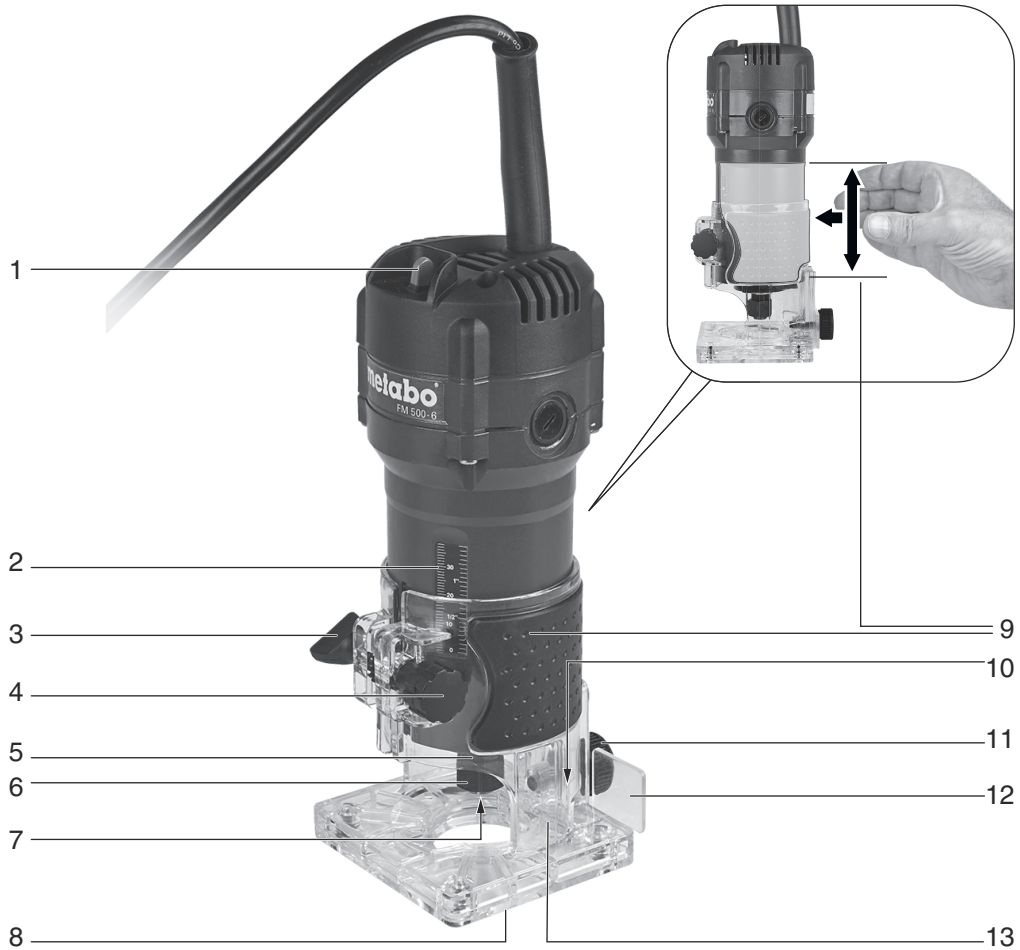
metabo®

PROFESSIONAL POWER TOOL SOLUTIONS

FM 500-6

www.metabo.com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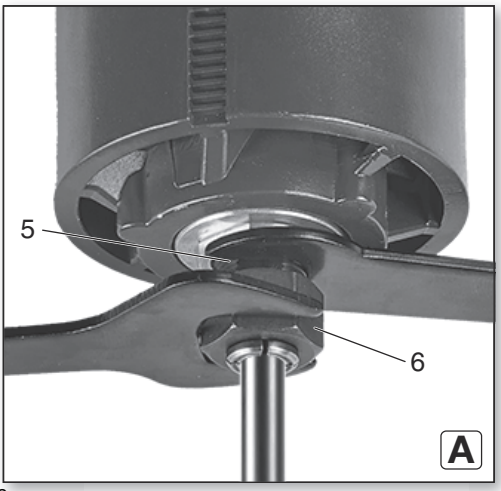
FM 500-6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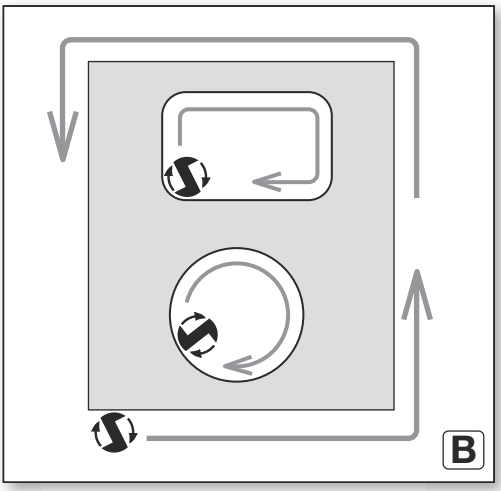
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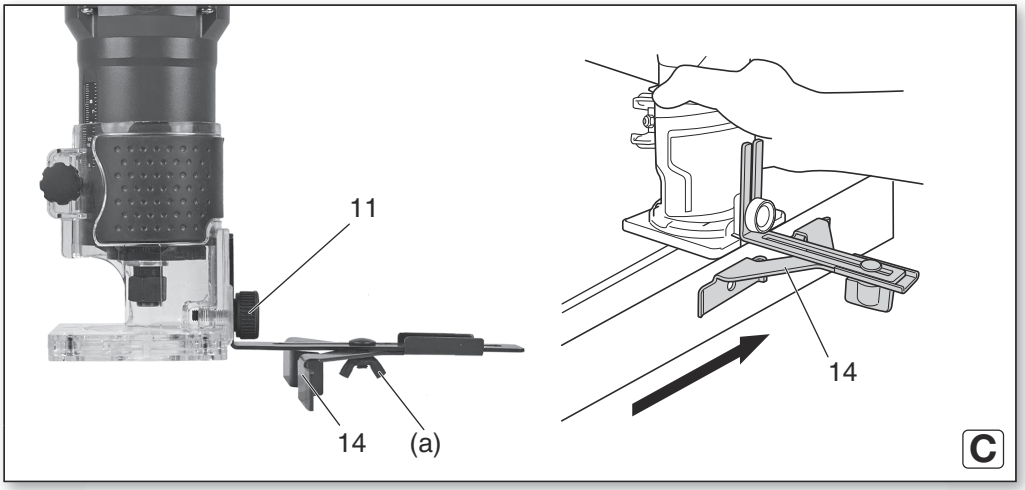
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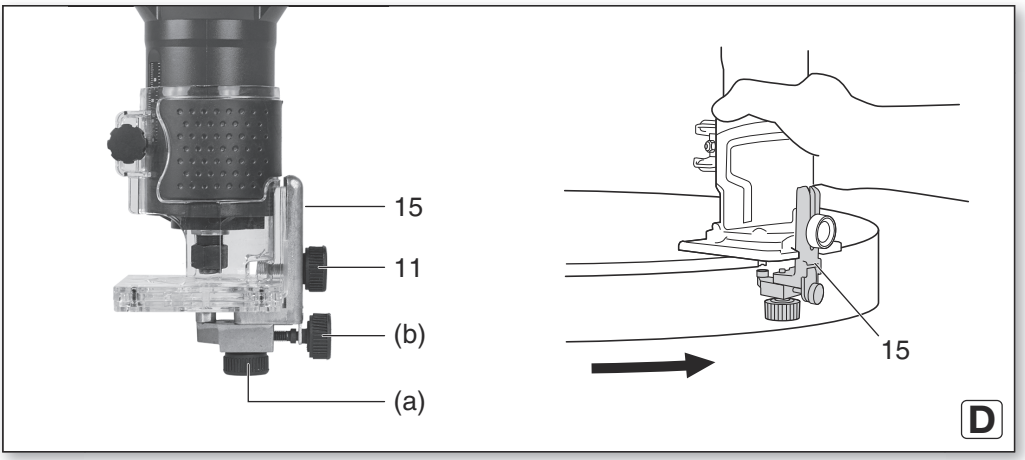
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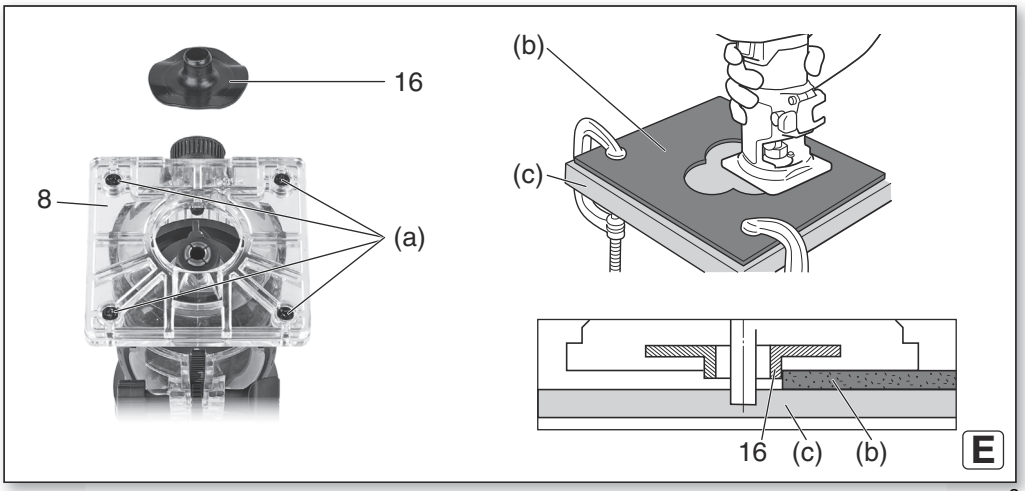
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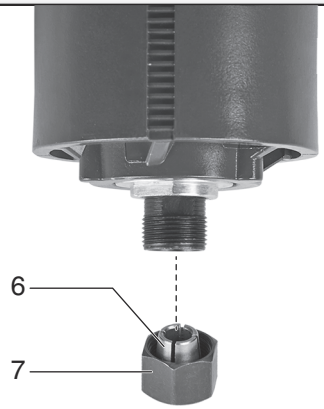

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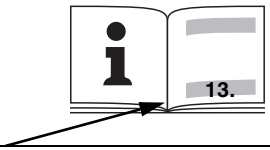		**FM 500-6**
*1) **Serial Number**		01741..
P_1	**W**	500
P_2	**W**	300
n_0	**1/min (rpm)**	32000
n_1	**1/min (rpm)**	19000
H_{max}	**mm (in)**	40 ($1\,^{9}/_{16}$)
m	**kg (lbs)**	1,3 (2.9)
a_h/K_h	**m/s^2**	2,21 / 1,5
L_{pA}/K_{pA}	**dB(A)**	89 / 3
L_{WA}/K_{WA}	**dB(A)**	100 / 3

CE *2) 2014/30/EU, 2006/42/EC, 2011/65/EU
*3) EN 62841:2015, EN 62841-2-17:2017, EN IEC 63000:2018

2022-01-10, Bernd Fleischmann
Direktor Produktentstehung & Qualität (Vice President Product Engineering & Quality)
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Original instructions

1. Declaration of Conformity

We, being solely responsible: Hereby declare that these bevellers, identified by type and serial number *1), meet all relevant requirements of directives *2) and standards *3). Technical documents for *4) - see page 4.

For UK only:

UK CA We as manufacturer and authorized person to compile the technical file, see *4) on page 4, hereby declare under sole responsibility that these bevellers, identified by type and serial number *1) on page 4, fulfill all relevant provisions of following UK Regulations S.I. 2016/1091, S.I. 2008/1597, S.I. 2012/3032 and Designated Standards EN 62841-1:2015, EN 62841-2-17:2017, EN IEC 63000:2018

2. Specified Conditions of Use

The beveller is suited for cutting wood, wood-like materials and plastic.

The user bears sole responsibility for any damage caused by inappropriate use.

Generally accepted accident prevention regulations and the enclosed safety information must be observed.

3. General Safety Information

For your own protection and for the protection of your power tool, pay attention to all parts of the text that are marked with this symbol!

WARNING – Read the operating instructions to reduce the risk of injury.

WARNING – Read all safety warnings, instructions, illustrations and specifications provided with this power tool.
Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.
Always include these documents when passing on your power tool.

4. Special safety instructions

4.1 Beveller safety warnings:

a) **Hold the power tool by insulated gripping surfaces only, because the cutter may contact its own cord.** Cutting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

b) **Use clamps or another practical way to secure and support the workpiece to a stable platform.** Holding the workpiece by hand or against your body leaves it unstable and may lead to loss of control.

4.2 Additional safety instructions

Wear a suitable dust protection mask.

Wear ear protectors.

Wear protective goggles.

Pull the mains plug out of the socket before making any adjustments, changing tools, carrying out maintenance or cleaning.

The tommy nut (3) must always be tightened well when working with the machine.

Do not try to machine extremely small workpieces.

Smaller workpieces must be secured in such a way that they do not get loose when working with the machine (e.g. using screw clamps).

Check the workpiece for foreign bodies. When working, always make sure that no nails or other similar materials are being cut into.

Keep your hands away from the rotating tool! Remove debris and similar material only when the machine is at a standstill.

Do not touch the cutter straight after use. It can be very hot and cause burns to your skin.

Danger of injury from the sharp edges of the cutter. If needed, set the stand all the way down for protection.

Materials that generate dusts or vapours that may be harmful to health (e.g. asbestos) must not be processed.

Do not operate the machine in a holder.

Reducing dust exposure:

WARNING - Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
- Lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

This also applies to dust from other materials, such as some timber types (like oak or beech dust), metals, asbestos. Other known diseases are e.g. allergic reactions, respiratory diseases. Do not let dust enter the body.

Observe the relevant guidelines and national regulations for your material, staff, application and place of application (e.g. occupational health and safety regulations, disposal).

Collect the particles generated at the source, avoid deposits in the surrounding area.

Use suitable accessories for special work. In this way, fewer particles enter the environment in an uncontrolled manner.

Use a suitable extraction unit.

Reduce dust exposure with the following measures:
- do not direct the escaping particles and the exhaust air stream towards yourself or nearby persons or towards dust deposits,
- use an extraction unit and/or an air purifier,
- ensure good ventilation of the workplace and keep it clean using a vacuum cleaner. Sweeping or blowing stirs up dust.
- Vacuum or wash protective clothing. Do not blow, beat or brush protective gear.

5. Overview

See pages 2 and 3.

1 On/off switch
2 Scale (cutting depth)
3 Tommy nut (cutting depth)
4 Setting screw (cutting depth)
5 Spindle
6 Collet chuck nut
7 Collet chuck
8 Footplate
9 Grip surface
10 Base (cutting depth)
11 Screw
12 Eye preservers
13 Arrow (shows the direction of rotation of the cutter)
14 Parallel stop
15 Stop with guide roller
16 Template followers

6. Initial Operation and Setting

Before commissioning, check that the rated mains voltage and mains frequency stated on the type plate match your power supply.

Always install an RCD with a maximum trip current of 30 mA upstream.

Pull the mains plug out of the socket.

6.1 Inserting the cutter

The high speed of the machine requires high-quality cutters (HSS or carbide).

Only use cutters that are suited to the speed of your machine. See chapter “Technical data”.

Only use cutters the shaft diameter of which matches the collet bore of the collet chuck.

The collet chuck nut may only be tightened by hand if no cutters are used.

Do not use blunt or damaged cutters.

1. Unplug power cable.
2. Undo tommy nut (3) and pull stand (10) downwards.

See fig. A:

3. Insert the cutter with the full length of the shank in the collet chuck (7).
4. Bring the spindle (5) to a standstill with the 13-mm open-end wrench provided for this purpose.
5. Firmly tighten the collet chuck nut (6) using the 19 mm open-end wrench provided for this purpose.
6. Replace the stand (10).

6.2 Adjusting the cutting depth

Clean and safe cutting is achieved with a maximum cutting depth of 6 mm. This also protects the motor from overloading. Greater cutting depths can be achieved with several rounds.

1. Pull the mains plug out of the socket.
2. Undo the tommy nut (3).
3. By turning the adjusting screw (4) set the stand (10) in such a way that the cutter touches the workpiece surface very lightly.
4. Watch the scale (2) and adjust the stand (4) by turning the adjusting screw (10) to the desired cutting depth.
5. Firmly tighten the tommy nut (3) to secure the stand (10).

6.3 Replacing the collet chuck

See fig. F.

1. Pull the mains plug out of the socket.
2. Unscrew the collet chuck nut (6)
3. Replace the collet chuck (7) .
4. Screw on the collet chuck (6) only by hand, do not tighten.

6.4 Fit eye preservers

See fig. G.

1. Pull the mains plug out of the socket.
2. Mount eye preservers (12) as shown.

7. Use

7.1 Switching on and off

Activate on/off switch (1) .

I = switch on
0 = switch off

7.2 Working Directions

Machine use

Firmly hold the machine from the grip surface (9).

Place the machine onto the workpiece without the cutter touching the workpiece. Switch on machine and wait until the full speed has been reached. Only then allow the cutter to penetrate the workpiece. The footplate (8) glides onto the workpiece.

Feed direction
Always work in the opposite direction. Always push the machine forwards as shown. See fig. B.

The direction of rotation of the cutter is indicated by an arrow (13) on the machine.

Guide the machine evenly at a speed suitable for the material being processed.

7.3 Putting down after use

After ending the cutting process, switch off the machine and only set it down when the motor has come to a standstill.

7.4 Special working methods:

Cutting with parallel guide (fig. C)
1. Attach the parallel guide (14) with screws (11) on the machine.
2. Undo the wing screw (a) and adjust the distance to the cutter. Tighten the wing screw (a).

Stop with guide bearings (see fig. D)
The stop with guide bearings (15) is used for cutting along a curved edge
1. Attach the stop (15) with the screw (11) to the machine.
2. Undo the clamping screw (a).
3. Using the adjusting screw (b), set the desired distance to the cutter.
4. Tighten the clamping screw (a).

Template follower (see fig. E)
For cutting according to a template fixed on the workpiece.
1. Undo the screws (a) to remove the footplate (8). Insert the template follower (16) and then screw the footplate (8) back on.
2. Attach a template (b) on the workpiece (c). Place the machine on the template and guide it so that the template follower (16) glides along the edge of the template (b).

Milling along a strip attached to the workpiece / milling along a straight marking
1. Attach a strip on the workpiece and guide the machine with a straight edge of the foot plate along the strip. (Always use the same edge.)

Profile milling
1. When working with profile cutters, first remove a larger chip and then a smaller chip.
2. The feed rate must not be too low, otherwise the wood will scorch and the cutter will become prematurely blunt.

8. Cleaning, Maintenance

Unplug power cable.

Dust deposits must be regularly removed from the machine. This includes vacuum cleaning the ventilation louvres on the motor.

9. Troubleshooting

Restart protection:
The machine does not start. Restart protection is active. If the mains plug is inserted with the machine switched on or if the power supply is restored following an interruption, the machine does not start up. Switch the machine off and back on again.

10. Accessories

Use only genuine Metabo accessories.

Use only accessories that fulfil the requirements and specifications listed in these operating instructions.

For the complete range of accessories, see www.metabo.com or the main catalogue.

11. Repairs

Repairs to electrical tools must ONLY be carried out by qualified electricians!

A defective mains cable must be replaced only with a special, original mains cable from Metabo available from the Metabo service.

Contact your local Metabo representative if you have Metabo power tools requiring repairs. For addresses see www.metabo.com.

You can download a list of spare parts from www.metabo.com.

12. Environmental Protection

Observe national regulations on environmentally compatible disposal and on the recycling of disused machines, packaging and accessories.

Packaging materials must be disposed of according to their labelling in accordance with municipal guidelines. Further information can be found at www.metabo.com in the “Service” section.

Only for EU countries: never dispose of power tools in your household waste! According to European Directive 2012/19/EU on Waste from Electric and Electronic Equipment and implementation in national law, used power tools must be collected separately and recycled in an environmentally-friendly manner.

13. Technical specifications

Explanatory notes on the specifications on page 3.
Changes due to technological progress reserved.

P_1 = Rated input
P_2 = Power output
n_0 = Idle speed
n_1 = Speed at rated load
H_{max} = max. stroke height
D_{max} = max. permissible diameter of the cutter
m = Weight without mains cable

Note: The diameter of the collet bore of the collet chuck can be found on the nameplate of the machine.

Measured values determined in conformity with EN 62841.

Machine in protection class II

~ AC Power

The technical specifications quoted are subject to tolerances (in compliance with relevant valid standards).

Emission values
These values make it possible to assess the emissions from the power tool and to compare different power tools. The actual load may be higher or lower depending on operating conditions, the condition of the power tool or the accessories used. Please allow for breaks and periods when the load is lower for assessment purposes. Arrange protective measures for the user, such as organisational measures based on the adjusted estimates.

Vibration total value (vector sum of three directions) determined in accordance with EN 62841:
a_h = vibration emission value (Slot milling in MDF)
K_h = uncertainty (vibration)

Typical A-effective perceived sound levels:
L_{pA} = sound pressure level
L_{WA} = acoustic power level
K_{pA}, K_{WA} = Uncertainty
The noise level can exceed 80 dB(A) during operation.

Wear ear protectors!