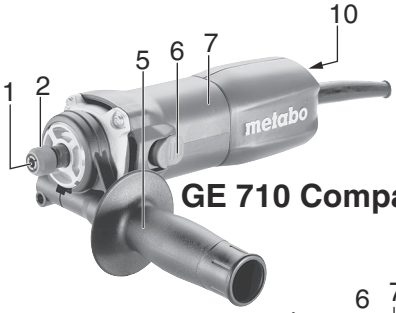
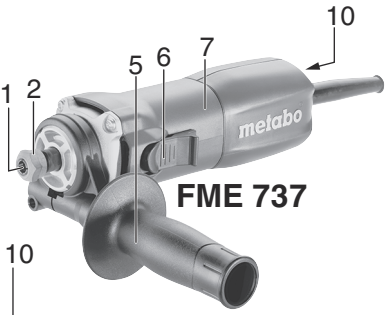
metabo®

PROFESSIONAL POWER TOOL SOLUTIONS

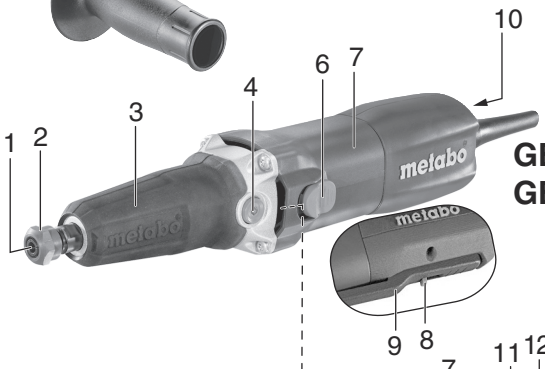
GA 18 LTX
GA 18 LTX G
GPA 18 LTX
GE 710 Compact
GE 710 Plus
GE 950 G Plus
GEP 710 Plus
GEP 950 G Plus
FME 737



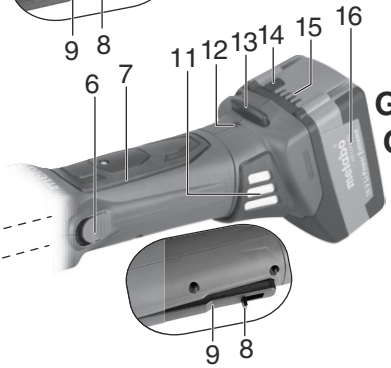
GE 710 Compact



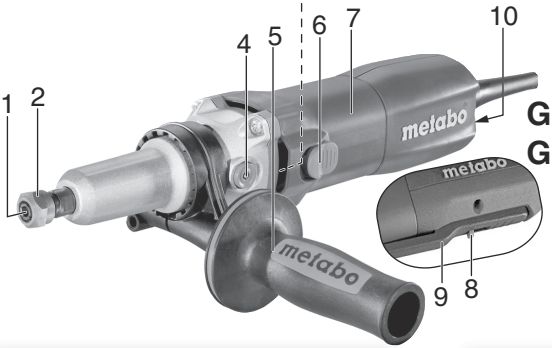
FME 737



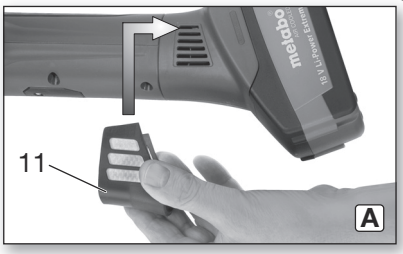
GE 710 Plus
GEP 710 Plus



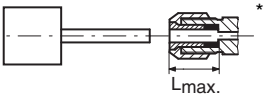
GA 18 LTX
GPA 18 LTX
GA 18 LTX G



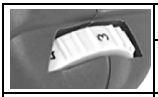
GE 950 G Plus
GEP 950 G Plus



13.			GA 18 LTX *1) Serial Number 00638... GPA 18 LTX *1) Serial Number 00621...	GA 18 LTX G *1) Serial Number 00639...	GE 710 Compact *1) Serial Number 00615...	GE 710 Plus *1) Serial Number 00616... GEP 710 Plus *1) Serial Number 00617..	GE 950 G Plus *1) Serial Number 00618... GEP 950 G Plus *1) Serial Number 00627...	FME 737 *1) Serial Number 00737...
S	-		✓	✓	-	✓	✓	-
U	V		18	18	-	-	-	-
n	/min		25700	6000	34000	30500	8700	34000
n_V	/min		-	-	13000 - 34000	10000 - 30500	2500 - 8700	13000 - 34000
n_1	/min		-	-	24000	24000	7200	24000
P_1	W		-	-	710	710	950	710
P_2	W		-	-	430	430	510	430
D_{max} grinding	mm (in)		50 (2)	55 ($2\,^5/_{32}$)	43 ($1\,^{11}/_{16}$)	50 (2)	55 ($2\,^5/_{32}$)	25 (1)
D_{max} polishing	mm (in)		-	80 ($3\,^5/_{32}$)	-	-	80 ($3\,^5/_{32}$)	-
T_{max}	mm (in)		6 ($^1/_4$)	6 ($^1/_4$)	6 ($^1/_4$)	6 ($^1/_4$)	6 ($^1/_4$)	6 ($^1/_4$)
d	mm (in)		6 ($^1/_4$)	6 ($^1/_4$)	6 ($^1/_4$)	6 ($^1/_4$)	6 ($^1/_4$)	8 ($^5/_{16}$)
m	kg (lbs)		2,1 (4.6)	2,2 (4.9)	1,4 (3.1)	1,6 (3.6)	1,7 (3.8)	1,4 (3.1)
L_{max}	mm (in)		25 (1)	25 (1)	25 (1)	25 (1)	25 (1)	25 (1)
$a_{h,SG}$/ $K_{h,SG}$	Ø 25 mm; U_M=3,6 gmm;*	m/s^2	5,3 / 1,5	< 2,5 / 1,5	6,8 / 1,5	5,6 / 1,5	< 2,5 / 1,5	6,8 / 1,5
$a_{h,SG}$/ $K_{h,SG}$	Ø 50 mm; U_M=14,4 gmm;*	m/s^2	13,9 / 1,5	< 2,5 / 1,5	-	16,9 / 1,5	< 2,5 / 1,5	-
L_{pA}/K_{pA}	dB (A)		83 / 3	83 / 3	82 / 3	80 / 3	87 / 3	82 / 3
L_{WA}/K_{WA}	dB (A)		94 / 3	94 / 3	93 / 3	91 / 3	98 / 3	93 / 3



* EN 60745



	n_V (/min)			
	GE 710 Compact	**GE 710 Plus GEP 710 Plus**	**GE 950 G Plus GEP 950 G Plus**	**FME 737**
1	13000	10000	2500	13000
2	18000	14000	4000	18000
3	23000	18500	5500	23000
4	27000	22000	7000	27000
5	30500	26000	8000	30500
6	34000	30500	8700	34000

CE *2) 2014/30/EU, 2006/42/EC, 2011/65/EU
*3) EN 60745-1:2009+A11:2010, EN 60745-2-23:2013, EN IEC 63000:2018
2021-06-08, Bernd Fleischmann ppa. B. Fl

Direktor Produktentstehung & Qualität (Vice President Product Engineering & Quality)
*4) Metabowerke GmbH - Metabo-Allee 1 - 72622 Nuertingen, Germany

Original instructions

1. Declaration of Conformity

Under our sole responsibility, we hereby declare that these straight grinders, identified by type and serial number *1), comply with all relevant requirements of the directives *2) and standards *3). technical documents for *4) - see Page 3.

For UK only:

UK CA We as manufacturer and authorized person to compile the technical file, see *4) on page 3, hereby declare under sole responsibility that these straight grinders, identified by type and serial number *1) on page 3, fulfill all relevant provisions of following UK Regulations S.I. 2016/1091, S.I. 2008/1597, S.I. 2012/3032 and Designated Standards EN 60745-1:2009+A11:2010, EN 60745-2-23:2013, EN IEC 63000:2018.

2. Specified Use

Machines with the designation G... are designed:
- ... for fine grinding work with abrasive points on metal.
- ... for fine cutting work with small cutting discs on metal.
- ... for routing with end mill cutters on non-ferrous metals, plastics, hardwood, etc.
- ...for working with paint and round wire brushes
- ...for working with polishing bobs
- ...for working with felt polishing tools
- ...for working with lamellar grinding wheels

The machine is not suitable for working with polishing bells.

The FME 737 is designed...
- ... for fine grinding work with abrasive points on metal.
- ... for routing with end mill cutters on non-ferrous metals, plastics, hardwood, etc.

Suitable for driving an appropriate Metabo flexible shaft.

Can be expanded with the appropriate original Metabo accessories for the router.

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 Instructions

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 – Reading the operating instructions will reduce the risk of injury.

WARNING Read all safety warnings and instructions. *Failure to follow all safety warnings and instructions may result in electric shock, fire and/or serious injury.*

Keep all safety instructions and information for future reference.
Pass on your power tool only together with these documents.

4. Special Safety Instructions

4.1 Safety warnings common for grinding, sanding, wire brushing, polishing, carving or abrasive cutting-off operations:

a) **This power tool is intended to function as a grinder and sander. Tools with the designation G... may also be used as wire brushes, polishers, carving and as a cut-off tool. 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.

b) **The FME 737 is not suitable for wire brushing, polishing or cutting-off.** Operations for which the power tool was not designed may create a hazard and cause personal injury.

c) **Do not use accessories which are not specifically designed and recommended by the tool manufacturer.** Just because the accessory can be attached to your power tool, it does not assure safe operation.

d) **The rated speed of the grinding accessories must be at least equal to the maximum speed marked on the power tool.** Grinding accessories running faster than their rated speed can break and fly apart.

e) **The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** Incorrectly sized accessories cannot be adequately controlled.

f) **The arbour size of wheels, sanding drums or any other accessory must properly fit the spindle or collet of the power tool.** Accessories that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.

g) **Mandrel Mounted Wheels, sanding drums, cutters or other accessories must be fully inserted into the collet or chuck.** If the mandrel is insufficiently held and/or the overhang of the wheel is too long, the Mounted Wheel may become loose and be ejected at high velocity.

h) **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, sanding drum for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the**

power tool at maximum no-load speed for one minute. Damaged accessories will normally break apart during this test time.

i) **Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments.** The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtrating particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.

j) **Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.** Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.

k) **Hold power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring or its own cord.** Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

l) **Always hold the tool firmly in your hands during the start-up.** The reaction torque of the motor, as it accelerates to full speed, can cause the tool to twist.

m) **Use clamps to support workpiece whenever practical. Never hold a small workpiece in one hand and the tool in the other hand while in use.** Clamping a small workpiece allows you to use your hands to control the tool. Round material such as dowel rods, pipes or tubing have a tendency to roll while being cut, and may cause the bit to bind or jump toward you.

n) **Position the cord clear of the spinning accessory.** If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.

o) **Never lay the power tool down until the accessory has come to a complete stop.** The spinning accessory may grab the surface and pull the power tool out of your control.

p) **After changing the bits or making any adjustments, make sure the collet nut, chuck or any other adjusting devices are securely tightened**. Loose adjustment devices can unexpectedly shift, causing loss of control, loose rotating components will be violently thrown.

q) **Do not run the power tool while carrying it at your side.** Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.

r) **Regularly clean the power tool's air vents.** The motor's fan will draw dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.

s) **Do not operate the power tool near flammable materials.** Sparks could ignite these materials.

t) **Do not use accessories that require liquid coolants.** Using water or other liquid coolants may result in electrocution or shock.

4.2 Kickback and Related Warnings

Kickback is a sudden reaction to a pinched or snagged rotating wheel, sanding band, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

a) **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces.** The operator can control kickback forces, if proper precautions are taken.

b) **Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.** Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.

c) **Do not attach a toothed saw blade.** Such blades create frequent kickback and loss of control.

d) **Always feed the bit into the material in the same direction as the cutting edge is exiting from the material (which is the same direction as the chips are thrown).** Feeding the tool in the wrong direction causes the cutting edge of the bit to climb out of the work and pull the tool in the direction of this feed.

e) **When using rotary files, cut-off wheels, high-speed cutters or tungsten carbide cutters, always have the work securely clamped.** These wheels will grab if they become slightly canted in the groove, and can kickback. When a cut-off wheel grabs, the wheel itself usually breaks. When a rotary file, high-speed cutter or tungsten carbide cutter grabs, it may jump from the groove and you could lose control of the tool.

4.3 Safety warnings specific for grinding and abrasive cutting-off operations:

a) **Use only wheel types that are recommended for your power tool and only for recommended applications. For example: do not grind with the side of a cut-off wheel.** Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.

b) **For threaded abrasive cones and plugs use only undamaged wheel mandrels with an unrelieved shoulder flange that are of correct size and length.** Proper mandrels will reduce the possibility of breakage.

c) **Do not "jam" a cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut.** Overstressing the wheel increases the loading and susceptibility to twisting or snagging of the wheel in the cut and the possibility of kickback or wheel breakage.

d) **Do not position your hand in line with and behind the rotating wheel.** When the wheel, at the point of operation, is moving away from your hand, the possible kickback may propel the spinning wheel and the power tool directly at you.

e) **When wheel is pinched, snagged or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur.** Investigate and take corrective action to eliminate the cause of wheel pinching or snagging.

f) **Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully re-enter the cut.** The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.

g) **Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback.** Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.

h) **Use extra caution when making a "pocket cut" into existing walls or other blind areas.** The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.

4.4 Safety warnings specific for wire brushing operations:

a) **Be aware that wire bristles are thrown by the brush even during ordinary operation. Do not overstress the wires by applying excessive load to the brush.** The wire bristles can easily penetrate light clothing and/or skin.

b) **Allow brushes to run at operating speed for at least one minute before using them. During this time no one is to stand in front or in line with the brush.** Loose bristles or wires will be discharged during the run-in time.

c) **Direct the discharge of the spinning wire brush away from you.** Small particles and tiny wire fragments may be discharged at high velocity during the use of these brushes and may become imbedded in your skin.

4.5 Additional Safety Instructions:

WARNING – Always wear protective goggles.

Use elastic cushioning layers if they have been supplied with the grinding media and if required.

Observe the specifications of the tool or accessory manufacturer! Protect the discs from grease or impacts!

Abrasives must be stored and handled with care in accordance with the manufacturer's instructions.

Never use cutting discs for roughing work! Do not apply pressure to the side of the cutting discs.

The workpiece must lay flat and be secured against slipping, e.g. using clamps. Large workpieces must be sufficiently supported.

Engage the spindle lock button (4) only when the motor is at a standstill. (GA 18 LTX, GPA 18 LTX, GA 18 LTX G, GE 710 Plus, GEP 710 Plus, GE 950 G Plus, GEP 950 G Plus)

Keep hands away from the rotating tool! Remove chips and similar material only with the machine at a standstill.

Prior to use, ensure that the abrasive media is properly fitted and secured. Run the tool in idle for 60 seconds in a safe position and stop it immediately in the event of significant vibrations or other faults are discovered. If such a situation occurs, check the machine to determine the cause.

Ensure that sparks produced during work do not constitute a risk to the user or others and are not able to ignite flammable substances. Areas at risk must be protected with flame-resistant covers. Always keep a fire extinguisher on hand when working in areas prone to fire risk.

Damaged, eccentric or vibrating tools must not be used.

In the interests of safety, ensure that the rubber sleeve (3) or additional handle is fitted while working (5).

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 at yourself or nearby persons or on dust deposits,
- use an extraction unit and/or air purifiers,
- ensure good ventilation of the workplace and keep clean using a vacuum cleaner. Sweeping or blowing stirs up dust.
- Vacuum or wash the protective clothing. Do not blow, beat or brush.

4.6 Special safety instructions for mains powered machines:

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

Use of a fixed extractor system is recommended. Always install an RCD with a max. trip current of 30 mA upstream. When the machine is shut down by the RCD, it must be checked and cleaned. See Section 8. Cleaning.

4.7 Special safety instructions for cordless machines:

Remove the battery pack from the machine before making any adjustments, changing tools, maintaining or cleaning.


Protect battery packs from water and moisture!


Do not expose battery packs to fire!

Do not use faulty or deformed battery packs!
Do not open battery packs!
Do not touch contacts or short-circuit battery packs!


A slightly acidic, flammable fluid may leak from defective Li-ion battery packs!


If battery fluid leaks out and comes into contact with your skin, rinse immediately with plenty of water. If battery fluid leaks out and comes into contact with your eyes, wash them with clean water and seek medical attention immediately!

If the machine is defective, remove the battery pack from the machine.

Transport of li-ion battery packs:

The shipping of li-ion battery pack is subject to laws related to the carriage of hazardous goods (UN 3480 and UN 3481). Inform yourself of the currently valid specifications when shipping li-ion battery packs. If necessary, consult your freight forwarder. Certified packaging is available from Metabo.

Only send the battery pack if the housing is intact and no fluid is leaking. Remove the battery pack from the machine for sending. Prevent the contacts from short-circuiting (e.g. by protecting them with adhesive tape).

5. Overview

See page 2.

1 Collet chuck
2 Collet chuck nut
3 Rubber sleeve *
4 Spindle locking button*
5 Additional handle *
6 Slide switch *
7 Main handle
8 Switch-on lock*
9 Trigger*
10 Setting wheel for speed adjustment *
11 Dust filter *
12 Electronic signal indicator *
13 Battery pack release button *
14 Capacity indicator button *
15 Capacity and signal indicator *
16 Battery pack*

*equipment-specific

6. Commissioning

6.1 For mains powered machines only

Before plugging in, check that the rated mains voltage and mains frequency, as stated on the rating label, match with your power supply.

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

6.2 For cordless machines only

Dust filter

Always fit the dust filter if the surroundings are heavily polluted (11).

The machine heats up faster when the dust filter is fitted (11). It is protected by the electronics system from overheating (see Section 9.).

To attach: see Page 2, Figure A.
Fit the dust filter (11) as shown.
To remove: Hold the dust filter (11) by the upper edges, raise it slightly and then pull it downwards and remove.

Rotating battery pack

See illustration B on page 2.

The rear section of the machine can be rotated 270° in three stages, thus allowing the machine's shape to be adapted to the working conditions. Only operate the machine when it is in an engaged position.

Battery pack

Charge the battery pack before use (16).

If performance diminishes, recharge the battery pack.

The ideal storage temperature is between 10°C and 30°C.

"Li-Power" lithium-ion battery packs have a capacity and signal indicator (15):
- Press the (14) button, the LEDs indicate the charge level.
- If one LED is flashing, the battery pack is almost flat and must be recharged.

Removing and inserting the battery pack

To remove: Press the battery pack release button (13) and pull the battery pack (16) downwards and out.

To insert: Slide the battery pack in (16) until it engages.

7. Use

7.1 Collet chucks

The tool's shank diameter must correspond exactly to the collet bore of the collet chuck (1)!

Various collet chucks are available for different shank diameters. See the Accessories Section.

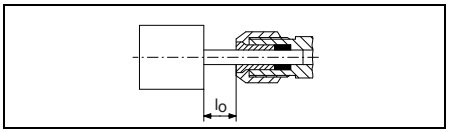
7.2 Fitting the tools

Before carrying out any modifications, remove the battery pack from the machine and pull the mains plug from the socket. The machine must be switched off and the spindle at a standstill.

Only use tools that are suited to the no-load speed of your machine. See the Technical Specifications.

The tool's shank diameter must correspond exactly to the collet bore of the collet chuck (1)!

For abrasive points, you may never exceed the maximum open shank length specified by the manufacturer l_0.



The maximum permitted shaft length is the sum of l_0 and the maximum insertion depth L_{max} (see chapter13.)

Insert the tool (with the full length of the shank) in the collet chuck (1).

Bring the spindle to a standstill. For the GE 710 Compact, FME 737, use the 13-mm spanner provided for this purpose. For the GA 18 LTX, GPA 18 LTX, GA 18 LTX G, GE 710 Plus, GEP 710 Plus, GE 950 G Plus, GEP 950 G Plus, do this using the spindle lock button (4).

Using the 17/19-mm spanner, tighten the collet chuck nut (2).

If there is no tool inserted in the collet chuck, you can tighten the collet chuck manually rather than with the spanner.

7.3 Switching On and Off

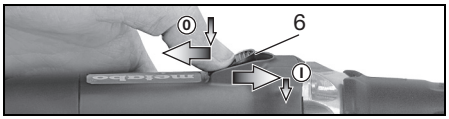
Switch on first, then guide the accessory towards the workpiece.

Avoid inadvertent starts: always switch the tool off when the plug is removed from the mains socket or if there has been a power cut.

In continuous operation, the machine continues running if it is forced out of your hands. You must therefore always hold the machine with both hands using the handles provided (3), (5), (7), assume a safe stance and concentrate while working.

Avoid the machine swirling up or taking in dust and chips. After switching off the machine, only place it down when the motor has come to a standstill.

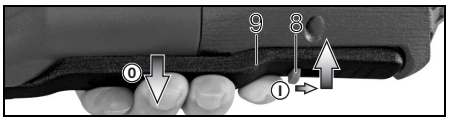
Machines with slide switch:



Switching on: Push the slide switch (6) forward. For continuous activation, now tilt downwards until it engages.

Switching off: Press the rear end of the slide switch (6) and release it.

Machines with slide switch (with dead man function):
(Machines with the designation GEP..., GPA...)



Switching on: Slide the switch-on lock (8) in the direction of the arrow and press the trigger (9).
Switching off: Release the trigger switch. (9)

7.4 Adjusting speed (mains powered machines only)

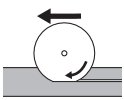
The speed can be preset using the setting wheel (10) and is infinitely variable. For a list of speeds, see the table on page 3.

7.5 Working Directions

Grinding, sanding, polishing or using wire brushes: Press gently and evenly on the machine and move it from side to side over the surface.

Routing: Press gently and evenly on the machine.

Cutting-off operations:



Always work against the run of the disc (see illustration). Otherwise there is the danger of the machine kicking back from the cut out of control. Guide the machine evenly at a speed

suitable for the material being processed. Do not tilt, apply excessive force or sway from side to side.

8. Cleaning

It is possible that particles deposit inside the power tool during operation. This impairs the cooling of the power tool. Conductive build-up can impair the protective insulation of the power tool and cause electrical hazards.

The power tool should be cleaned regularly, often and thoroughly through all front and rear air vents using a vacuum cleaner or by blowing in dry air. Prior to this operation, separate the power tool from the power source and wear protective glasses and dust mask.

9. Troubleshooting

9.1 Mains powered machines:

- **Overload protection: There is a MAJOR reduction in load speed.** The motor temperature is too high! Allow the machine to run at idle speed until it has cooled down.
- **Overload protection: There is a SLIGHT reduction in load speed.** The machine is overloaded. Reduce the load before continuing to work.
- **Metabo S-automatic safety shutdown: The machine was SWITCHED OFF automatically.** If the slew rate of the current is too high (for example, if the machine suddenly seizes or kickback occurs), the machine switches off. Switch off the machine using the slide switch (6). Switch it on again and continue to work as normal. Try to prevent the machine from seizing. See Section 4.2.
- **Restart protection: The machine does not start.** The 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 on again.

9.2 Cordless machines:

- **The electronic signal display (12) lights up and the load speed decreases.** The temperature is too high! Run the machine in idling until the electronics signal indicator switches off.
- **The electronic signal display (12) flashes and the machine does not start.** The restart protection is active. The machine will not start if the battery pack is inserted while the machine is on. Switch the machine off and on again.

10. Accessories

Only use original Metabo battery packs and Metabo accessories.

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

Fit accessories securely. Secure the machine if it is operated in a bracket. Loss of control may cause personal injury.

A Collect chucks (including nut)
  Ø 3 mm = 6.31947
  Ø 1/8“ = 6.31948
  Ø 6 mm = 6.31945
  Ø 1/4“ = 6.31949
  Ø 8 mm = 6.31946

B Clamping frame 6.27354 for clamping during work with flexible shafts (tighten clamping screw), including:

C Clamping bracket 6.27107 for safe securing to the work bench (tighten clamping screw).

D Flexible shafts

E For FME 737:
  Routing tool (6.31501)
  For enhancement as a router

F Battery chargers: ASC Ultra, ASC 15, ASC 30 and others.

G Battery packs: 5.2 Ah (6.25592); 4.0 Ah (6.25591); 3.0 Ah (6.25594)

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

11. Repairs

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

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

The generated grinding dust may contain harmful substances. Dispose appropriately.

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

Only for EU countries: Never dispose of power tools in your household waste! In accordance with European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation in national law, used electrical tools must be collected separately and handed in for environmentally compatible recycling.

Special notes regarding cordless machines:
Battery packs may not be disposed of with regular waste. Return faulty or used battery packs to your Metabo dealer!

Do not allow battery packs to come into contact with water!

Before disposal, discharge the battery pack in the power tool. Prevent the contacts from short-circuiting (e. g. by protecting them with adhesive tape).

13. Technical Specifications

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

U = voltage of battery pack
S = spindle lock for easy tool changes
n = no-load speed (maximum speed)
n_V = no-load speed (adjustable)
n_1 = on-load speed
P_1 = rated input power
P_2 = power output
D_{max} = max. sanding disc diameter
T_{max} = max. thickness of bonded grinding discs
d = collet bore of the collet chuck
m = weight with smallest battery pack/weight without cord
L_{max} = maximum insertion depth

Measured values determined in conformity with EN 60745.

⧈ Machine in protection class II

~ AC Power

⎓ Direct current

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

Emission values
These values make it possible to assess the emissions from the power tool and to compare different power tools. Depending on the operating conditions, the condition of the power tool or the accessories, the actual load may be higher or lower. For assessment purposes, please allow for breaks and periods when the load is lower. Based on the adjusted estimates, arrange protective measures for the user e.g. organisational measures.

Vibration total value (vector sum of three directions) determined in accordance with EN 60745:
$a_{h, SG}$ = Vibration emission value
$K_{h,SG}$ = Uncertainty (vibration)
U_M = Unbalance

Typical A-effective perceived sound levels:
L_{pA} = Sound-pressure level
L_{WA} = Acoustic power level
K_{pA}, K_{WA} = Uncertainty

During operation the noise level can exceed 80 dB(A).

Wear ear protectors!

Problems, faults:
In individual cases, the speed may fluctuate temporarily if the machine is exposed to extreme external electromagnetic disturbances or the electronic restart protection may respond. In this case, switch the machine off and on again.