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www.festoolusa.com

#### Instruction manual

**Orbit Sander** 

Page 3

**IMPORTANT:** Read and understand all instructions before using.

## Guide d'utilisation

Ponceuse vibrante

Page 12

**IMPORTANT:** Lire et comprendre toutes les instructions avant de démarrer les travaux.

## Manual de instrucciones

Lijadora vibratoria

Pagina 22

**IMPORTANTE:** Lea y comprende todas las instrucciones antes de usar.

Instruction manual Guide d'utilisation Manual de instrucciones

RS 2 RS 2E





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#### SAFETY INSTRUCTIONS

# General Power Tool Safety Warnings

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.

# 1) Work area safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- c) Keep children and bystanders away while operating a power tool. Distractions can cause you to

lose control.

#### 2) Electrical safety

- a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- e) When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.

#### 3) Personal safety

- a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b) Use personal protective equipment. Always wear eye protection. Protective equipment such as a dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- d) Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) Do not overreach. Keep proper footing and balance at all times. This enables better control of

the power tool in unexpected situations.

- f) Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dustrelated hazards.
- h) Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.

#### 4) Power tool use and care

- a) Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- b) Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- e) Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.
- h) **Keep handles dry, clean and free from oil and grease.** Slippery handles do not allow for safe handling and control of the tool in unexpected situ-

ations.

#### 5) Service

a) Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

# Machine-related safety instructions

Harmful/toxic dusts can be produced during your work (e.g. lead-containing paint, some types of wood and metal). Contact with these dusts, especially inhaling them, can represent a hazard for operating personnel or persons in the vicinity. Comply with the safety regulations that apply in your country. Connect the electric power tool to a suitable extraction system.



To protect your health, wear a P2 protective mask.



Always wear protective goggles to protect against sanding hazards.

# Health hazard by dust

AWARNING Various dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known (to the State of California) to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints,
- Crystalline silica from bricks and cement and other masonry products,
- Arsenic and chromium from chemicallytreated lumber.

The risk from these exposures varies, depending on how often you do this type of work.



To reduce your exposure to these chemicals work in a well ventilated area and use approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles. Wash hands after handling.

AWARNING TO REDUCE THE RISK OF INJURY, USER MUST READ INSTRUCTION MANUAL.

#### Technical data

RS 2		
Wattage	W	330
No load speed	rpm	10 000
No. of strokes	spm	20 000
Sanding stroke	mm (in.)	2.4 (0.1)
Sanding base	mm (in.)	115 x 225 (4.53 x 8.86)
Weight	kg (lbs)	2.5 (5.5)
Safety		<b>□</b> /II

RS 2 E		
Wattage	W	330
No load speed	rpm	4 000 - 10 000
No. of strokes	spm	8 000 - 20 000
Sanding stroke	mm (in.)	2.4 (0.1)
Sanding base	mm (in.)	115 x 225 (4.53 x 8.86)
Weight	kg (lbs)	2.5 (5.5)
Safety		□/II

# 1.1 1.2

# **Symbols**



Warning of general danger



Read the Operating Instructions/ Notes!



Wear protective goggles



spm

Wear a dust mask

Strokes per minute

V	Volts
Α	Amperes
Hz	Hertz
W	Watt
~	Alternating current
$n_0$	No load speed
	Class II Construction
rpm	Revolutions per minute

#### Intended use

The sanders are designed for sanding wood, plastic, metal, stone, composite materials, paint / varnish, filling material and similar materials.

Materials with an asbestos content must not be processed with these tools.

The machines must not be damp nor operated in a damp environment for electrical safety reasons. The machines may only be used for dry sanding.

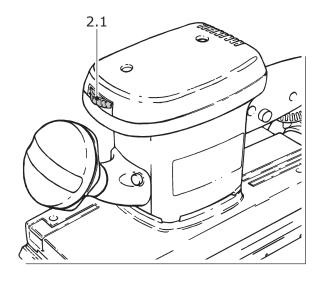
**AWARNING** The user bears sole responsibility for any damage or accidents resulting from incorrect use.

# Electrical connection and operation

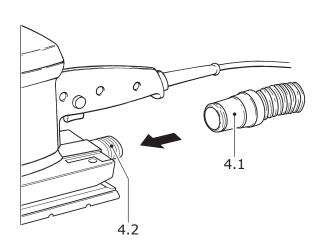
The mains voltage must be the same as that specified on the ratings plate!

The switch (1.1) is used to switch the tool on and off. The switch can be locked with the button (1.2) on the side for continuous operation. The switch can be released by pressing again.

strokes per min				
1	8 000	4	15 200	
2	10 400	5	17 600	
3	12 800	6	20 000	



# 3.1 3.2



#### **Electronics (RS 2 E)**

The RS 2 E has an electronic control with which the rotational speed can be varied step-free. This allows the sanding speed to be adapted to the optimum level according to the material concerned.

The speed is set using the rotary control button (2.1). The numbers on the rotary control button represent approximately the following stroke/ orbit speeds:

#### **Dust extraction**

Dust extractors prevent large accumulations of dust in the air in the working environment and dirt collecting in the workplace.

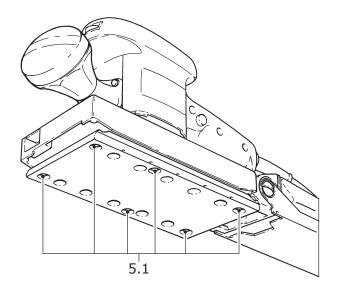
#### Inboard extraction

The machines are fitted with inbuilt extraction as standard. Push the filter holder (3.3) with its opening as far as it will go onto the extraction nozzle (3.4) of the machine and clamp tight by turning rotary knob (3.1).

The sanding dust is extracted through suction openings in the sanding base and trapped in the turbo-filter (3.2). The turbo-filter has to be changed when it is so full of dust that the extraction power diminishes.

# External extraction by an extraction unit

In order to avoid frequent changing of the turbofilter when carrying longer sanding jobs, it is possible to connect a Festool extractor to the unit instead of using inbuilt extraction. Connect the hose  $(\emptyset\ 27\ mm\ (4.1)\ from\ a\ Festool\ dust\ extractor$ to the extraction outlet on the tool (4.2).



# Sanding pad

The standard STF 115 x 225 mm Stickfix sanding pad can be exchanged for the  $115 \times 225$  mm sanding pad for use with clamping paper. Loosen the six fastening screws  $\{5.1\}$ .

Both sanding pads (with and without Stickfix covering) are also available with an edge protector (KS) to protect the edge of the pad from premature damage.

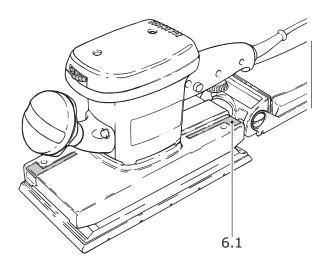
#### **Abrasives**

**ACAUTION** Always use original Festool sanding materials!

#### Stickfix abrasives

Self-adhesive abrasives such as Stickfix sanding disks and sheepskin polishers can be attached to the Stickfix sanding pads. Simply press the abrasives onto the sanding pads and remove after use.

Please note: Only use sanding pads with an undamaged Stickfix coating. Before use, check whether the adhesive layer has been damaged due to improper use (e.g. melting)



# **Clamped sandpaper**

In addition to the Stickfix abrasives, Festool also offers perforated abrasives for clamp-fitting. Unperforated sandpaper can be perforated with the Festool "Lochfix" punching device.

Start clamping the abrasive on the back of the tool by raising the clamping lever (6.1) and thus opening the clamping device. Insert abrasive up to limit stop and lower clamping lever into initial position. Place the abrasive on the sanding pad, pull taught and clamp on the front.

# Working with the machine

**AWARNING** Never overload the tool by using too much pressure! The best sanding results are achieved when applying moderate pressure.

The sanding performance and quality depend mainly on the choice of the right sanding material. Festool offers the appropriate sanding material for all applications (see Festool catalogue).

# Metalworking

**AWARNING** The following precautions are to be taken when processing metals for safety reasons:

- connect a residual current operated device in series before the tool,
- connect tool to a suitable dust extractor,
- clean tool regularly of dust accumulations in the motor housing.

# Speed adjustment (RS 2 E)

We recommend the following settings on the rotary control (7.1) for electronic machines:

#### 5 - 6

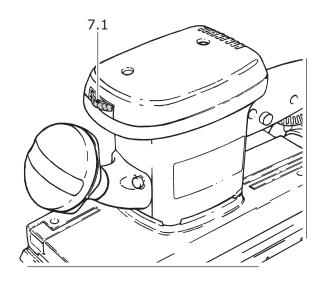
- sanding with max. drive
- sanding old paint
- sanding wood and veneer prior to painting
- interim sanding of paint on surfaces
- removing rust from surfaces using sanding cloth
- partial sanding of V2A steel/sheet metal using sanding cloth

#### 4 - 5

- sanding of thinly applied primer
- sanding of wood with sanding vlies
- sanding edges on wooden parts
- smoothing primed wooden surfaces.

#### 3 - 4

- sanding full wooden and veneer edges
- sanding in the grooves/rebates of windows and doors
- interim paint sanding on edges
- pre-sanding natural wood windows with sanding vlies
- smoothing wood surfaces with sanding felt prior to staining



- rubbing down stained surfaces with sanding vlies
- rubbing down or removing excess lime paste with sanding vlies

#### 2 - 3

- interim paint sanding on stained surfaces
- cleaning natural wood window grooves with sanding felt

#### 1 - 2

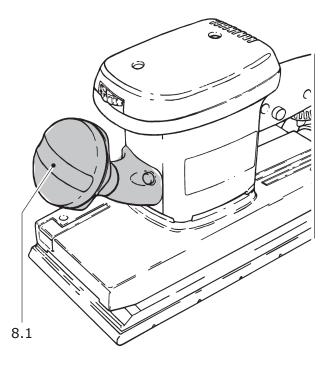
- sanding stained edges
- sanding thermoplastic synthetics

#### Maintenance and care

AWARNING Any maintenance or repair work requiring the motor housing to be opened (including power cord replacement) may only be carried out by an authorised service workshop. Maintenance or repair work carried out by an unauthorised person can lead to the wrong connection of the power leads or other components, which in turn can lead to accidents with serious consequences.

**AWARNING** Always remove the plug from the mains supply socket before carrying out any work on the machine!

Always keep the machine and the ventilation slots clean.



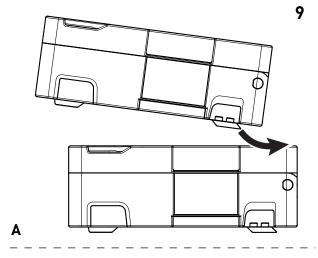
# Accessories, tools

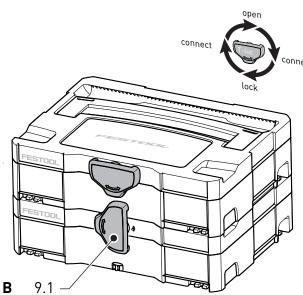
**AWARNING** For safety reasons, only use original Festool accessories and tools!

The accessory and tool order number can be found in the Festool catalogue or on the Internet under www.festoolusa.com.

#### Additional handle

The additional handle (8.1) can be removed by unscrewing in an anticlockwise direction when sanding close to walls the front edge of the sanding pad.





# **Systainer**

Many Festool products are shipped in a unique system container, called "Systainer".

This provides protection and storage for the tool and accessories. The Systainers are stackable and can be connected together. They also can be conntected atop Festool CT dust extractors.

#### To open the Systainer:

- Turn the T-loc [9.1] to the position .



#### To lock the Systainer:

- Turn the T-loc [9.1] to the position .



#### To connect two Systainers:

- Place one Systainer on the top of the other (Fig. 9 A).
- Turn the T-loc [9.1] to the position or (Fig. 9 B).

The Systainers are connected and locked.

(i) A new generation Systainer is connectable on top of a previous generation Systainer by the four latches of the previous Systainer.

# **Warranty**

Festool offers a 3 year limited warranty, one of the strongest in the industry. This warranty is valid on the pre-condition that the tool is used and operated in compliance with the Festool operating instructions. Festool warrants that the specified tool will be free from defects in materials and workmanship for a term of 3 years from the date of purchase.

# Conditions of 1 + 2 warranty

All customers receive a free extended limited warranty (1 year + 2 years = 3 Years) on new Festool power tools purchased from an authorized retailer. Festool is responsible for all shipping costs during the first year of the warranty. During the second and third year of the warranty the customer is responsible for shipping the tool to Festool. Festool will pay for return shipping to the customer using UPS Ground Service. All warranty service is valid 3 years from the date of purchase on your receipt or invoice. Proof of purchase may be required.

Excluded from the coverage under this warranty are: normal wear and tear, damages caused by misuse, abuse, or neglect; damage caused by anything other than defects in material and workmanship. This warranty does not apply to accessory items such as circular saw blades, drill bits, router bits, jigsaw blades, sanding belts, and grinding wheels. Operating a tool at a voltage or frequency different from the tool's rating will void the warranty. This includes the usage of the tool in combination with a transformer. Festool does not condone nor support the use of any non-Festool engineered, designed, and manufactured accessories or consumables with Festool products. Use of any non-Festool products may affect performance or void the warranty. Festool is not responsible for any damages or losses incurred and user assumes all risk and responsibility with non-Festool derived products. Also excluded are "wearing parts," such as carbon brushes, lamellas of air tools, rubber collars and seals, sanding discs and pads, and Festool gear (hats and shirts).

The obligations of Festool in its sole discretion under this warranty shall be limited to repair or replacement or a refund of the purchase price for any Festool portable power tool that is found to have a defect in materials or workmanship during the warranty period. FESTOOL SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES REGARDLESS OF THE THEORY OF LAW ON WHICH THE CLAIM IS BASED. ALL WARRANTIES IMPLIED BY STATE LAW, INCLUDING THE IMPLIED WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY LIMITED TO THE DURATION OF THREE YEARS.

Some states in the U.S. and some Canadian provinces do not allow the limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state in the U.S. and from province to province in Canada.

With the exception of any warranties implied by state or province law as limited above, the foregoing express limited warranty is exclusive and in lieu of all other warranties, guarantees, agreements, and similar obligations of Festool. Festool makes no other warranty, express or implied, for Festool portable power tools. This warranty policy is only valid for tools that are purchased in the US and Canada. Warranty policies of other countries may vary when obtaining warranty service outside the US and Canada. Some countries do exclude warranty for products bought outside their territory. Festool reserves the right to reject the repair of any tool that is not part of the US/Canada product line. No agent, representative, distributor, dealer, or employee of Festool has the authority to increase or otherwise change the obligations or limitations of this warranty.