

### **Robert Bosch GmbH**

Power Tools Division 70764 Leinfelden-Echterdingen GERMANY

### www.bosch-pt.com

160992A0ZY (2014.11) 0 / 186 EURO



# **GEX** Professional

125-1 A | 125-1 AE



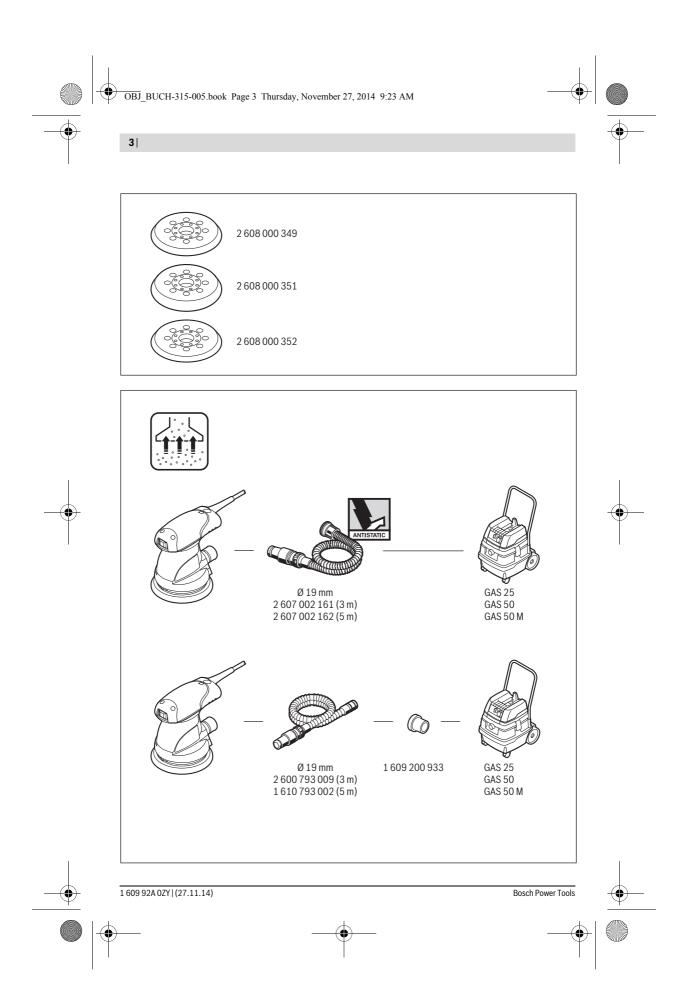
### de Originalbetriebsanleitung

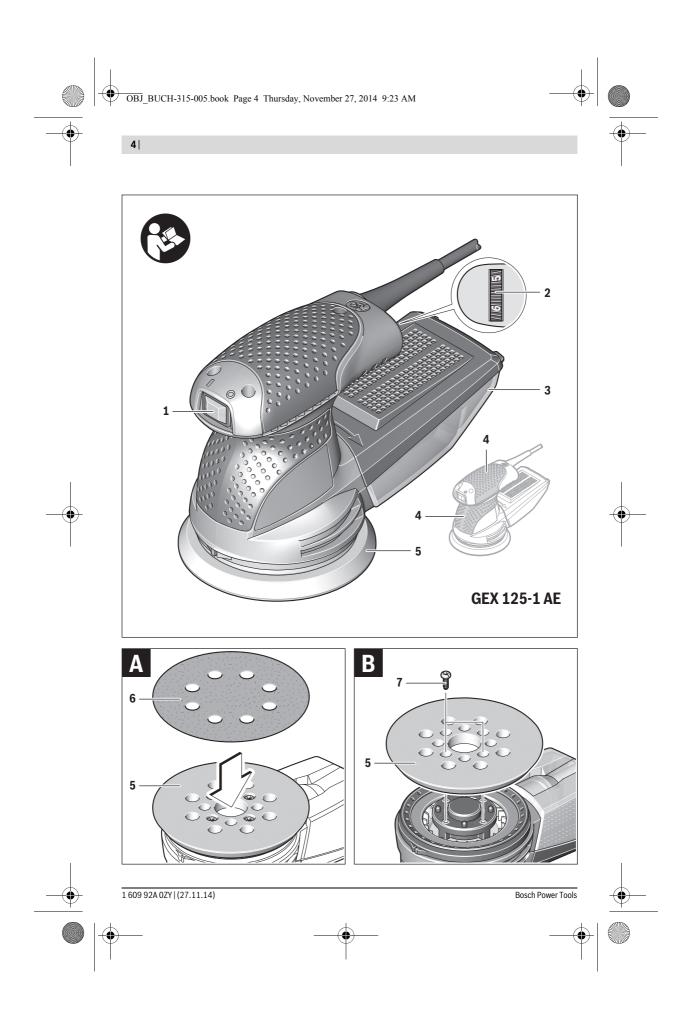
- en Original instructions
- fr Notice originale
- es Manual original
- **pt** Manual original
- it Istruzioni originali
- nl Oorspronkelijke gebruiksaanwijzing
- da Original brugsanvisning
- sv Bruksanvisning i original
- no Original driftsinstruks
- fi Alkuperäiset ohjeet
- el Πρωτότυπο οδηγιών χρήσης
- tr Orijinal işletme talimatı

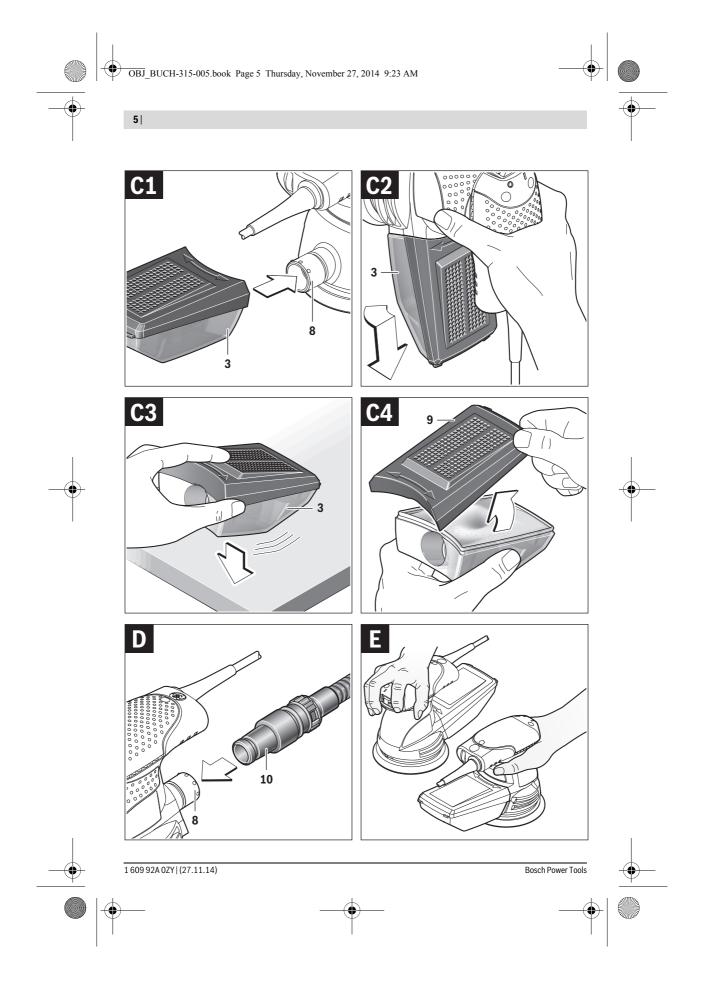
- pl Instrukcja oryginalna
- cs Původní návod k používání
- sk Pôvodný návod na použitie
- hu Eredeti használati utasítás
- ru Оригинальное руководство по
  - эксплуатации
- ик Оригінальна інструкція з
  - експлуатації
- **kk** Пайдалану нұсқаулығының
- түпнұсқасы
- ro Instrucțiuni originale
- **bg** Оригинална инструкция
- **mk** Оригинално упатство за работа

- sr Originalno uputstvo za rad
- sl Izvirna navodila
- hr Originalne upute za rad
- et Algupärane kasutusjuhend
- Iv Instrukcijas oriģinālvalodā
- It Originali instrukcija
- ar تعليمات التشغيل الأصلية
- دفتزچه راهنمای اصلی fa









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### Safety Notes

### General Power Tool Safety Warnings

### A WARNING Read all safety warnings and all in-

structions. 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.

The term "power tool" in the warnings refers to your mainsoperated (corded) power tool or battery-operated (cordless) power tool.

### Work area safety

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

### Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges and moving parts. Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.

### **Personal safety**

Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.

- Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

### Power tool use and care

- ► Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- ► Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

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### Service

Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

### **Safety Warnings for Sander**

- ► Use the machine only for dry sanding. Penetration of water into the machine increases the risk of an electric shock.
- Pay attention that no persons are put at risk through sparking. Remove any combustible materials in the vicinity. Sparking occurs when sanding metal materials.
- Caution, fire hazard! Avoid overheating the object being sanded as well as the sander. Always empty the dust collector before taking breaks. In unfavourable conditions, e.g., when sparks emit from sanding metals, sanding debris in the dust bag, micro filter or paper sack (or in the filter sack or filter of the vacuum cleaner) can self-ignite. Particularly when mixed with remainders of varnish, polyurethane or other chemical materials and when the sanding debris is hot after long periods of working.
- Secure the workpiece. A workpiece clamped with clamping devices or in a vice is held more secure than by hand.

**Products sold in GB only:** Your product is fitted with a BS 1363/A approved electric plug with internal fuse (ASTA approved to BS 1362).

If the plug is not suitable for your socket outlets, it should be cut off and an appropriate plug fitted in its place by an authorised customer service agent. The replacement plug should have the same fuse rating as the original plug.

The severed plug must be disposed of to avoid a possible shock hazard and should never be inserted into a mains socket elsewhere.

**Products sold in AUS and NZ only**: Use a residual current device (RCD) with a rated residual current of 30 mA or less.

### Product Description and Specifications



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

While reading the operating instructions, unfold the graphics page for the machine and leave it open.

### Intended Use

The machine is intended for dry sanding of wood, plastic, metal, filler as well as coated surfaces. Machines with electronic control are also suitable for polishing.

### **Product Features**

The numbering of the product features refers to the illustration of the machine on the graphics page.

- ${\bf 1} \ \, {\rm On/Off} \ \, {\rm switch} \\$
- 2 Thumbwheel for orbit frequency preselection (GEX 125-1 AE)
- 3 Dust box, complete (Microfilter System)
- **4** Handle (insulated gripping surface)
- 5 Sanding plate
- 6 Sanding sheet\*
- 7 Screws for sanding plate
- 8 Extraction outlet
- 9 Filter element (Microfilter System)
- 10 Vacuum hose\*

\*Accessories shown or described are not part of the standard delivery scope of the product. A complete overview of accessories can be found in our accessories program.

### **Technical Data**

Random Orbital Sander		GEX 125-1 A	GEX 125-1 AE
Article number		3 601 C87 0	3 601 C87 5
Preselection of orbital stroke rate		-	•
Rated power input	W	250	250
No-load speed n <sub>0</sub>	min <sup>-1</sup>	12000	7500-12000
No-load orbital stroke rate	min <sup>-1</sup>	24000	15000-24000
Orbit diameter	mm	2.5	2.5
Sanding plate diameter	mm	125	125
Weight according to EPTA-Procedure 01/2003	kg	1.3	1.3
Protection class		□/II	□/II

The values given are valid for a nominal voltage [U] of 230 V. For different voltages and models for specific countries, these values can vary.



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### **Noise/Vibration Information**

Sound emission values determined according to EN 60745-2-4.

Typically the A-weighted sound pressure level of the product is 77 dB(A). Uncertainty K = 2.8 dB.

The noise level when working can exceed 80 dB(A). Wear hearing protection!

Vibration total values a<sub>h</sub> (triax vector sum) and uncertainty K determined according to EN 60745:

 $a_h = 5.0 \text{ m/s}^2$ , K = 1.5 m/s<sup>2</sup>.

The vibration 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 insertion tools or is 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.

### Declaration of Conformity **C**

We declare under our sole responsibility that the product described under "Technical Data" is in conformity with all relevant provisions of the directives 2011/65/EU, 2014/30/EU, 2006/42/EC including their amendments and complies with the following standards: EN 60745-1, EN 60745-2-4.

Technical file (2006/42/EC) at: Robert Bosch GmbH, PT/ETM9,

70764 Leinfelden-Echterdingen, GERMANY

Henk Becker **Executive Vice President** Engineering

Helmut Heinzelmann Head of Product Certification PT/ETM9

PI i.V. K. ul 1eD

Robert Bosch GmbH, Power Tools Division 70764 Leinfelden-Echterdingen, GERMANY Leinfelden, 27.11.2014

### Assembly

I

▶ Before any work on the machine itself, pull the mains plug.

### **Selecting the Sanding Sheet**

Depending on the material to be worked and the required rate of material removal, different sanding sheets are available:

	0			
	Material	Application	Grain size	
nt	– Paint – Varnish	For sanding off paint	coarse	40 60
Pain	<b>B</b>	For sanding primer (e.g., for removing brush dashes, drops of paint and paint run)	medium	80 100 120
best 💉		For final sanding of primers before coating	fine	180 240 320 400
pc	Expert for Wood - All wooden materials (e. g.,	For coarse-sanding, e.g. of rough, unplaned beams and boards	coarse	40 60
Mo	hardwood, softwood, chip- board, building board) Best for Wood - Hardwood - Particle Board	For face sanding and planing small irregularities	medium	80 100 120
expert 🔊		For finish and fine sanding of wood	fine	180 240 320 400

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	Material	Application	Grain size	
Ð	<ul> <li>Automotive paint</li> </ul>	For pre-sanding	coarse	80
й	– Masonry, stone – Marble	For shaping and braking edges	medium	100 120
- Granite - Ceramic - Glass - Plexiglas - Glass-fibre plastics	For final sanding and forming	fine	180 240 320 400	
best.		For polish-sanding and rounding off edges	very fine	600 1200

### **Replacing the Sanding Sheet (see figure A)**

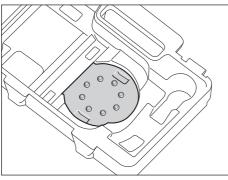
To remove the sanding sheet  ${\bf 6},$  lift it from the side and pull it off of the sanding plate  ${\bf 5}.$ 

When attaching a new sanding sheet, remove any dust or debris from the sanding plate  ${\bf 5}$ , e. g., with a brush.

The surface of the sanding plate **5** is fitted with Velcro backing for quick and easy fastening of sanding sheets with Velcro adhesion.

Press the sanding sheet **6** firmly against the bottom side of the sanding plate **5**.

To ensure optimum dust extraction, pay attention that the punched holes in the sanding sheet match with the holes in the sanding plate.



For easy adjustment of the sanding sheet **6** to the sanding plate **5**, use the adjustment aid in the tool case as shown in the following figure. Place the sanding sheet into the adjustment aid with the Velcro facing upward and firmly push on the machine with the sanding plate.

### **Selection of the Sanding Plate**

Depending on the application, the machine can be equipped with sanding plates of different hardness:

- Sanding plate, extra soft: Suitable for polishing and sensitive sanding, incl. on convex surfaces.
- Sanding plate, medium hard: Suitable for all sanding work; universally usable.
- Hard sanding plate: Suitable for high sanding capacity on flat surfaces.

### Replacing the Sanding Plate (see figure B)

Note: Replace a damaged sanding plate 5 immediately.

Pull off the sanding sheet or the polishing accessory. Unscrew the four screws 7 completely and remove the sanding plate 5. Attach the new sanding plate 5 and tighten the screws again.

**Note:** When attaching the sanding plate, pay attention that the toothing of the drive element engage into the openings of the sanding plate.

**Note:** A damaged sanding-plate base may be changed only by an authorised after-sales service agent for Bosch power tools.

### **Dust/Chip Extraction**

Dusts from materials such as lead-containing coatings, some wood types, minerals and metal can be harmful to one's health. Touching or breathing-in the dusts can cause allergic reactions and/or lead to respiratory infections of the user or bystanders.

Certain dusts, such as oak or beech dust, are considered as carcinogenic, especially in connection with wood-treatment additives (chromate, wood preservative). Materials containing asbestos may only be worked by specialists.

- As far as possible, use a dust extraction system suitable for the material.
- Provide for good ventilation of the working place.
- It is recommended to wear a P2 filter-class respirator.

Observe the relevant regulations in your country for the materials to be worked.

Prevent dust accumulation at the workplace. Dusts can easily ignite.

## Integrated Dust Extraction with Dust Box (see figures C1-C4)

Attach the dust box **3** onto the extraction outlet **8** until it latches.

The filling level of the dust box **3** can easily be checked through the transparent container.

To empty the dust box **3**, pull it off downward with a light twisting motion.

Before opening the dust box **3**, it is recommended to loosen the dust from the filter element by gently striking it against a firm support (as shown in the figure).

Hold the dust box **3** firmly, fold the filter element **9** upward and empty the dust box. Clean the thin plates of the filter element **9** with a soft brush.

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### **External Dust Extraction (see figure D)**

Attach a vacuum hose **10** onto the outlet piece **8**. Connect the vacuum hose **10** with a vacuum cleaner. An overview for connecting to various vacuum cleaners can be found at the beginning of these operating instructions.

The vacuum cleaner must be suitable for the material being worked.

When vacuuming dry dust that is especially detrimental to health or carcinogenic, use a special vacuum cleaner.

### Operation

### **Starting Operation**

Observe correct mains voltage! The voltage of the power source must agree with the voltage specified on the nameplate of the machine. Power tools marked with 230 V can also be operated with 220 V.

### **Switching On and Off**

To **start** the machine, tilt the On/Off switch **1** toward the right to the "I" position.

To **switch off** the machine, tilt the On/Off switch **1** toward the left to the **"0**" position.

To save energy, only switch the power tool on when using it.

### Preselecting the Orbital Stroke Rate (GEX 125-1 AE)

With the thumbwheel for preselection of the orbital stroke rate **2**, you can preselect the required orbital stroke rate, even during operation.

1-2 Low stroke rate

- 3-4 Medium stroke rate
- 5-6 High stroke rate

The required stroke rate depends on the material and the working conditions and can be determined through practical testing.

After longer periods of working at low stroke rate, allow the machine to cool down by running it for approx. 3 minutes at maximum stroke rate with no load.

### **Sanding Plate Brake**

An integrated sanding plate brake reduces the stroke rate when running at no-load so that scoring is prevented when placing the machine onto the workpiece.

If the no-load stroke rate continuously increases over the course of time, then the sanding plate is damaged and must be replaced or the sanding plate brake is worn. A worn sanding plate brake must be replaced by an authorised after-sales service agent for Bosch power tools.

### Working Advice

- Before any work on the machine itself, pull the mains plug.
- Wait until the machine has come to a standstill before placing it down.

For fatigue-free working, the machine can be held from above, sideways or from the front, depending on the application (see figure E).

### **Sanding Surfaces**

Switch the machine on, place it with the complete sanding surface on the surface to be worked and move the machine with moderate pressure over the workpiece.

The removal capacity and the sanding pattern are mainly determined by the selection of the sanding sheet, the preselected orbital stroke rate (GEX 125-1 AE) and the applied pressure.

Only flawless sanding sheets achieve good sanding capacity and extend the service life of the machine.

Pay attention to apply uniform sanding pressure; this increases the working life of the sanding sheets.

Intensifiying the sanding pressure does not lead to an increase of the sanding capacity, but to increased wear of the machine and the sanding sheet.

A sanding sheet that has been used for metal should not be used for other materials.

Use only original Bosch sanding accessories.

### **Rough Sanding**

 $\label{eq:Attach} Attach a sanding sheet with coarse grain.$ 

Apply only light pressure to the machine so that it runs at a higher stroke rate and high material removal is achieved.

### Fine Sanding

Attach a sanding sheet with fine grain.

By lightly varying the application pressure or changing the orbital stroke rate (GEX 125-1 AE), the sanding plate stroke rate can be reduced whereby the orbital action is maintained.

With moderate pressure, move the machine in a circular pattern or alternately in lengthwise and crosswise directions over the workpiece. Do not tilt the machine to avoid sanding through the workpiece (e.g. when sanding veneer).

After finishing the working procedure, switch the power tool off.

### Polishing (GEX 125-1 AE)

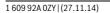
For the polishing of weathered paint or buffing out scratches (e.g., acrylic glass), the machine can be equipped with appropriate polishing accessories such as lamb's wool bonnet, polishing felt or sponge (accessories).

Select a low stroke rate (setting 1-2) for polishing in order to avoid excessive heating of the surface.

Apply the polish onto a somewhat smaller surface than you intend to polish. Work the polishing agent in with a suitable polishing tool applying it crosswise or with circular motion and moderate pressure.

Do not allow the polishing agent to dry out on the surface, otherwise the surface can become damaged. Do not subject the surface to be polished to direct sunlight.

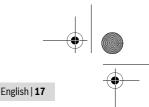
Clean the polishing accessories regularly to ensure good polishing results. Wash out polishing accessories with a mild detergent and warm water; do not use paint thinner.



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### **Maintenance and Service**

### Maintenance and Cleaning

- Before any work on the machine itself, pull the mains plug.
- ► For safe and proper working, always keep the machine and ventilation slots clean.

If the replacement of the supply cord is necessary, this has to be done by Bosch or an authorized Bosch service agent in order to avoid a safety hazard.

### **After-sales Service and Application Service**

Our after-sales service responds to your questions concerning maintenance and repair of your product as well as spare parts. Exploded views and information on spare parts can also be found under:

#### www.bosch-pt.com

Bosch's application service team will gladly answer questions concerning our products and their accessories.

In all correspondence and spare parts order, please always include the 10-digit article number given on the type plate of the machine.

### **Great Britain**

Robert Bosch Ltd. (B.S.C.) P.O. Box 98 Broadwater Park North Orbital Road Denham Uxbridge UB 9 5HJ At www.bosch-pt.co.uk you can order spare parts or arrange the collection of a product in need of servicing or repair. Tel. Service: (0344) 7360109

E-Mail: boschservicecentre@bosch.com

### Ireland

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**Customer service** Hotline: (011) 6519600

### Gauteng - BSC Service Centre

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### **Bosch Headquarters**

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### Disposal

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

Do not dispose of power tools into household waste!

### Only for EC countries:



According to the European Guideline 2012/19/EU for Waste Electrical and Electronic Equipment and its implementation into national right, power tools that are no longer usable must be collected separately and disposed of in an environmentally correct manner.

Subject to change without notice.



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