



User Manual

FERREX[®]

20 V LI-ION CORDLESS MULTIFUNCTION TOOL FAM 20-I

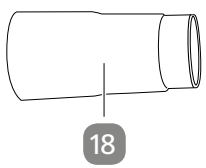
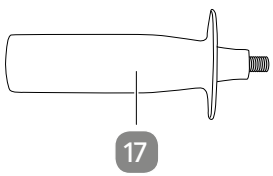
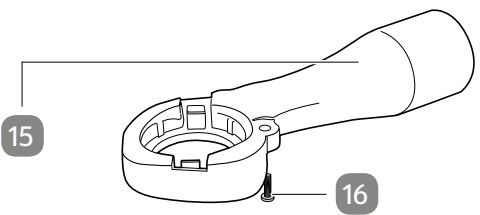
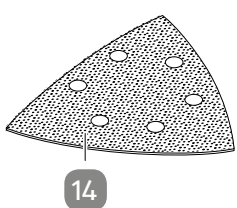
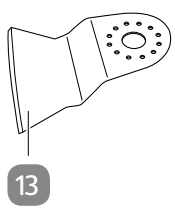
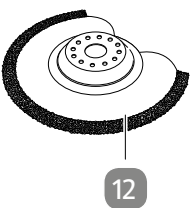
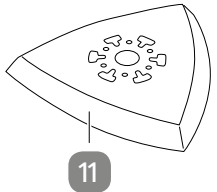
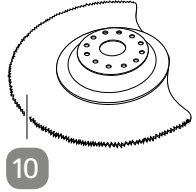
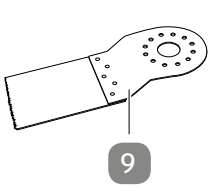
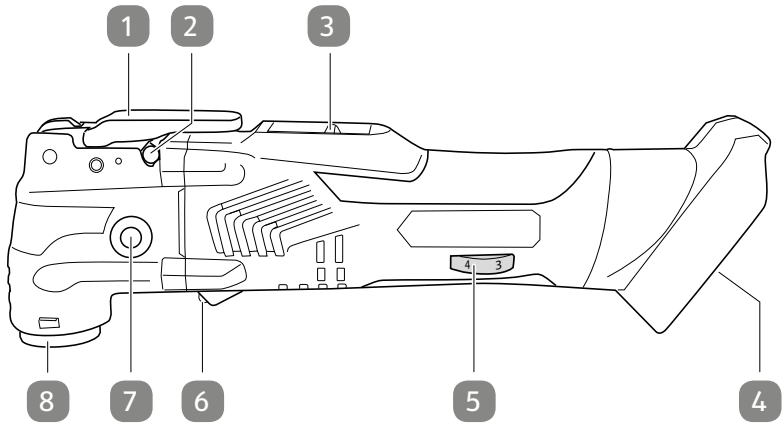


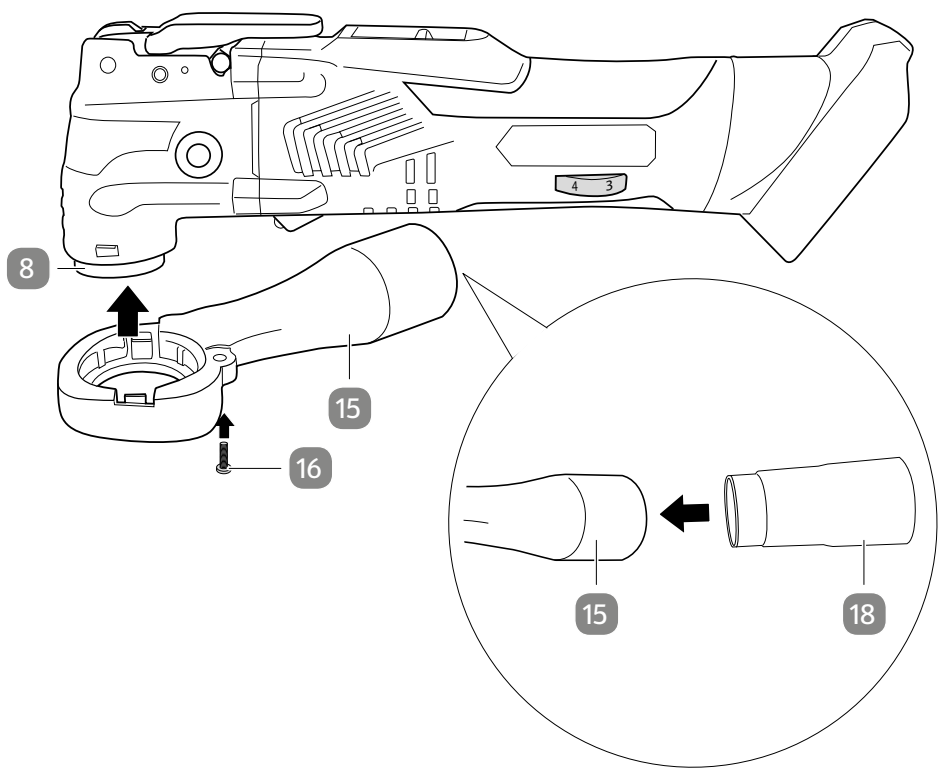
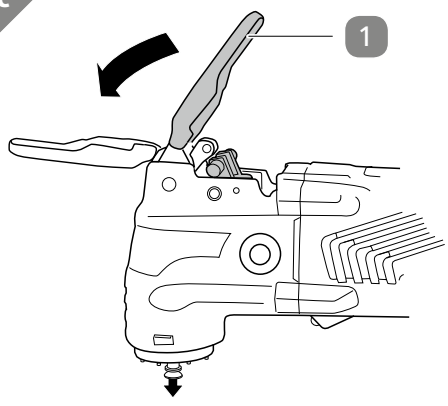
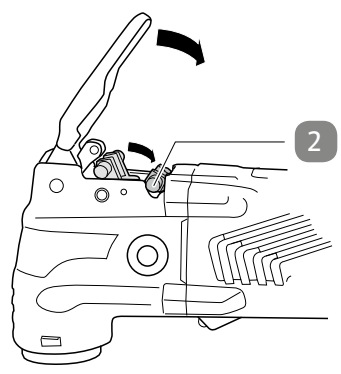
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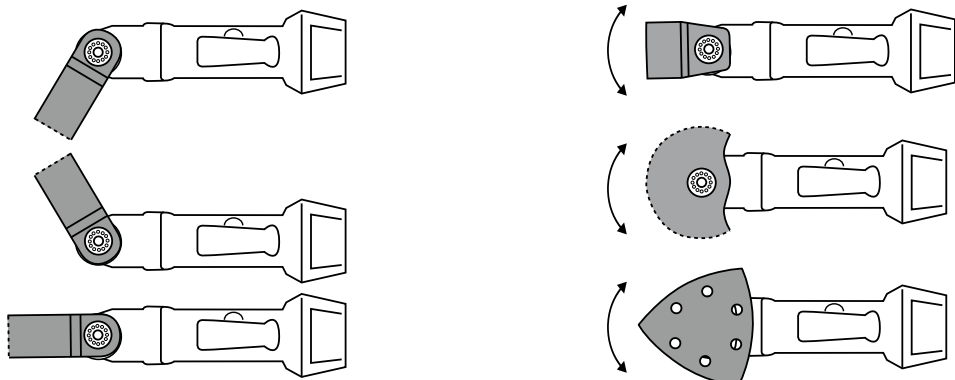
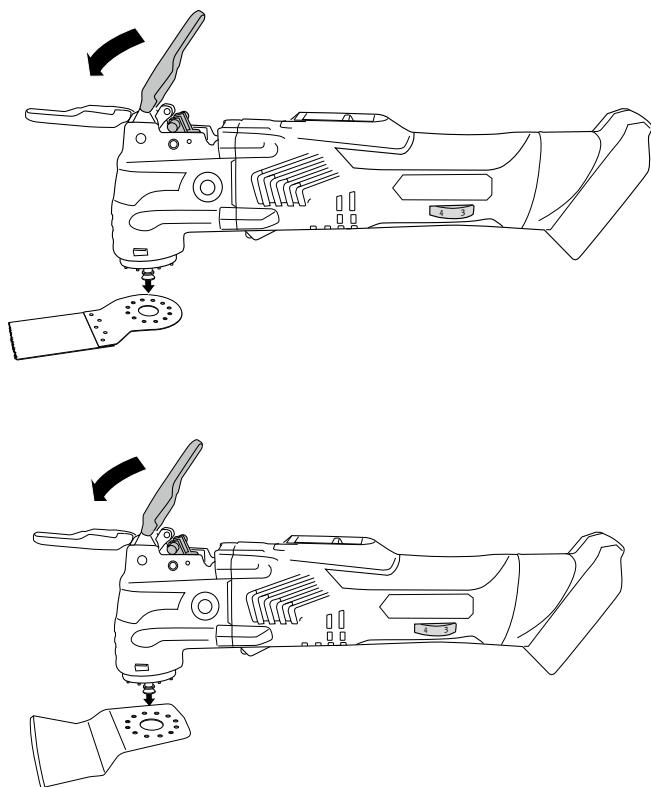
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A



B**C****D**

E**F**

Package contents/part list

- 1 Clamping lever
- 2 Locking bracket
- 3 On/Off switch
- 4 Battery holder
- 5 Oscillation rate preselector
- 6 Worklight
- 7 Thread (for the handle), 2×
- 8 Tool holder
- 9 Plunge-cut saw blade
- 10 Segment saw blade
- 11 Sanding plate
- 12 Diamond tipped segment saw blade
- 13 Scraper
- 14 Sanding sheet, 20×
- 15 Extractor line
- 16 Fixing screw (Extractor line)
- 17 Handle
- 18 Dust extraction adapter

General information

Reading and storing the user manual



This user manual accompanies this 20 V Li-ion cordless multifunction tool FAM 20-I (referred to below only as the 'multifunction tool'). It contains important information on safety, usage and care.

Before using the multifunction tool, read the user manual carefully. Pay particular attention to the safety notes and warnings. Failure to comply with the instructions in this user manual may result in severe injury or damage to the multifunction tool.

Comply with valid local or national provisions concerning the use of this product. Keep this user manual in a safe place for future reference. If you pass the multifunction tool on to a third party be sure to pass this user manual along with it.

This user manual can be downloaded in PDF format from our website at www.conmetallmeister.de.

Explanation of symbols

The following symbols and signal words are used in this user manual, on the multifunction tool or on the packaging.



Indicates a hazardous situation that, if not avoided, could result in death or serious injury.



Designates a dangerous situation that may result in minor or moderate injury if not avoided.



Warns against potential damages to property.



Declaration of Conformity (see 'Declaration of Conformity' chapter): Products marked with this symbol meet all applicable Community regulations for the European Economic Area.



Read the user manual.



Wear protective goggles.



Wear a dust mask.



Wear ear protection.



Wear suitable protective gloves.

Safety

Proper use

The multifunction tool is only designed for private users in connection with hobby and DIY projects for the following purposes:

- for sawing and separating timber materials, plastic, gypsum, non-ferrous metals and fasteners (e.g. nails, brackets),
- for processing soft wall tiles,
- for dry sanding and scraping small surfaces.

For some of these applications, accessories for certain work materials must be purchased from a supply store. Any other applications are expressly prohibited and are deemed improper use.

This multifunction tool does not come supplied with batteries or a charger. These must be bought separately: The multifunction tool can be operated using a 20 V battery or with a 20/40 V Activ Energy® battery.

Only use the rechargeable batteries specified in the chapter 'Technical data' for the multifunction tool. Do not operate the multifunction tool with rechargeable batteries from other manufacturers.

Neither the manufacturer nor the retailer can accept any responsibility for injury, loss or damage caused by misuse of this product of any kind. Examples of misuse are given in the following non-exhaustive list:

- using the multifunction tool for other than the intended purposes;
- using the multifunction tool as a polisher;
- failure to observe the safety notes and warnings as well as the assembly, operating, maintenance and cleaning instructions contained in this user manual;
- failure to comply with any regulations relating to accident prevention, occupational medicine or safety, which specifically and/or generally apply to the use of this multifunction tool;

- use of accessories and spare parts not intended for the multifunction tool;
- modifications to the multifunction tool;
- repairs of the multifunction tool performed by parties other than the manufacturer or a qualified professional;
- use of the multifunction tool for commercial or industrial applications as well as in connection with the trades;
- operation or maintenance of the multifunction tool by persons not familiar with how to handle the multifunction tool and/or who are not aware of the related risks.

Residual risks

Despite proper use, inconspicuous residual risks cannot be completely ruled out.

The following risks may arise due to the nature of the multifunction tool:

- projection of parts or breakage of the sanding surface, the fitted tool or the material being processed poses a risk of severe injury or blindness if the prescribed protective goggles are not worn;
- contact with sharp or hot parts of the workpiece or the fitted tool during operation or while performing maintenance;
- damage to hearing if the prescribed ear protection is not worn;
- inhalation of particles produced whilst sanding the material as well as the surface being sanded.

General power tool safety instructions

 WARNING Read all the safety notes, instructions, illustrations and technical details supplied with this power tool.

Failure to follow the safety instructions and guidance may result in an electric shock, fire and/or severe injury.

Save all warnings and instructions for future reference.

The term 'power tool' used in the safety instructions refers to mains-operated power tools (corded) and battery-powered power tools (cordless).

Work area safety

- a) **Keep your 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.*

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.*

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 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) **Take care to keep a normal body position. Maintain a stable stance 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, clothing and gloves 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 dust-related hazards.*
- h) **Do not be lulled into a false sense of security and ignore the safety rules for power tools, even if you are well acquainted with power tools, having used them frequently.** *Using power tools without due care and attention can cause serious injuries in a split second.*

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. 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. 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 fitted tools 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 and handle surfaces dry, clean and free from oil and grease.** *Slippery handles and handle surfaces will prevent you from operating and controlling the power tools safely in unforeseen situations.*

Cordless tool use and care

- a) **Only charge the rechargeable batteries in chargers recommended by the manufacturer.** *Chargers that are only suitable for certain rechargeable battery types pose a risk of fire if used with other rechargeable batteries.*
- b) **Only use the rechargeable batteries designated for use in power tools.** *Using other rechargeable batteries may result in injury and a risk of fire.*
- c) **Keep the unused rechargeable battery away from paper clips, coins, keys, nails, screws or other small metallic objects that could bridge the contacts.** *A short circuit between the contacts of the rechargeable battery could result in burns or fire.*
- d) **If used improperly, liquid may leak out of the rechargeable battery. Avoid coming into contact with it. Rinse with water in the event of accidental contact. If liquid comes into contact with your eyes, also seek medical attention.** *Fluid leaked from the rechargeable battery may cause skin irritations or burns.*
- e) **Do not use a damaged or modified rechargeable battery.** *Damaged or modified rechargeable batteries can be unpredictable and may result in fire, an explosion or a risk of injury.*

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- f) **Do not expose a rechargeable battery to fire or excessively high temperatures.** *Fire or temperatures above 130 °C may cause an explosion.*
 - g) **Carefully follow all instructions for charging the battery and never charge the battery or cordless tool outside of the temperature range indicated in the instructions.** *Improper charging or charging outside of the permitted temperature range may damage the battery and increase the risk of fire.*

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.*
- b) **Never perform maintenance on damaged rechargeable batteries.** *Only the manufacturer or authorised service companies may perform maintenance on rechargeable batteries.*

Safety instructions for multifunction tools

- Hold the multifunction tool by the insulated handles when performing work where there is a risk of the fitted tool being used coming into contact with hidden power lines. Contact with a live line could also energise metallic parts of the device and inflict an electric shock.
- Always wear protective goggles and a dust mask when sanding; especially when sanding overhead.
- Wear ear protection.
- Wear protective gloves when changing the fitted tools. Fitted tools become hot after prolonged use.
- Use the multifunction tool only for dry sanding.
- Use only the sandpaper supplied with the multifunction tool or the same-sized replacement sandpaper. Any paper protruding from the sanding plate can cause serious injury.
- Never expose the multifunction tool to high temperatures (heaters etc.) or to the effects of the weather (rain etc.).
- **Secure the workpiece.** A workpiece held in place with clamping fixtures or in a vice is more secure than if held by hand. Keep your hands away from the work area. Do not reach under the work piece. There is a risk of injury resulting from contact with the saw blade or scraper.

- Grip the multifunction tool with two hands and maintain a stable posture to avoid the risk of serious injury. When working with the multifunction tool, always hold it firmly with both hands and provide for a secure stance.
- Only scrape materials that have not been moistened (e.g. wallpaper) and do not scrape on a wet base.
- Adopt a stance that prevents injury in the event of slipping off the workpiece.
- Only use fitted tools that are in proper technical condition.
- Fitted tools may become extremely hot. After making a cut, do not touch the fitted tool and make sure that the multifunction tool is kept in a safe place once you have finished work.
- When working on masonry or ceilings, take note of the location of electric pipes as well as water and sewage pipes.

Safety instructions for sanding paint

- Do not sand paints that contain lead. Determine whether the paint you intend to sand contains lead before beginning work. Dust from paints containing lead may cause lead poisoning.
- A special test or a commercial painting contractor can determine whether a paint contains lead. If in doubt, you should wear a special dust mask to protect you from fine particles containing lead. Consult a specialist for information on suitable dust masks.
- Sanding coats of paint containing lead, various types of wood and metals could produce hazardous or poisonous dust. Coming into contact or inhaling the dust may pose a risk to the operator or nearby persons. Wear suitable protective equipment to protect yourself and nearby persons from coming into contact or inhaling this dust. Normal dust masks do not provide proper protection.
- Do not allow children or pregnant persons to enter the room or work area where you are sanding.
- Do not eat, drink or smoke while working. Clean your hands before you eat, drink or smoke. Do not leave any food or beverages exposed as there is a risk of dust accumulating in them.
- After sanding, thoroughly clean the surfaces of the work area.

Safety instructions for dust extraction

Dust from materials whose constituents include paint coats containing lead, some types of wood, minerals and metal could be harmful to health. Coming into contact or inhaling such dust could cause allergic reactions and/or respiratory illness on the part of the user or persons in the immediate vicinity. Certain dusts such as oak or beech dust are considered carcinogenic, particularly in combination with wood treatment additives (chromate, wood preservatives).

- Always use a dust extractor if possible.
- Use a special extractor to extract types of dust, which are particularly harmful to health, carcinogenic or dry.
- Make sure the work area is adequately ventilated.
- Wear a P2 dust mask (filter class) when performing work that produces dust. If the multifunction tool has a port for dust extractors and/or dust collectors, connect the dust extractor to it.
- Observe the regulations in your country that apply to the materials you intend to work on.
- When disposing of dust, be particularly careful as the dust of some materials may be explosive. Do not dispose of sanding dust in fire. Mixtures of dust particles containing oil or water could spontaneously ignite over time.

Safety precaution for fire prevention

- Keep an extinguisher on hand.
In the event of wood and paper fires: powder fire extinguisher (fire class ABC) or foam fire extinguisher (fire class AB).
For electrical fires: carbon dioxide (CO₂) fire extinguisher (fire class B).

Safety precautions for persons with medical implants

Every power tool generates an electromagnetic field during operation that may interfere with the functioning of medical implants (e.g. pacemakers) under unfavourable conditions.

Before working with the power tool:

- Consult a physician.
- Ask the manufacturer of your implant.

Preparation

Checking the multifunction tool and package contents

1. Remove the packaging material.
2. Check to make sure that all components and accessories have been received (see **Fig. A**).
3. Check whether the multifunction tool or the individual parts exhibit damage. If this is the case, do not use the multifunction tool. Contact the manufacturer at the service address specified on the warranty card.

Familiarising yourself with the functional principle

The multifunction tool does not rotate the fitted tool; instead, it oscillates it back and forth.

Familiarising yourself with permissible materials

You can use the following tools to process the listed materials:

Plunge-cut saw blade 9

Materials: Wood, plastic, gypsum and other soft materials

Application: Separating cuts and plunge-cuts, cutting near the edge in hard-to-reach areas, sawing slots

Segment saw blade 10

Materials: Wood, plastic

Application: Separating cuts and plunge-cuts, sawing near the edge in hard-to-reach areas (e.g. cutting door frames to length), adjusting panels

Sanding plate 11

Materials: Wood and metal (corresponding sanding sheets are included in the package contents)

Application: Sanding along edges and in hard-to-reach areas

Diamond tipped segment saw blade 12

Materials: Tile adhesive, tile joints

Application: Removal of leftover material (e.g. tile adhesive when replacing damaged tiles), grinding off joint sealer on wall and floor tiles

Scraper 13

Materials: Mortar/concrete residue, tile/carpet adhesive, paint/silicon residue

Application: Removing leftover material (e.g. carpet adhesive residue on the floor)

Using the battery



Risk of injury!


Incorrect use of the rechargeable battery and charger can cause injury.

- This multifunction tool does not come supplied with batteries. Only use the rechargeable batteries specified in the chapter 'Technical data' for the multifunction tool. Do not operate the multifunction tool with rechargeable batteries from other manufacturers.
- Read and follow the instructions in the user manual for the battery pack and charger used.

Charging the rechargeable battery

- To charge the battery, follow the instructions described in the user manual for the battery pack and charger used.

Inserting and removing the rechargeable battery

- To insert the battery, press the battery release button on the battery and slide the battery into the battery holder  on the handle (see **Fig. A**). The battery will audibly lock into place.
- To remove the battery, press the battery's release button and pull the battery out of the battery holder.

Preparing the multifunction tool



Risk of injury!

Accidentally starting the multifunction tool may result in severe injury.

- Before securing the tools, take the rechargeable battery out of the multifunction tool.

Mounting the handle

- Screw the handle **17** into the thread **7**.
Make sure that you screw the handle onto the left side of the multifunction tool if you are right-handed and onto the right side if you are left-handed.

Connecting the dust extractor



Health hazard!

Improper dust extraction could cause injury to health.

- We recommend using a dust extractor especially when carrying out sanding work.
- Read and observe the chapter on safety “Safety instructions for dust extraction” at the beginning of this user manual.
 1. Attach the extractor line **15** the tool holder **8** from below (see **Fig. B**).
When aligning the extractor line, make sure that the extractor line clicks into place on the tool holder and the fixing screw **16** is located above the corresponding screw hole in the multifunction tool.
 2. Use a Phillips screwdriver to screw the fixing screw clockwise into the multifunction tool in order to fix the extractor line in place.
 3. Attach the dust extraction adapter **18** to the connecting nozzle of the extractor line and turn the dust extraction adapter anticlockwise until tight.
 4. Connect a suitable suction device to the dust extraction adapter (e.g. shop vacuum cleaner).

Mounting tools



Risk of injury!

If you mount the tools incorrectly and they are therefore able to come into contact with your hand during use, there is a risk of injury.

- Do not mount the tools so that they could come into contact with your hand. For example, do not allow the blades to point towards your hand.



Risk of injury!

When flipping the clamping lever, the clamping mechanism generates a large amount of spring force, which will snap the clamping lever back and may injure you.

- Always completely flip the clamping lever by 180° or up to the stop point before you let go of the clamping lever.
- Avoid having the clamping lever come into contact with other objects when in an open state. Otherwise, it can easily spring back.
- Make sure that your fingers are not clamped in while mounting the tool.

The tool may only be mounted once the extractor line **15** has been secured. To ensure the safety and quality of the work, only use undamaged fitted tools in good condition.

The tool holder **8** of the multifunction tool enables you to mount the tool in different positions using the quick-release mechanism. Make sure that the fitted tool is only attached from the right side (see **Fig. F**).

1. Open the clamping lever **1** all the way by flipping it up to the stop point (see **Fig. C**). If applicable, remove any fitted tool that is already mounted.
2. Place the desired tool **9** / **10** / **11** / **12** or **13** at the desired angle on the tool holder **8**. When using the plunge-cut saw blade **9** and the scraper **13**, make sure to insert the tools the right way around (see **Fig. F**).
3. Hold the clamping lever in the hand and carefully hold it back as far as it will go against the locking bracket **2**.
4. Engage the locking bracket (see **Fig. D**) and close the clamping lever so that it locks into place.
5. Ensure that the tool is securely fixed in place.

Placing the sanding sheet on the sanding plate/changing the sanding sheet

- Attach the desired sanding sheet **14** to the sanding plate **11** with the hook and loop fastener. Make sure that the sanding sheet is not protruding. The sanding sheet must be completely attached to the sanding plate with the hook and loop fastener and must be smooth.

To ensure best dust extraction, make sure that the holes in the sanding sheet correspond to the holes on the sanding plate.

- To remove the sanding sheet, take hold of it by the tip and pull it off of the sanding plate.

Operation

Preselecting the oscillation rate

You can use the oscillation rate preselector **5** to adjust the speed variably between 5,000 and 16,000 rpm.

Level 1 represents the minimum oscillation rate; level 6 represents the maximum oscillation rate. You can adjust the oscillation rate while the multifunction-tool is switched on.

- To set the oscillation rate, turn the oscillation rate preselector to the desired level. The required oscillation rate depends on the work material and the working conditions and must be determined in practice.

Switching the multifunction tool on and off

- To switch the multifunction tool on, push the On/Off switch **3** towards the tool holder **8**.

The digit **1** on the On/Off switch, which can be read in this position, indicates that the multifunction tool is switched on.

The worklight **6** automatically turns on when the multifunction tool is switched on.

- To switch the multifunction tool off, push the On/Off switch towards the battery holder **4**.

The digit **0** on the On/Off switch, which can be read in this position, indicates that the multifunction tool is switched off.

Working with the multifunction tool

Sawing

The plunge-cut saw blade **9** and the segment saw blade **10** and **12** can be mounted at different angles (between -90° and $+90^\circ$) depending on your needs. This way, you can avoid substantial wear of the segment saw blade along a certain edge area.

- Only use sharp saw blades in undamaged, good condition. Bent or dull saw blades could brake, negatively affect the cut or cause kickback.
- Before sawing wood, chipboard, building materials, etc. check the material for any foreign objects, such as nails, screws, etc.
- Remove the foreign objects or use saw blades suitable for sawing steel (e.g. bi-metal saw blades).

When plunge cutting, only soft materials like pine/spruce wood, gypsum cardboard or the like may be processed.

Scraping

For best results, the scraper **13** must be sharpened regularly.

- Work on a soft base (e.g. wood) at a flat angle and while applying minimal contact pressure. Otherwise, the scraper could cut into the surface.
- Select a moderate to high oscillation rate for scraping.

Sanding

- Select a high oscillation rate for sanding.

Follow the instructions below for proper sanding:

- Move the multifunction tool parallel and circularly over the surface or alternately in longitudinal and transverse directions.
- The material removal rate and sanding quality are primarily determined by the selection of the sanding sheet **14**, the preselected oscillation rate and the pressing force.
- Press the multifunction-tool evenly and not too hard against the workpiece. Pressing too strongly does not increase performance.
- Only work with the tip or an edge of the sanding plate **11** to sand profiles and fillets. The sanding sheet can heat up significantly when sanding individual points. Reduce the oscillation rate and contact pressure and let the sanding sheet cool off regularly.
- Do not use the multifunction tool with liquid polishing agents or abrasives.
- If only one corner is worn down, move the sanding sheet **14** by 120°.

Cleaning and maintenance



Risk of injury!

Accidentally starting the multifunction tool may result in severe injury.

- Take the rechargeable battery out of the multifunction tool before cleaning or performing any maintenance on the multifunction tool.



WARNING!

Risk of burns!

Some of the tools get hot during operation and you could burn yourself.

- Always let the tool cool off completely before cleaning.

NOTICE!

Risk of damage!

Improper handling of the multifunction tool may result in damage to the multifunction tool.

- Do not use any aggressive cleaners, brushes with metal or nylon bristles, or sharp or metallic cleaning utensils such as knives, hard scrapers and the like. They could damage the surfaces.
- Make sure that no water or other liquids penetrate the housing of the multifunction tool.

Cleaning the multifunction tool

After every use

1. Unlock the extractor line **15** and remove it from the multifunction tool.
2. Use a soft brush or compressed air to clean the extractor line and the housing.
3. Wipe the housing off with a damp cloth if heavily soiled and then wipe it completely dry.
4. Attach the extractor line to the multifunction tool again.

After every eight hours of operation

1. Unlock the extractor line and remove it.
2. Use commercially available universal oil to lubricate the moving parts of the tool holder **8**.
3. Attach the extractor line to the multifunction tool again.

Checking the multifunction tool

Check the condition of the multifunction tool regularly. Among other things, check to make sure:

- that the On/Off switch **3** is not damaged,
- that the fitted tool is in proper condition,
- that the pins on the tool holder **8** are in flawless condition,
- that the clamping mechanism is able to firmly and reliably fix the fitted tool in place,
- that the battery holder **4** and all connection contacts on the multifunction tool are clean,

If you identify any damage, you must have it repaired by a specialist workshop to prevent risks.

Storage and transport

NOTICE!

Risk of damage!

Improper storage or transport of the multifunction tool could damage it.

- Store and transport the multifunction tool in a clean, dry and frost-free location.
- Protect the multifunction tool against vibrations and shocks during transport.
 1. Clean the multifunction tool thoroughly before storing it (see chapter 'Cleaning and maintenance').
 2. Make sure that the multifunction tool and the accessories are completely dry.
 3. Store the multifunction tool in a dry place, out of reach of children, securely locked away and at a temperature of between 5°C and 20°C (room temperature). Protect the multifunction tool from direct sunlight.

Troubleshooting

Some problems may be caused by minor faults that you can fix yourself. To do so, follow the instructions in the following table.

If it is still not possible to resolve the problem with the multifunction tool, contact after sales support.

Problem	Possible causes	Solution
The handle 17 or the multifunction tool cannot be assembled.	The thread 7 is dirty.	– Always keep the thread clean as described in the chapter “Cleaning and maintenance”.
	The tool holder 8 is damaged.	– Contact the After Sales Support of the manufacturer and have the damaged or defective part replaced.
The extractor line 15 or the dust extraction adapter 18 is loose/ keeps falling off.	The extractor line or the dust extraction adapter is not properly attached.	– Push the dust extraction adapter firmly onto the connecting nozzle of the extractor line and turn it anticlockwise to fix it in place.
The multifunction tool cannot be switched on.	The On/Off switch 3 is stuck.	– Keep the On/Off switch clean as described in the chapter “Cleaning and maintenance”.
	The On/Off switch is defective.	– Contact the after sales support of the manufacturer and have the damaged or defective part replaced.
The tool holder 8 does not move after switching on the multifunction tool.	There is dirt, wood chips or other objects located in the gap of the tool holder.	– Remove the battery and clean the gap of the tool holder with a vacuum cleaner if necessary.
	The multifunction tool is defective.	– Please contact the after sales support of the manufacturer.
The oscillation speed can not be increased or decreased.	The oscillation rate preselector 5 is dirty.	– If necessary, clean the oscillation rate preselector and the gap with a vacuum cleaner.

Technical data

Multifunction tool information

Article number:	97666
Model:	FAM 20-I
Model number:	5420033/5420034
Motor:	20 V ---
Motor idle speed:	5,000–16,000 min ⁻¹
Oscillation angle:	4.2°

Rechargeable battery and charger information

Use the product with Activ Energy® batteries and chargers only, in accordance with the following technical specifications:

Suitable for Activ Energy®

Battery type:	20 V ---/ 36 Wh/ Li-Ion
Models:	AEB 20-2.0I / AEB 20-2.0N XYZ561
Charging time:	20 V ---/ 36 Wh = approx. 45 min.
Battery type:	20 V ---(×2)/ 90 Wh/ Li-Ion
Models:	AEB 2040-2.5I / AEB 2040-2.5N XYZ562
Charging time:	20 V ---(×2)/ 90 Wh = approx. 95 min.
Charger type:	21V ---/ 4.0 A
Models:	AEC 20-4.0Ia / AEC 20-4.0Ic / AEC 20-4.0Na XYZ563

Please see the technical specifications for the rechargeable battery and charger.

Noise/vibration information



Health hazard!

Working without wearing hearing protection or protective clothing can lead to health problems.

- Wear ear protection and suitable protective clothing when working with the device.

The noise at your workplace may exceed 85 dB(A); protective measures are necessary in this case (wear suitable ear protection).

Noise emission:

- Sound pressure level L_{pA} 76 dB(A)
- Sound power level L_{WA} 87 dB(A)
- Uncertainty K 3 dB(A)

Hand/arm vibration:

Operation (Sanding)

- Main handle a_h 1.0 m/s²
- Extra handle a_h 2.0 m/s²
- Uncertainty K 1.5 m/s²

Idle

- Main handle a_h 4.0 m/s²
- Extra handle a_h 2.3 m/s²
- Uncertainty K 1.5 m/s²

The specified vibration total value and noise emission values have been measured on the basis of a standardised test procedure (EN62841-1/EN62841-2-4) and can be used to compare power tools with one another. They can also be used for a provisional assessment of the load.

WARNING!

While actually using the power tool, the vibration and noise emission values may differ from the values specified depending on how the power tool is used, in particular which type of workpiece is being worked on.

Safety measures must be defined to protect the operator. They must be based on an assessment of exposure during actual usage conditions (all parts of the operating cycle must be accounted for, e.g. periods when the power tool is switched off and when it is switched on, but not operating under load).

Improper use of the multifunction tool can cause vibration-related ailments.

WARNING!

Depending on how the tool is used and the operating conditions, the following safety precautions must be taken to protect the user:

- Avoid exposure to vibrations as much as possible.
- Only use accessories in perfect working order.
- Wear vibration-damped gloves when using the multifunction tool.
- Follow the user manual on care and maintenance of the multifunction tool.
- Avoid using the multifunction tool at temperatures below 10 °C.
- Plan your work steps so as not to use the strongly vibrating multifunction tool over several consecutive days.

Disposal

Disposing of the packaging



Dispose of the packaging separated into single type materials. Dispose of paperboard and cardboard with waste paper and plastics with recyclable waste.

Disposing of the multifunction tool

- Dispose of the multifunction tool in accordance with the applicable disposal regulations for your country.
- Please note that the used battery must be disposed of separately. Please observe the information described in the user manual for the battery used.



Old devices must not be disposed of with household waste!

This symbol indicates that this product must not be disposed of together with domestic waste in compliance with the Directive (2012/19/EU) pertaining to waste electrical and electronic equipment (WEEE). This product must be handed in at a collection point intended for the purpose. This can occur, for example, by handing it in at an authorised collecting point for the recycling of waste electrical and electronic equipment. Owing to potentially hazardous substances that are frequently contained in waste electronic equipment, incorrect handling of waste equipment may have a negative impact on the environment and on the health of human beings. By disposing of this product correctly, you are also contributing towards an efficient use of natural resources. Information on collecting points for waste equipment can be obtained from your municipal authorities, the public law disposal authorities, an authorised institution for the disposal of waste electrical and electronic equipment or the waste collection services.

Service notes

- Store the multifunction tool, the user manual and, if applicable, the accessories in the storage case.
- FERREX® devices are largely maintenance-free. For notes on cleaning and maintenance, refer to the chapter “Cleaning and maintenance”.
- FERREX® devices undergo strict quality controls. If, however, the functioning of the device is disrupted, send the multifunction tool to the manufacturer as described in the chapter “Checking the multifunction tool and package contents”.
- Provide a brief written description to shorten the troubleshooting process and repair time. During the warranty period, keep the warranty card and the proof of purchase with the multifunction tool.
- If the repair is not covered by warranty, you will be billed for the repair costs.
- **IMPORTANT! Opening the multifunction tool voids your warranty claim!**
- **IMPORTANT! You are expressly advised that, pursuant to the German Product Liability Act, the manufacturer is not required to assume responsibility for damages caused by the multifunction tool of the manufacturer if this is attributed to improper repair or the use of replacement parts, which are not original parts from or parts approved by the manufacturer and the repair was not performed by the customer service team of Conmetall Meister GmbH or an authorised professional with corresponding qualifications! The same applies to the accessory parts.**
- To prevent transport damages, securely pack the multifunction tool or use the storage case.
- The manufacturer also guarantees the affordable performance of all repairs to FERREX® appliances that become necessary after the expiration of the warranty period.
- You can obtain common accessories in specialised shops.

Declaration of Conformity



Conmetall Meister GmbH
Oberkamper Straße 37 - 39
42349 Wuppertal
Germany



EC Declaration of Conformity

We declare with sole responsibility,
that the product listed below ...

20 V LI-ION CORDLESS MULTIFUNCTION TOOL
FAM 20-I



5420033 / 5420034 - 97666 - 05/2019

... meets all of the requirements
of the listed directives.

2011/65/EU (RoHS)
2006/42/EC (MD)
2014/30/EU (EMC)

Applied, harmonized standards:

EN 62841-1:2015
EN 62841-2-4:2014
EN 55014-1:2017
EN 55014-2:2015
EN 50581:2012

Wuppertal,15.10.2018

Ingo Heimann (M.Sc.)
Technical direction/Product development
Conmetall Meister GmbH · Oberkamper Straße 37 - 39 · 42349 Wuppertal · Germany
Authorized person for storing the technical documentation.



Great care has gone into the manufacture of this product and it should therefore provide you with years of good service when used properly. In the event of product failure within its intended use over the course of the first 3 years after date of purchase, we will remedy the problem as quickly as possible once it has been brought to our attention. In the unlikely event of such an occurrence, or if you require any information about the product, please contact us via our helpline support services, details of which are to be found both in this manual and on the product itself.



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AFTER SALES SUPPORT

97666



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MODEL:

FAM 20-1 / 5420033/5420034

05/2019

3
YEAR
WARRANTY