SPECIFICATIONS

Model	M 2001 MB 2001V MB 2001PV	MA 2001 MBA 2001V MBA 2001PV	M 2300 MB 2300PV	MA 2300 MBA 2300PV	MB 2500PV	MBA 2500PV
Power input	2100 W	2100 W	2300 W	2300 W	2500 W	2500 W
No load speed	8500 min^{-1}	6600 min^{-1}	8500 min^{-1}	6500 min^{-1}	8500 min^{-1}	6500 min^{-1}
Spindle thread	M14	M14	M14	M14	M14	M14
Spindle thread length	20 mm	20 mm	20 mm	20 mm	20 mm	20 mm
Wheel arbor	22,23 mm	22,23 mm	22,23 mm	22,23 mm	22,23 mm	22,23 mm
Wheel diameter, max	180 mm	230 mm	180 mm	230 mm	180 mm	230 mm
Wheel thickness, max.	10 mm	10 mm	10 mm	10 mm	10 mm	10 mm
Weight	4,5	4,5	5,1	5,1	5,1	5,1
Safety class (EN 50144) ⧈	II	II	II	II	II	II

This SPARKY power tool is supplied from single-phase alternating current mains. It is double insulated according to EN 50144 and IEC 60745 and can be connected to grounded or not grounded sockets. This power tool is radio suppressed in compliance with EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3 for radio interference.

All models with index A in the abbreviation are equipped with Ø230 wheel. The lack of index A indicates that the model is equipped with Ø180 wheel.

All models with Index B are equipped with electronic device for soft start and restriction of starting current to 16 A.

Models with index P feature safety upon mains drop-out - in case of mains drop-out or unplugging for more than 0,5 s the power tool remains switched off and can be started only after switching off and on the ON/OFF switch. (This feature is described in part "Operating Directions".)

DESIGNATION

This power tool is designed for cutting, grinding and brushing mainly metals without using water.

MAIN COMPONENTS

1. Spindle
2. Wheel
3. Wheel guard
4. Base support washer
5. Lock nut
6. Auxiliary handle
7. ON/OFF switch
8. ON/OFF switch locking button
9. Spindle lock button
10. Button for mutual interlocking the rotating handle and the switch

ACCESSORIES TO BE USED WITH THIS POWER TOOL

11. Wire cup brush
12. Plastic (rubber) backing pad
13. Sandpaper or polishing bonnet
14. Lock nut

FOR YOUR SAFETY READ BEFORE USE!

Attention, dangeros operation!

The small particles separated from the abrasive wheel and from the machined piece, as well as touching rotating parts of the power tool could cause severe physical injuries, and noise loading from continuous operation could damage the operator's hearing if the below-mentioned requirements and those in the enclosed Safety Instructions are not observed.

Safety operation instructions and precautions

Before starting to operate the grinder, always check the following:

- Make sure power supply voltage corresponds to the value indicated on the name plate with technical data of the tool.;
- Always check the position of ON/OFF switch. The angle grinder must be connected to the power supply socket only when this switch is in OFF position;
- Make sure the cord and the plug are in order. In case the supply cord is damaged, it must be replaced with a special cord or assembly, available from the manufacturer or its service agent, in order to avoid hazard due to the replacement.

● Make sure the grinding wheel diameter and thickness do not exceed the values specified on the name plate. The peripheral speed indicated on the wheel must not be less than 80 m/s. The wheels must be stored according the recommendations of the manufacturer.

DURING CARRYING OUT ANY WORK, PLEASE DO OBSERVE THE FOLLOWING SAFETY REQUIREMENTS:

● Always use the auxiliary handle and hold the grinder with both hands.


Never operate the machine without goggles!


Wear ear protectors!

● Never switch on the grinder under load, and leave it down only after final rotation stop.
● Always keep the cord away from the working area of the wheel.
● Wear protective gloves, stable footwear and apron if necessary.
● Fasten the wheel only by a special wrench, using the original base support washer and lock nut.
● Observe the direction of rotation. Always guide the machine in such a way that sparkles and dust can scatter away from your body.
● Strictly observe the manufacturer's instructions for mounting and utilization of cutting and grinding tools.
● The grinding tool should be properly mounted and should rotate freely. Perform a trial test for at least 30 sec at no load. Do not use damaged, non-circular or vibrating grinding tools.
● Do not use damaged or worn out cutting or grinding wheels.
● Do not use other tools except fibre-glass reinforced cutting and grinding wheels.
● Use only the recommended cutting and grinding wheels.
● Fix the machined piece in vice or in another appropriate way.

The grinding accessory continues rotation even after the machine is switched off.
● Never mount blades for circular saws.
● Never apply side pressure to stop the wheel rotation after switching off the grinder.
● Use only accessories corresponding entirely to the processed material.
● Do not grind or cut non-ferrous metals containing more than 80% magnesium, as they are flammable.
● Do not cut parts thicker than the maximum wheel cutting depth.
● Unplug the machine prior to any adjustment, repair or maintenance or in case of mains drop out.
● When operating in dusty environment, the ventilation slots must be kept clean. If it should become necessary to clear dust, first disconnect the tool from the mains supply (use non metallic objects) and avoid damaging internal parts.
● Utilization of reduction bushes or extensions to adapt wheels with arbour exceeding the recommended is forbidden.
● Ensure that the sparks, separated during operation, are not a threat for people or that they do not fall on inflammable substances
● SPARKY power tools must not be used outdoors in rainy weather, or in moist environment (after rain) or in close vicinity with easily flammable liquids and gases. The working place should be well lit.
● Noise and vibration values
The values typical for the device measured according to EN 50144 are:

Sound pressure level	- 96 dB(A)
Sound power level	- 109 dB(A)
Weighted acceleration	- 8,8 m/s^2

OPERATING DIRECTIONS

Switching on - switching off
The grinding machine is secured against unintentional switching on.
Switching on: first press the auxiliary button 8 positioned at the front of ON/OFF switch, then press ON/OFF switch 7. For continuous operation switch 7 can be locked. In this case while holding switch 7, press button 8 and the release switch 7.
Switching off: release switch 7; in case the switch is locked, first press and then release that switch.
In case of mains drop-out (or temporary drop-out for time $t > 0,5$ s), when the ON/OFF switch is in ON position, the machine should not operate after supply recovering. To start operating the machine, first switch off and then switch on the lever of ON/OFF switch 7.

Grinding wheel replacement
Secure spindle 1 by pressing the spindle lock button 9 on the gear case.

Never press button 9 while the spindle is still rotating!
Unscrew lock nut 5 by a lock nut wrench. Place the new wheel on the base support washer 4 with the inscriptions facing up, and screw down nut 5 using the lock nut wrench. If the wheel thickness is less then 6 mm, place the lock nut with its flat side towards the wheel, if the wheel is thicker than 6 mm, place the lock nut 5 to the spindle so that the nut step enters the wheel opening. Use blotters if the wheel has been delivered with them. After replacing the wheel, operate the machine with the new wheel in no load mode for one minute. Vibrating or otherwise improperly rotating wheels must be replaced immediately and discarded.
The cup brush 11 is screwed directly on spindle 1 by means of an open-end wrench. (Check if the brush thread length is sufficient to accept the spindle thread.) Grinding with sandpaper and polishing is performed with plastic (rubber) backing pad 12, under which sandpaper or lamb-wool polishing bonnet 13 are fastened.
Place the flexible backing pad 12 onto the support washer 4 and fasten it with the lock nut 14, delivered with the tool. In case the flexible backing pad is equipped with a flange nut, the pad is screwed directly onto the spindle by a wrench without using lock nut 5. The pad with flange may be a resin filled sponge, foam polyurethane sponge with plastic insert for the nut with hook-and-loop fastening to the sandpaper or the bonnet.

Wheel guard
Wheel guard 3 must always be mounted on the machine!

Mounting the quick-grip wheel guard
Before performing the following operations, switch the machine off and withdraw the plug from the socket.
1. Mounting the quick-grip guard
- Open fastening lever 4 (A) and loosen screw 3 if necessary.
- Place wheel guard 2, so that fixing tooth 5 can enter into the groove of the bearing seat 1.
- Rotate the wheel guard into position, enabling the fastening of screw 3.
- By tightening screw 3 eliminate the clearance between the guard bracket and the bearing seat 1, in a way ensuring slight relative rotation between them.
- Rotate the wheel guard in the necessary operating position.
- Close fastening lever 4 (B).
- If necessary, repeat the operation for eliminating the clearance between the guard bracket and the bearing seat.
2. Rotating the wheel guard in a different operating position
- Open fastening lever 4 (A).
- Rotate wheel guard 2 in its new position.
- Close fastening lever 4 (B).

Auxiliary handle
Normally auxiliary handle 4 is screwed on the machine left side. It can be screwed also on the machine right side or top if this is more convenient for the operator.

Rotating the handle in relation to the machine body
(models with Index V)
The handle can be rotated at -90° and +90° towards it basic position. This is applied when the machine is used mainly for cutting. Rotation must be performed only when the machine is switched off. To prevent handle rotation with switched-on machine, button 10 and switch lever 7 are mutually interlocked. In order to rotate the handle -90° or +90° towards its basic position, switch off the ON/OFF switch and with button 10 depressed; rotate the handle until stop and the release button 10.

Rotating the rear handle during operation is a basis for accidents.
Rotating the rear handle during operation is not allowed!
Rotating the rear handle of the machine should be performed only if the ON/OFF switch is switched off and the spindle is not rotating!

Operate the machine only with firmly fixed rear handle!
After the rotation of the rear handle, the fixing button should have fixed the rear handle firmly.

Recommendations

When grinding do not apply pressure to the processed surface by rearing down on the machine but move the wheel regularly backwards and forwards. Special wheels are to be used for work on non-ferrous metals. Best results when roughing can be achieved with the wheel inclined at 30° to 40° to the processed surface. Never use cutting wheels for roughing operations. Usage of wheels thicker than 10 mm is not recommended. When cutting, do not apply pressure, do not oscillate the wheel. Work with moderate feed rate, suited to the material to be machined. The direction of cutting is very significant. The machine must always be fed against the direction of wheel rotation. Otherwise, danger exists for the wheel to be forced uncontrolled out of the cut.When cutting profiles or rectangular pipes, it is best to start with the smallest cross section.

Maintenance and repair

Cleaning the motor body should be performed with compressed air through the ventilation slots to ensure effective motor cooling and faultless operation.

These power tools do not require any special maintenance. Any work on the machine, save wheel replacement and guard turning to the fixed angle, must be accomplished by authorised persons in authorised service centres for warranty and post-warranty servicing of SPARKY power tools.

Warranty

The guarantee period for SPARKY power tools is determined in the guarantee card.

Faults due to normal wear; overloading or improper handling will be excluded from the guarantee.

Faults due to defective materials implemented as well as defects in workmanship are to be corrected free of charge through replacement or repair.

The complaints for defective SPARKY power tools will be recognised if the machine is sent back to the dealer or is presented to the authorized warranty service centre undismantled, in its initial condition.

Environmental Protection

The machine, accessories and packaging should be sorted for environmental-friendly recycling.

These instructions are printed on recycled paper manufactured without chlorine.

The plastic components are labelled for categorised recycling.