



FERM ESM1014 20V Cordless Random Orbital Sander Instruction Manual

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Introduction

RANDOM ORBITAL SANDER ESM1014

Thank you for buying this FERM product.

By doing so you now have an excellent product, delivered by one of Europe's leading suppliers.

All products delivered to you by Ferm are manufactured according to the highest standards of performance and safety.








As part of our philosophy we also provide an excellent customer service, backed by our comprehensive warranty. We hope you will enjoy using this product for many years to come.

SAFETY INSTRUCTIONS



Read the enclosed safety warnings, the additional safety warnings and the instructions. Failure to follow the safety warnings and the instructions may result in electric shock, fire and/or serious injury. Save the safety warnings and the instructions for future reference.

The following symbols are used in the user manual or on the product:

	Read the user manual.
	Denotes risk of personal injury, loss of life or damage to the tool in case of nonobservance of the instructions in this manual.
	Wear safety goggles. Wear hearing protection.
	Wear a dust mask.
	Do not dispose of the product in unsuitable containers.
	The product is in accordance with the applicable safety standards in the European directives.
	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.

Work area safety

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- 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.

- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

Electrical safety

- 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.
- 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.
- Do not expose power tools to rain or wet conditions.
Water entering a power tool will increase the risk of electric shock.
- 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.
- 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.
- 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.

Personal safety

- 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.
- Use personal protective equipment.
Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- 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 energizing power tools that have the switch on invites accidents.
- 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.
- Do not overreach. Keep proper footing and balance at all times.
This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.
Loose clothes, jewellery or long hair can be caught in moving parts.
- 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 dust related hazards.
- 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.

Power tool use and care

- 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.
- 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.
- 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.
- 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.
- Maintain power tools. 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.
- Keep cutting tools sharp and clean.
Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- 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.
- Keep handles and grasping surfaces dry, clean and free from oil and grease.
Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

Battery tool use and care

- Recharge only with the charger specified by the manufacturer.
A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- Use power tools only with specifically designated battery packs.
Use of any other battery packs may create a risk of injury and fire.
- When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects that can make a connection from one terminal to another.
Shorting the battery terminals together may cause burns or a fire.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact.
If contact accidentally occurs, flush with water.
If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- Do not use a battery pack or tool that is damaged or modified.
Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- Do not expose a battery pack or tool to fire or excessive temperature.
Exposure to fire or temperature above 130 °C may cause explosion.
NOTE The temperature „130 °C“ can be replaced by the temperature „265 °F“.

- Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.

Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

Service

- 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.

- Never service damaged battery packs.

Service of battery packs should only be performed by the manufacturer or authorized service providers.

Additional safety warnings for orbital sanders



Contact with or inhalation of dust coming free during use (e.g. lead-painted surfaces, wood and metal) can endanger your health and the health of bystanders.
Always wear appropriate protective equipment, such as a dust mask.
Always use proper dust extraction during use.

- Do not work materials containing asbestos.

Asbestos is considered carcinogenic.

- Do not use the machine for sanding magnesium workpieces.

- Wear safety goggles. Wear hearing protection. If necessary, use other protective means, such as safety gloves, safety shoes, etc.

- Hold the machine by the insulated gripping surfaces where the accessory may contact hidden wiring or the mains cable.

If the accessory contacts a 'live' wire, the exposed metal parts of the machine can also become 'live'. Risk of electric shock.

- Be very careful when sanding painted surfaces.

- Before use, remove all nails and other metal objects from the workpiece.

- Make sure that the workpiece is properly supported or fixed.

- Only use sanding paper that is suitable for use with the machine.

- Only use sanding paper with the correct dimensions. Make sure that the sanding paper is properly mounted.

- Inspect the sanding paper before each use.

Do not use sanding paper that is worn because of prolonged use.

- Never put the machine down on a table or a workbench before it has been switched off

MACHINE INFORMATION

Intended use


The machine is designed for sanding wood, plastics and metal.

This machine is suitable only for dry sanding.

The machine is not suitable for processing objects containing asbestos.

Improper use may damage the tool.

Technical specifications

Model No.	ESM1014
Voltage	20V 
No load speed	5.000-10.000/min
Sanding pad diameter	125mm
Weight	1.20 kg
Sound pressure level LPA	77.1 dB(A), K=3dB(A)
Sound power level LWA	88.1 dB(A), K=3dB(A)
Vibration	7.511 m/s ² K=1.5 m/s ²

Only use the following batteries of the FX-POWER 20V battery platform.

Using any other batteries could cause serious injury or damage the tool.

CDA1167 20V, 2Ah Lithium-Ion

CDA1168 20V, 4Ah Lithium-Ion

The following charger of the can be used to charge these batteries.

CDA1169 Charger adapter

CDA1170 Quick charger

CDA1172 Quick charger

The batteries of the FX-POWER 20V battery platform are interchangeable with all the FERM FX-POWER battery platform tools.

Vibration level

The vibration emission level stated in this instruction manual has been measured in accordance with a standardized test given in

EN 62841; it may be used to compare one tool with another and as a preliminary assessment of exposure to vibration when using the tool for the applications mentioned:

- using the tool for different applications, or with different or poorly maintained accessories, may significantly increase the exposure level
- the times when the tool is switched off or when it is running but not actually doing the job, may significantly reduce the exposure level.

Protect yourself against the effects of vibration by maintaining the tool and its accessories, keeping your hands warm, and organizing your work patterns.



Description

The numbers in the text refer to the diagrams on page 2 and 3.


1. On/off switch
2. Dust bag
3. Speed adjustment wheel
4. Sanding pad
5. **5A.** Upper grip
5B. Lower grip
6. Dust extraction port
7. Battery unlock button
8. Battery (not included)
9. Sanding paper
10. Rubber ring



ASSEMBLY

	<p>Before any work on the power tool, remove the battery.</p>
	<p>The battery must be charged before first use.</p>

Inserting the battery into the machine (Fig. C)

	<p>Ensure that the exterior of the battery is clean and dry before connecting to the charger or machine.</p>
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1. Insert the battery (8) into the base of the machine as shown in Fig. C.
2. Push the battery further forward until it clicks into place.

Removing the battery from the machine (Fig. C)

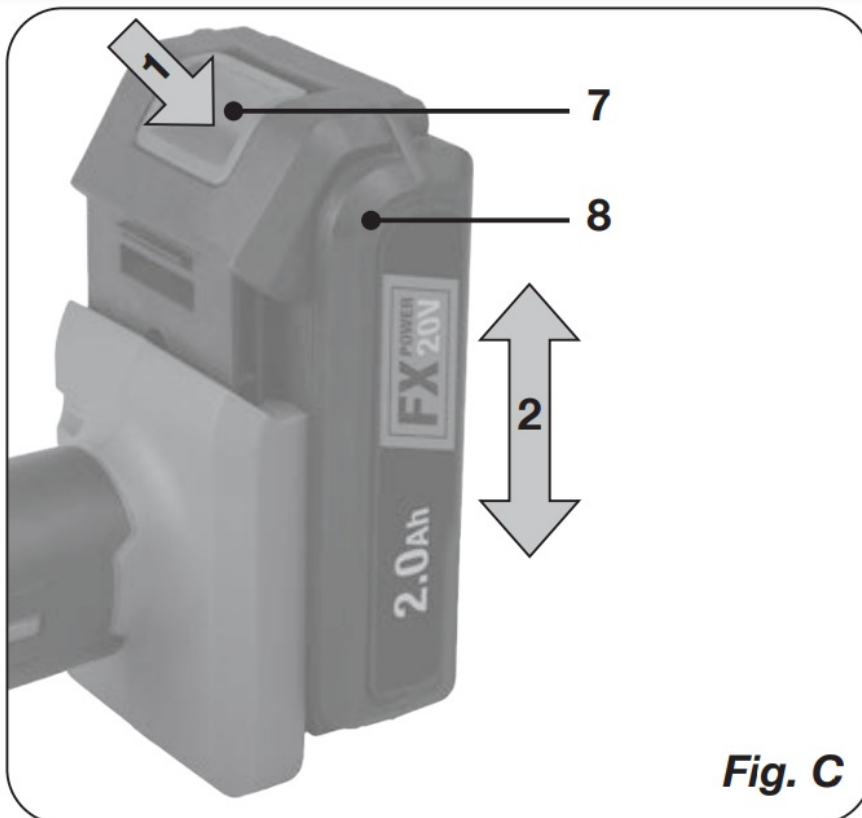


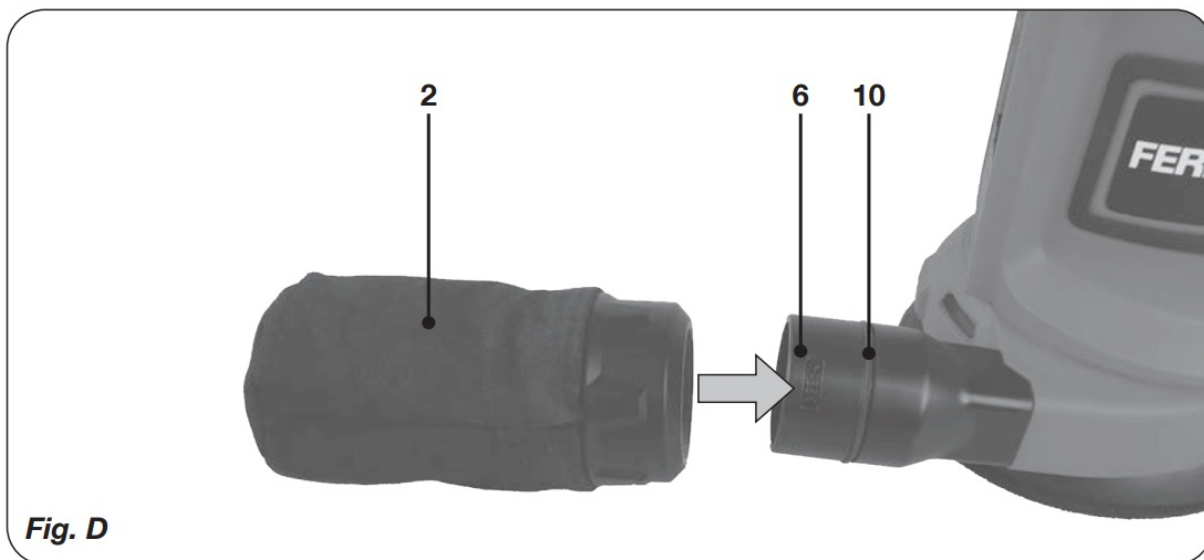
Fig. C

1. Push the battery unlock button (7).
2. Pull the battery out of the machine like shown in **Fig. C**.

Connecting the dust bag (Fig. D)

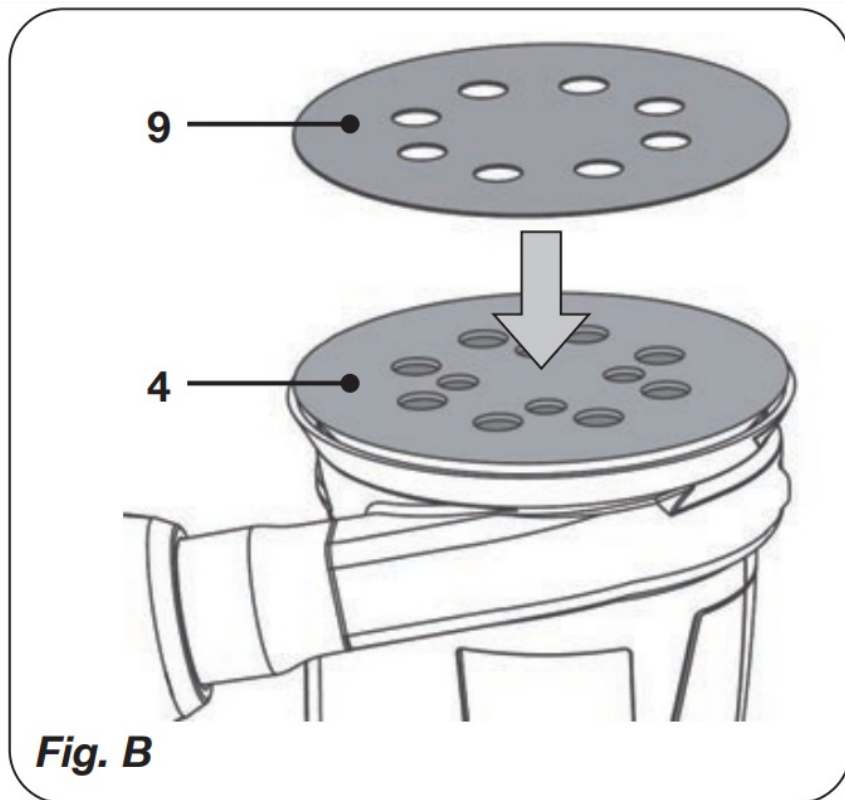
It is highly recommended to use the machine with the dust bag (2), ensuring optimal dust collection.

- Slide the dust bag (2) onto the dust extraction port (6) using a slight twisting motion.
- Keep sliding in twisting motion until the dust bag (2) is positioned slightly over the rubber ring (10), fixing it in place.



Note: The dust bag should be emptied when the bag is half full to maintain optimal dust collection.

Mounting and removing the sanding paper (Fig. B)



- Hold the machine on its side or upside down.
- Mount sanding paper (9) with the required grain size onto the sanding pad (4).
Make sure that the perforation in the sanding paper (9) corresponds with the perforation on the sanding pad (4).
- To remove the sanding paper (9), simply pull the sanding paper from the sanding pad (4).

Note: Use coarse sanding paper for sanding rough, uneven surfaces.

Use medium sanding paper for removing the remaining scratches from the coarse sanding paper.
Use fine sanding paper for finishing surfaces.

OPERATION

Switching on and off (Fig. A)

- To switch on the machine, press the on/off switch (1) into position I.
- To switch off the machine, press the on/off switch (1) into position 0.

Setting the speed (Fig. A)

The speed adjustment wheel (3) is used for setting the speed.

The speed adjustment wheel can be set to 6 positions.

The ideal speed depends on the required grain size and on the material to be worked.

Hints for optimum use

- Clamp the workpiece.
- Firmly hold the machine with both hands.
- Switch on the machine.
- Place the sanding pad with sanding paper on the workpiece.
- Slowly move the machine over the workpiece, firmly pressing the sanding pad against the workpiece.
- Do not apply too much pressure on the machine. Let the machine do the work.
- Switch off the machine and wait for the machine to come to a complete standstill before putting the machine down.

MAINTENANCE



Before cleaning and maintenance, always switch off the machine and remove the battery pack from the machine.

Clean the machine casings regularly with a soft cloth, preferably after each use.

Make sure that the ventilation openings are free of dust and dirt.

Remove very persistent dirt using a soft cloth moistened with soapsuds.

Do not use any solvents such as gasoline, alcohol, ammonia, etc.

Chemicals such as these will damage the synthetic components.

ENVIRONMENT



Faulty and/or discarded electrical or electronic apparatus have to be collected at the appropriate recycling locations.

Only for EC countries

Do not dispose of power tools into domestic waste. According to the European Guideline 2012/19/EC for Waste Electrical and Electronic Equipment and its implementation into national right, power tools that are no longer usable must be collected separately and disposed of in an environmentally friendly way

WARRANTY

FERM products are developed to the highest quality standards and are guaranteed free of defects in both materials and workmanship or the period lawfully stipulated starting from the date of original purchase. Should the product develop any failure during this period due to defective material and/or workmanship then contact your FERM dealer directly.

The following circumstances are excluded from this guarantee:

- Repairs and or alterations have been made or attempted to the machine by unauthorized service centers.
- Normal wear and tear.
- The tool has been abused, misused or improperly maintained.
- Non-original spare parts have been used

This constitutes the sole warranty made by company either expressed or implied.

There are no other warranties expressed or implied which extend beyond the face hereof, herein, including the implied warranties of merchantability and fitness for a particular purpose.

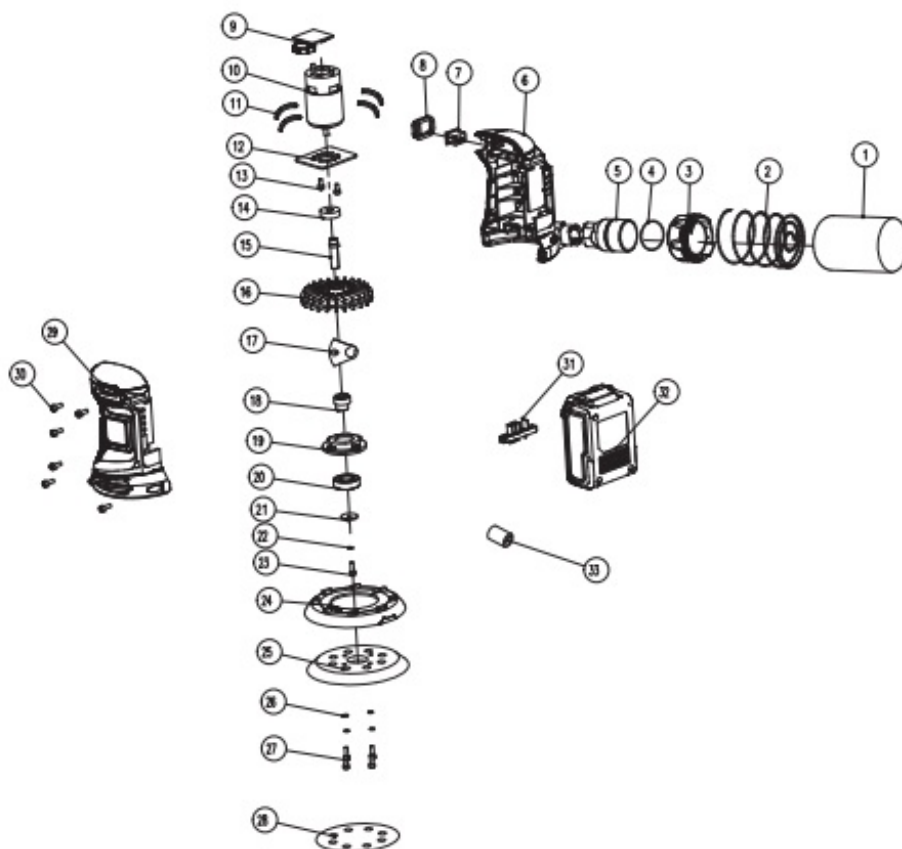
In no event shall FERM be liable for any incidental or consequential damages.

The dealers remedies shall be limited to repair or replacement of nonconforming units or parts.

The product and the user manual are subject to change. Specifications can be changed without further notice.

Spare Parts

Exploded view



DECLARATION OF CONFORMITY

ESM1014 – RANDOM ORBITAL SANDER

We declare under our sole responsibility that this product is in conformity with directive 2011/65/EU of the European parliament and of the council of 8 June on the restriction of the use of certain hazardous substances in electrical and electronic equipment is in conformity and accordance with the following standards and regulations:

- EN 55014-1,
- EN 55014-2,
- EN 62841-1,
- EN 62841-2-4,
- 2006/42/EC,
- 2014/30/EU,
- 2012/19/EU,

- 2011/65/EU

Zwolle, 01-08-2021



H.G.F Rosberg CEO FERM

SUPPORT

WWW.FERM.COM



Documents / Resources



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ESM1014 20V Cordless Random Orbital Sander, ESM1014, 20V Cordless Random Orbital Sander, Random Orbital Sander, Orbital Sander

References

-  [FERM Power Tools - Power to create](#)

[Manuals+.](#)