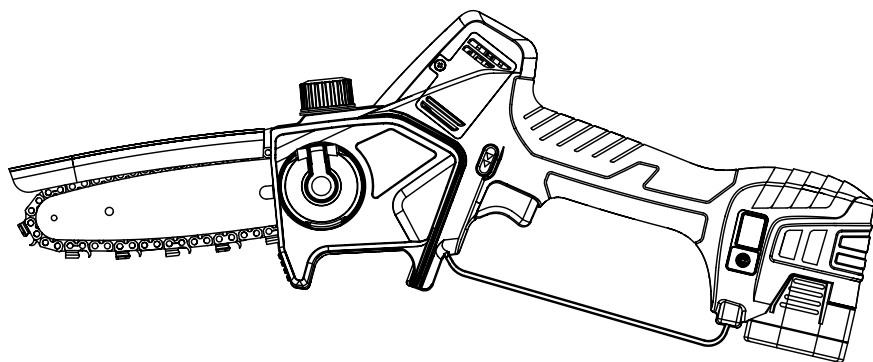




**BLUEBIRD
INDUSTRIES**

Battery pruner

CS 23-05A



Product using manual
- original instructions-

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Dear users:

Thank you for choosing our product. We are a developer and manufacturer of high-quality products according to the requirements of our customers. Our products still exhibit excellent reliability under extreme conditions. The company is also a synonym for excellent service quality. Our professional retailers provide services and support for resolving doubts about our products. Thank you for your trust in our company. Wish you a happy use experience.

Warning



Please read all safety warnings and instructions carefully. Failure to comply with the relevant warnings and instructions may result in electric shock, fire or other serious injury.

Please keep all warnings and instructions for future reference.

Symbol specification

The symbols used in this tool are shown below.
Please understand the meaning before using the tool.



Read the instruction manual



Wear protective clothing



Wear safety glasses



Wear ear muffs



Wear non slip boots



Wear protective gloves



Wear head protection



Chain running direction



Don't litter



Oil pot logo



Keep away from fire



Remove the battery when servicing



Two-handed tool



Keep away from humid environment



Keep the tool away from the rain



Electrical safety distance



Prevent tool rebound



Warning
Danger



If the power cord is damaged or cut, please pull off the plug in time.



low noise

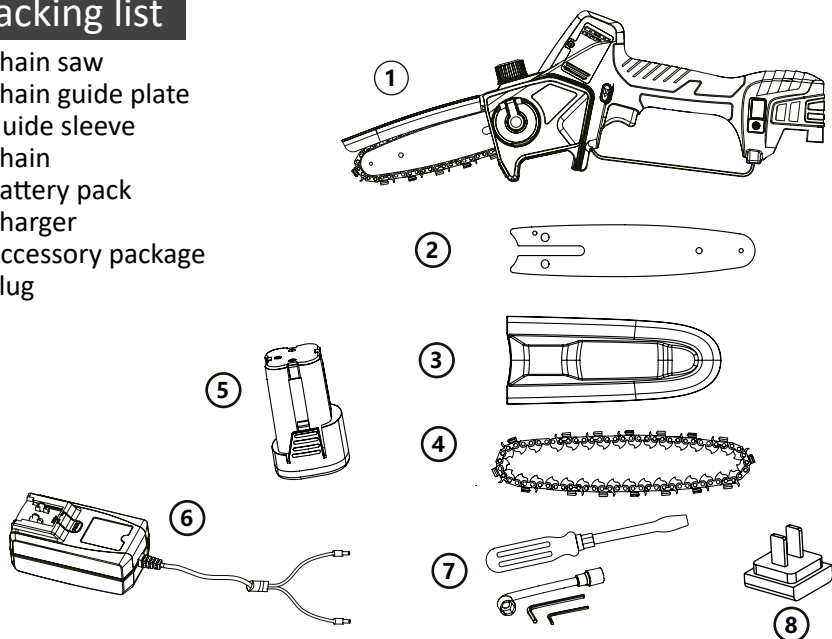
- The manufacturer reserves the right to change the specifications without notice
- Specifications and battery packs may vary from country to country

Technical data

Model	CS 23-05A
Max Voltage	16.8V
Rated Voltage	14.4V
Rated Power	500W
Guide plate specification	5"
Chain specification	1/4" - 1,1 - 29 links
Sprocket specification	7 gears
Lubricating oil filling method	Automatic refueling

Packing list

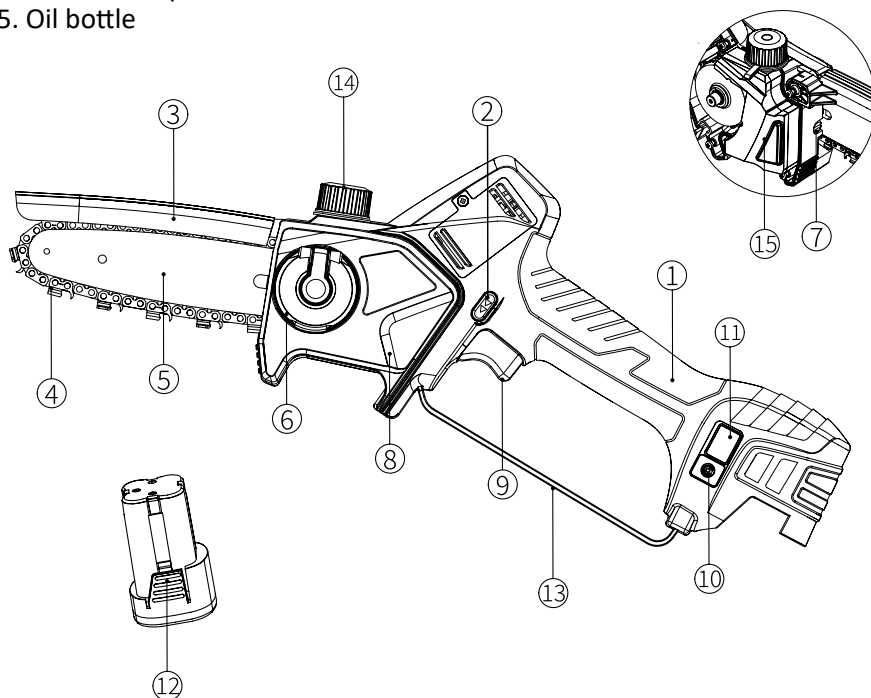
1. Chain saw
2. Chain guide plate
3. Guide sleeve
4. Chain
5. Battery pack
6. Charger
7. Accessory package
8. Plug



The product in the package shall prevail

Part name

1. Main handle
2. Self-locking switch
3. Chain safety cover
4. Chain
5. Guide plate
6. Chain cover knob
7. Tension screw
8. Chain cover
9. Speed control switch
10. Power switch button
11. Display
12. Battery pack
13. Handle guard
14. Oil bottle cap
15. Oil bottle



Safety specification

Scope of application: sawing, pruning branches and cutting some small diameter trees. It is suitable for gardens and orchards.

➤ Precautions before operation

- (1) The use of battery packs and chargers that are not marked and not approved by garland may cause fire or explosion, which may cause serious or fatal injury and property damage.
- (2) The use of chain saws, battery packs and chargers beyond their design specifications can cause serious or fatal injury and property damage.

Battery pack instruction manual:

Please refer to the battery pack and charger instructions in the battery pack.

Charger instructions:

Please refer to the battery pack and battery pack instructions.

➤ Operator requirements



Warning!

If the user does not read and understand the contents of the manual, it is forbidden to use and contact the chain saw, battery pack and charger. Otherwise, it may cause serious injury or death to users or other people. Read the instruction manual and make sure you understand it and keep it for future reference.

Read the instructions and make sure you understand them completely and keep them for future reference.

Ensure that the user meets the following requirements:

- (1) When using battery pack and charger, users must ensure that their physical condition, mental state and mental state are in normal condition and suitable for operating the equipment. If the user has the above restrictions, please use it under the guidance of supervisor or responsible person.
- (2) The user must be an adult.
- (3) When using the equipment for the first time, users should ensure that they receive the instructions from company dealers or professional operation instructions of company.
- (4) Users are not allowed to use the equipment under the influence of alcohol, drugs and drugs.

Users who use chain saws for the first time must first perform the necessary sawing exercises on the saw frame or bracket.

➤ Dress and protection requirements

Warning!

- (1) Dress appropriately. Do not wear loose clothes or accessories. Keep clothing gloves and hair away from moving parts. Loose clothing accessories or long hair may get involved in moving parts.

(2) Debris or other sawdust may be thrown out of the chain during operation, which may cause physical injury.

- a. Wear goggles when operating.
- b. Company suggests wearing protective masks.
- c. Wear long clothes.

(3) Falling objects may cause head injury.

(4) Dust and sawdust will be raised during operation. Dust and sawdust will lead to poor air circulation or allergic reaction.

(5) Improper clothing may hang on the branches and branches of trees, which will hinder and affect the use of chain saws. Improper clothing may cause serious injury to users.

- a. Please wear tight fitting clothes.
- b. Please take away the scarf and jewelry.

(6) The user may approach the operating data chain when using the data link, which will cause serious harm to the user

- a. Please wear trousers with a protective cutting grade, which is defined by the speed of the chain.

(7) Users may hurt themselves while cutting wood. Especially when cleaning the machine and chain, the hand will touch the sharp edge of the chain.

- a. Please wear protective gloves when working.

(8) Improper shoes may lead to slipping or falling. If you come into contact with the saw chain after falling down, it will cause injury to the user

- a. Please wear chain protection boots. The protection level of protective boots is defined according to the chain speed.

Working environment requirements

➤ Surrounding safety requirements

(1) Bystanders, children, and other animals are not aware that sawdust or other debris flying out of the chain can pose a threat to them. Bystanders, children, animals may be seriously injured.

- a. Please keep bystanders, children, animals away from the work area.

(2) The chain is not waterproof and may cause electric shock if you use it in rain or wet environment. The user will be injured and the chain saw will be damaged.

- a. Do not use chain saw in rain or in wet environment.

(3) The motor of the chain may produce sparks, which may lead to fire and explosion in the environment with combustible or explosive materials. These can lead to serious injury or death and property damage.

- a. Do not work in an environment with combustible and explosive materials.

➤ Machine safety requirements

The chain saw is safe if the chain saw meets the following conditions:

- (1) The chain is not damaged.
- (2) The chain is clean and dry.
- (3) The handle of chain saw is intact.
- (4) The chain trigger switch operates normally.

- (5) The control program works normally and has not been modified.
- (6) The chain lubricating oil feeding system is normal.
- (7) The tooth groove depth of sprocket and chain should not exceed 0.5mm.
- (8) The assembly of guide plate and chain is in accordance with the instructions of this manual
- (9) The guide plate and chain are well assembled.
- (10) The chain is normally tensioned.
- (11) Only the accessories of company original factory can cooperate with the chain saw.
- (12) The accessories are assembled normally.
- (13) The oil pot is locked and closed.



If the product no longer meets the safety requirements, the parts can not play their due function or the safety mechanism can not work normally. These conditions can cause serious or fatal injury.

Warning!

- (1) Only a good chain saw can be used. If the chain clip is dirty or wet, clean it and dry it.
- (2) Do not refit your chain covers, e.g. guides and chains.
- (3) If the control system does not work properly, do not use the link.
- (4) only accessories and accessories provided by company shall be used.
- (5) Install the guide plate and chain according to the instructions.
- (6) Please refer to the manual for the installation of accessories.
- (7) do not insert anything into the chain saw

➤ Safety instructions for guide plate

The guide is safe to use if it meets the following conditions:

- (1) All functions of the guide plate are in good condition.
- (2) The guide plate is not deformed or incomplete.
- (3) the groove depth of guide plate has no obvious change.
- (4) The guide plate track is smooth without burr.
- (5) There is no shrinkage or cracking in the guide plate groove.



If the guide plate is not in a safe state, the guide plate will not fit the chain well. The chain has the danger of jumping out of the guide plate, which can cause serious or fatal injury.

Warning!

- (1) Use only guides that are not damaged.
- (2) If the guide plate is less than the minimum depth, replace it with a new one.
- (3) Please clear the trash from the guide plate after operating the chain saw.
- (4) If you have any questions, please contact company dealer in time.

➤ Chain safety notice

The chain is safe to use if the guide plate meets the following conditions:

- (1) The chain is not broken.
- (2) The cutting edge of chain cutter head is sharp.
- (3) the cutting depth of chain cutter head edge meets the description of service mark.
- (4) The cutting edge length of the cutter head meets the grinding standard.



If the spare parts do not meet the safety standards, they can not play their due functions, and the safety devices will be invalid, which will lead to serious personal injury and even death.

Warning!

- (1) Do not use damaged chains.
- (2) Grinding chain cutter head according to the specification.
- (3) If you have any questions, please contact the distributor in time.

Operation precautions

➤ Cutting precautions



Warning!

- (1) In some specific cases, the operator may not concentrate on the work, and the operator may trip and fall, resulting in serious injury
 - a. Keep calm and work in a planned way.
 - b. Do not use chained data in low visibility and dark environments.
 - c. Please operate your own documents.
 - d. Do not operate the chain beyond the height of your shoulder.
 - e. Be careful of obstacles
 - f. When you operate the chain saw, please stand in a safe position and keep your balance. If you need to work at height, use a lift or a safe scaffold.
- (2) The user may be injured by the running saw chain, and the user may be seriously injured.
 - a. Do not touch the moving saw chain.
- (3) According to the length of the chain, and the tension of the chain can not increase effectively if the chain breaks down. These can lead to serious injury and property damage.
 - a. Make sure the chain lubricant is lubricated properly
 - b. During operation, check whether the chain tension is appropriate. If the data chain is loose, please adjust it in time.
- (4) If the chain saw starts abnormally and works abnormally, the chain clip may be in an unsafe state, which will cause serious personal injury or property loss.
 - a. Stop working and contact company dealers.
- (5) When the chain saw is running.
 - a. Please put on your gloves.
 - b. Take a break in time.
 - c. In case of poor health, consult your doctor.
- (6) If the running saw chain touches a hard object, sparks will be generated. Sparks can cause fire in combustible environment. These can lead to serious injury and property damage.
 - a. Do not use chainage in combustible environment

(7) When you release the trigger, the chain will still run for some time, which may cause serious injury.

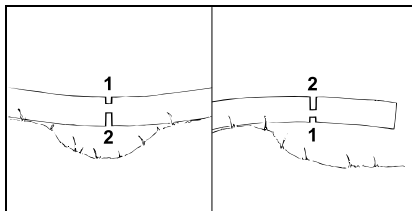
- a. Must wait for the chain to stop completely



If the tree is under tension, the guide may be clamped. Users can lose control of the chain saw, resulting in serious injury.

Warning!

- (1) First cut a relief groove from the tight side (1), and then cut into the anti loose side (2).



➤ Notes on pruning

- (1) If the branches placed under the tree are pruned first, the trunk will not be supported by the branches. Trees can roll, causing serious or fatal damage.
 - a. Turn the main pole over and trim the branches.
 - b. Do not stand on the log to trim.

➤ Notes on logging

- (1) Inexperienced personnel are prohibited from approaching dangerous logging sites, which may result in serious or fatal personal injury and property damage.
 - a. Please don't cut trees alone.
- (2) Branches or other objects from fallen trees may fall on bystanders. May cause serious or fatal personal injury or property damage.
 - a. Judge the direction of the tree fall, so that the tree falls clean.
 - b. Onlookers, children and animals are not allowed to stay within 2.5 tree lengths.
 - c. Observe the crown and the crown of the tree next to the tear to make sure that there is no branch interference when the crown falls.
- (3) When a tree falls, the trunk may break or bounce towards the operator, causing serious or fatal injury.
 - a. Plan your escape route around.
 - b. Observe the direction of the tree fall and escape to the planned escape route.
 - c. Don't go uphill.
- (4) Obstacles in the workplace or on the escape route can hinder the fleeing. Escaping personnel may fall and cause serious or fatal injury.
 - a. Clear the work area and the obstacles on the escape route.
- (5) If there are fixed hinges or stable ropes on the trunk, the trees may be out of control and fall down prematurely, which will cause serious or fatal injury and property loss to operators.
 - a. Do not use hinges.
 - b. Finally, a stable rope is used.
 - c. If trees fall early: give up logging and evacuate along the escape route.

(6) During cutting, if the head of the guide plate touches the object or the wood clamps and squeezes the chain, it may cause rebound. Sometimes, when the head of the guide plate touches the object, it will form a sudden reaction force, which will spring up the guide plate and rush to the operator, causing injury to the operator.

(7) If a tree falls in an uncontrollable direction or falls on top of another tree. The operator cannot complete logging operations in a controlled manner.

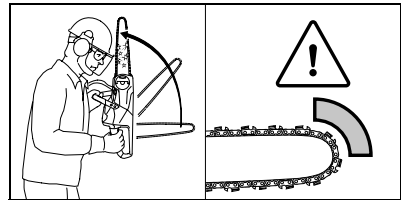
- a. Stop logging operations and use ropes to select suitable vehicles to pull down trees

➤ Rebound warning

The following situations may lead to chain data rebound:

(1) Running chain according to guide plate head contact hard object or emergency brake.

(2) The head of the running chain guide is touched.

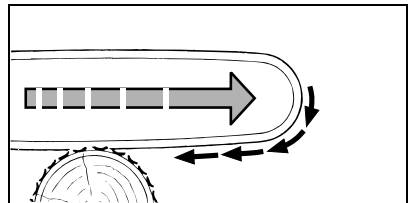


➤ Tension warning instructions

When cutting from top to bottom with guide plate, the direction of chain saw pulling force is opposite to the direction of the cutter.

If the running chain saw comes into contact with a hard object and is clamped, the electric chain will suddenly break away from the operator. The operator may lose control of the chain saw, causing serious or fatal injury.

- a. Grasp the chain saw handle.
- b. Operate the chain according to the description in the manual.
- c. Keep the guide pointing down.
- d. Please cut at full speed.

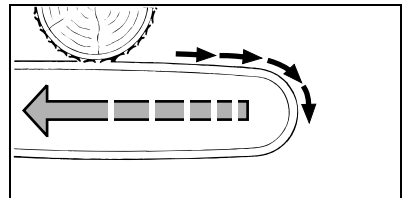


➤ Thrust warning instructions

When the guide plate is used for cutting from bottom to top, the direction of chain saw thrust is towards the operator.

If the running chain saw contacts a hard object and is clamped, the electric chain saw will suddenly leave the operator, and the operator will lose control of the chain saw, causing serious or fatal injury.

- a. Grasp the chain handle with both hands.
- b. Operate the chain saw as described in the instruction manual.
- c. Keep the guide pointing down.
- d. Please cut at full speed.



Cleaning, maintenance and repair

(1) Under the condition of cleaning, maintenance and repair, if the battery pack is not disconnected from the tool, the chain saw may start suddenly. This can lead to serious injury and property damage.

- a. Turn off the power.
- b. Remove the chain head.
- c. Remove guide and chain.

(2) Corrosive cleaning agents, high-pressure cleaning equipment or sharp cleaning tools may damage the chain saw, guide plate, chain, battery pack and charger. If chainsaws, guides, chains, battery packs and chargers cannot be cleaned in the correct way, the relevant parts may not be functioning as they should be, or the safety devices may not be functioning, which can cause serious injury.

- a. Clean chains, guides, chains, battery packs and chargers in accordance with instructions.

(3) If the chain, guide plate, chain, battery pack and charger can not be cleaned and maintained in the correct way, the parts can not function as expected, or the safety device will no longer work, which will lead to serious injury.

- a. Do not try to maintain the maintenance chain, battery pack, charger.
- b. If chain saw, battery pack and charger need maintenance and repair: please contact company dealer in time.
- c. Maintain and repair guides and chains as described in the instructions.

(4) The user may be injured by sharp blade when cleaning and maintaining the chain data, which may cause personal injury

- a. Please wear anti cutting gloves

Inspection items before operation

Please check whether the following items are normal before operation:

(1) Ensure that the following parts are in a safe state:

- a. Link host
- b. Guide plate
- c. Chain
- d. Battery pack
- e. Charger

(2) Check the battery pack

(3) The battery pack should be fully charged.

(4) Clean the chain saw

(5) Install guide plate and chain

(6) Tensioning chain

(7) Top up the chain oil

(8) Check the control system

(9) Check the lubricating oil pump oil system

(10) If you don't understand the above operation: please do not use the chain document and contact the company dealer as soon as possible.

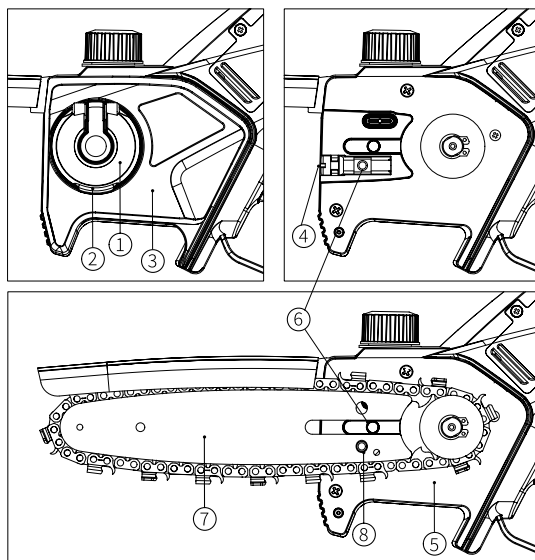
Assembly of chain saw

Please cut off the power when doing the following operations!

► Installation of chain and guide plate

- (1) Turn off the chain saw and unplug the battery pack.
- (2) Open the chain cover knob '①' and turn it until the sprocket cover '②' can be removed.
- (3) Remove the chain cover '③'.
- (4) Adjust the tension screw '④', put the guide plate '⑦' on the chain saw body '⑤', and insert the tension block '⑥' into the fixing hole '⑧' on the guide plate.
- (5) Put the chain into the groove of the guide plate, and refer to the arrow mark on the main body of the chain saw for the direction of the blade edge.
- (6) Close the chain cover and tighten the chain cover knob.

Note: Both the front and the back sides of the guide plate ⑦ can be used, and the marked one may be on the front or on the back side.



► Installation of chain and guide plate

- (1) Unscrew the chain cover knob (1);
- (2) Remove the chain cover (3);
- (3) Adjust the tensioning screw (4);
- (4) Remove the chain and guide plate.

➤ Tension chain

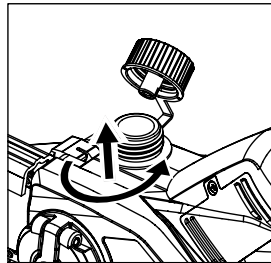
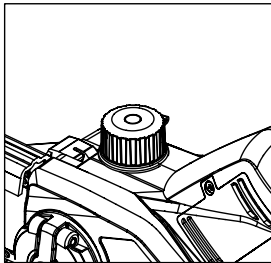
When the chain saw is working, the chain may be elongated. If necessary, adjust the chain tightness according to the operation specification.

- (1) Turn off the chain saw and cut off the power.
- (2) Loosen the nut on the chain cover appropriately ①.
- (3) Use slotted screwdriver to rotate the tension screw ③ to move the tensioning block ; ⑤.
 - a. The chain drive teeth are close to the bottom of the guide plate groove.
 - b. The chain can be easily pulled along the guide plate groove.
- (4) If engraving guide plate is used: adjust the chain tightness and pull the chain by hand, half of the driving teeth can be seen outside the guide plate.
- (5) If the chain cannot be pulled by hand: loosen the sprocket cover nut and knob and adjust the tension bolt until the chain can be easily pulled along the guide plate.
- (6) Tighten the sprocket cover plate

➤ Add chain lubricates

Chain oil lubricates and cools the chain:

- (1) Turn off the saw and disconnect the power
- (2) Put the chain saw in a horizontal position
- (3) Take the external oil pot, squeeze it gently, and drop an appropriate amount of lubricating oil on the chain



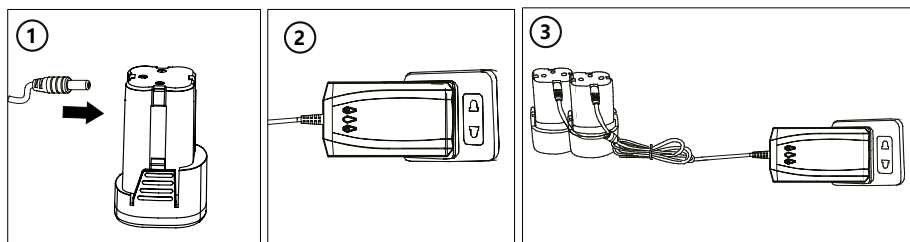
Warning!

It is not allowed to add oil manually during the operation of chain saw to avoid hand injury.

Note for battery use and maintenance

Battery charging

The battery of the new product is not fully charged. Put the charger flat on the table and insert the battery into the charging slot, then insert the power plug of the charger into the power socket. The charger indicator is red, indicating that the charger is charging. The charger indicator lights are all green, and the charging operation is completed.



Warning!

Note: each indicator represents the charging state of different charging heads, and the charger can be charged one or two.

Note

1. When charging, the charger and battery have a little heating, which is normal.
2. If the battery is not used for a long time, it must be recharged once every 3 months in order to prolong its service life.
3. A new battery or a battery that has not been used for a long time needs about 5 charge and discharge cycles before reaching the maximum capacity.
4. Do not recharge the battery after a short period of operation, which may reduce the working time and efficiency of the battery.
5. Do not use a damaged battery pack and do not disassemble the charger and battery pack.
6. The battery will explode when put into the fire. Do not barbecue battery packs.
7. Do not charge the battery outdoors or in humid environment.
8. With the gradual decrease of battery power, the ability of shear diameter will decrease, which is a normal phenomenon.
9. During charging, the electric trimmer must be cut off. It is forbidden to use electric trimmer when charging.
10. Do not store the battery pack in a humid environment.

● Maintenance and Precautions of Battery

1. Do not charge in an environment below 0° and above 45°, which may damage the battery and the charger.
2. Please turn off the switch before connecting the battery. If the switch is on, accidental connection of the battery to the machine is likely to occur.
3. Charge the battery only with the charger designated by the manufacturer.
The use of other chargers may lead to fire and other dangers.
4. When the battery is not in use, keep it away from small metal objects such as paper clips, coins, keys, nails and screws that will lead to short circuit, for short circuit may lead to burns or fire.
5. Do neither disassemble nor reassemble the battery.
6. Do not use batteries with short circuit.
7. Do not use the battery near any heat source.
8. Do not put the battery into fire or water.
9. Do not charge near fire or sunlight.
10. Do not insert any nail into the battery and hit or throw the battery with a hammer or foot.
11. Do not use batteries that are severely damaged or deformed.
12. Do not weld directly on the battery.
13. Reverse charging, reverse-pole connection and over-discharge of the battery is not permitted.
14. Do not connect the battery to power sockets or car cigarette lighter socket.
15. Do not use it on non-designated devices.
16. Direct contact with lithium battery is prohibited.
17. Do not place the battery in containers with high temperature and high pressure such as a microwave oven.
18. Do not use any leaky battery.
19. Keep the battery away from children's reach.
20. Do not use or place the battery under the sun (or direct sunlight), otherwise it may cause the battery to overheat and catch fire, which will result in functional failure and shortened life.
21. Do not use the battery in places with static electricity (>64V).
22. In case of any corrosion, bad smell or abnormality when the battery is first used, please do not use it and return it to the sales outlet.
23. If skin or clothes are stained with electrolyte from the battery, please rinse with clean water.
24. If the electric pruning shears are not used for a long time, the battery needs to be charged for storage.

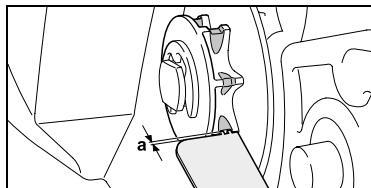
Inspection chain saw



Please turn off the power when performing the following operations!

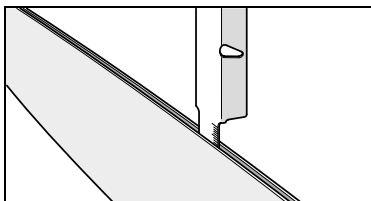
Check the sprocket

- (1) Turn off the chain saw and disconnect the power.
- (2) Remove the sprocket protective cover.
- (3) Remove guide and chain.
- (4) measure the depth of sprocket groove with depth gauge
- (5) If the groove depth is more than 0.5mm, please do not use the chain saw again, contact company dealer, and replace the sprocket as soon as possible.



Test guide plate

- (1) Turn off the link and disconnect the power.
- (2) Check the chain and guide plate.
- (3) measure the depth of guide plate groove, and refer to company standard for groove depth.
- (4) if the following conditions are met, please replace the guide plate in time:
 - a. The guide plate is damaged
 - b. The measured depth is less than the minimum allowable depth.
 - c. The groove of chain saw is deformed and damaged
- (5) If you have any questions: please contact the distributor of company in time.

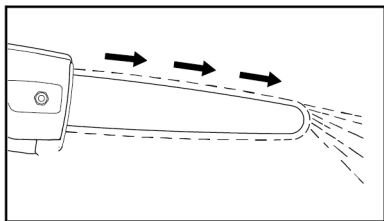


Checking Chain Lubrication

- (1) Hold the guide bar over a light surface.
- (2) Switch on the saw.

Chain oil is thrown off the chain and is visible on the light surface.
Chain lubrication is operating properly.
- If no chain oil can be seen:
- (3) Fill up with chain oil.
- (4) Check chain lubrication again.
- (5) If chain oil is still not visible on the light surface:

Do not use your chain saw and contact your local servicing dealer. Chain lubrication is defective.

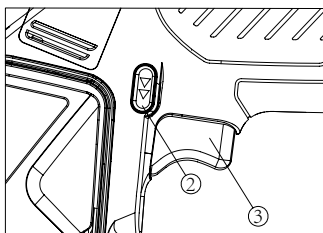
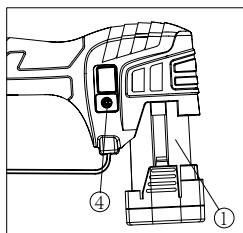


Start detection

(1) Please make sure there are no children or other people within 50 feet (15 meters) in the workplace, and pay attention to if there are animals around.

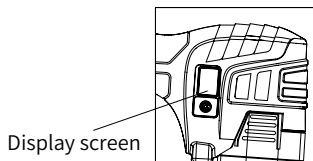
(2) Power on: Push the battery pack into the bayonet slot of the machine, and make sure it is fully fixed after hearing a clacking sound, press the power switch ④ for three seconds, it means completing the power on when you hear a beep.

(3) Hold the handle, press the lock button ② with thumb, pull the trigger ③, and then the machine starts normally. (Note: The chain and guide plate should not contact with any other object when starting the machine.)



➤ If there is a fault, please deal with it according to the display prompt code. Display failure prompt:

When using this product, if the screen fails, it can be judged based on the number of flashes of the battery indicator. Repair or disposal. (Non-professionals should not carry out maintenance work)



Alarm meaning diagram				
Alarm content	Blinking times of the LED on the main board	Number of call of the main board buzz	LCD display failure	Other instructions
No fault	0	0	E00	
Protection against injury	1	1	E01	
Current sensor error	2	6	E02	
MOS tube damaged	3	6	E03	
Peak over current / average current protection	5	5	E05	
Chain saw blocked	6	3	E06	
Phase loss	7	4	E07	
Under / over voltage	8	1	E08	
MOS / chip over temperature	9	6	E09	
EEPROM error	11	6	E11	
Phase detection failed	12	4	E12	
Programming error	13	6	E13	
Communication failure between motherboard and battery pack.	17	10	E17	

One hand chain saw operation

This machine is a single hand saw, suitable for single hand operation. There is only one joystick. Do not approach any part of the body during operation.

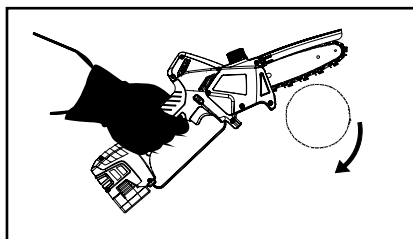
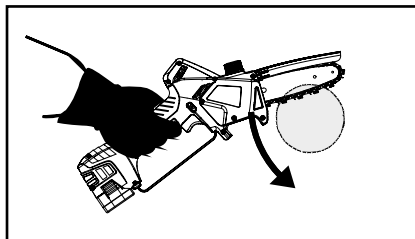
➤ Timber making



Warning!

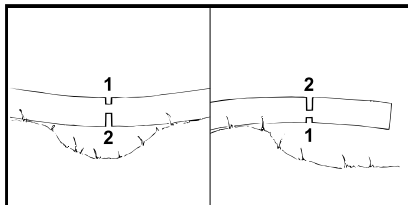
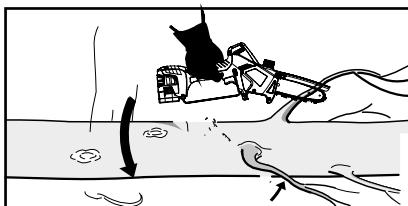
If there is a rebound, the token will bounce towards the operator, causing serious or fatal injury.

- Cut at full speed.
- Do not cut with the guide head.
- At the beginning of cutting, keep the chain at full speed and the guide plate vertical.
- According to the width of the guide plate, the head of the guide plate should expose the cutting tree.
- Add the weight of the chain to the guide plate.



➤ Pruning branches

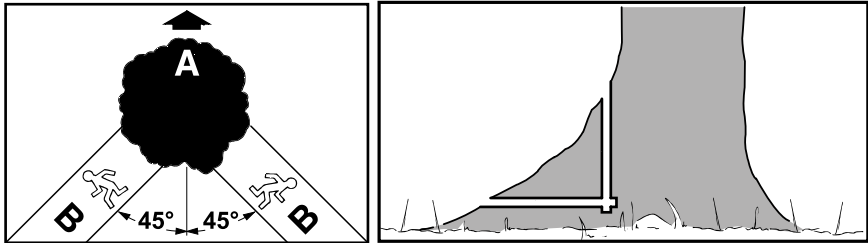
- Place the chain saw guide on the branch to be trimmed.
- The chain is cut at full speed.
- Cut the branches with the upper part of the guide.
- Cut the branch with tension: first cut a small hole (1) on the relaxed side, and cut continuously under the tension.



➤ Logging

1. Confirm escape route

- The escape route (b) is at an included angle of 45° in the reverse direction (a) of the tree falling direction. (see Figure 23)
- Make sure route (b) is clear of obstacles.
- The top of the tree can be observed.

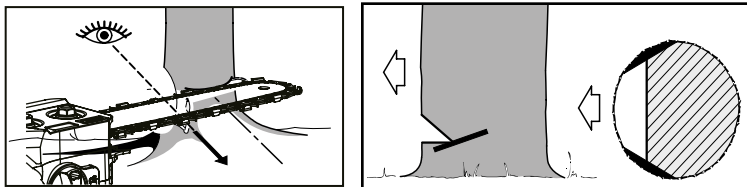


2. Root treatment of cut trees.

- Clear the obstacles under the trees and the working area.
- Remove the redundant part of tree roots.
- If the tree is too large, the root has very thick stump: first cut vertically and then horizontally to remove the excess part of the root. (refer to figure 24)

3. Cut out the Hawthorn mouth C

The mouth of the Hawthorn determines the direction of the tree falling. Cut out the Hawthorn mouth on the side of the tree dumping, and cut the Hawthorn mouth as close to the ground as possible. First of all, cut a $1/5$ to $1/3$ of the diameter of the trunk horizontally, do not cut the Hawthorn mouth too deep, and then do the oblique line cutting.



- Cut off the whole width of the Hawthorn mouth
- The width of the dorsal part of the cut should be about $1/10$ of the base line
- In any case, the whole trunk should not be cut directly, otherwise the dumping direction of the tree could not be confirmed, and wedge should be inserted into the back incision in time.
- only plastic or aluminum wedges can be used to keep the back incision in the disconnected state. The use of iron wedges is prohibited.

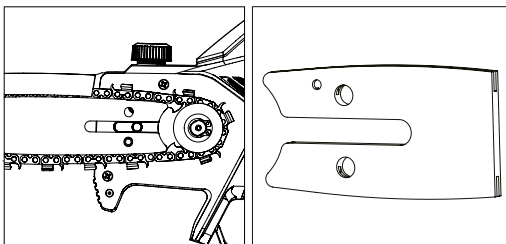
Chain saw cleaning

(1) Chain saw cleaning

- Turn off the chain. Turn off the power.
- Wipe the chain frame with a wet cloth.
- Remove the sprocket guard.
- Clean the chain wheel periphery and body part with wet cloth.
- Use a softer brush when cleaning the battery pack charger.
- Install the sprocket cover plate.

(2) Clean guides and chain saws

- Turn off the chain. Turn off the power.
- Remove guide and chain.
- Use a soft brush to clean the oil outlet, oil inlet hole and guide plate rear groove.
- Clean the chain with a soft brush.
- Install guides and chains.



Maintenance

(1) Maintenance of sprocket

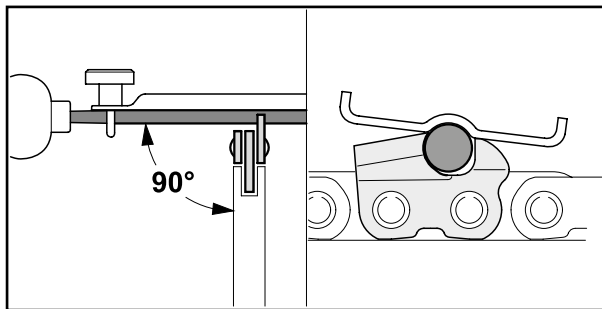
- Users are not allowed to remove the sprocket by themselves
- If the sprocket is damaged or defective, please do not use the equipment and contact the dealer for replacement.

(2) Maintenance guide plate: if there is burr on the edge of guide plate, please polish it in time.

- If you have any questions, please contact company dealers in time.

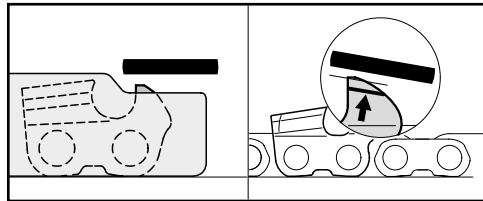
(3) Grinding chain

- It is not suitable to use the ordinary round file to grind the chain.



(4) The file should only grind the saw blade forward in one direction, and do not make the file contact the saw blade when pulling back backward. First, grind the shortest reference blade. The length of the blade is used as the reference dimension of other saw blades on the chain.

- a. The round file must fit the pitch of the chain.
- b. Round file head from inside out.
- c. File in one direction according to the cutter head angle.
- d. Please keep the blade angle.
- e. According to the depth of the guide plate groove, touch the cutter head small tooth (see the figure)
- f. If you have any questions, please contact company dealer in time



General safety specification for electric tools



Warning!

Read all warnings and instructions. Failure to follow these warnings and instructions may result in electric shock, fire and or serious injury. Keep all warnings and instructions for easy reference.

In all of the following warnings, the term “power tool” refers to a utility driven wired power tool or a battery driven wireless power tool.

(1) Workplace safety

- a. Keep the workplace clean and bright. Chaotic and dark places can cause accidents
- b. Do not operate electric tools in explosive environment, such as flammable liquid, gas or dust. Sparks generated by electric tools can ignite dust or gas.
- c. Let children and bystanders leave to operate power tools. Inattention can cause the operator to lose control of the tool

(2) Electrical safety

- a. The plug of electric tools must match the socket, and the plug must not be modified in any way. Power tools that need to be grounded shall not use any conversion plug. Unmodified plugs and matching sockets will reduce the risk of electric shock.
- b. Avoid human contact with grounded surfaces, such as pipe fins and refrigerators. If you are grounded, you will increase the risk of electric shock.

- c. Do not expose power tools to rain or humidity. Water entering electric tools will increase the risk of electric shock.
- d. Do not abuse wires. Never use wires to carry and pull power tools or pull out their plugs. Keep wires away from heat source oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- e. When using electric tools outdoors, it is necessary to use external flexible wires suitable for outdoor use, which will reduce the risk of electric shock. Flexible cords will reduce the risk of electric shock.
- f. If it is unavoidable to operate electric tools in humid environment, residual current operated protector (RCD) should be used, which can reduce the risk of electric shock.

(3) Personal safety

- a. Be alert, pay attention to the operation and stay awake when operating power tools. Do not operate power tools when you are tired or have drug, alcohol or treatment reactions. In the operation of electric tools, momentary negligence can cause serious personal injury.
- b. Use personal protective equipment, always wear goggles and safety devices. Such as the use of dust masks, anti-skid safety shoes, helmets, hearing protection and other devices under appropriate conditions can reduce personal injury.
- c. To prevent accidental starting, make sure that the switch is in the off position when connecting the power supply and/or battery box, when picking up or handling tools, putting your finger on the switch that has been powered on or inserting the plug when the switch is on may cause danger.
- d. Remove all adjusting keys or spanners before turning on the power tool. Personal injury may result from the wrench or key left on the rotating parts of the electric tool.
- e. Don't stretch your hands too long, always pay attention to the foothold and body balance, so that you can control the power tools well in case of accidents.
- f. Dress properly. Do not wear loose clothes or accessories. Keep gloves and hair away from moving parts. Loose eyewear or long hair may get involved in moving parts.
- g. If a device is provided to connect with the chip removal and dust collection equipment, make sure that they are well connected. And it is used properly. The use of these devices can reduce the risk caused by dust.

(4) Use and precautions of electric tools

- a. Don't abuse power tools. According to the use of appropriate selection of electric tools, appropriate design of electric tools will make your work more effective and safer.
- b. If the switch fails to turn on or turn off the power supply of the tool, the power tool cannot be used. Electric tools that cannot be controlled by switches are dangerous and must be repaired.
- c. Before any adjustment, replacement of accessories or storage of electric tools, the plug must be removed from the power supply and the battery box must be disconnected from the tool. This protective measure will reduce the risk of accidental starting of the tool.
- d. Store unused electric tools out of the reach of children, and do not let people who are not familiar with the electric tools or do not understand these instructions to operate them. It is dangerous for untrained users to use them

Safety warning of rechargeable chain saw

- (1) When the chain is in working state, keep all parts of the body away from the chain. Before starting the chain, make sure that the chain does not come into contact with any object. During chain operation, even a moment of distraction can lead to clothing or body being drawn into the chain.
- (2) Please be sure to hold the back handle of the chain with your right hand and the front handle of the chain saw with your left hand. If you hold the chain saw with both hands upside down, it will increase the risk of personal injury. Therefore, do not hold the back handle with your left hand and the front handle with your right hand.
- (3) because the chain may come into contact with hidden wires. When operating the tool, only the insulated handle can be grasped. When the chain contacts the live wire, the exposed metal part of the tool may also be charged. And make the operator electric shock.
- (4) please wear safety glasses and ear protection device. It is recommended to further wear protective devices to protect the head, hands, legs and feet. Full wearing of protective clothing will reduce personal injury caused by flying debris or accidental contact with the chain.
- (5) do not operate the chain saw on the tree. Operating chain data on trees may cause personal injury.
- (6) be sure to stand firmly. Before operating the chain saw, you must stand on a fixed, safe and horizontal surface. Slippery or unstable surfaces, such as ladders, may cause the body to lose flat impact or the chain saw may lose control.
- (7) when cutting the branch under tension, please be alert to rebound. When releasing the tension on the wood fiber, the elastic force on the branch may impact the operator or cause the chain to lose control.
- (8) when cutting shrubs and young trees, be careful that the slender materials may jam the chain, hit itself or cause imbalance.
- (9) Before carrying the chain saw, it is necessary to close the chain grip and hold the front handle tightly to keep a certain distance from the body. When transporting or storing the chain saw, be sure to cover the guide plate. Proper operation of the chain saw will reduce the possibility of accidental contact with the running chain.
- (10) Lubricate, tension chain and replace accessories according to instructions. Improper tensioning or lubrication of the chain can cause chain breakage or increase the possibility of rebound.
- (11) Keep the handle dry, clean, free from grease and grease. Greasy handle is easy to slip, leading to the out of control of the arts and crafts day.
- (12) for wood cutting only. Do not use the chain saw for any purpose other than the intended purpose. For example, do not use chain saws to cut plastic, stone or non wood building materials. Use of chain saws for operations other than the intended purpose will result in hazardous situations.

Causes of tool rebound and preventive measures for operators

- (1) When cutting, if the head of the guide plate touches the object or wood to clamp and squeeze the chain, it may cause rebound.
- (2) Sometimes when the head of the guide plate touches the object, it will form a sudden reaction force, which will spring up the guide plate and rush to the operator.
- (3) Squeezing the chain along the upper part of the guide may quickly push the guide back to the operator. Any of these reactions may cause the chain saw to lose control and cause serious personal injury.
- (4) Do not rely solely on the safety equipment installed on the chain.
- (5) As a chain user, you should take a variety of measures to prevent accidents or personal injury during cutting operation.
- (6) Tool misoperation, incorrect operation steps or operating conditions will lead to rebound. The following precautions can be avoided:
 - a. Hold firmly and hold the chain saw handle with both thumbs and fingers. Adjust body and arm positions to prevent rebound. If the correct precautions are followed, the operator can control the rebound force, so be careful.
 - b. Do not extend the tool too far and do not cut above the shoulder. This will help prevent the head from touching the object and better control the tool in case of accident.
 - c. Follow the manufacturer's grinding and maintenance instructions to maintain the chain. Lowering the depth and height causes frequent bounce

After-sale service

If you have any questions in the process of using, please contact us in time (For contact information see the last page). We have professional personnel to answer your questions and problems, so that professional maintenance personnel can use the same replacement parts to repair electric tools, so as to maintain the safety performance of electric tools.

Statement

The company reserves the right to make technical improvements to the product described herein. Please understand if there is any change. If there are discrepancies between the graphic images and the texts, and the real objects herein, the latter shall apply.

EC DECLARATION OF CONFORMITY - HERSTELLERERKLÄRUNG - DECLARATION 'CE' DE CONFORMITE - DECLARACION DE CONFORMIDAD - DICHIARAZIONE DI CONFORMITA' EUROPEA - GELIJKVORMIGHEIDSVERKLARING - EC DEKLARATION I OVERENSSTEMMELSE - DECLARAÇÃO CE DE CONFORMIDADE - EY ILMOITUS - FORSAKRAN OM OVERENSSTÄMMELSE - BEKREFTENDE EU ERKLÆRING - ΔΗΛΩΣΗ ΕΚ ΣΥΜΜΟΡΦΩΣΗΣ - EUROPEJSKA DEKLARACJA ZGODNOSCI

1) MANUFACTURER – HERSTELLER – FABRICANT – FABRICANTE – COSTRUTTORE – CONSTRUCTEUR – PRODUCTENT – FABRICANTE – VALMISTAJA – TILLVERKARE – FABRIKANT – Κατασκευαστής – PRODUCENT:
Blue Bird Industries Fabbrica Motori SRL
Via Due Camini 19, 36010 Zanè (VI), Italia

2) DESCRIPTION OF THE MACHINERY – BESCHREIBUNG DER MASCHINE – DESCRIPTION DE LA MACHINE – DESCRIPCION DE LA MAQUINARIA – DESCRIZIONE DELLA MACCHINA – BESCHRIJVING VAN DE MACHINE – BESKRIVELSE AF MASKINEN – DESCRIÇÃO DA MAQUINA – KONEEN NIMITYS – MATERIELSLAG – BESKRIVELSE AV MASKINERIET – ΠΕΡΙΓΡΑΦΗ ΤΩΝ ΜΗΧΑΝΩΝ – OPIS MASZYN:
POTATORE A BATTERIA – BATTERY PRUNER

a) MAKE – FABRIKAT – MARQUE – MARCA – MARCA – MERK – MÆRKE – MARCA – MERKKI – FABRIKAT – FABRIKANT – MAPKA – MARKA:
BLUE BIRD INDUSTRIES Fabbrica Motori srl
Via Due Camini 19, Zanè, Italia

b) TYPE / TYP / TYPE / TIPO / TIPO / TYPE / TYPE / TIPO / MALLI / TYPBE / TYPE / ΤΥΠΟΣ / TYP:
CS 23-05A

2000/14/EC (2005/88/EC) – Livelli di potenza sonora come da allegato V – Sound Power Levels performed per annex V	
TIPO	Livelli di Potenza Sonora Misurata / Livelli di Potenza Sonora Garantita LWA Sound Power Levels Measured / Sound Power Level Guaranteed LWA (dB)
CS 23-05A	74/88

c) Il prodotto è conforme alle direttive - The product complies with the directives - Das Produkt entspricht den Richtlinien - Le produit est conforme aux directives - El producto cumple con las directivas :

- 2006/42/EC – 2014/30/EU – 2000/14/EC (2005/88/EC) – 2011/65/EU

d) Il controllo CE del campione di costruzione secondo la direttiva 2006/42/CE, Art 12.3(b) è stato eseguito presso:
The EC type examination test was carried out pursuant to Directive 2006/42/EC, Art 12.3(b) at:
Die EG-Baumusterprüfung nach Richtlinie 2006/42/EG, Art. 12.3(b) wurde durchgeführt bei:
L'examen CE de type conformément à la directive 2006/42/CE Art. 12.3(b) a été effectué par l'office de contrôle:
La prueba de examen CE de tipo se llevó a cabo de conformidad con la Directiva 2006/42 / CE, Art.12.3 (b) en:
• TÜV SÜD Product Service GmbH at Ridlerstraße 65, 80339 Munich, Germany No.0123 - Certificate No. M8A 105425 0051 Rev. 00

e) REFERENCE TO STANDARDS/HARMONIZED STANDARDS - VERWEIS AUF NORMEN/HARMONISIERTE NORMEN - REFERENCE AUX NORMES/NORMES HARMONISEES - REFERENCIA A ESTANDARES/ESTANDARES ARMONIZADOS - RIFERIMENTO ALLE NORME/NORME ARMONIZZATE - REFERENTIE NAAR STANDAARDEN/GEHARMONISEERDE STANDAARDEN - REFERENCE TIL STANDARDER/HARMONISEREDE STANDARDER - REFERENCIA AS NORMAS/NORMAS HARMONIZADAS - VITTAUS STANDARDDEIHIN/YHTEISIIN STANDARDDEIHIN - REFERERANDE TILL STANDARDER/HARMONISERADE STANDARDER - HENVISNING TIL STANDARD/FELLES STANDARD - ΑΝΑΦΟΡΑ ΣΤΑ ΠΡΟΤΥΠΑ/ΕΝΑΡΜΟΝΙΣΜΕΝΑ ΠΡΟΤΥΠΑ - ODNIESIENIE DO NORM/NORM ZHARMONIZOWANYCH:
UNI EN ISO 12100:2010 EN 62841-1:2015

e) Il caricabatterie (mod. KH24-1681420-2E) è stato fabbricato e distribuito in conformità con le seguenti direttive: 2014/35/EU, 2014/30/UE e 2011/65/UE
The charger (mod. KH24-1681420-2E) has been manufactured and put on the market in accordance with the following directives: 2014/35/EU, 2014/30/UE and 2011/65/UE
Das Ladegerät (mod. KH24-1681420-2E) wurde gemäß den folgenden Richtlinien hergestellt und vertrieben: 2014/35/EU, 2014/30/UE e 2011/65/UE
Le chargeur (mod. KH24-1681420-2E) a été fabriqué et distribué conformément aux directives suivantes: 2014/35/EU, 2014/30/UE e 2011/65/UE
El cargado (mod. KH24-1681420-2E) r fue fabricado y distribuido de acuerdo con las siguientes directivas: 2014/35/EU, 2014/30/UE e 2011/65/UE

Importato da - Imported by - Eingeführt von - Importé par - Importado por:



BLUE BIRD INDUSTRIES – FABBRICA MOTORI s.r.l.
ZANÈ (VI) – ITALIA 01-07-2024
The chairman – Der vorsitzender – Le président – El presidente – Il presidente – De voorzitter – Daglig leder – O presidente – Toimitusjohtaja – Verkställande direktör – Administrerende direktør – Ο ΙΠΟΕΛΠΟΣ - Prezes

VANDA VITELLA

- (GB) Technical documentation maintained by
(F) Documentation technique maintenue par
(I) Documentazione tecnica conservata da
(DK) Teknisk dokumentation tilhåndhalden av
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(E) Documentacion tecnica mantenida por
(NL) Technische documentatie onderhouden door
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(SE) Teknisk dokumentation tilhåndhalden av
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VANDA VITELLA



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