



Professional **HEAVY DUTY**

GSS 12V-32 | GEX 12V-32 | GEX 12V-77

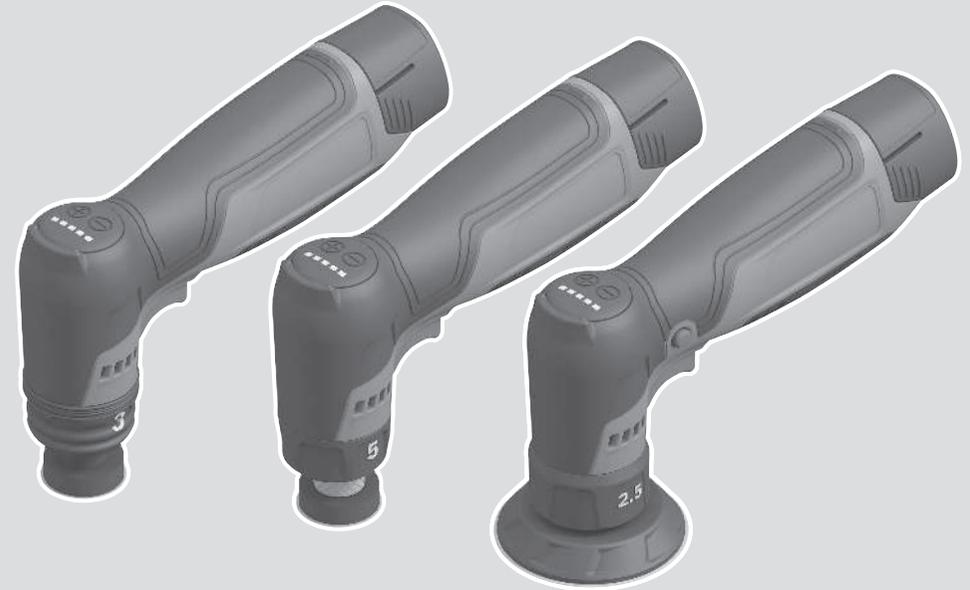
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GERMANY

www.bosch-pt.com

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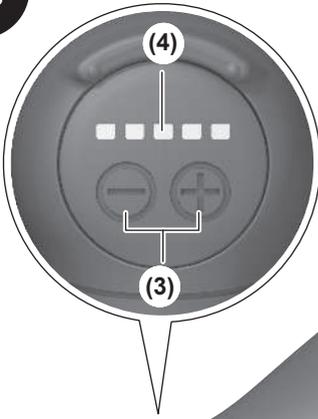
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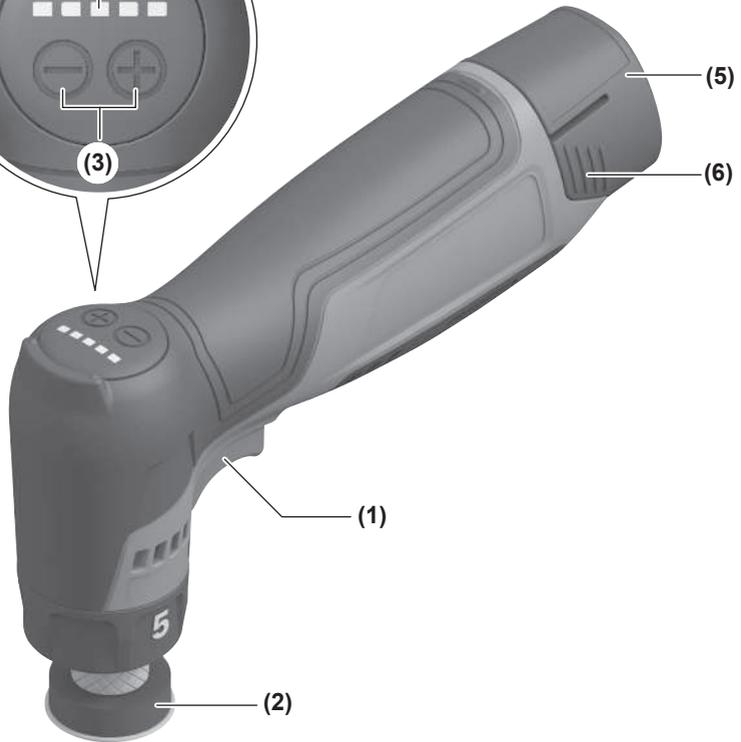
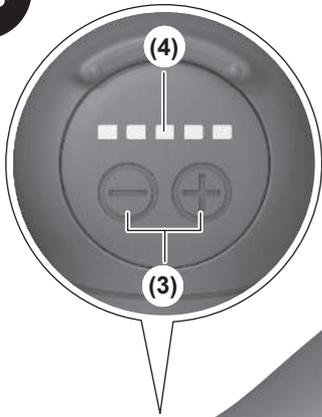
en Original instructions



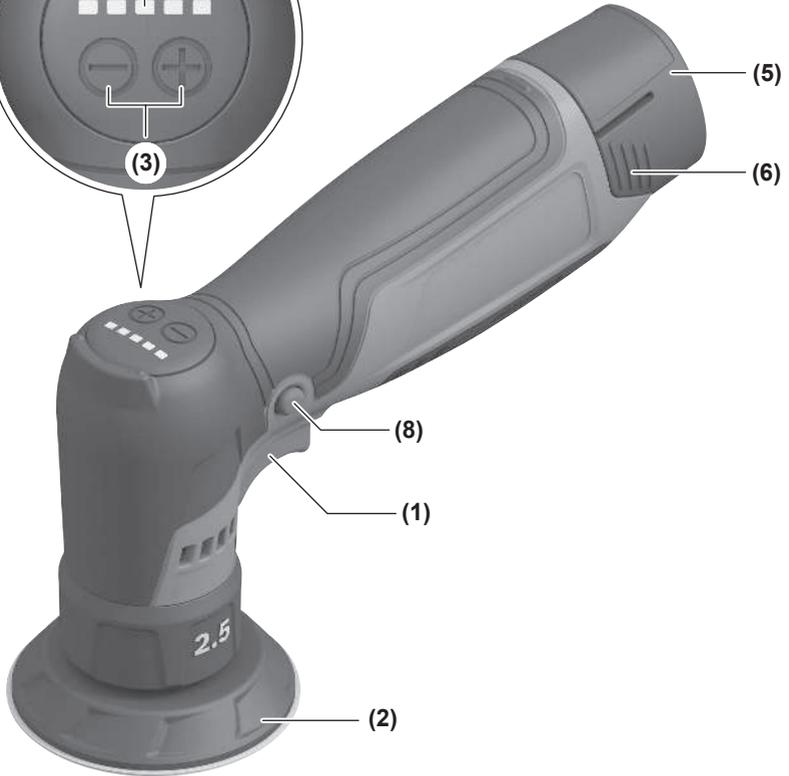
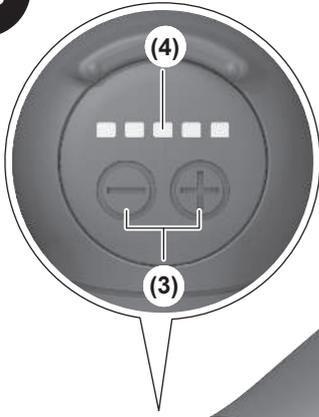




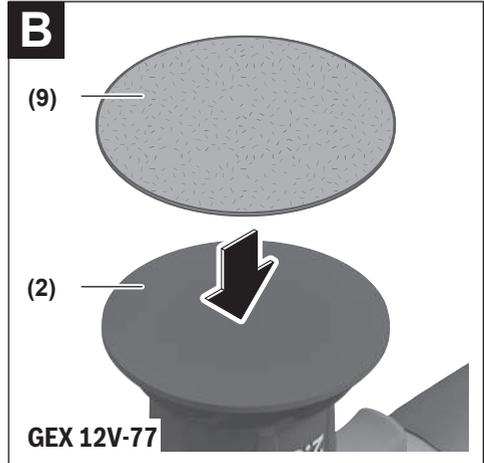
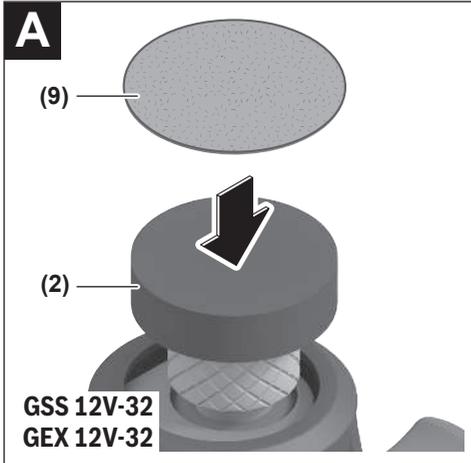
GSS 12V-32



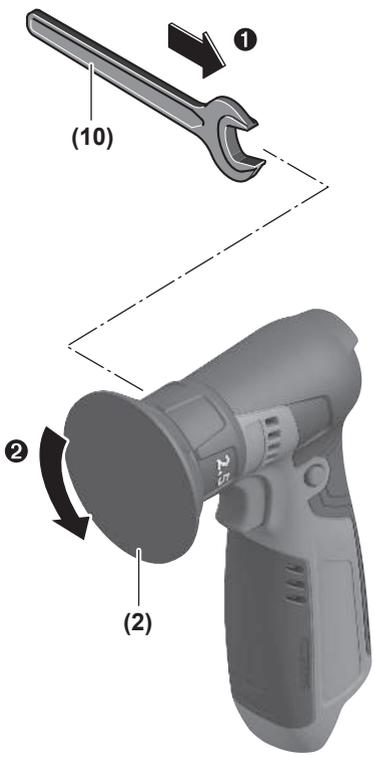
GEX 12V-32



GEX 12V-77

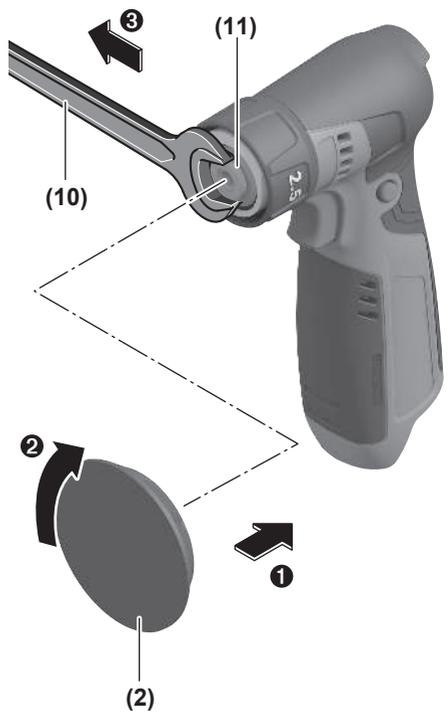


E



GEX 12V-77

F



GEX 12V-77

English

Safety Instructions

General Power Tool Safety Warnings

⚠ WARNING 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.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (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

- ▶ **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase 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 a 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 engaging 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 and clothing 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.
- ▶ **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

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 remove the battery pack, if detachable, 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 and accessories. 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.
- ▶ **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

Battery tool use and care

- ▶ **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.

- ▶ **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- ▶ **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
- ▶ **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.
- ▶ **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
- ▶ **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 130 °C may cause explosion.
- ▶ **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

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.
- ▶ **Never service damaged battery packs.** Service of battery packs should only be performed by the manufacturer or authorized service providers.

Safety Warnings for Sander

- ▶ **Secure the workpiece.** A workpiece clamped with clamping devices or in a vice is held more secure than by hand.
- ▶ **Always wait until the power tool has come to a complete stop before placing it down.** The application tool can jam and cause you to lose control of the power tool.
- ▶ **In case of damage and improper use of the battery, vapours may be emitted. The battery can set alight or explode.** Ensure the area is well ventilated and seek medical attention should you experience any adverse effects. The vapours may irritate the respiratory system.

- ▶ **Do not modify or open the battery.** There is a risk of short-circuiting.
- ▶ **The battery can be damaged by pointed objects such as nails or screwdrivers or by force applied externally.** An internal short circuit may occur, causing the battery to burn, smoke, explode or overheat.
- ▶ **Only use the battery in the manufacturer's products.** This is the only way in which you can protect the battery against dangerous overload.



Protect the battery against heat, e.g. against continuous intense sunlight, fire, dirt, water and moisture. There is a risk of explosion and short-circuiting.



Product Description and Specifications



Read all the safety and general instructions.

Failure to observe the safety and general instructions may result in electric shock, fire and/or serious injury.

Please observe the illustrations at the beginning of this operating manual.

Intended Use

The power tool is intended for sanding of coated surfaces, plastic, filler and wood, as well as for use with dry and wet sanding materials.

Product Features

The numbering of the product features refers to the diagram of the power tool on the graphics page.

- (1) On/off switch
- (2) Sanding pad
- (3) Buttons for speed setting/permanent speed setting and for setting the timer
- (4) LED indicator
- (5) Rechargeable battery^{a)}
- (6) Battery release button^{a)}
- (7) Handle (insulated gripping surface)
- (8) On/off switch locking mechanism (GEX 12V-77)
- (9) Sanding sheet
- (10) Open-ended spanner
- (11) Spanner flat

a) **This accessory is not part of the standard scope of delivery.**

Technical Data

Orbital sander		GSS 12V-32		
Random orbit sander		GEX 12V-32		GEX 12V-77
Article number		3 601 JL1 0..	3 601 JL2 0..	3 601 JL2 1..
Rated voltage	V ⁻⁻⁻	12	12	12
Speed preselection		●	●	●

Orbital sander		GSS 12V-32		
Random orbit sander		GEX 12V-32		GEX 12V-77
Timer		●	●	●
No-load speed $n_0^A)$	min ⁻¹	3000–8000	3000–8000	3000–8000
No-load orbital stroke rate ^{A)}	min ⁻¹	6000–16000	6000–16000	6000–16000
Orbit diameter	mm	3	5	2.5
Sanding pad diameter	mm	32	32	77
Weight ^{B)}	kg	0.43	0.43	0.52
Recommended ambient temperature during charging	°C	0 to +35	0 to +35	0 to +35
Permitted ambient temperature during operation ^{C)} and during storage	°C	-15 to +50	-15 to +50	-15 to +50
Recommended rechargeable batteries		GBA 12V...	GBA 12V...	GBA 12V...
Recommended battery chargers		GAL 12V...	GAL 12V...	GAL 12V...
		GAL 12V...	GAL 12V...	GAL 12V...
		GAX 18...	GAX 18...	GAX 18...

A) Measured at 20–25 °C with rechargeable battery **GBA 12V 3.0Ah**

B) Without rechargeable battery (you can find the battery weight at www.bosch-professional.com.)

C) Limited performance at temperatures < 0 °C

Values can vary depending on the product, scope of application and environmental conditions. To find out more, visit www.bosch-professional.com/wac.

Setting the Speed/Permanently Setting the Speed

Setting the Speed

You can set the required speed using the two buttons **(3)**, even during operation; see the following table. The required speed depends on the material and the working conditions; it can be ascertained through practical tests.

Permanent Speed Setting

You can use the two buttons **(3)** to set a default speed. Press and hold the **⊖** button for at least 5 seconds to call up the settings menu. Press and hold the **⊖** button while also pressing and holding the **⊕** button for at least 5 seconds. The previously saved setting is indicated by the number of LEDs that flash white. You are now able to set a default speed as shown in the following table. To save the setting, simultaneously press and hold the **⊕** button and the **⊖** button for at least 5 seconds until the LEDs stop flashing.

LEDs	[min ⁻¹]
Light 1 x white	3000
Light 2 x white	4250
Light 3 x white	5500
Light 4 x white	6750
Light 5 x white	8000

Noise/Vibration Information

GSS 12V-32 GEX 12V-32 GEX 12V-77

Noise emission values determined according to **EN 62841-2-4**.

Typically, the A-weighted noise level of the power tool is

To deactivate a default speed that has been chosen, select the middle LED in the settings menu and save the setting as described.

Setting the Timer

You can use the two buttons **(3)** to set a standard sanding time after which the power tool will switch off automatically. Press and hold the **⊕** button for at least 5 seconds to call up the settings menu. Press the **⊖** button for at least 5 seconds while pressing and holding the **⊕** button. The previously saved setting is indicated by the number of LEDs that flash magenta. You can now set a standard sanding time as shown in the following table. To save the setting, simultaneously press and hold the **⊕** button and the **⊖** button for at least 5 seconds until the LEDs stop flashing.

LEDs	Seconds
Flashing light 1 x magenta	2
Flashing light 2 x magenta	3
Flashing light 3 x magenta	4
Flashing light 4 x magenta	5
Flashing light 5 x magenta	6

To deactivate a selected standard sanding time, select the middle LED in the settings menu and save the setting as described.

		GSS 12V-32	GEX 12V-32	GEX 12V-77
Sound pressure level	dB(A)	60	59	56
Sound power level	dB(A)	68	67	64
Uncertainty K	dB	3	3	3

Wear hearing protection!

Vibration values a_h (continuous vibrations), p_F (repeated shock vibrations) and uncertainty K determined according to **EN 62841-2-4**:

To mirror the normal working conditions of the power tool, the operating conditions deviate from the standard method as follows:

a_h (measured with clamping force of 10 N)	m/s^2	3.0	2.4	1.7
a_h (measured with clamping force of 15 N)	m/s^2	4.4	3.6	1.8
K	m/s^2	1.5	1.5	1.5
Measured with grain size		2500	2500	3000
p_F (measured with clamping force of 10 N)	m/s^2	44	45	44
K	m/s^2	3.0	9.0	22.0
p_F (measured with clamping force of 15 N)	m/s^2	47	50	39
K	m/s^2	2.0	12.0	3.0

The vibration level and noise emission value given in these instructions have been measured in accordance with a standardised measuring procedure and may be used to compare power tools. They may also be used for a preliminary estimation of vibration and noise emissions.

The stated vibration level and noise emission value represent the main applications of the power tool. However, if the power tool is used for other applications, with different accessories or is poorly maintained, the vibration level and noise emission value may differ. This may significantly increase the vibration and noise emissions over the total working period.

To estimate vibration and noise emissions accurately, the times when the tool is switched off or when it is running but not actually being used should also be taken into account. This may significantly reduce vibration and noise emissions over the total working period.

Implement additional safety measures to protect the operator from the effects of vibration, such as servicing the power tool and accessories, keeping their hands warm, and organising workflows correctly.

Rechargeable battery

Bosch sells some cordless power tools without a rechargeable battery. You can tell whether a rechargeable battery is included with the power tool by looking at the packaging.

Charging the battery

- **Use only the chargers listed in the technical data.** Only these chargers are matched to the lithium-ion battery of your power tool.

Note: Lithium-ion rechargeable batteries are supplied partially charged according to international transport regulations. To ensure full rechargeable battery capacity, fully charge the rechargeable battery before using your tool for the first time.

Inserting the Battery

Push the charged battery into the battery holder until it clicks into place.

Removing the Battery

To remove the rechargeable battery, press the battery release buttons and pull the battery out. **Do not use force to do this.**

Battery charge indicator

The 5 LEDs of the LED display will indicate the state of charge of the battery. The LED indicator lights up for 5 seconds after start-up.

LED	Capacity
5 × continuous green light	80–100 %
4 × continuous green light	60–80 %
3 × continuous green light	40–60 %
2 × continuous green light	20–40 %
1 × continuous yellow light	1–20 %
1 × continuous red light	0–1 %

Temperature-dependent overload protection

In normal conditions of use, the power tool cannot be overloaded. If the power tool is overloaded or not kept within the permitted battery temperature range, the speed is reduced or the power tool switches off. At reduced speed, the power

tool will run again at full speed once the permitted battery temperature is reached or the load is reduced. If it automatically shuts down, switch the power tool off, allow the battery to cool down, then switch the power tool back on.

Recommendations for Optimal Handling of the Battery

Protect the battery against moisture and water.

Only store the battery within a temperature range of -20 to 50 °C. Do not leave the battery in your car in the summer, for example.

A significantly reduced operating time after charging indicates that the battery has deteriorated and must be replaced. Follow the instructions on correct disposal.

Assembly

► **Before carrying out any work on the power tool (e.g. maintenance, tool change etc.), remove the battery from the power tool.** There is risk of injury from unintentionally pressing the on/off switch.

Changing the Sanding Sheet (see figures A–B)

To remove the sanding sheet (9), lift it from the side and pull it from the sanding pad (2).

Remove dirt and dust from the sanding pad (2), e.g. with a paintbrush, before attaching a new sanding sheet.

The surface of the sanding pad (2) is fitted with a hook-and-loop fastening, allowing sanding sheets with a hook-and-loop backing to be secured quickly and easily.

A sanding pad with a smooth surface can also be attached in order to use adhesive sanding paper.

Press the sanding sheet (9) firmly onto the underside of the sanding pad (2).

Selection of the Sanding Plate

The power tool can be fitted with sanding discs of various hardnesses, depending on the application:

- Soft sanding disc: Suitable for sensitive sanding even on curved surfaces
- Medium-hard sanding disc: Suitable for all sanding work, universal application
- Hard sanding disc: Suitable for heavy sanding on flat surfaces

GSS 12V-32, GEX 12V-32: Changing the Sanding Pad (see figures C–D)

► **Before carrying out any work on the power tool (e.g. maintenance, tool change etc.), remove the battery from the power tool.** There is risk of injury from unintentionally pressing the on/off switch.

Note: Replace damaged sanding pads (2) immediately.

Pull off the sanding sheet.

Disassembly: Turn the sanding pad (2) counterclockwise to remove it (see figure C).

Clean all the parts to be fitted.

Assembly: Tighten the new sanding pad (2) clockwise (see figure D).

Note: When attaching the sanding pad, make sure that the teeth of the catch mate with the recesses in the sanding pad.

GEX 12V-77: Changing the Sanding Pad (see figures E–F)

► **Before carrying out any work on the power tool (e.g. maintenance, tool change etc.), remove the battery from the power tool.** There is risk of injury from unintentionally pressing the on/off switch.

Note: Replace damaged sanding pads (2) immediately.

Pull off the sanding sheet.

Disassembly: Hold the spanner flat (11) on the power tool with the open-ended spanner (10) and turn the sanding pad (2) counterclockwise to remove it (see figure E).

Clean all the parts to be fitted.

Assembly: Hold the spanner flat (11) on the power tool in place with an open-ended spanner (10). Tighten the new sanding pad (2) clockwise (see figure F).

Note: When attaching the sanding pad, make sure that the teeth of the catch mate with the recesses in the sanding pad.

Dust

The dust from materials such as lead paint, certain types of wood and minerals can be harmful to human health. Touching or breathing in this dust can trigger allergic reactions and/or cause respiratory illnesses in the user or in people in the near vicinity.

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

- Provide good ventilation at the workplace.
- It is advisable to wear a P2 filter class breathing mask.

The regulations on the material being machined that apply in the country of use must be observed.

► **Avoid dust accumulation at the workplace.** Dust can easily ignite.

Operation

Starting Operation

Switching on/off

To **start** the power tool, press the on/off switch (1).

GEX 12V-77: Press the locking mechanism (8) to **lock** the pressed on/off switch (1) in this position.

To **switch off** the power tool, release the on/off switch (1); or, if the switch is locked (as with **GEX 12V-77**), briefly press the on/off switch (1) and then release it.

LED Displays

The following table explains the possible LED displays (4).

Colour	State	Meaning/cause	Solution
White	Continuous light (1 x to 5 x)	Speed preselection	(see "Setting the Speed/Permanently Setting the Speed", page 10)
Green	Continuous light (2 x to 5 x)	Battery charged	(see "Battery charge indicator", page 11)
Yellow	Continuous light (1 x)	Battery almost empty (see "Battery charge indicator", page 11)	Replace or charge battery soon
	Flashing light (5 x)	Critical temperature has been reached (motor, electronics, battery)	Run the power tool at no load and allow it to cool down
Red	Continuous light (1 x)	Battery empty (see "Battery charge indicator", page 11)	Replace or charge battery
	Flashing light (5 x)	Power tool is overheated and will switch off	Leave the power tool to cool down and switch it on again
		Power tool is jammed and will switch off	Rectify the blockage and switch the power tool on again
		The spindle lock is activated and the power tool will switch off	Deactivate the spindle lock and switch the power tool on again

Working Advice

- ▶ **Before carrying out any work on the power tool (e.g. maintenance, tool change etc.), remove the battery from the power tool.** There is risk of injury from unintentionally pressing the on/off switch.
- ▶ **Always wait until the power tool has come to a complete stop before placing it down.**
- ▶ **This power tool is not suitable for bench-mounted use.** It must not be clamped into a vice or fastened to a workbench, for example.

Select the speed with which you intend to sand the workpiece.

Sanding Surfaces

Place the power tool with the entire sanding surface against the surface of the workpiece, then turn it on and apply moderate pressure as you move the sander over the workpiece. Observe the notes of the sanding material (dry or wet sanding).

Only immaculate sanding sheets achieve good sanding performance and make the power tool last longer.

Be sure to apply consistent contact pressure in order to increase the lifetime of the sanding sheets.

Excessively increasing the contact pressure will not lead to increased sanding performance; rather, it will cause more severe wear of the power tool and premature failure of the sanding plate.

Rough Sanding

Attach a coarse grit sanding sheet.

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

Fine Sanding

Attach a fine grit sanding sheet.

You can reduce the sanding plate orbital stroke rate by lightly varying the contact pressure or changing the orbital stroke rate level; the random orbit motion will be retained.

Applying moderate pressure, move the power tool over the surface of the workpiece, either in a circular motion or alternating between crossways and lengthways. To avoid sanding through the workpiece, e.g. lacquers, do not tilt the power tool.

Switch the power tool off after completing operation.

Maintenance and Service

Maintenance and Cleaning

- ▶ **Before carrying out any work on the power tool (e.g. maintenance, tool change etc.), remove the battery from the power tool.** There is risk of injury from unintentionally pressing the on/off switch.
- ▶ **To ensure safe and efficient operation, always keep the power tool and the ventilation slots clean.**

After-Sales Service and Application Service

Great Britain

Tel. Service: (0344) 7360109

GB Importer:

Robert Bosch Ltd.
Broadwater Park
North Orbital Road
Uxbridge
UB9 5HJ

Malaysia

Tel.: (03) 79663194

You can find the link to our service addresses and warranty conditions on the last page.

In all correspondence and spare parts orders, please always include the 10-digit article number given on the nameplate of the product.

Disposal

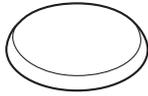
Power tools, rechargeable batteries, accessories and packaging should be sorted for environmental-friendly recycling.



Do not dispose of power tools and batteries/rechargeable batteries into household waste!

Only for EU countries and United Kingdom:

Electrical and electronic equipment or used batteries that are no longer suitable for use must be collected separately and disposed of in an environmentally friendly manner. Use the designated collection systems. Incorrect disposal may cause harmful effects on the environment and human health, due to the potential presence of hazardous substances.



2 608 001 118

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2 608 001 117

(GEX 12V-32
GSS 12V-32)

2 608 001 121

(GEX 12V-77)

Legal Information and Licenses

OSS Compliance

• Apache-2.0

Component CMSIS_5

Name: CMSIS_5

Version: v5.0.0 SPDX identifier: Apache-2.0

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