

BENCHMARK™

GRASSCYCLER GAS LAWN MOWER

5124-070



MANUAL



This product is supported by **Midland Power**. Contact us directly for assistance and warranty help. Do not return this product to store.

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Register Your Product Online

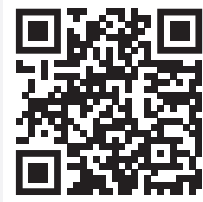
[www.benchmark.midlandpowerinc.com/
register-warranty](http://www.benchmark.midlandpowerinc.com/register-warranty)



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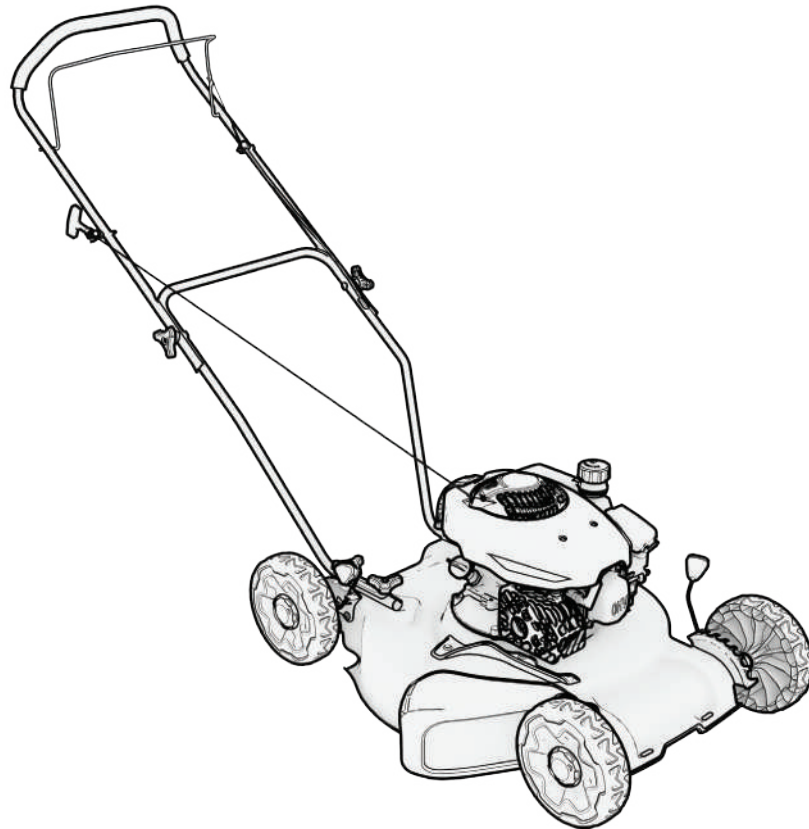
Or call us anytime at **1-877-528-3772**.

Thanks for choosing Benchmark!

You're excited to get started, we'll keep this brief.

READ THIS ENTIRE GUIDE BEFORE USING THIS PRODUCT AND SAVE FOR LATER USE.

This user guide contains important instructions including safety, setup, operation, and maintenance that must be followed. All information in this guide is based on information available at the time of print. This guide or revised editions can be found on our website for download. No part of this publication may be reproduced without written permission.



THIS PRODUCT MEETS ALL CERTIFICATION REQUIREMENTS FROM:




The engine exhaust from this product contains chemicals known to cause cancer, birth defects or other reproductive harm.

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1. SAFETY

⚠ DANGER	
Using an engine indoors CAN KILL YOU IN MINUTES. Engine exhaust contains carbon monoxide. This is a poison you cannot see or smell.	
 NEVER use inside a home or garage, EVEN IF doors and windows are open.	 Only use OUTSIDE and far away from windows, doors, and vents.
Avoid other engine hazards. READ MANUAL BEFORE USE.	

⚠ **DANGER!** ⚠

Using a lawn mower indoors WILL KILL YOU IN MINUTES.

Engine exhaust contains high levels of carbon monoxide (CO), a poisonous gas you cannot see or smell. If you can smell the engine exhaust you are breathing CO. Even if you cannot smell the exhaust, you could be breathing CO.

NEVER use a lawn mower inside a home, garage, crawlspace, or other partly enclosed area, deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors will **NOT** supply enough fresh air.

ONLY use a lawn mower outdoors and far away from open windows, doors, and vents. These openings can pull in lawn mower exhaust. Even when you use a lawn mower correctly, **CO** may leak into the home. **ALWAYS** use a **CO** alarm in your home.

If you start to feel sick, dizzy, or weak after the lawn mower has been running, move to fresh air RIGHT AWAY and seek medical attention. You could have carbon monoxide poisoning. NEVER run the lawn mower in an enclosed or even partially enclosed area where people may be present.

1.1 OPERATOR SAFETY

⚠ WARNING!

- Always perform an oil, fuel and air filter check before starting the engine.
- Properly clean and maintain the equipment.
- Operate the lawn mower according to instructions for safe and dependable service.
- Before operating the lawn mower, read the user guide carefully. Otherwise, it may result in personal injuries or equipment damage.
- NEVER run the lawn mower in an enclosed area to avoid harm from exhaust emissions of a poisonous carbon monoxide gas.
- Be careful not to touch the exhaust system during operation due to risk of burns.
- Pay attention to the warning labels. The engine exhaust system will become heated during operation and remain hot immediately after the engine is stopped.
- Gasoline is a highly flammable and explosive liquid. Refuel in a well ventilated area with the engine stopped.

- **Use of gasoline with an ethanol content greater than 10% can damage the engine and fuel system and will void the manufacturer's warranty.**
- **When refueling the lawn mower, keep it away from cigarettes, open flames, smoke and/or sparks.**
- **Place the lawn mower at least 3 feet away from buildings or other equipment during operation.**
- **Run the lawn mower on a level surface. Tilting the lawn mower may result in fuel spills.**
- **Know how to stop the lawn mower quickly and understand operation of all the controls. NEVER permit anyone to operate the lawn mower without proper instructions.**
- **Keep children, pets and machinery with rotating parts away during operation.**
- **DO NOT operate the lawn mower in rain or snow.**
- **DO NOT operate the lawn mower if damaged. Have the machine repaired before use.**
- **DO NOT touch the spark plug while the engine is operating or shortly after the engine has been shut down.**
- **Wear ear and eye protection while operating this unit.**

1.2 USE SAFETY

⚠ WARNING!

- **DO NOT** operate the lawn mower in a confined space where dangerous carbon monoxide fumes can collect.
- **Refuel outdoors only and DO NOT smoke while refueling.**
- **NEVER** remove the cap of the fuel tank or add gas while the engine is running or when the engine is hot.
- **If gas 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 gas vapours have dissipated.**
- **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.**
- **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.**
- **Exercise extreme caution when changing direction on slopes.**
- **DO NOT mow excessively steep slopes.**
- **Use extreme caution when reversing or pulling the lawn mower towards you.**
- **Stop the blade(s) 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, 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 lawn mower when starting the engine or switching on the motor, except if the lawn mower 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 lawn mower 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 refueling.
- Before clearing blockages or unclogging chute.
- Before checking, cleaning or working on the lawn mower.
- After striking a foreign object. Inspect the lawn mower for damage and make repairs before restarting and operating the lawn mower.
- If lawn mower starts to vibrate abnormally, check immediately.
- Whenever you leave the lawn mower.

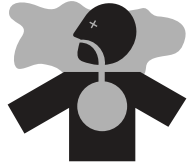
1.3 MAINTENANCE SAFETY

⚠ WARNING!

- Turn off the engine before performing any maintenance. Failure to do so can cause severe personal injury or death.
- Use rubber gloves when coming into contact with engine oil.
- After any maintenance is performed, wash immediately using soap and clean water, repeated exposure to lubricant may cause skin irritation.
- DO NOT clean the filter element with flammable liquids like gasoline, an explosion may occur.
- Allow the lawn mower to cool down before performing any maintenance.
- Always stop the lawn mower before removing the oil filler cap.
- To reduce the fire hazard, keep the engine, silencer, battery compartment and gasoline storage area free of grass, leaves, or excessive grease.
- Drain the fuel tank outdoors only.
- Check the grass catcher frequently for wear or deterioration.
- Only qualified maintenance personnel with knowledge of fuels and machinery hazards should perform maintenance procedures.
- See 'Maintenance Schedule' for the recommended maintenance schedule.

1.4 OTHER SAFETY TIPS

⚠ WARNING ⚠ AVERTISSEMENT



TOXIC FUMES HAZARD. Running engines give off carbon monoxide, an odourless poisonous gas that can cause nausea, fainting, or death. Do not start engine indoors or in an enclosed area, even if the windows and doors are open.

DANGER TOXIQUE. Faire fonctionner un moteur dégage de l'oxyde de carbone, un gaz inodore toxique qui peut provoquer la nausée, évanouissement ou la mort. Ne pas démarrer le moteur à l'intérieur ou dans une espace clos, meme si les fenêtres et les portes sont ouvertes.

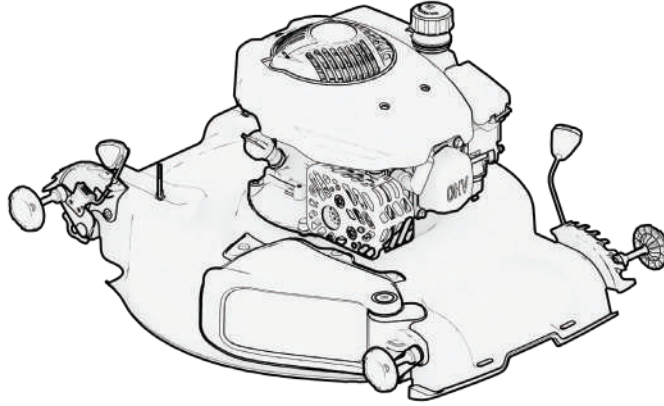
⚠ WARNING!

- Running engines give off carbon monoxide, an odourless poisonous gas that can cause nausea, fainting, or death. **DO NOT** start engine indoors or in an enclosed area even if the windows and doors are open.
- If you start to feel sick, dizzy, or weak after the engine has been running, move to fresh air **RIGHT AWAY**. See a doctor. You could have carbon monoxide poisoning.
- Lawn mowers vibrate in normal use. During and after the use of the lawn mower, inspect the product as well as extension cords and power supply cords connected to it for damage resulting from vibration. Have damaged items repaired or replaced as necessary. **DO NOT** use plugs or cords that show signs of damage such as broken or cracked insulation or damaged blades.

2. LEARN ABOUT YOUR LAWN MOWER

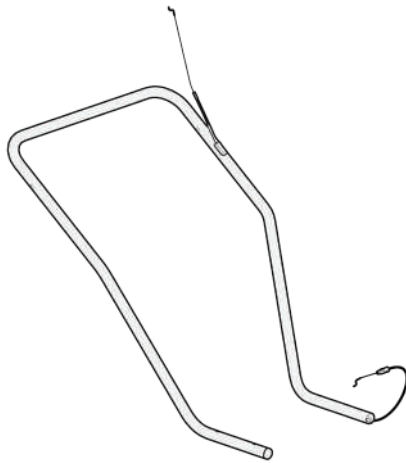
2.1 MAKE SURE YOU HAVE EVERYTHING

PRE-ASSEMBLED PARTS



(1x) Grasscycler

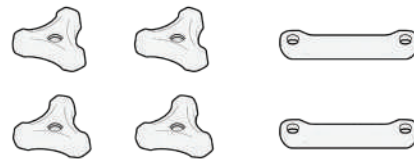
LOWER HANDLE PARTS



(1x) Lower Handle
(1x) Brake Cable

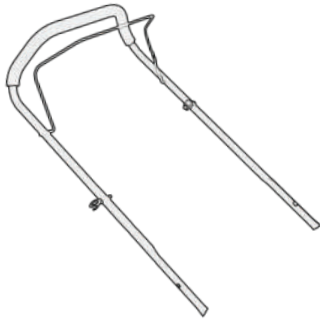


(1x) Lower Handle Plug

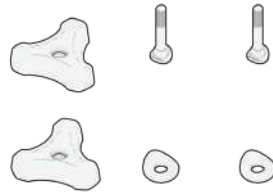


(4x) Handle Knobs
(2x) Lower Handle Braces

UPPER HANDLE PARTS



(1x) Upper Handle
(1x) Brake Lever



(2x) Handle Knobs
(2x) Handle Bolts
(2x) Curved Washers

WHEEL PARTS

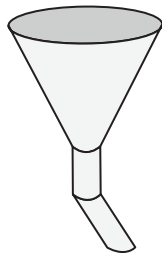


(4x) Wheels

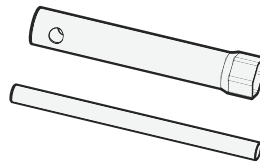
OTHER



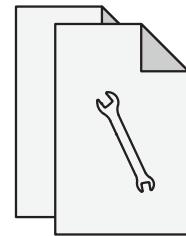
(1x) Oil Bottle



(1x) Funnel

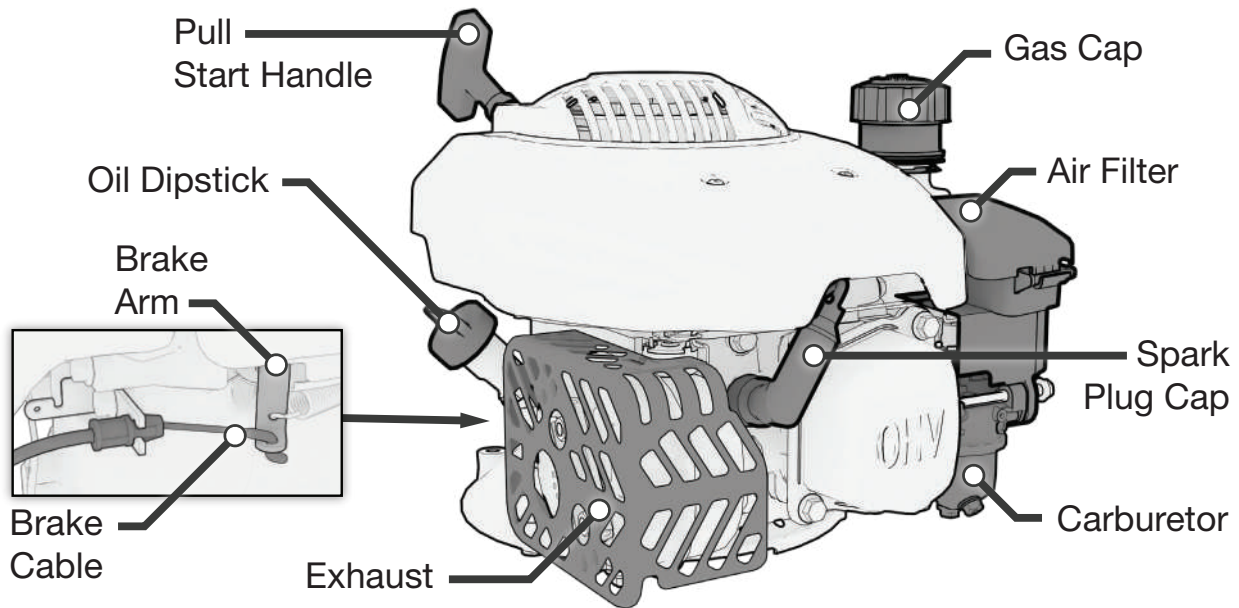
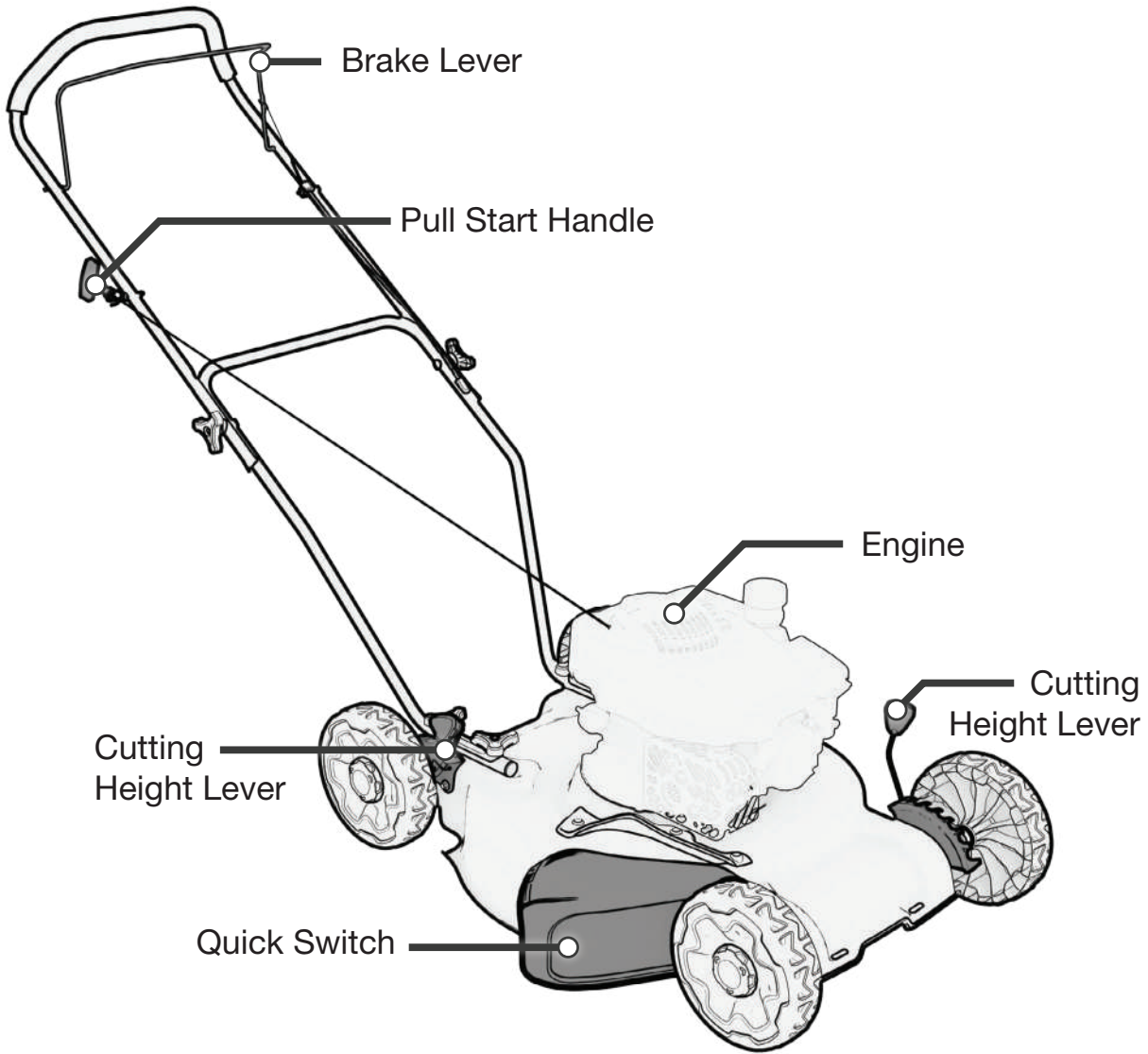


(1x) Spark Plug Wrench
(1x) Spark Plug
Wrench Handle



(1x) English Manual
(1x) French Manual

2.2 COMPONENT IDENTIFICATION



2.3 KEY CONTROLS AND COMPONENTS

Brake Lever

- Safety lever that must be pulled and held to start the lawn mower's engine and keep it running.
- Releasing the lever will immediately stop the engine and blade.

Pull Start Handle

- Handle that is pulled to start the engine.

Cutting Height Lever

- Adjust to set the cutting height.
- The cutting height ranges from 1 in (25 mm) to 4 in (100 mm).
- Each cutting height notch raises or lowers the height by ½ in (12.5 mm).

Quick Switch

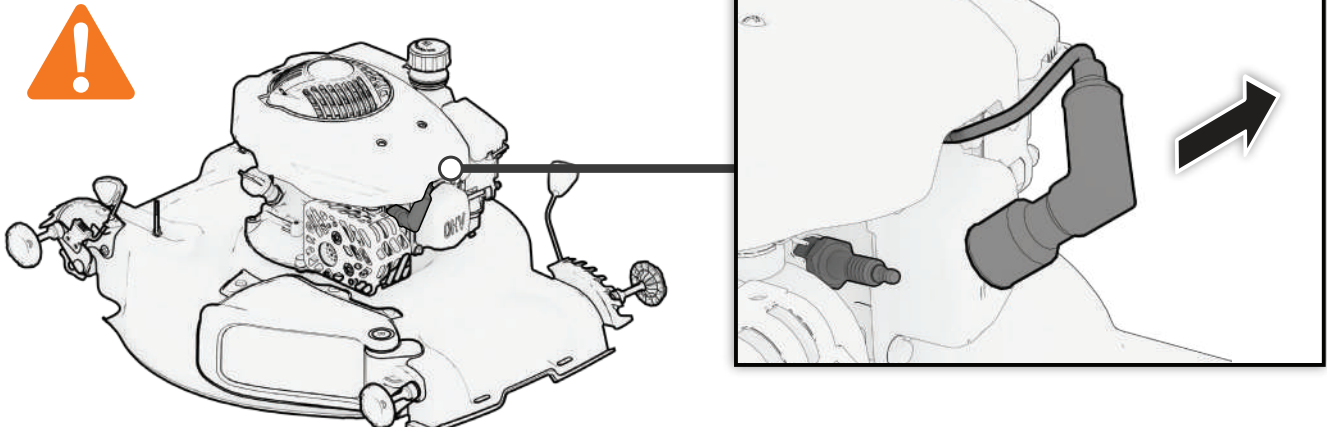
- All in one discharge/mulch door.
- Mulches grass when closed.
- Discharges cut grass from side when open.

NOTE

- For more information on your Lawn Mower's parts, go to CHAPTER 11: "GLOSSARY".

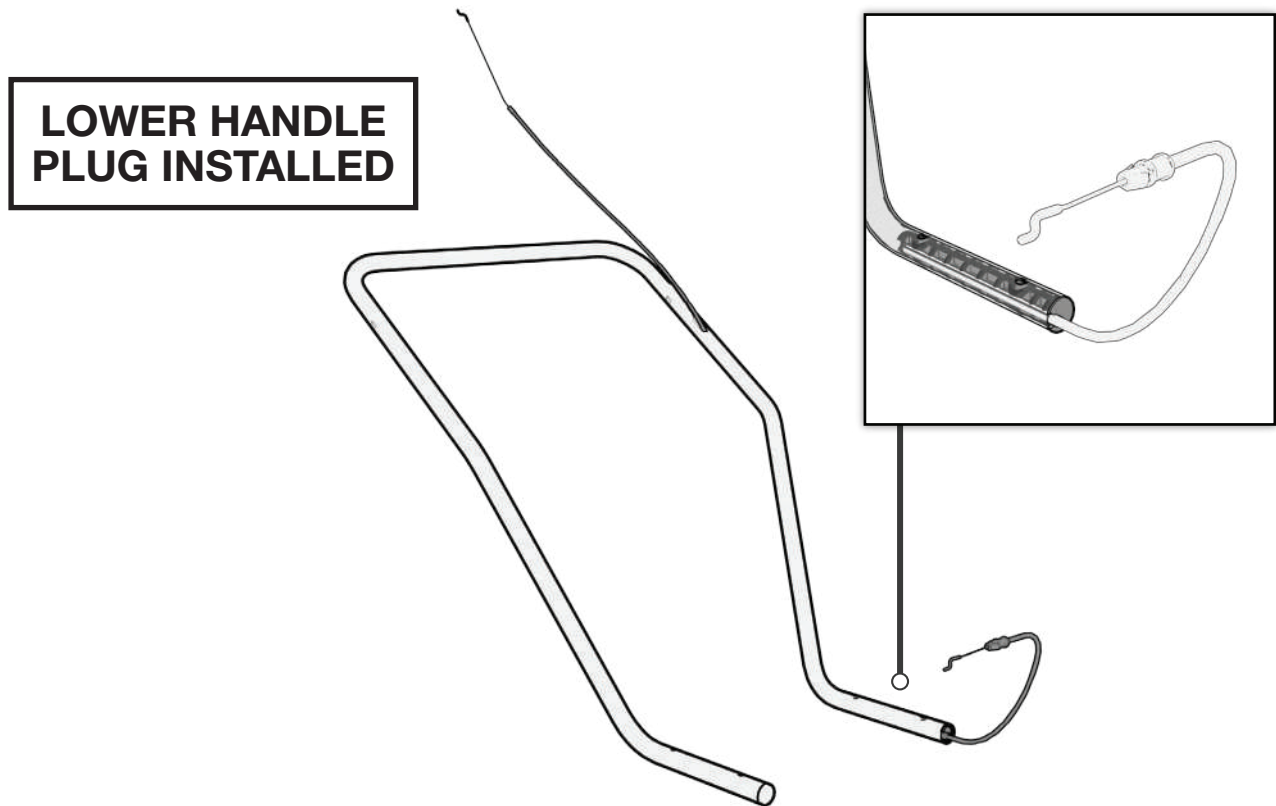
3. ASSEMBLY

⚠ WARNING!

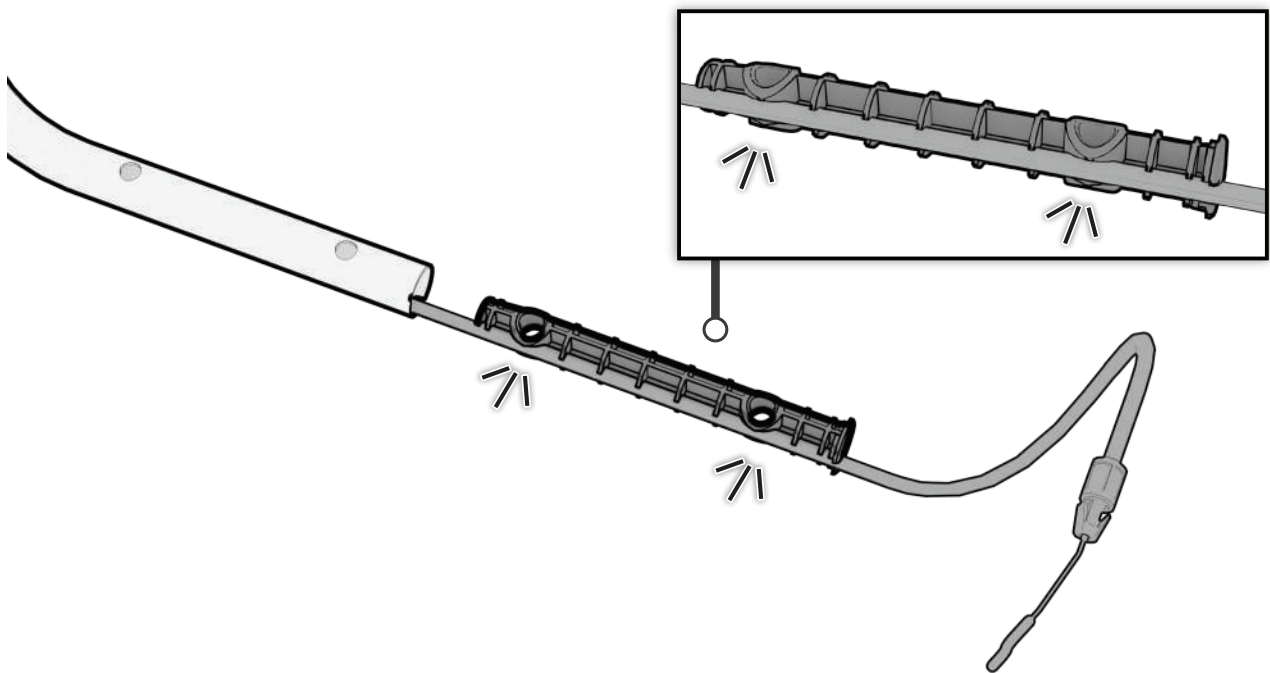


- Always disconnect the Spark Plug Cap from the Spark Plug before performing any assembly or maintenance.
- Removing the Spark Plug Cap prevents accidental startup and reduces the risk of injury.

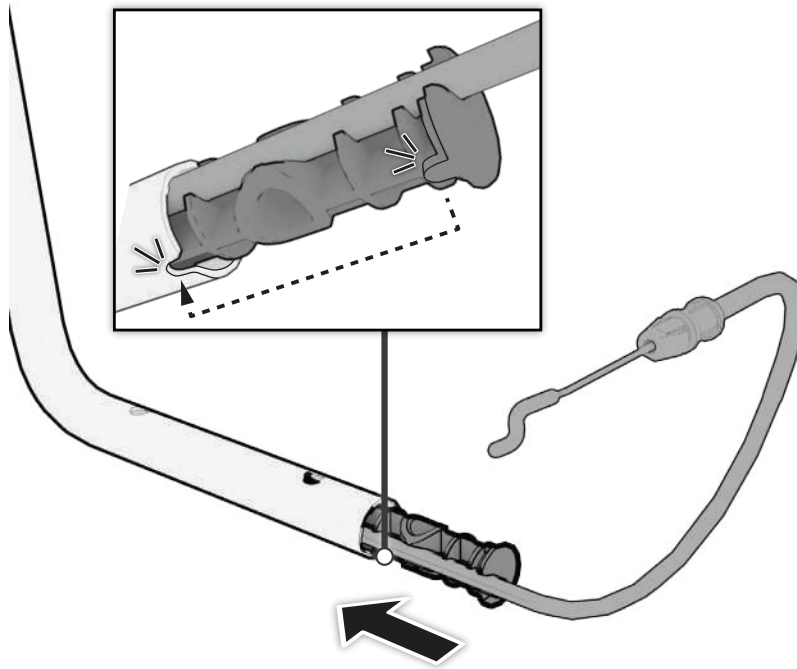
3.1 INSTALLING THE LOWER HANDLE PLUG



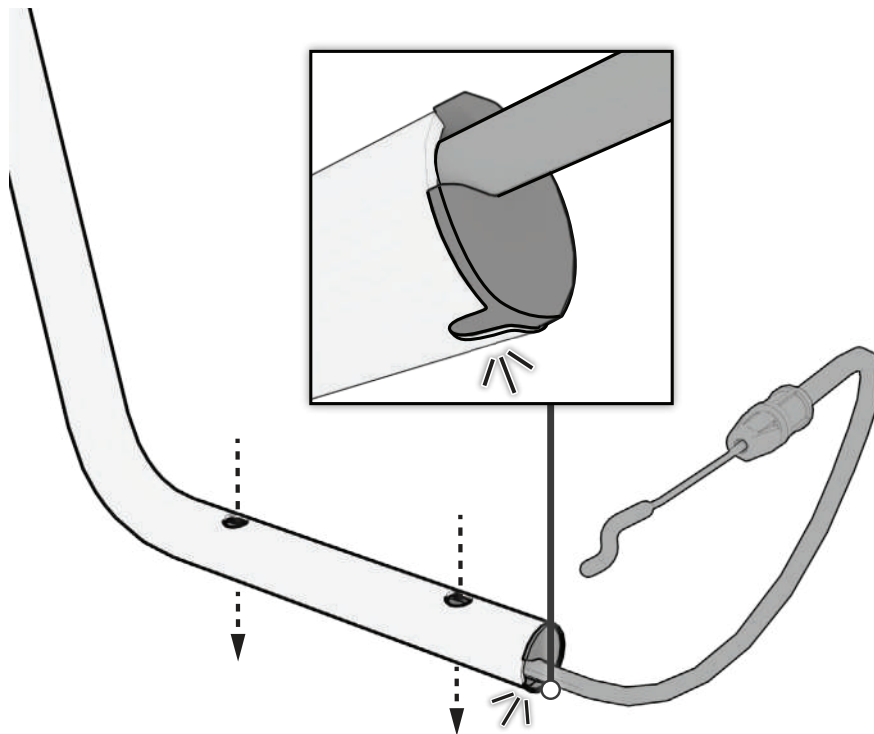
To install the Lower Handle Plug, follow the steps below.



1. Attach the Lower Handle Plug to the Brake Cable.



2. Insert the Lower Handle Plug into the base of the Lower Handle.



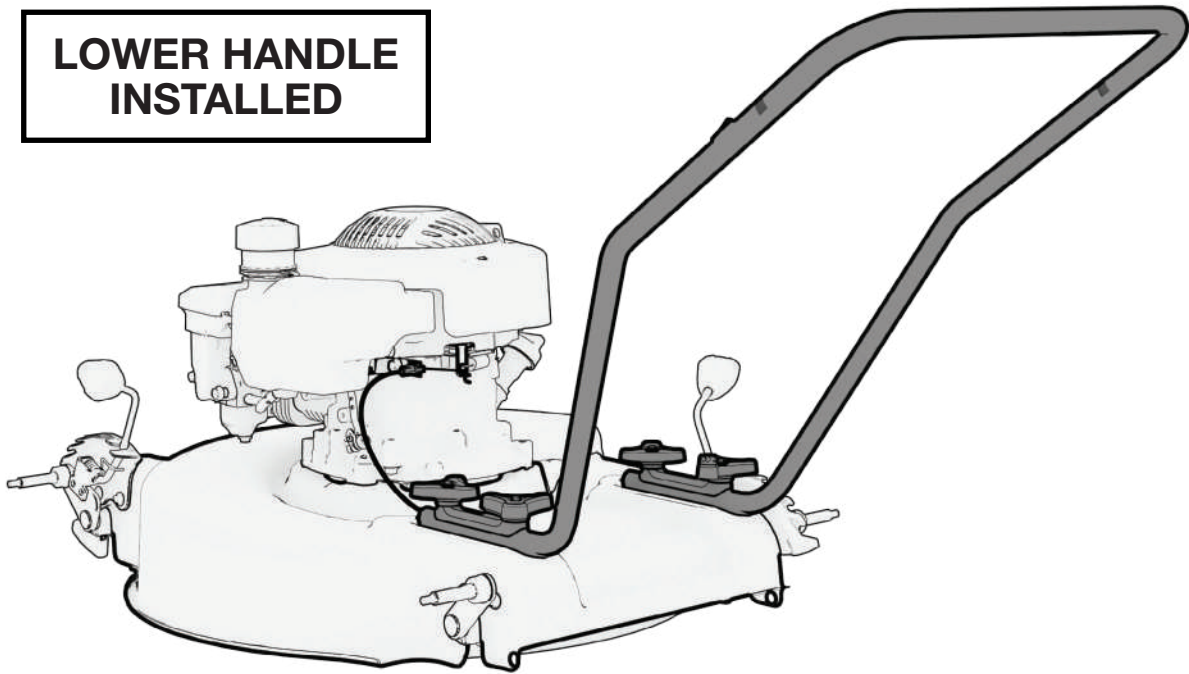
3. Ensure the Lower Handle Plug is properly aligned with the Lower Handle's notch and bolt holes.

NOTE

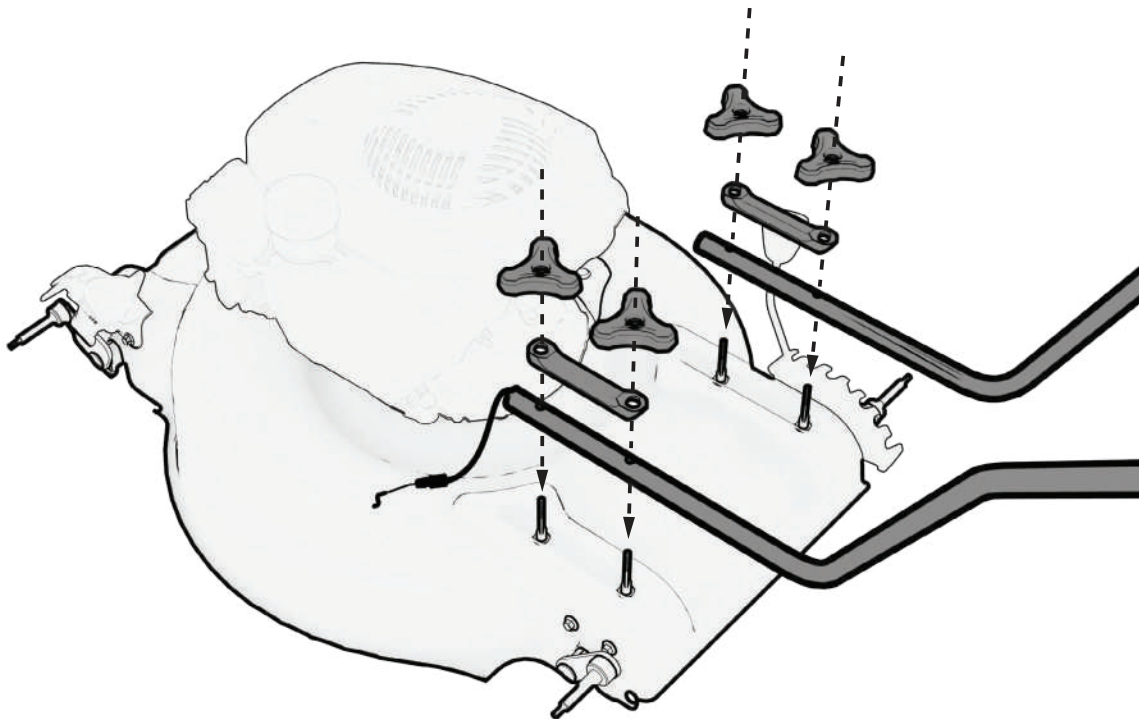
- The Lower Handle Plug must be fully flush against the Lower Handle.

3.2 INSTALLING THE LOWER HANDLE

**LOWER HANDLE
INSTALLED**

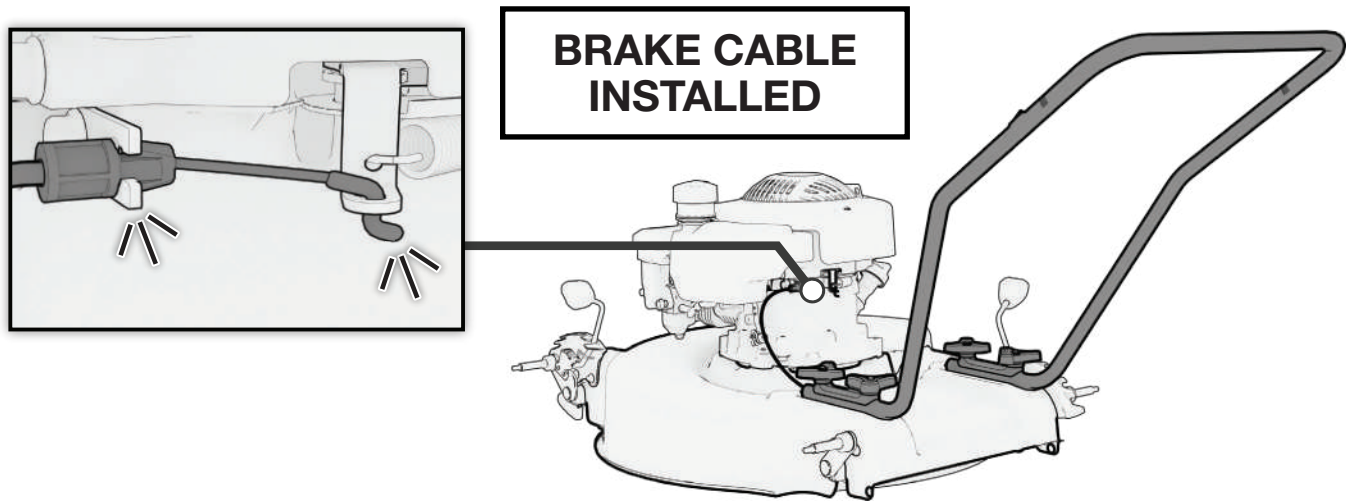


To install the Lower Handle, follow the steps below.

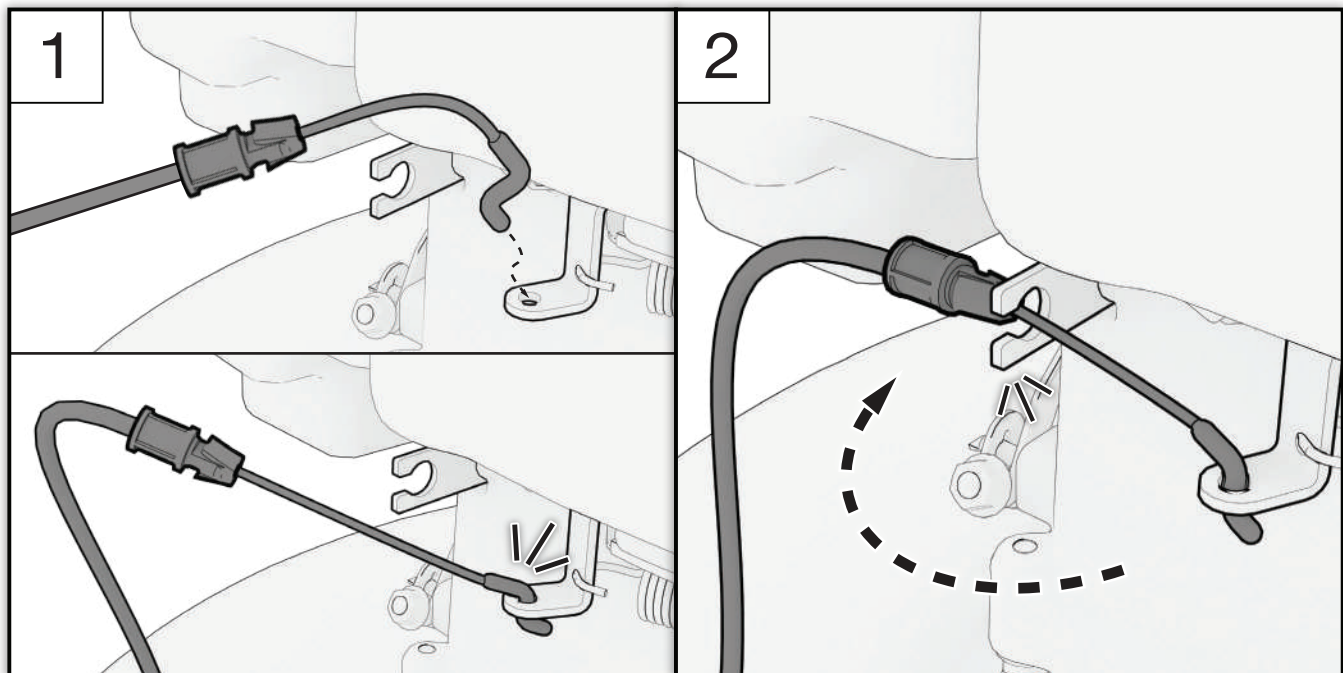


1. Install the Lower Handle onto the 4 studs at the rear of the Lawn Mower.
2. Install (2x) Lower Handle Braces with the curved side facing down. Secure the components using (4x) Handle Knobs.

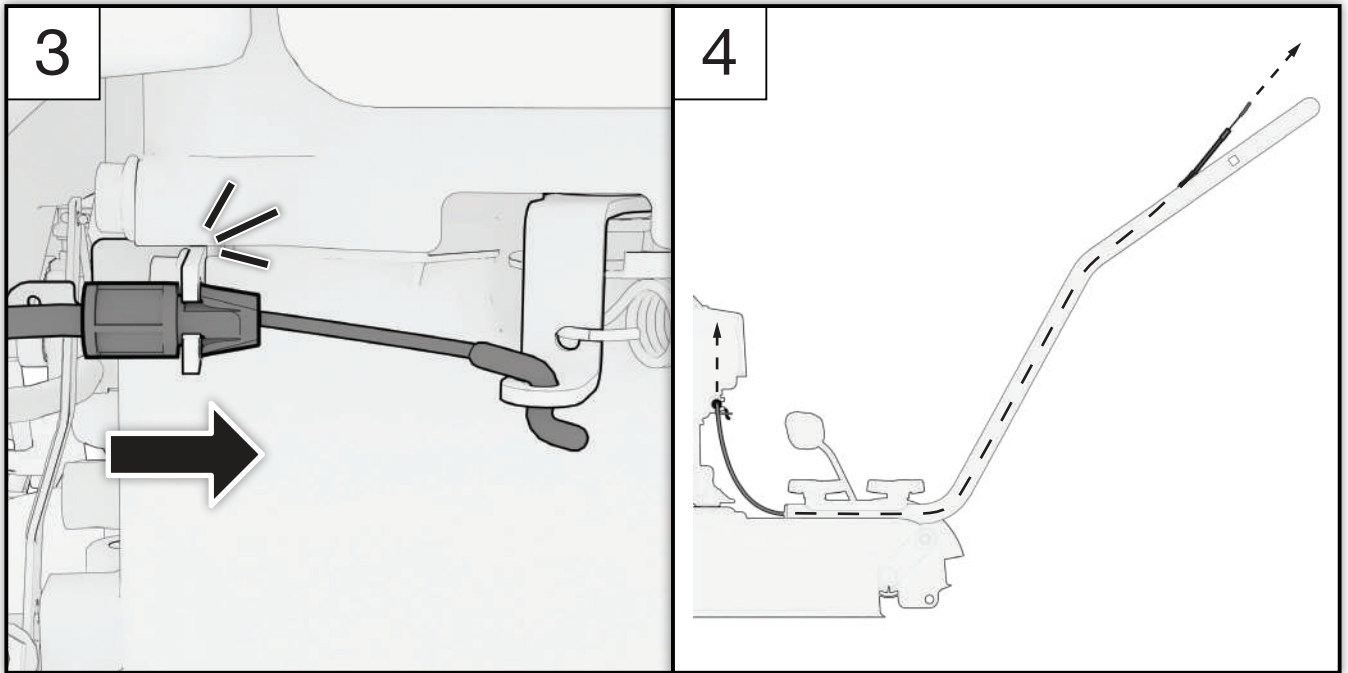
3.3 INSTALLING THE BRAKE CABLE



To install the Brake Cable, follow the steps below.

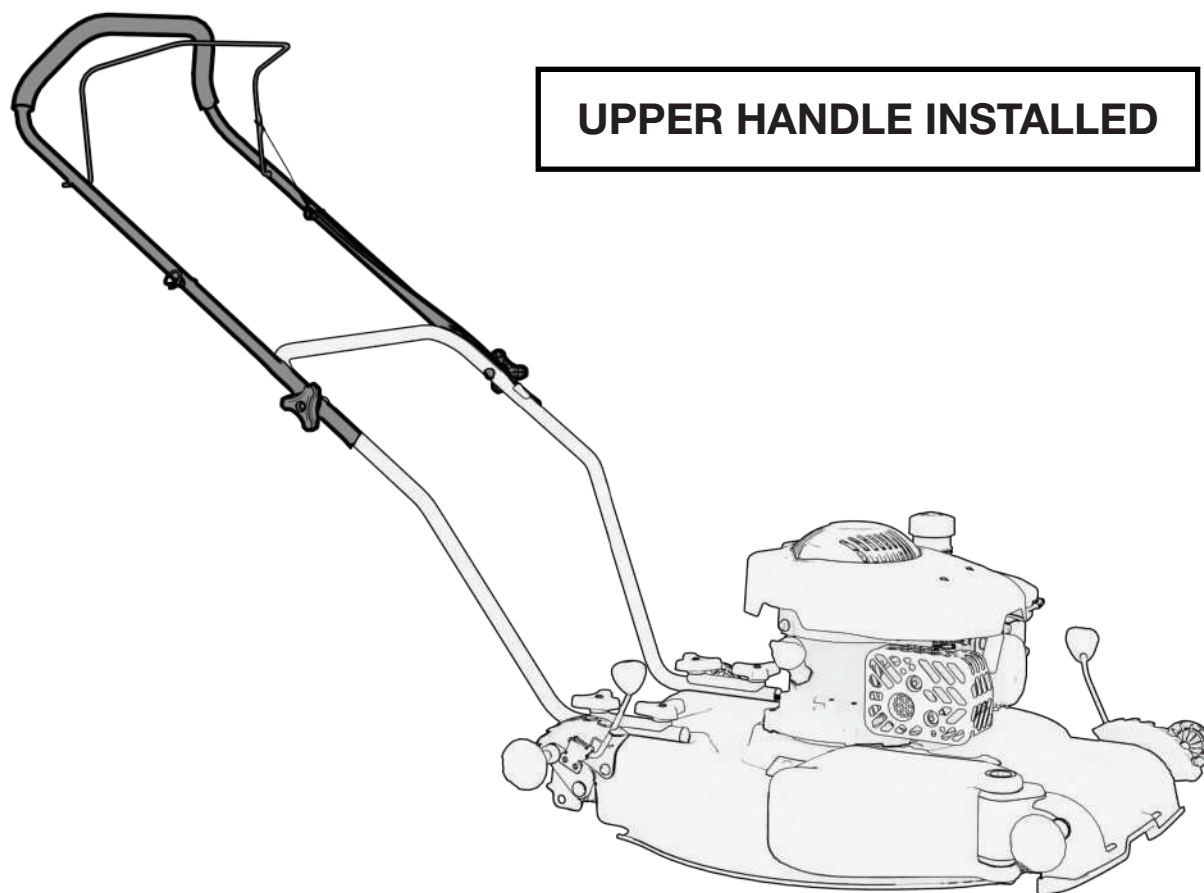


1. Hook the metal end of the Brake Cable into the engine's Brake Arm.
2. Rotate the Brake Cable into position. Ensure the plastic Brake Cable Fastener is aligned.

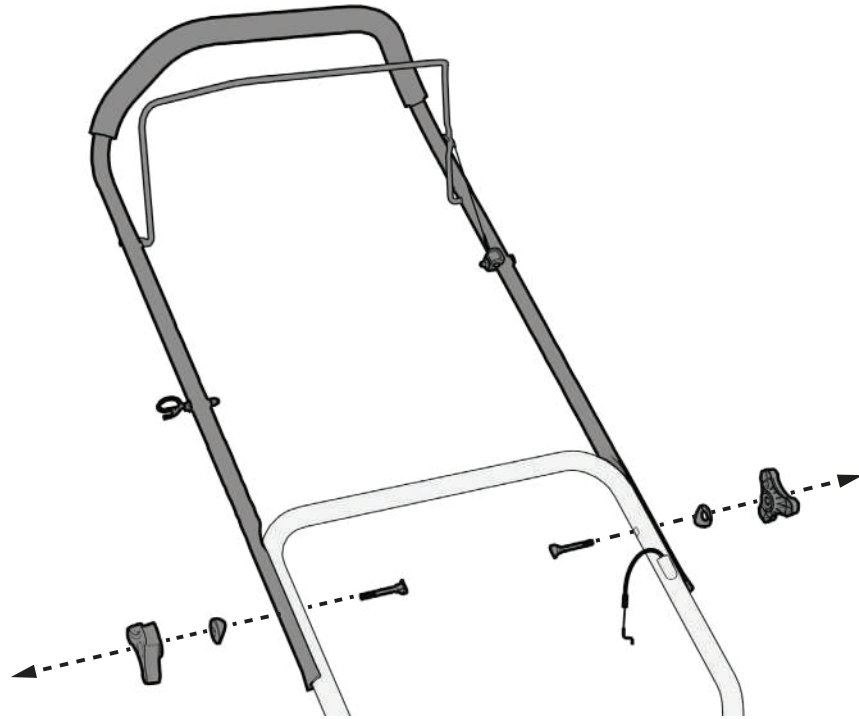


3. Push the plastic Brake Cable Fastener into position. It will *click* into place.
4. Ensure the Brake Cable is not pinched, and can move through the Lower Handle.

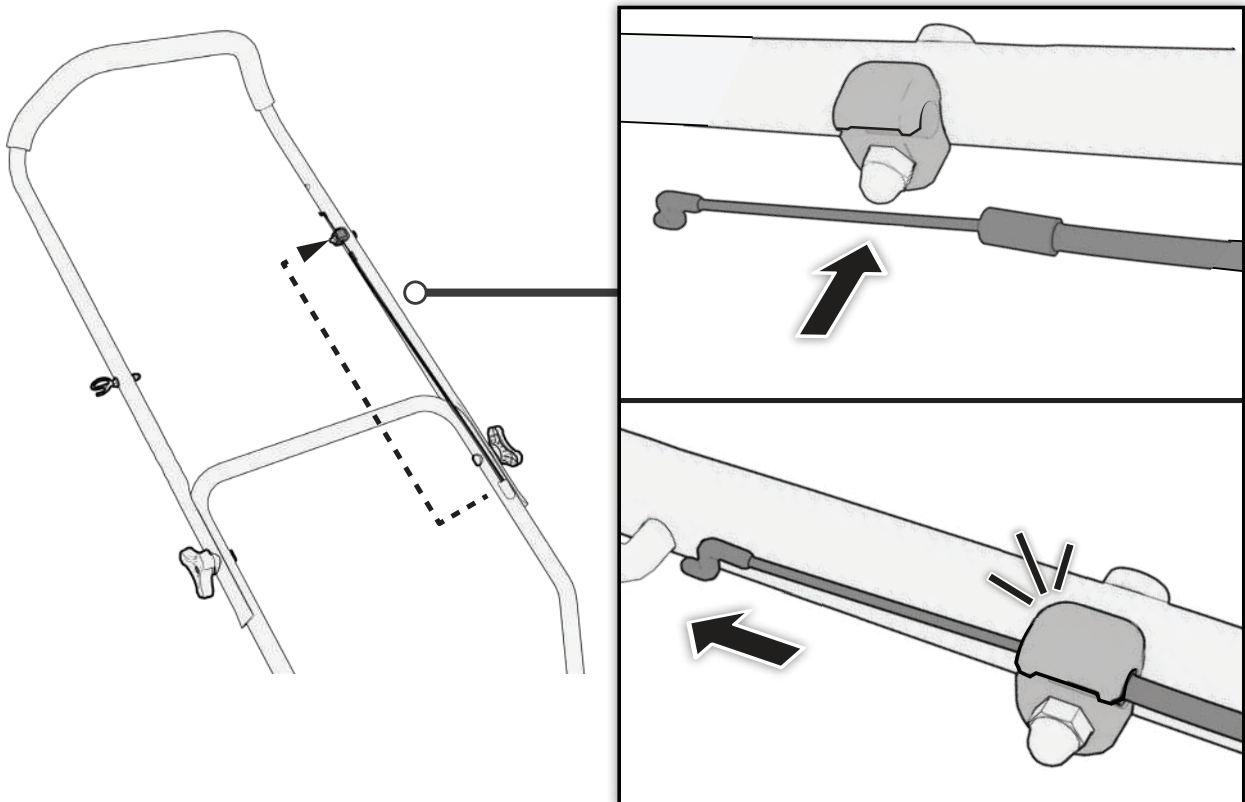
3.4 INSTALLING THE UPPER HANDLE



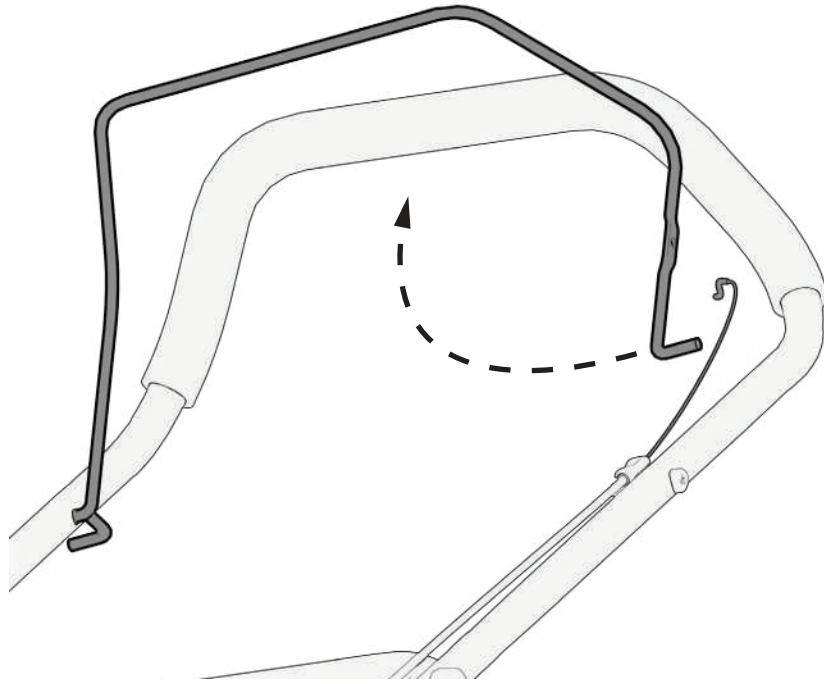
To install the Upper Handle, follow the steps below.



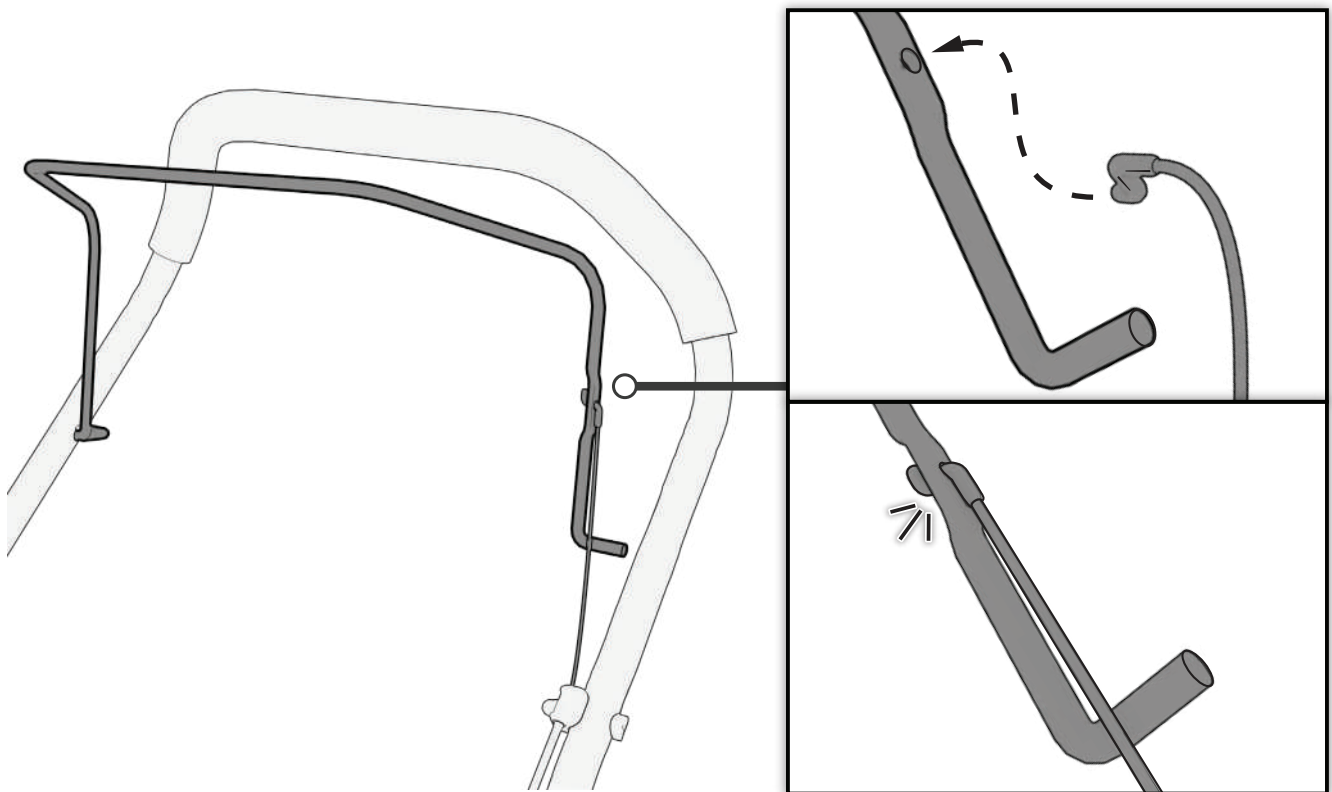
1. Slide the Upper Handle onto the Lower Handle.
2. Secure the Lower Handle with (2x) Handle Knobs, (2x) Curved Washers, and (2x) Handle Bolts.



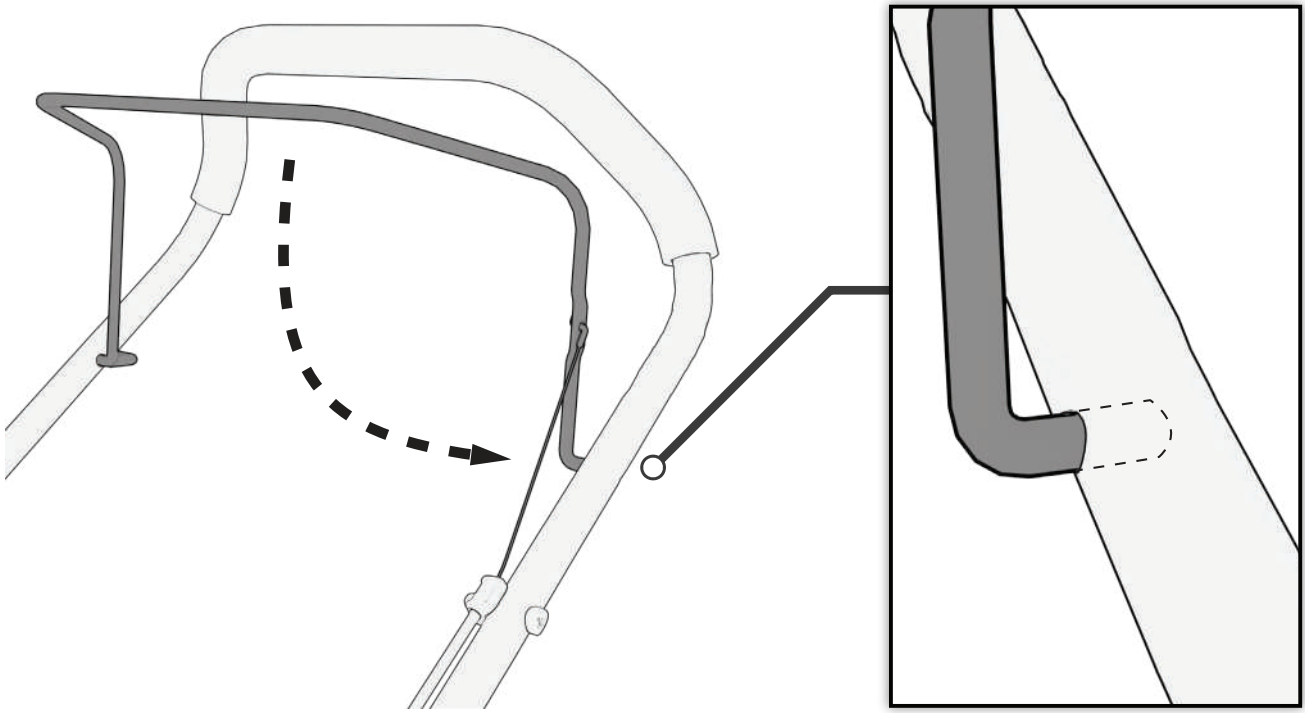
3. Slide the upper half of the Brake Cable into the Upper Handle's Brake Cable Guide. Push the Brake Cable into place firmly.



4. Unhook the cable side of the Brake Lever from the Upper Handle.



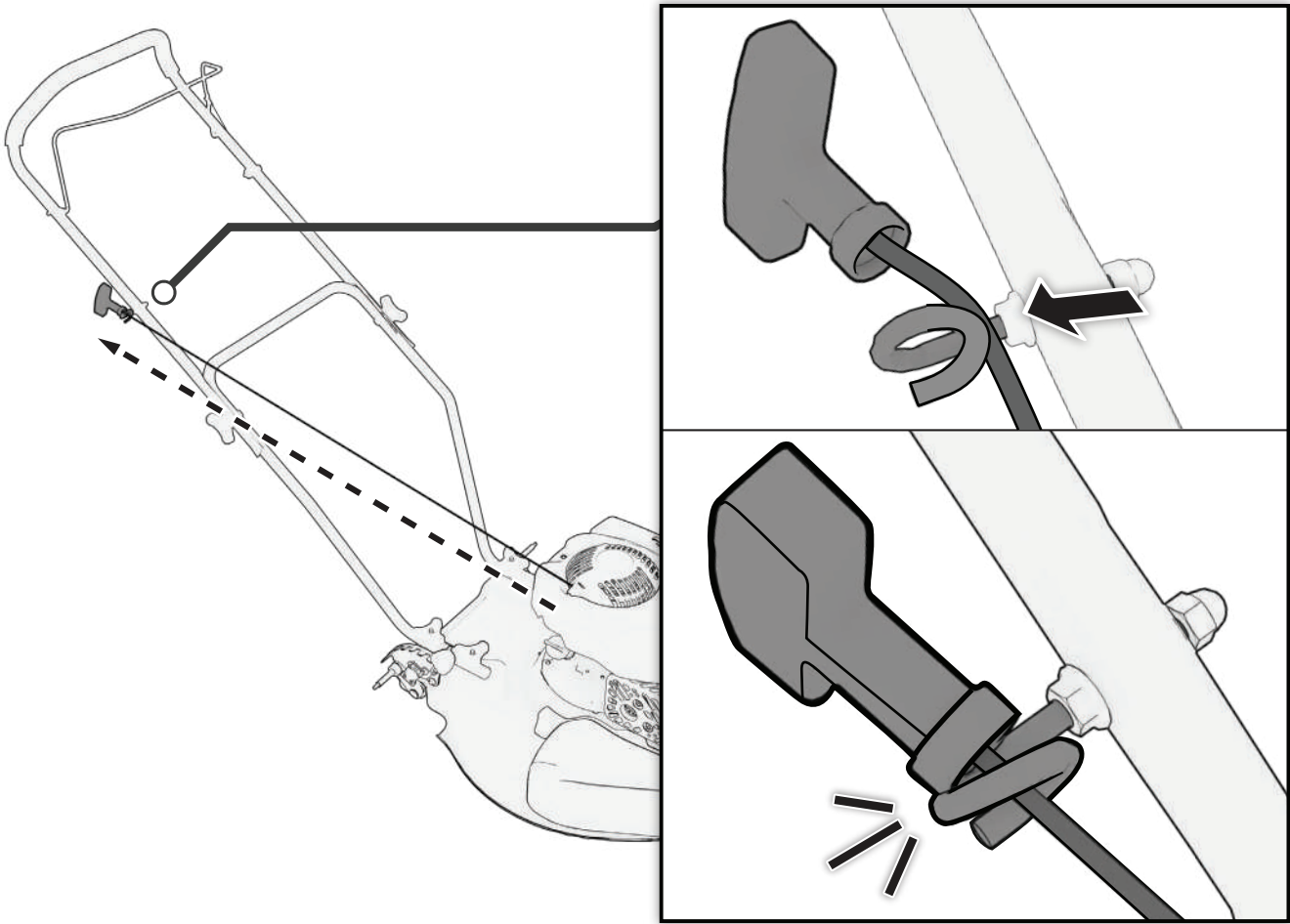
5. Hook the metal end of the Brake Cable into the Brake Lever.
Ensure that the Brake Cable is hooked in according to the image above.



6. Hook the cable side of the Brake Lever back into the Upper Handle.
7. Ensure the Brake Lever and Brake Cable can move smoothly.

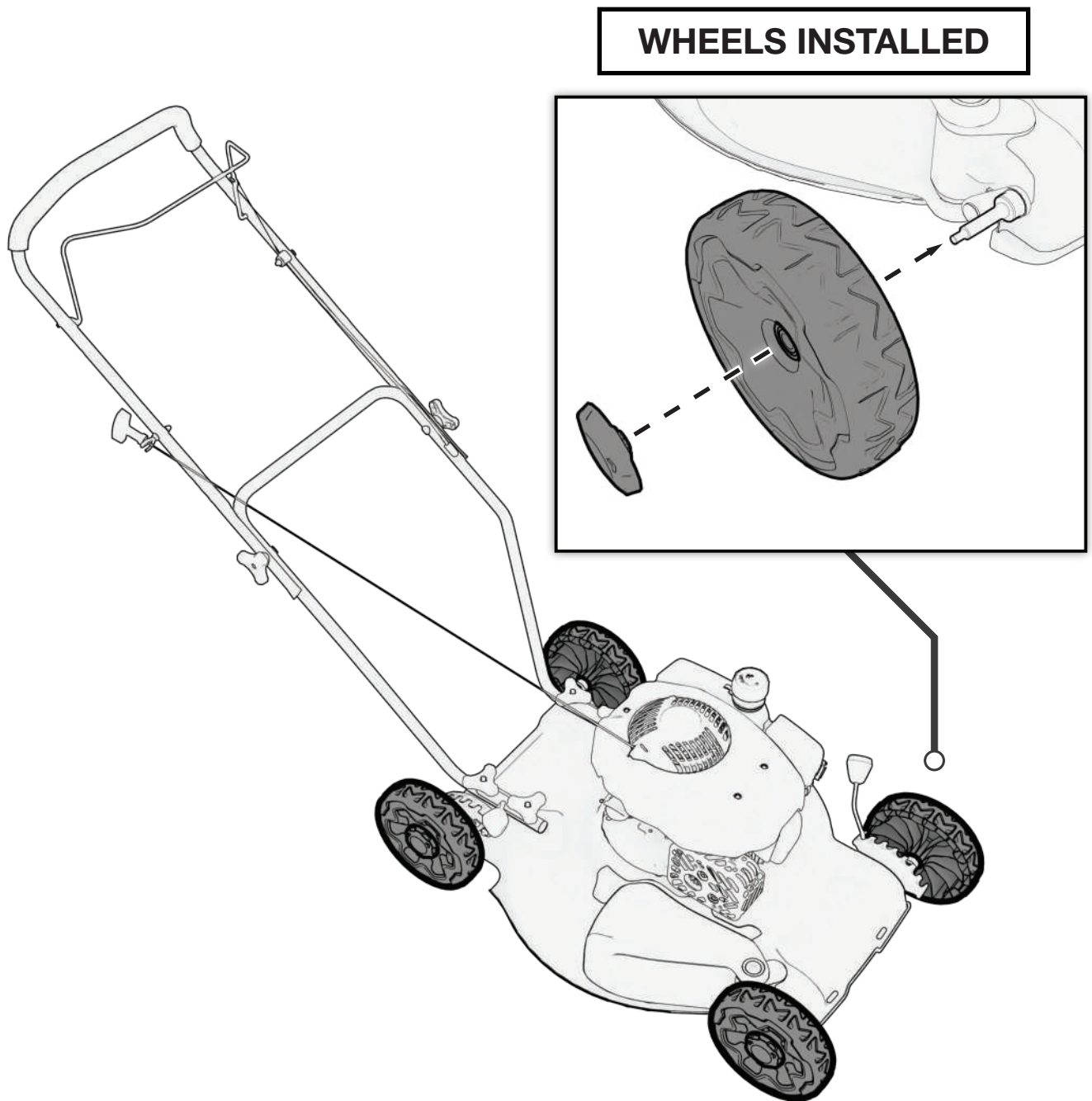
3.5 INSTALLING THE PULL START HANDLE

PULL START HANDLE INSTALLED



Slide the Pull Start Handle's string through the Handle Loop.

3.6 INSTALLING THE WHEELS



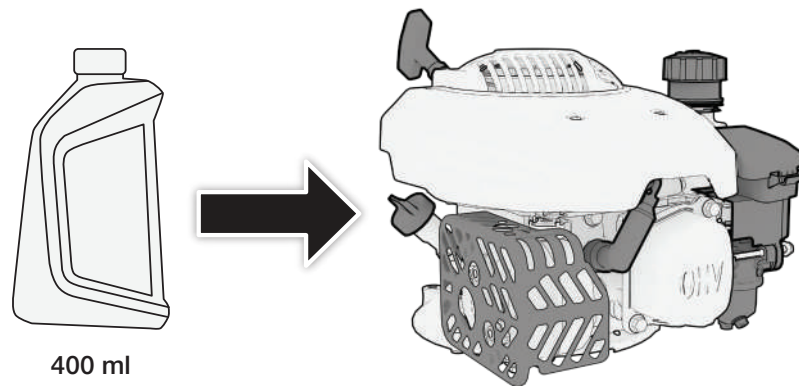
To install the wheels, follow the steps below.

1. Remove the pre-installed (4x) Wheel Knobs.
2. Slide (4x) Wheels onto the Lawn Mower's Wheel Axles.
3. Reinstall the (4x) Wheel Knobs.

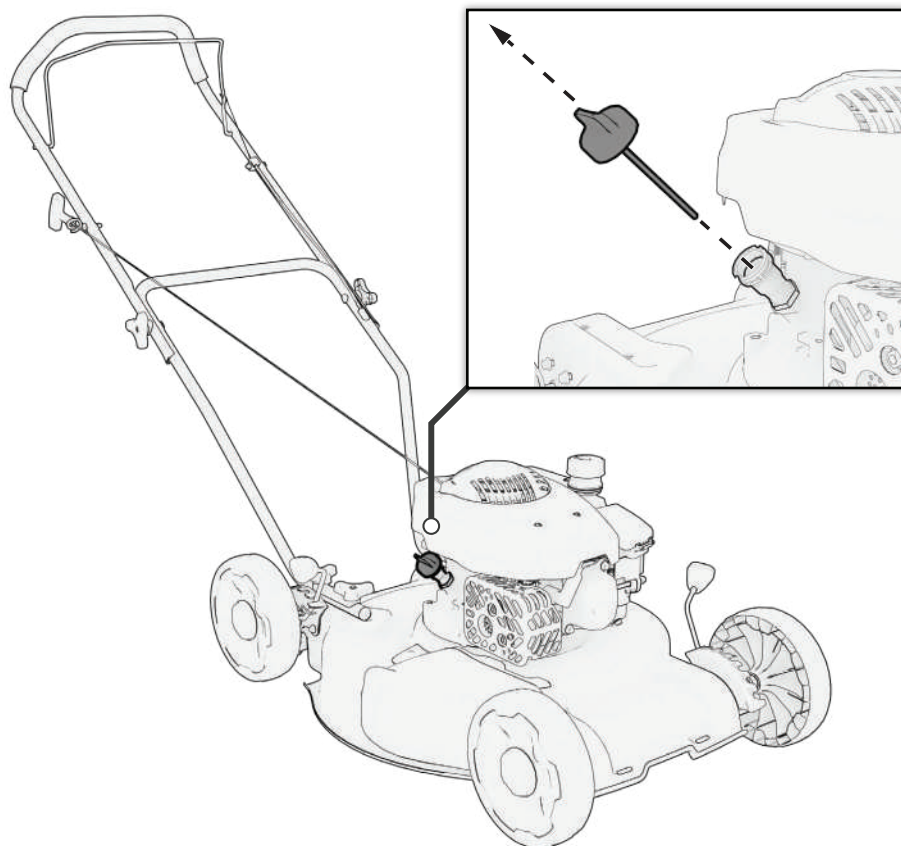
3.7 FIRST TIME ENGINE OIL FILL

⚠ WARNING!

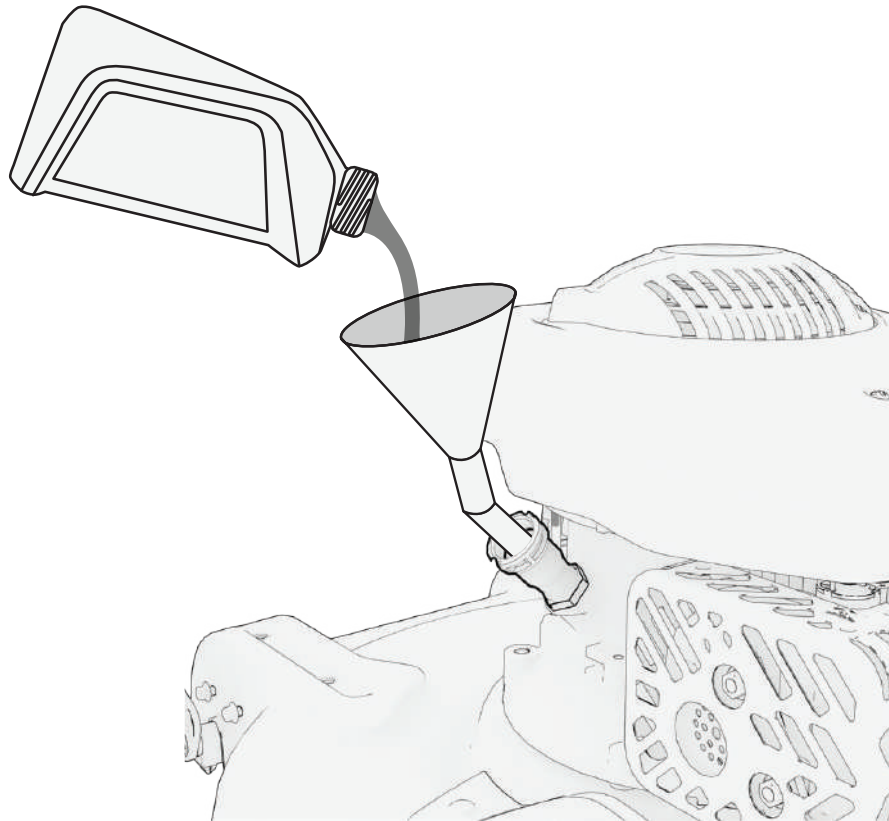
- Engine does NOT come pre-filled with oil.
- Your Lawn Mower comes with a 400 ml bottle of 10W-30 Oil. Use the entire bottle when filling the engine.



To install the engine oil for the first time, follow the steps below.



1. Unscrew and remove the Dipstick.



2. Use the provided Funnel to pour the entire contents of the Oil Bottle into the engine.
3. Reinstall and tighten the Dipstick.

NOTE

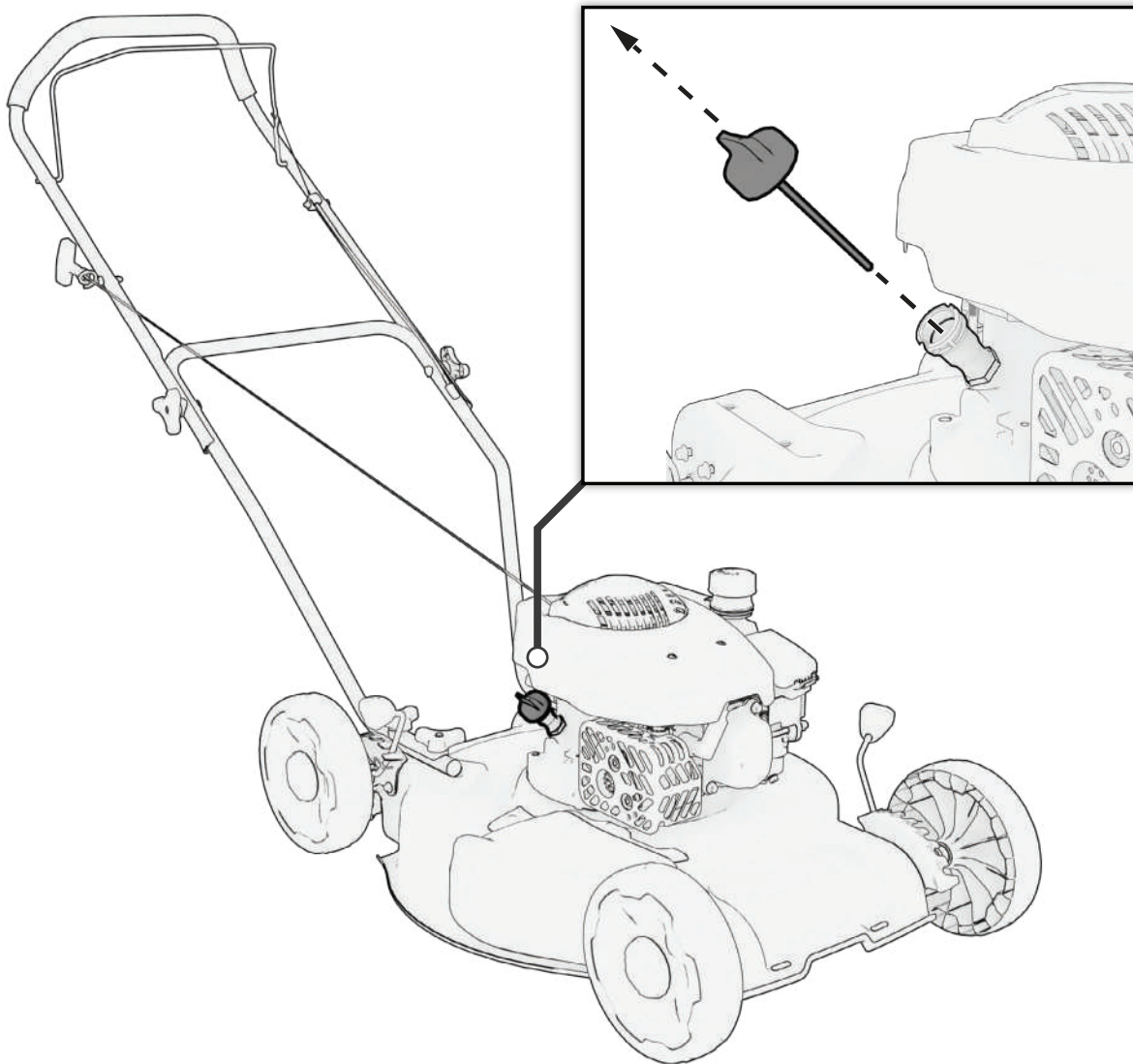
- For more Oil info, go to CHAPTER 7.2: "OIL MAINTENENCE".

4. PRE-OPERATION CHECK

4.1 CHECK OIL LEVEL

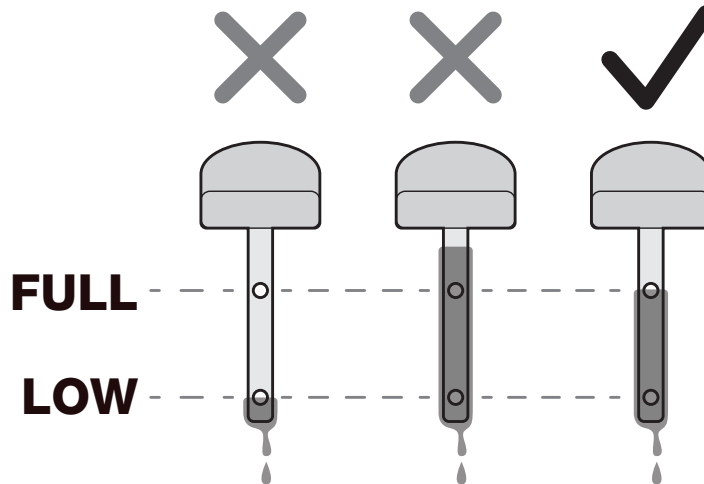
⚠ WARNING!

- Used motor oil can cause skin irritations if left in long-term contact with skin. Thoroughly wash off used oil as soon as possible with soap and water.
- DO NOT dispose of used oil in drains or on soil. Local service shops provide environmentally-friendly disposal methods.
- Fully drain the fuel tank using a gasoline extraction pump before placing the lawn mower on its side.



NOTE

- Engine does NOT come pre-filled with oil.
- Your Lawn Mower comes with 400 ml of 10W-30 oil in a bottle.
Use the entire bottle when preparing the Lawn Mower for first-time use.



1. Ensure the lawn mower is on a level surface.
2. Unscrew and clean the dipstick.
3. Re-insert the oil dipstick *without* screwing it back in.
4. Remove the dipstick and examine the oil level.
5. Reinsert the dipstick and tighten securely.

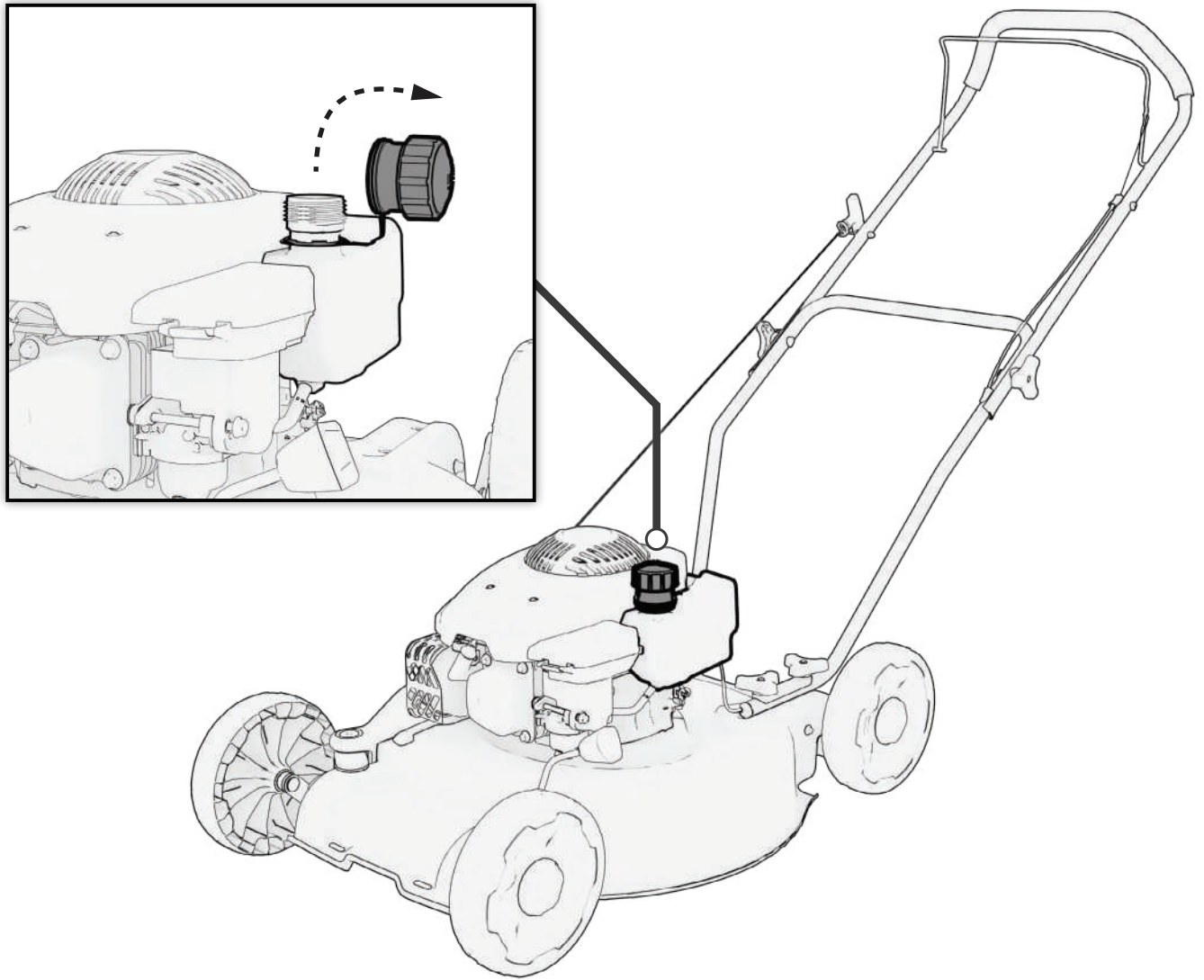
NOTE

- Maximum Oil Capacity: 400 ml
- If oil level is below the LOW mark, add a small amount of oil and recheck using the dipstick.
- If oil level is above the FULL mark, drain a small amount of oil into a collection pan and recheck using the dipstick.
- For more Oil info, go to CHAPTER 7.2: "OIL MAINTENANCE".

4.2 CHECK THE FUEL LEVEL

⚠ WARNING!

- Gasoline is highly flammable and explosive under certain conditions. Refuel in a well-ventilated area with the engine stopped.
- DO NOT smoke or allow open flames or sparks in the area where the lawn mower is being refueled or where gasoline is stored.
- DO NOT overfill the tank. Be careful not to spill fuel when refueling. Wipe up any spilled gasoline and let the area dry before starting the engine.
- Gasoline substitutes such as gasohol are not recommended. They may be harmful to the fuel system components.
- Only use unleaded gasoline (Pump Octane 87 or higher).
- NEVER use stale or contaminated gasoline, or an oil/gasoline mixture.
- Avoid getting dirt or water into the fuel tank.
- DO NOT use a mixture of gasoline containing methanol. This will cause serious damage to the engine.
- Use of gasoline with an ethanol content greater than 10% can damage the engine and fuel system and will void the manufacturer's warranty.

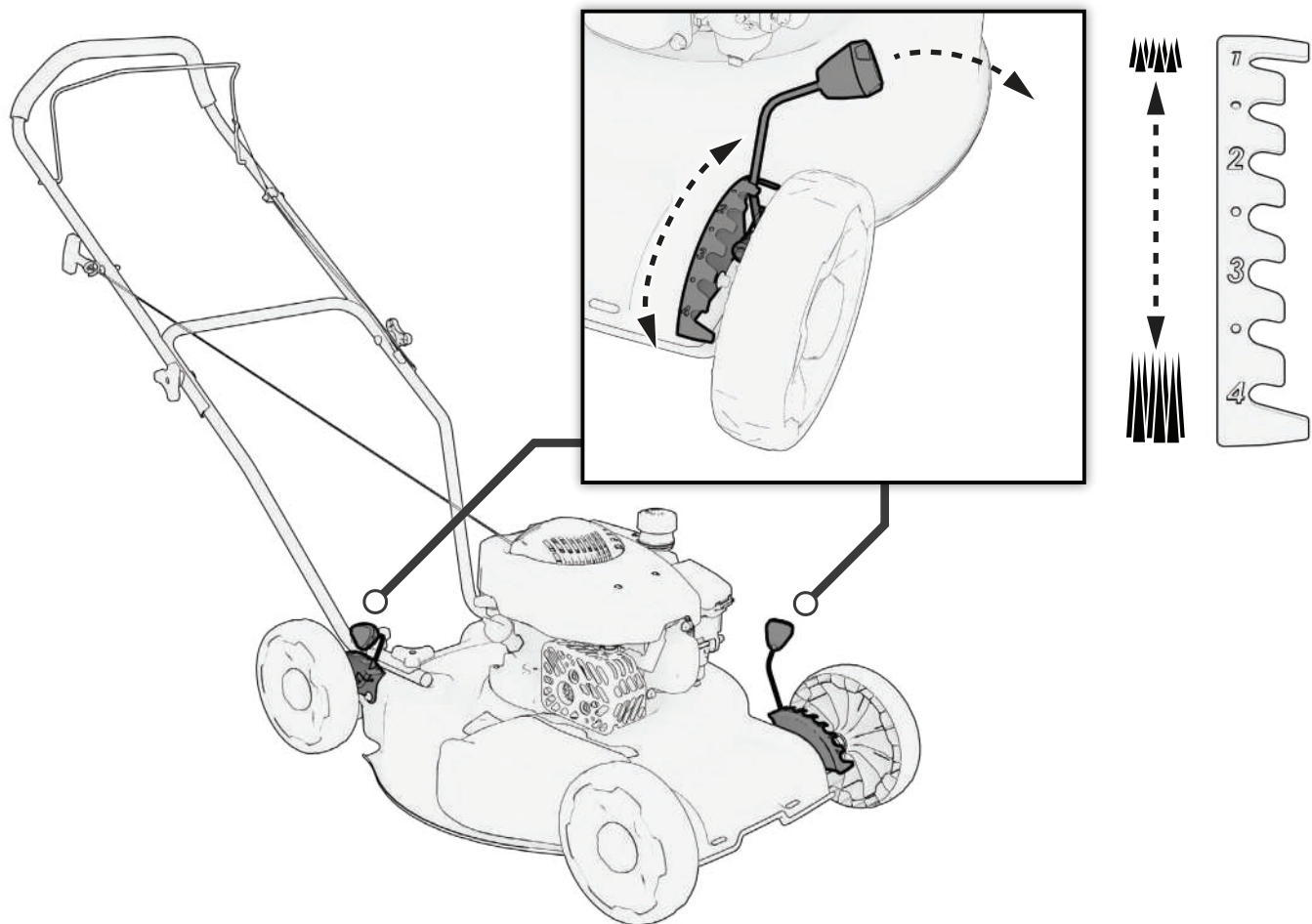


1. Check the fuel level by removing the fuel tank cap to visually check the level.
2. Add fuel carefully. DO NOT fill into the base of the fuel neck.
3. Tighten the fuel cap securely after refilling.

NOTE

- Fuel Max Capacity: 1 L / 0.26 Gal
- For more Fuel info, go to CHAPTER 7.3: "FUEL MAINTENENCE".

4.3 SET CUTTING HEIGHT



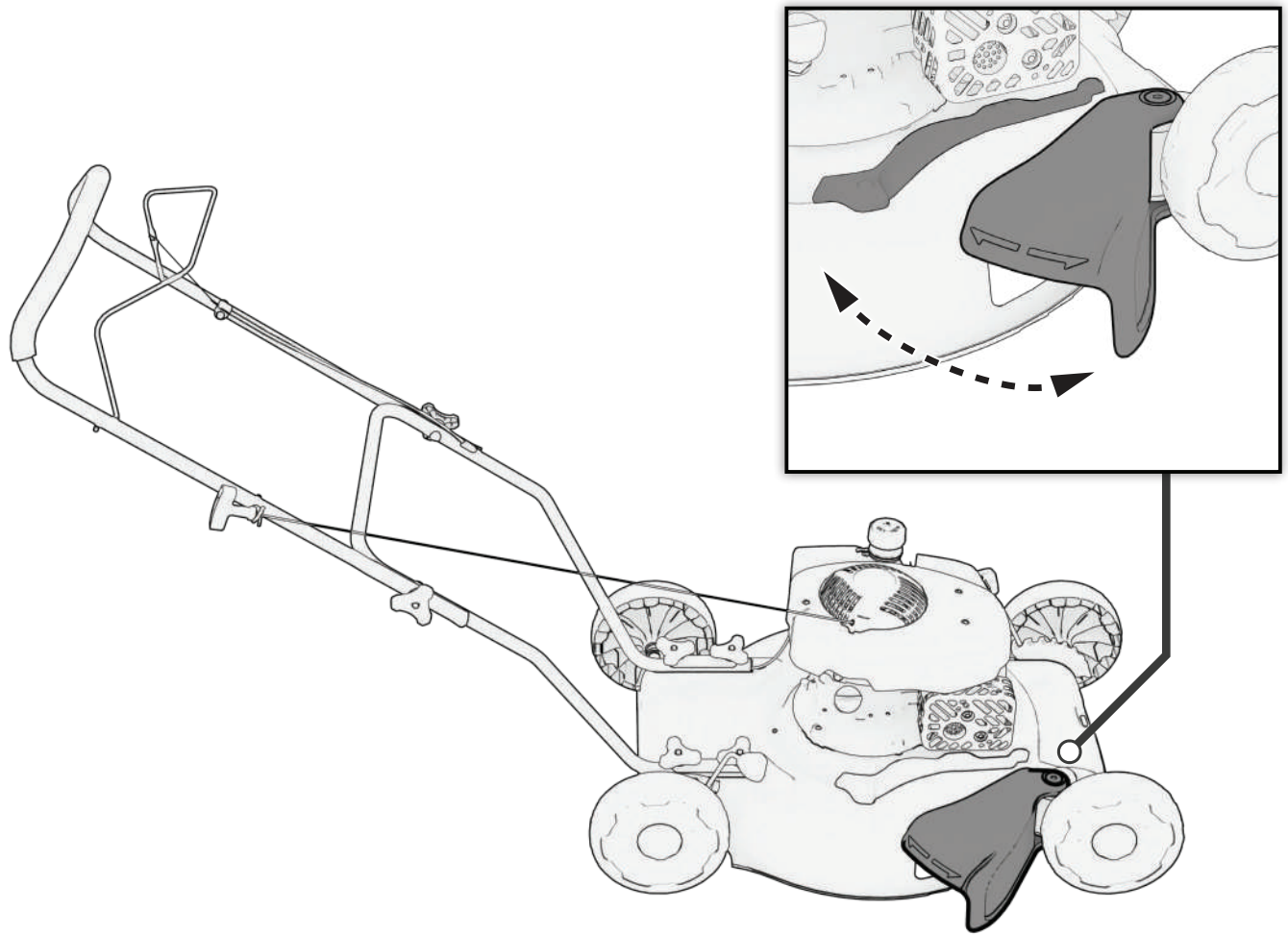
To set the Cutting Height, follow the steps below.

1. Pull the Height Adjust Lever away from the Lawn Mower's Deck.
2. Move the Height Adjust Lever to the desired cutting height.
3. Release the Height Adjust Lever.

NOTE

- Both the Front and Rear Height Adjust Levers must match the desired height.
- Mismatched heights between height adjust levers can cause an uneven cut, and can damage the unit.
- The cutting height ranges from 25 mm (1 in) to 100 mm (4 in).
- Each cutting height notch raises or lowers the height by 12.5 mm (1/2 in).

4.4 SET QUICK SWITCH MODE



To set the Quick Switch mode, follow the steps below.

Side Discharge (Open Quick Switch)

- Pull the Quick Switch away from the Lawn Mower's Deck to open.

Mulching (Closed Quick Switch)

- Push the Quick Switch towards the Lawn Mower's Deck to close.

NOTE

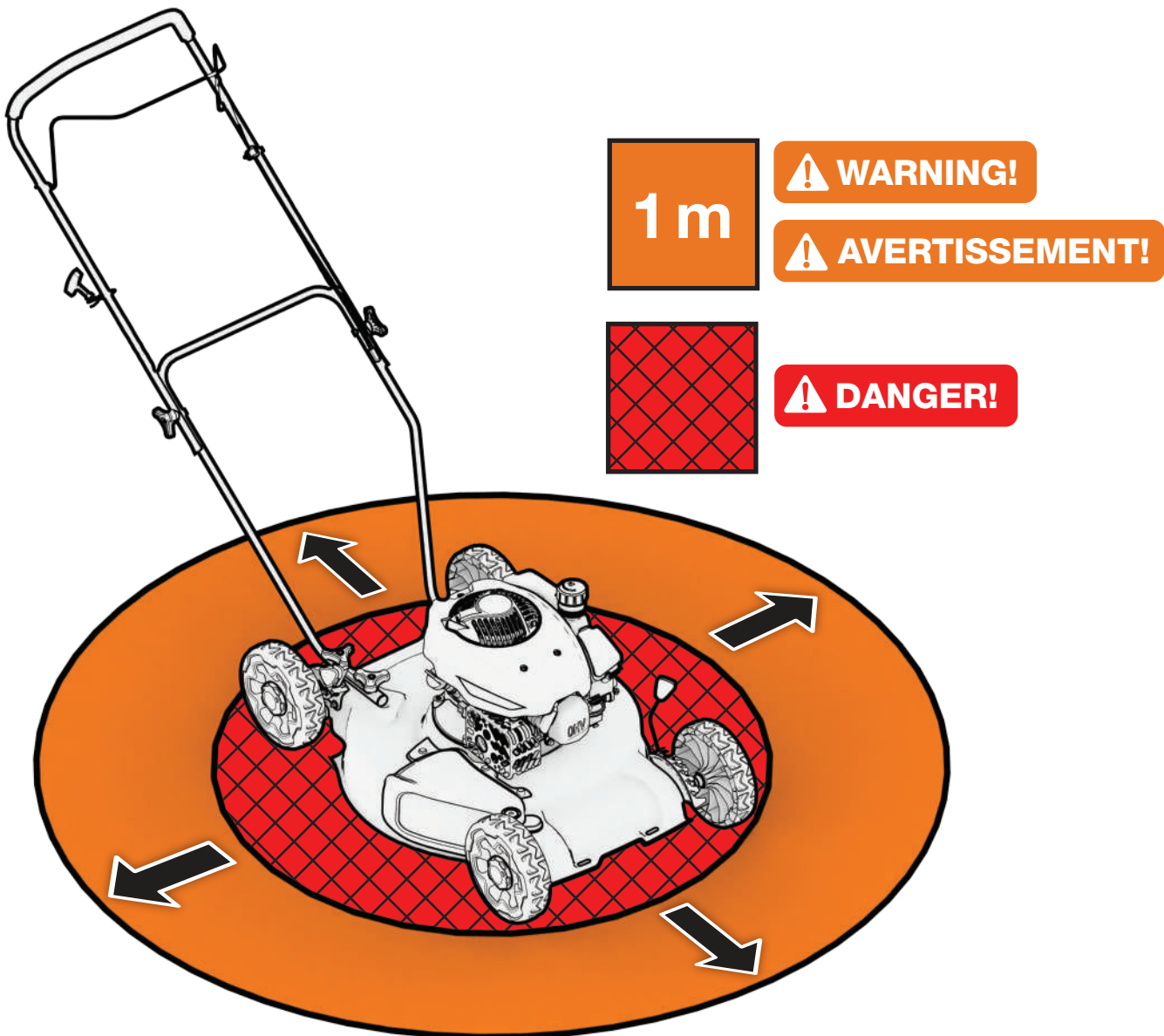
- The Quick Switch will lock in place when set to the Open or Closed position.
- The Quick Switch will automatically shut closed if an object presses against it.

4.5 MOWING TIPS

⚠ DANGER! ⚠

DO NOT TOUCH THE LAWN MOWER'S ENGINE OR DECK WHILE ENGINE IS RUNNING AND BLADE IS SPINNING.



The Lawn Mower's Engine and Blade move at extremely high speeds and force during use. Ensure a clear zone of at least 1 meter around the Lawn Mower.



NOTE

- Keep a firm grip on the upper handle with both hands before you start 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 deck.
- Grass grows at different rates at different time of the year. NEVER cut more than 1/4 of the grass's total length on the first cut of the season or in drought conditions.
- Only about 1/3 of the grass height should be cut.
- When mowing with mulching, to ensure that the cut grass can be scattered efficiently, DO NOT cut overgrown or wet grass.
- 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.

5. STARTING THE ENGINE

⚠ DANGER	
Using an engine indoors CAN KILL YOU IN MINUTES . Engine exhaust contains carbon monoxide. This is a poison you cannot see or smell.	
 NEVER use inside a home or garage, EVEN IF doors and windows are open.	 Only use OUTSIDE and far away from windows, doors, and vents.
Avoid other engine hazards. READ MANUAL BEFORE USE.	

⚠ DANGER! ⚠

Using a lawn mower indoors WILL KILL YOU IN MINUTES.

Engine exhaust contains high levels of carbon monoxide (CO), a poisonous gas you cannot see or smell. If you can smell the engine exhaust you are breathing CO. Even if you cannot smell the exhaust, you could be breathing CO.

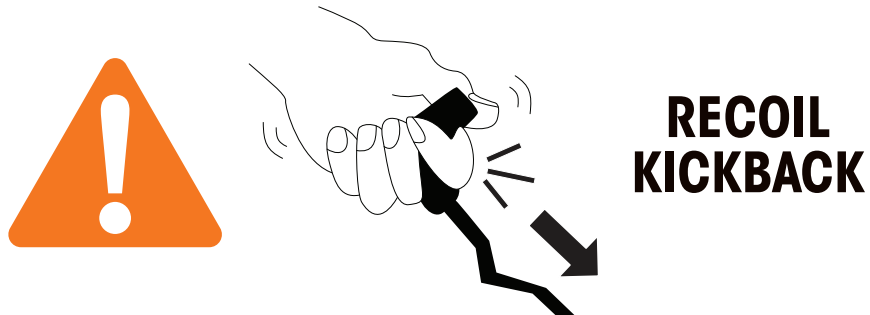
NEVER use a lawn mower inside a home, garage, crawlspace, or other partly enclosed area, deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors will **NOT** supply enough fresh air.

ONLY use a lawn mower outdoors and far away from open windows, doors, and vents. These openings can pull in lawn mower exhaust. Even when you use a lawn mower correctly, CO may leak into the home. **ALWAYS** use a CO alarm in your home.

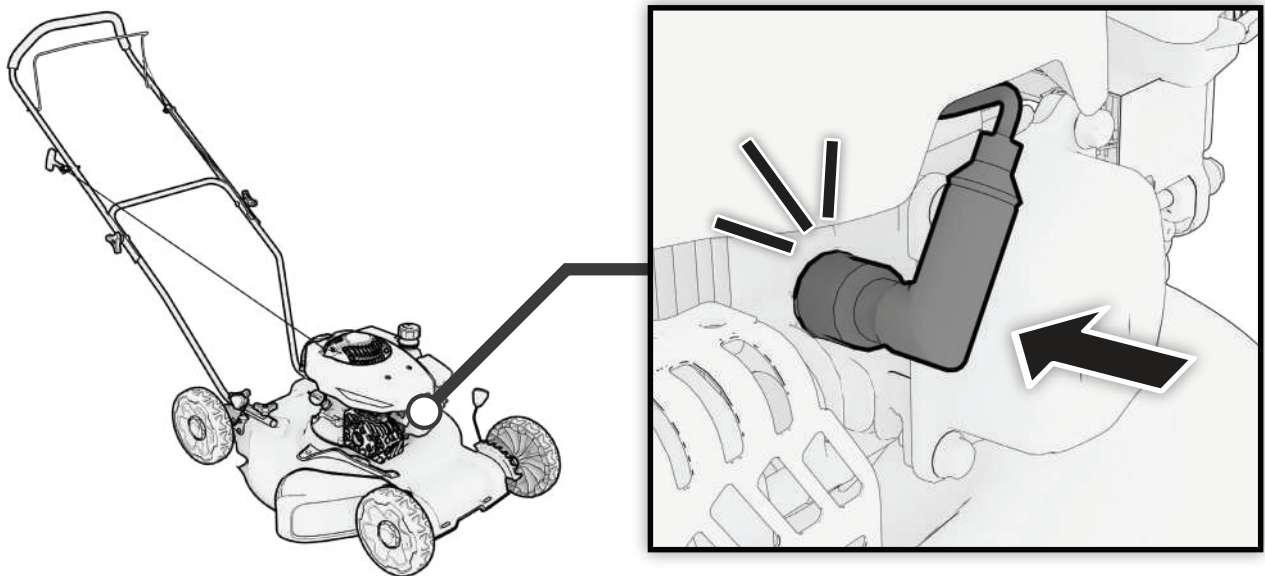
If you start to feel sick, dizzy, or weak after the lawn mower has been running, move to fresh air RIGHT AWAY and seek medical attention. You could have carbon monoxide poisoning. NEVER run the lawn mower in an enclosed or even partially enclosed area where people may be present.

⚠ WARNING!

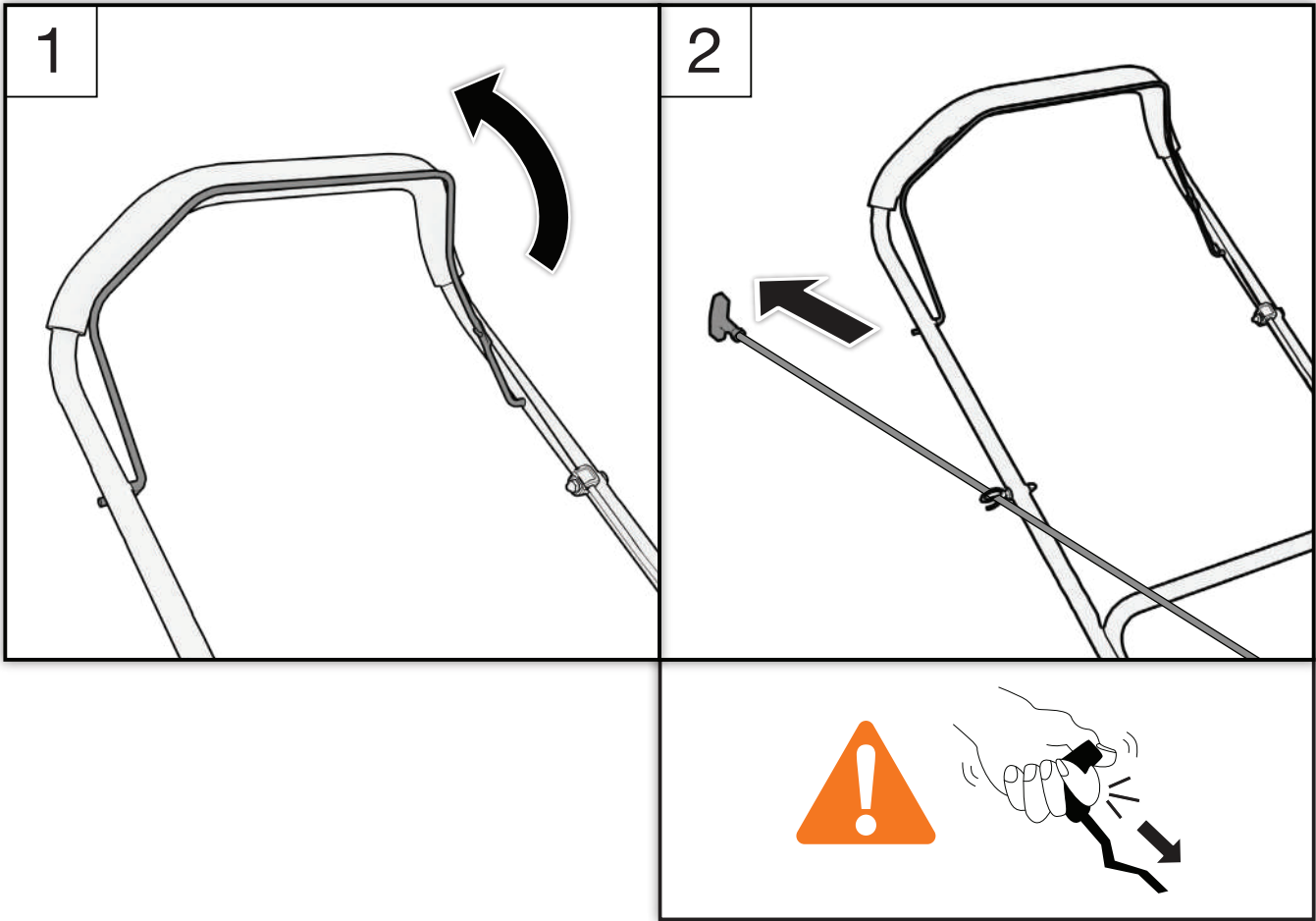
- Ensure the lawn mower's blade is securely fastened before starting the engine. The blade will begin to rotate as soon as the engine is started.
- When Pull Starting an engine, the Engine may suddenly kickback and causing the Pull Start Handle to abruptly snap back. Take care to ensure a proper grip on the handle, and be prepared to let go if the engine begins to kickback.



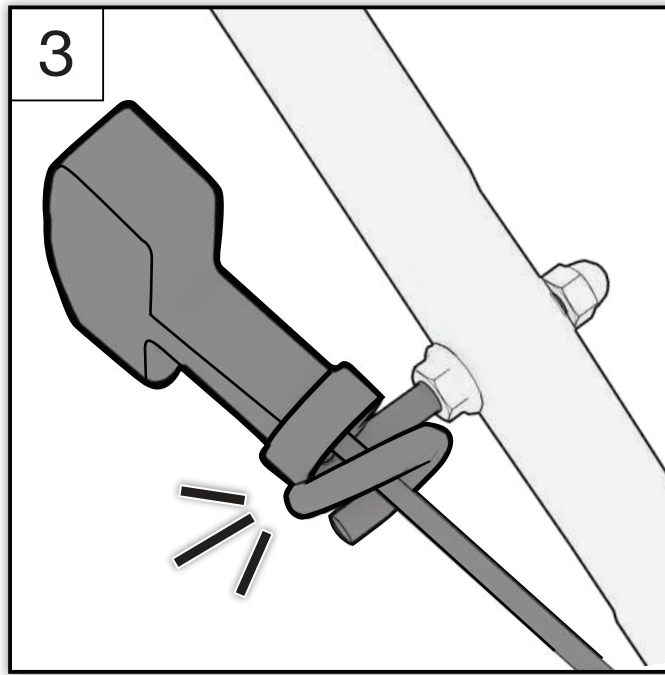
NOTE



- Before starting, ensure the spark plug cap is connected to the spark plug and the engine is filled with sufficient oil and gas.



1. Pull and hold the Brake Lever against the Handle.
2. Grip the Pull Start Handle firmly. Pull it briskly and smoothly until you feel resistance, then give a strong, quick pull. Be cautious of Recoil Kickback.



3. Slowly return the Pull Start Handle onto the hook.

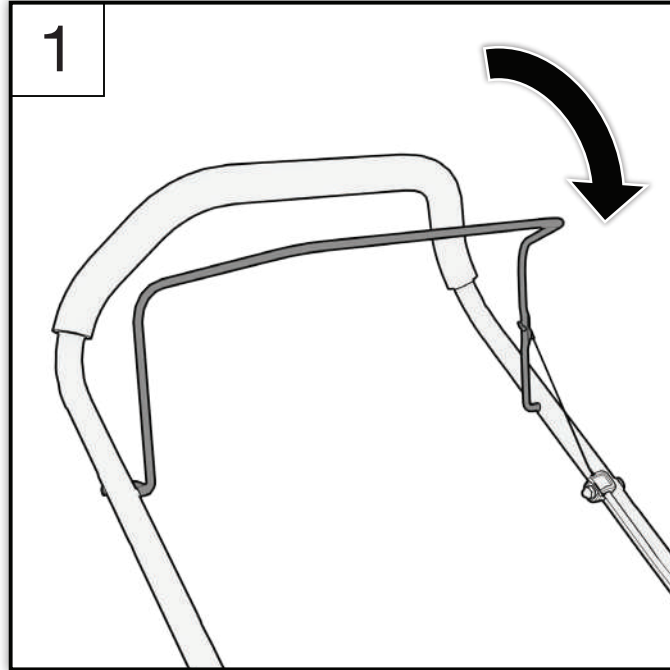
NOTE

- Return the Pull Start Handle slowly by hand, DO NOT let it snap back.

⚠ WARNING!

- If the engine won't start after you have operated the start procedure several times, the engine may be flooded with excess fuel.
- Follow the steps in CHAPTER 7.4: "CLEAN FLOODED ENGINE" to clear and start a flooded engine.

6. STOPPING THE ENGINE

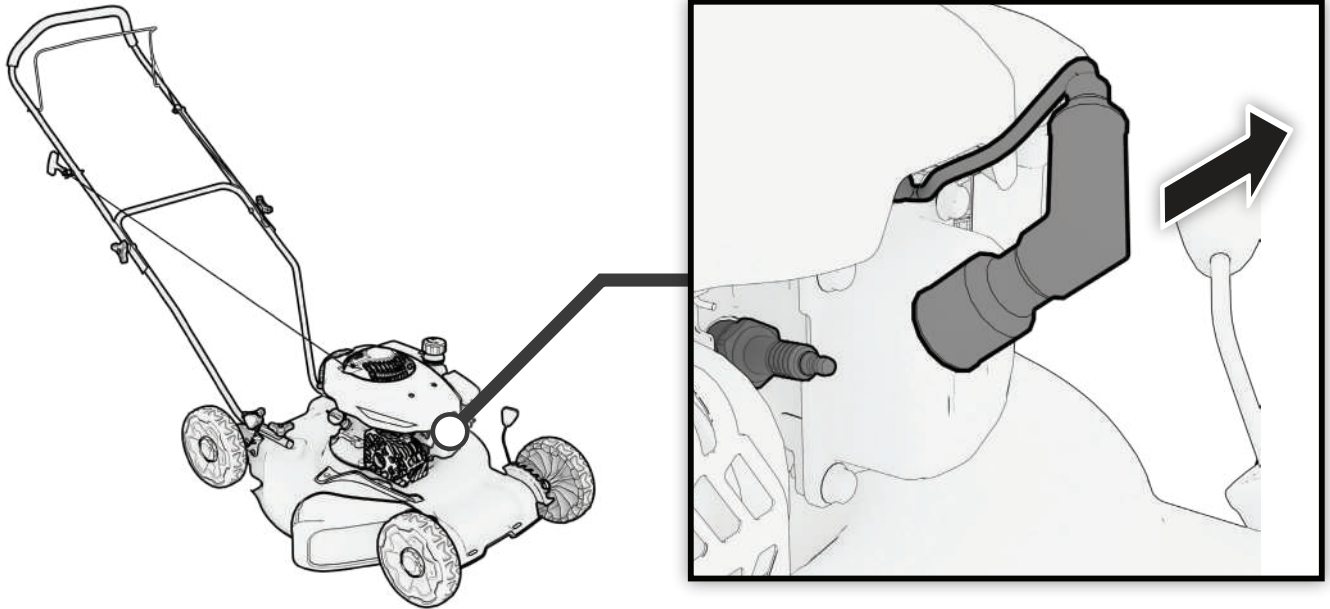


1. Release the Brake Lever. The engine will automatically switch off.

7. MAINTENANCE



ENGINE IS HOT!



⚠ DANGER! ⚠

- The Engine is **VERY HOT** after use! Allow the engine to cool down completely before performing any maintenance.
- Always disconnect the Spark Plug Cap from the Spark Plug before performing any assembly or maintenance.
- Removing the Spark Plug Cap prevents accidental startup and reduces the risk of injury.

Proper maintenance keeps your lawn mower in the best operating condition by ensuring safe, economical and trouble-free operation. Only use genuine parts and recommended fluids to replace the worn components. Improper maintenance may cause the lawn mower to malfunction and can lead to serious injury. Contact customer support if you have any maintenance questions.

General Inspection Tips

- Check for fuel and oil leaks. Repair any leaks immediately.
- While the engine is running, listen for abnormal rattling or vibration. Inspect the area where the noise originates and ensure all fasteners are properly tightened.
- Inspect for dirt and debris and clean as necessary.
- Check the engine oil level. Add oil if low, and replace it if the oil appears dark or black.
- Clean the lawn mower after each use. Use a soft brush or a light rinse with a garden hose. Hand dry for best results.
- Do not allow grass clippings or debris to dry and harden on mower surfaces. Grass is acidic and can accelerate corrosion of metal components.
- Keep the Quick Switch mechanism clean to ensure smooth operation.
- To inspect the underside of the mower and the blade, tilt the mower onto its left side (opposite the oil filler neck).

7.1 MAINTENANCE SCHEDULE

Maintain the lawn mower according to the maintenance schedule in this section.

NOTE

- Service more frequently when used in dusty areas.
- These items should be serviced by an authorized service center, unless you have the proper tools and are mechanically proficient. Refer to manual for service procedures.

Before Each Use
General inspection Check engine oil level Inspect air filter
First 5 Hours
Change engine oil
Every 12 Hours
Check engine oil level Check and clean air filter ¹ Inspect/clean spark plug
Every 25 Hours
Replace Engine Oil ² Check and clean air filter ¹ Inspect/clean spark plug
Every 50 Hours
Replace Engine Oil ² Replace spark plug Replace air filter Inspect/replace blades ³
Every 300 Hours
Clean combustion chamber ³ Inspect/adjust valve clearance ³ Clean fuel tank and strainer Inspect/replace blades ³

¹ Replace if it cannot be adequately cleaned.

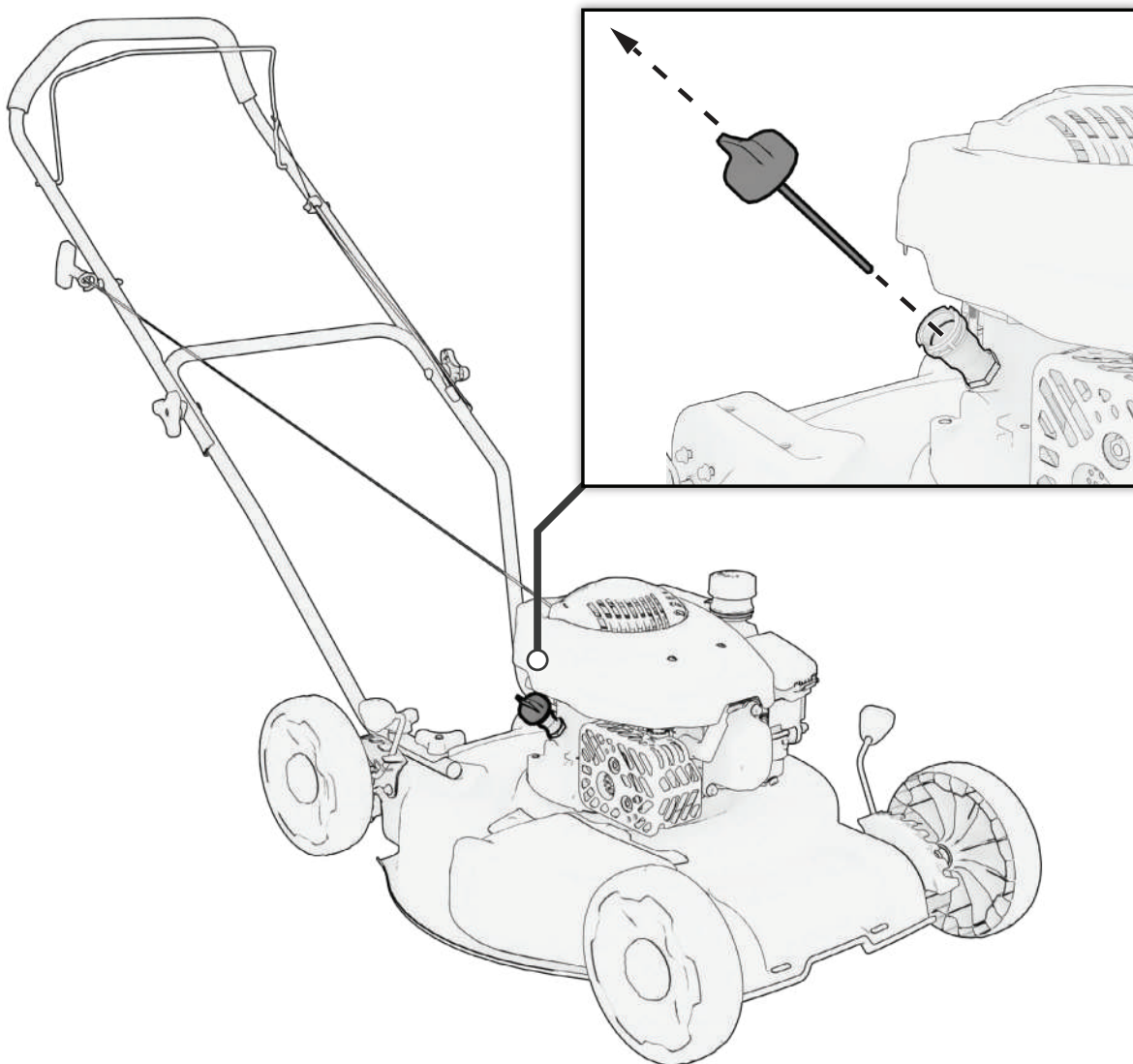
² Change oil after every 25 hours or yearly, whichever comes first.
Service more frequently when operating under heavy load or in high temperatures.

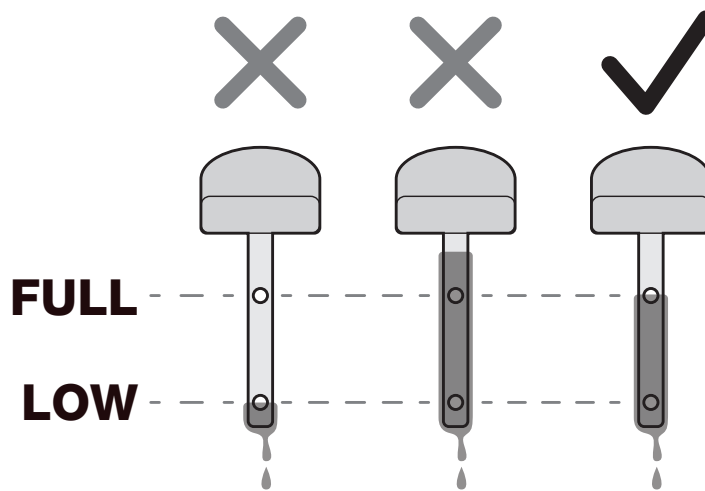
³ Recommend service to be performed by authorized service dealer.

7.2 OIL MAINTENANCE

⚠ WARNING!

- Used motor oil can cause skin irritations if left in long-term contact with skin. Thoroughly wash off used oil as soon as possible with soap and water.
- **DO NOT** dispose of used oil in drains or on soil. Local service shops provide environmentally-friendly disposal methods.
- Fully drain the fuel tank using a gasoline extraction pump before placing the lawn mower on its side.



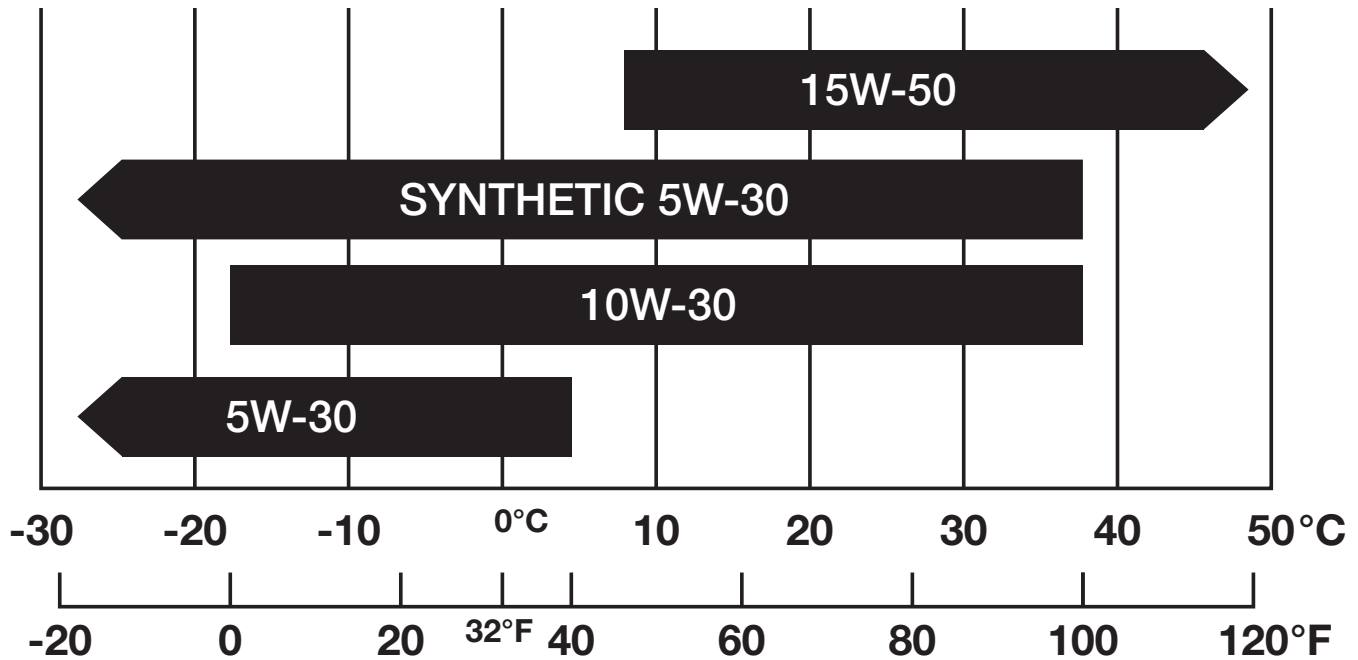


NOTE

- Oil max. capacity: 400 ml
- If oil level is below the LOW mark, add a small amount of oil and recheck using the dipstick.
- If oil level is above the FULL mark, drain a small amount of oil into a collection pan and recheck using the dipstick.
- SAE10W-30 oil is recommended for general use.
- DO NOT OVERFILL.
- It is recommended for the Gas Tank to be drained before changing the oil. Go to CHAPTER 7.3: "FUEL MAINTENENCE" for more information.

Oil Safety and Effectiveness Information

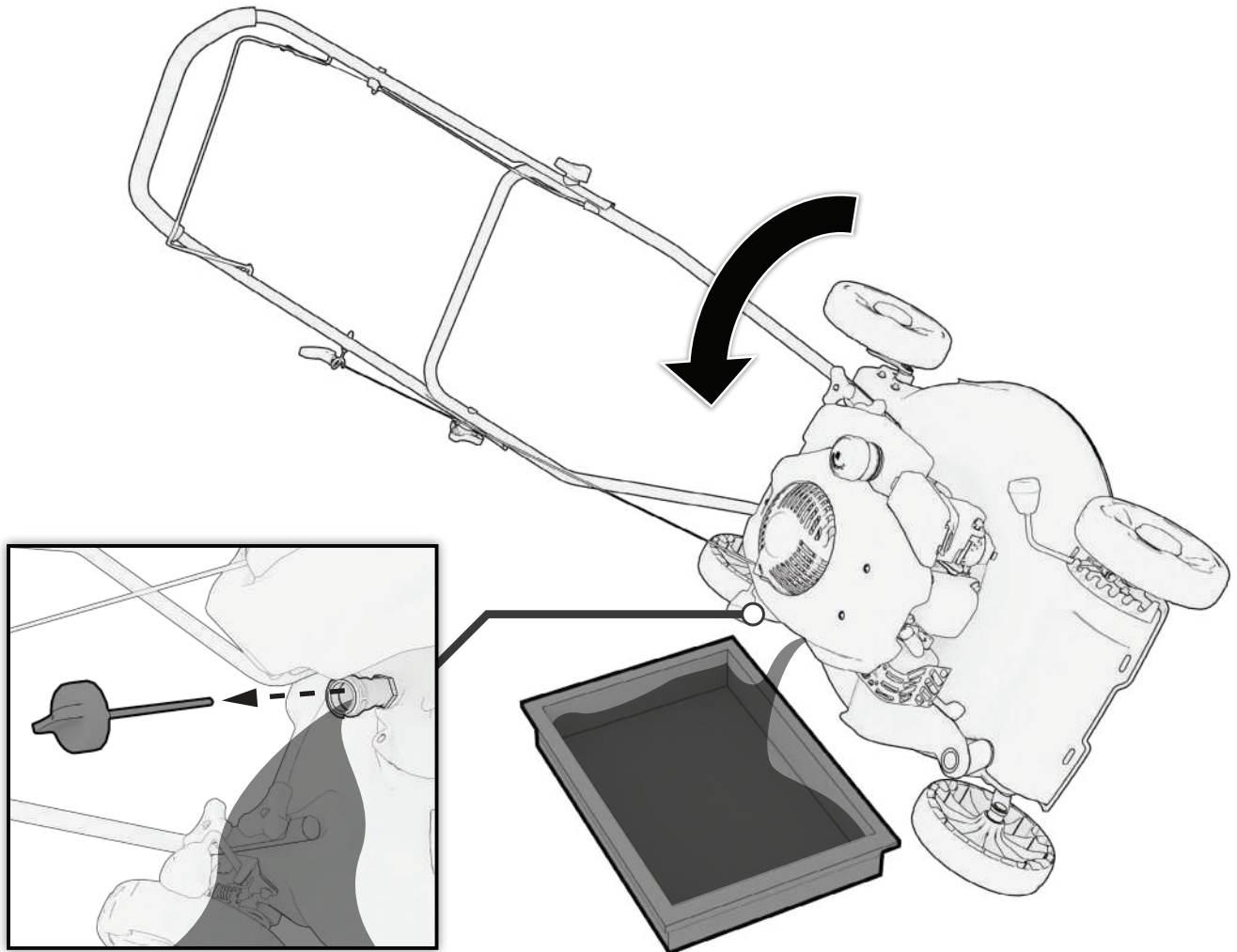
EFFECTIVE VISCOCITY RANGE OF ENGINE OILS



- DO NOT tilt the lawn mower when adding engine oil. This could result in overfilling and damage to the engine.
- Using non-detergent or 2-stroke oil could shorten the engine's working life.
- Use high quality engine oil with strong detergents.
- Handle and store the engine oil with care, avoid getting dirt or dust into the engine oil.
- DO NOT mix different engine oils.
- To avoid the inconvenience of unexpected engine shutoff, check the engine oil level as often as possible.
- Use 4-stroke engine oil, certified to meet or exceed API standard SG, SF, SAE ratings.

Changing the Oil

Drain the oil rapidly and completely on a level surface while the engine is still warm.

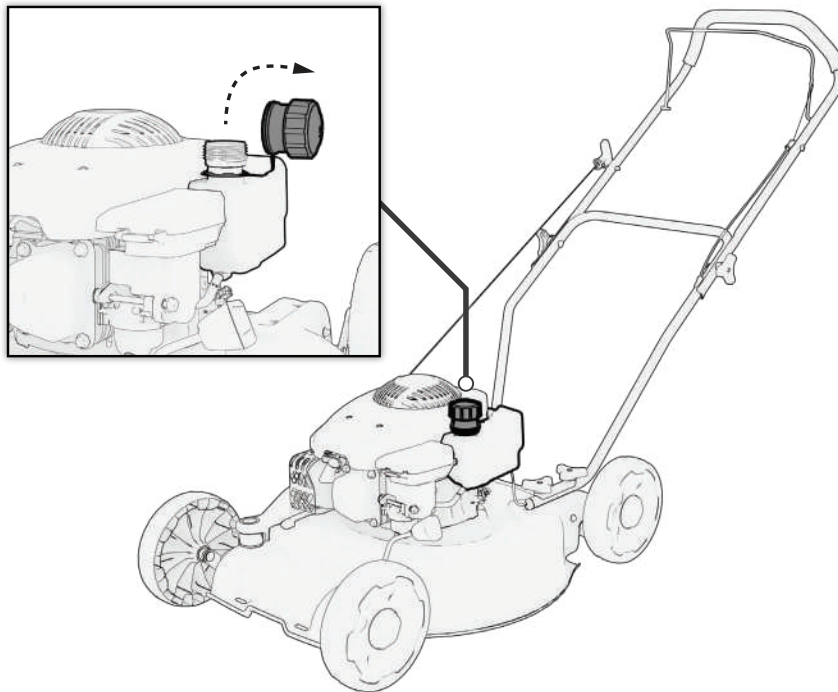


1. Tilt the lawn mower towards the oil drain pan, have a container ready to catch the oil and remove the dipstick.
2. Once the oil has been emptied, return the lawn mower to a level position. Wipe away any spilled oil.
3. Fill the engine with 400ml of fresh oil. DO NOT overfill oil reservoir. Use a funnel to prevent spillage.
4. Reinstall the oil dipstick and tighten.

7.3 FUEL MAINTENANCE

⚠ WARNING!

- Only use unleaded gasoline (Pump Octane 87 or higher).
- NEVER use stale or contaminated gasoline, or an oil/gasoline mixture.
- Avoid getting dirt or water into the fuel tank.
- DO NOT use a mixture of gasoline containing methanol. This will cause serious damage to the engine.
- Use of gasoline with an ethanol content greater than 10% can damage the engine and fuel system and will void the manufacturer's warranty.



1. Check the fuel level by removing the fuel tank cap to visually check the level.
2. Add fuel carefully. DO NOT fill into the base of the fuel neck.
3. Tighten the fuel cap securely after refilling.

NOTE

- Fuel Max Capacity: 1 L / 0.26 Gal

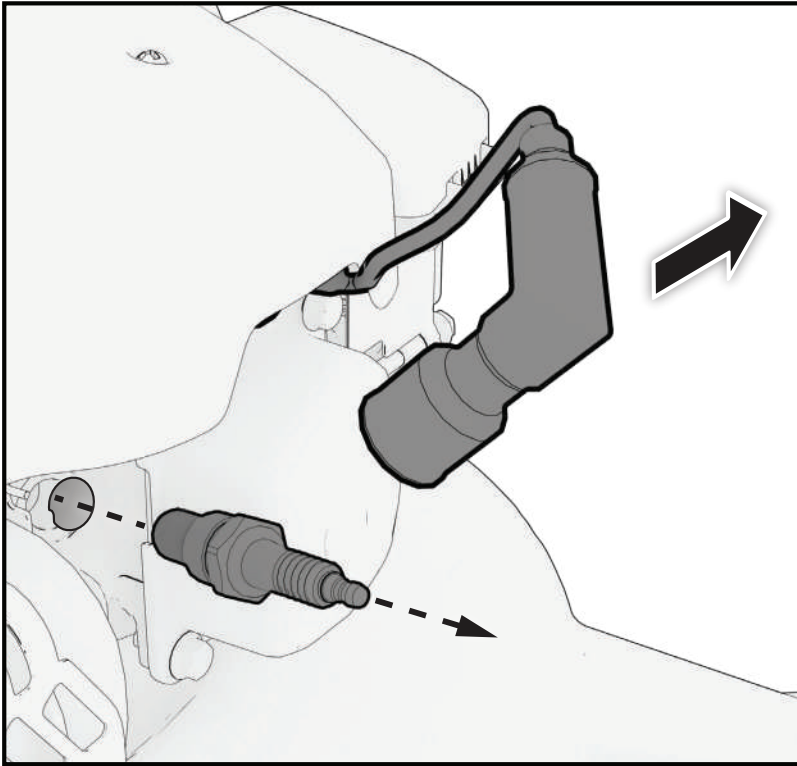
Draining the Fuel Tank



1. Turn OFF the engine. Remove the fuel cap.
2. Empty the fuel tank using a siphon and an approved gasoline container.
3. Loosen the carburetor drain bolt to discharge all gasoline from inside of the carburetor.

7.4 CLEAN FLOODED ENGINE

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



1. Release the power lever.
2. Remove the spark plug cap.
3. Remove the spark plug, dry it, and then reinstall it.
4. Operate the start procedure described on Section 5.

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. Release the power lever.

⚠ DANGER! ⚠

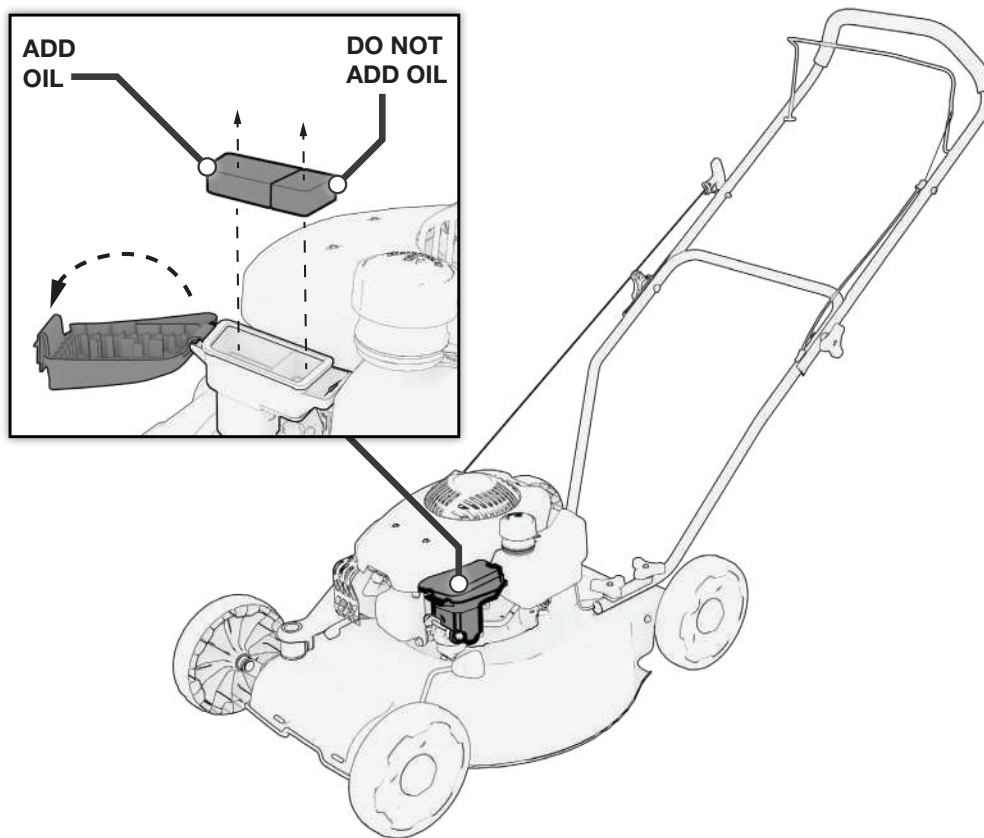
- The Engine is **VERY HOT** after use! Allow the engine to cool down completely before performing any maintenance.

7.5 CLEANING THE AIR FILTER

⚠ WARNING!

- Using gasoline or other flammable solvents can cause fire or explosion. **DO NOT** operate this product without an air filter.
- **DO NOT** use pressurized air or solvents to clean the filter. Pressurized air can damage the filter and solvents will dissolve the filter.
- **NEVER** run the lawn mower without an air filter, doing so will quickly degrade the engine.
- **DO NOT** add oil to the pre-filter. Only the Main Filter should be oiled.

Dirty Air Filters will restrict air flow into the carburetor. Clean and maintain the Main Filter and Pre-Filter regularly, especially in dusty areas.

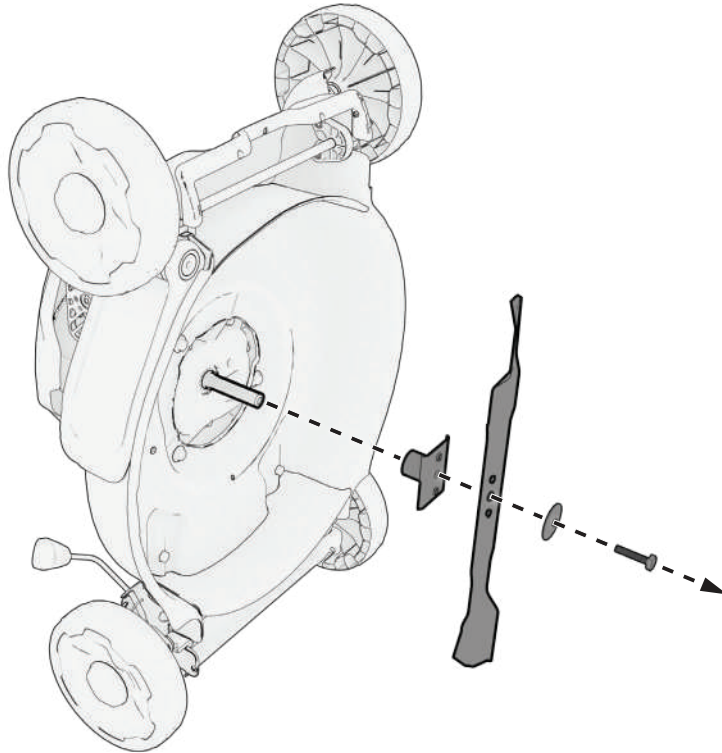


1. Open the Air Filter housing.
Remove the Larger Main Filter, and the Smaller Pre-Filter.
2. Clean the Air Filter housing of debris.
3. Clean both Air Filters with soap and water and let dry.
4. Soak the Larger Main Filter in clean engine oil.
DO NOT soak the Smaller Pre-Filter in oil.
5. Gently squeeze and then pat out all excess oil from the Larger Main Filter.
Re-install both filters.
6. Replace filter if it is damaged.

7.6 REPLACING THE BLADE

⚠ WARNING!

- Always use gloves and handle the blade with care, sharp edges could cause injury. **DO NOT** hold the blade by hand directly. 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 lawn mower. Replace any cracked or damaged blade immediately.
- For safety reasons, we recommend that the blade only be changed by someone qualified and authorized.



1. Stop the engine and wait until the blade stops completely.
2. Allow engine to cool and disconnect the spark plug cap.
3. Hold the blade steady using a solid object, such as a brick or piece of wood. Ensure the blade will not move.
4. Unscrew the blade bolt counterclockwise using a spanner wrench (not included).
5. Remove the washer and the blade.
6. Take the blade to a professional mechanic to re-sharpen, or get a new blade. locate the blade on the two studs on the blade flange and then replace the washer and bolts.
7. Make sure the blade is correctly located, and then firmly tighten the bolt. DO NOT over tighten.

NOTE

- The up turn of the blade must point into the deck.

7.7 SPARK PLUG SERVICE

⚠ WARNING!

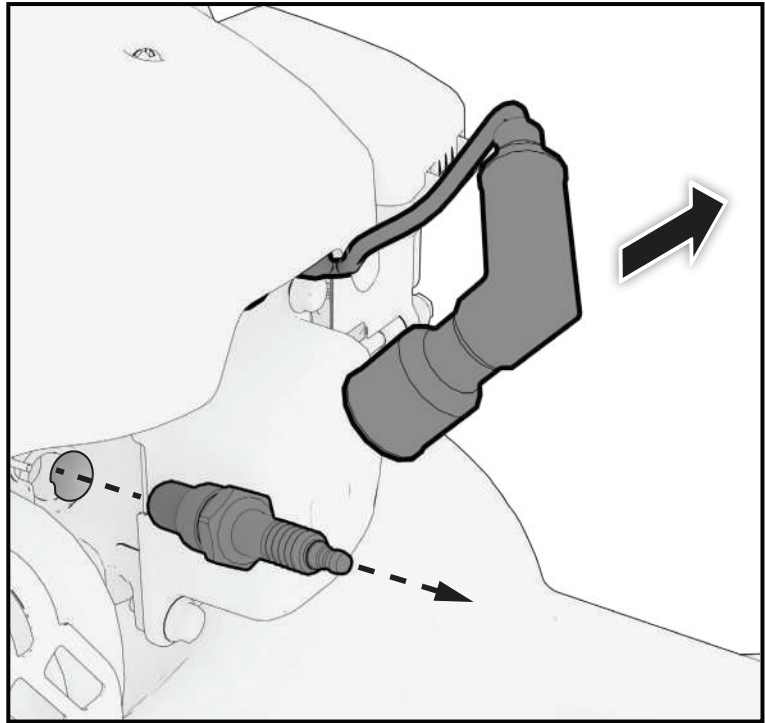
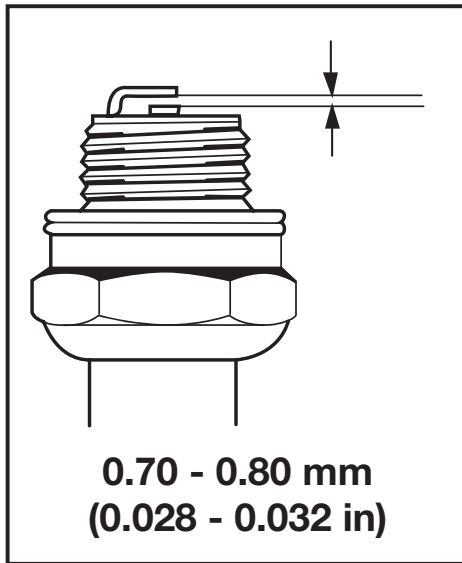
- **DO NOT** rinse spark plug in water.
- **DO NOT** over-tighten the spark plug. Follow the instructions below.

Recommended spark plug: F6RTC

Check the spark plug gap and clean the carbon deposits at the bottom of the spark plug.

Tighten 1/2 turn when installing a new spark plug.

Tighten 1/8 TO 1/4 turn when re-installing an old spark plug.



1. Remove the spark plug cap.
2. Remove the spark plug with the spark plug wrench.
3. Visually inspect the spark plug. Replace with a new plug if the insulation is cracked or chipped. Clean with a wire brush if the spark plug is reused.
4. Measure the spark plug gap with a feeler gauge.
The normal value is: 0.75 mm (0.029 in).
Adjust the gap by carefully bending the electrode.
5. Carefully reinstall the spark plug by hand, to avoid cross-threading.
A new spark plug should be tightened 1/2 turn with a spanner.
A used spark plug should be tightened 1/8 to 1/4 turn with spanner.
6. Reinstall the spark plug cap.

NOTE

- The spark plug must be securely tightened or it could cause the spark plug to heat up, enough to damage the engine.
- NEVER use a spark plug with an improper heat range.

7.8 EMISSION CONTROL SYSTEM

Emission Source

Exhaust gas contains carbon monoxide, nitrogen oxides (NOx) and hydrocarbons. It is very important to control the emissions of NOx and hydrocarbons as they are a major contributor to air pollution. Carbon monoxide is a poisonous gas. The emission of fuel vapors is a source of pollution as well. The lawn mower engine utilizes a precise air-fuel ratio and emission control system to reduce the emissions of carbon monoxide, NOx, hydrocarbons and evaporative fuel emissions.

Regulation

Your engine has been designed to meet current Environmental Protection Agency (EPA) clean air standards. The regulations dictate that the manufacturer provides operation and maintenance standards regarding the emission control systems. Tune up specifications are provided in the Specifications section and a description of the emission control system may be found in the appendix to this manual. Adherence to the following instruction will ensure your engine meets the emission control standards.

Modification

Modification of the emission control system may lead to increased emissions. Modification is defined as the following:

- Disassembling or modifying the function or parts of the intake, fuel or exhaust system.
- Modifying or destroying the speed governing function of the lawn mower.

Engine faults that may affect emission

Any of the following faults must be repaired immediately. Consult with your authorized service center for diagnosis and repair:

- Hard starting or shut down after starting.
- Unstable idle speed.
- Shut down or backfire after applying an electrical load.
- Backfire or after fire.
- Black smoke and/or excessive fuel consumption.

Replacement parts and accessories

The parts making up the emission control system in your product's engine have been specifically approved and certified by the regulatory agencies. You can trust that the replacement parts supplied by customer service have been manufactured to the same production standard as the original parts. The use of replacement parts or accessories which are not designed for your engine – may negatively affect the engine emission performance. Therefore only use replacements parts and accessories from a qualified service center to guarantee that the replacement products will not adversely affect emission performance. Replacement parts other than those from an authorized service center will void the warranty.

7.9 CARBURETOR TUNING FOR HIGH ALTITUDE OPERATION (ABOVE 2,000 FEET)

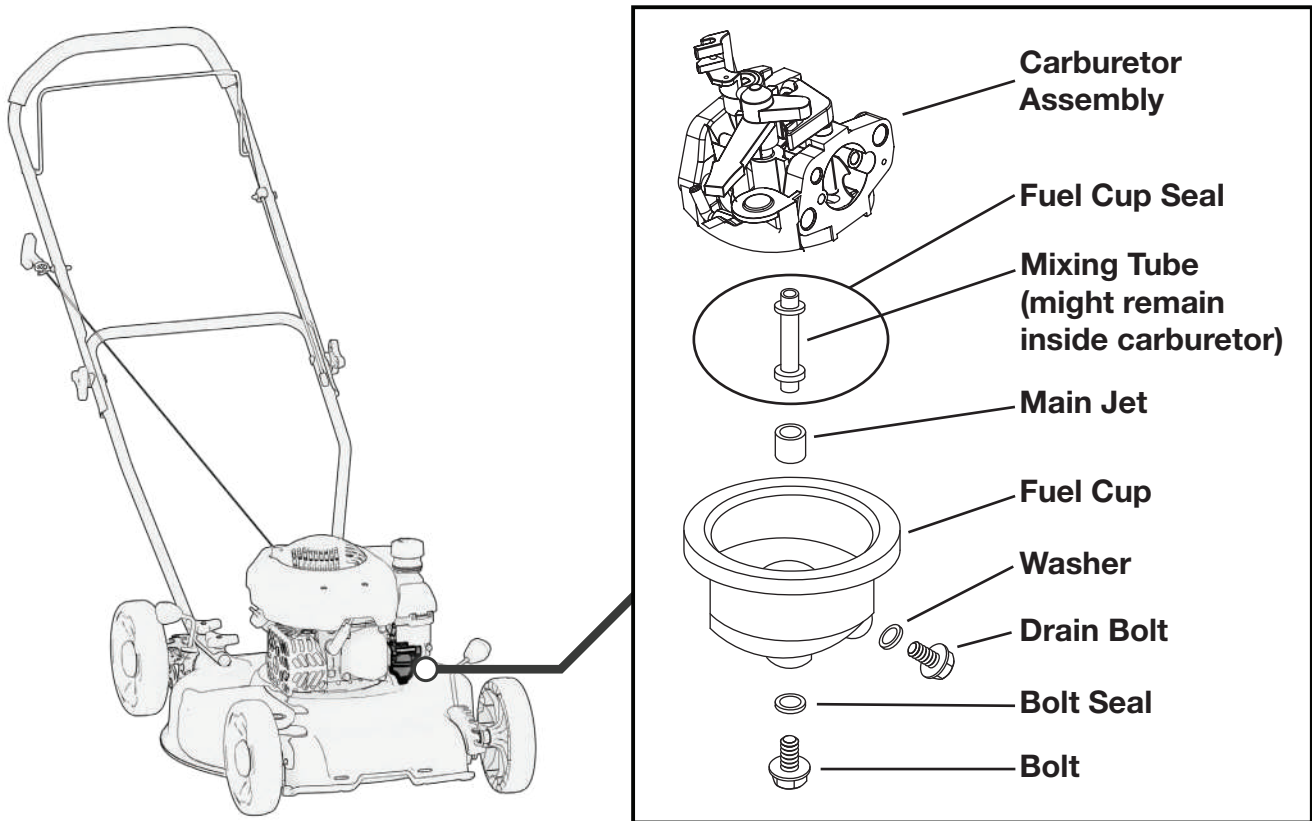
NOTE

- This engine is calibrated to run at altitudes below 2,000-ft.
- A high-altitude Main Jet is recommended when operated at 2,000 to 7,000-ft above sea level.
- At elevations above 7,000-ft the engine may experience decreased performance even with a high-altitude Main Jet.

At high altitudes the carburetor's air/fuel mixture becomes too rich, resulting in higher fuel consumption, lower performance, and carbon build-up on the spark plug. On the other hand, if the carburetor has been modified for high altitude operation and is operated below 2000-ft, the air/fuel mixture will then be too lean for low altitude use. Always use the correct Main Jet for your altitude.

The engine's carburetor, governor (if so equipped), and any other parts that control the air/fuel ratio will need to be adjusted by a qualified mechanic to allow efficient high-altitude use, and to prevent damage to the engine and any other devices used with this product. The fuel system on this engine may be influenced by operation at higher altitudes.

- Carburetor bowl may have gas in it which will leak upon removing the bolt.
- The mixing tube is held in place by the Main Jet and might fall out when it is removed. If it falls out, replace it in the same orientation before replacing the Main Jet.
- The Fuel Cup Seal and Bolt Seal may be damaged during removal and should be replaced with the new ones.



1. Turn off the engine.
2. Close the fuel valve.
3. Place a bowl under the fuel cup to catch any spilled fuel.
4. Unthread the bolt holding the fuel cup.
5. Remove the bolt, Bolt Seal, fuel cup, Fuel Cup Seal and Main Jet from the body of the carburetor assembly. A carburetor screwdriver (not included) is needed to remove and install the Main Jet.
6. Replace the Main Jet with the replacement Main Jet needed for your altitude range.
7. Replace the Fuel Cup Seal, fuel cup, Bolt Seal, and bolt. Tighten in place. DO NOT cross thread bolt when tightening. Finger tighten first and then use a wrench to make sure the bolt is properly threaded.
8. Wipe up any spilled fuel and allow excess to evaporate before starting engine. To prevent FIRE, DO NOT start the engine while the smell of fuel hangs in the air.

8. TRANSPORTATION & STORAGE

Transporting the Lawn Mower

- Avoid exposing the lawn mower to prolonged direct sunlight while in an enclosed vehicle. The high temperature inside the vehicle could cause fuel to vaporize resulting in a possible explosion.
- Drain the lawn mower of fuel and oil before being transported in an enclosed space.
- Empty the gasoline tank.
- Remove the spark plug cap from the spark plug.
- Clean the lawn mower from debris.
- Use the original packaging to ship whenever possible.

Storage

Gasoline can oxidize in as little as 30 days, causing gum and varnish to build up in fuel system components.

NOTE

- Ensure that the storage area is free of excess humidity and dust.
- Drain the fuel tank and the carburetor.
- Clean the lawn mower from debris.

Storage Duration	Preparation Required
Less than 1 Month	<ul style="list-style-type: none">■ No storage preparation required, simply store as is.
1 Month to 1 Year	<ul style="list-style-type: none">■ Drain the old gas and completely fill the tank with fresh gas before storage. Add fuel stabilizer according to the manufacturer's directions. Adding a quality fuel stabilizer can keep gas fresh for up to a year.
1 Year or More	<ul style="list-style-type: none">■ Drain off the gasoline from the fuel tank. This will help prevent deposits from forming in the fuel system.■ Loosen the carburetor drain bolt. Take off the spark plug cap and revolve the engine 3 or 4 times, by pulling the pull start handle, to fully discharge the gasoline from the fuel lines.■ Change oil while engine is still warm from operation.■ Remove the spark plug, and pour a tablespoon of clean engine oil (10~20ml) into the cylinder. Revolve the engine several times by pulling on the pull start to distribute the oil. Reinstall the spark plug. Pull the starter handle slowly until you feel resistance. At this point, the piston is coming up on its compression stroke and both the intake and exhaust valves are closed. This position helps to protect the engine from internal corrosion.

9. TROUBLESHOOTING

Problem	Look for	Solution
Engine does not start.	Brake lever not pressed.	Press start/stop lever.
	Spark plug cap disconnected	Reconnect spark plug cap
	Fuel tank is empty.	Refill with fuel.
	Air filter is soiled.	Clean the air filter.
	Fuel has gone bad.	Drain the fuel tank and carburetor and refill with fresh fuel.
	Spark plug is soiled.	Clean or replace the spark plug.
Engine runs unsteadily.	Air filter is soiled.	Clean the air filter.
	Fuel has gone bad.	Drain the fuel tank and carburetor and refill with fresh fuel.
	Spark plug is soiled.	Clean or replace the spark plug.
Loud while running, machine vibrates heavily.	Loose fasteners	Re-tighten.
	Blade is unbalanced.	Re-balance or replace.
Uneven mowing results.	Blade is dull.	Sharpen or replace the blade.
	Blade is bent.	Replace the blade
	Cutting height is too low.	Set correct height.

10. TECHNICAL SPECIFICATIONS

	SPECIFICATIONS	5124-070 "GRASSCYCLER"
LAWN MOWER	Functions	Side Discharge, Mulch
	Deck Width	21 in
	Cutting Width	20 in
	Min.Cutting Height	25 mm (+-5 mm)
	Max.Cutting Height	100 mm (+-5 mm)
	Deck Height Adjust	7-position
	Blade	Hybrid Blade
	Number of Blades	1
	Front / Rear wheel	8 in
ENGINE	Type	3.8 HP, Single Cylinder, forced air cooling, 4-stroke, OHV
	Displacement (cm ³)	173cc
	RPM	3000
	Oil capacity	400 ml / 14 oz. (10W30)
	Fuel tank capacity	1 L / 0.26 Gal
	Fuel Type	Unleaded gasoline 87+ Octane
UNIT	Dimensions (L x W x H)	62.7 x 24.9 x 39.8 in
	Net Weight	86 lbs / 39.1 kg

11. GLOSSARY

Handle Controls and Assembly

Brake Lever

- Stops the engine and blade when released. It is a built-in safety feature that quickly brings the mower to a stop when the operator lets go. The lever must be held to start the engine and keep it running during operation.

Pull Start Handle

- Used to start the engine and must be used in combination with the brake lever. Pulling the handle while simultaneously holding the brake lever will start the engine.

Upper Handle

- Main control interface for the operator. It allows for pushing, steering, and engaging safety controls such as the brake lever.

Lower Handle

- Forms the base of the mower's handle assembly and provides structural support. It connects to the deck and supports the upper handle.

Brake Cable

- The brake cable connects the brake lever to the engine brake system.

Handle Knob

- Secures the mower's handle components together and to the deck.

Handle Bolts

- In combination with curved washers and handle knobs, the handle bolts secure the upper and lower handle sections together.

Curved Washer

- Used with the handle bolts and knobs to securely fasten the upper and lower handle sections together. It helps maintain proper tension and stability of the handle assembly.

Lower Handle Knob Brace

- Supports and stabilizes the connection between the lower handle, handle knob, and deck.

Lower Handle Plug

- Covers the open end of the lower handle tube and secures the brake cable, which is routed internally through the lower handle.

Deck Controls and Assembly

Deck

- Houses the blade and supports the mower's structure. It also directs grass clippings during side discharge or mulching.

Cutting Height Lever

- Adjusts the mower deck to control the height at which grass is cut.

Height selector plate

- Works in conjunction with the cutting height lever to set the cutting height, while also indicating the selected height setting.

Wheel

- Enables the mower to move smoothly across the lawn, supporting its weight and ensuring stable, guided movement during operation.

Axle

- Connects the wheels to the deck and height adjustment lever.

Wheel Knob

- Secures the wheel to the axle.

Quick Switch

- Dual-function component that combines the mulch door and side discharge deflector into a single, easy-to-use mechanism.

Blade

- The blade cuts the grass as it rotates under the deck.

Blade Adapter

- Connects the blade to the engine.

Engine Controls and Assembly

Engine

- The engine powers the mower by combusting a mixture of fuel and air, generating the rotational force needed to spin the cutting blade.

Spark Plug Cap

- The spark plug cap connects the ignition system to the spark plug, delivering the electrical current needed to ignite the fuel-air mixture in the engine.

Spark Plug

- The spark plug ignites the fuel-air mixture in the engine.

Gas Tank

- The gas tank stores gasoline, supplying fuel to the engine for operation.

Gas Cap

- The gas cap seals the fuel tank to prevent fuel leakage and contamination. When removed, it allows the tank to be refueled

Air Filter

- The air filter prevents dirt and debris from entering the engine.

Oil Dipstick

- Used to measure the engine's oil level.

Carburetor

- The carburetor regulates the engine's fuel and air mixture to ensure smooth operation.

Exhaust Muffler

- Reduces the noise from the exhaust of the engine.

12. LIMITED WARRANTY

Warranty

Beginning at the time of retail purchase and for the duration of the warranty period Midland Power Inc. (Midland) warrants that Equipment manufactured by it is warranted to be free from defects in material and workmanship. Midland will, at its sole discretion, replace or repair any part(s) which, upon evaluation and testing by Midland or an authorized service center, show a defect in workmanship or material. Valid proof of purchase must be submitted online for registration with Midland, or presented to Midland at time of claim, for warranty to be valid. This warranty is not transferable from the original owner.

Limited Warranty Period:

Non-commercial use:

- Year 1, 2 and 3 - Parts and Labour
- Year 4 and 5 - Parts

Commercial use:

- First 6 Months - Parts and Labour

Commercial use includes utilization of the purchased product for a business or non-profit organization, or to financially benefit an individual. This includes, but is not limited to, usage in the context of a financial transaction, usage on commercial or non-profit property, or usage for advertising or marketing purposes.

Replacement parts sold to a consumer or installed by an authorized service center are warranted for a period of 90 days from date of purchase. Labour must be performed by an authorized service center unless given Midland's prior written approval. Midland will not bear any transportation or shipping fees to or from an authorized service center. Service calls, travel charges, overtime, or weekend rates, are not covered.

This warranty does NOT cover:

- a.** Any repairs required as a result of any parts not supplied by Midland, and this part is responsible for the failure or malfunction;
- b.** Any Equipment modified, altered, disassembled or remodeled;
- c.** Any repairs required as a result of a failure to install, maintain, store, transport, or operate the Equipment in accordance with standard practices set out in the user guide;
- d.** Damage that occurred after receipt of equipment, not caused by defects in workmanship or material;
- e.** Normal maintenance services, as outlined in the user guide and intended for a consumer to perform;
- f.** Replacement of parts made in connection with normal maintenance services including oils, adhesives, additives, fuel, filters, brushes, belts, lubricants, spark plugs, gaskets, seals, fasteners, wires, tubes, pipes, fittings, wheels, batteries, and other expendables susceptible to natural wear;
- g.** Any accessory or attachment.

Any battery supplied with this Equipment is considered a consumable item and is excluded from this warranty. Batteries can be damaged by shock, shorting terminals, heat, acid spillage, neglect, and other factors. It is the customer's responsibility to take great care when handling a battery so no spillage of acid occurs which may cause corrosion.

Midland disclaims any responsibility for loss of time or use of the product, transportation, or towing costs or any other indirect, incidental, or consequential damage, inconvenience or commercial loss.

This warranty is the entire and only warranty given by Midland for Midland products or equipment. No agent or employee is authorized to extend or enlarge this warranty on behalf of Midland by any written or verbal statement or advertisement.

California

The California Air Resources Board and Midland Power Inc. are pleased to explain the emission control system warranty on your Midland Power Inc. engine. In California, new spark-ignited small off-road equipment engines must be designed, built, and equipped to meet the State's stringent anti-smog standards.

Other States, U.S. territories, and Canada

In other areas of the United States and in Canada, your engine must be designed, built, and equipped to meet the U.S. EPA and Environment Canada emission standards for spark-ignited engines at or below 19 kilowatts.

All of the United States and Canada

Midland Power Inc. must warrant the emission control system on your power equipment engine for the period of time listed below, provided there has been no abuse, neglect, or improper maintenance of your power equipment engine. Where a warrantable condition exists, Midland Power Inc. will repair your power equipment engine at no cost to you including diagnosis, parts, and labor.

Your emission control system may include such parts as the carburetor or fuel injection system, the ignition system, and catalytic converter. Also included may be hoses, connectors, and other emission-related assemblies.

Emission Control System Warranty Parts:

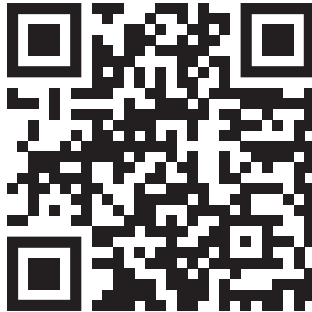
This list applies to parts supplied by Midland Power Inc. and does not cover parts supplied by the equipment manufacturer. Please see the original equipment manufacturer's emissions warranty for non-Midland Power Inc. parts.

Consumable parts are covered up to a maximum of 30 days.

SYSTEMS COVERED IN WARRANTY	PARTS DESCRIPTION
Fuel Metering	Carburetor assembly (includes starting enrichment system), Engine temperature sensor, Engine control module, Fuel regulator, Intake manifold
Evaporative	Fuel Tank, Fuel Cap, Fuel Hoses, Vapor Hoses, Carbon Canister, Canister Mounting Brackets, Fuel Strainer, Fuel cock, Fuel Pump, Fuel Hose Joint, Canister Purge Hose Joint
Exhaust	Catalyst, Exhaust Manifold
Air Induction	vAir filter housing, Air filter element
Ignition	Flywheel magneto, Ignition pulse generator, Crankshaft position sensor, Power coil, Ignition coil assembly, Ignition control module, Spark plug cap, Spark plug
Crankcase Emission Control	Crankcase breather tube, Oil filler cap
Miscellaneous Parts	Tubing, fittings, seals, gaskets, and clamps associated with these listed systems

Enjoy!

Be sure to check www.benchmark.midlandpowerinc.com for updates regarding your product.





Customer Service

Online: www.benchmark.midlandpowerinc.com

Toll Free: 1-877-528-3772



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