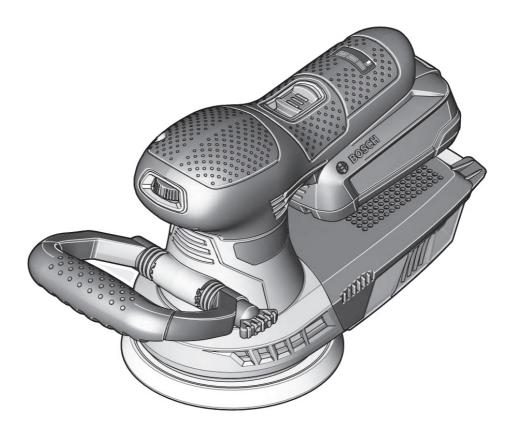


# **BOSCH AdvancedOrbit 18 Advanced Orbit Instruction Manual**

Home » Bosch » BOSCH AdvancedOrbit 18 Advanced Orbit Instruction Manual



**Advanced Orbit 18** 



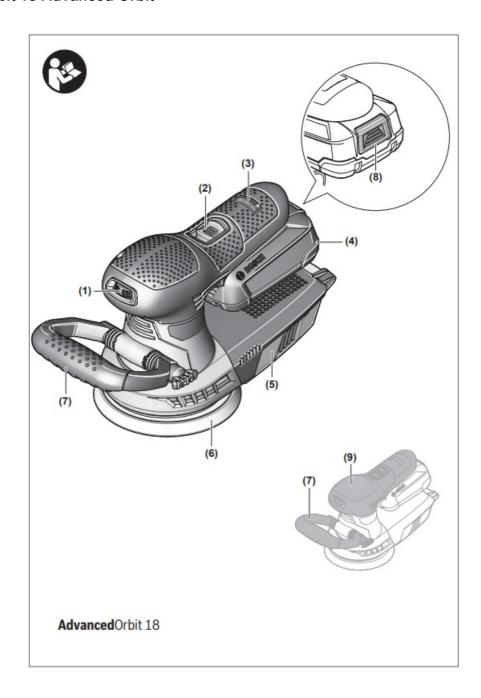


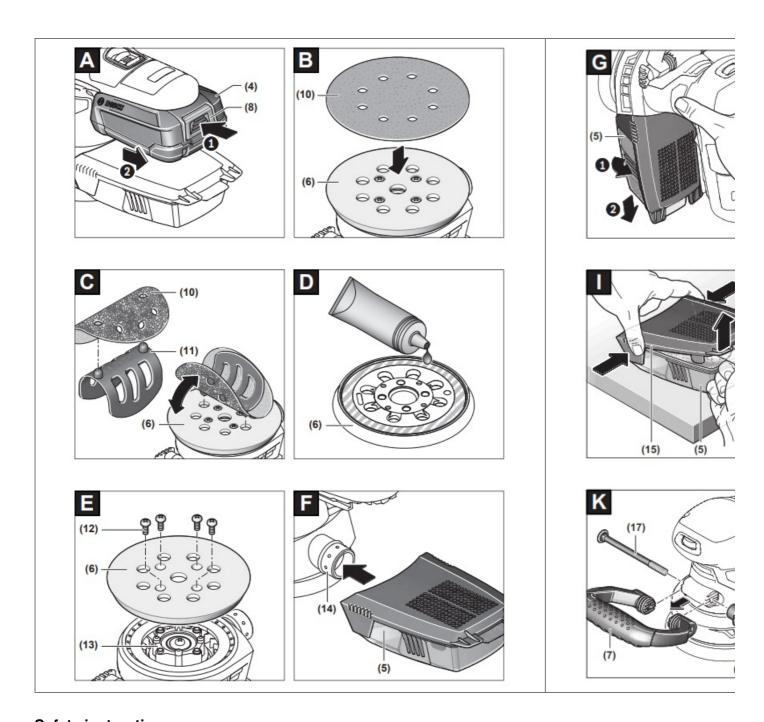
**Original instructions** 

#### **Contents**

- 1 Advanced Orbit 18 Advanced Orbit
- 2 Safety instructions
- 3 Product description and specifications
- **4 Technical Data**
- 5 Assembly
- **6 Operation**
- 7 Maintenance and Servicing
- 8 Documents / Resources
  - 8.1 References

# **Advanced Orbit 18 Advanced Orbit**





# Safety instructions

# **General Power Tool Safety Warnings**

# **A** 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**

- 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 or 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 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 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 in- jury.
- 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. u 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 ool 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**

- Only use the power tool for dry sanding. Water entering a power tool will increase the risk of electric shock.
- Ensure that no persons are at risk due to flying sparks.
   Remove combustible materials from the surrounding area. Flying sparks are created when sanding metals.

- Warning: Danger of fire! Avoid overheating the workpiece and the sander. Always empty the dust collector before taking a break from work. Sanding dust in the dust bag, microfilter, paper bag (or in the filter bag or vacuum cleaner filter) can spontaneously combust under certain conditions, for example if flying sparks are created when sanding metals. This risk is increased if the sanding dust is mixed with paint or polyurethane residue or with other chemical substances and if the workpiece is hot as a result of prolonged work.
- Clean the air vents on your power tool regularly. The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
- Hold the power tool firmly with both hands and make sure you have a stable footing. The power tool can be more securely guided with both hands.
- Always wait until the power tool has come to a complete stop before placing it down.
- Secure the workpiece. A workpiece clamped with clamping devices or in a vice is held more secure than by hand.
- In case of damage and improper use of the battery, vapours may be emitted.
   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 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 with products from the manufacturer. 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, water, and moisture. There is a risk of explosion.

# **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 dry sanding of wood, plastic, metal, filler and varnished surfaces. Power tools with electronic control are also suitable for polishing.

#### **Product Features**

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

- 1. Orbital stroke rate preselection thumbwheel
- 2. On/off switch
- 3. Battery charge indicator
- 4. Battery A)
- 5. Complete dust box (Microfilter system)
- 6. Sanding pad

- 7. Auxiliary handle (insulated gripping surface)
- 8. Battery release button A)
- 9. Handle (insulated gripping surface)
- 10. Sanding sheet A)
- 11. Sanding sheet alignment aid A)
- 12. Screws for sanding pad
- 13. Sanding pad holder
- 14. Extraction outlet
- 15. Filter element (Microfilter system)
- 16. Vacuum hose
- 17. Screw for auxiliary handle
- 18. Wing nut
- 19. Dust extraction adapter
  - A) Accessories shown or described are not included with the product as standard. You can find the complete selection of accessories in our accessories range.

## **Technical Data**

Random orbit sander		AdvancedOrbit 18	
Article number		3 603 CD2 0	
Rated voltage	V	18	
Orbital stroke rate preselection		•	
No-load speed n0	rpm	3000 – 12000	
No-load orbital stroke rate	rpm	6000 – 24000	
Orbit diameter	mm	3.2	
Sanding pad diameter	mm	125	
Weight according to EPTA Procedure 01:2014	kg	1.7 (1.3 Ah)— 1.8 (2.5 Ah) A)	
Permitted ambient temperature			
- during charging	°C	0 to +45	
- during operation B and during storage	°C	-20 to +50	
Recommended batteries		PBA 18VW PBA 18VV	
Recommended chargers		AL 18 CV	

- A) Depends on battery in use
- B) Limited performance at temperatures < 0 °C

#### **Noise/Vibration Information**

Noise emission values determined according to

#### EN 62841-2-4.

Typically, the A-weighted sound pressure level of the power tool is 77 dB(A). Uncertainty K = 3 dB. The noise level when working can exceed 80 dB(A).

#### Wear hearing protection

Total vibration values ah (triax vector sum) and uncertainty K determined according to EN 62841-2-4: ah = 4.5 m/s2, K = 1.5 m/s2,

The vibration level and noise emission value given in these instructions have been measured in accordance with a stand ardised measuring procedure detailed in EN 62841 and may be used to compare power tools. They may also be used for a preliminary estimation of vibration and noise emissions.

The given 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 application tools 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 application tools, keeping the hands warm, and organising workflows correctly.

## **Assembly**

## **Charging the Battery**

• Use only the chargers listed on the accessories page.

Only these chargers are matched to the lithium-ion battery of your power tool.

#### Note:

The battery is supplied partially charged. To ensure full battery capacity, fully charge the battery in the charger before using your power tool for the first time.

The lithium-ion battery can be charged at any time without reducing its service life. Interrupting the charging process does not damage the battery.

The lithium-ion battery is protected against deep discharge by the "Electronic Cell Protection (ECP)". When the battery is discharged, the power tool is switched off by means of a protective circuit: The application tool no longer rotates.

 Do not continue to press the On/Off switch after the power tool has automatically switched off. The battery can be damaged.

Follow the instructions on correct disposal.

#### Removing the Battery (see figure A)

To remove the battery (4), press the release button (8) and pull the battery back and out of the power tool. Do not use force to do this.

#### **Battery Charge Indicator (3)**

The battery charge indicator on the power tool consists of three green LEDs. It indicates the battery's state of charge for a few seconds after the power tool is switched on and off.

LED	Capacity
Continuous lighting 3 x green	≥ 66%
Continuous lighting 2 x green	33–66%
Continuous lighting 1 x green	11–33%
Slowly flashing light 1 x green	≤ 10%

The three LEDs in the battery charge indicator flash quickly when the temperature of the battery is outside the operating temperature range of –30 to +65 °C and/or the overload protection has been triggered.

### **Choosing the Sanding Sheet**

Select a sanding sheet with a grit suitable for how much material you want to remove. Bosch sanding sheets are suitable for paint, wood and metal.

Use		Application	Grit	
Sanding down (co arse sanding)	- Coarse sanding work with a high material removal rat e - Removing old paint	- Sanding down old paint, varnish a nd filler	Extra coarse	40
		<ul><li>Removing thin paint</li><li>Pre-sanding rough, unplaned surf aces</li></ul>	Coarse	60
diate sanding)  — Abrading surf	<ul><li>Light sanding</li><li>Abrading surfaces for furt</li></ul>	<ul><li>Sanding uneven surfaces to make them even</li><li>Removing marks left by coarse sa nding</li></ul>	Medium	80
	her processing later on	Repairing surfaces before applyin g paint or varnish	Fine	120
Fine sanding g	<ul> <li>Intermediate paint sandin</li> <li>g</li> <li>Abrading flaws in the pain</li> <li>twork</li> </ul>	Removing fibres from the surface     Fine sanding before staining	Very fine	180
		Abrading primer before painting	Extra fine	240

## Changing the Sanding Sheet (see figures B-C)

To remove the sanding sheet (10), lift it from the side and pull it from the sanding pad (6).

Remove dirt and dust from the sanding pad (6), e.g. with a paintbrush, before attaching a new sanding sheet. The surface of the sanding pad (6) is fitted with a hook-and-loop fastening, allowing sanding sheets with a hook-and-loop backing to be secured quickly and easily.

Press the sanding sheet (10) firmly onto the underside of the sanding pad (6).

To ensure optimum dust extraction, make sure that the punched holes in the sanding sheet (10) are aligned with the drilled holes in the sanding pad (6).

You can use the alignment aid (11) to precisely align the sanding sheet (10) on the sanding pad (6). Place the sanding sheet onto the alignment aid with the hook-and-loop fastening facing upwards. Press the cams of the alignment aid into the two holes in the sanding pad and unroll the sanding sheet from the alignment aid. Firmly press the sanding sheet into place.

**Note:** The sanding sheet must be positioned correctly in order to ensure low vibration of the power tool during operation.

## Selecting a Sanding Pad

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

- Medium sanding pad (black): Suitable for all sanding work, universal application.
- Soft sanding pad (grey, accessory): Suitable for intermediate and fine sanding even on curved surfaces.

#### Changing the Sanding Pad (see figures D-E)

Note: Replace damaged sanding pads (6) immediately.

Remove the sanding sheet or polishing tool. Unscrew the four screws completely (12) and remove the sanding pad (6).

Clean the top of the new sanding pad (6). Lubricate the outer ring (shaded in grey in the figure) with a thin layer of synthetic grease.

Attach the new sanding pad (6) and retighten the four screws.

**Note:** Damaged sanding pads must only be replaced by an after-sales service centre authorised to work with Bosch power tools.

#### **Dust/chip extraction**

The dust from materials such as lead paint, some types of wood, minerals and metal 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.

- Use a dust extraction system that is suitable for the material wherever possible.
- 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.

#### Self-generated Dust Extraction with Dust Box (see figures F–I)

Place the dust box (5) onto the extraction outlet (14) until it clicks into place.

You can easily check the filling level of the dust box (5) through the transparent container.

To empty the dust box (5), rotate and pull it downwards.

Before opening the dust box (5), knock the dust box against a firm surface as shown in the figure to loosen the dust from the filter element.

Holding the dust box (5) firmly, flap the filter element (15) upwards out of the way and empty the dust box. Use a soft brush to clean the flaps of the filter element (15).

**Note:** In order to ensure optimum dust extraction, empty the dust box (5) in good time and clean the filter element (15) regularly.

When working on vertical surfaces, hold the power tool with the dust box (5) facing downwards.

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

Attach a vacuum hose (16) with a dust extraction adapter (19) to the extraction outlet (14). Connect the vacuum hose (16) and the dust extraction adapter (19) to a dust extractor. You will find an overview of connecting to various dust extractors at the end of these operating instructions.

The dust extractor must be suitable for the material being worked.

When extracting dry dust that is especially detrimental to health or carcinogenic, use a special dust extractor.

When working on vertical surfaces, hold the power tool with the dust extraction hose facing downwards.

## **Auxiliary Handle (see figure K)**

The auxiliary handle (7) enables comfortable handling and optimum power distribution, with a high sanding removal rate in particular.

You can remove the auxiliary handle in order to sand close to edges. Unscrew and remove the wing nut (18) and pull the screw (17) out of the housing. Then pull the auxiliary handle (7) off towards you.

To reinstall the auxiliary handle (7), push it onto the housing from the front such that the ridges on the auxiliary handle engage in the recesses on the housing. Firmly fix the auxiliary handle in place using the screw (17) and the wing nut (18).

#### Adjusting the Auxiliary Handle (see figure L)

The auxiliary handle can be set to three positions. To change the position, loosen the wing nut (18) (by approx. 2–3 turns). Set the auxiliary handle and retighten the wing nut.

# Operation

## **Starting Operation**

#### **Inserting the Battery**

Push the charged battery (4) into the power tool from behind until the battery is securely locked.

#### Switching On/Off

Make sure that you are able to press the On/Off switch without releasing the handle.

To switch on the power tool, slide the on/off switch (2) forward so that "1" appears on the switch. To switch off the power tool, slide the on/off switch (2) backward so that "0" appears on the switch.

#### Preselecting the orbital stroke rate

You can even preselect the orbital stroke rate during operation using the necessary orbital stroke rate preselection thumbwheel (1).

- 1-2 Low orbital stroke rate
- 3-4 Medium orbital stroke rate
- 5-6 High orbital stroke rate

The required orbital stroke rate is dependent on the material and the work conditions and can be determined using practical tests.

After working at a low orbital stoke rate for an extended period, you should operate the power tool at the maximum orbital stroke rate for approximately three minutes without load to cool it down.

#### **Restart Protection**

The restart protection feature prevents the power tool from uncontrolled starting after the power supply to it has been interrupted.

To restart the tool, set the on/off switch (2) to the off position and then switch the power tool on again.

#### **Working Advice**

- Remove the battery from the power tool before carrying out work on the power tool (e.g. maintenance, changing tool, etc.). The battery should also be removed for transport and storage. 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.

#### Sanding Surfaces

Switch the power tool on, place the entire sanding surface against the surface of the workpiece and apply moderate pressure as you move the sander over the workpiece.

The material removal rate and sanding result are primarily determined by the choice of sanding sheet, the preselected orbital stroke rate level and the contact pressure.

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 of the sanding sheet.

Do not use a sanding sheet for other materials after it has been used to work on metal.

Use only original Bosch sanding accessories.

#### **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. Move the power tool with moderate pressure flat on the workpiece in a circular motion or alternately along and across it. Do not tilt the power tool in order to avoid sanding through the workpiece, e.g. veneers. Switch the power tool off after completing operation.

#### **Polishing**

For polishing up weathered paint and redressing scratches (e.g. acrylic glass), the power tool can be fitted with an appropriate polishing tool, e.g. lambs wool bonnet, polishing felt or polishing sponge (accessory).

Select a low orbital stroke rate (level 1–4) when polishing in order to avoid heating up the surface excessively. Apply the polish to an area slightly smaller than the area which you intend to polish. Using the appropriate polishing tool, work in the polish with either linear or circular movements and with moderate pressure.

Do not allow the polish to dry out on the surface; this may damage the surface. Do not expose the surface which you intend to polish to direct sunlight.

Clean the polishing tool regularly to ensure good polishing results. Wash the polishing tools with mild detergent and warm water; do not use thinning agents.

#### **Application Table**

The figures in the table below are recommended values.

The best method for determining the best combination while sanding or polishing is practical experimentation.

Application	Grit (coarse/fine sanding)	
Abrading paint	180/240	3/4
Retouching paint	120/240	4/5
Removing paint	40/60	5
Softwood	40/240	5/6
Hardwood	60/240	5/6
Veneer	180/240	2–4
Aluminium	80/240	4/5
Steel	40/240	5
Derusting steel	40/120	6
Stainless steel	80/240	5
Stone	80/240	5/6

# **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.

Occasionally clean the ventilation slots on the battery using a soft brush that is clean and dry.

A significantly reduced operating time after charging indicates that the battery has deteriorated and must be replaced.

Follow the instructions on correct disposal.

# Maintenance and Servicing

# **Maintenance and Cleaning**

- Remove the battery from the power tool before carrying out work on the power tool (e.g. maintenance, changing tool, etc.). The battery should also be removed for transport and storage. 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 advice on using products

Our after-sales service can answer questions concerning product maintenance and repair, as well as spare parts.

You can find exploded drawings and information on spare parts at: www.bosch-pt.com

The Bosch product use advice team will be happy to help you with any questions about our products and their accessories.

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

#### **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: <u>boschservicecentre@bosch.com</u>

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Fax: (021) 5513223
E-mail: bsc@zsd.co.za
Bosch Headquarters
Midrand, Gauteng

Tel.: (011) 6519600 Fax: (011) 6519880

E-mail: rbsa-hq.pts@za.bosch.com

#### **Transport**

The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements. The batteries are suitable for road-transport by the user without further restrictions.

When shipping by third parties (e.g.: by air transport or forwarding agency), special requirements on packaging and labelling must be observed. For preparation of the item being shipped, consulting an expert for hazardous material is required.

Dispatch battery packs only when the housing is undamaged. Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging. Please also observe the possibility of more detailed national regulations.

# **Disposal**

The machine, 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:

According to the Directive 2012/19/EU, power tools that are no longer usable, and according to the Directive 2006/66/EC, defective or used battery packs/batteries, must be collected separately and disposed of in an environmentally correct manner.

## **Battery packs/batteries:**

## Li-ion:

Please observe the notes in the section on transport (see "Transport", page 20).

# **EU Declaration of Conformity**

Random Orbit Sa nder	Article number	We declare under our sole responsibility that the stated products comply with all applicable provisions of the directives and regulations listed below and are in conformity with the foll owing standards.  Technical file at: *
Advanced Orbit 1	3 603 CD2 0	2006/42/EC 2014/30/EU 2011/65/EU EN 62841-1:2015 EN 62841-2-4:2014 EN 55014-1:2006+A1:2009+A2:2011 EN 55014-2:2015 EN 50581:2012  * Robert Bosch Power Tools GmbH (PT/ECS) 70538 Stuttgart GERMANY Henk Becker Executive Vice President Engineering and Manufacturing  # Helmut Heinzelmann Head of Product Certification Engineering and Manufacturing  # Helmut Heinzelmann Head of Product Certification Engineering and Manufacturing

Robert Bosch Power Tools GmbH 70538 Stuttgart GERMANY www.bosch-pt.com

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## **Documents / Resources**



BOSCH AdvancedOrbit 18 Advanced Orbit [pdf] Instruction Manual B06033D2100, AdvancedOrbit 18 Advanced Orbit, AdvancedOrbit 18, AdvancedOrbit 18 Orbit, Advanced Orbit, Orbit

- Dinvented for life | Bosch Global
- Bosch Elektrowerkzeuge | Bosch Elektrowerkzeuge
- Bosch Power Tools | Bosch Power Tools
- Bosch Power Tools | Bosch Power Tools
- Bosch Power Tools
- Bosch Power Tools | Bosch Power Tools
- Bosch Elektrowerkzeuge | Bosch Elektrowerkzeuge
- Bosch Elektrowerkzeuge und Zubehör | Bosch Elektrowerkzeuge
- 📵 Ηλεκτρικά εργαλεία Bosch | Ηλεκτρικά εργαλεία Bosch
- Invented for life | Bosch Global

Manuals+.