

Bäumr-AG®

21" Self-Propelled Petrol Key Start Lawn Mower 890SXe



User Manual

[Revision 3.0 February 2020]



READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description and packaging.

The product is NOT supplied with engine oil, although traces of oil from the manufacturing process may be present. It is essential to add adequate engine oil of the correct type to the engine before use. **Failure to add engine oil will void the product warranty.**

Safety

Safety messages are designed to alert you to possible dangers or hazards that could cause death, injury or equipment or property damage if not understood or followed. Safety messages have the following symbols:



You **WILL** be KILLED or SERIOUSLY INJURED if you do not follow instructions.



You **CAN** be KILLED or SERIOUSLY INJURED if you do not follow instructions.



You **CAN** be INJURED if you do not follow instructions or equipment damage may occur.

It is vital that you read and understand this user manual before using the product, including safety warnings, and any assembly and operating instructions. Keep the manual for future reference.

Safety precautions and recommendations detailed here must be fully understood and followed to reduce the risk of injury, fire, explosion, electrical hazard, and/or property damage.

Safety information presented here is generic in nature – some advice may not be applicable to every product. The term "equipment" refers to the product, be it electrical mains powered, battery powered or combustion engine powered.

- **Before Use** - If you are not familiar with the safe operation/handling of the equipment or are in any way unsure of any aspect of suitability or correct use for your application, you should complete training conducted by a person or organization qualified in safe use and operation of this equipment, including fuel/electrical handling and safety.
- Do NOT operate the equipment in flammable or explosive environments, such as in the presence of flammable liquids, gases or dust. The equipment may create sparks or heat that may ignite flammable substances.
- Keep clear of moving parts.
- Equipment may be a potential source of electric shock or injury if misused.
- Do NOT operate the equipment if it is damaged, malfunctioning or is in an excessively worn state.
- Do NOT allow others to use the equipment unless they have read this manual and are adequately trained.
- Keep packaging away from children - risk of suffocation! Operators must use the equipment correctly. When using the equipment, consider conditions and pay due care to persons and property.

General Work Area Safety

- Work areas should be clean and well lit.
- Do not operate the equipment if bystanders, animals etc are within operating range of the equipment or the general work area.
- If devices are provided for connecting dust extraction / collection facilities, ensure these are connected and used properly. Dust collection can reduce dust-related hazards.

General Personal Safety

- Wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect from eye and ear injury, poisoning, burns, cutting and crush injuries. Protective equipment such as safety goggles, respirators, non-slip safety footwear, hard hat, hearing protection etc should be used for appropriate equipment / conditions. Other people nearby should also wear appropriate personal protective equipment. Do not wear loose clothing or jewellery, which can be caught in moving parts. Keep hair and clothing away from the equipment.
- Stay alert and use common sense when operating the equipment. Do not over-reach. Always maintain secure footing and balance.
- Do not use the equipment if tired or under the influence of drugs, alcohol or medication.
- This equipment is not intended for use by persons with reduced physical, sensory or mental capabilities.

General Fuel Safety

- Petrol/fuel/gasoline is extremely flammable – keep clear of naked flames or other ignition sources.
- Do not spill fuel. If you spill fuel, wipe it off the equipment immediately – if fuel gets on your clothing, change clothing.
- Do NOT smoke near fuel or when refuelling.
- Always shut off the engine before refuelling.
- Do NOT refuel a hot engine.
- Open the fuel cap carefully to allow any pressure build-up in the tank to release slowly.
- Always refuel in well ventilated areas.
- Always check for fuel leakage. If fuel leakage is found, do not start or run the engine until all leaks are fixed.

General Carbon-Monoxide Safety

- Using a combustion engine indoors **CAN KILL IN MINUTES**. Engine exhaust contains carbon-monoxide – a poison you cannot smell or see.
- Use combustion engines OUTSIDE only, and far away from windows, doors and vents.

General Equipment Use and Care

- The equipment is designed for domestic use only.
- Handle the equipment safely and carefully.
- Before use, inspect the equipment for misalignment or binding of moving parts, loose components, damage or any other condition that may affect its operation. If damaged, have the equipment repaired by an authorised service centre or technician before use.
- Prevent unintentional starting of the equipment - ensure equipment and power switches are in the OFF position before connecting or moving equipment. Do not carry equipment with hands or fingers touching any controls. Remove any tools or other items that are not a part of the equipment from it before starting or switching on.
- Do not force the equipment. Use the correct equipment for your application. Equipment will perform better and be safer when used within its design and usage parameters.
- Use the equipment and accessories etc. in accordance with these instructions, considering working conditions and the work to be performed. Using the equipment for operations different from those intended could result in hazardous situations.
- Always keep equipment components (engines, hoses, handles, controls, frames, housings, guards etc) and accessories (cutting tools, nozzles, bits etc) properly maintained. Keep the equipment clean and, where applicable, properly lubricated.
- Store the equipment out of reach of children or untrained persons. To avoid burns or fire hazards, let the equipment cool completely before transporting or storing. Never place or store the equipment near flammable materials, combustible gases or liquids etc.
- The equipment is not weather-proof, and should not be stored in direct sunlight, at high ambient temperatures or locations that are damp or humid.
- Do not clean equipment with solvents, flammable liquids or harsh abrasives.
- For specific equipment safety use and care, see Equipment Safety.

General Electrical Safety	General Electrical Safety	General Service Information
- Inspect electrical equipment, extension cords, power bars, and electrical fittings for damage or wear before each use. Repair or replace damaged equipment immediately. - Ensure all power sources conform to equipment voltage requirements and are disconnected before connecting or disconnecting equipment. - When wiring electrically powered equipment, follow all electrical and safety codes. - Wherever possible, use a residual current device (RCD). - High voltage / high current power lines may be present. Use extreme caution to avoid contact or interference with power lines. Electrical shock can be fatal.	- Electrically grounded equipment must have an approved cord and plug and be connected to a grounded electrical outlet. - Do NOT bypass the ON/OFF switch and operate equipment by connecting and disconnecting the electrical cord. - Do NOT use equipment that has exposed wiring, damaged switches, covers or guards. - Do NOT use electrical equipment in wet conditions or in damp locations. - Do NOT use electrical cords to lift, move or carry equipment. - Do NOT coil or knot electrical cords, and ensure electrical cords are not trip hazards.	- The equipment must be serviced or repaired at authorised service centres by qualified personnel only. - Replacement parts must be original equipment manufacturer (OEM) to ensure equipment safety is maintained. - Do NOT attempt any maintenance or repair work not described in this manual. - After use, the equipment and components may still be hot – allow the equipment to cool and disconnect spark plugs and/or electrical power sources and/or batteries from it before adjusting, changing accessories or performing repair or maintenance. - Do NOT adjust while the equipment is running. - Perform service related activities in suitable conditions, such as a workshop. - Replace worn, damaged or missing warning/safety labels immediately.

This petrol lawn mower has been designed for cutting lawn areas in private houses and hobby gardens.

The machine is to be used only for its prescribed purpose. Any other use is deemed to be a case of misuse. The user/operator and not the manufacturer will be liable for any damage or injuries of any kind caused as a result of this.

Please note that this equipment has not been designed for use in commercial, trade or industrial applications. Warranty will be voided if the machine is used in commercial, trade or industrial businesses or for equivalent purposes.

Training

- Read the instructions carefully. Be familiar with the controls and the proper use of the equipment;
- Never allow children or people unfamiliar with these instructions to use the lawnmower. Local regulations can restrict the age of the operator;
- Never mow while people, especially children, or pets are nearby;
- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

Preparation

- While mowing, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals;
- Thoroughly inspect the area where the equipment is to be used and remove all objects which can be thrown by the machine;
- Warning - petrol is highly flammable.
 - Store fuel in containers specifically designed for this purpose.
 - Refuel outdoors only and do not smoke while refuelling.
 - Add fuel before starting the engine. Never remove the cap of the fuel tank or add petrol while the engine is running or when the engine is hot.
 - If petrol is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until petrol vapours have dissipated.
- Replace all fuel tank and container caps securely.
- Replace faulty silencers.
- Before using, always visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.
- On multi-bladed machines, take care as rotating one blade can cause other blades to rotate.

Operation

- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect;
- Mow only in daylight or in good artificial light;
- Avoid operating the equipment in wet grass, where feasible;
- Always be sure of your footing on slopes;
- Walk, never run;
- For wheeled rotary machines, mow across the face of slopes, never up and down;
- Exercise extreme caution when changing direction on slopes;
- Do not mow excessively steep slopes;
- Use extreme caution when reversing or pulling the lawnmower towards you;
- Stop the blade(s) if the lawnmower has to be tilted for transportation when crossing surfaces other than grass, and when transporting the lawnmower to and from the area to be mowed;
- Never operate the lawnmower with defective guards, or without safety devices, for example deflectors and/or grass catchers, in place;

- Do not change the engine governor settings or over speed the engine;
- Disengage all blade and drive clutches before starting the engine;
- Start the engine or switch on the motor carefully according to instructions and with feet well away from the blade(s);
- Do not tilt the lawnmower when starting the engine or switching on the motor, except if the lawnmower has to be tilted for starting. In this case, do not tilt it more than absolutely necessary and lift only the part which is away from the operator;
- Do not start the engine when standing in front of the discharge chute;
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times;
- Never pick up or carry a lawnmower while the engine is running;
- Stop the engine and disconnect the spark plug wire, make sure that all moving parts have come to a complete stop and, where a key is fitted remove the key:
 - Before clearing blockages or unclogging chute.
 - Before checking, cleaning or working on the lawnmower.
 - After striking a foreign object. Inspect the lawnmower for damage and make repairs before restarting and operating the lawnmower;
 - If lawnmower starts to vibrate abnormally (check immediately).
- Stop the engine and disconnect the spark plug wire, make sure that all moving parts have come to a complete stop and, where a key is fitted remove the key:
 - Whenever you leave the lawnmower.
 - Before refuelling.
- Reduce the throttle setting during engine shut down and, if the engine is provided with a shut-off valve, turn the fuel off at the conclusion of mowing.
- Go slow when using a trailing seat.

Maintenance and Storage

- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
- Never store the equipment with petrol in the tank inside a building where fumes can reach an open flame or spark.
- Allow the engine to cool before storing in any enclosure.
- To reduce the fire hazard, keep the engine, silencer, battery compartment and petrol storage area free of grass, leaves, or excessive grease.
- Check the grass catcher frequently for wear or deterioration.
- Replace worn or damaged parts for safety.
- If the fuel tank has to be drained, this should be done outdoors.

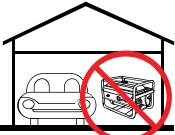
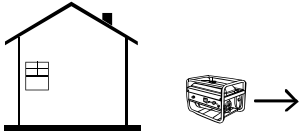
Battery Usage Precautions

- Please use according to the specification.
- Please note that wrong usage may lead to electric shocks, smoke emissions, glowing lights and damage.
- When using the battery, the input voltage/temperature range must conform to specifications, otherwise it can cause damage.
- Do not place in environments with high temperatures, humidity, dust or corrosive elements.
- Do not cover-up the battery while charging it. Otherwise, it can cause damage/deformation/scalding, etc.
- When the battery is fully-charged, please remove it from the charger and remove the charger plug from the power socket.
- Under the stipulated storage conditions, if the storage time is greater than 6 months, it will need to be charged at least 2 hours, otherwise, it may shorten the service life.

Battery Safety

- Activation: Activate every three months, Activate with charger and machine (charge-discharge-charge).
- Storage and transportation: If the battery pack is stored for more than three months, Battery packs should be stored at low temperatures, in a dry place. The transportation process should avoid any violent vibrations, impacts, exposure to sun and rain, etc.
- When the battery is not in use, please remove it from the device.
- Keep the battery clean and dry.
- The two-cell battery can perform better when used at room temperature.
- If there is stain on the surface of the battery, wipe it with a dry, clean cloth.
- After a long storage period, the battery needs to be activated several times to ensure maximum efficiency.
- When dealing with a secondary battery, please separate it from other electrochemical systems products.
- Waste battery should be disposed of by the relevant disposing unit.
- The improper use of a lithium ion battery can cause battery damage and even endanger personal safety. Please read carefully, use correctly and take precautions.
- Electrical performance abuse:
 - Charge and use according to specifications.
 - Use Lithium - ion specific charger.
 - Ensure that the polarities are correct when charging. The battery cannot be charged in reversed polarities.
 - Do not plug in the battery on the charger when it is not in use.
- Environmental abuse:

- Do not throw the battery on a fire, and do not expose the battery to water.
- Do not place the battery core under direct sunlight, which may cause the core to produce heat, smoke, fire, and can also cause bad performance and shorten the service life.
- The battery cannot be dismantled, opened, and decomposed without permission. It can only be dismantled by professionals. The enclosure must be designed so that professionals can only use tools to disassemble it.
- Do not leave the battery in hostile environments: extreme temperatures, deep cycles, overcharge or over discharge.
- Do not short-circuit the battery, it would permanently damage it.
- The battery cannot bear mechanical shock.
- Do not burn or damage the battery, which may lead to toxic gases release or explosion.
- When using a new battery or a battery that was stored for a long time, please charge the battery before using it.
- Do not reverse-charge the battery! Correctly connect the positive and negative polarity of the battery. If the positive and negative polarity cannot charge the core, the reverse charge will reduce the charging and discharging performance and safety of the battery core and will cause high temperature and electric leakage.
- Do not mix old and new batteries or different types of batteries' this may cause over-discharge.
- If there is an abnormal noise, abnormal temperature or leakage, please stop using immediately.
- If the battery is hot, do not touch it until it has cooled down.
- Do not remove the shell of the battery.
- If the battery is hot after use, please cool in a ventilated environment before recharging.
- Do not try to separate, squeeze or hit the battery. Otherwise, the battery will heat-up or catch fire and the lye in the battery will be harmful to the skin and eyes and will damage clothing.
- Keep the battery away from children. If swallowed, contact your local doctor immediately.
- When the battery leaks, your skin and eyes must not make contact with the liquid. Upon contact, immediately flush the affected area with water and immediately see your local doctor.

 DANGER 	
Using an engine or wood/charcoal/gas fuelled appliance indoors CAN KILL YOU IN MINUTES. Engine exhaust and wood/charcoal/gas fumes contain carbon monoxide. This is a poison you cannot see or smell.	
  NEVER use inside a building, home, garage, boat, caravan or tent EVEN IF doors and windows are open.	 Only use OUTSIDE and far away from windows, doors, and vents.
Avoid other hazards - READ MANUAL BEFORE USE.	

GENERAL:

- Do not operate in a hazardous location. Such areas include where there is a risk of explosion of petrol fumes, leaking gas or explosive dusts.
- Do not operate in a confined area where exhaust gases or wood/charcoal/gas fumes could reach dangerous concentrations.

PRODUCTS FEATURING AN ENGINE

- Follow all warnings in the section titled "GENERAL".
- Explosion hazard - never smoke while refuelling.
- Take care not to spill fuel. When refuelling the engine, ensure that the engine has been allowed to cool. Prevent spilling of fuel as this may also ignite with a hot engine.
- Never refuel while engine is running.

GENERATORS

- Follow all warnings in the sections titled "GENERAL" and "PRODUCTS FEATURING AN ENGINE".
- The output of this generator is potentially lethal. The generator should not be connected to a fixed electrical installation except by an appropriately licensed person.
- Not weatherproof – protect your machine. This machine is not weatherproof and should not be exposed to direct sunlight, high ambient temperature, damp conditions, wet conditions or high humidity conditions.

Safety Symbols

The product may have safety warning labels attached to it, explained below. Understand the symbols on your product and their meanings. If any stickers become unreadable, unattached etc., replace them.

 Flammable Material Hazard Flammable liquids, gases or substances etc may present. Avoid ignition sources and open flames. Danger of fire.	 Read User Manual Read and fully understand product safety warnings, operation, procedures etc before using the product.	 Use Hand Protection Wear appropriate hand protection and take due care as the product or use of the product may present hand hazards.	 Carbon-Monoxide Hazard Do not use the product in confined areas or without adequate ventilation. Carbon-monoxide poisoning can be fatal.
 Electrocution / Electrical Shock Hazard High voltage or high current electricity may be present or required by the product. Take due care when handling electrical products, cables, plugs and leads. Electrical shock can be fatal.	 Toxic Fumes / Dust Hazard Using the product or by-products from use may produce fumes, smoke or particles that could be harmful if inhaled. Wear appropriate breathing protection and have adequate ventilation.	 Explosive Material Hazard Combustible liquids, gases or substances etc may be present. Avoid ignition sources and open flames. Danger of explosion.	 Cutting / Amputation Hazard The product may have blades, edges or mechanical devices that can cause severe cut injury to fingers, limbs etc. Take due care when handling and using the product.
 Crush Hazard The product may have blades, edges or mechanical devices that can cause severe crush injury to fingers, limbs etc. Take due care when handling and using the product.	 Single Operator Only The product must be operated by a single person only. More than one person operating the product may introduce additional hazards.	 Use Face Protection Wear appropriate full-face protection and take due care as the product or use of the product may present face and eye hazards.	 Use Foot Protection Wear appropriate foot protection and take due care as the product or use of the product may present foot hazards.
 Use Eye / Ear / Head Protection Wear appropriate eye and / or ear and / or head protection and take due care as the product or use of the product may present eye, hearing and head hazards.	 Running Hazard Do not run on or near the product as doing so may present a fall hazard.	 Diving Hazard Do not dive into the product as doing so may present a neck / head injury hazard.	 Adult Supervision Required Always supervise children and other users of a product to prevent drowning or injury.
 Skin Penetration / Puncture Hazard The product may produce pressure, emit liquids or objects that can cause severe injury to fingers, limbs, blood etc. Take due care when handling and using the product.	 Hot Surface Hazard Be aware that the product may produce high temperatures and hot surfaces that can cause burn injuries.	 Flying Debris Hazard Be aware that the product or use of the product may present hazards produced by flying debris. Wear appropriate clothing and protective devices.	 Moving Parts Hazard Be aware that the product contains or uses mechanical devices that move or rotate. Always wait for moving parts to stop fully before handling the product, adjusting, maintenance etc.

 Carbon-Monoxide Hazard Do not use the product in confined areas or without adequate ventilation. Carbon-monoxide poisoning can be fatal.	 Pull Hazard Be aware that the product contains or uses mechanical devices that can pull in objects and can cause severe injury to fingers, limbs etc. Take due care when handling and using the product.	 Slope / Fall Injury Hazard Be aware that using the product on sloping surfaces or in slippery conditions may present additional dangers from falls and contact with blades, moving parts, hot surfaces etc.	 "Slam Dunk" Warning Do NOT attempt "slam dunk" manoeuvres as this may result in severe injury due to falling, product breakage or collapse etc.
 Electrocution / Electrical Shock Hazard - Outdoor High voltage or high current electricity may be present or required by the product. Do NOT use in rain, damp or wet conditions. Electrical shock can be fatal.	 Electrocution / Electrical Shock Hazard - Disconnect High voltage or high current electricity may be present or required by the product. Always disconnect the product from the electrical supply before handling the product, adjusting, maintenance etc.	 Power Line Electrocution Hazard High voltage / high current power lines may be present. Use extreme caution to avoid contact or interference with power lines. Electrical shock can be fatal.	 "Kick-Back" Hazard High level of "kick-back" hazard that can cause the machine to suddenly rotate towards operator. Kick-back injury can be fatal.
 Winch Operator Position Hazard Do NOT stand between winch and load. Do NOT use winch to move people.	 Winch Lift Hazard Do NOT LIFT load vertically. Use machine to PULL only.	 Cable Hazard Ensure that load bearing cable is not kinked or knotted.	 Winch Cable Hazard Ensure that there is a minimum number of cable coils on winching mechanism.
 Winch Hook Hazard Carry hook to load – do NOT throw or run.	 Flash / Blinding Hazard Wear appropriate eye protection for welding. Direct exposure to weld arcs may cause permanent eye injury.	 Laser Hazard Laser may be in use – do NOT look directly at laser or allow others to.	

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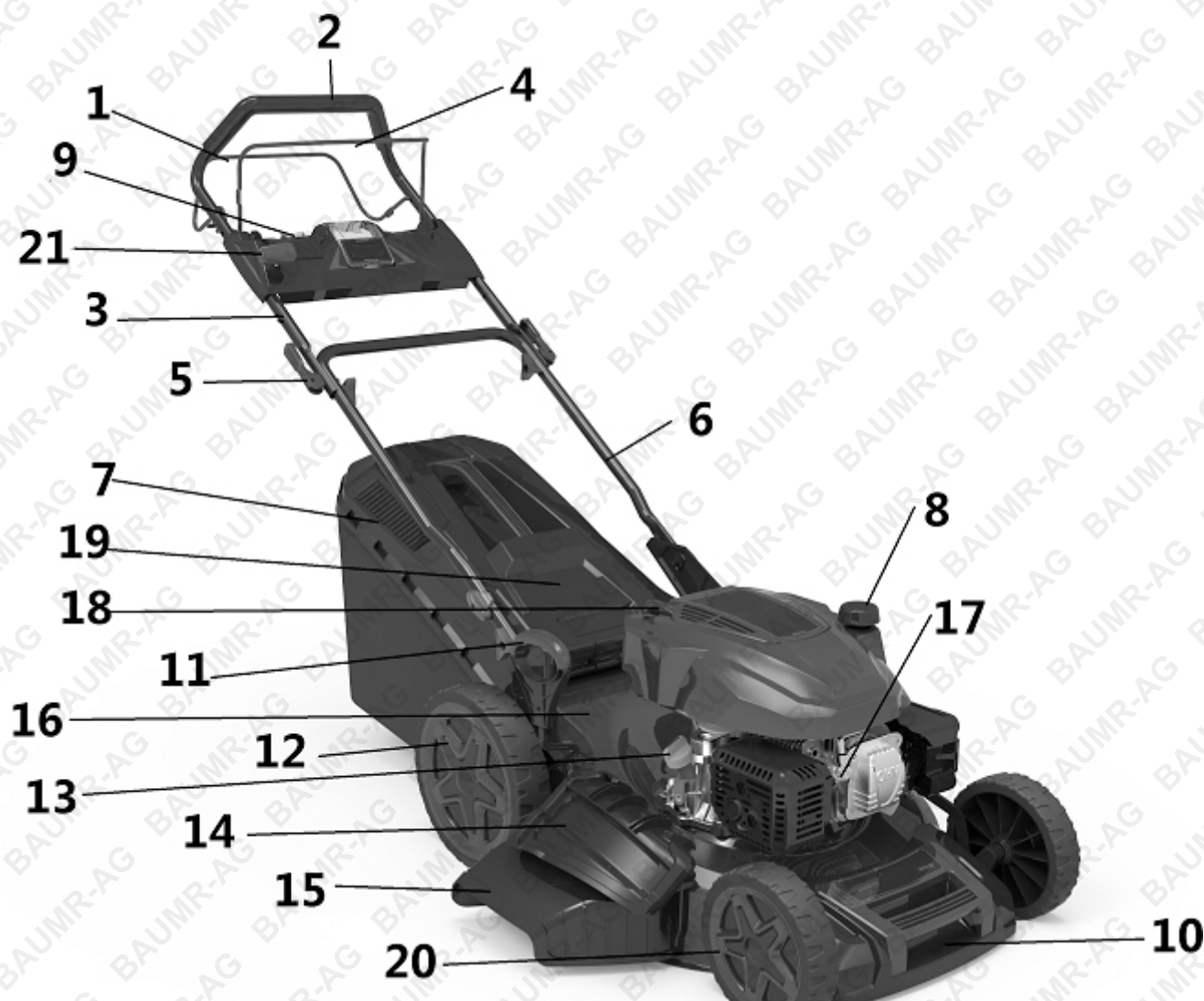
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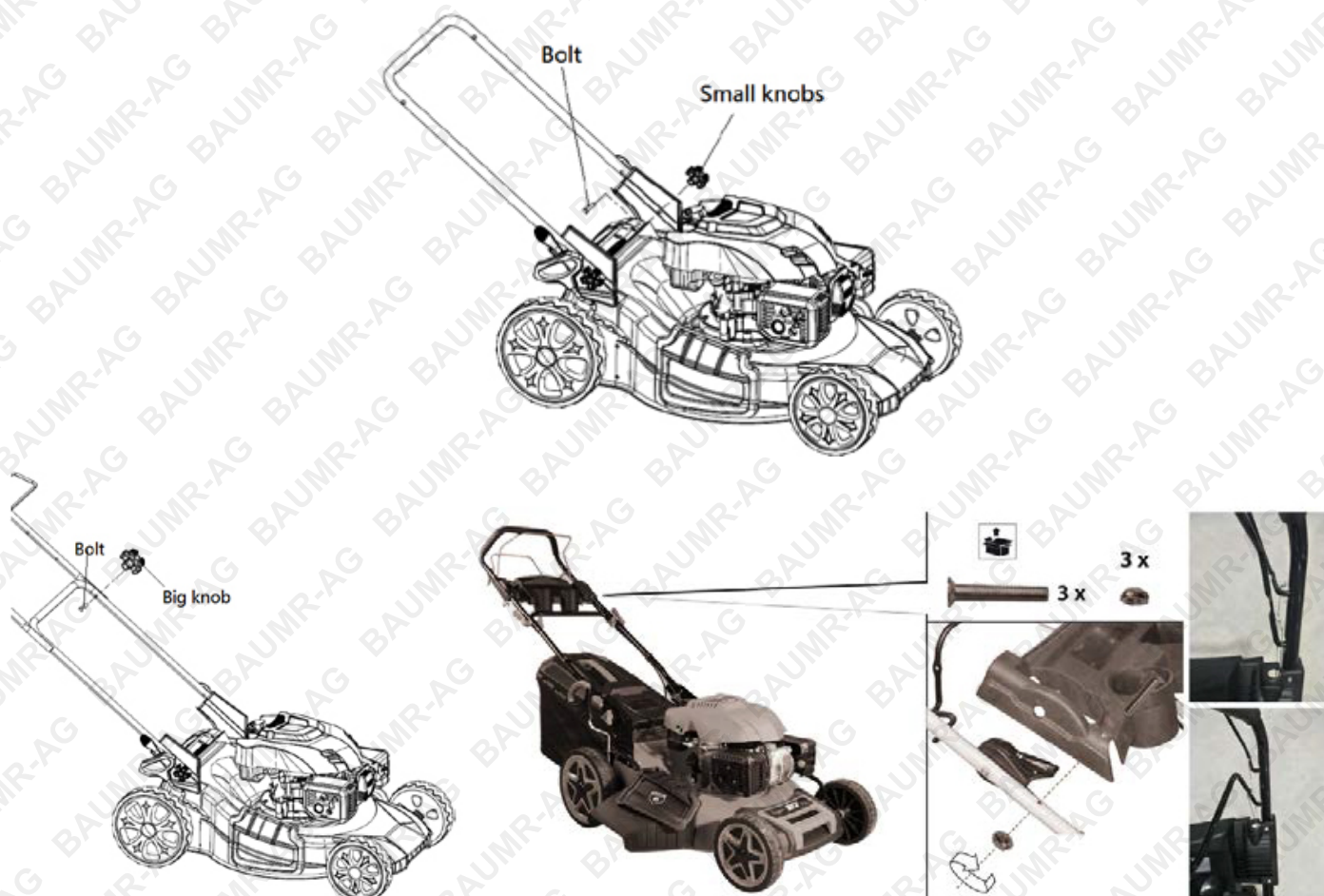
Parts Identification



No.	Name	No.	Name
1	Drive lever (clutch lever)	12	Rear wheel
2	Soft grip	13	Engine oil cap
3	Upper handle	14	Side discharge cover
4	N/A	15	Side discharge chute
5	Fixing knob with square neck blot	16	Deck
6	Lower handle	17	Spark plug boot
7	Grass box	18	Starter handle
8	Fuel tank cap	19	Rear discharge cover
9	E-start button	20	Front wheel
10	Front decorative cover	21	Throttle control
11	Height adjusting handle		

Assembly

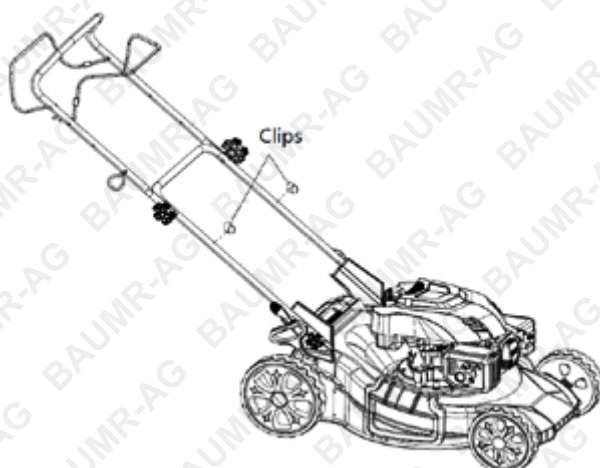
Assembling the Handle



1. Fasten the lower handle to the device by using two bolts and two small knobs on each side.
2. Unfold the upper handle and fix it to lower handle by using the big knobs and the bolts on each side.

NOTE: Make sure the rope guide is on the right handle, when you stand behind the mower.

Fixing the Connection Cord



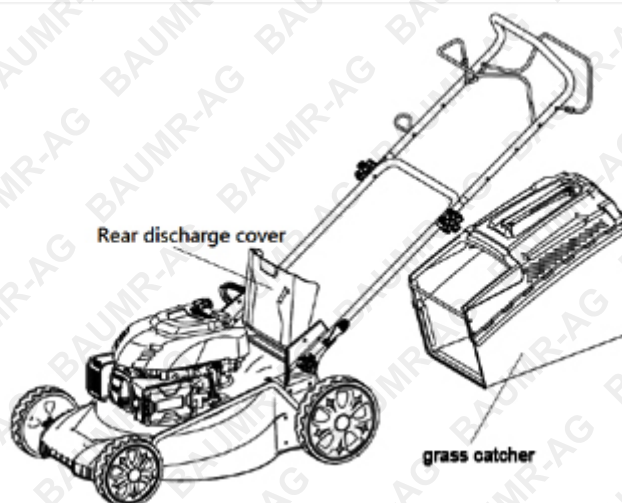
Fix the connection cord to the handle with the cord clips (supplied).

Assembling the Grass Catcher



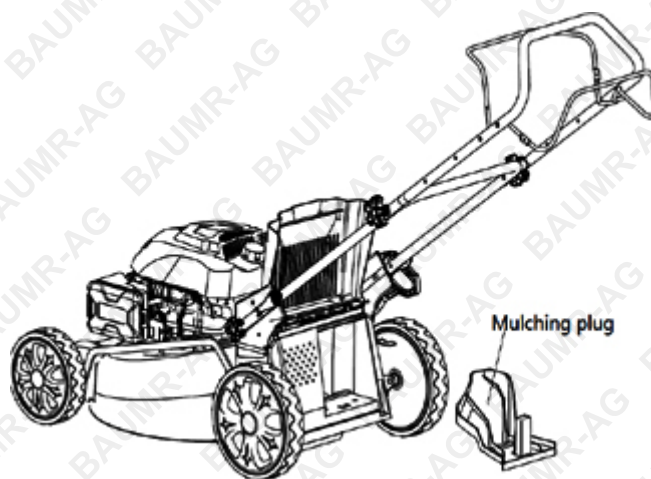
Clip the plastic clips over the metal frame. Make sure that these clips are fully secured to the metal frame.

Assembling the Grass Catcher to the Mower



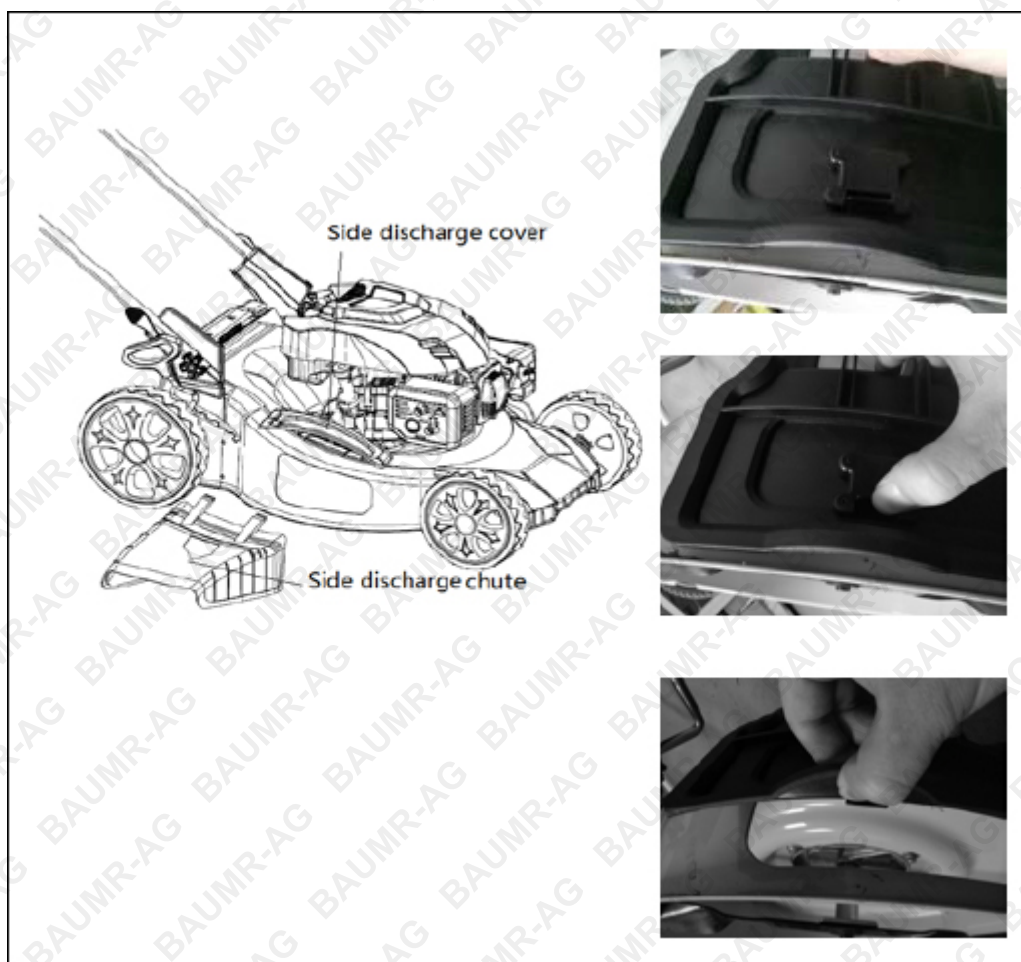
1. Lift the rear discharge cover with one hand and hook in the grass catcher.
2. Release the rear discharge cover to secure the grass catcher in position.

Assembling the Mulching Plug



1. Remove the grass catcher.
2. Push the plastic mulching plug into the discharge chute until it is locked in place.
3. Then release the flap, it will close back to cover the mulching plug.

Assembling the Side Discharge Chute



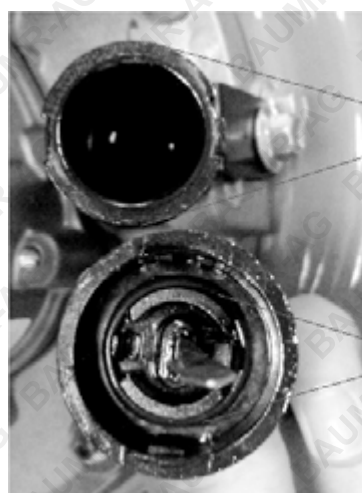
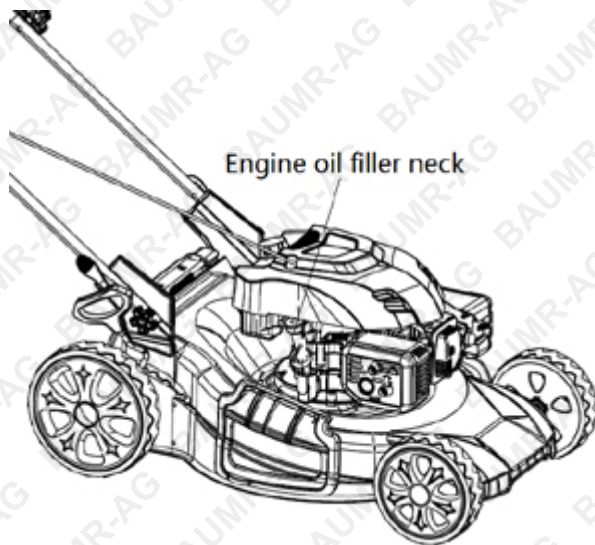
NOTE: When you're going to use the side discharge function, you first need to remove the grass catcher and plug-in the mulching plug.

1. As shown in the images above, lift the side discharge cover with one hand and hook in the side discharge duct with the other hand.
2. Release the side discharge cover to secure the duct in position.

Checking the Engine Oil Level and Filling with Engine Oil



CAUTION! The following procedures and adjustments must be performed before the engine is started. • Do not attempt to make any of these adjustments while the engine is running. • To prevent engine damage, the engine is shipped without oil or petrol. The engine must be filled with the correct grade of oil and petrol before starting the engine. • Running the engine with a low oil level will cause engine damage. It is recommended that high detergent, premium quality 4-stroke engine oil used. Using non-detergent oil can shorten the engine's service life and using 2-stroke oil will damage the engine. • Always use high quality detergent oil classified SAE30 oil (or equivalent e. g SAE 10W/30, often termed as 4 Stroke lawn mower oil). • Never use additives with recommended oil. To prolong the life of your engine it is important that the oil is changed after the first 5 hours of use. • To Check the engine oil level, stop engine and place the mower on a level surface.

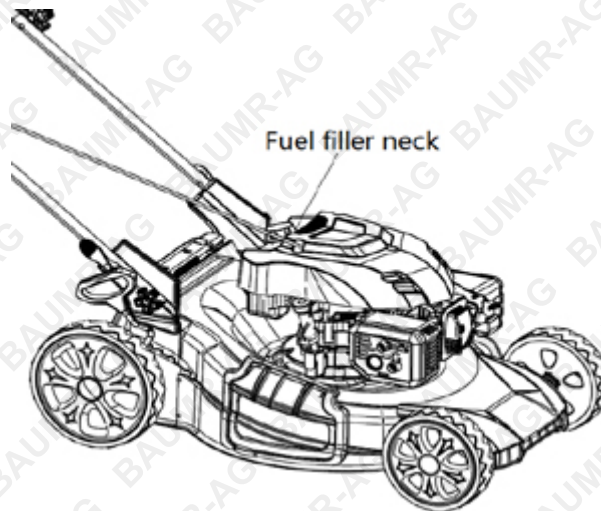


1. Remove the oil filler dipstick and wipe oil from it with a clean cloth.
2. Insert the dipstick into the oil filler neck, but do not turn it in.
3. Then remove the dipstick and check the oil level. the oil level must be between the Min and Max marks on the dipstick. If near the lower level, fill to upper level with the recommended oil (SAE30 or equivalent). Do not overfill. Wipe away any spilt oil.
4. Align the ribs of the cap with the groove of the filler neck, then rotate $\frac{1}{4}$ turn to secure it.

Filling with Engine Fuel



CAUTION! • Always use clean, fresh unleaded petrol. Purchase fuel in quantities that can be used within 30 days. Never mix oil with petrol. • Do not fill into the base of neck to allow for fuel expansion. Do not overfill the fuel tank. • Petrol is highly flammable and extreme precaution must be taken when handling or working with it. Keep out of reach of children. • To prevent engine damage the engine is shipped without oil or petrol. The engine must be filled with the correct grade of oil and petrol before starting the engine. • Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flame or sparks in the area where the engine is refuelled or where petrol is stored. Avoid repeated or prolonged contact with skin or inhalation of vapour.



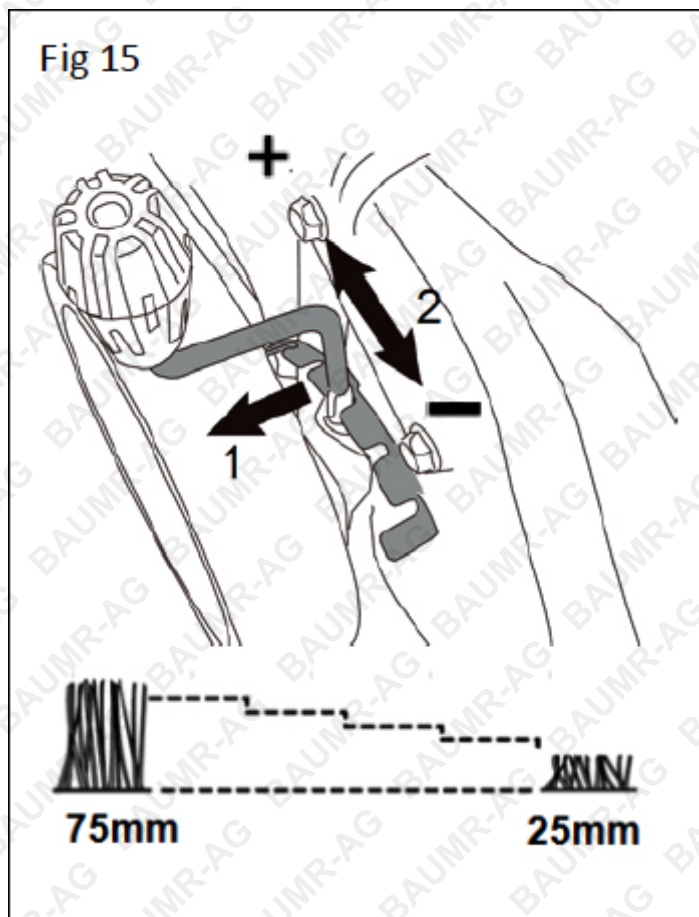
1. Clean the area around the petrol filler cap before removing the cap. Remove the warning tag, check the fuel level.
2. Refill the tank if the fuel level is low.
3. Refuel carefully to avoid overfilling or spilling fuel. There should be no fuel in the filler neck.
4. Clean up any overflow or splashes of petrol before starting the engine.
5. Tighten the filler cap after filling, finger tight on.

Adjustments

Setting the Cutting Height



CAUTION! Adjust the cutting height only when the engine is switch OFF and the spark plug boot has been pulled out.



The cutting height is centrally adjusted with the cutting height adjusting handle. Different cutting heights can be selected.

Pull the adjusting handle out and select the desired cutting height. The handle snaps into the desired position.

Setting the Required Functions

NOTE: This lawn mower has three functions. These functions can be converted by changing the accessory settings. Please see the following table for details.

	Mulching plug	Grass catcher	Side discharge duct
For rear discharging	X	X	X
For rear bagging	X	✓	X
For mulching	✓	X	X
For side discharging	✓	X	✓

✓: install

X: remove

Operation



WARNING! • The blade begins to rotate as soon as the engine has been started. • Do not operate the machine in enclosed or poorly ventilated areas as the exhaust gas contains toxic substances. • Keep hands, feet, hair and clothing away from all moving parts of the machine. • The exhaust and other parts of the machine will become hot during use. • Make sure that the blade is securely fastened before starting the engine. • To start the engine, make sure that the spark plug boot is located on the plug and the machine is filled with sufficient oil and petrol.



Please note: Before using the mower, you must apply air filter oil to the foam air filter element. This prevents dust ingress into the motor, thus preventing potential engine damage or failure. This should also be done after cleaning the air filter.

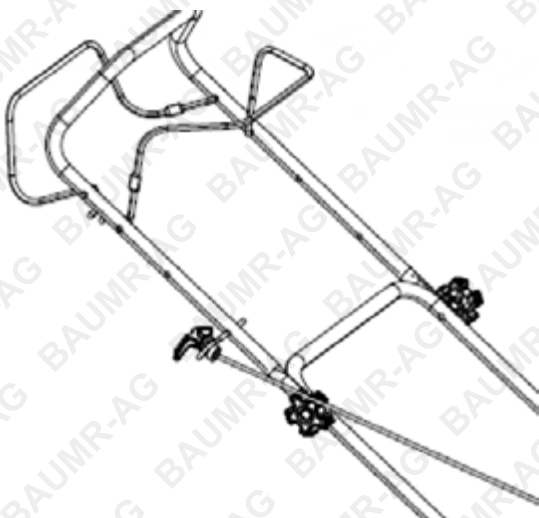
Starting the Engine

1. When starting a cold engine, you need to turn the throttle control at the START position first before starting.
2. Stand behind the mower, then pull the starter handle out approx. 10-15cm until you feel a resistance and then start the engine with a sharp pull.



NOTE: If the engine fails to start after three pulls, repeat the process.

3. Once the engine is running, put the starter rope into the rope guide.



Stopping the Engine

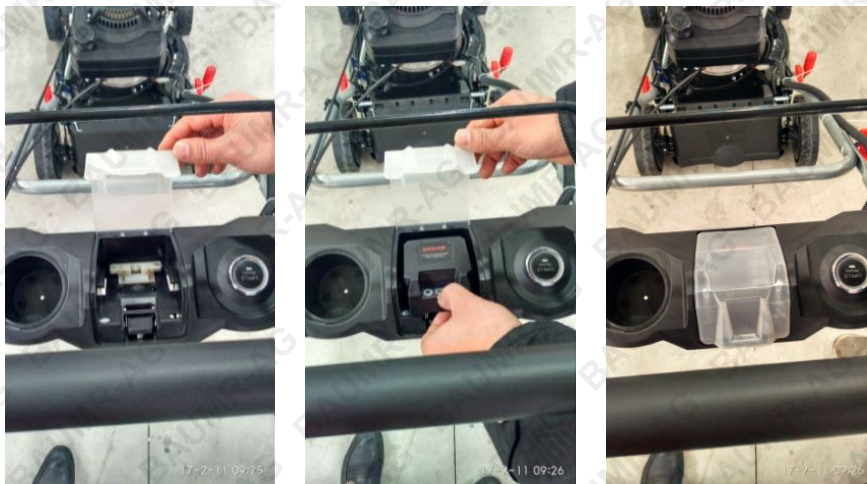
Turn the throttle control towards the Stop position, the engine will automatically switch OFF.

Battery Charging



1. Plug the charger input wire into the power socket and the power indicator light will turn on (green light).
2. Plug the battery into the charger slot and put it on a stable surface. When the battery is charging, the charging indicator light will have a red light, and the green indicator light will turn off.
3. When the battery is fully charged, the red indicator light will turn off and the green indicator light will turn on.
4. Remove the battery and the charger input wire from the socket.

Installing the Battery



1. Open the battery case.
2. Insert the battery into the slot and push it in place.
3. Close the battery compartment cover.

Start-Up Operation

1. First, check the lawn mower and add fuel and lubricating oil, if needed.
2. When starting with a cold engine, you need to turn the throttle control towards the START position. Then, press the START button. When the gasoline engine starts, release the START button.
3. To stop the engine, you need to turn the throttle control towards the STOP position. The engine will automatically switch OFF.



Removing the Battery



1. Open the battery compartment, then press the battery button.
2. Remove the battery, release the battery buckle and close the battery compartment.

Installing the Control Panel



1. Install the panel onto the push rod and fit it through the mounting hole.
2. Pull the wire through the slot in the panel, then attach the wire to the push rod.
3. Secure the panel on the upper push rod with screws.

Mowing Tips

- The speed of the motor is set to a factory speed setting and the motor will try and maintain this speed during operation. If the speed of the engine slows down, this could indicate that the mower is being overloaded by trying to cut too much grass or the catcher may already be full. Try mowing a narrower strip, mowing slower, raising the cutting height or emptying the catcher.
- Before mowing, always check and clear the grassy areas for all foreign objects, especially those that are solid and semi-concealed in the ground such as rocks, stumps and garden stakes.
- Sharp blades cut cleanly and efficiently, if the blade is dull, it will tear the grass. This will result in the blade edges turning brown. When the blades no longer cut cleanly, either sharpen them or replace them.

- To safely operate the mower, ensure all four wheels are on the ground and be careful not to lose your footing or control of the mower. Be very careful when mowing uneven or rough ground. Keep a firm grip on the handlebar at all times. Always walk, never run with the mower.
- For healthy growth, grass should not be cut too short. The grass will remain healthier, greener and require less watering.
- Vary your cutting pattern from week to week, this will help to prevent matting and graining of the grass.

Cleaning a Flooded Engine

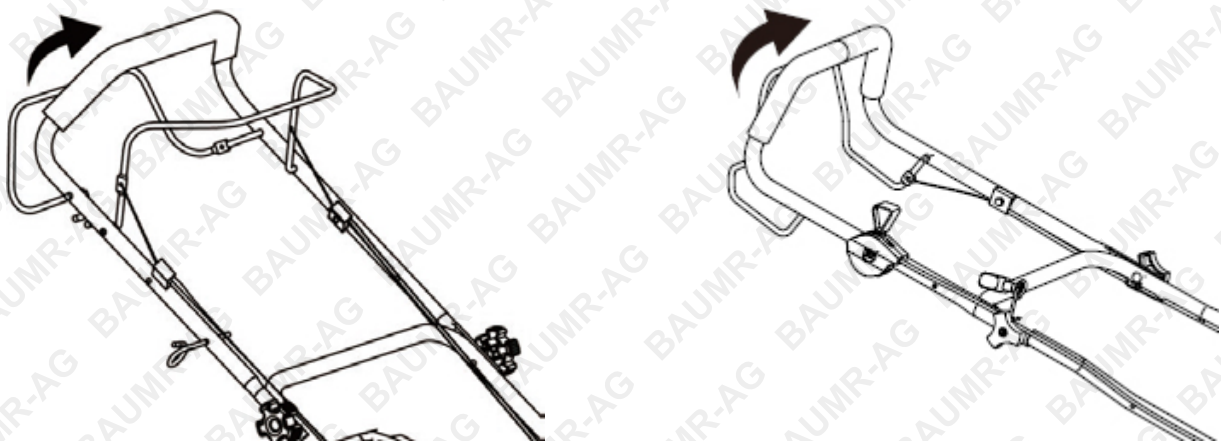
NOTE: if the engine won't start after you have operated the starter several times, the engine may be flooded with excess fuel. Use following procedure to clear and start a flooded engine.

1. Release the engine start/stop lever to stop the engine.
2. Remove the spark plug, dry it, and then reinstall it.

NOTE: Install the spark plug carefully by hand, to avoid cross-threading. After the plug is seated, tighten 1/8 to 1/4 turn with socket spanner of spark plug to compress the washer.

3. Pull the engine start/stop lever toward the upper handle.
4. Operate the starter as described above.

Using the Self-Propelled Function



This unit equipped with a self-propelled system. If you press the drive lever (clutch lever), the clutch for the drive will be closed and the lawnmower will start to move with the engine running.

To stop the moving lawnmower, just simply release the drive lever.

Mowing



WARNING: • Always observe the strictest safety procedures when using the lawnmower. Carefully read the safety instructions of this manual before using the lawnmower. • Never open the ejector flap when the grass catcher has been detached (to be emptied) and the engine is still running. The rotating blade can cause serious injuries!

1. Select your required setting.
2. Start the engine and allow it to run and set it to required speed. See [Starting the Engine](#).

3. Keep a firm grip on the upper handle with engine stop/start lever and drive lever (clutch lever) closed and walk along with its self-propelling to start mowing.

When Mowing

- Walk, never run with the mower, be very careful when mowing uneven or rough ground.
- Mow across slopes, never up and down.
- Be careful when changing the direction of the mower on a slope.
- Do not mow excessively steep slopes.
- The best result will be achieved if the grass is dry. Wet grass will tend to clog the blade and the grass collection system.
- Grass grows at different rates at different time of the year. Never use the lowest cutting height for the first cut of the season or in drought conditions.
- Only about one thirds of the grass height should be cut.
- When mowing with the mulching function, do not cut high or wet grass to ensure that the cut grass can be scattered efficiently. When you have been cutting for several minutes, please stop the mower, and clean the blade and the deck.
- Do not remove grass debris in the mower casing or on the blade by hand or with your feet. Instead use suitable tools such as a brush or broom.

Emptying the Grass Catcher

As soon as grass clippings start to trail the lawn mower, it is time to empty the grass catcher.

NOTE: Before taking off the grass catcher, switch off the engine and wait until the blade has come to a stop.

1. To take off the grass catcher, use one hand to lift up the ejector flap and the other to grab onto the carry handle. The ejector flap automatically falls down after removing the grass catcher and closes off the rear chute opening.
2. Empty the grass catcher of grass debris and then refit grass catcher.

NOTE: If any grass residue is caught in the discharge chute, clean it using a brush. Do not remove grass debris in the mower casing or on the blade with your hand or feet. Instead, use suitable tools such as a brush or broom. To ensure that the cut grass can be collected into the grass catcher, the discharge opening and interior of the mower casing must be cleared of any blockage.

Lithium Battery Care and Maintenance

Top 3 Battery Care Requirements

1. **Charge battery before first use.** The battery may arrive with some charge, regardless of this the battery must be charged for 2 hours on the initial charge and 2 hours for each subsequent charge. 
 2. **Charge battery immediately when it is depleted.** Do not store a depleted battery. This will permanently impact the life of the battery. If the battery is going to be stored for a period of time, fully charge the battery before storing. 
 3. **Disconnect battery when not in use.** To prolong the life of a battery, disconnect it from the unit when not in use. Disconnect chargers from the battery once charged. 
-

To ensure the battery maintains optimum performance, follow the guidelines outlined below.

- For best results, charge batteries in temperatures between 10°C and 30°C
- When battery is charged, disconnect the charger from the power supply and remove the battery from the charger.
- If a battery is stored or otherwise unused for an extended period, and the battery has no charge remaining when you check it, consider it to be damaged. Do not attempt to recharge it or to use it. Replace it with a new battery.
- Use only with the battery charger specified by the manufacturer.
- Ensure that the battery charger electrical cord is not subjected to damage or stress. Do not operate the battery charger if it has a damaged electrical cord or plug.
- Do not use the charger in wet areas or expose it to rain or water.
- The typical estimated life of a Lithium-Ion battery is about two to three years or 300 to 500 charge cycles, whichever occurs first. One charge cycle is a period of use from fully charged, to fully discharged, and fully recharged again
- Explosion hazard – protect the battery against heat; for example, direct sunlight and fire. Do not store batteries in vehicles or locations subject to heat.
- Batteries can explode in the presence of an ignition source, such as a pilot light. To reduce the risk of serious personal injury, never use any cordless product in the presence of open flame. Exploding batteries can propel debris and chemicals.
- Do not open the battery – danger of short-circuiting and/or explosion.
- Do not attempt to destroy or disassemble the battery pack or remove any of its components.
- Do not touch the battery terminals with metal objects and/or body parts as short-circuit and/or personal injury may result.
- Explosion hazard – do not open and/or short-circuit the battery.
- Poison hazard – battery leakage (liquid ejection). Under extreme conditions, liquid may be ejected from the battery – avoid contact. If contact accidentally occurs, immediately seek medical attention, and flush with water. If liquid contacts eyes, immediately seek medical attention, flush with clean water for at least 10 minutes. Liquid ejected from the battery may cause irritation or burns.
- Dispose of non-serviceable batteries in an environmentally responsible manner and according to local regulations.

Failure to adhere to the requirements above may result in the battery becoming inoperative or battery life being reduced. In extreme cases or abuse, battery overheating or fire may result.

Maintenance, Storage and Transportation



WARNING! Before performing any maintenance or cleaning work, switch OFF the engine and wait until the blade has come to a stop.

General Cleaning

- The lawn mower should be cleaned thoroughly every time after it has been used.
- Always clean your lawnmower immediately after use.
- Do not allow grass cuttings and other debris to become dry and hard on any of the mower surfaces.
- Dried grass remnants and dirt may impair the mowing operation.
- Check that the grass chute is free of any residual grass. Remove any such residue.
- Check the underside of the lawn mower and the blade mount. for this purpose, tilt the lawn mower onto its left side (opposite the oil filler neck).

NOTE: Before placing the lawn mower on its side, drain the fuel tank fully using a petrol extraction pump. Do not tilt the lawn mower by more than 90 degrees.

Spark Plug Maintenance

1. Once the engine has cooled down, pull off the spark plug with a twist.
2. Remove the spark plug using a spark plug wrench.
3. Clean the spark plug with a wire brush (not supplied).
4. Using a feeler gauge, set the gap to 0.75mm
5. Install the spark plug carefully by hand to avoid cross-threading.
6. After the spark plug is seated, tighten with the spanner to compress the washer.

0.7-0.8 mm



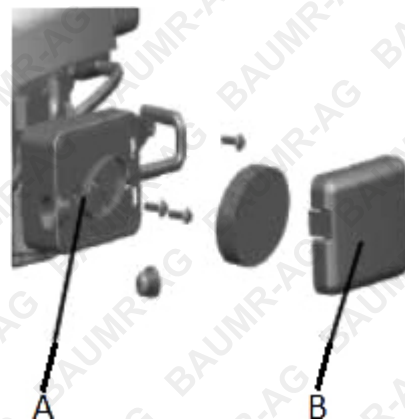
Air Filter Servicing

Soiled air filters reduce the engine output by supplying too little air to the carburettor. If the air contains a lot of dust, the air filter should be checked more frequently.

WARNING! Never run the engine without the air filter element installed.

1. Remove the air cleaner outside cover (A). Be careful to prevent dirt and debris from falling into the air cleaner assembly.
2. Separate the Air Filter (A) from the Air Filter Housing (B).
3. Inspect the air filter. Clean dirty air filter with warm water and mild soap. Allow air filter to dry thoroughly before re-installation
4. Install the air filter assembly onto the carburettor and secure with screw.

NOTE: Do not use pressurized air or solvents to clean the filter. Pressurized air can damage the filter and solvents will dissolve the filter.



Engine Oil Replacement

1. Tilt the lawnmower towards the oil filler, have a container ready to catch the oil and remove the dipstick. Once the oil has been emptied, replace the dipstick and wipe clean any spillages.
2. Refill with 500ml SAE30 oil or equivalent i.e. SAE5W/30, SAE10W/30. When the dipstick is rested on the filler pipe (i.e. not turn in place), the oil level must be between the min and max marks on the dipstick. See [Checking the Engine Oil Level and Filling with Engine Oil](#).
3. Start the engine and allow it to run briefly.
4. Stop the engine, wait one minute and check the oil level. Top up, if necessary.

Note: See more in engine manual.

Replacing the Blades

For safety reasons you should only ever have your blade sharpened, balanced and mounted by an authorised service workshop. For optimum results it is recommended that the blade should be inspected once a year.



WARNING! • Before you remove the grass catcher, stop the engine and wait until the blade stops completely. • You will need garden gloves (not provided) and a spanner wrench (not provided) to remove the blade. • Don't invert the mower. Tip it slightly towards the oil filler pipe and reach under the deck. • Always handle the blade with care, sharp edges could cause serious injuries. **ALWAYS USE GLOVES.** Renew your metal blade after 50Hrs of mowing or 2yrs, whichever is sooner regardless of condition. • If the blade is cracked or damaged, replace it with a new one. • Don't hold the blade by hand directly. • Maintain the sharpness of the blade when cutting grass. If the blade has worn excessively and become pitted and blunt, it should be replaced or sharpened. The sharpness of the blade will affect the performance of the lawnmower. • For safety reasons, we recommend that the blade should be changed only by someone qualified and authorised to do so. • Before making any adjustment or maintenance procedures to the lawn mower, ensure it is turned OFF and the spark plug lead is removed. Wear heavy gloves to protect your hands.



1. With the engine switched OFF, remove the hard catcher and lift the front of the lawn mower upwards so the upper handlebar sits on the ground and the spark plug faces upwards.
2. Remove the blade bolt using a 17mm spanner (not supplied) by turning in an anti-clockwise direction, then remove the outer flange and washer. This allows you to be able to remove the blade mounting plate from the lawn mower.
3. To remove a single blade from the blade mounting plate, again use a 17mm spanner (not supplied) to loosen and remove the nut, screw and washers.

NOTE: There is one washer located under the screw on the outer side of the blade mounting plate, and one on the underside of the blade mounting plate in between the blade and blade mounting plate. Be careful not to lose these.

4. Repeat the process to remove the other 3 blades.

5. Clean the dirt and grass from around the blade mounting area.
6. Replace all 4 blades to ensure a smooth even cut and re-fit them on the mower in the reverse direction they were removed.
7. Lastly, secure the nuts firmly, (20-25Nm) repeating this for the other 3 blades.
8. Replace the blade mounting plate (37) with new blades attached, then the outer flange (32), followed by the blade bolt (31). Retighten the blade bolt tightly (50 – 59Nm).

NOTE: Use a wooden block to stop the blade from turning. The four blades should be tightened fully but check to ensure they can still swing back if they were to hit a solid object. Where required, tighten the bolts with a torque wrench, the centre disc blade bolt torque: 50 – 59Nm and the four blades torque: 20-25Nm. If you do not have a torque wrench, ask a mower service dealer to tighten the blade bolts before you use the mower.

Blades should be replaced when they become worn and no longer cut the grass cleanly. The performance of grass catching can also reduce if the blades become worn.

Storing the Lawnmower for Short Periods

The lawnmower can be stored for short periods of time (less than 15 days) without performing any storage maintenance. Before placing the lawnmower into storage, always carry out the following:

1. Allow the engine to fully cool.
2. Ensure the grass catcher is empty.
3. Clean all debris from under the mower deck.
4. Store the lawnmower on flat and level surface with the mower upright.
5. Store in a safe place which is not accessible by children or people who are not familiar with operation.

Storing the Lawnmower for Extended Periods

If the lawnmower is to be placed into storage for more than 15 days, storage maintenance must be performed on the lawnmower. If the following steps are not carried out, when you next operate the lawnmower it may not start correctly and may need to be serviced.



CAUTION! Do not empty the petrol tank in enclosed areas, near fire or when smoking. Petrol fumes can cause explosions and fire.

1. Empty the petrol tank with a petrol suction pump if available.
2. Start the engine and let it run until any remaining petrol has been used up.
3. Change the oil at the end of every season. To do so, remove the used engine oil from a warm engine and refill with fresh oil.
4. Clean the cooling fins of the cylinder and the housing.
5. Be sure to clean the entire machine to protect the paint.
6. Store the machine in a well-ventilated place.

Maintenance Schedule

Performing routine maintenance correctly on your lawnmower will ensure you get years of trouble free use. Please keep this manual safe for future reference.

It is recommended that the following maintenance schedule is adhered to. This will ensure the lawn mower operates correctly and is safe to use.

	12 hours of use	24 hours of use	36 hours of use
Air filter	Clean	Clean	Replace
Spark plug	Check	Clean	Replace
Engine oil	Check	Replace	Check

The Engine oil should be changed after the first 8 hours.

Transport

1. Empty the petrol tank.
2. Always let the engine run until it has used up the remainder of petrol in the tank.
3. Empty the engine oil from the warm engine.
4. Remove the spark plug boot from the spark plug.
5. Clean the cooling fins of the cylinder and the housing.
6. Use the original packaging to ship whenever possible.

Troubleshooting



WARNING! Before performing any maintenance or cleaning work, switch off the engine and wait until the blade has come to a stop.



CAUTION! • Improper repairs can result in the product functioning unsafely. This endangers yourself and your environment. • Faults which cannot be rectified with the aid of following table may be rectified by a specialist company only (customer service centre). • Please be aware that any improper repairs will also invalidate the warranty and additional costs may be incurred. • Use only genuine spare parts. Only these spare parts are designed and suitable for the product. The use of other spare parts not only voids the warranty, you can also endanger yourself and your environment.

Fault/Malfunction	Cause	Remedy
Loud while running, machine vibrates heavily	Screws are loose	Check screws
	Blade fasteners are loose	Check blade fasteners
	Blade is unbalanced	Replace blade
Engine does not start	Spark plug is defective	Replace spark plug
	Cutting blade worn or damaged	Replace blade
	Fuel tank is empty	Refill with fuel
	Engine may be flooded	Remove plug and dry
Engine runs unsteadily	Air filter is soiled	Clean the air filter
	Spark plug is soiled	Clean the spark plug
Uneven mowing results	Blade is blunt	Sharpen the blade
	Cutting height is too low	Set correct height
Grass catcher is not filled sufficiently	Blade is worn	Replace the blade
	Grass catcher is clogged	Empty the grass catcher
	Lawn / Grass is wet	Allow the lawn to dry
	Discharge channel/housing blocked	Clear the discharge channel/housing
	Underside of the mower deck clogged	Clean the underside of the mower deck

Specifications

Engine Type	4 Stroke
Displacement	248cc
Starting System	Push Button (Electric)
Battery (for starting)	12V Lithium
Charger (for starting)	240V
Self-Propelled	Yes
Deck	Steel
Blade Type	CrossCut
Cutting Width	530mm; 21 inches
Cutting Height	25-75mm
Wheels	Front 8", Back 10"
Adjustment System	Central, 7 Positions



Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see www.datastreamserver.com/safety

- Consult all documentation, packaging and product labelling before use. Note that some products feature documentation available online. It is recommended to print and retain the documentation.
- Before each use, check the product for loose/broken/damaged/missing parts, wear or leaks (if applicable). Never use a product with loose/broken/damaged/missing parts, wear or leaks.
- Products must be inspected and serviced (if applicable) by a qualified technician every 6 months. This is based on average residential use by persons of average size and strength, and on a property of average metropolitan size. Use beyond these recommendations may require more frequent inspections/servicing.
- Ensure that all users of the product have completed a suitable industry recognised training course before being allowed access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or description of application. Be sure to attain third-party approval from a qualified specialist for your application before use, regardless of any assurances from the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (for example, automobile, computer, toaster), there is the possibility of technical issues that may require the repair or replacement of parts, or the product itself. If the possibility of such failure and the associated time it may take to rectify could in any way inconvenience the user, business or employee, or financially affect the user, business or employee, then the product is not suitable for your requirements. This product is not intended for use where incorrect operation or a failure of any kind, including but not limited to, a condition requiring product return, replacement, parts replacement or service by a technician may cause financial loss, loss of employee time or an inconvenience requiring compensation.
- If this product has been purchased in error when considering the information presented here, contact the retailer directly for details of their returns policy, if required.

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