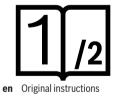


EasyMower

18V-32-150 | 18V-32-200







Robert Bosch Power Tools GmbH 70538 Stuttgart GERMANY

www.bosch-pt.com

F 016 L94 617 (2023.04) 0/22





	¥	
2		
	English Page	3
	CE/CK	2/2

English | 3

English

Safety Notes

Explanation of symbols – lawnmower



General hazard safety alert.



Read instruction manual.



Make sure that bystanders are not injured by foreign objects being thrown away.



WARNING: Keep bystanders away.



ſ∂→

ste,

WARNING: Keep hands and feet away from the blades.

WARNING: Disconnect battery before maintenance.



WARNING: Remove the disabling device before maintenance.



Not applicable.



Wait until all machine components have completely stopped before touching them. The blades continue to rotate after the machine is switched off, a rotating blade can cause injury.



Do not expose to rain.



Not applicable.



Not applicable.



Battery charger contains a safety transformer.

Only use the battery charger indoors.



Do not use a high-pressure washer or a garden hose to clean the machine.



Carefully check the area where the tool is to be used for wildlife and pets. Wildlife and pets may be injured while the machine is in operation. Thoroughly check the working area and remove any stones, sticks, wires, bones and foreign objects.

When using the machine, ensure that no wildlife, pets or small tree stumps are hidden in the dense grass.

General Power Tool Safety Warnings

WARNING

Read all safety warnings, instructions, illustrations and specifica-

tions 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 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 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) protec-

4 | English

ted 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 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.

Lawnmower safety warnings

- Do not use the lawnmower in bad weather conditions, especially when there is a risk of lightning. This decreases the risk of being struck by lightning.
- ► Thoroughly inspect the area for wildlife where the lawnmower is to be used. Wildlife may be injured by the lawnmower during operation.
- Thoroughly inspect the area where the lawnmower is to be used and remove all stones, sticks, wires, bones, and other foreign objects. Thrown objects can cause personal injury.
- Before using the lawnmower, always visually inspect to see that the blade and the blade assembly are not worn or damaged. Worn or damaged parts increase the risk of injury.
- Check the grass catcher frequently for wear or deterioration. A worn or damaged grass catcher may increase the risk of personal injury.
- Keep guards in place. Guards must be in working order and be properly mounted. A guard that is loose, damaged, or is not functioning correctly may result in personal injury.
- Keep all cooling air inlets clear of debris. Blocked air inlets and debris may result in overheating or risk of fire.
- While operating the lawnmower, always wear non-slip and protective footwear. Do not operate the lawnmower when barefoot or wearing open sandals. This reduces the chance of injury to the feet from contact with the moving blade.
- While operating the lawnmower, always wear long trousers. Exposed skin increases the likelihood of injury from thrown objects.
- ► Do not operate the lawnmower in wet grass. Walk, never run. This reduces the risk of slipping and falling which may result in personal injury.
- ► Do not operate the lawnmower on excessively steep slopes. This reduces the risk of loss of control, slipping and falling which may result in personal injury.
- When working on slopes, always be sure of your footing, always work across the face of slopes, never up or down and exercise extreme caution when changing direction. This reduces the risk of loss of control, slipping and falling which may result in personal injury.
- Use extreme caution when reversing or pulling the lawnmower towards you. Always be aware of your surroundings. This reduces the risk of tripping during operation.
- ► Do not touch blades and other hazardous moving parts while they are still in motion. This reduces the risk of injury from moving parts.
- When clearing jammed material or cleaning the lawnmower, make sure all power switches are off and the

battery pack is disconnected. Unexpected operation of the lawnmower may result in serious personal injury.

- ► Always allow the product to cool down before storing.
- Empty the grassbox before storing.
- When adjusting the machine, make sure not to pinch your fingers between the moving blades and fixed parts of the machine.

Operation

- We would advise you to wear ear protection for your own convenience.
- Wait until the blades stop if the machine has to be tilted for transportation when crossing surfaces other than grass and when transporting the machine to and from the area to be mowed.
- Do not tilt the machine when starting or switching on the motor.
- ► Switch on the motor according to the instructions with feet well away from rotating parts.
- ▶ Do not put hands or feet near or under rotating parts.
- Always stand clear of the discharge zone when operating the machine.
- Never pick up or carry the machine while the motor is running.
- ► When storing, make sure that all 4 wheels of the garden tool stand on the ground/floor.
- Only lift the garden tool with the carrying handle. Use the carrying handle with care.
- Do not modify the product. Unauthorized modifications may impair the safety of your product and may result in increased noise and vibration.

Remove Isolator key:

- Whenever you leave the machine.
- Before clearing a blockage.
- Before checking, cleaning or working on the machine.
- After striking a foreign object. Inspect the machine for damage and change the blade as necessary.
- If the machine starts to vibrate abnormally (check immediately).

Maintenance

- Always wear gardening gloves when handling or working near the sharp blades.
- Keep all nuts, bolts and screws tight to ensure safe working with the product.
- Check the grass bag frequently for wear or deterioration.
- Inspect the product and replace worn or damaged parts for safety.
- Ensure replacement cutting means of the right type are used.
- ▶ Ensure replacement parts fitted are Bosch-approved.
- Before storing, make sure that the product is clean and free of residue. If necessary, clean with a soft dry brush.

6 | English

Recommendations for Optimal Handling of the Battery Pack

 Do not open the battery. There is a risk of short-circuiting.



Protect the battery against heat (e.g., against continuous intense sunlight), fire, water, and moisture. There is a risk of explosion.

- When not using the machine, keep the battery not in use away from paper clips, coins, keys, nails, screws, or other small metal objects that could cause bridging of the terminals. Shorting the battery terminals together may cause burns or a fire.
- ► In case of damage and improper use of the battery pack, vapours may be emitted. Ventilate the area and seek medical help in case of complaints. The vapours can irritate the respiratory system.
- Only use the battery with products from the manufacturer. This is the only way in which you can protect the battery against dangerous overload.
- ► 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.
- Do not short-circuit the battery. There is a risk of explosion.
- Occasionally clean the venting slots of the battery using a soft, clean and dry brush.
- Charge the machine only with the supplied battery charger.

Symbols

The following symbols are important for reading and understanding the original instructions. Please take note of the symbols and their meaning. The correct interpretation of the symbols will help you to use the product in a better and safer manner.

Symbol	Meaning
1	Movement direction
C	Reaction direction
	Wear protective gloves
i i	Weight
	Switching on
0	Switching off
1	Permitted action
\times	Prohibited action
CLICK!	Audible noise
	Accessories/Spare Parts

Product Description and Specifications



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

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

Intended Use

The garden product is intended for domestic lawn mowing. The garden product is not intended for hedge cutting, trimming, shredding, etc.

The garden product is intended for lawn mowing at ground level.

Technical Data

Lawnmower		EasyMower 18V-32-150	EasyMower 18V-32-200
Article number		3 600 HB9 D	3 600 HB9 D
Rated voltage	V	18	18
Cutting width	cm	32	32
Height of cut	mm	20/40/60	20/40/60
Capacity, grass bag		31	31
Weight according to EPTA-Procedure 01:2014 ^{A)}	kg	8.1	8.1
Serial number			see type plate on garden tool

			Englisn 1
Lawnmower		EasyMower 18V-32-150	EasyMower 18V-32-200
Recommended ambient temperature during charging	°C	0 +35	0+35
Permitted ambient temperature during operation ^{B)} and storage	C°	-20 +50	-20 +50
Battery type		PBA 18VW-C 3.0 Ah, 4.0 Ah, 5.0 Ah, 6.0 Ah	PBA 18VW-C 3.0 Ah, 4.0 Ah, 5.0 Ah, 6.0 Ah

A) Depends on battery in use

B) Limited performance at temperatures < 0 °C

Noise/Vibration Information

		EasyMower 18V-32-150	EasyMower 18V-32-200	
Typically the A-weighted noise levels of th	Typically the A-weighted noise levels of the product are:			
Noise emission values determined accord	ing to EN IEC 62	841-4-3		
 Sound pressure level 	dB(A)	75	75	
– Uncertainty K	dB	= 2.5	= 2.5	
 Sound power level 	dB(A)	88	88	
Vibration total values ah (triax vector sum) and uncertainty	K determined according to EN IEC	62841-4-3	
 Vibration emission value a_h 	m/s ²	< 2.5	< 2.5	
 Uncertainty K 	m/s ²	1.5	1.5	

That the declared vibration total value(s) and the declared noise emission value(s) have been measured in accordance with a standard test method and may be used for comparing one machine with another.

That the declared vibration total value(s) and the declared noise emission value(s) may also be used in a preliminary assessment of exposure.

That the vibration and noise emissions during actual use of the machine can differ from the declared total value depending on the ways in which the machine is used, and of the need to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the machine is switched off and when it is running idle in addition to the trigger time).

Mounting and Operation

 To provide for proper cutting performance, set the height of cut to the same position on all 4 wheels (see figure E).

Action	Figure	Page
Delivery scope ^{A)}	Α	11
Mounting the handle	В	12
Snapping together the grassbox	С	13
Fitting/removing the grassbox	D	13
Setting the height of cut	E	14
Inserting the battery	F	14
Operation - Inserting the isolator switch - Switching on	G – H	15 - 16

Action	Figure	Page
- Mowing - Switching off - Removing the isolator switch		
Removing the battery	1	17
Working advice "mowing"	J	17
Blade maintenance/Blade replacement	K	18
Selecting accessories	L	19

- -

 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.

Starting Operation

For Your Safety

- Warning! Switch off, remove the isolator switch and the battery before adjusting or cleaning. The same applies when the cable to the switch in the handle is damaged, cut or entangled.
- The blade continues to rotate for a few seconds after the machine is switched off.
- ► Caution: Do not touch the rotating blade.
- Use only the chargers listed in the technical data. Only these chargers are matched to the lithium-ion batteries of your product.

Charging the Battery

The battery is equipped with temperature monitoring that allows charging only in the temperature range between 0 $^{\circ}{\rm C}$

8 | English

and 35 $^\circ\!\mathrm{C}$. In this manner, a high battery service life is achieved.

Note: The battery is supplied partially charged. To ensure full battery capacity, completely charge the battery in the battery charger before using for the first time.

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

The "Electronic Cell Protection (ECP)" protects the lithiumion battery against deep discharging. When the battery is empty, the product is switched off by means of a protective circuit: The product no longer operates.

Do not continue to press the On/Off switch after an automatic shut-off of the product. The battery could become damaged.

Observe the notes for disposal of the battery.

Inserting/Removing the Battery

Note: Using unsuitable batteries can lead to malfunctions or damage the machine.

Insert the charged battery. Make sure that the battery is fully fitted.

To remove the battery from the machine, press the battery unlocking button and pull the battery out.

Working Advice

Cutting Capacity (Battery Operating Duration)

The cutting capacity (battery operating duration) depends on lawn properties, such as grass density, moisture content, grass length and height of cut.

Switching the machine on and off frequently during cutting will also reduce the cutting capacity (battery operating duration).

To improve the cutting capacity (battery operating duration), it is recommended to cut more frequently, increase the cutting height and walk at an appropriate pace.

The example below shows the connection between cutting height and cutting capacity with regard to the battery used.

Cutting Conditions

6cm	
4cm	I BUAZABUL MIMI
4CIII 1000	
JVVWW	WWWWW,

Very thin, dry grass

Cutting capacity	
Battery with 3.0 Ah	up to 100 m ²
Battery with 4.0 Ah	up to 150 m ²
Battery with 5.0 Ah	up to 185 m ²
Battery with 6.0 Ah	up to 220 m ²

To increase the run time an additional battery can be purchased from an authorised customer service agent for Bosch garden products.

Troubleshooting



Problem	Possible Cause	Corrective Measure
Motor refuses to start	Internal wiring of garden tool defective	Contact Bosch customer service agent
	Battery discharged	Recharge battery
	Battery too hot/cold	Allow to cool/warm
	Grass too long	Max. allowed grass height 15 cm on highest height-of-cut setting
	Motor protector has activated	Allow motor to cool and increase height of cut
	Isolator key not inserted correctly/fully	Fit correctly
Garden tool functions	Internal wiring of garden tool defective	Contact Bosch customer service agent
intermittently	Motor protector has activated	Allow motor to cool and increase height of cut
Machine leaves ragged	Height of cut too low	Increase height of cut
finish	Cutting blade blunt	Replace cutting blade (see figure K).
<i>and/or</i> Motor labours	Possible clogging	Switch garden tool off and disengage isolator key
		Check underneath the garden product and clear out as necessary (always wear protective gloves)
	Blade fitted upside down	Refit blade correctly

Problem	Possible Cause	Corrective Measure
Blade not rotating	Cutting blade obstructed	Switch garden tool off and disengage isolator key
while garden product switched on		Clear obstruction (always wear protective gloves)
Switched on	Belt drive separated	Contact Bosch customer service agent
	Blade nut/bolt loose	Tighten blade nut/bolt (17 Nm)
Excessive vibrations/	Blade nut/bolt loose	Tighten blade nut/bolt (17 Nm)
noise	Cutting blade damaged	Replace cutting blade (see figure K).

Maintenance and Service

Maintenance, Cleaning and Storage

- Before any work on the garden product itself (e.g. maintenance, tool change, etc.) as well as during transport and storage, remove the battery from the garden product. There is danger of injury when unintentionally actuating the On/Off switch.
- For safe and proper working, always keep the product clean.

Do not place other objects on the garden product.

To ensure safe and efficient operation, always keep the product and the ventilation slots clean.

Never spray the product with water.

Never immerse the product in water.

Store the product in a secure, dry place, out of the reach of children.

Do not place other objects on the product.

Keep all nuts, bolts and screws tight to ensure safe working with the product.

Inspect the product and replace worn or damaged parts for safety.

Ensure replacement parts fitted are Bosch-approved.

Battery Maintenance

Use the following procedures to enable optimum usage of the battery:

- Protect the battery against moisture and water.
- Store the machine and battery only within a temperature range between -20 °C and 50 °C. As an example, do not leave the battery in the car in summer.
- The battery must not be stored within the product but stored separately.
- Do not leave the battery in the product in direct sunlight.
- The ideal storage condition for the battery is 5 °C.
- Occasionally clean the venting slots of the battery using a soft, clean and dry brush.

A significantly reduced working period after charging indicates that the battery is used and must be replaced.

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. You can find explosion 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 nameplate 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: boschservicecentre@bosch.com

You can find further service addresses at:

www.bosch-pt.com/serviceaddresses

Transport

The recommended lithium-ion batteries are subject to legislation on the transport of dangerous goods. The user can transport the batteries by road without further requirements.

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



Products, rechargeable batteries, accessories and packaging are to be recycled in an environmentally friendly manner.



Do not dispose of rechargeable batteries/batteries into household waste!

Only for EU countries:

According to European Directive 2012/19/EU on Waste Electrical and Electronic Equipment and its implementation

10 | English

into national law, power tools that are no longer usable must be collected separately and disposed must be collected separately and be disposed of in an environmentally friendly manner. According to European Directive 2006/66/EG rechargeable batteries that are defect or no longer usable must be collected separately and disposed of in an environmentally friendly manner.

If disposed incorrectly, waste electrical and electronic equipment may have harmful effects on the environment and human health, due to the potential presence of hazardous substances.

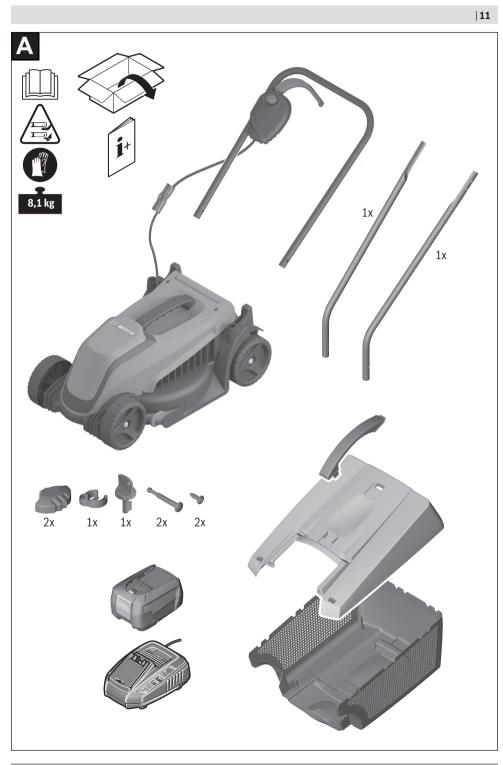
Rechargeable batteries/batteries:

Li-lon:

Please refer to the notice in section Transport (see "Transport", page 9).

Only for United Kingdom:

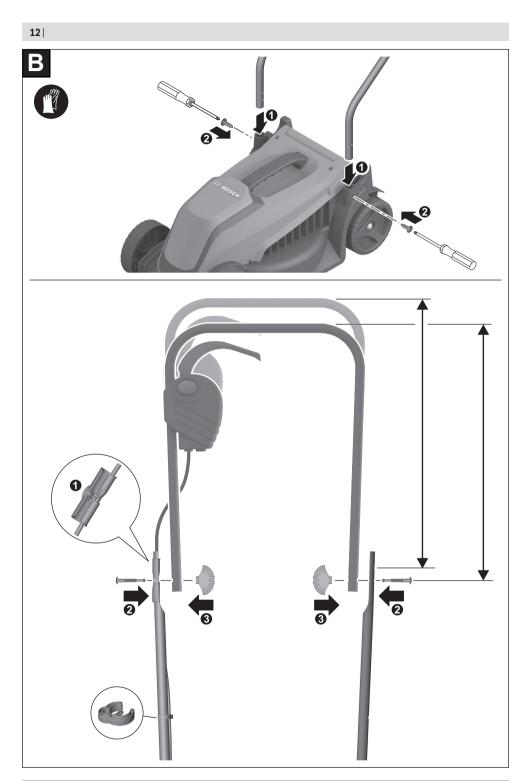
According to The Waste Electrical and Electronic Equipment Regulations 2013 (SI 2013/3113) (as amended) and the Waste Batteries and Accumulators Regulations 2009 (SI 2009/890) (as amended), products that are no longer usable must be collected separately and disposed of in an environmentally friendly manner.



Bosch Power Tools

(4

F 016 L94 617 | (20.04.2023)

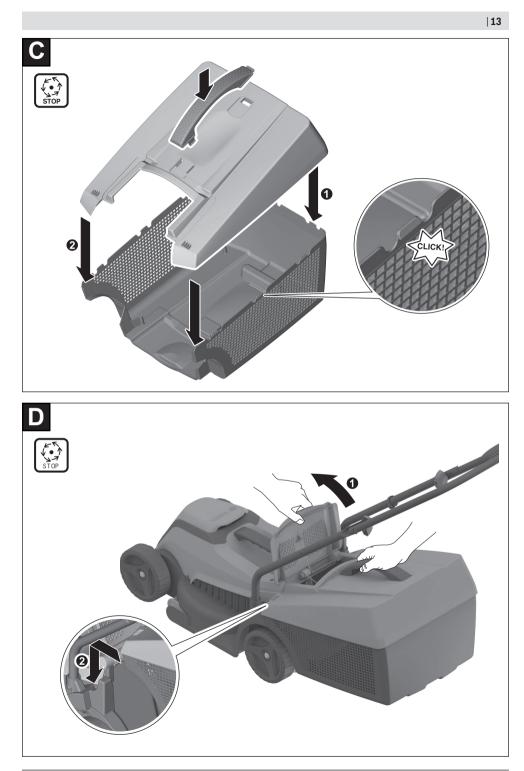


(

F 016 L 94 617 | (20.04.2023)

0

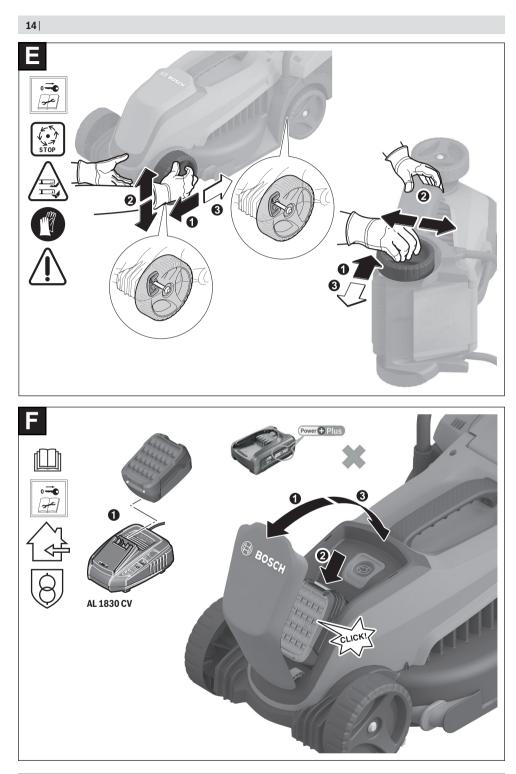
Bosch Power Tools



Bosch Power Tools

0

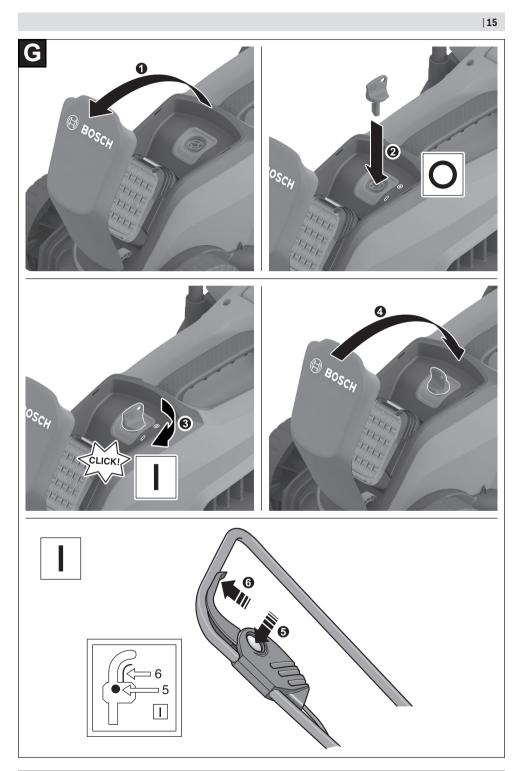
F 016 L94 617 | (20.04.2023)



F 016 L94 617 | (20.04.2023)

۲

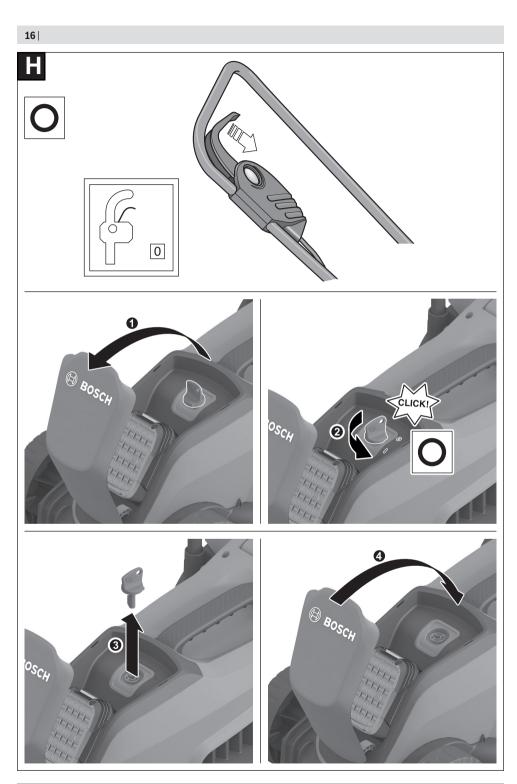
Bosch Power Tools



Bosch Power Tools

۲

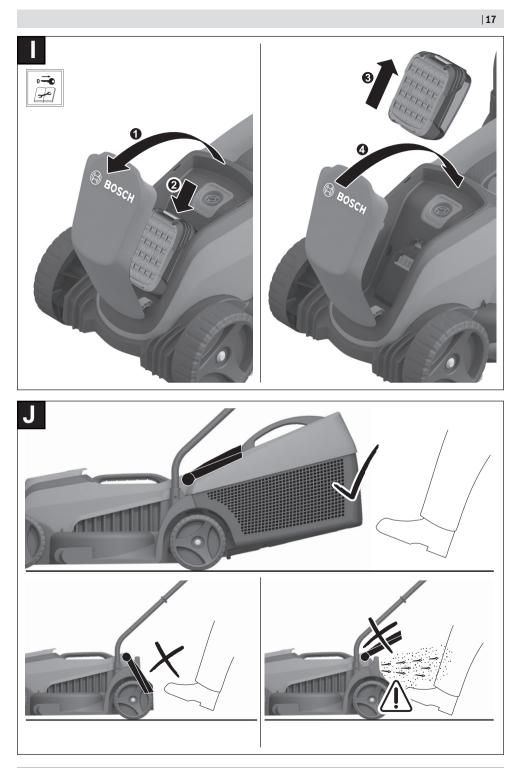
F 016 L94 617 | (20.04.2023)



F 016 L94 617 | (20.04.2023)

۲

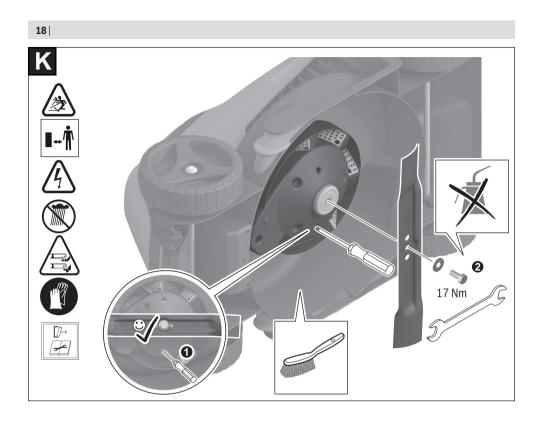
Bosch Power Tools



Bosch Power Tools

۲

F 016 L94 617 | (20.04.2023)



(

0



Bosch Power Tools

0

F 016 L94 617 | (20.04.2023)

Licenses

1.1 - STM32CubeG0 V1.4.1 - BSD 3-Clause

Copyright © 2020 STMicroelectronics. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.

2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

3. Neither the name of STMicroelectronics nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LI-MITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTER-RUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (IN-CLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

1.2 - CMSIS V5.4.0 - Apache-2.0

Copyright © 2009-2019 Arm Limited. All rights reserved.

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

http://www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

1.3 - STM32CubeG0 V1.4.1 - Apache-2.0

Copyright © 2018-2019 STMicroelectronics. All rights reserved.

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at

http://www.apache.org/licenses/LICENSE-2.0

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

Apache 2.0 License

Version 2.0, January 2004 http://www.apache.org/licenses/ TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- You must give any other recipients of the Work or Derivative Works a copy of this License; and
- You must cause any modified files to carry prominent notices stating that You changed the files; and
- You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
- If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License.

You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License. You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABI-LITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

|21

22 |

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS