



ORIGINAL INSTRUCTIONS
**Petrol Self-Propelled
Lawn Mower**

RLM46160S



Important!

It is essential that you read the instructions in this manual before assembling, maintaining, and operating the product.

Subject to technical modifications.

Safety, performance, and dependability have been given top priority in the design of your petrol lawn mower.

INTENDED USE

The petrol lawn mower is only intended for use outdoors.

The product is designed for domestic lawn mowing. The cutting blade should rotate approximately parallel to the ground over which it is being wheeled. All four wheels should touch the ground while mowing.

The product is a pedestrian-controlled, walk-behind mower designed to be pushed by hand, or be guided by the operator when using the self-propel feature.

The product should never be operated with the wheels off the ground. It should not be pulled or ridden on. It should not be used to cut anything other than domestic grass lawns.

Do not use the product for any other purpose.

GENERAL SAFETY WARNINGS

WARNING

When using the product, the safety rules must be followed. For your own safety and that of bystanders, please read these instructions before operating the product. Please keep the instructions safe for later use.

WARNING

To avoid serious personal injury, do not attempt to use the product until you read thoroughly and understand completely the operator's manual. If you do not understand the warnings and instructions in the operator's manual, do not use this product. Call an authorised service centre for assistance.

PERSONAL SAFETY

- The product is capable of amputating hands and feet, and of throwing objects. Failure to observe all safety instructions could result in serious injury or death.
- Be familiar with the controls and the correct use of the product.
- Ensure before each use that all controls and safety devices function correctly. Do not use the product if the off switch does not stop the engine.
- Never allow children or people with reduced physical, sensory, or mental capabilities or persons not familiar with these instructions to operate, clean, or maintain the product. Local regulations may restrict the age of the operator. Children should be adequately supervised to ensure they do not play with the product.
- Stay alert, watch what you are doing, and use common sense when operating the product. Do not operate the product when you are tired, ill, or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the product may result in serious personal injury.
- Wear heavy, long trousers, long sleeves, and sturdy anti-slip footwear. Do not wear short trousers, sandals, or go barefoot. Avoid wearing clothing that is loose fitting or that has hanging cords or ties.
- Always wear safety glasses with side shields.
- Wear hearing protection and safety glasses at all times while operating the product. Use a face mask if operation is dusty.
- Use of hearing protection reduces the ability to hear warnings (shouts or alarms). The operator must pay extra attention to what is going on in the work area.
- Operating similar tools nearby increases both the risk of hearing injury and the potential for other persons to enter your work area.
- Always be sure of your footing, especially on slopes. Keep firm footing and balance. Do not overreach. Overreaching can result in loss of balance.
- Use the product across the face of slopes, never up and down. Exercise extreme caution when changing direction on slopes.
- Do not use the product near drop-offs, ditches, excessively steep slopes, or embankments. Poor footing could cause a slip-and-fall accident.
- Plan your mowing pattern to avoid discharge of material towards roads, public pavements, bystanders and the like. Avoid discharging material against a wall or obstruction, which may cause the material to ricochet towards the operator.

WORK AREA SAFETY

- Never use product while people, especially children, or pets are within 15 m because of the danger of objects being thrown by contact with the blade.
- Objects struck by the lawn mower blade can cause severe injuries to persons. Thoroughly inspect the area where the product is to be used and remove all rocks, sticks, metal, wire, bones, toys, or other foreign objects. Remember, string or wire may entangle with the cutting means.
- Always use the product in the daylight or in good artificial light. The operator requires a clear view of the work area to identify potential hazards.
- Do not operate the product in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. The product creates sparks which may ignite the dust or fumes.
- Do not operate the product on wet grass or in the rain.
- Do not use the product when there is a risk of lightning.
- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
- Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to

the product and the mowing activity. Never assume that children will remain where you last saw them.

- Keep children out of the mowing area and under the watchful care of a responsible adult other than the operator, be alert and turn the product off if a child enters the area.
- Use extra care when approaching blind corners, shrubs, trees, or other objects including overhanging shrubs, which may block your view.
- Keep work area clean. Cluttered or dark areas invite accidents.

LAWN MOWER SAFETY WARNINGS

- Before use, always visually inspect to ensure blades, blade bolts, and cutter assembly are not worn or damaged.
- Replace worn or damaged blades and bolts in sets to preserve balance.
- If engine does not stop when throttle level is set in "Stop" position, do not operate the product.
- Do not operate the product without the entire grass catcher or the guard of the self-closing discharge opening in place.
- The blade on the product is sharp. Use extreme caution and wear heavy-duty gloves when fitting, replacing, cleaning or checking bolt security.
- Bring the product to an authorised service centre to replace damaged or unreadable labels.
- Check all nuts, bolts, and screws at frequent intervals for proper tightness to be sure that the product is in safe working condition.
- Check the grass catcher frequently for wear, holes, or deterioration. This can cause objects to be thrown towards the operator.
- Replace worn or damaged parts before operating the product.
- Switch on the engine carefully with the user behind the handlebars in the operator safety zone. Never start the product if:
 - all four wheels are not on the ground
 - the grass discharge chute is exposed and is not protected by the grass box and grass discharge chute cover
 - hands and feet of all persons are not clear of the cutting enclosure
- Do not force the product. It will do the job better and safer at the speed for which it was designed.
- Do not overload the product. Mowing long, thick grass may cause the engine speed to drop or the power to cut out. When mowing in long thick grass, set a high cutting height on your first cut to help reduce the load.
- Stop the blade when crossing gravel surfaces.
- Do not pull back the product unless absolutely necessary. If you must back the product away from a wall or obstruction, first look down and behind to avoid

tripping or pulling the product over your feet.

- Stop the engine and allow the blade to stop if the product has to be tilted for transportation when crossing surfaces other than grass, and when transporting the product to and from the area to be mowed.
- Never use the product with defective guards or shields, or without safety devices, such as deflectors and/ or grass catchers, in place.
- Do not tilt the product when starting the engine or while the engine is running. This exposes the blade and increases the probability of objects being thrown.
- Start the engine carefully according to instructions and keep hands and feet away from cutting area. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times. Do not start the product when standing in front of the discharge opening.
- Never pick up or carry the product while it is running.
- When not in use, store the product in a well-ventilated, dry, or locked-up place that is out of the reach of children.
- Follow the manufacturer's instructions for proper operation and installation of accessories. Only use accessories approved by the manufacturer.
- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.
- Do not change the engine governor settings or over-speed the engine.
- Stop the engine, wait until the blade comes to a complete stop, allow the product to cool down, and disconnect the spark plug wire:
 - whenever you leave the product unattended (including disposal of grass clippings).
 - before cleaning a blockage or unclogging discharge chute
 - before checking, cleaning or working on the product
 - after striking a foreign object; inspect the product for damage and make repairs as necessary before restarting and operating the product
 - before removing the grass box or opening the grass discharge chute cover
 - before refuelling
- If the product starts to vibrate abnormally, check immediately to:
 - inspect for damage, particularly the blades
 - replace or repair any damaged parts
 - check for and tighten any loose parts
- If the product strikes a foreign object, follow these steps:
 - Stop the product and disconnect the spark plug wire.
 - Thoroughly inspect the mower and grass catcher for any damage.
 - Repair any damage before restarting and continuing to operate the mower

- Avoid holes, ruts, bumps, rocks, property stakes, or other hidden objects. Uneven terrain could cause a slip-and-fall accident.
- Allow engine to cool down before storing in any enclosure.
- To reduce the risk of fire, keep the engine, silencer, and petrol storage area free of grass, leaves, and excessive grease.
- If the fuel tank has to be drained, this should be done outdoors.
- Disconnect the spark plug wire before making any adjustment, transporting, or storing the product. Such preventive safety measures reduce the risk of starting the product accidentally.
- The product is noisy and permanent hearing loss or damage may result if precautions to limit your exposure, reduce noise, and wear hearing protection are not strictly adhered to.

SERVICE

- Service on the product must be performed by qualified repair personnel only. Service or maintenance performed by unqualified personnel could result in a risk of injury to the user, or damage to the product.
- When servicing, use only original manufacturer's replacement parts. Use of unauthorised parts may create a risk of serious injury to the user, or damage to the product.

NOTE: Only perform the tasks listed in this manual. For other service or repair, bring the product to an authorised service centre.

Save this manual for future reference. Refer to them frequently and use them to instruct others who may use the product. If you loan the product to someone, loan them these instructions also.

RESIDUAL RISKS

Even when the product is used as prescribed, it is still impossible to completely eliminate certain residual risk factors. The following hazards may arise in use and the operator should pay special attention to avoid the following:

- Injury caused by vibration
 - Always use the right tool for the job. Use designated handles and restrict working time and exposure.
- Injury caused by noise
 - Exposure to noise can cause hearing injury. Wear ear protection and limit exposure.
- Injury from contact with the blades
- Injury caused by thrown objects

RISK REDUCTION

It has been reported that vibrations from handheld tools may contribute to a condition called Raynaud's Syndrome. Symptoms may include tingling, numbness, and blanching

of the fingers, usually apparent upon exposure to cold. Hereditary factors, exposure to cold and dampness, diet, smoking, and work practices are all thought to contribute to the development of these symptoms. There are measures that can be taken by the operator to possibly reduce the effects of vibration:

- Keep your body warm in cold weather. When operating the product, wear gloves to keep the hands and wrists warm. It is reported that cold weather is a major factor contributing to Raynaud's Syndrome.
- After each period of operation, exercise to increase blood circulation.
- Take frequent work breaks. Limit the amount of exposure per day.

If you experience any of the symptoms of this condition, immediately discontinue use and see your physician.

⚠ WARNING

Injuries may be caused, or aggravated, by prolonged use of a tool. When using any tool for prolonged periods, ensure you take regular breaks.

SYMBOLS

Some of the following symbols may be used on the product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.



Precautions that involve your safety.



To reduce the risk of injury, user must read and understand operator's manual before using this product.



To avoid injury, stay away from moving parts at all times.
Danger! Keep hands and feet away.



Danger of Ricochet. Keep all bystanders at least 15 m away.



Before performing maintenance, remove the spark plug socket.



Remove objects that could be thrown by the rotating blade.



Keep bystanders at a safe distance away from the product.



To reduce the risk of injury or damage, avoid contact with any hot surface.



The product is a potential source of electric shock. Do not expose to moisture, rain, or snow. Do not operate with wet hands or feet.



When the product is used, it gives off carbon monoxide, an odourless, colourless, poison gas. Breathing carbon monoxide can cause nausea, fainting, or death.



Add SAE 10W-30 API-SJ or higher weight engine oil in the oil tank.



Fill the fuel tank with unleaded petrol (91 or higher).



Set the throttle lever to the "Start/Run" position.



Pull the starter grip up to 2 times. Once the engine starts, release the starter grip slowly so that the rope does not snap back.



Mow when the grass catcher is empty



Stop mowing when the grass catcher is full.



Fuel and its vapours are explosive and can cause severe burns or death.



Fuel and its vapors are extremely flammable and explosive. Fire can cause severe burns or death.



Use unleaded petrol intended for motor vehicle use with an octane rating of 91 [(R + M)/2] or higher.



Use SAE 10W-30 API-SJ or higher weight oil.



Regulatory Compliance Mark (RCM). Product meets applicable regulatory requirements.



The guaranteed sound pressure level is 79 dB(A).
The guaranteed sound power level is 100 dB(A).



Stop the product.

DESCRIPTION

1. Oil cap/Dipstick
2. Fuel cap
3. Starter grip
4. Handle knob
5. Air filter cover
6. Throttle lever
7. Grass catcher
8. Height adjustment lever
9. Spark plug boot
10. Rope guide knob
11. Spark plug
12. Blade lock nut
13. Washer
14. Blade disc
15. Wave washer
16. Blade
17. Blade bolt
18. Flat washer
19. Lock washer
20. Disc bolt
21. Ground side
22. Engine side
23. Loosen
24. Tighten
25. Self-propel bail
26. Mulching plug
27. Air filter

ASSEMBLY

UNPACKING

The product requires assembly.

- Carefully inspect the product to make sure no breakage or damage occurred during shipping.
- If any parts are damaged or missing, please call your Ryobi service centre for assistance.

PACKING LIST

Lawnmower	Rope guide
Grass catcher	Mulching plug
Operator's manual	Washer
Figure sheet	Nut
Cable guide	

⚠ WARNING

If any parts are damaged or missing, do not operate the product until the parts are replaced. Using a product with damaged or missing parts could result in serious personal injury.

⚠ WARNING

Do not attempt to modify the product or create accessories not recommended for use with the product. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.

⚠ WARNING

The product safety systems or features shall not be tampered with or disabled.

⚠ WARNING

Never attach or adjust any accessory while the product is running. Failure to stop the engine may cause serious personal injury.

⚠ WARNING

To prevent accidental starting that could cause serious personal injury, always disconnect the engine spark plug wire from the spark plug when assembling parts.

⚠ WARNING

Never operate the mower without the proper safety devices in place and working. Never operate the mower with damaged safety devices. Operation of this product with damaged or missing parts could result in serious personal injury.

INSTALLATION

See figure 7, See figure 2 - 4.

- Raise the cutting blade height to the highest position.
- Place the handles in the correct operating position. Feed the bolts through the holes in the upper and lower handles, then tighten the handle knobs to secure the handles in place.
- Install the grass catcher or mulching plug.

INSTALLING THE MULCHING PLUG

See figure 3.

NOTE: Do not install the grass catcher when using the mulching plug.

- Lift and hold up the rear discharge door.
- Grasp the mulching plug by its handle and insert the right side of the plug into the rear of the deck as shown on the figure sheet.
- Push the mulching plug forward and then down until it locks in place. Ensure that the mulching plug is firmly seated inside the rear of the deck.
- Lower the rear discharge door.

REMOVING THE MULCHING PLUG

- Lift and hold up the rear discharge door.
- Grasp the mulching plug by its handle, lift up then pull it out slowly.

INSTALLING THE GRASS CATCHER

See figure 4.

- Lift the rear discharge door.
- Lift the grass catcher by its handle and place under the rear door, so that the hooks on the grass catcher frame are seated into the slots in the handle bracket.
- Release the rear door. When installed correctly, the hooks on the grass catcher will rest securely in the slots on the handle brackets.
- Ensure the rear door is fully engaged on the grass catcher. Make sure that there is no gap between the rear door and the grass catcher.

OPERATION

FUEL AND REFUELLING

⚠ WARNING

Always handle petrol with care; it is highly flammable.

- Use fresh fuel.
- Store fuel in containers specifically designed for this purpose.
- Always refuel outdoors where there are no sparks and flames. Do not inhale fuel vapour. Do not smoke. Stay away from open flames and sparks when filling fuel tank or when handling fuel.
- Do not let petrol or oil come in contact with your skin.
- Keep petrol and oil away from the eyes. If petrol or oil comes in contact with the eyes, wash them immediately with clean water. If irritation is still present, see a doctor immediately.
- Immediately clean up spilled petrol.

FILLING THE TANK

See figure 5.

⚠ WARNING

Always shut off engine and allow it to cool down for 5 minutes before refuelling. Never remove the cap of the fuel tank or add petrol to the product with a running or hot engine. Move at least 9 m (30 ft) from refuelling site before starting the engine. Do not smoke. Failure to heed this warning could result in serious personal injury.

⚠ WARNING

Do not overfill. Fill the fuel tank to 25 mm below the top of the fuel neck. After fueling, never tilt the mower more than 25 degrees for this could result in fuel leakage and risk of fire.

NOTE: Always use petrol that is unleaded 91 or higher.

- Clean surface around fuel cap to prevent contamination.
- Loosen fuel cap slowly to release pressure and to keep fuel from escaping around the cap. Rest the cap on a clean surface.
- Carefully pour petrol into the tank. Avoid spillage.
- Clean and inspect the gasket, then replace all fuel and container caps securely.
- Wipe up any fuel spillage. Move 9 m away from refuelling site before starting engine.

NOTE: It is normal for smoke to be emitted from a new engine during and after first use.

ADDING/CHECKING ENGINE OIL

See figure 5.

Engine oil has a major influence on engine performance and service life. For general, all-temperature use, SAE 10W-30 is recommended. Always use a 4-cycle motor oil that meets or exceeds the requirements for API service classification SJ.

NOTE: Non-detergent or 2-cycle engine oils will damage the engine and should not be used.

To add engine oil:

- Ensure that the mower is level and area around oil cap/dipstick is clean.
 - Remove the cap and seal from oil bottle.
 - Unscrew the oil cap/dipstick and remove.
 - Slowly add oil. Fill to the "Full" line on dipstick. Do not overfill.
- NOTE:** When checking the oil level, seat the dipstick in the oil fill hole but do not screw in.
- Reinstall the oil cap/dipstick and secure.

To check engine oil:

- Ensure that the mower is level and area around oil cap/dipstick is clean.
- Remove the oil cap/dipstick. Wipe clean and reseal in oil fill hole but do not screw in.
- Remove the oil cap/dipstick again and check oil level. Add oil as needed.

STARTING/STOPPING THE MOWER

See figure 5.

⚠ WARNING

Never start or run the engine inside a closed or poorly ventilated area; breathing exhaust fumes can kill.

Pre-checks

- Check and ensure that the oil level is sufficient by inspecting the oil level with the dipstick seated.
- Check and ensure that the petrol tank has sufficient regular unleaded fuel.

STARTING THE ENGINE

- Set the throttle lever to the "Start/Run" position (down against the handle).
- Pull the starter grip up to 2 times.

NOTE: Once the engine starts, release the starter grip slowly so that the rope does not snap back).

- Ensure the throttle lever is set to "Start/Run" position (down against the handle), proceed with mowing.

STOPPING THE ENGINE

Return the throttle lever to the "Stop" position (hard up against the top of the mower handles).

PROPELLING THE PRODUCT

See figure 6.

- To self-propel, push the self-propel bail towards the handle. Release the self-propel bail to stop the wheel drive.
- To manually propel, do not engage the self-propel bail.

SETTING BLADE HEIGHT

See figure 7.

When shipped, the wheels on the mower are set to a low-cutting position. Before using the mower for the first time, adjust the cutting position to the height best suited for your lawn. The average lawn should be between 38 mm to 50 mm during cool months and between 50 mm and 76 mm during hot months.

To set the blade height:

- Stop the product and wait for the blade to come to a complete stop.
- To raise the blade height, grasp the height adjustment lever and move it toward the back of the mower.
- To lower the blade height, grasp the height adjustment lever and move it toward the front of the mower.

SETTING THE HANDLE LENGTH

See figure 8.

- The height of the handle can be easily adjusted for operator preference.
- Loosen and remove the mid handle knobs.
- Remove bolts and washers.

- Reinsert bolts and washers in a higher or lower position.
- Tighten the knobs.

MOWING TIPS

- Make sure the lawn is clear of stones, sticks, wires, and other objects that could damage the lawn mower blades or engine. Such objects could be accidentally thrown by the mower in any direction and cause serious personal injury to the operator and others.
- For best performance, always cut off one-third or less of the total height of the grass.
- When cutting long grass, reduce walking speed to allow for more effective cutting and a proper discharge of the clippings.
- Do not cut wet grass. It will stick to the underside of the deck and prevent proper bagging or discharge of the grass clippings.
- New or thick grass may require a narrower cut path.
- When the fuel tank is empty and before refuelling, tip the mower on the left hand side with the fuel cap at the highest position. This will prevent fuel spillage. Remove the spark plug lead to prevent accidental starting. The blade is sharp, avoid contact with it.
- Check the blade and underside of deck for any damage or build up of debris. Clean if necessary. Check the blade bolt and ensure that it is installed securely.

SLOPE OPERATION

See figure 9.

- Slopes are a major factor related to slip-and-fall accidents that can result in severe injury. Operation on slopes requires extra caution. If you feel uneasy on a slope, do not mow it. For your safety, do not attempt to mow slopes greater than 15 degrees.
- Mow across the face of slopes, never up and down. Exercise extreme caution when changing direction on slopes.
- Watch for holes, ruts, rocks, hidden objects, or bumps which can cause you to slip or trip. Tall grass can hide obstacles. Remove all objects such as rocks, tree limbs, which could be tripped over or thrown by the blade.
- Always be sure of your footing. A slip-and-fall accident can cause serious personal injury.
- Do not mow near drop-offs, ditches, or embankments; you could lose your footing or balance.

EMPTYING THE GRASS CATCHER

See figure 10.

- Stop the mower and wait for the blade to come to a complete stop.
- Lift the rear discharge door.
- Grasp grass catcher by its handle and lift to remove from mower.
- Empty grass clippings.
- Lift the rear discharge door and reinstall the grass

catcher.

⚠ WARNING

Use caution when lifting or tilting the product for maintenance, cleaning, storage, or transportation. The blade is sharp, even though the engine is shut off, the blades can still be moved. Keep all body parts away from the blade while it is exposed.

MAINTENANCE

⚠ WARNING

If the product is not maintained correctly, the life span of the product may be reduced, and built-in safety features may not function correctly, thus increasing the potential for serious injury. Keep the product in good working condition.

⚠ WARNING

Before performing any maintenance, stop the product, allow the blade to come to a complete stop, and disconnect the spark plug wire from the spark plug. Failure to heed this warning could result in serious personal injury.

⚠ WARNING

When servicing, use only original manufacturer's replacement parts. Use of any other parts may create a hazard or cause product damage.

GENERAL MAINTENANCE

You may make adjustments and repairs described in this manual. For other repairs, contact an authorised service centre.

- Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, or grease.
- Periodically check all nuts and bolts for proper tightness to ensure safe operation of the product.
- Remove any buildup of grass and leaves on or around the engine and engine cover. Occasionally wipe the mower clean with a dry cloth. Do not use water.
- Frequently check the grass catcher for wear or deterioration.

⚠ WARNING

Do not, at any time, let brake fluids, gasoline, petroleum-based products, or penetrating oils come in contact with plastic parts. Chemicals can damage, weaken, or destroy plastic which may result in serious personal injury.

SPARK ARRESTOR

- The product is fitted with a spark arrester (which is inside the exhaust).

NOTE: It is recommended that the spark arrester is only cleaned at an authorised service centre.

LUBRICATION

All of the bearings in this product are lubricated with a sufficient amount of high grade lubricant for the life of the unit under normal operating conditions. Therefore, no further bearing lubrication is required.

⚠ WARNING

Always protect hands by wearing heavy gloves and/or wrapping the cutting edges of the blade with rags and other material when performing blade maintenance. Improper handling of blade could result in serious personal injury.

REPLACING THE CUTTING BLADE

See figure 11.

⚠ WARNING

Always protect hands by wearing heavy-duty gloves and wrapping the cutting edges of the blade with rags and other materials when performing blade maintenance. Improper handling of blade could result in serious personal injury.

Be careful when replacing the mower blade. Ensure that your fingers do not get caught between the moving blade and the fixed parts of the product.

For best results, the mower blade must be kept sharp. Replace a bent or damaged blade immediately.

⚠ WARNING

Only use replacement blades approved by the manufacturer. Using a blade that is not approved by the manufacturer of the product is hazardous and could result in serious injury, damage to the product, and will void your warranty.

⚠ WARNING

Drain the fuel first before tilting the mower to replace the blade.

- Stop the product. Make sure that all moving parts have come to a complete stop. Allow the product to cool down. Disconnect the spark plug wire.
- Turn the product on its side, carburettor (air filter side) facing up.

NOTE: Make sure the carburettor is facing up.

- Wedge a block of wood between the blade disc and mower deck to prevent the blade disc from turning.
 - Using a socket (not provided), loosen the disc bolt by turning the bolt in a counterclockwise direction as viewed from the bottom of the mower.
 - Remove the disc bolt, lock washer, flat washer, and blade disc.
 - If any of the individual blades are dull, damaged, or need replacing, they should be replaced using only original equipment parts. If any single blade needs to be replaced, then the complete set of four (4) blades need to be replaced. Failure to replace the blades as a set may result in an out of balance situation resulting in damage to the engine.
 - Loosen the blade lock nuts on the old blades by turning then counterclockwise.
 - Remove the blade lock nuts, washers, blades, wave washers, and bolts from the blade disc.
 - Reassemble the new blades as shown on the figure sheet. Ensure the new blades raised edges face towards the inside of the mower deck once the disc is reinstalled to the mower. If the blades are not assembled correctly the grass will not get directed to the rear of the deck (for being caught in the catcher). Ensure the wave washer is positioned between the blade and the disc. Ensure the lock nuts are tightened (clockwise) over the flat washer and disc properly securing the blade to the disc.
 - Assemble the blade disc, flat washer, lock washer, and disc bolt on the shaft. Finger tighten the disc bolt by turning in a clockwise direction as viewed from the bottom of the mower.
- NOTE:** Ensure all parts are replaced in the exact order in which they were removed.
- Torque the disc bolt using a torque wrench (not provided) to ensure the bolt is properly tightened.
 - The recommended torque for the disc bolt and blade lock nut is 35–45 Nm (26–33 ft. lb.).
- NOTE:** Do not sharpen the blades, replace with new item. Blades need to be properly balanced to avoid damage and personal injury.

CLEANING AIR FILTER

See figure 13.

The mower has a foam air filter, and it cannot be washed.

For proper performance and long life, keep the air filter clean.

- Stop the product. Make sure that all moving parts have come to a complete stop. Allow the product to cool down. Disconnect the spark plug wire.
- Remove the air filter cover by pushing in on the latch with your thumb while gently pulling on the cover.
- Remove the air filter element for inspection.
- After removing the air filter element, most debris can be removed by tapping it gently against a hard surface, or brushing the surface lightly.

NOTE: A dirty air filter element will restrict air flow and may result in damage to the engine. Air filter element life is dependant upon the environment in which the mower is used, and it should be inspected & cleaned regularly and replaced when dirty.
- Reinstall the cleaned or new air filter element into the air filter base.
- Replace and secure the air filter cover.

NOTE: The filter should be replaced annually for best performance or sooner, if necessary.

FUEL CAP

⚠ WARNING

A leaking fuel cap is a fire hazard and must be replaced immediately.

A clogged fuel cap will cause poor engine performance. If performance improves when the fuel cap is loosened, check valve may be faulty or clogged. Replace fuel cap if required.

CHANGING ENGINE OIL

See figure 14.

- Stop the product. Make sure that all moving parts have come to a complete stop. Allow the product to cool down. Disconnect the spark plug wire.
- Ensure the fuel tank is completely empty before tipping the unit over; otherwise, fuel will leak out.
- Engine oil should be changed after every 20 hours of use. Change the oil while the engine oil is still warm, but not hot. This allows the oil to drain quickly and completely.
- Remove the oil fill cap/dipstick.
- Tip mower onto its side and allow oil to drain from the oil fill hole into an approved container.
- Place mower upright and refill with oil following the instructions in the Adding/Checking Oil section.

NOTE: Used oil should be disposed of at an approved disposal site. See your local oil retailer for more information.

SPARK PLUG MAINTENANCE

See figure 12.

The spark plug must be properly gapped and free of deposits in order to ensure proper engine operation. To check:

- Stop the product. Make sure that all moving parts have come to a complete stop. Allow the product to cool down. Disconnect the spark plug wire.
- Remove spark plug boot.
- Clean any dirt from around base of spark plug.
- Remove spark plug using a 13/16 in. spark plug socket (not provided).
- Inspect spark plug for damage, and clean with a wire brush before reinstalling. If insulator is cracked or chipped, spark plug should be replaced.

NOTE: The recommended spark plug models are Torch F7RTC or NGK BPR6ES.
- Measure plug gap. The correct gap is 0.71 mm – 0.79 mm. To widen gap, if necessary, carefully bend the ground (top) electrode. To lessen gap, gently tap ground electrode on a hard surface.
- Seat spark plug in position; thread in by hand to prevent cross-threading.
- Tighten with wrench to compress washer. If spark plug is new, use 1/2 turn to compress washer appropriate amount. If reusing old spark plug, use 1/8 to 1/4 turn for proper washer compression.

NOTE: An improperly tightened spark plug will become very hot and could damage the engine.
- Reinstall spark plug boot.

DRIVE GEAR MAINTENANCE

See figure 15.

To ensure smooth operation of the wheels, the wheel assembly should be cleaned before storage.

- Remove the spat (hub cap).
- Remove the nut and wheel and set aside.
- Remove the e-ring, pins, and wheel gear. Clean any dirt from these items and the end of the drive shaft by wiping with a dry cloth. If necessary, rubbing alcohol may be used to remove any stubborn dirt.

CAUTION: Do not lubricate any of the wheel components. Lubrication may cause the wheel components to fail during use, which could result in mower damage.

- Reinstall the wheel gear with the arrows facing the front of the mower. Reinstall the pins and e-ring.
- Reinstall the wheel and nut. Tighten nut to secure.
- Assemble the spat (hub cap).

REPLACING WHEELS

See figure 16.

⚠ WARNING

Use only the manufacturer's replacement wheels. Using wheels that are not approved by the manufacturer is hazardous and could result in serious personal injury.

- Stop the product. Make sure that all moving parts have come to a complete stop. Allow the product to cool down. Disconnect the spark plug wire.
- Remove the spat (hub cap).
- Remove the nut from the wheel axle, then remove the wheel.
- Replace with new wheel and reinstall nut to secure.
- Assemble the spat (hub cap).

STORING THE PRODUCT

When storing the mower for 30 days or more:

- If using a fuel stabilizer, follow the stabilizer manufacturer's directions to add stabilizer to petrol in the fuel tank. Run the engine at least 10 minutes after adding stabilizer to allow the stabilizer to reach the carburettor.

⚠ WARNING

Do not store the product with petrol in the tank inside a building where fumes may reach an open flame or spark.

- If not using a fuel stabilizer, allow the engine to run until the product is completely out of fuel.
- Once the engine has stopped, allow the blade to come to a complete stop and disconnect the spark plug wire.
- Turn the product on its side (with carburettor facing up) and clean grass clippings that have accumulated on the underside of the mower deck.
- Clean the underside of the mower deck.
- Wipe the product clean with a dry cloth.
- Check all nuts, bolts, knobs, screws, and fasteners for tightness.
- Inspect moving parts for damage, breakage, and wear. Have repairs made on any damaged or missing parts.
- Store the product in a well-ventilated area that is clean, dry, and is out of the reach of children.
- Do not store near corrosive materials, such as fertilizer or rock salt.

To lower the handle before storing

See figure 17.

- Loosen the starter rope guide knob. Remove starter rope from guide and allow to retract into engine.
- Remove the handle knobs and bolts from each side of

the lower handle at the handle bracket, (mounted on the mower deck).

- Fully loosen the handle knobs on the sides of the handle and fold the upper handle down.
- Push inward on each side of the lower handle, and lift the sides of the lower handle past the edges of the handle mounting brackets.
- Fold the lower handle forward, making sure not to bend or kink the control cables.

TRANSPORTATION

- Stop the product. Make sure that all moving parts have come to a complete stop. Allow the product to cool down before storing or transporting. Disconnect the spark plug wire.
- Clean all foreign materials from the product. Store the product in a cool, dry, and well-ventilated place that is inaccessible to children. Keep away from corrosive agents such as garden chemicals and de-icing salts. Do not store outdoors.
- For transportation in a vehicle, secure the product against movement or falling to prevent injury to persons, damage to the product, or loss of fuel.

⚠ WARNING

Use caution when lifting or tilting the product for maintenance, cleaning, storage, or transportation. The blade is sharp, keep all body parts away from the blade while it is exposed.

PRODUCT SPECIFICATIONS

Engine displacement	161cc OHV
Type	4 stroke air cooled engine
No-load speed of cutting means	2800 min ⁻¹
Fuel consumption at Max. Engine performance	1.1 kg/h
Specific fuel consumption at Max. Engine performance	395 g/kW.h
Cutting width	46 cm
Self-propelled speed	1.0 m/s ²
Cutting height adjustment	7 positions, 25 mm - 75 mm
Wheel size (Front/ Rear)	17.8 cm (7 in.) / 20.3 cm (8 in.)
Fuel tank capacity	1300 ml (+/-50 ml)
Fuel type	Unleaded fuel (91 or higher)
Oil type	SAE 10W-30 API-SJ or higher weight oil
Oil tank capacity	350 ml (+/-50 ml)
Net weight	31 kg
Grass catcher capacity	55 L
Disc bolt, blade bolt and blade lock nut torque	35~45 Nm
Engine mounting bolt torque	20~25 Nm
Vibration Level (in accordance with Annex G of EN ISO 5395-1:2013)	
Right Handle	2.37 m/s ²
Left Handle	2.04 m/s ²
Uncertainty of Measurement	1.5 m/s ²
Declared vibration value	4.0 m/s ²
Noise emission level (in accordance with Annex F of EN ISO 3744:2010)	
The guaranteed sound pressure level LpA	79.0 dB(A)
The guaranteed sound power level LwA	100.0 dB(A)
Uncertainty of Measurement	1.0 dB
Replacement part	
Blade	099923021001
Rear drive wheel	099923022075

MAINTENANCE SCHEDULE

	Before each use	After 1st month or 20 hours of operation	Every 3 months or 50 hours of operation	Every 6 months or 100 hours of operation	Every 12 months or after 300 hours of operation
Check engine oil	■				
Change engine oil		■		■	
Check air filter	■				
Clean air filter			■		
Change air filter					■
Check/adjust spark plug				■	
Replace spark plug					■
Check/adjust idle speed					■
Check/adjust valve clearance*					■
Clean fuel tank and filter*				■	
Check fuel tube					■
Check for worn or damaged parts	■				
Check all starting interlock and throttle lever for proper functionality	■				
Check if the blade stop within 6 seconds after setting the throttle lever to the "Stop" position (hard up against the top of the mower handles).	■				

* These items should only be carried out by an authorised service center.

NOTE: Maintenance should be performed more frequently when the product is used in dusty areas.

When the engine has exceeded the maximum figures specified in the table, maintenance should still be cycled according to the intervals of time or hours stated herein.

TROUBLESHOOTING

Problem	Possible cause	Solution
The handle is not in the correct position.	The handle is positioned incorrectly.	Check and ensure that the lower part of handle is pushed fully back and snapped into proper position.
	The handle knobs are not tightened.	Tighten the handle knobs.
The mower does not start.	There is no petrol.	Fill the mower with petrol. If the mower still does not start, contact an authorised service centre.
	The engine is flooded.	Wait for 15 minutes, then try starting the mower again. Refer to Starting/Stopping the mower section.
	Old fuel.	Only use fresh fuel. Fuel over 30 days old may prevent the product from starting.
	No spark.	Check spark. Remove spark plug. Reattach the spark plug cap and lay spark plug on metal cylinder. Pull the starter rope and watch for spark at spark plug tip. If there is no spark, repeat test with a new spark plug.
	The starter rope is harder to pull now than when it was new.	Contact an authorised service centre.
The mower is hard to push.	The grass to be mowed is too tall.	Raise the cutting height.
	The mower housing and blade is being dragged through heavy grass.	
	The cutting height is too low.	
The mower is vibrating at a higher speed.	The blade is unbalanced.	Replace the blade.
	The motor shaft is bent.	Stop the product. Make sure that all moving parts have come to a complete stop. Allow the product to cool down. Disconnect the spark plug wire. Inspect for damage. Have the damage repaired by an authorised service centre before restarting the product.
Mower not mulching properly	Wet grass clippings sticking to the underside of the deck.	Wait until the grass dries before mowing.
The grass catcher is not being filled up with grass even though grass is being cut from the lawn.	The discharge chute is blocked.	Stop the product. Make sure that all moving parts have come to a complete stop. Allow the product to cool down. Disconnect the spark plug wire. Remove grass catcher and lift discharge chute cover. Beware of the sharp blade and avoid contact. Remove the debris from the discharge chute.
	Cutting height set too low.	Raise the cutting height. Cutting very wet grass at a low cutting height will also greatly hinder the ability of the mower to throw the grass to the catcher. We recommend raising the cutting height or cutting the grass when it is not as wet.



Imported by:

Techtronic Industries Australia Pty Ltd
31 Gilby Road, Mount Waverley, VIC 3149
Melbourne, Australia

Techtronic Industries N.Z. Limited
2 Landing Drive, Mangere
Auckland, 2022, New Zealand