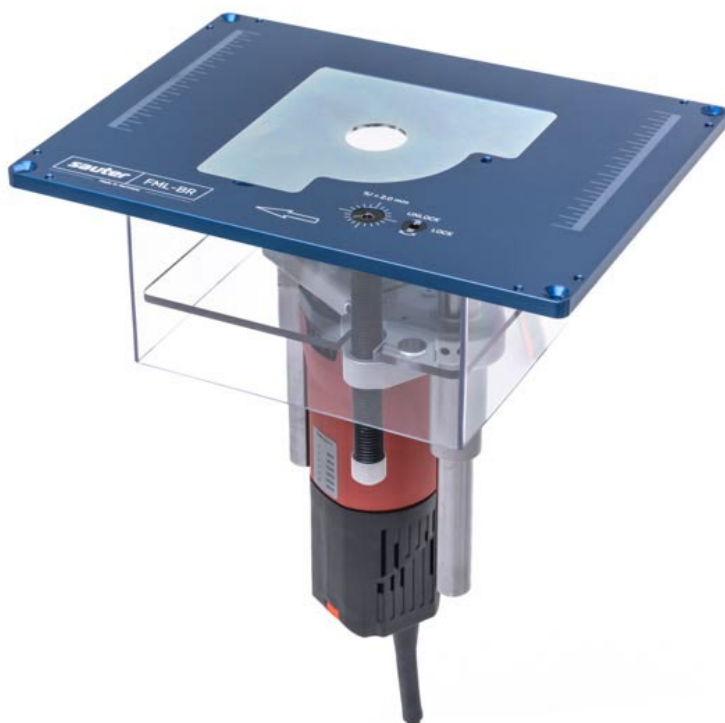


sauter router lift FML-BR

Operating instructions



Dear Customer,

Thank you for purchasing the *sauter router lift FML-BR*, which is used in an operator's own CE-compliant router table or in combination with the *sauter FT router tables*.

If you use your own router table, make sure that it is safe to operate and that its use is permissible in accordance with CE and MRL directives. In case of doubt, contact us to ensure compatibility, function, assembly and safety.

To ensure that you enjoy using the router lift for as long as possible, please read these operating instructions carefully before commissioning.

Before first use, the safety instructions and the operating conditions should be read and understood.

If you have any questions about the router lift or one of the router tables, please contact us directly:

sauter GmbH
www.sautershop.de
info@sautershop.de
Tel. 08143 / 99129 - 0

We hope you enjoy using the *sauter ROUTER LIFT FML* and the other components for your projects.

Yours sincerely, Your
sautershop team

EC Declaration of Conformity

**according to the EC Machinery Directive
2006/42/EC, Annex II A**



We hereby declare that the devices described here comply with the basic safety and health requirements in their design and construction as well as in the version placed on the market by us.

In the event of a change to the device not agreed with us, this declaration shall lose its validity.

Applied harmonized standards in particular:

- *DIN EN 60745-1* Hand-held motor-operated electric tools - Safety - Part 1: General requirements, Annex M
- *DIN EN 60745-2-17* Hand-held motor-operated electric tools - Safety - Part 2-17: Particular requirements for routers and edgers, Annex M

The CE marking is only valid in combination with the router tables *sauter FT*. All other safety precautions and operating instructions apply in any case.

A handwritten signature in black ink, appearing to read 'M. Sauter'.

Managing Director
Martin Sauter

Explanation of symbols

NOTE

Note / Tip

WARNING

Warning of general danger

Intended use

The *FML router* lifts are operated exclusively in conjunction with a CE-compliant router table - provided by the operator - or a third-party supplier, or with the *sauter FT router tables* described here.

The router lift is designed to accommodate defined, mains-operated routers with a 43 mm standard neck and up to 1 Nm torque. Please refer to the chapter "Permissible milling motors". The lift must be firmly connected to the router table. The *FML-BR* is used exclusively to accommodate defined router motors. Do not use drilling machines.

Vertical adjustment of the lift during operation is not permitted under any circumstances.

Disconnect the plug from the socket and/or the battery pack from the electrical appliance before making any adjustments or changing accessories.

Only route in the opposite direction, i.e. the direction of the milling feed must always be opposite to the direction of rotation of the milling cutter. The workpiece must never be positioned or guided between the fence and the router.

Depending on the cutter diameter, always use only the appropriate reduction plates provided for this purpose. For safe working, the smallest possible diameter of reducing plate must be used.

For general operation:

The router lift enables the height or routing depth adjustment of the router in a router table. A router table in combination with this router lift enables the stationary use of commercially available router motors as a vertically adjustable spindle and thus enables a function similar to a table router.

To complete the complete router table, additional components are required, such as stops, guide rails and safety components. These are part of the scope of delivery of the router table or must be purchased separately.

Due to its design, working with the *FML-BR* requires in particular the clamping of the workpiece from above. This must not be missing under any circumstances.

Furthermore, regular cleaning and lubrication with thin oil of the spindle is recommended.

The user is liable for damages and accidents caused by improper use and here, or separately written, not confirmed components.

Foreseeable misuse

The router must not be operated hand-guided in conjunction with an *FML*, must be mounted horizontally and firmly bolted down.

No routers other than those approved may be installed in the *FML router lifts*. The use of a drilling machine is categorically excluded.

Router motors must be equipped with a 43 mm Euro-neck for mounting in order to ensure safe mounting on the *FML-BR* during the intended use.

Vertical and axial adjustment of the lift during operation is strictly prohibited. Always ensure that all clamping levers are firmly and securely locked.

Routing only in up-cut, i.e. the direction of the milling feed must always be opposite to the direction of rotation of the milling cutter. The workpiece must never be positioned or guided between the fence and the routing cutter.

Furthermore, care must be taken to ensure that a clamped router is exposed during adjustment of the router lift and does not strike the fence, table plate or reduction plate.

The components mentioned here are only designed for routing wood, plastics and similar materials. The machining of metals and steel is prohibited.

The protective device must be fitted to ensure adequate protection against accidental contact with moving parts.

Furthermore, all safety instructions and operating conditions of the respective router motor must be observed in accordance with its operating instructions.

Table of Contents

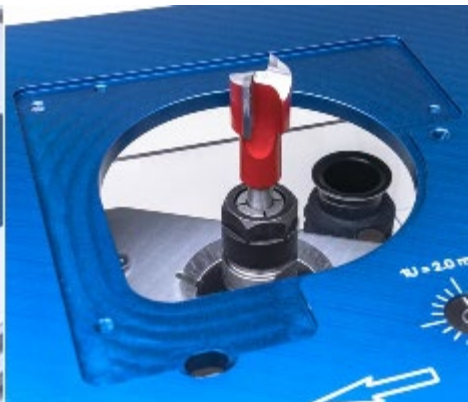
1. Scope of delivery.....	6
2. Technical data	6
3. Overview <i>FML-BR</i>	7
4. Operating conditions.....	8
5. Permissible router motors	9
6. Safety instructions	10
7. Mounting the router motor on the <i>FML-BR</i>.....	14
8. Mounting the <i>FML-BR</i> on the router table	
8.1 Prepare router table on operator side	15
8.2 Inserting the <i>FML-BR</i> into the router table.....	16
8.3 Levelling the <i>FML-BR</i> in the router table.....	17
8.4 Levelling the reducing plates in the <i>FML-BR</i> in the router table	17
9. Connection suction / workshop vacuum cleaner	17
10. Operation of the router motor in the <i>FML-BR</i>	
10.1 Installing and changing tools.....	18
10.2 Setting the milling depth via <i>FML-BR</i>	19
11. General notes on routing	
11.1 Routing at the parallel/cross fence	20
11.2 Routing on the free-milling fence	20
12. Accessories for <i>FML-BR</i>.....	21
13. Cleaning, Maintenance & Service	22
14. Customer Service & Consulting	22
15. Waste Management & Environmental Protection	22
16. Warranty	22
17. Sketches for router table cutouts	23

1. Scope of delivery

1x Router lift *sauter FML-BR*
 1x Reducing plates Ø 68 mm
 1x Reducing plate Ø 32 mm
 4x Fixing screws M6x50, washers & nuts
 8x Levelling screws M5 x 8 mm (for alignment of the router lift)
 3x Levelling screws M5 x 6 mm (for reducing plates)
 1x Allen key 5 x 100 mm
 1x Operating instructions

2. Technical data

Dimensions <i>sauter</i> :	306 x 229 x 213 mm
Corner radius insert plate <i>sauter</i> :	6 mm
Thick insert plate:	9 mm
Adjustment travel / revolution:	2 mm
Max. Adjustment travel:	100 mm
Max. Routing cutter Ø:	86 mm
Weight (approx.):	4,0 kg
Extractor connection Ø:	22/25 mm
Clamping neck Ø / tolerances of the router motor:	43 mm / -0.135 +0.015
Required clamping height of the router motor:	20 mm
Max. Speed of the router motor:	30,000 rpm.
Max. Weight of the router motor:	5 kg



3. Overview **FML-BR**

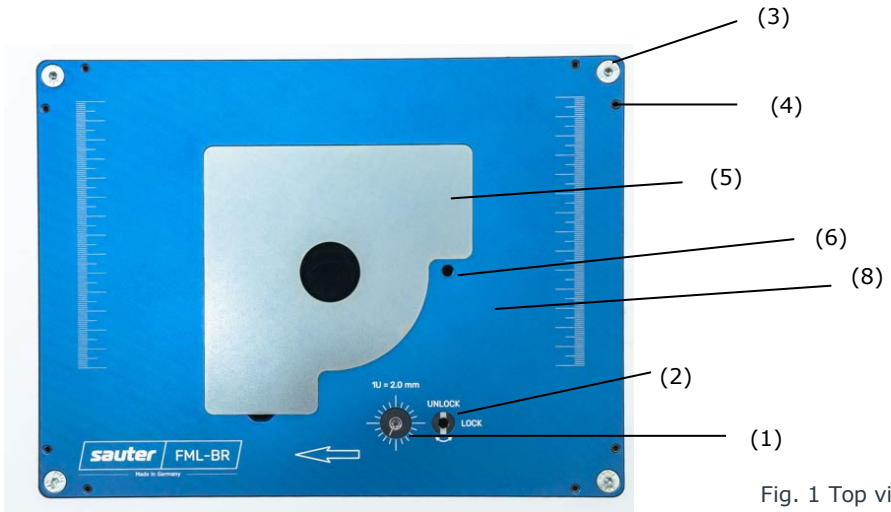


Fig. 1 Top view

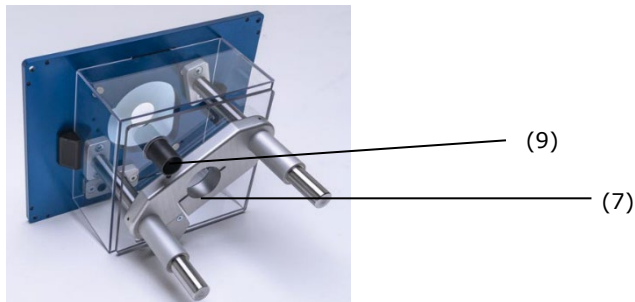


Fig.2 View from below

- (1) Height fine adjustment
- (2) Locking height fine adjustment
- (3) Hole for fixing screws of the router lift
- (4) Tapped holes for levelling screws
- (5) Reducing plate
- (6) Thread for free routing pin
- (7) Mounting hole for 43mm clamping neck
- (8) Insert plate
- (9) Extraction nozzle with $\varnothing$ 22/25 mm

4. Operating conditions for FML-BR & router tables FT

Working with the components mentioned here may only be carried out in a dry environment in order to exclude any danger to the user.

Furthermore, the parts are not designed for outdoor use. Therefore, work in an appropriate protected workshop.

Be careful not to work in corrosive atmospheres to maintain a long service life and associated functionality and safety.

Additional requirements may be necessary for use in tropical climates. Please also refer to the operating instructions of the router motor to be used or contact us for our advice.

Always work on a flat, clean surface to ensure maximum stability during routing. The insert plate of the router lift must also always be horizontal.

Furthermore, pay attention to all conditions on the part of the router tables and router motors used from third-party suppliers. Please read the respective operating instructions of the manufacturer.

Due to the increased risk of kickback, free routing without a parallel fence on the table is only possible if the free routing kit (optional accessory, Art. No. SA-RTS-KIT) is fitted.

5. Permissible Router motors

Operation of the *FML-BR* is permitted in conjunction with the following models:

Manufacturer	Model	Clamping neck (Euronorm) / Tolerance
AMB	800 FME	43 mm / +0.015 -0.135
	1050 FME	43 mm / +0.015 -0.135
	1400 FME	43 mm / +0.015 -0.135
MAFELL	FM800	43 mm / -0.01 -0.04
	FM1000	43 mm / -0.01 -0.04
	FM1650 PV-LO	43 mm / -0.01 -0.04
SUHNER	UAC 30 RF	43 mm / -0.03 -0.01
	UAD 25 RF	43 mm / -0.03 -0.01
	UAK 30 RF	43 mm / -0.03 -0.01
	UAK 30 RF SPZ12	43 mm / -0.03 -0.01
	UAL 23 RF	43 mm / -0.03 -0.01

NOTE

When using other models, please contact *sauter GmbH*. Unauthorized use of other router motors will void the declaration of conformity and warranty claims.

WARNING

There is a risk of injury when using non-approved routing devices!

For the use of your router motor in the *sauter FML-BR*, please observe the instructions of your router manufacturer for stationary operation.

6. Safety instructions

General safety instructions for recording devices

WARNING

Read all safety precautions and instructions provided with the fixture and power tool. Failure to follow the safety instructions may result in electric shock, fire and/or serious injury.

Keep all safety information and instructions for future reference.

1. Unplug the device and/or remove the battery before making any adjustments or changing accessories.
2. Before mounting the router motor, assemble the router table and router lift correctly. Correct assembly is important to prevent the risk of collapse.
3. Securely attach the router motor to the router lift before using it. Slipping the power tool out of the fixture can result in loss of control.
4. Place the finished router table on a firm, level and horizontal surface. If the router table and/or the router lift can slip or wobble, this can lead to serious injuries during operation.

WARNING

Job security

1. Only install the power tool and accessories in accordance with the instructions. Only use accessories specified in the operating instructions. The tool or accessories must not be modified or used for any purpose other than that for which they are intended.

Do not overload the power tool.

2. Consider the working environment. Do not use the product in the rain or in an environment containing steam. Ensure that there is sufficient lighting. Do not use power tools near gas pipes or flammable liquids. Keep your workshop at a comfortable temperature so that your hands are not cold. Connect your power tool to a residual current safety device when working outdoors. Only use cables that are approved for outdoor use.

3. Keep your work environment clean. Disorder in the workshop or on the workbench can lead to injuries. Make sure that there is enough space to work safely.

4. Remove any nails, staples or other metal parts from the workpiece.

5. Check damaged parts. Before start-up, carefully inspect the attachments, unit, cables, extension, plugs, and accessories for signs of damage. Check the alignment of moving parts, connection and other circumstances that may affect the start-up. Have any damage repaired by an authorised specialist workshop before putting the device or accessories into operation. Protect the tools from impact and falling.

6. Use suction. If there are sockets for suction, make sure that they are mounted and connected correctly.

7. Check all fastening and locking screws, bolts, nuts and knobs on the power tool, attachments and milling tools before commissioning and ensure that they are all tightly closed and tightened. Repeat the check regularly if you are routing for a longer period of time.

WARNING

Electronic security

1. Disconnect the power tool from the mains as soon as the machine is not in use, before any maintenance, before any set-up, before any change of accessories, e.g. cutter change. Make sure that the switch is in the "OFF" position. Make sure that the cutter no longer rotates.

2. Do not use the device if it cannot be switched on or off. Have defective switches repaired by a specialist workshop.

3. Use the cord only for its intended purpose. Do not carry the power tool by the cord, do not pull the cord toward you, and do not pull the cord to unplug it from the wall outlet. Keep the cord away from heat, oil, or sharp edges. Route the cord away from the work area.

WARNING

personal safety

1. Keep children and visitors away. Do not allow children or visitors to touch the tools, accessories or attachments. Keep children and visitors out of the work area. Childproof your workshop and lock it.

2. Wear appropriate work clothing. Do not wear loose clothing or hanging jewellery, they could get caught in moving parts. Work gloves and non-slip footwear are recommended for working outdoors. Make sure that long hair is protected or covered.

3. Store tools not in use in a dry and locked place out of the reach of children.

4. For best safety, always use both hands and keep them away from the cutting area. Always wait until the spindle and router bit have run down before making any changes.
 5. Ensure that you are standing securely. Do not work in an uncomfortable or unsafe position.
 6. Stay alert. Always pay attention to what you are doing. Use common sense. Do not use power tools when you are tired or under the influence of medication or alcohol.
 7. Personal protective equipment for eyes, ears, hands and respiratory protection is recommended for work. All personal protective equipment must comply with the applicable EU regulations.
 8. Noise. Take appropriate measures to protect your hearing as soon as a noise level of 85 dB(A) is exceeded. The noise level generated by routing can exceed 85 dB(A). Consequently, hearing protection must be worn.
 9. Eye Protection. Always wear safety glasses or visors to protect your eyes from dust and flying parts.
 10. Respiratory protection. Wear a dust mask or a respirator. Flying chips and the resulting wood dust can be harmful to your respiratory tract. Protective filters should be changed regularly.
 11. Wear protective gloves to avoid possible injury from sharp edges when handling the milling unit and rough materials.
 12. To avoid unintentional contact of the routing unit with the operator's hand and fingers, the protective shield included in the scope of delivery must be mounted in accordance with the specifications in these operating instructions.
 13. Never leave running tools unattended. Do not leave the tool until it has finally run out of oil.
 14. Fix your workpiece correctly and securely.
 15. Only use milling tools that comply with the EU safety regulations EN 847- 1/2 and its supplements.
 16. Vibrations. Hand-held power tools generate different levels of vibration. Always consult the regulations and relevant health and safety guidelines.
-  **WARNING**
- Use and handling of the router lift and the power tool**
- Specifications for handling router motors on the router lift**
1. When mounting the router motor, make sure that it is firmly seated and that it is fully form-fitted. Only devices with a so-called 43 mm clamping neck (Euro standard) may be used.
 2. The use of the router motor pick-up unit (part of the FML-BR) without the FML-BR sauter is never permitted. Commissioning is only permitted in combination with a corresponding CE-compliant router table.
 3. The mounting unit of the router motor (part of FML-BR) must be firmly mounted with a positive fit and this must be checked again before each use. This is the only way to ensure that the unit cannot rotate loose.
- Safe handling of the router lift:**
1. Before mounting the router motor, check the router lift for correct operation. A defective router lift can lead to damage or injury.

2. Securely fasten the router motor to the router lift before using it. Failure to secure the router motor can result in loss of control.
3. Mount the lift in your router table and check that it is firmly seated before each start-up.
4. A loose lift can slip or wobble. This can lead to uncontrolled loads on the tool during operation. This can lead to the tool being damaged or breaking. Risk of injury due to ejected parts.
5. Disconnect the router motor from the power supply before carrying out any work and after completing your work. Unintentional start-up of the routing motor can lead to serious injuries.
6. Make sure that there are no loose parts, such as tools, on your router table before switching on the router motor. Parts that get into the rotating tool can damage it and be flung away. Risk of serious injury.
7. Carefully maintain the router lift. Check whether moving parts function properly and do not jam, whether parts are broken or damaged in such a way that the function of the router lift is impaired. Have damaged parts repaired before using the router lift. Many accidents are caused by poorly maintained equipment.
8. Have the router lift repaired only by qualified personnel and only with original spare parts. This ensures that the safety of the device is maintained.

3. Remove keys or other tools that you used to service the machine before start-up. Make sure that the cutter can rotate freely.

4. Only machine workpieces made of materials that are suitable for machining with manual routers (usually solid wood, wood-based materials). Make sure that these are free of mechanical inclusions (e.g. nails).

5. Never turn on the router while the cutter is touching the workpiece.

6. The direction of the milling feed must always run in the same direction as the direction of rotation of the

router.

7. Never route without a suitable fence (longitudinal fence, cross fence or clearance fence) to avoid kickback. Also observe all instructions in the operating manuals for the fences to be used.

8. In particular, when insert milling, make sure to work with suitable cross stops and/or pressure devices at the rear as well as at the front in order to minimize the risk of kickbacks.

Safety of the milling tool

1. Milling tools are sharp. Handle the routing cutters with care. Do not drop milling tools and do not hit them against hard objects. Special care must be taken when handling small routers. Put the milling tools back into the packaging after use.

2. The maximum speed (n.max) marked on the shaft, on the packaging or in the instructions must not be exceeded. If specified, the speed range should be adhered to exactly. Recommended speeds are usually specified by the manufacturer.

3. Always use router bits in routers

or router motors. Drills and drilling tools must not be used in a router. Router bits must only be used with the material for which they were designed. Do not use router bits in metal or stone.

4. Always observe the maximum permitted cutter diameter for the router motor used. You will find the relevant information in the manual for your router. The router table is designed for cutter diameters up to a maximum of 86 mm.

5. Use only sharp, intact, high-quality milling tools that are designed for use in high-speed hand routers and for hand feed.

are approved. Unsuitable, defective or blunt routing tools represent a very high safety risk.

6. Make sure that the vise used matches the shank diameter of the cutter. Clamp the milling cutter as deeply as possible in the collet, at least $\frac{3}{4}$ of the shank length. Always ensure that the router bit is firmly seated.

7. Routing tools should be kept clean. Glue or resin build-up should be removed at regular intervals with a suitable cleaning fluid. The use of PTFE spray will reduce the build up of glue and resin. Do not use PTFE on plastics.

8. When using composite routing tools on a spin-del, make sure that the cutting edges are mounted offset to dampen the cutting impact.

9. Observe the instructions for changing tools in the operating instructions for your router motor.

10. The milling tool must be clamped so that it cannot come loose during operation. Mount routers with care and make sure that the tension is acting on the shank of the router and that the cutters are not in contact with each other or with clamping elements.

Safe routing

1. Read the instructions supplied with the power tool, accessories and milling tool.

2. Keep your hands, hair or clothing away from the milling tool.

can come.

11. It is recommended to check the collet and nut regularly. A damaged, bent or worn collet and nut can cause vibration and/or damage the shaft. Do not overtighten the nut and collet.

12. Do not route too deep in one step. Proceed in several steps and only route with a low cutting volume and thus reduce the lateral forces. Too deep routing can stall the milling machine.

13. In the event of unwanted vibrations, switch off the router immediately and check that the cutter has been correctly centred.

14. All fasteners must be tightened with the appropriate wrench and to the torque specified by the manufacturer.

15. Extensions on the keys or tightening by means of hammer blows are not permitted.

16. Clamping screws must be tightened according to the manufacturer's instructions. If there are no connections, clamping screws should be tightened in sequence from the centre outwards.

WARNING

Stationary use of router motors

1. Please observe the regulations on the safe handling of machines with vertical milling spindles.

2. Always use a push stick or push block if the routing is shorter than 300 mm or if the last 300 mm of a longer routing is carried out.

3. Make sure that the router bit does not collide with the insert plate. Always select the smallest possible reducer plate.

4. Only use cutters with a thrust ball bearing when routing on the clearance fence pin. Use the pin like a guide ramp to the router. Small workpieces must be fixed on a larger holding plate.

5. Whenever possible, use a fixture to hold the workpiece. Make sure the fixture is securely fastened to the workbench. Table surface approximately waist height. This is the only way to avoid a possible kickback, a sudden reaction against the feed direction. can be avoided.

6. If necessary, extend the support surface for the workpiece to counteract uncontrolled tilting of the workpiece.

7. Use a circuit breaker. Make sure it is securely fastened, easily accessible and properly connected.

8. With a router table (router hanging down), stand on the right front side. The router bit rotates counterclockwise when viewed from above. This means that the feed must be from right to left, i.e. against the direction of rotation of the milling tool.

9. Do not reach under the table or place your hands or fingers in the routing path while the router is turned on or the cutter is still rotating.

10. Never insert wood between the router bit and the routing fence.

NOTE

Useful hints for milling

1. Orientate your feed speed to the motor noise. Push at a constant speed. Too slow a feed rate can lead to burns and burn marks on the wood.

2. Test cuts on waste material are recommended.

NOTE

Service, maintenance, repairs

1. Always keep the accessories clean and in good condition.

2. Keep the protective devices in operation and in good condition.

3. Carefully maintain your equipment and routers. Keep your milling tools clean and sharp for better results. Do not use blunt tools. Follow the instructions regarding lubrication and tool change. Keep handles dry, clean and free of oil and lubricant.

4. Maintain your accessories. Do not use damaged accessories. Only use accessories recommended by the manufacturer.

NOTE

Router Repair / Maintenance

1. Repair of the tool may only be carried out in accordance with the manufacturer's instructions.

2. The shape of a carbide-tipped router must not be changed during repair. Tools that have been assembled must be repaired by appropriately qualified personnel.

3. Tolerances that ensure safe clamping must be observed.

4. Repairs must be carried out using the spare parts specified by the manufacturer.

5. Be careful that resharpener the cutting edges does not weaken the cutter body.

7. Mounting the router motor at FML-BR

- 1) Turn the height adjustment (1) of the router lift counterclockwise until the mounting unit (7) is the maximum distance from the insertion plate. This gives you access for assembly.
- 2) Place the router lift on a firm surface with the operating side facing downwards so that the mounting unit (7) is facing upwards.
- 3) Then insert the router motor into the mounting unit (7). Make sure that the milling cutter holder points in the direction of the insertion plate (8), the clamping neck of the motor is inserted at least 20 mm and a form fit is thus present. Now tighten the locking screw according to the recommended torque of 13 Nm and check the correct fit and the strength of the router motor regularly.



8. Mounting the FML-BR on the router table

8.1 Prepare the router table on the operator side

(Skip step for *sauter router tables FT*)

Create the **cutout** in your router table **in the form of a rebate with an umlau-15 mm or in** accordance with the attached sketch (see "Back cover"). Make sure that the router lift can be aligned flush with your table. Step-by-step instructions are given below. Optional accessories are also available (see "Accessories").

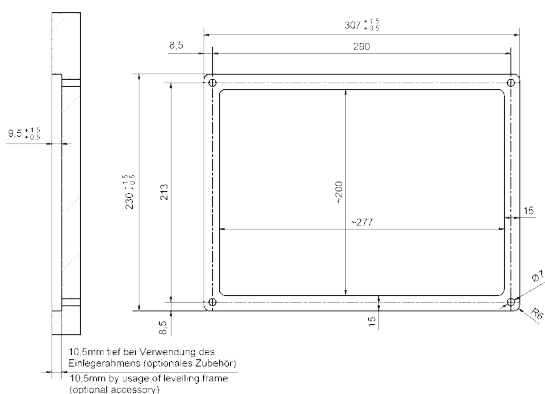


Fig. 4 Required installation dimensions on the router table (for an enlarged view, see "Envelope back")

8.1.1 Variant 1 - routing of a support rebate with the sauter routing template (Art.No. SA-ELP-FS) and grooving cutter with ball bearing on the shaft (Art.No. E-11651) (optional accessory)

- 1) Position the template at the desired location on the router table top.
- 2) Mark a rectangle inside the template that is 15 mm smaller on each side. (rebate = support surface for the insertion plate).
- 3) TO ROUT the rectangle marked in point 2) completely out of the router table top. For thicker plates, carry out the milling out in several steps.
- 4) Attach the routing template, e.g. to the router table, set the depth of the router to 9.3 mm, plus the thickness of the template, and use the ball bearing to route the insertion cut-out along the router table.
- 5) Check that the rebate is deep enough. The insert plate must be slightly below the level of the table top! If necessary, it must be re-milled.
- 6) Place the *FML-BR* with the mounted router in the cutout and secure it through the mounting holes provided using the threaded screws supplied.

8.1.2 Variant 2 - Routing without template

- 1) Mark a rectangle for the cut-out of the insert plate with the dimensions 307 x 230 mm. The cut-out is thus 1 mm larger in favour of a better fit of the insert plate.
- 2) Mark a rectangle that is 15 mm smaller on each side than the rectangle in Point 1) (rebate = support surface for the insertion plate).
- 3) TO ROUT the rectangle marked in point 2) completely out of the router table top. For thicker plates, carry out the milling out in several steps.
- 4) Set the depth of the router to 9.3 mm and route the rectangle for the Inlay cutout from.
- 5) Check that the rebate is deep enough. The insert plate must be slightly below the level of the table top! If necessary, it must be re-milled.
- 6) Place the *FML-BR* with the mounted router in the cutout and secure it through the mounting holes provided using the threaded screws supplied.

WARNING

When building the router table, ensure that it is stable and that the safety devices required for operation are in place. It is recommended to observe DIN EN 60745-2.

8.2 Inserting the *FML-BR* into the router table

Now insert the assembled router lift into the recess in the router table by first inserting the power cable and then the router lift with the router motor carefully into the opening.

WARNING

Be careful not to pinch the power cord of your router motor.

8.3 Levelling of the *FML-BR* in the router table

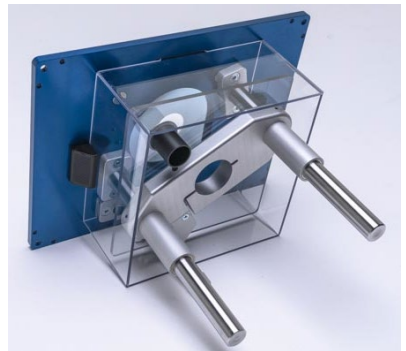
When the router lift is in the recess of the router table, tighten the fastening screws in the corners. If there is minimal unevenness, you can use the levelling screws (4) to align the router lift flush. If necessary, use a straight edge to check that the router lift and the worktop are aligned. If necessary, loosen the fastening screws and carry out the corrections with the levelling screws (4). Then screw the router lift to your worktop using the four fastening holes (3) and check the alignment of the router lift again.

8.4 Levelling of the reducing plates in the *FML-BR* in the router table

The height of the reducing plates can be adjusted by means of the supplied levelling screws (M5 x 6) inside the insertion plate so that smaller workpieces in particular do not get stuck at the transition.

9. Connection of an extraction system / workshop vacuum cleaner

To use the integrated suction of the FML-BR must be equipped with an extraction hose with the matching Connection sleeve (inner- Ø: 25mm) on the connection of the FML-BR.
(Suitable reducing sleeves & step adapters on our homepage: www.sautershop.com)



10. Operation of the router in the FML-BR

Observe the safety instructions in this manual before operation.

10.1 Install & change tool with router motor installed

- 1) Disconnect the mains plug of the milling motor from the socket.
- 2) Remove the reducing plates (5) via the recessed grip and turn the router lift to the upper stop.
- 3) The space is now sufficient to change the tool according to the milling manufacturer's instructions.



Fig. 6 Attach the key

- 4) Select the smallest possible reducer plate (5) suitable for the respective cutter diameter and reinsert it. Always plan some space between the reducing plate (5) and the router in order to be able to guarantee chip removal. The maximum cutter diameter per recess in the insert plate can be obtained from the following graphics.



$\varnothing$ max. 86 mm => Red. 98 mm
 $\varnothing$ max. 64 mm => Red. 68 mm
 $\varnothing$ max. 28 mm => Red. 32 mm

Fig. 7 Dimensions for cutter selection

5) Make sure that the cutter is firmly seated in the collet and does not collide with the steel reducing plate (5).

6) Make sure that the reducing plate (5) is firmly seated in the prefabricated recess.

WARNING

When selecting the router bit, observe the maximum cutter diameter that is permissible for the router model in question.

Important: In addition, the cutter size is always limited to a maximum of 86 mm.

10.2 Setting the milling depth

1) To lock the router in height, open the lock (LOCK) (2) by turning it a quarter turn counterclockwise to (UNLOCK).



Fig. 8 Using the locking device

2) By turning the height adjustment (1) clockwise, the cutter is moved out of the plate. Counter-clockwise, the cutter is lowered downwards. One complete turn corresponds to 2 mm, a graduation mark on the scale indicates the adjustment by 0.1 mm. This allows fine adjustment to an accuracy of 1/10mm.



Fig. 9

Adjusting the height

3) When you have set the desired height, tighten the height fine adjustment lock (2) by turning it a quarter of a turn clockwise. The lock engages when the scale lines are aligned.

Make sure that the milling tool does not collide with the reduction plate (5). If necessary, carry out a test milling on a waste piece.

11. General notes on Routing

11.1 Routing on the rip fence/cross fence (not included in the scope of delivery)

- 1) Unplug the router motor from the mains.
- 2) Insert the desired router tool (see router motor operating instructions).
- 3) Set the desired milling depth.

NOTE For thicker workpieces in particular, route in several passes in steps of a few millimetres.

- 4) Strike the workpiece at the stop.
- 5) Plug in the mains plug of the router motor and switch on the router.
- 6) Push the workpiece past the milling cutter against the direction of routing (note the direction arrow on the *FML-BR*). Note a even, medium feed rate. A feed rate that is too slow produces burn marks and overheats the milling tool, a feed rate that is too fast produces an unclear milling pattern.
- 7) Switch off the router.

11.2 Routing on the free-milling fence (separate accessory, Art.No. SA-RTS-KIT)

⚠ WARNING

Exercise increased caution here, as there is an increased risk of kickback! Provide your router table with a router hood so that there is an extraction option and a protective shield to the router.

Basically, this method is intended for routing with a template. Make sure that the workpiece and template are firmly connected and that the workpiece overhang (the contour to be removed) is less than 3 mm. Small or short workpieces must be safely guided by a larger template.

Please refer to appropriate literature if you are not familiar with the procedure.

- 1) Unplug the router motor from the mains.
- 2) Insert the desired milling tool. Only milling tools with ball contact bearings.
- 3) Set the desired milling depth.
- 4) Mount the free milling kit (separate accessory).
- 5) Plug in the router and turn it on.
- 6) Place the workpiece on the pin and use it as a ramp to the routing tool. Always move the workpiece against the direction of rotation of the milling tool at an even feed rate. A feed rate that is too slow produces burn marks and overheats the milling tool, a feed rate that is too fast produces an unclear milling pattern.
- 7) Switch off the router.

12. Accessories for FML-BR

Optional accessories for the router lift.

	Article	Description	For FML-BR	Part number
	Mounting kit 20 pcs.	4x corner plates, 4x countersunk screws M6x50, 12x screw DIN7997 4,5x40	all	SA-99600005
	Levelling frame sauter	Frame made of sheet steel for plate levelling	all	SA-99600006
	Screw set	Fastening screws for FML	all	SA-FIX-KIT
	Reducing plate	undrilled		SA-RP2.0-0
		Ø 10 mm		SA-RP2.0-10
		Ø 16 mm		SA-RP2.0-16
		Ø 22 mm		SA-RP2.0-22
		Ø 32 mm		SA-RP2.0-32
		Ø 42 mm		SA-RP2.0-42
		Ø 54 mm		SA-RP2.0-54
		Ø 68 mm		SA-RP2.0-68
		Ø 86 mm		SA-RP2.0-86
		Ø 98 mm		SA-RP2.0-98
	Free milling kit	Guide pin with thread and protective device for free routing without parallel fence	all	SA-RTS-KIT
	Digital measuring instrument	Digital height gauge for 1/1000mm accurate milling depth adjustment	all	WX-WR525
	Adapter for digital measuring instrument	For mounting height measuring device on FML-BR	all	SA-WX-ADAP-BR

NOTE

For mounting the Digital Height Gauge (WX-WR525) is the adapter (SA-WX-ADAP-BR) necessary.



13. Cleaning & Maintenance

Always keep the router lift and the entire router table clean to work well and safely. Clean moving parts, guides and spindle regularly and spray with a thin oil or silicone lubricant spray. If the router lift should ever fail despite careful manufacturing and testing procedures, repair should be done through your dealer.

14. Customer service & Consulting

Please contact us if you have any questions about the router *lift FML-BR regarding advice on the product, repair and spare parts:*

sauter GmbH
Arzbergerstrasse 4,
82211 Herrsching
08143/99129-0 Fax 08143/99129-29
info@sautershop.de
www.sautershop.de

15. Waste disposal & Environmental protection

The router lift, accessories and packaging should be recycled in an environmentally friendly manner.

16. Warranty

The sauter ROUTER LIFT FML-BR is covered by the statutory warranty from the date of delivery for all design, material or manufacturing defects. Excluded from the warranty are parts subject to wear and tear as well as damage caused by improper handling, non-observance of service instructions, intervention by third parties or force majeure.

Status 11.2022 Subject to change without notice.

17. Sketches for router table Cutouts

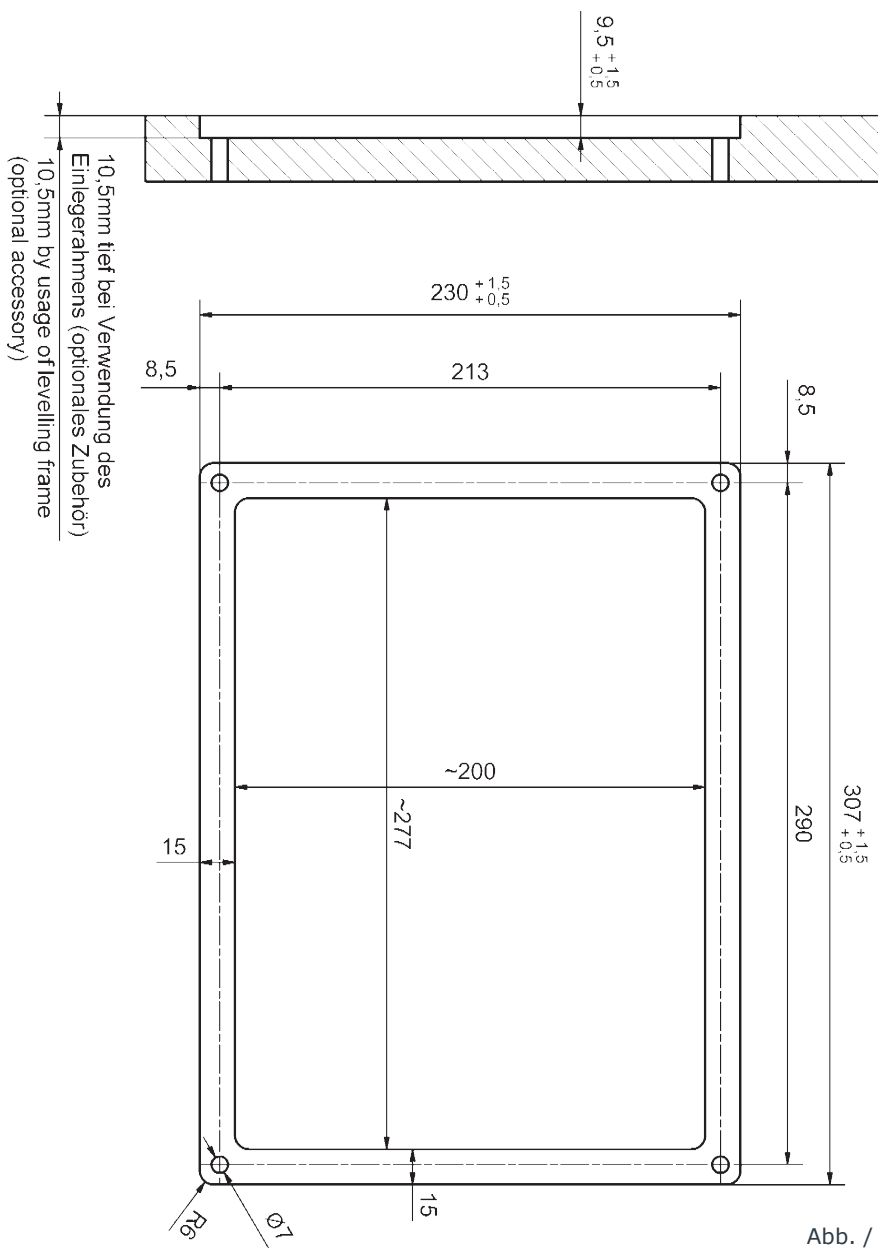


Abb. / Fig. 13
Required installation dimensions on
the router table