

# Bäumr-AG

## 670<sup>TORNADO</sup>EX

INSTRUCTION MANUAL

139CC 16"  
ELECTRIC START  
4 STROKE  
PETROL LAWN  
MOWER





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## Introduction

Your new Baumr-AG Lawn Mower will more than satisfy your expectations. It has been manufactured under stringent Baumr-AG Quality Standards to meet superior performance criteria.

You will find your new Lawn Mower easy and safe to operate, and, with proper care, it will give you many years of dependable service.

**CAUTION.** Carefully read through this entire Instruction Manual before using your new Baumr-AG Lawn Mower. Take special care to heed the Cautions and Warnings.

Your Baumr-AG Lawn Mower has many features that will make your job faster and easier. Safety, performance, and dependability have been given top priority in the development of this tool, making it easy to maintain and operate.

## Environmental protection



Recycle unwanted materials instead of disposing of them as waste. All tools, hoses and packaging should be sorted, taken to the local recycling centre and disposed of in an environmentally safe way.

## Description of symbols

The rating plate on your tool may show symbols. These represent important information about the product or instructions on its use.



Wear hearing protection.

Wear eye protection.

Wear breathing protection.



Wear safety gloves.



Wear safety footwear.



Read these instructions for use carefully.



Warning.



Explosive material.



Use at a distance of at least 15m from other people.



Extremely hot surface. Do not touch a hot muffler, gear box or cylinder. You may get burned. These parts get extremely hot from operation and remain hot a short time after the unit is turned off.



Thrown objects and rotating blades can cause severe injury.



**CAUTION.** Before carrying out any operation stop the engine and disconnect the spark plug cap.



**CAUTION.** Risk of hand and feet injuries.



N25652

Conforms to relevant standards for electromagnetic compatibility



Noise label rating 75dBA (taken at 7.5 metres) you must wear ear protection at all times.



Double Insulation symbol



Energy Efficiency (MEPS)



Protect from weather



## Specifications

Engine:	139 cc Four Stroke
Engine Capacity:	139 cc
Speed:	3000 min <sup>-1</sup>
Fuel Type:	Unleaded petrol (non-ethanol)
Oil Type:	SAE 10W/30
Fuel Tank Capacity:	0.7L
Oil Tank Capacity:	0.4L
Width of Cut:	400 mm
Blades:	2 Swing-back blades
Height Adjustment:	7 Levels, 20 – 70mm
Equivalent Replacement	
Spark Plugs:	Champion - RN11YC
Catcher Capacity:	40 Litres
Weight:	26.5kg
<b>Charger</b>	
Input	100 - 240Vac 50 - 60 Hz 0.3A
Output	12Vdc 0.4A

## General safety instructions for handling power tools

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

This unit may not be used by people (including children) with reduced physical, sensory or mental capacities, with a lack of experience and without the appropriate knowledge, unless they are supervised by someone who is responsible for their safety or have been instructed by such a person with regard to how the unit is to be operated.

Children should be supervised to ensure that they do not play with the device.

## Save all warnings and instructions for future reference

### 1). Work area safety

- Keep work area clean and well lit. Cluttered or dark areas invite accidents. Rags, cloths, cord, string and similar items should never be left around the work area
- Do not operate power tools in explosive environments, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks, which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool. Distractions can cause the operator to lose control.

### 2). Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is increased risk of electric shock if your body is grounded.



- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor reduces the risk of electric shock.
- To reduce the risk of electric shock, the manufacturer recommends the use of a residual current of 30mA or less at all times.

### 3). Personal safety

- To reduce the risk of electric shock, the manufacturer recommends the use of a residual current of 30mA or less at all times.
- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection will reduce personal injuries.
- Prevent unintentional starting. Ensure the switch is in the "off" position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tool on. A wrench or key left attached to a rotating part of the power tool may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.

- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

### 4). Power tool use and care

- Do not force the power tools. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- Do not use the power tool if the switch does not turn it "on" and "off". Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- Maintain power tools with care. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.



## 5). Use and care of the battery pack

- Ensure the key switch is in the OFF position and the key is removed before connecting or disconnecting the battery pack.
- Recharging only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
- Avoid contact with any liquid that is emitted by a battery. If the battery pack is abused, liquid may escape from the battery. Liquid emitted from the battery may cause irritation or burns. If liquid comes into contact with the skin, wash the area immediately with soap and water, and then neutralize the liquid with lemon juice or vinegar. If contact occurs, rinse thoroughly with running water. If liquid comes into contact with the eyes, rinse thoroughly with running water and seek medical help.
- Store battery pack in well ventilated, dry and cool conditions, and avoid direct sunlight and rain.

## Additional instructions for work with the battery/charger

**WARNING:** Do not allow any liquid to come into contact with the charger. There is a danger of electric shock.

- Before using the charger, read all the instructions and cautionary markings on the charger and battery pack as well as the instructions on using the battery pack.
- Keep the charger away from rain or damp. Water entering into the charger will increase the risk of an electrical shock.
- Only use chargers recommended by the manufacturer to recharge the battery. When using a charger designated for a particular type of battery, there is a risk of fire if it is used with other batteries.

- Never use to recharge third-party batteries. The charger is only designed to charge the supplied batteries (Li-Ion) using the voltages specified in the Technical Data. Otherwise there is a risk of fire or explosion.
- Keep the charger clean. Contamination will increase the risk of an electrical shock.
- Check the charger, cable and plug each time you use the unit. Do not use the charger if you find any damages. Never open the charger up yourself, have it repaired by a qualified specialist only and with original replacement parts. A damaged charger, cable or plug will increase the risk of an electrical shock.
- Never operate the charger on a surface that will burn easily (for example, paper, textiles etc) or in a flammable environment. There is a risk of fire occurring as a result of the heat generated during the charging process.
- Fluid can escape from the battery when used incorrectly. Avoid all contact with this. In the event of accidental contact, rinse with water. If liquid should get into the eyes, get medical assistance. Battery fluid may result in skin irritations and burns.
- Protect the battery from heat, for example, from constant sun and fire. There is a risk of explosion.
- Never short circuit the battery. There is a risk of explosion.
- In the event of damages and incorrect use, vapours may come out of the battery. Ensure plenty of fresh air and, if you have any symptoms, consult a doctor. These vapours may irritate the respiratory system.

## Safety rules for petrol lawn mowers Training

- Read the instructions carefully. Get familiar with the controls and proper use of the equipment.
- Only use the lawn mower for the purpose for which it was designed, i.e. for cutting and collecting grass. Any other use can be hazardous, causing damage to the machine.



- Never allow children or people unfamiliar with these instructions to use the lawn mower. Local regulations may restrict the age of the operator.
- Never use the lawn mower:
  - When people, especially children, or pets are nearby.
  - If the operator has taken medicine or substances that can affect his ability to react and concentrate.
- Remember that the operator or user is responsible for accidents or hazards occurring to other people or their property.

## Preparation

- While mowing, always wear sturdy 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 may be thrown by the machine or damage the cutter assembly and the engine (stones, sticks, metal wire, bones, etc.)
- **WARNING: DANGER!** Engine fuel is highly flammable:
  - Store fuel in containers specifically designed for this purpose.
  - Refuel using a funnel and outdoors only. Do not smoke while refuelling or whenever handling the fuel.
  - Add fuel before starting the engine. Never remove the cap of the fuel tank or add fuel while the engine is running or when the engine is hot.
  - If fuel 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 the fuel has evaporated and the vapour dispersed.
  - Replace all fuel tanks and containers caps securely.
- Substitute faulty silencers.
- Before use, always inspect the machine, especially the condition of the blades, and check that the screws and cutting assembly are not worn or damaged. Replace worn or damaged blades and screws in sets to preserve balance.

- Discharge openings must be guarded at all times. Do not remove the discharge guard or hold it up while mowing.
- It is advisable to wear suitable eye protection when operating the mower.

## Operation

- Walk, never run and do not allow yourself to be pulled along by the lawn mower.
- Stop the blade if the lawn mower has to be tilted for transportation when crossing surfaces other than grass, and when transporting the lawn mower to and from the area to be mowed.
- Never operate the lawn mower with defective guards, or without safety devices, such as the stoneguard and/or grass-catcher, in place. Replace if damaged.
- On power-driven models, disengage the drive clutch before starting the engine.
- Start the engine carefully, following the instructions and keeping feet well away from the blade.
- Do not tilt the lawn mower when starting the engine. Start the engine on a flat surface that is free of obstacles and tall grass.
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Stop the engine and disconnect the spark plug wire:
  - If the lawn mower starts to vibrate abnormally (find and remove the cause of the vibration immediately).

## Maintenance and storage

- Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition. Regular maintenance is essential for safety and performance.
- Never store the equipment with fuel in the tank inside a building where vapour may reach a flame or a spark or a source of extreme heat.
- Allow the engine to cool before storing in an enclosed space.



- To reduce the fire hazard, keep the engine, exhaust silencer, battery compartment and fuel storage area free of grass, leaves, or excessive grease. Do not leave containers with grass cuttings in rooms.
- Check the stone-guard and grass-catcher frequently for wear and deterioration and replace if damaged.
- If the fuel tank has to be drained, this should be done outdoors and when the engine is cool.
- Wear strong work gloves when removing and reassembling the blade.
- Check the blade's balance after sharpening.
- For reasons of safety, do not use the equipment with worn or damaged parts. Parts are to be replaced and not repaired. Parts that are not of the same quality can damage the equipment and be dangerous for your safety.
- Whenever the machine is to be handled, transported or tilted you must:
  - wear strong working gloves;
  - grasp the machine at the points that offer a safe grip, taking account of the weight and its distribution.
- Damaged blades and worn bolts are major hazards.
- **Fuel goes off in about 3 - 4 months. If you find your mower does not start, try changing the fuel in the tank with newly purchased fuel.**

## Operation safety instructions

**WARNING: Stop the engine and unplug the spark plug before any repairs or maintenance operations.**

- Check that all nuts, bolts and screws are well tightened before every use.
- Before mowing ensure that the blade and the blade fixing screw are securely fastened. When the blade edges require re-sharpening, this must be done evenly on both sides to prevent any imbalance. If the blade is damaged, it must be replaced.
- When mowing always wear long trousers and strong, covered footwear.

- Do not run the engine in an enclosed and/or poorly ventilated area. The gas of the engine contains carbon monoxide, which is dangerous to your health.
- Work only when there is sufficient light.
- Do not use the lawn mower when it is raining or when the grass is wet.
- Caution must be taken while mowing on slopes. Mow across the face of slopes, never down or up.
- Do not mow on slopes of more than 20°.
- Exercise caution when changing direction on slopes.
- Exercise caution when pulling the mower towards you.
- Turn off the engine if you must leave the lawn mower unattended.
- Never lift the rear of the mower while starting the engine and never place your hands and feet underneath the deck while the engine is running.
- If working on high grass, adjust the mowing height to reduce the friction and prevent over loading. The optimal mowing height should be 1/3 the height of the grass. It would affect the work efficiency of lawn mower if too higher or lower.
- Never change the rated speed of the engine in any way .
- Never lift or carry the mower while the engine is running.
- Stop the engine and remove the spark plug cover in these cases:
  - Before unclogging the chute.
  - Before any operation under the deck.
  - Before any maintenance, repairing, cleaning or checking operations.
  - Before carrying, lifting or removing the mower.
  - If you leave the mower unattended or change the cutting height.
  - After hitting a foreign object, stop the engine and check thoroughly the mower in order to see if it is damaged. Take the mower to an authorized service centre to carry out any repairs if necessary.



- If the mower vibrates in an abnormal way, find and remove the cause of the vibration immediately. If unable to correct, take the mower to an authorized service centre.
- Check the bolts and nuts regularly. Bolts and nuts may vibrate loose over time.
- Stop the engine:
  - Whenever you leave the lawn mower unattended. Remove the key from models with electric starters.
  - Before refuelling.
  - Every time you remove or replace the grass-catcher.
- Reduce the throttle before turning off the engine and turn the fuel off when you have finished mowing, following the instructions in the engine handbook.
- When mowing, always keep to a safe distance from the rotating blade. This distance is the length of the handle.
- Never cut grass while walking backwards.
- Stop the engine before pushing mower across gravel drives, walks or roads.
- This machine is to be used exclusively for cutting natural grass. Never use the mower for other purposes. Any other utilization can involve danger for your safety and can involve damage to the mower.
- The user is responsible for the safety of other people, animals and objects in the working area. Keep children and domestic animals at a safe distance while the mower is in use.

## **WARNING: Fuel is highly flammable.**

- Keep fuel in a jerry can specially made for this purpose.
- Fill the fuel tank with a funnel and outside. Do not smoke or use a mobile phone during this process.
- Fill with fuel and oil before starting the engine. Never open the cap of the fuel tank to add gasoline while the engine is running or still hot.
- Do not start the engine if there is spilled fuel on the mower or in the area surrounding. Take the mower away from the zone where fuel has been spilled and avoid any contact from a hot source as long as the spilled gasoline is completely evaporated.
- Tighten the fuel tank cap and jerry can cap tightly.

## **Unpacking**

Due to modern mass production techniques, it is unlikely that your Baumr-AG Lawn Mower is faulty or that a part is missing. If you find anything wrong, do not operate the tool until the parts have been replaced or the fault has been rectified. Failure to do so could result in serious personal injury.

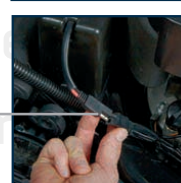
## **Contents of carton**

- Upper and lower handle assembly with Handle Bar  
Locking levers (including retaining screws x 2)  
and Key switch assembly
- 40L Plastic catcher
- Spark Plug Wrench
- Battery Charger
- 4 x Bolts for retaining handles to the mower.
- 4 x Retaining knobs
- 1 x Key



## Know your product

1. Handle bar
2. Lower handle
3. 4 mounting knobs
4. Charger
5. Off-On Start Key Switch
- 6a Rear 180mm Wheel
- 6b Front 150mm Wheel
7. Catcher
8. Height adjustment lever
9. Fuel tank
10. Fuel tank cap
11. Oil filler cap
12. Recoil starter
13. Spark plug cap
14. Air filter
15. Handle bar locking lever
16. Discharge guard
17. 2 x Swing blades
18. Blade bolt
19. Spark plug spanner
20. Priming bulb
21. Carburettor fuel bowl drain plug
22. Recoil starter eyelet
23. Battery Connection plug
24. Battery





## Assembly

**WARNING:** Stop the engine and unplug the spark plug before any repairs or maintenance operations.

**WARNING:** DO NOT attempt to start this mower without first adding 0.4L of SAE 10W/30 engine oil to the Engine. Refer Page 10.

**WARNING:** Do Not attempt to start this mower without the mower first being FULLY assembled.

It is necessary to fit the lower handle (2), handle bar (1), and catcher (7) to the mower.

### Attaching the handles

It is necessary to attach both the lower handles and handle bars.

1. To attach the lower handles (2), firstly unfold the handles from the mower after removing from the packaging, and raise the cutting height adjustment to the maximum height using the height adjustment lever (8). Locate the left hand lower handle onto the outside of the left hand mower handle mount plate.



2. Align the holes of the handle with the holes in the mount plate.
3. Fit the small handle retaining bolts through the two mount holes from within to without.

Retain the bolts with two locking knobs on the outside of the handle tube.

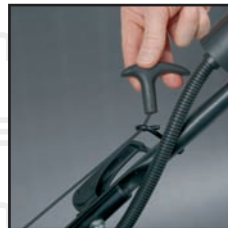
4. Repeat the steps 1, 2, and 3 for the right hand Side.

Recheck all 4 handle mount bolts and knobs. Ensure the knobs are firm and secure.

5. Unfold the top handle bars and when aligned with the lower handles, lock the two handles together by pushing the handle locking levers backwards. To release the handles to pivot at any stage, pull the locking levers forwards towards the top of the handle bars.



6. Once the handles are secured the recoil start cord can be positioned into the recoil starter eyelet (22) for easier pull starting. Pass the cord through the overlap gap in the eyelet, ensuring the cord passes through with no restriction of the centre hole of the eyelet.



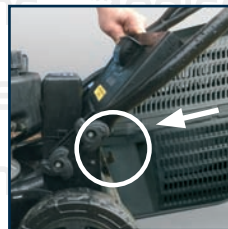
### Assembling the catcher

1. The grass catcher (5) is supplied in two sections. Locate the top half on top of the bottom half and interlock them together by aligning the lugs and slots and pushing the halves together until they click into place.



### Attaching the catcher

1. Lift the discharge guard (15) in order to position the catcher.
2. While lifting the discharge guard, align the holes in the lower half of the catcher with the hooks on the mower deck (located under the discharge chute). Push the catcher onto the hooks in a downwards direction.





3. Push the catcher down until it locks into place.
4. Release the discharge guard to secure the catcher in place between the 2 ribbed locking notches.

**Note.** Always empty the catcher before it has reached maximum capacity, otherwise it will decrease the performance of the mower.

**Tip.** Do not leave clippings in the catcher for extended periods.

**WARNING.** Check the catcher frequently for cracks and wear and replace it if damaged.

## Cutting height adjustment

**WARNING:** Stop the engine and unplug the spark plug before any repairs or maintenance operations.

This mower has one lever to easily adjust the cutting height. There are 7 height settings (20-70mm).

1. To decrease the cutting height pull the height adjustment lever (9) out and move it up a notch to the left, towards the handlebar.
2. To increase the cutting height pull the lever out and move it down a notch to the right, towards the engine.

**Note.** If you are unsure of which cutting height to use, begin with a high setting and trial a small section of lawn, then check the appearance of the lawn. Then readjust if necessary.



## Preparing the lawn mower

It is important to check the lawn mower before you commence operating the unit.

**IMPORTANT.** Ensure that the engine is fully filled with oil and fuel. When leaving the factory, this lawn mower has NO OIL in the engine and no fuel in the fuel tank.

**Note.** Failure to add sufficient oil to the motor will cause damage to the motor which is NOT covered under warranty.

## Checking the oil

1. Move the lawn mower to a level surface and clean around the oil filler cap (11).
2. Remove the oil filler cap with dipstick and wipe it with a clean cloth. For new units, ADD 0.4L of SAE 10W/30 oil. Replace the cap and retighten.
3. Remove the dipstick again and check the oil level, the oil should be at the full ('max') mark.
4. If oil is required add it slowly with SAE 10W/30 oil. (The oil capacity is 0.4L). Do not overfill.
5. Retighten the oil filler cap firmly before starting the engine.



**Do Not** fill above the Maximum Marking. **Do not** operate the motor if the oil level is not within the textured marking (between the "min" and "max" markings)



## Fuelling

**IMPORTANT.** Fuel goes off after about 3-4 months. If you find your mower does not start, first change the fuel in the tank with newly purchased fuel. Fuel should also be drained from the carburettor bowl by removing the small drain plug on the under SIDE of the bowl. (21). Do Not remove the centre bolt. After draining the fuel from the bowl, replace the plug ensuring the sealing washer is in place under the head of the plug.

### WARNING.

- Do not refill fuel tank (9) while engine is running or is hot.
- Be careful not to admit dust, dirt, water or other foreign objects into the fuel.
- Wipe off spilt fuel thoroughly before starting engine.
- Ensure you DO NOT fuel the lawn mower in close proximity to any open flames, lit cigarettes, or hot objects.

**Note:** Do not use ethanol fuel (E10). Use fresh 91 Octane unleaded petrol.

1. Unscrew the fuel tank cap (10) and pour unleaded petrol into the tank with the aid of a funnel.
2. Fill the tank to approximately 2.5 cm below the lowest portion of the neck to allow for fuel expansion. Replace the cap firmly. Be careful not to over fill.
3. Be careful not to spill any petrol, if this happens, wipe the spill with a clean rag.
4. Start the engine at least three metres away from the area where the fuel tank has been filled in order to avoid the risk of fire.



**WARNING.** Never attempt to refuel the engine while it is running or still warm, allow it to cool before fuelling.

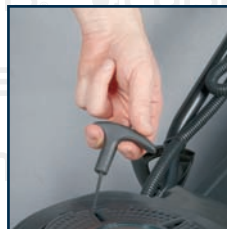
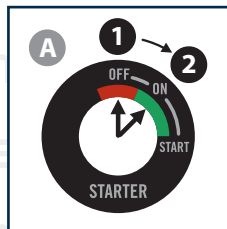
## Starting the engine

**Note.** Before starting the mower check the oil and fuel levels. Warranty will be void if the engine becomes faulty due to insufficient oil and fuel levels.

Ensure the mower is set to the highest height setting so the blades are not resting deep into the grass.

### To start the mower manually (Recoil Starter)

1. Turn the Key switch to the ON position as shown in Fig A.
2. Depress the priming bulb (20) fully 2-3 times. DO NOT PRESS THE PRIMER BULB MORE THAN 3 TIMES. You will flood the engine and it will be hard to start.
3. Pull the recoil starter (12) lightly until you feel resistance then pull quickly until the engine starts. Do not pull the cord with a jerk or release it until fully rewound.
4. To stop the engine turn the key to the off position.

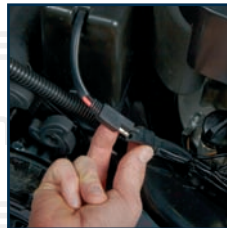


### To start the the mower with the electric start system

**Note:** Key start function will not work if the battery is not connected.

1. Check the battery plug connection. The plug of the battery must be connected to the plug of the mower.

The plugs are not connected during transport and will need to be inserted together before attempting to use the electric start.





To connect the battery, check the key switch is in the off position and REMOVE the key. Insert the battery plug into the mower plug fully firmly.

2. Prime the motor as per step 2 above.

3. Turn the key to the on position, and then turn to the next position, START. The electric motor will start and engage on the petrol motor. (Fig B).

As soon as the petrol motor starts, remove pressure off the key and the switch will return to the on position. (Fig C).

## Stopping the engine

To stop the engine turn the key to the off position.

## Important Primer bulb information.

The Primer bulb pump is designed to deliver fuel directly into the engine for easy start.

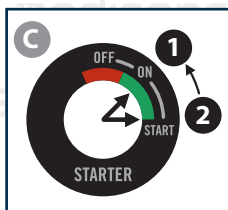
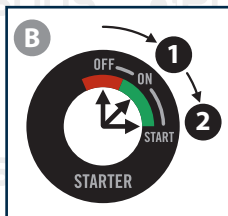
Follow the following guide lines and you should have trouble free starting.

For first starting at the beginning of the mower session, Pump the primer 3 times. DO NOT EXCEED 3 pumps.

To restart a cold engine ie after the engine has started and run for just a short time, you will only need to pump the bulb 2 times. DO NOT EXCEED 2 pumps.

To re start a hot engine, you will not need to pump the primer at all.

**NOTE.** If you over pump the engine, it will not start. DO NOT re pump the engine primer.



In the case where the primer has been over primed, continue to either pull on the recoil starter with the key in the ON position, or continue to attempt to start using the electric starter. **DO NOT** press the primer

## Mowing advice

1. Before mowing always check and clear the grassed area for all foreign objects, especially solid ones semi concealed in the ground such as rocks, stumps and garden stakes.
2. Sharp blades cut cleanly and efficiently, if the blade is dull it will tear the grass. This will result in the ends turning brown. When the blades no longer cut cleanly either sharpen them or replace them.
3. 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 handle bar at all times, always walk, never run with the mower.
4. For healthy growth, grass should not be cut too short. The grass will remain healthier, greener and require less watering.
5. Vary your cutting pattern from week to week, this will help to prevent matting and graining of the grass.
6. Before checking a clogged mower deck stop the engine completely and disconnect the spark plug lead and then tilt the mower so the air filter side is facing upwards. Use a stick to clear any clogged material, never use your hands.
7. Mowing wet grass should be avoided. Wet grass will clog the mower deck and if it is slippery you may lose your footing.
8. Always mow across slopes not up and down them. Be extra careful if the grass is wet as this could cause you to slip and lose control of the mower.
9. If the ground is too dry, mowing will stir up a lot of dust which may clog the air filter. In these conditions it is recommended to water your lawn the day before mowing.



10. Use the side of the mower as a guide to cut close to large objects such as a fence or a wall. Be careful when mowing over obstacles embedded in the lawn such as sprinkler systems and paving, avoid anything that sticks up above the surface of the lawn.
11. Avoid mowing over loose stones, gravel and other landscaping material as this can be picked up by the mower and flung out causing serious personal injury.
12. If the blades do come into contact with something or the mower starts to vibrate stop the engine immediately, remove the spark plug lead and inspect the blades to see if there is any damage.

## Engine starting check list

### Check the oil level

The correct level is achieved by first ensuring mower is on a level surface. Then with the dip stick screwed in all the way in and then back out again, check the level is to the "Max" indicator line. Make sure it is not over-filled.

### Fuel check

As fuel can go off relatively quickly, make sure you are using fresh unleaded fuel and don't overfill the tank.

**Note:** Do not use ethanol fuel (E10)

### Spark plug

Check the spark plug cable is firmly fitted to the top of the spark plug.

For full spark Plug maintenance, Refer to page 17/18.

### Air filter

Check that the air filter is clean and dry. Filters thick with debris will not allow the engine to breath and result in difficult starting and poor engine performance.

Refer page 14 for full air filter service details.

## Battery Charging

The Battery Charger supplied with this mower is for charging the supplied lead acid battery ONLY.

- Do Not attempt to use this battery charger for Non Re Chargeable batteries.

- Battery and mower should be placed in a well ventilated area during the charging process.
- Turn Off and remove the charger from the 240V power supply before connecting or disconnecting the battery from the charger.

The battery used in this mower is a fully sealed Lead Acid 12V Battery.

During operation of the mower, the battery is being charged, and will maintain a constant charge during use.

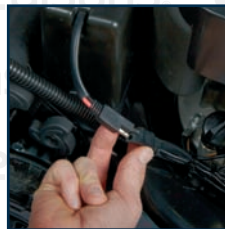
**IMPORTANT:** The battery will self discharge and it is important a minimal charge level is maintained. The life of the battery will be reduced if the charging procedure is not adhered to.

The battery **MUST** be charged at a **MINIMUM** every 3 months, even if the mower is not used.

### To charge the battery

1. Ensure the key switch is in the off position and the key is removed from the key switch.
2. Disconnect the battery plug from the mower plug.
3. Connect the battery charger plug directly into the battery plug.
4. Plug in the battery charger into a 240V power outlet and turn on. The battery charging process is now underway.

The battery should be left on charge for approx 8 -10 hours. The charger should be turned off after this period at the power point and then the charger disconnected from the battery.





## Engine tipping

When cleaning, or performing any maintenance such as replacing the blades, it is very important that the mower is only tipped backwards. Failing to do so will result in the engine oil flowing into the cylinder and muffler making starting very difficult if at all. Should this occur, the mower should be taken to a mower repair shop which is not covered under warranty.



## Poor engine performance

Should the engine idle or run rough at full speed with excessive bluey/black smoke emanating from the muffler, it is possible that either the engine was slightly tipped incorrectly (refer above) This can also occur in the initial transport from the factory.

Continual running of the motor will burn out any excess oil in the combustion area. If the smoking of the motor continues, take the mower to a service centre to be reviewed.

## Replacing the blades

**Note.** Before making any adjustment or maintenance procedures to the mower ensure it is turned off and the spark plug lead is removed.

**Note.** Wear heavy gloves to protect your hands.

1. Tilt the mower back so the spark plug is facing up.
2. Remove the blade mounting plate with a spanner (not supplied) to remove the centre bolt. Move bolt in an anti-clockwise direction.



**DO NOT** remove the blade mount drive from the motor spindle. Should the blade mount drive detach or slide off the motor spindle, ensure to replace the small key in the keyway of the spindle and blade mount drive.

3. Remove both single blades including the washer and nuts.
4. Clean dirt and grass from around the blade mounting area.
5. Always replace both blades to ensure a smooth even cut.



Pass the bolt through the blade and fit the thin domed washer. Place the blade bolt through the blade mount plate and fit the large flat washer. Secure with the nyloc nut and tighten to 25-30Nm. Repeat for the opposite side.

6. Replace the blade mount plate and retighten the central blade onto the blade mount drive. Ensure the 2 drive lugs correctly engage on the blade mount.





**Note.** Use a wooden block to stop the blade from turning. The blades should be tightened fully but check to ensure they can still swing back if they were to hit a solid object. If you do not have a torque wrench ask a mower service dealer to tighten the blade bolts before you use the mower.

**WARNING.** If the blade bolts are not tightened correctly they could loosen and/or come out and it would be possible for the blades to fly off while you are operating the mower.

## Oil change

**IMPORTANT.** Drain the oil while the engine is still warm to ensure rapid and complete draining.

1. Remove the oil filler cap/dipstick (11) and tip sideways to drain the oil.
2. Turn up right and clean up any spillage and refill with SAE 10W/30 oil checking the level as you go.
3. Rescrew on the oil filler cap/dipstick (11).



**Note.** Please dispose of used motor oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local service station for reclamation. Do not throw it in the trash or pour it into the earth.

## Air cleaner service

**IMPORTANT.** A dirty air cleaner will restrict air flow to the carburettor. To prevent carburettor malfunction, service the air cleaner regularly.

Check that the air filter is clean and dry of dirt. Filters thick with debris will not allow the engine to breathe and result in difficult starting and poor engine performance.

1. Push the two locking tabs down with your thumbs to



remove the air filter (14) cover. Be careful to avoid dust and debris falling into the bottom of air filter.

2. Remove the foam element.
3. Check, clean or replace the damaged air cleaner parts.
4. Install all parts back and reattach the air filter (14) cover to the air filter (14).

**CAUTION.** Never use fuel or low burning point solvents to clean the air cleaner element.

A fire or explosion could result.

**CAUTION.** Clean the foam element in a solution of household detergent and warm water. Tap the element lightly several times on a hard surface to remove excess dirt, or blow compressed air through the filter from the inside out. Never try to brush the dirt off.



## Spark plug

To ensure the engine is operating correctly, the spark plug must be properly gapped and free of carbon deposits.

Always check the spark plug cable is firmly fitted to the top of the spark plug.

**CAUTION.** If the engine has been running, the muffler will be very hot. Be careful not to touch the muffler.

**NOTE.** If the motor has been running, the engine and spark plug will be hot. Allow the engine to cool.

1. Remove the spark plug cap with the wrench supplied, and clean any deposits.
2. Visually inspect the spark plug. Discard the spark plug if there is apparent wear, or if the insulator is cracked or chipped.
3. Check that the end of the spark





plug is not blackened by carbon build up. Clean with a soft wire brush if necessary.

4. Measure the plug gap with a feeler gauge. Correct as necessary by bending the side electrode. The gap should be 0.7 - 0.8mm.

Test the spark plug ignition by disconnecting the spark plug wire from the spark plug. Hold the end of the spark plug wire close to a metal surface. If the spark plug is good, you will see a spark or you'll hear a crackling noise. This means that voltage is getting through the wire to the spark plug.

**Note:** This should only be carried out by a confident end user as if not careful, this procedure may result in a non lethal electric shock. Petrol fumes need to be considered with an open spark and people with pace makers.

5. Thread the spark plug in by hand to prevent cross-threading.
6. Once the spark plug is seated, tighten with a spark plug wrench to compress the washer.

**Note.** When installing a new spark plug, tighten 1/2 turn after the spark plug seats to compress the washer.

**Note.** When reinstalling a used spark plug, tighten 1/8-1/4 turn after the spark plug seats to compress the washer.

**CAUTION.** The spark plug must be securely tightened. An improperly tightened spark plug can become very hot and may damage the engine.



## Transporting

**CAUTION.** If the engine must be tipped to transport equipment or to inspect or remove grass, keep the spark plug upwards.

Transporting or tipping the engine spark plug down may cause:

- Smoking
- Hard starting
- Spark plug fouling
- Oil saturation of the air filter

Ensure the storage area is free from excessive humidity and dust.

Drain the fuel tank and carburettor.

**WARNING.** Fuel is extremely flammable and explosive under certain conditions. Do not smoke or allow flames or sparks in the area.

**Note.** Be aware to not hit or cut the fuel tank (9) while you are transporting.



## Storage

- When you finish working, clean the engine completely, making sure there is no grass or dirt on the engine.
- Store the engine away from direct sunlight.
- At the end of the season, give the engine an overall cleaning and a thorough check.
- Whenever the machine is not used for a long period of time, proceed as follows:
- Empty the fuel tank completely.
- Empty the Carburettor bowl (21) of all fuel.
- Protect all metal engine parts from corrosion by coating them with oil.
- Remove the spark plug, put a few drops of oil into the cylinder and then pull the recoil starter 2 to 3 times in order to distribute the oil evenly. Replace the spark plug. This closes the valves, and protects them from dust and corrosion. Coat areas that may rust with a light film of oil. Cover the engine and store it on a level surface in a dry, dust free area.

## Maintenance

**WARNING.** When cleaning, or performing any maintenance such as replacing the blades, it is very important that the mower is only tipped backwards. Failing to do so will result in the engine oil flowing into the cylinder and muffler making starting very difficult if at all. Should this occur, the mower should be taken to a mower repair shop which is not covered under warranty





**Some experts believe the incorrect or prolonged use of almost any product could cause serious injury or death. For information that may reduce your risk of serious injury or death consult the points below and additionally, the information available at [www.datastreamserver.com/safety](http://www.datastreamserver.com/safety)**

- Consult all documentation, packaging and product labelling before use. Note that some products feature online documentation which should be printed and kept with the product.
- Check product for loose / broken / damaged / missing parts, wear or leaks (if applicable) before each use. Never use a product with loose / broken / damaged / missing parts, wear or leaks (if applicable).
- Products must be inspected and serviced (if applicable) by a qualified specialist every 6 months assuming average residential use by a person of average weight and strength, above average technical aptitude, on a property matching average metropolitan specification. Intended use outside these guidelines could indicate the product is not suitable for intended use or may require more regular inspection or servicing.
- Ensure all possible users of the product have completed an industry recognised training course before being given access to the product.

- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or your description of the application. Be sure to attain third party approval for your application from a qualified specialist before use regardless of prior assurances by the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (take an automobile, aircraft, computer or ball point pen for example) there is always a small chance of a technical issue that needs to be repaired or may require replacement of the product or a part. If the possibility of such failure and the associated time it takes to rectify could in any situation inconvenience the user, business or employee or could financially affect the user, business or employee then the product is not suitable for your requirements. This product is not for use where incorrect operation or a failure of any kind, including but not limited to a condition requiring product return, replacement, service by a technician or replacement of parts could cause a financial loss, loss of employee time or an inconvenience requiring compensation.
- If this item has been purchased in error considering the points above simply contact the retailer directly for details of their returns policies if required.

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