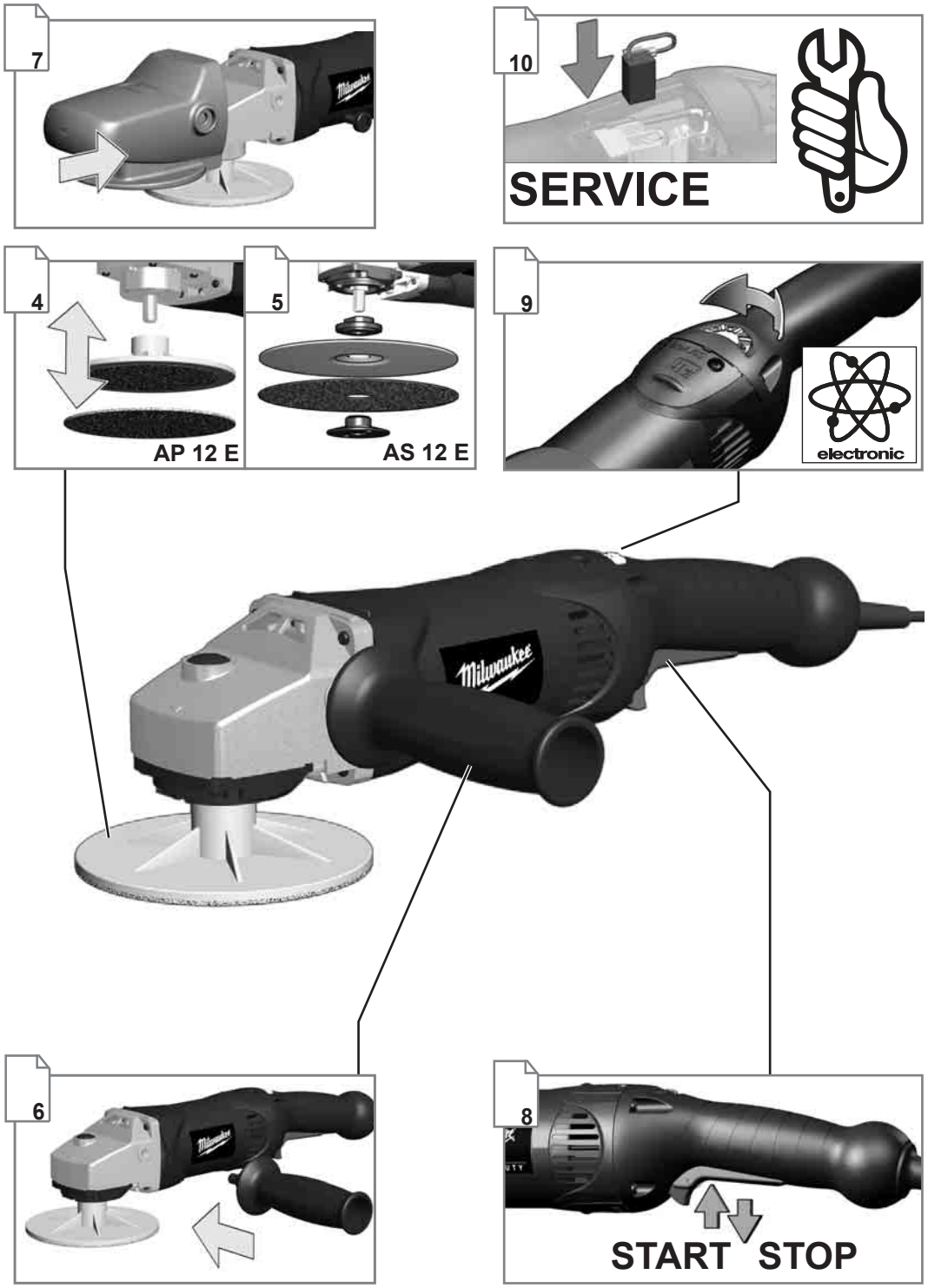
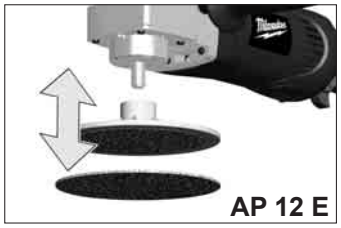
Nothing but **HEAVY DUTY.®**



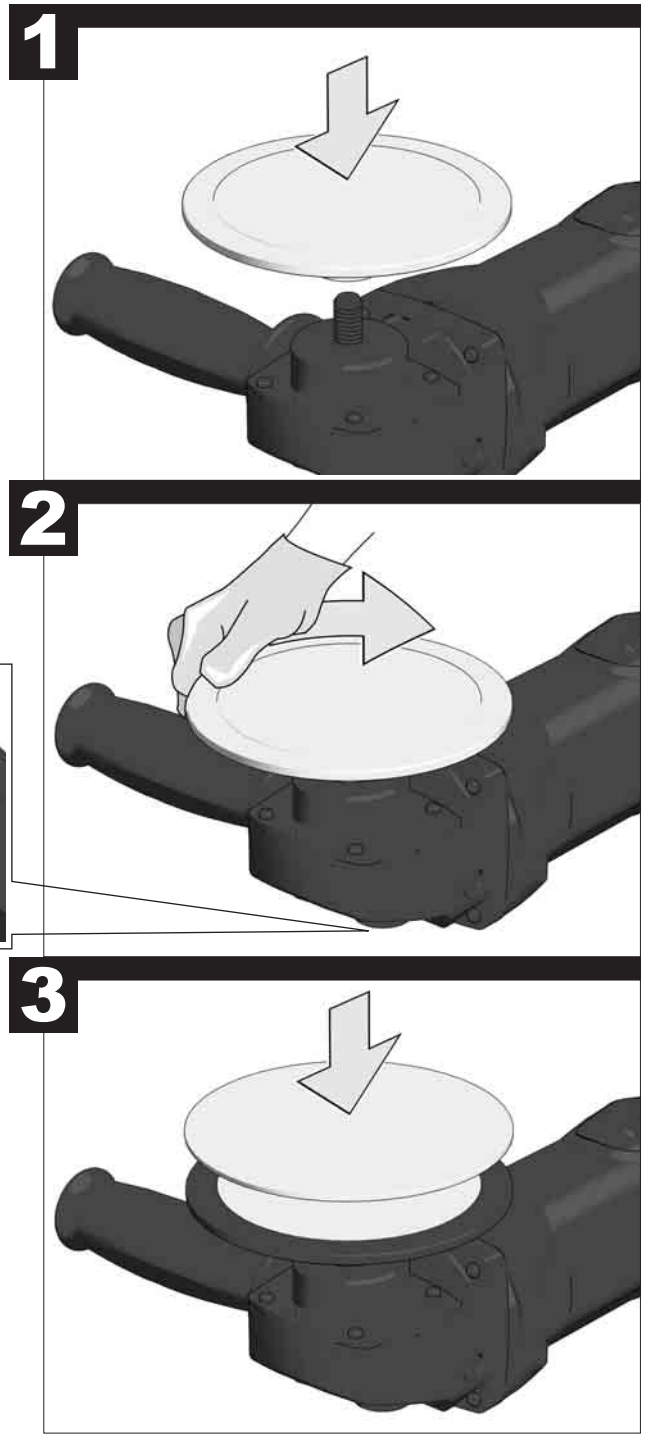
# AS 12 E
# AP 12 E

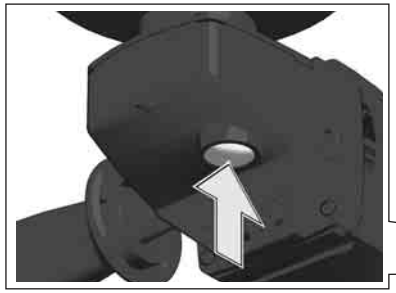
Original instructions


7
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SERVICE
4
AP 12 E
5
AS 12 E
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electronic
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8
START
STOP


AP 12 E



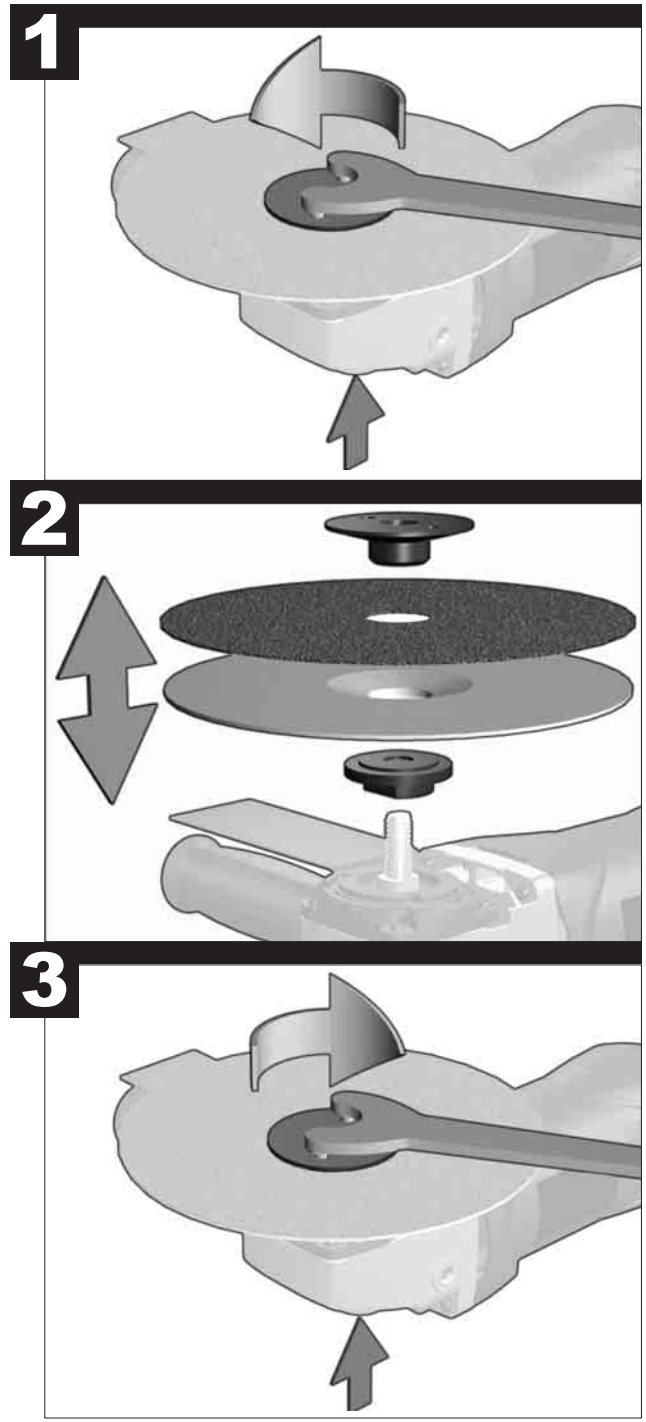

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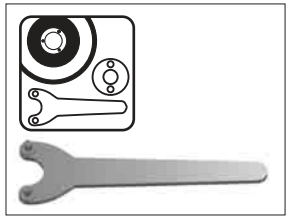





AS 12 E

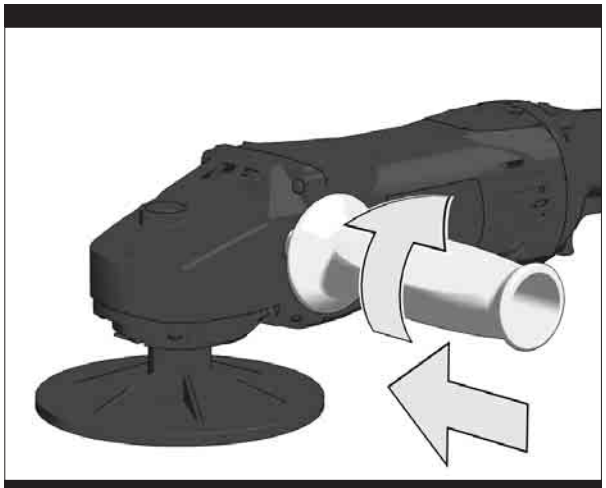


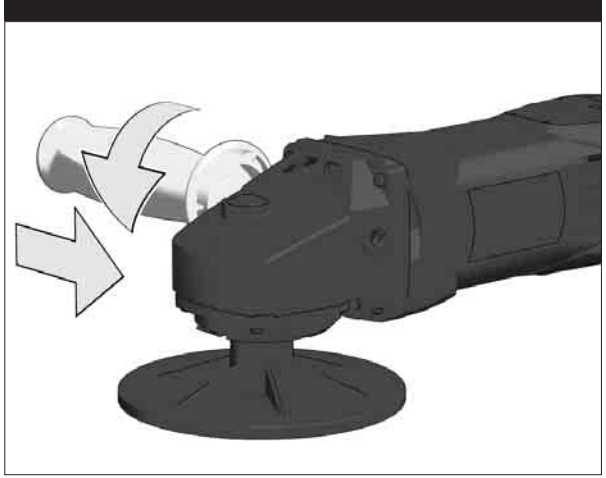

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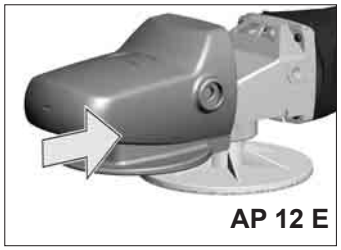






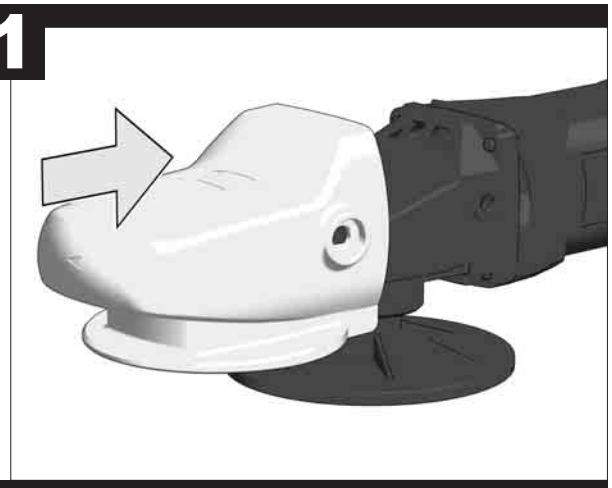





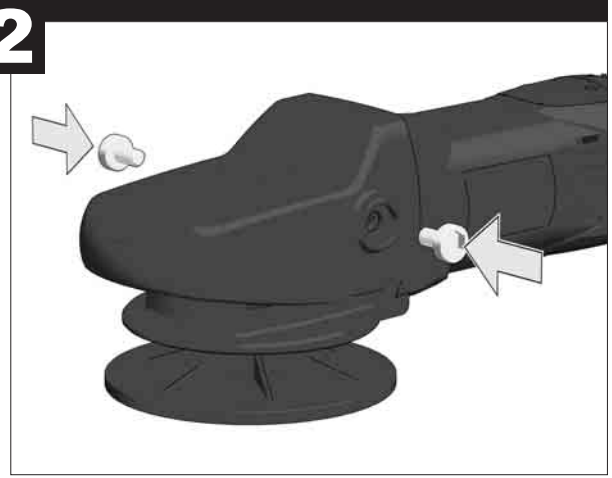




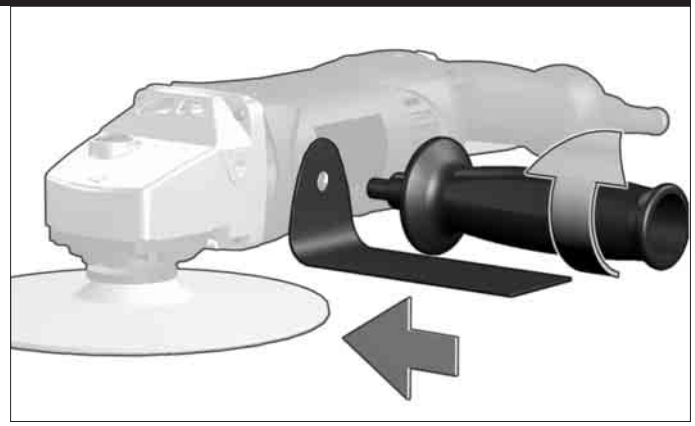

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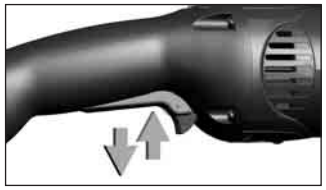


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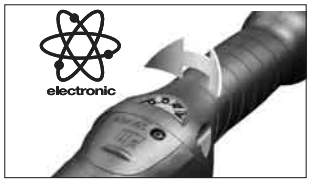


**AS 12 E**

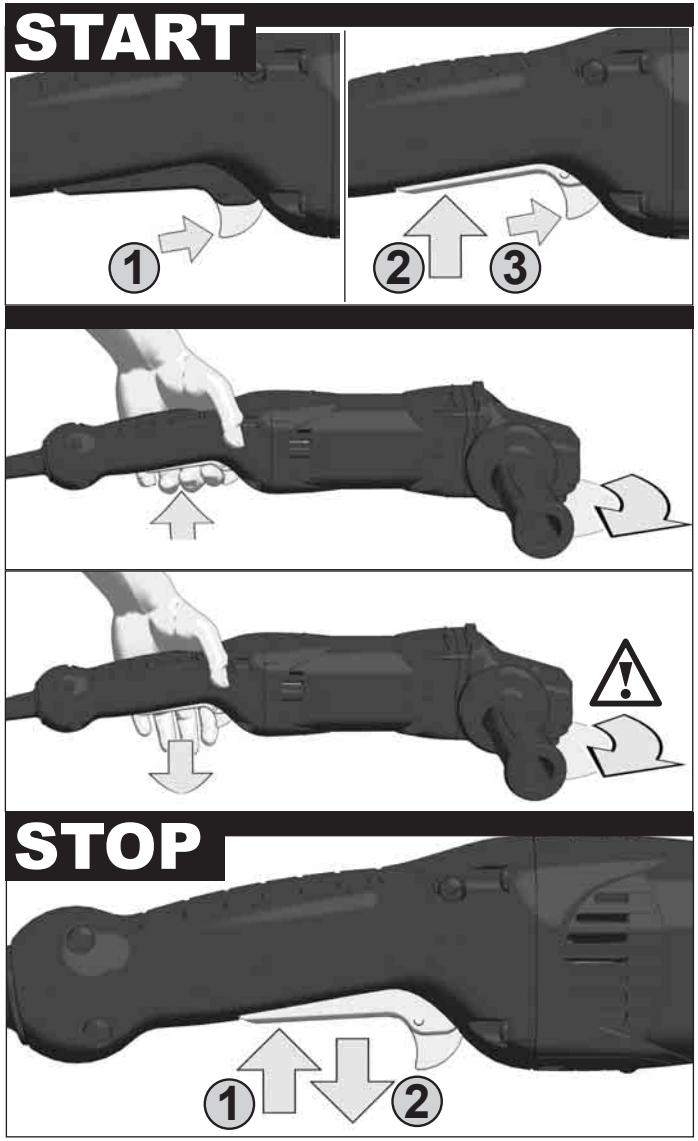


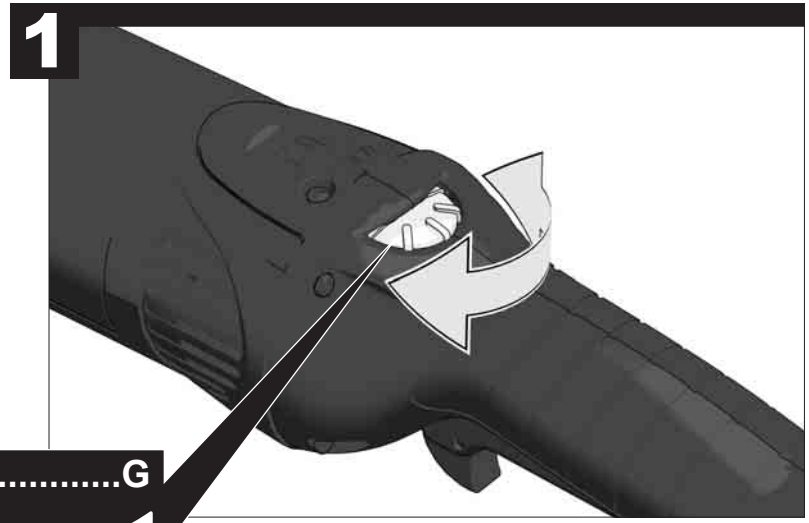


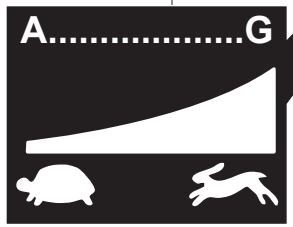


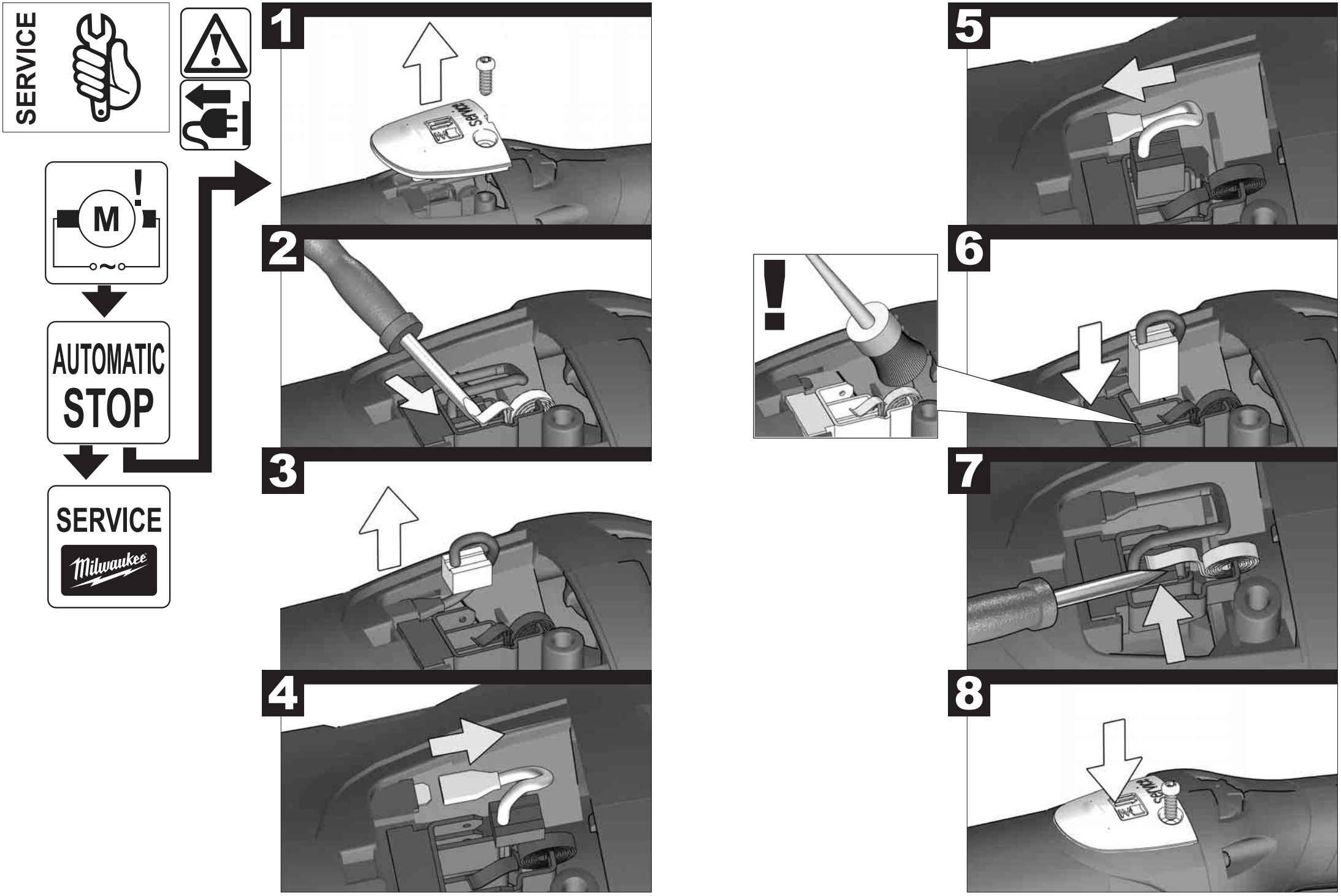



Switch can **be locked**




SERVICE
M
AUTOMATIC
STOP
SERVICE
Milwaukee
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| TECHNICAL DATA | Polisher/Sander | AP 12 E | AS 12 E |
|---|---|---|---|
| Production code | | 4557 94 04... | 4638 48 04... |
| | | 4638 25 04... | 4638 52 04... |
| | | ...000001-999999 | ...000001-999999 |
| Rated input | | 1200 W | 1200 W |
| Output | | 600 W | 600 W |
| Rated speed | | 900-2500 $min^{-1}$ | 1800-4800 $min^{-1}$ |
| Max. Rated speed | | 4700 $min^{-1}$ | 9000 $min^{-1}$ |
| Grinding disk diameter | | 150 mm | 180 mm |
| Thread of work spindle | | M 14 | M 14 |
| Weight according EPTA-Procedure 01/2014 | | 2,2 kg | 2,5 kg |

**Noise/Vibration Information**
Measured values determined according to EN 60745.
Typically, the A-weighted noise levels of the tool are:

| | | |
|---|---|---|
| Sound pressure level (Uncertainty K=3dB(A)) | 79 dB(A) | 81,5 dB(A) |
| Sound power level (Uncertainty K=3dB(A)) | 90 dB(A) | 92,5 dB(A) |

**Wear ear protection!**

Total vibration values (vector sum in the three axes) determined according to EN 60745:

| | | |
|---|---|---|
| Polishing: vibration emission value $a_h$ | 2,24 $m/s^2$ | - $m/s^2$ |
| Uncertainty K = | 1,5 $m/s^2$ | - $m/s^2$ |
| Disk sanding vibration emission value $a_h$ | - $m/s^2$ | 2,9 $m/s^2$ |
| Uncertainty K = | - $m/s^2$ | 1,5 $m/s^2$ |

**WARNING**

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN 60745 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure.

The declared vibration emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period.

An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period.

Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organisation of work patterns.

**⚠ WARNING! Read all safety warnings and all instructions, including those given in the accompanying brochure**. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.
**Save all warnings and instructions for future reference.**

## ⚠ POLISHER/SANDER SAFETY INSTRUCTIONS

**Safety warnings that are common for polishing and sanding:**

**a) This power tool is intended to function as a polisher (only AP 12 E) or sander (only AS 12 E). 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) Operations such as sanding (only AP 12 E), polishing (only AS 12 E), grinding, wire brushing, or cutting-off are not recommended to be performed with this power tool.** Using the electric tool for purposes other than those for which it is designed may cause dangers and injuries.

**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 accessory must be at least equal to the maximum speed marked on the power tool.** 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 guarded or controlled.

**f) The arbour size of wheels, flanges, backing pads or any other accessory must properly fit the spindle of the power tool.** Accessories with arbour holes 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) Do not use a damaged accessory. Before each use inspect the accessory such as backing pad for cracks, tear or excess wear. 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.

**h) Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and shop 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.

**i) 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.

**j) Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring.** Cutting accessory contacting a „live“ wire may make exposed metal parts of the power tool „live“ and could give the operator an electric shock.



**k) 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.

**l) 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.

**m) 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.

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

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

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

**Kickback and Related Warnings**

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, 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 at the point of the binding.

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.

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. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up.** The operator can control torque reactions or kickback forces, if proper precautions are taken.

**b) Never place your hand near the rotating accessory.** Accessory may kickback over your hand.

**c) Do not position your body in the area where power tool will move if kickback occurs.** Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.

**d) 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.

**e) Do not attach a saw chain, woodcarving blade or toothed saw blade.** Such blades create frequent kickback and loss of control.

**AS 12 E:**
**Safety Warnings Specific for Sanding Operations:**

**a) Do not use excessively oversized sanding disc paper. Follow manufacturers recommendations, when selecting sanding paper.** Larger sanding paper extending beyond the sanding pad presents a laceration hazard and may cause snagging, tearing of the disc or kickback.

**AP 12 E:**
**Safety Warnings Specific for Polishing Operations:**

**a) Do not allow any loose portion of the polishing bonnet or its attachment strings to spin freely.** Tuck away or trim any loose attachment strings. Loose and spinning attachment strings can entangle your fingers or snag on the workpiece.

Appliances used at many different locations including open air should be connected via a residual current device of 30 mA or less.

Dust and splinters must not be removed while the machine is running.

Only plug-in when machine is switched off.

Never reach into the danger area of the tool when it is running.

Always use the auxiliary handle.

Immediately switch off the machine in case of considerable vibrations or if other malfunctions occur. Check the machine in order to find out the cause.

Always use and store the grinding disks according to the manufacturer's instructions.

When grinding metal, flying sparks are produced. Take care that no persons are endangered. Because of the danger of fire, no combustible materials should be located in the vicinity (spark flight zone). Do not use dust extraction.

Due care should be taken that no sparks or sanding dust flying from the workpiece come into contact with you.

The adjusting nut must be tightened before starting to work with the machine.

The workpiece must be fixed if it is not heavy enough to be steady. Never lead the workpiece to the grinding disk with your hand.

Under extreme conditions (e.g. smooth-grinding metals with the arbour and vulcanized fibre grinding wheel), significant contamination can build up on the inside of the angle grinder. For safety reasons, in such conditions the inside should be cleaned thoroughly of metal deposits and a motor circuit-breaker must be connected in series. If the motor circuit-breaker trips the machine must be sent for repair.

For accessories intended to be fitted with threaded hole wheel, ensure that the thread in the wheel is long enough to accept the spindle length.

## SPECIFIED CONDITIONS OF USE

AP 12 E: The polisher can be used for polishing lacquers, coatings, plastics and other smooth surfaces.

AS 12 E: The sander can be used for sanding wood, plastics and metal.

Do not use this product in any other way as stated for normal use.

## STARTING CURRENT LIMITER + SMOOTH START

The starting current for the machine is several times greater than rated current. The starting current limiter reduces the starting current to such an extent that a fuse (16 A, slow-blow) is not tripped.

Electronic smooth start for save use prevents jerky run-up of the machine.

## ELECTRONICS

The speed of rotation is adjusted electronically when the load increases.

In case of a longer overload period the speed is decreased electronically. The machine continues to run slowly to cool down the motor coil. After switching off and on the machine can be used at rated load.

## STARTUP PROTECTION

A zero-voltage switch prevents the machine from restarting after a power failure. On resuming work, switch the machine off and then back on again.

## EC-DECLARATION OF CONFORMITY

We declare as the manufacturer under our sole responsibility that the product described under “Technical Data” fulfills all the relevant regulations and the directives 2011/65/EU (RoHS), 2014/30/EU, 2006/42/EC, and the following harmonized standards have been used:

EN 60745-1:2009+A11:2010
EN 60745-2-3:2011+A2:2013
EN 55014-1:2017+A11:2020
EN 55014-2:2015
EN 61000-3-2:2014
EN 61000-3-3:2013
EN IEC 63000:2018

Winnenden, 2021-01-22



Alexander Krug
Managing Director

Authorized to compile the technical file.

Techtronic Industries GmbH
Max-Eyth-Straße 10
71364 Winnenden
Germany

## GB-DECLARATION OF CONFORMITY

We declare as the manufacturer under our sole responsibility that the product described under “Technical Data” fulfills all the relevant provisions of the following Regulations S.I. 2008/1597 (as amended), S.I. 2016/1091 (as amended), S.I. 2012/3032 (as amended) and that the following designated standards have been used:

BS EN 60745-1:2009+A11:2010
BS EN 60745-2-3:2011+A13:2015
BS EN 55014-1:2017+A11:2020
BS EN 55014-2:2015
BS EN 61000-3-2:2014
BS EN 61000-3-3:2013
BS EN IEC 63000:2018

Winnenden, 2021-01-22



Alexander Krug
Managing Director

Authorized to compile the technical file.

Techtronic Industries GmbH
Max-Eyth-Straße 10
71364 Winnenden
Germany

## MAINS CONNECTION

Connect only to single-phase a.c. current and only to the system voltage indicated on the rating plate. It is also possible to connect to sockets without an earthing contact as the design conforms to safety class II.

## MAINTENANCE

The ventilation slots of the machine must be kept clear at all times.

Use only Milwaukee accessories and spare parts. Should components need to be exchanged which have not been described, please contact one of our Milwaukee service agents (see our list of guarantee/service addresses).

If needed, an exploded view of the tool can be ordered. Please state the machine type printed as well as the six-digit No. on the label and order the drawing at your local service agents or directly at: Techtronic Industries GmbH, Max-Eyth-Straße 10, 71364 Winnenden, Germany.

## SYMBOLS



CAUTION! WARNING! DANGER!



Always disconnect the plug from the socket before carrying out any work on the machine.



Please read the instructions carefully before starting the machine.



Always wear goggles when using the machine.



Wear gloves!



Do not use force.



Accessory - Not included in standard equipment, available as an accessory.



Do not dispose electric tools, batteries/ rechargeable batteries together with household waste material.
Electric tools and batteries that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.
Check with your local authority or retailer for recycling advice and collection point.



Class II tool, tool in which protection against electric shock does not rely on basic insulation only, but in which additional safety precautions, such as double insulation or reinforced insulation, are provided.
There being no provision for protective earthing or reliance upon installation conditions.



European Conformity Mark



British Confomity Mark



Regulatory Compliance Mark (RCM). Product meets applicable regulatory requirements.



Ukraine Conformity Mark



EurAsian Conformity Mark

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