

#### **Robert Bosch Limitada**

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## F 000 622 247 (03/08)

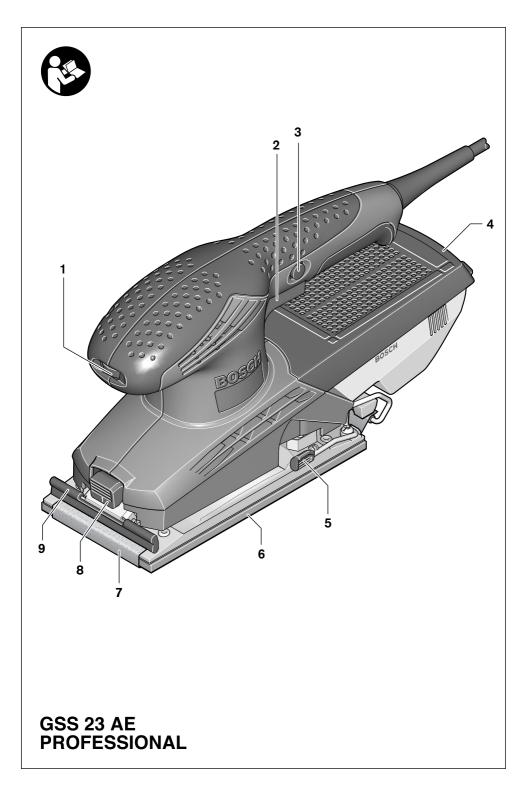
# **GSS 23 AE** Professional

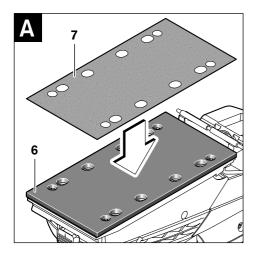


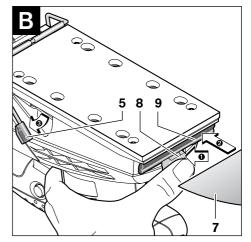
pt-BR Manual de instruções

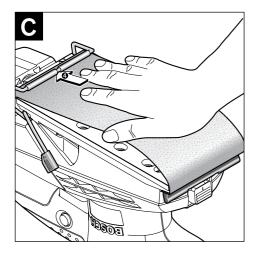
- es Instrucciones de servicio
- **en** Operating instructions

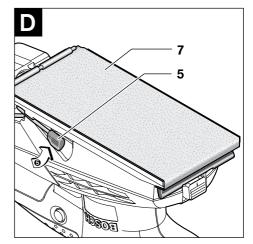


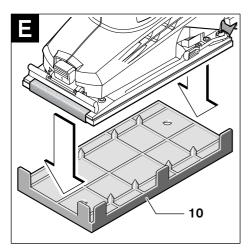


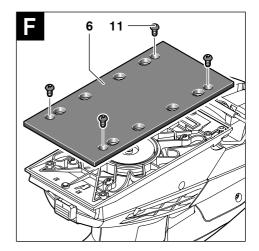


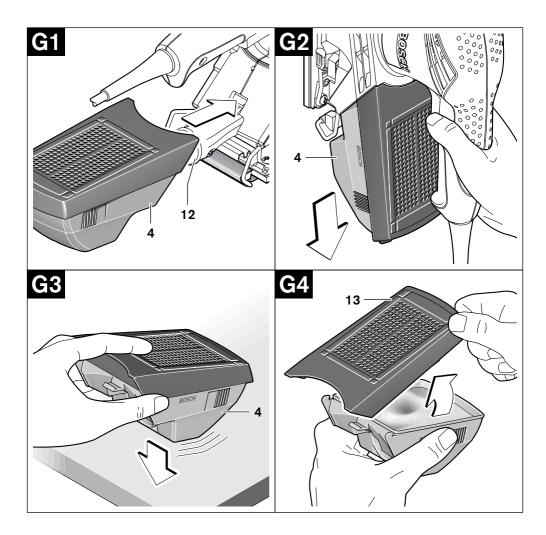


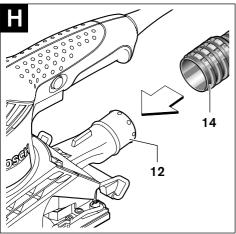












# **General Safety Rules**

**Read all instructions.** Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

### Save these instructions.

- 1) Work area
  - a) Keep work area clean and well lit. Cluttered and dark areas invite accidents.
  - b) 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.
  - c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

### 2) Electrical safety

- a) 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.
- b) 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.
- c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- d) 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 or moving parts. Damaged or entangled cords increase the risk of electric shock.
- e) 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.

### 3) Personal safety

a) 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.

- b) Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) Avoid accidental starting. Ensure the switch is in the off position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
- d) 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.
- e) Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f) 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.
- g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust related hazards.

### 4) Power tool use and care

- a) 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.
- b) 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.
- c) Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) 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.
- e) 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.

- f) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, 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.

### 5) Service

a) 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.

## Machine-specific Safety Notes

- Secure the workpiece. A workpiece clamped with clamping devices or in a vice is held more secure than by hand.
- ► Do not work materials containing asbestos. Asbestos is considered carcinogenic.
- ➤ Take protective measures when dust can develop during working that is harmful to one's health, combustible or explosive. Example: Some dusts are regarded as carcinogenic. Wear a dust mask and work with dust/chip extraction when connectable.
- Keep your workplace clean. Blends of materials are particularly dangerous. Dust from light alloys can burn or explode.
- Never use the machine with a damaged cable. Do not touch the damaged cable and pull the mains plug when the cable is damaged while working. Damaged cables increase the risk of an electric shock.
- ► Connect machines that are used in the open via a residual current device (RCD).
- Use the machine only for dry sanding. Penetration of water into the machine increases the risk of an electric shock.

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 selfignite. Particularly when mixed with remainders of varnish, polyurethane or other chemical materials and when the sanding debris is hot after long periods of working.

## **Functional Description**



**Read all instructions.** Failure to follow all instructions listed below 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, filler and coated surfaces.

## **Machine Elements**

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

- 1 Thumbwheel for orbit frequency preselection
- 2 On/Off switch
- **3** Lock-on button for On/Off switch
- 4 Dust box, complete (micro filtersystem)
- 5 Sanding-sheet clamp
- 6 Sanding plate
- 7 Sanding sheet
- 8 Release button for front clamping bracket
- 9 Front clamping bracket
- 10 Perforating tool\*
- 11 Screws for sanding plate
- 12 Outlet piece
- 13 Filter element (micro filtersystem)
- 14 Vacuum hose\*

\*Not all of the accessories illustrated or described are included as standard delivery.

## **Technical Data**

Orbital sander		GSS 23 AE PROFESSIONAL
Article number		3 601 K70 7
Rated power input	W	190
Preselection of orbital stroke rate		•
No-load speed	rpm	7000-12000
Orbital stroke rate	opm	14000-24000
Orbit diameter	mm	2.0
Sanding sheet dimensions		
<ul> <li>Adhesion via</li> </ul>		
Velcro backing	mm	93 x 185
- Attachment via clamping	mm	93 x 230
Sanding plate dimensions	mm	92 x 182
Weight according to		
EPTA-Procedure 01/2003	kg	1.7
Protection class		

The values given are valid for nominal voltages [U] of 230/240 V. For lower voltage and models for specific countries, these values can vary.

Please observe the article number on the type plate of your machine. The trade names of the individual machines may vary.

\*For the number **3 601 K70 7E0** no-load speed 8.000 - 10.500 min<sup>-1</sup> and orbital stroke rate 16.000 - 21.000 min<sup>-1</sup>.

## **Noise/Vibration Information**

Measured values determined according to EN 60745.

Typically the A-weighted sound pressure value of the machine is 80 dB(A). Measuring uncertainty K=3 dB. The noise level when working can exceed 85 dB(A). Wear hearing protection!

The typically weighted acceleration is  $4.0 \text{ m/s}^2$ .

## **CE** Declaration of Conformity

We declare under our sole responsibility that this product is in conformity with the following standards or standardization documents: EN 60745 according to the provisions of the directives 89/336/EEC, 98/37/EC.

Dr. Egbert Schneider Senior Vice President Engineering Dr. Eckerhard Strötgen Head of Product Certification

ppa. Mulla i.V. Morgen

Robert Bosch GmbH, Power Tools Division

## Assembly

## **Dust/Chip Extraction**

# Integrated Dust Extraction with Dust Box (see figures G1-G4)

Attach the dust box **4** onto the outlet piece **12** until it latches.

To empty the dust box **4**, pull off the dust box downward.

Before opening the dust box **4**, it is recommended to loosen the dust from the filter element by gently striking it against a firm support (as shown in the figure).

Grasp the dust box **4** by the recessed grip, fold the filter element **13** upward and empty the dust box. Clean the thin plates of the filter element **13** with a soft brush.

### External Dust Extraction (see figure H)

Insert a vacuum hose **14** onto the outlet piece **12**. Connect the vacuum hose **14** to a vacuum cleaner. See the overview for connecting to various vacuum cleaners at the end 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.

## **Replacing the Sanding Sheet**

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

When attaching a new sanding sheet, remove any dust or debris from the sanding plate **6** (e. g. with a brush).

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

# Sanding Sheets with Velcro Backing (see figure A)

The sanding plate  ${\bf 6}$  is fitted with Velcro backing for quick and easy fastening of sanding sheets with Velcro adhesion.

Before attaching the sanding sheet **7**, free the Velcro backing of the sanding plate **6** from any debris by tapping against it in order to enable optimum adhesion.

Position the sanding sheet **7** flush alongside one edge of the sanding plate **6**, then lay the sanding sheet onto the sanding plate and press it against it with a light turning motion in clockwise direction.

To remove the sanding sheet **7**, grasp it at one of the tips and pull it off from the sanding plate **6**.

# Sanding Sheets without Velcro Backing (see figures B-D)

- Press the release button 8 and keep it depressed.
- Guide the sanding sheet 7 to the stop under the opened front clamping bracket 9 and let go of the release button 8 again. Pay attention that the sanding sheet is clamped centrally.
- Press the sanding sheet clamp 5 inward and pivot it to the stop.
- Fold the sanding sheet 7 firmly around the sanding plate. Guide the other end of the sanding sheet 7 between the rear clamping bracket and the red roller on the clamping bracket 5.
- Hold the sanding sheet tensely and press the clamping bracket 5 toward the sanding plate to lock the sanding sheet.

Sanding sheets without holes, e. g. from rolls or by the meter, can be punctured with the perforating tool **10** for use with dust extraction. For this, press the machine with the mounted sanding sheet onto the perforating tool (see figure E).

To remove the sanding sheet **7**, loosen the clamping bracket **5** and pull out the sanding sheet from the rear holding fixture. Press the release button **8** and completely remove the sanding sheet.

### Selecting the Sanding Sheet

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

	Grain size		
red:Wood		40-240	
For the working of all wooden materials			
For coarse-sanding, e. g. of rough, unplaned beams and boards	coarse	40, 60	
For face sanding and planing small irregularities	medium	80, 100, 120	
For finish and fine sanding of hard woods	fine	180, 240	
white Paint		40-320	
For the working of paint/enamel coats or primers and fillers			
For sanding off paint	coarse	40, 60	
For sanding primer	medium	80, 100, 120	
For final sanding of primers before coating	fine	180, 240, 320	

# Replacing the Sanding Plate (see figure F)

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

The sanding plate 6 can be replaced, if required.

Unscrew the 4 screws **11** completely and remove the sanding plate **6**. Attach the new sanding plate **6** and tighten the screws again.

# 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, press the On/Off switch **2** and keep it depressed.

To lock the **pressed** On/Off switch **2**, press the lockon button **3**.

To **switch off** the machine, release the On/Off switch **2** or when it is locked with the lock-on button **3**, briefly press the On/Off switch **2** and then release it.

### Preselecting the Orbital Stroke Rate

With the thumbwheel for preselection of the orbital stroke rate **1**, you can preselect the required orbital stroke rate, even during operation.

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

## **Operating Instructions**

#### Wait until the machine has come to a standstill before placing it down.

The removal capacity during sanding is mainly determined by the selection of the sanding sheet as well as the preselected orbital stroke rate.

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.

## **Maintenance and Service**

### **Maintenance and Cleaning**

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

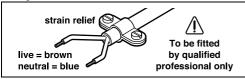
# For safe and proper working, always keep the machine and ventilation slots clean.

If the machine should fail despite the care taken in manufacturing and testing procedures, repair should be carried out by an after-sales service centre for Bosch power tools.

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

# WARNING! Important instructions for connecting a new 3-pin plug to the 2-wire cable.

The wires in the cable are coloured according to the following code:



Do **not** connect the blue or brown wire to the earth terminal of the plug.

**Important:** If for any reason the moulded plug is removed from the cable of this power tool, it must be disposed of safely.

### Guarantee

We guarantee Bosch appliances in accordance with statutory/country-specific regulations (proof of purchase by invoice or delivery note). Damage attributable to normal wear and tear, overload or improper handling will be excluded from the guarantee.

In case of complaint please send the machine, undismantled, to your dealer or the Bosch Service Center for Electric Power Tools.

### Warning!

Freight and insurance costs are charged to the client, even for warranty claims.

## Disposal

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

### Only for EC countries:



Do not dispose of power tools into household waste!

According the European Guideline 2002/96/EC 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.