<b>Noise generated when working</b> <b>Risk of damage to hearing</b> ► Use ear protection.

Vibration emission level  $a_h$  (vector sum for three directions) and uncertainty  $K$  measured in accordance with EN 62841:

<b>Fine sanding</b> <sup>[2].</sup>	$a_h = 5.0 \text{ m/s}^2$
Uncertainty	$K = 1.5 \text{ m/s}^2$
<b>Coarse sanding</b> <sup>1.</sup>	$a_h = 5.0 \text{ m/s}^2$
Uncertainty	$K = 1.5 \text{ m/s}^2$
<b>Triangular sanding</b>	$a_h = 5.0 \text{ m/s}^2$
Uncertainty	$K = 1.5 \text{ m/s}^2$

The specified emission levels (vibration, noise)

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



## 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

As specified, the machine is designed for sanding and polishing plastic, metal, wood, composite materials, paint/clear coats, filler and similar materials. Materials containing asbestos must not be processed.

To guarantee electrical safety, the machine must not be damp or operated in a damp environment. The machine must only be used for dry sanding.



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

## 4 Technical data

Geared eccentric sander	RO90 DX FEQ
Power	400 W
Speed	
Eccentric motion	3000–7000 rpm
Rotex rotary motion	220–520 rpm
Sanding stroke	3.0 mm
FastFix sanding pad dia.	D 90 mm
Weight as per EPTA procedure 01:2014	1.45 kg

## 5 Parts of the machine

- [1-1]** Protector
- [1-2]** Selector switch/spindle stop
- [1-3]** On/off switch
- [1-4]** Mains power cable
- [1-5]** Extractor connector
- [1-6]** Speed control
- [1-7]** Sanding pad

[2] with W-HT (soft HT).



- [1-8] Stop rod
- [1-9] Polishing pad\*
- [1-10] Delta sanding pad
- [1-11] Slat sanding pad\*
- [1-12] Interface pad\*

\* Accessories shown or described are not always included in the scope of delivery.

The specified illustrations appear at the beginning of the Operating Instructions.

## 6 Operation

### **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 machine's name plate.
- ▶ In North America, only Festool machines with the voltage specifications 120 V/60 Hz must be used.

### **CAUTION**



#### **Heating of the Plug it connection if bayonet fitting is not completely locked**

##### **Risk of burns**

- ▶ Before switching on the power tool, make sure that the bayonet fitting at the mains cable is closed fully and locked.

Connecting and disconnecting the mains power cable [1-4] see fig. [2].

The switch [1-3] serves as an on/off switch (I = ON, 0 = OFF).

-  The on switch can only be actuated if the selector switch [1-2] is locked in place.
-  In case of a power failure or if the mains connector is removed, move the on/off switch immediately to the Off position. This prevents uncontrolled restarting.

## 7 Settings

### **WARNING**

#### **Risk of injury, electric shock**

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

### 7.1 Electronics

The machine features full-wave phase control electronics with the following features:

#### **Smooth start-up**

The electronically controlled smooth start-up ensures that the machine starts up jolt-free.

#### **Speed control**

You can regulate the speed steplessly with the adjusting wheel [1-6] in the speed range (see ). This enables you to optimise the cutting speed to suit the surface (see table).

#### **Constant speed**


The preselected motor speed is maintained on a constant level. Electronic controls ensure a steady cutting speed even when operating under different loads.

#### **Temperature cut-out**

The machine power supply is limited and the speed reduced if the motor exceeds a certain temperature. The machine continues operating at reduced power to allow the ventilator to cool the motor quickly. If the machine temperature exceeds the maximum permitted value for longer periods, the machine switches off completely after approx. 40 seconds and can only be switched on again once the motor has cooled sufficiently.

### 7.2 Setting sanding motion [3]

The change-over switch [1-2] can be used to set three different sanding motions.

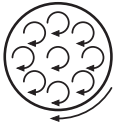
-  This change-over can only be carried out with the sanding pad stationary because the switch is locked during operation.

#### **Coarse sanding, polishing - ROTEX rotary motion**



The Rotex rotary motion is a combination of rotary and eccentric motions. This position is selected for sanding with high output (coarse sanding) and polishing.

### Fine sanding - eccentric motion



This position is selected for sanding with low output for a scratch-free surface (fine sanding).

### Triangular sanding and pad change [4]



This position is used for sanding with the delta sanding pad and slat sanding pad; the rotary motion is blocked.



You can change the sanding pad in this position.



The stop rod [1-8] blocks the installation of the sanding pad in the change-over switch positions ROTEX rotary motion and eccentric motion.

### 7.3 Changing sanding/polishing pad [5]



Only use sanding and polishing pads that are suitable for the maximum speed specified.

Tuned to the surface being processed, the machine can be equipped with two sanding pads of different hardnesses.

**Hard:** Coarse and fine sanding on surfaces. Sanding edges.

**Soft:** Universal for coarse and fine sanding, for flat and convex surfaces.

When the interface pad [1-12] is fitted on the sanding pad, strength is reduced = extra soft.

- ▶ Following the sanding pad change, switch the change-over switch [1-2] to the desired sanding motion.

### 7.4 Changing sanding pad [6]

The delta sanding pad DSS-GE-STF-R090 can be used for sanding close to borders, in corners or on edges. The slat sanding pad LSS-STF-R090 can be used for sanding in narrow gaps, e.g. louvres.

#### Observe the following instructions:

Work in corners and on edges tends to subject the tip to increased stress and results in increased heat development. In such cases, work with reduced contact pressure.

### Delta sanding pad DSS-GE-STF-R090 [7]

If the front tip of the StickFix pad [7-1] of your delta sanding pad is worn, take it off and turn it 120°.

### Slat sanding pad LSS-STF-R090 [8]

If the StickFix coating of the slat sanding pad is worn, the complete table can be replaced. Open the screws to do this [8-1].

### 7.5 Attaching sanding accessories

The suitable StickFix sandpaper and StickFix sanding cloth can be attached quickly and simply to the StickFix sanding pad.

- ▶ Press the self-adhesive sanding accessory onto the sanding pad [1-7].

### 7.6 Attaching polishing accessories

To prevent damage, PoliStick accessories (polishing sponges, polishing felt, sheepskin) must only be used on the special polishing pad.

- ▶ Press the self-adhesive polishing accessory onto the sanding pad [1-9].

### 7.7 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.

At the extractor connector [1-5], a Festool mobile dust extractor with an extraction hose diameter of 27 mm can be connected.

**Recommendation:** Use an antistatic extractor hose. This helps reduce the electric charge.

### 7.8 Edge protector [9]

The edge protector [1-1] reduces contact of the sanding pad circumference with a surface (e.g. when sanding along a wall or a window), thus preventing back-kick of the machine, or machine damage.

## 8 Working with the machine



#### WARNING

##### Risk of injury

- ▶ Always secure the workpiece in such a manner that it cannot move while being machined.

#### Observe the following instructions:















- Do not overload the machine by pressing with excessive force! The best sanding results are achieved with moderate application pressure. The sanding capacity and quality are mainly dependent on the selection of the correct abrasive.

- Hold the machine with two hands, one on the motor housing and one on the gear head.












Tables A and B show the settings we recommend for different sanding and polishing work.

### 8.1 Table A – Sanding

		Coarse sanding				Fine sanding			
									
	Clear coat, filler, priming material	X		5–6	Soft		X	1–3	Ultra-soft
	Clear coat, paint	X		5–6	Hard		X	3–6	Hard
	Wood, veneered surface	X		5–6	Hard		X	3–6	Soft
	Plastic	X	X	1–4	Soft		X	1–4	Soft/ultra-soft
	Steel, copper, aluminium	X		6	Soft		X	3–6	Soft
	VOC clear coats						X	2–4	Ultra-soft-hard

### 8.2 Table B – Polishing

			Polishing	Sealing	Polishing to a high-gloss finish
Varnish			6	3	4–6
			Pad Coarse/fine	Pad Fine/honeycombed	Sheepskin
			Polishing paste	Hard wax	-
Plastic			6	3	6
			Felt pads Hard	Felt pads Soft	Sheepskin
			Polishing paste	Hard wax	-

## 9 Service and maintenance



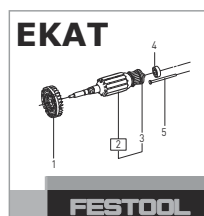
### WARNING

#### 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.



**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](http://www.festool.co.uk/service)



**EKAT**

Always use original Festool spare parts. Order no. at: [www.festool.co.uk/service](http://www.festool.co.uk/service)

To ensure constant air circulation, always keep the cooling air openings in the motor housing clean and free of blockages.

The tool is equipped with special self-disconnecting carbon brushes. If they wear out, the power supply is disconnected automatically and the tool stops.

### 9.1 Sanding pad brake

The rubber collar **[10-1]** on the sanding pad and the stop ring **[10-2]** on the machine prevent uncontrolled excessive turning of the sanding pad during eccentric motion (fine sanding). As these parts are subject to wear in the course of time, they must be replaced when reduced braking force is observed (for order no., see spare parts list).

## 10 Accessories

Only use original Festool sanding and polishing pads. Low-quality sanding and polishing pads may cause serious machine imbalance that decreases the quality of the working results and increases machine wear.

The PO numbers of the accessories and tools can be found in the Festool catalogue or online at "[www.festool.co.uk](http://www.festool.co.uk)".

## 11 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 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](http://www.festool.com/reach)