OWNER'S MANUAL HRX217HZU LAWN MOWER

Before operating the mower for the first time, please read this Owner's Manual. Even if you have operated other mowers, take time to become familiar with how this mower works and practice in a safe area until you build up your skills.

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Honda Australia Motorcycle and Power Equipment Pty. Ltd.

ABN 96 006 662 862 (trading as Honda MPE).





WELCOME

Congratulations on your selection of a Honda lawn mower! We are certain you will be pleased with your purchase of one of the finest lawn mowers on the market. We want to help you get the best results from your new mower and to operate it safely. This manual contains information on how to do that; please read it carefully.

When your mower needs scheduled maintenance, keep in mind that Honda Power Equipment servicing dealership personnel are specially trained in servicing Honda mowers and are supported by the parts and service divisions of Honda Australia.

Please read the *LIMITED WARRANTY* on page 23 to fully understand what is covered by warranty and your responsibilities of ownership.

FOR YOUR SAFETY

Your safety and the safety of others are very important. We have provided important safety messages in this manual and on the mower. This information alerts you to potential hazards that could hurt you or others. Please read these messages carefully.

Of course, it is not practical or possible to warn you about all the hazards associated with operating or maintaining a lawn mower. You must use your own good judgment.

Safety Instructions

You will find important safety information in a variety of forms:

- Safety Labels on the lawn mower
- Instructions how to use this mower correctly and safely
- Safety Messages preceded by a safety alert A symbol and one of three signal words: DANGER, WARNING, or CAUTION. Each message tells you what the hazard is, what can happen, and what you can do to avoid or reduce injury. These signal words mean:



You **WILL** be KILLED or SERIOUSLY HURT if you don't follow instructions.

You **CAN** be KILLED or SERIOUSLY HURT if you don't follow instructions.

You **CAN** be HURT if you don't follow instructions.

 Damage Prevention Messages – you will also see other important messages that are preceded by the word NOTICE. This word means:

NOTICE

Your engine, other property, or the environment can be damaged if you don't follow instructions.

Important Message to Parents

The safety of children and adolescents is important to Honda. Lawn mowers are powerful tools, not toys. As with any equipment, bad judgments can result in serious injuries. Please ensure before any child, adolescent, or inexperienced person begins using this device, they:

- Possess the necessary level of physical strength and have the mental capability of using the device in a safe manner.
- Can fully operate all controls and understand the safety instructions and warnings provided.

Honda strongly recommends that all young, inexperienced or first time users receive initial training and supervision from a competent adult, in accordance with these instructions. Do not allow children or people unfamiliar with these instructions to use the mower.

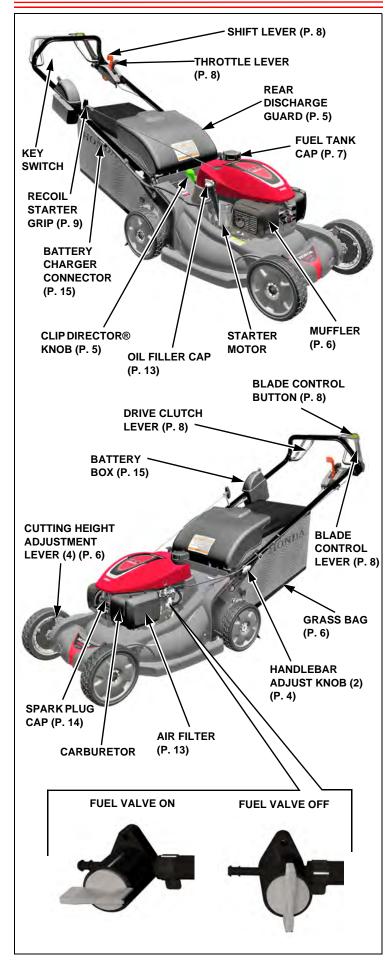
Safety Label Locations

These labels warn you of potential hazards that can cause serious injury. Read them carefully. If a label comes off or becomes hard to read, contact an authorised Honda servicing dealer for a replacement.



2

PARTS AND CONTROLS

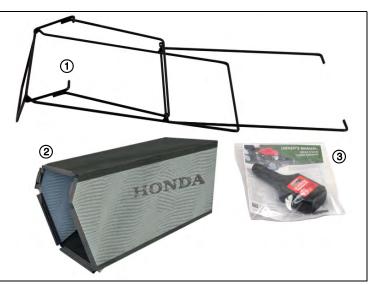


INITIAL MOWER SETUP

List of Parts

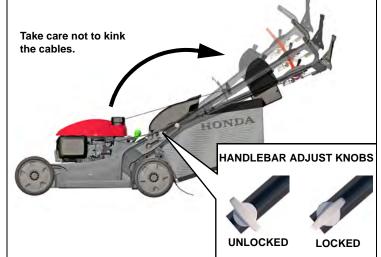
With help from an assistant, carefully remove the mower and loose parts from the carton and compare the loose parts against the following list. Contact the authorised Honda dealer from whom you purchased the mower if any of the loose parts shown are not included with your mower.

Ref. No.	Description	Qty.
1	Grass bag frame	1
2	Grass bag	1
3	Engine oil, key, and owner's manual	1



Adjust the Handlebar

- 1. With the handlebar adjust knobs in the unlocked position, raise the handlebar into the mowing position.
- Align the adjust knobs with one of the three holes on each handle stay. Setting the adjust knobs in the lowest holes raises the handlebar to its highest position.
- 3. Turn the handlebar adjust knobs 90 degrees into the lock position, making sure both sides are positioned at the same height.
- 4. Remove all the cardboard from around the handlebar.



Add Engine Oil

The mower is shipped **WITHOUT OIL** in the engine. Remove the oil filler cap/dipstick and add the entire contents of the included bottle of oil into the oil filler opening.

All Honda engines are run at the factory prior to packaging. Most of the oil is removed prior to shipment; however, some oil remains in the engine. The amount of oil left in the engine varies.



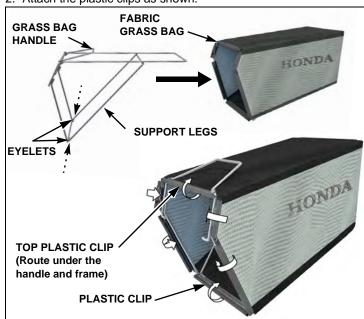
If you don't use the supplied oil, add enough SAE 10W-30 API service category SJ or later oil to bring the oil level between the upper and lower limit marks on the dipstick—without screwing the dipstick in (approximately 0.35 to 0.40 litres is required). See "Oil Change" on page 13.

Do not overfill the engine with oil. If the engine is overfilled, the excess oil may get transferred to the air cleaner housing and air filter. An indication of overfilling is white or blue smoke coming from the muffler when the engine is running.

After filling the engine with oil, screw the filler/cap dipstick in and remove the hang tag near the recoil starter grip that says "*The engine has no oil.*"

Assemble the Grass Bag

1. Install the assembled frame into the fabric grass bag, keeping the grass bag handle exposed.



2. Attach the plastic clips as shown.

Before Using Your Lawn Mower

All Mower operators must read the following sections:

- FOR YOUR SAFETY (page 2)
- BEFORE EACH OPERATION (page 4)
- OPERATION (page 7)
- MAINTENANCE SCHEDULE (page 11)

BEFORE EACH OPERATION

Your safety is your responsibility. A little time spent in preparation will significantly reduce your risk of injury.

Know your controls. Read the owner's manual carefully.

Familiarize yourself with the lawn mower and its operation before you begin using it. Learn how to stop the engine quickly in any emergency.

Check Your Mower

For your safety, and to maximize the service life of your lawn mower, it is very important to take a few moments before you operate the lawn mower to check its condition. Be sure to take care of any problem you find, or have your servicing dealer correct it, before you operate the lawn mower.

A WARNING

Improperly maintaining this lawn mower, or failing to correct a problem before operation, could cause a malfunction in which you could be seriously injured.

Always perform a pre-operation inspection before each operation, and correct any problem.

- Make sure the lawn mower is on a level surface
- Look around and underneath the lawn mower for signs of oil or petrol leaks
- · Look for signs of damage
- Check each control for proper operation
- Before using, always visually inspect to see that blades, blade bolts, and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve the balance (page 12). DAMAGED BLADES AND WORN BOLTS ARE MAJOR HAZARDS.
- Check all nuts, bolts, and screws often; always be sure the mower is in safe operating condition. Use only replacement parts made and guaranteed by Honda.
- Check the air filter (page 13) and oil level (page 6)
- Check the fuel level (page 7). Starting with a full tank will help to eliminate or reduce operating interruptions for refueling.

Check Your Mowing Area

For your safety and the safety of others, always inspect the area before operating the lawn mower.

Anything that can be picked up by the blades and thrown is a potential hazard to you and others. Look for things like stones, sticks, nails, and wire, and remove them from the lawn area. Make sure the lawn is clear of sticks, stones, bones, wire and debris. They could be thrown by the blades.

People and animals near the lawn area can move into your lawn mower's path or into a position where they could be struck by thrown objects. Do not mow whilst people, especially children, or pets are in the mowing area. Their safety is your responsibility.

Check the condition of the grass. Adjust your lawn mower ground speed and mowing swath accordingly.

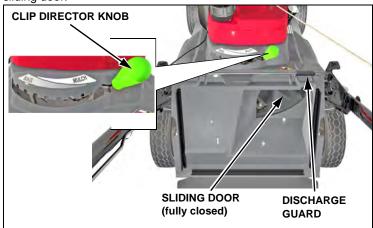
Clip Director®

The Clip Director can be adjusted to any one of the ten positions to achieve the desired mowing results (bag, bag and mulch, or mulch).

To adjust the Clip Director knob, pull the knob downward and towards the rear of the mower. The knob adjusts a sliding door from the fully open BAG position to the fully closed MULCH position.

Some grass accumulation in the discharge opening is normal when the Clip Director is fully closed in the MULCH position. To remove this grass, close the discharge guard, fully open the Clip Director in the BAG position, engage the blade control lever, and start the engine.

If a high resistance is noticed when moving the Clip Director knob from side-to-side, excessive grass may have built up on top of the sliding door.

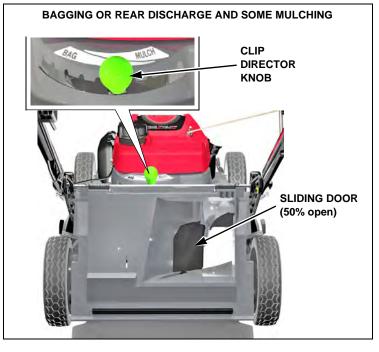


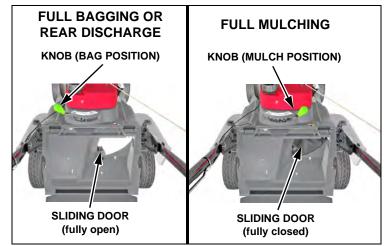
Important Safety Precaution

Always release the blade control lever and disconnect the spark plug cap (page 14) before lifting the discharge guard to view or clean around the sliding door. This will prevent contact with the rotating blades and prevent objects from being thrown into the discharge area.

Sliding Door Position

The sliding door can be positioned to produce different mowing results. If the preferred sliding door position is unknown, install the grass bag and begin mowing with the Clip Director knob all the way to the BAG position. Check the appearance of the lawn. As the knob is moved towards the MULCH position, more grass will be recycled back into the lawn. Adjust the Clip Director knob until the desired result is achieved.





Rear Discharge

To discharge clippings to the rear, remove the grass bag and position the Clip Director knob in the BAG range. Maximum rear discharge will occur when the Clip Director knob is all the way to the left (BAG) position. As the Clip Director knob is moved toward the right (MULCH) position, less grass will be discharged through the rear discharge guard.

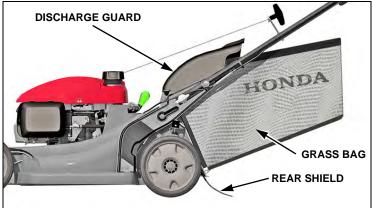


Fallen Leaves

Use the Clip Director to shred and collect fallen leaves for disposal. Set the front wheels so they are one or two settings higher than the rear. Set the Clip Director in position #9 (not quite full mulching), and adjust the setting from this point for best results. Collecting leaves while they are damp will help to control dust and result in more effective mulching of the leaves.

Rear Shield

During normal use the rear shield is subject to deterioration and wear. Remove the grass bag and raise the discharge guard to check the rear shield for cracks or tears. If the rear shield is excessively worn, have it replaced by your authorised Honda servicing dealer.



Grass Bag

A lawn mower works like a vacuum cleaner; it blows air through the bag fabric, which traps the grass clippings. Always empty the grass bag before it becomes filled to the limit of its capacity. Bagging performance will diminish after the bag becomes about 90% filled. Also, the bag is easier to empty when it is not packed full.

You can leave the grass bag on the mower during mowing, even when full mulching is selected.

To minimize dust and fine particles from passing through the grass bag fabric, it is best to mow grass in the morning when the grass is damp.

Inspection

During use, the grass bag material is subject to normal wear and tear.

A CAUTION

An excessively worn grass bag may allow objects to be thrown toward the operator.

GRASS BAG

Replace a worn grass bag to prevent possible injury.

Grass bag replacement is explained on page 4.

Installation

1. Raise the discharge guard and hook the grass bag onto the mower deck as shown.

Clean any grass clippings from the hook channel.

 Release the discharge guard to secure the grass bag.

Removal

- Raise the discharge guard, grasp the grass bag handle, and remove the grass bag.
- Release the discharge guard.
- When the grass bag is clear of the discharge guard,

you can lift it through the handlebar opening or remove it to the rear of the mower below the handlebar.

Cutting Height Adjustment

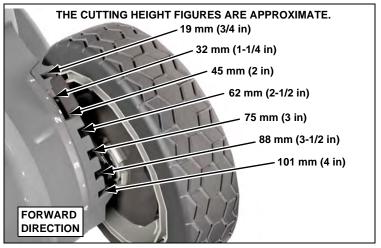
Each wheel of the mower can be adjusted to one of seven settings. The actual height of cut grass will vary with lawn and soil conditions.

Be sure the engine is not running when adjusting the cutting height.

To adjust cutting height, pull each adjustment lever toward the wheel, and move it into another notch.

Move all four adjustment levers to the same position, forward for tall grass and rearward for short grass.





If you are not sure what cutting height to select, start with a high setting and check the appearance of the lawn after mowing a small area. Then readjust the cutting height if necessary.

Check the Oil Level

Check the engine oil level with the engine stopped and the mower on a level surface.

- 1. Clean the area around the oil filler cap.
- 2. Unscrew and remove the filler cap/dipstick and wipe it clean.
- Insert and remove the dipstick without screwing it into the filler neck. Check the oil level shown on the dipstick.
- If the oil level is low, add oil to reach the upper limit mark on the dipstick.

Do not overfill. If the engine is overfilled, the excess oil may get transferred to the air cleaner housing and air filter. An indication of overfilling is white or blue smoke coming from the

muffler when the engine is running.

Use 10W-30 API Service category SJ or later oil for normal conditions. For additional oil recommendations, see "Engine Oil Recommendations" on page 13.

FILLER CAP/

UPPER

LIMIT

LOWER

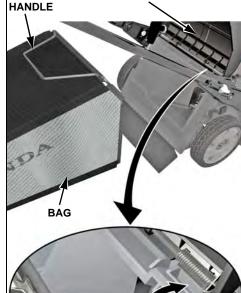
LIMIT

DIPSTICK

NOTICE

Running the engine with a low oil level can cause engine damage.

5. Screw in the filler cap/dipstick securely.



DISCHARGE GUARD

Add Fuel

This engine is certified to operate on regular petrol with a pump octane rating of 86 or higher.

Never use stale or contaminated petrol or an oil/petrol mixture. Avoid getting dirt or water in the fuel tank.

You may use regular unleaded petrol containing no more than 10% ethanol (E10) or 5% methanol by volume. In addition, methanol must contain cosolvents and corrosion inhibitors.

Use of fuels with content of ethanol or methanol greater than shown above may cause starting and/or performance problems. It may also damage metal, rubber, and plastic parts of the fuel system.

Engine damage or performance problems that result from using a fuel with percentages of ethanol or methanol greater than shown above are not covered under warranty.

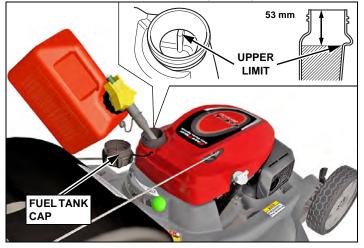
A WARNING

Petrol is highly flammable and explosive, and you can be burned or seriously injured when refueling.

- Stop the engine and let it cool.
- Keep heat, sparks, and flame away
- Refuel only outdoors
- Wipe up spills immediately

If your equipment will be used on an infrequent or intermittent basis, (more than 4 weeks before next use), refer to "AVOIDING FUEL-RELATED PROBLEMS" on page 19 for information regarding fuel deterioration.

- 1. Remove the fuel tank cap.
- Add fuel into the neck of the fuel tank to the UPPER LIMIT line (Approx. 53 mm from the top of the fuel filler neck). Do not overfill. Wipe up any spilled fuel before starting the engine.



3. Tighten the fuel tank cap until it clicks.

Move the mower at least 3 metres away from the fueling source and site before starting the engine.

NOTICE

Fuel can damage paint and plastic. Be careful not to spill fuel when filling your fuel tank. Damage caused by spilled fuel is not covered by the LIMITED WARRANTY (page 23).

OPERATION

For your safety, avoid starting or operating the engine in an enclosed area, such as a garage. Your mower's exhaust contains poisonous carbon monoxide gas, which can collect rapidly in an enclosed area and cause illness or death.

A WARNING

Exhaust contains poisonous carbon monoxide gas that can build up to dangerous levels in closed areas. Breathing carbon monoxide can cause unconsciousness or death.

Never run the lawn mower in a closed, or even partially closed area where people may be present.

You may hear a clicking noise as you push the lawn mower forward with the engine OFF. This is normal and will not damage the mower.

Safe Mowing Practices

Most injuries and property damage with walk-behind mowers can be prevented if you follow all instructions in this manual and on the mower. The most common hazards are discussed below, along with the best way to protect yourself and others.

General

Never cut grass while walking backwards.

Operate the mower only in daylight or good artificial light.

Do not operate the engine in a confined space where exhaust fumes (carbon monoxide) can collect.

Never pick up or carry a mower when it is operating.

Do not operate the mower after consuming alcohol or drugs.

Avoid Rotating Blades

Rotating blades can cause serious cuts and even amputate fingers, hands, toes, or feet. Keep away from the mower deck whenever the engine is running. If you need to adjust the cutting height or work around the deck for any other reason, always shut off the engine. Wear heavy gloves and disconnect the spark plug cap when you need to clean the mower deck or handle the blades.

A WARNING

The blades are sharp and spin at high speed. A spinning blade can cut you severely and can amputate fingers and toes.

- Wear protective footwear
- Keep you hands and feet away from the mower deck while the engine is running
- Stop the engine before performing any adjustment, inspection, or maintenance

Clear Mowing Area

Mower blades can throw rocks and other objects with enough force to cause serious injury. Before mowing, make sure the lawn is clear of sticks, stones, bones, wire and debris. They could be thrown by the blades. Never operate the blades over gravel.

NOTICE

Striking objects with the spinning blades can cause severe engine damage, which is not covered by the LIMITED WARRANTY (page 23).

Keep Shields in Place

Guards and shields are designed to protect you from being hit by thrown objects and from hot engine parts and moving components. For your safety and the safety of others, never use the mower unless the grass catcher, or guards provided by the manufacturer, are in position.

Refuel With Care

Petrol is extremely flammable and petrol vapor can explode.Never smoke near petrol, and keep other flames and sparks away. Refuel outdoors only, in a well-ventilated area, with the engine OFF. Do not smoke while fueling the engine. Add fuel before starting the engine. Never remove the cap off the fuel tank or add petrol while the engine is running or the engine is hot. If petrol is spilled, do not attempt to start the engine but move the machine away from the area of the spill and avoid creating any source of ignition until petrol vapors have dissipated.

Store fuel in a cool place in a container specifically designed for the purpose. In general, plastics containers are unsuitable.

Wear Protective Clothing

Never mow while barefoot or wearing open sandals, or thongs. Wear long trousers and heavy shoes. It is advisable to wear suitable eye protection when operating a mower.

Stop the Engine When Not Mowing

Stop the engine whenever you leave the mower, even for a moment.

Avoid Slopes

Mow across the face of slopes, never up and down. Exercize extreme caution when changing direction on slopes. Do not mow excessively steep slopes (more than 20°). Mowing on a slope when the grass is damp or wet could cause you to slip, fall, and lose control of the mower.



NOTICE

Mowing on steep slopes can starve the engine of oil, causing engine damage that is not covered by the LIMITED WARRANTY (page 23).

Keep all four wheels on the ground, and be careful to avoid losing your footing and your control of the mower. Keep a firm grip on the handlebar, and walk, never run, with the mower. Be very careful when mowing uneven or rough ground.

If stuck, do not kick or shove the mower with your foot. Use the handlebar to control the mower.

Avoid Obstacles

Gravel, loose stones, and landscaping material can be picked up by the mower and thrown many feet with enough force to cause serious personal injury and/or property damage. Stop the engine before pushing the mower across gravel drives, walks, or roads.

Be careful when mowing over obstacles that stick up above the surface of the lawn such as sprinkler heads, paving, edging, raised tree roots, etc.

Stop the engine, disconnect the spark plug wire and inspect the mower if the mower begins to vibrate abnormally or after striking a foreign object (page 12). Striking objects may damage the blades, bend the crankshaft, and/or break the mower deck or other components. Vibration usually indicates serious trouble.

A WARNING

A worn, cracked, or damaged blade can break, and pieces of the damaged blade can become dangerous projectiles.

Thrown objects can cause serious injury.

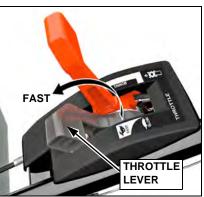
Inspect the blades regularly (see page 12), and do not operate the mower with a worn or damaged blade.

The *LIMITED WARRANTY* (page 23) does not cover parts damaged by accidental impact collision.

Operating the Controls Throttle Lever

For best cut quality, always mow with the throttle lever in the FAST position. When the blades rotate at the preset fast speed, they create a strong fan action that lifts and cuts grass more efficiently.

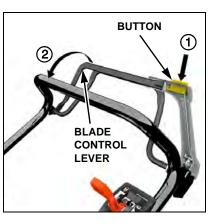
Do not try to increase the preset engine speed; the blades could fracture and come apart.



Blade Control Lever

To start blade rotation, hold down the yellow button (1) on top of the blade control lever, and then push the lever (2) forward quickly and hold it against the handlebar. Release the yellow button.

Operate the blade control lever with a quick and complete motion so that the blade control is always either fully engaged or released. This will help to prevent stalling the engine, and it will also extend the service life of the blade control mechanism.



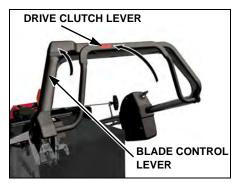
To stop blade rotation, release the blade control lever. The engine will continue to run. Always release the blade control lever before starting the engine to prevent the blades from turning.

Drive Clutch Lever

Push the drive clutch lever forward to propel the mower.

Release the drive clutch lever to stop the mower's forward movement.

You can control the self-propelled speed with the drive clutch lever. The mower will move gradually faster as you push the drive clutch lever forward. If you push the



lever all the way forward to the handlebar, the mower will move at the speed determined by the shift lever setting.

When moving and using the drive clutch lever to change the self-propelled speed, continue to fully hold the blade control lever against the handlebar. This will help prevent damage to the blade control mechanism. Use the shift lever (see page 9) to change the maximum speed so you can hold the drive clutch lever comfortably against the handlebar.

For self-propelled mowing, press the button on top of the blade control lever, push the blade control lever completely forward, and then push the drive clutch lever forward. The drive clutch lever will hold the blade control lever against the handlebar.

Always release the drive clutch lever before starting the engine. If the drive clutch is engaged, the mower will move forward when you operate the starter.

Shift Lever

Use the shift lever to select the forward speed at which you wish to mow.

Do not use the throttle lever to adjust your forward speed. The throttle lever must remain in the FAST position for good mowing performance.

The position of the shift lever determines the maximum ground speed when the drive clutch lever is fully engaged.

For maximum mowing performance, use the lower speed range for mowing and the higher speed range for transporting.

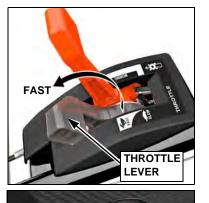
SLOW

With the shift lever all the way back and the drive clutch lever engaged, the mower will move slowly or not at all.

Starting the Engine

Before starting the engine, always release the drive control lever so that the mower will not move forward when you operate the starter. Start the engine carefully with feet well away from the blades.

- 1. Turn the fuel valve to the ON position (page 3).
- 2. Move the throttle lever to the FAST position.



OFF

KEY

SWITCH

RUN

START

SHIFT

LEVER

FAST

 Start the engine using the electric starter or the recoil (manual) starter.

Electric start:

Turn the starter key switch to the START position. Let the key return to the RUN position when the engine starts.

The starter should not be cranked for more than 5 seconds at a time. If the engine fails to start, release

the switch and wait 10 seconds before operating the starter again.

If the battery does not have sufficient charge to start the engine, possibly due to a long storage period, use the recoil starter to start the engine for at least one mowing session. The battery should have sufficient charge after one mowing session (approximately 1 hr).

Manual start:

Turn the engine switch to the RUN position. The engine switch must be in the RUN position to start the engine with the recoil starter.

Pull the starter grip lightly until you feel resistance, and then pull briskly. Return the starter grip gently.

To ensure easy restarting and maximum performance from the Auto Choke System, allow the engine to run for at least three minutes after starting a cold engine before stopping the engine. This minimum run time will be longer if the temperature is below 21 °C.

Stopping the Engine

Turn the fuel off at the conclusion of mowing and reduce the throttle setting during engine run-out.

- 1. Release the drive clutch and blade control levers.
- 2. Move the throttle lever to the STOP position.
- 3. Turn the key switch to the OFF position
- If your mower will not be used for 3 to 4 weeks, we recommend running the engine's carburetor out of fuel. You can do this by leaving the fuel valve OFF,



restarting the engine and running it until it stops. See "AVOIDING FUEL-RELATED PROBLEMS" on page 19 if you don't plan to use your mower for a month or more.

5. Clean your mower after each mowing; refer to "Cleaning" on page 16.

Mowing Tips

When to Mow

Most grasses should be mowed when they have grown 12 ~ 25 mm above their recommended height. More frequent mowing is required for mulching than for bagging. For best mulching results, you may need to mow the lawn twice a week during the growing season.

Cutting Height

Consult a local nursery or lawn and garden center for cutting height recommendations and advice about specific types of grasses and growing conditions in your area.

Most grass has stems and leaves. If you cut off the leaves, you'll scalp the lawn. Let the grass recover between mowings. Your mower will work better, and your lawn will look better.

Cutting grass that is too tall or mowing the lawn too quickly can clog the mower deck with grass and may cause the engine to stall. If your grass gets too tall, cut it once at the highest cutting height setting using a slow ground speed, then mow again in 2 or 3 days. Don't take off more than one third of the total grass height in any one mowing, or brown patches may develop. Cutting height adjustment is explained on page 6.

Cutting Width

For an even lawn finish, overlap each mowing swath by a few inches. If the grass is very tall or thick, use more overlap and a narrower mowing swath.

Blade Speed

The blades must spin very fast to cut properly. If engine speed drops, it could mean the engine is being overloaded by the blades trying to cut too much grass. Mow a narrower swath, move the mower slower, use the rear discharge chute, or raise the cutting height.

Blade Sharpness

A sharp blade cuts cleanly. A dull blade tears the grass, leaving shredded ends that turn brown. When your blades don't cut cleanly anymore, have them sharpened or replaced.

Dry Grass

If the ground is too dry, mowing will stir up a lot of dust. Besides being unpleasant to work in, too much dust will clog the air filter. If dust is a problem, water your lawn the day before mowing. Mow when the grass is dry to your touch, but the soil is still moist.

9

Wet Grass

Wet grass is slippery and can make you lose your footing. Also, wet grass clippings will clog the mower deck and collect in clumps on the lawn. Always wait for wet grass to dry before mowing.

Fallen Leaves

When equipped with the grass bag, your mower can be used to pick up fallen leaves for disposal. If using the mower to bag large amounts of fallen leaves, and not for mowing, set the cutting height adjustment levers so the front of the mower deck is one or two settings higher than the rear.

If you want to mulch fallen leaves into your lawn, don't let the leaf cover get too deep before you begin. For best results, start mulching while grass still shows through the leaf cover. In places where fallen leaves completely cover the grass, remove the leaves by raking, or install a grass bag, so your mower can pick them up for disposal. Collecting leaves while they are damp will help to control dust and result in more effective mulching of the leaves. You can also shred leaves using the Clip Director; see page 5 for details.

Clogged Mower Deck

Before clearing a clogged mower deck, stop the engine and turn the fuel valve to the OFF position. With the spark plug cap disconnected, tilt the mower so the carburetor side is up.

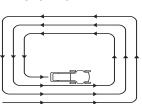
Clear a clogged deck with a stick, not your hands.

Mowing Patterns

Your Honda mower will work most efficiently if you use the following mowing patterns as much as possible. Mower deck and equipment design, and the direction in which the blade rotates, cause these mowing patterns to provide the best results.

Mulching

Use a counterclockwise mowing pattern. If the lawn has an irregular shape, or many obstacles, divide it into sections where you can use counterclockwise patterns.

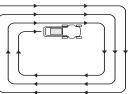


MULCHING PATTERN

Bagging

Use a clockwise mowing pattern. This will give the best bagging performance, leaving the least amount of clippings on the lawn.

BAGGING PATTERN



SERVICING YOUR MOWER

Proper maintenance is essential for safe, economical, and trouble-free operation. It also helps reduce air pollution.

A WARNING

Improper maintenance, or failure to correct a problem before operation, can cause a malfunction in which you can be seriously hurt or killed.

Always follow the inspection and maintenance recommendations and schedules in this owner's manual.

To help you properly care for your mower, the following pages include a maintenance schedule, routine inspection procedures, and simple maintenance procedures using basic hand tools. Other service tasks that are more difficult or require special tools are best handled by professionals and are normally performed by a Honda technician or other qualified mechanic.

The maintenance schedule applies to normal operating conditions. If you operate your mower under severe conditions, such as sustained high load, high temperature, or unusually wet or dusty conditions, consult your servicing dealer for recommendations applicable to your individual needs and use.

Remember that an authorised Honda servicing dealer knows your mower best and is fully equipped to maintain and repair it. To ensure the best quality and reliability, use only new, Honda Genuine parts or their equivalents for repair and replacement.

Maintenance Safety

Some of the most important safety precautions follow. However, we cannot warn you of every conceivable hazard that can arise in performing maintenance. Only you can decide whether or not you should perform a given task.

A WARNING

Failure to properly follow maintenance instructions and precautions can cause you to be seriously hurt or killed.

Always follow the procedures and precautions in this manual.

Safety Precautions

- Stop the engine and disconnect the spark plug wire before clearing blockages, checking, or working on the mower. This will eliminate several potential hazards:
 - Carbon monoxide poisoning from engine exhaust.
 Be sure there is adequate ventilation whenever you operate
 - the engine. – Burns from hot parts.

Let the engine and exhaust system cool before touching. Replace worn or faulty silencers.

- Injury from moving parts.
 Do not run the engine unless instructed to do so.
- Read the instructions before you begin, and make sure you have the tools and skills required.
- To reduce the possibility of fire or explosion, be careful when working around petrol. Use only a nonflammable solvent, not petrol, to clean parts. Keep cigarettes, sparks, and flames away from all fuel-related parts.

Maintenance Schedule

Item	Action	Before each use	5 hours of use or first month	First 25 hours of use	50 hours of use or every 6 months	100 hours of use or every year	150 hours of use or every two years	See page
Rear shield	Check	0						5
Blades	Inspect	0						12
Blade mounting bolts	Inspect	0						12
Engine oil	Check	0						6
	Change		0		O (2)	0	0	13
Air filter	Check	0						
	Clean			O (1)	O (1)	O (1)		13
	Replace						0	
Grass bag	Check	0						6
Blade control operation	Check	0				0		8
Spark plug	Check					0		4.4
	Replace						0	14
Blade control cable	Adjust			0		0		14
Drive clutch cable	Adjust			0		0		14
Throttle cable	Adjust					O (3)		
Idle speed	Adjust					O (3)		
Fuel tank/filter	Clean					O (3)		_
Valve clearance	Check- adjust					O (3)		_
Pinion gears	Grease					O (3)		
Rear wheel adjuster bushings	Inspect- grease						O (3)	—
Fuel lines	Check	Check every 2 years and replace if necessary (3)			_			

(1) Service more frequently when used in dusty areas.

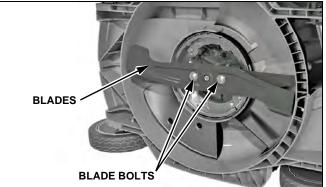
(2) Change engine oil every 25 hours when used under heavy load or in high outside air temperatures.

(3) These items should be serviced by an authorised Honda servicing dealer unless you have the proper tools and are mechanically proficient. Refer to the Honda shop manual for service procedures.

Failure to follow this Maintenance Schedule could result in non-warrantable failures.

Blade Inspection

- 1. Turn the fuel valve OFF (page 3).
- 2. Disconnect the spark plug cap from the spark plug (page 14).
- 3. Tilt the mower to the right side so that the fuel cap side is up. This will help to prevent fuel leakage and hard starting due to carburetor flooding.
- 4. Inspect the blades for damage, cracks, and excessive rust or corrosion.



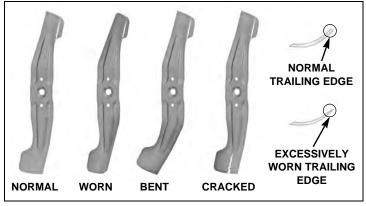
A WARNING

A worn, cracked, or damaged blade can break, and pieces of the damaged blade can become dangerous projectiles.

Thrown objects can cause serious injury.

Inspect the blades regularly, and do not operate the mower with worn or damaged blades.

A dull blade can be sharpened, but a blade that is excessively worn, bent, cracked, heavily rusted, or otherwise damaged must be replaced.



If a blade is bent, take the lawn mower to an authorised Honda servicing dealer for inspection.

Blade Mounting Bolt Inspection

Inspect the blade bolts for any signs of damage or looseness. If they are damaged, they must be replaced.

If they appear loose, a torque wrench must be used to accurately tighten the blade bolts to the required torque. If you do not have a torque wrench, take your lawn mower to an authorised dealer to have the bolts replaced or tightened.

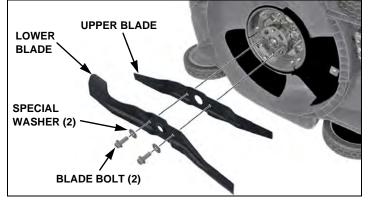
Use only Honda Genuine blade bolts and special washers, since they are specifically designed for this purpose.

Inspect washers and bolt heads for looseness and damage.



Blade Replacement

- 1. Turn the fuel valve OFF (page 3).
- 2. Disconnect the spark plug cap from the spark plug (page 14).
- 3. Tilt the mower to the right side so that the fuel cap side is up. This will help to prevent fuel leakage and hard starting due to carburetor flooding.
- 4. Remove the two blade bolts with a 14 mm (6 point) socket wrench. Use a wooden block to prevent the blades from turning when removing the bolts. Remove the blades.



- 5. Clean dirt and grass from around the blade mounting area.
- Install the sharpened or replacement blades using the two blade bolts and special washers as shown below. Be sure to install the washers in the direction shown.

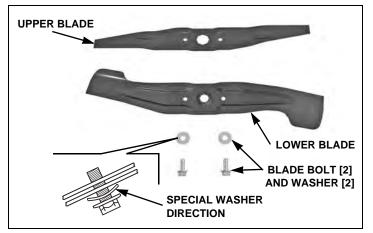
Always install both blades as a set.

The blade bolts and washers are specially designed for this application. When replacing bolts and washers, use only Honda Genuine replacement parts.

A WARNING

Operating the mower with only one blade will result in an improperly seated blade that can be thrown from the mower and seriously hurt or kill someone.

Always install both blades as a set.



7. Tighten the blade bolts with a torque wrench to the specified torque. Use a wooden block to prevent the blades from turning when tightening the bolts, as shown on page 13.

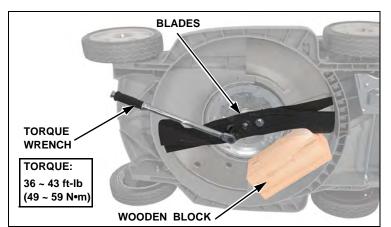
Blade bolt torque: 49 ~ 59 N·m

If you do not have a torque wrench, have an authorised Honda servicing dealer tighten the blade bolts.

A WARNING

If the blade bolts are not torqued properly, the blades could loosen and be thrown from the mower and seriously hurt or kill someone.

Ensure the blade bolts are torqued properly.



Oil Change

Change the oil after the first month or 5 hours of use. Thereafter, change the oil every 6 months or 50 hours of use. Change the oil more frequently when used under heavy load or high outdoor temperatures. See "Engine Oil Recommendations" on this page for recommended oil properties.

Drain the used oil while the engine is warm. Warm oil drains quickly and completely.

To reduce the chance of scratching the side of the mower deck or wheels when tipping, place a piece of cardboard or drop cloth on the ground. The use of a commercially available siphon pump will save time and make the oil change easier.

- 1. Turn the fuel valve OFF (page 3). This will reduce the possibility of fuel leakage
- Wipe the oil filler area clean, and then remove the oil filler cap/dipstick.
- 3. Place a suitable container next to the mower to catch the used oil, and then tilt the mower on its right side.

The used oil will drain through the filler neck. Allow the oil to drain completely.

After draining, take the oil to your local recycling centre or service station. Do not throw it in the trash, pour it on the ground, or pour it down a drain.

4. Fill with the recommended oil. Do not overfill. Allow a couple of minutes for the oil to settle in the engine, and then measure the oil level (page 4).

Refill amount: 0.35 ~ 0.40 litres



Using non detergent oil can shorten the engine's service life, and using 2-stroke oil can damage the engine.



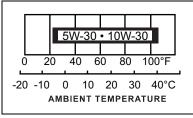


Engine Oil Recommendations

Oil is a major factor affecting performance and service life. Always change the oil in accordance with the *Maintenance Schedule* (page 11).

Recommended oil for general use: SAE 10W-30

Other viscosities shown in the chart may be used when the average temperature in your area is within the recommended range.



The SAE oil viscosity and service category are in the API label on the oil container. Honda recommends API service category SJ or later oil.

Air Filter

Clean the air filter after the first 25 hours of use. Thereafter, clean the filter every 6 months or 50 hours of use. Clean the filter more often when used in dusty areas. Replace the filter every 2 years or 150 hours of use.

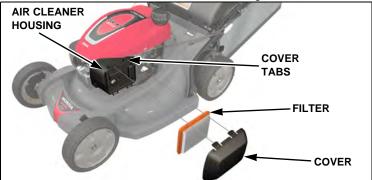
A properly maintained air filter will help prevent dirt from entering your engine. Dirt entering the carburetor can be drawn into small passages in the carburetor and cause premature engine wear. These small passages can become blocked, causing starting or running problems.

NOTICE

Operating the engine without an air filter, with a damaged air filter, or with an improperly installed air filter cover will allow dirt to enter the engine, causing rapid engine wear. This type of damage is not covered by the LIMITED WARRANTY (page 23).

We recommend the use of a Honda Genuine air filter to ensure it seals and performs as designed. Using a non-Honda air filter can result in dirt bypassing the filter, causing damage to the engine or fuel system.

- 1. Press down on the cover tabs and remove the cover.
- 2. Remove the filter from the air cleaner housing.



- 3. Inspect the filter; replace if damaged.
- 4. Clean the filter by tapping it several times on a hard surface to remove dirt, or blow compressed air (not exceeding 207 kPa) through the air filter from the inside. Never try to brush off dirt; brushing will force dirt into the fibers.
- 5. Wipe dirt from the inside of the air cleaner housing and cover using a moist rag. Be careful to prevent dirt from entering the air duct that leads to the carburetor.
- Reinstall the filter and cover. Be sure both tabs are fully locked in place.

Spark Plug

Replace the spark plug every 2 years or after 150 hours of use.

Recommended Spark Plug: NGK - BPR5ES

NOTICE

An incorrect spark plug can cause engine damage.

For good performance, the spark plug must be properly gapped and free of deposits.

- 1. Allow the engine to cool, disconnect the spark plug cap, and remove any dirt from around the spark plug area.
- 2. Remove the spark plug with a 21 mm spark plug wrench.
- Inspect the spark plug. Replace it if the electrodes are worn, or if the insulator is cracked or chipped.
- 4. Measure the spark plug electrode gap with a suitable gauge.

Gap: 0.7 ~ 0.8 mm

Correct the gap, if necessary, by carefully bending the side electrode.

- Install the spark plug carefully, by hand, to avoid cross-threading.
- After the spark plug seats, tighten with a 21 mm spark plug wrench to compress the washer

If reinstalling the old spark

plug, tighten 1/8 to 1/4 turn after the spark plug seats.

If installing a new spark plug, tighten 1/2 turn after the spark plug seats.

Spark plug torque: 20 N·m

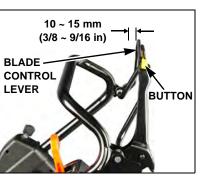
NOTICE

A loose spark plug can overheat and damage the engine. Overtightening the spark plug can damage the threads in the cylinder head.

7. Install the spark plug cap on the spark plug.

Control Cable Adjustments Blade Control Cable Adjustment

 Push the button down on the blade control lever and measure free play at the top of lever. Free play should be 10 ~ 15 mm (3/8 ~ 9/16 in).



- 2. If adjustment is necessary, loosen the lock nuts on the blade control cable with a 10 mm wrench, and move the adjuster up or down as required.Tighten the lock nuts and recheck the free play.
- 3. Start the engine outdoors. Move the throttle to FAST. Operate the blade control lever. The blades should engage when you push the lever forward and the

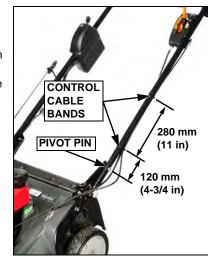


blades should stop quickly when the lever is released.

4. If the blades do not start or stop as they should with the correct cable adjustment, take the mower to an authorised Honda servicing dealer for repair.

Drive Clutch Cable Adjustment

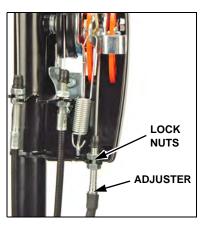
- 1. With the engine stopped, position the control cable bands the distances shown from the handlebar pivot pin as shown. Pull the shift lever all the way back to the neutral position.
- 2. Start the engine and move the throttle lever to the FAST position.
- 3. Engage the drive clutch lever and confirm the following:
 - a. Mower does not self-propel.
 - b. Mower begins to

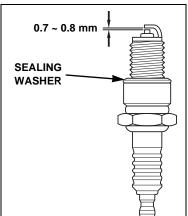


self-propel or creeps very slowly forward when the shift lever is moved one notch forward.

If the mower does not operate as outlined above, go to step 4. If the mower does operate as outlined above, adjustment is not required.

4. Loosen the top and bottom drive clutch cable lock nuts with a 10 mm wrench. Move the adjuster up or down, as required, until the mower operates as outlined in step 3. Tighten the lock nuts. If the mower will not operate correctly, take the mower to an authorised Honda servicing dealer.





SPARK PLUG

SPARK

PLUG CAP

Charging the Battery

The lawn mower engine has an internal charging system. Under normal mowing usage it is not necessary to charge or maintain the battery.

If the mower fails to start or has been stored for an extended period:

- Start the lawn mower using the recoil starter manually for at least one mowing session. This should charge the battery sufficiently to use the electric starter
- If the electric starter does not operate (after manually starting for one mowing session), check the 3 Amp and 30 Amp fuses (shown to the right)
- If the electric starter still does not operate, take the lawn mower to an authorised Honda servicing dealer
- If you prefer, there is an optional AC powered plug-in battery charger available.

Optional Battery Charger

The optional battery charger is available through your Honda servicing dealer, see page 20 for ordering information.

Charge the battery as follows:



Only use a genuine Honda 12 volt charger or equivalent with a maximum rated output less than 1 A.

Do not charge using a standard automotive charger.

- 1. Disconnect the charge port connector on the handle, below the recoil starter rope grip.

BATTERY CHARGER

- ADAPTER HARNESS
- 2. Locate the battery charger adapter harness, and connect the adapter harness into the charge port connector that is closest to the battery.
- 3. Insert the connector on the Honda battery charger into the other end of the adapter harness.

Plug the charger into a standard 120 volt AC power outlet and let the battery charge. The charger may become slightly warm during charging, this is normal.

The float charger can be left connected continuously when the lawn mower is not in use.

Light color	Description
Red light	Charging battery
Green light	Charger is tending battery at 13.6V
No light	Charger unplugged or malfunctioning

After charging the battery, disconnect the adapter harness from the charge port connector, and then firmly reconnect the charge port connectors on the handle together. The adapter harness may be left connected to the battery charger when not in use.

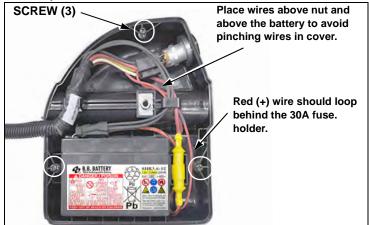


NOTICE

• Battery will not charge properly when the handle is folded and the battery is upside side down.

Replacing the Battery

- 1. Remove the battery cover by removing the three battery cover mounting screws.
- 2. Carefully remove the battery from the box, and then pull the connector away from the terminals.
- 3. Carefully position the battery in the case without pinching the wires. The wires must be routed above the top side of the battery exactly as shown.



Replacing a Fuse

The electric starter circuit and battery are protected by a 30 Amp and 3 Amp fuse. If the 30 Amp fuse burns out, the electric starter will not operate and if the 3 Amp fuse burns out, the battery will not charge. The engine can be started with the recoil starter if either fuse burns out.

- 1. Remove the battery cover by removing the three cover mounting screws.
- 2. The 30 Amp SLO-BLO fuse is for main line protection. The 3 Amp fuse is for the charge line protection.
- 3. Remove and inspect the fuses. If they are burned out, replace with a serviceable fuse.

NOTICE

 The 30 Amp fuse is a "slow blow" fuse design. Do not replace with a standard fuse, or frequent fuse failure may occur.

• Never use a fuse with a rating other than shown. Serious damage to the electrical system or a fire can result.

If a frequent fuse failure occurs, it usually indicates a short circuit or an overload in the electrical system. Take the mower to an authorised Honda servicing dealer for repair.

TRANSPORTING

If the engine has been running, allow it to cool before loading the mower on the transport vehicle. A hot engine and exhaust system can burn you and can ignite some materials.

Turn the fuel valve to the OFF position. This will prevent carburetor flooding and reduce the possibility of fuel leakage.

If installed, remove the grass bag.

If a suitable loading ramp is not available, two people should lift the mower on and off the transport vehicle while holding the mower level.

Position the mower so all four wheels are on the bed of the transport vehicle. Tie the mower down with rope or straps, and block the wheels. Keep the tie-down rope or straps away from the controls, adjustment levers, cables, and the carburetor. Fold the handlebar so the mower will take up less space. See "Handlebar" on page 16.

STORAGE

Proper storage preparation is essential for keeping your lawn mower trouble free and looking good. To help keep rust and corrosion from impairing your lawn mower's function and appearance, and to make the engine easier to start after storage, follow the instructions described in this section to:

- Drain or treat the fuel
- · Change the oil and coat the engine cylinder
- Clean the mower, engine, and grass bag
- Choose a storage location

Fuel

See "AVOIDING FUEL-RELATED PROBLEMS" on page 19 for a list of recommended procedures to avoid fuel related problems.

The *LIMITED WARRANTY* (page 23) does not cover fuel system damage or engine performance problems resulting from neglected storage preparation.

Oil

Change the engine oil (page 13) if planned storage is 3 months or longer or when storing in a high humidity environment.

Add oil in the engine cylinder to prevent corrosion.

- 1. Remove the spark plug (page 14).
- Pour a teaspoon (5 cc) of clean engine oil into the cylinder to keep it from rusting.
- 3. Pull the starter rope several times to distribute the oil in the cylinder.
- 4. Reinstall the spark plug.
- 5. Pull the starter rope slowly until resistance is felt, and then return the starter grip gently. This will close the valves so moisture cannot enter the engine cylinder.



Cleaning Mower Deck

Allow the engine to cool before washing.

Before washing the underside of the mower deck, stop the engine and turn the fuel valve to the OFF position. Rest the mower on its right side, so the fuel cap side is up. This will help to prevent fuel leakage and hard starting due to carburetor flooding. Wear heavy gloves to protect your hands from the blades.

Be careful to avoid getting water into controls and cables.

Engine

Allow the engine to cool, and then wash the engine by hand. Be careful to prevent water from entering the air cleaner and exhaust opening.

NOTICE

Using a garden hose or pressure washing equipment can force water into the air filter. Water in the air cleaner will soak the paper element and can enter the carburetor or engine cylinder, causing damage. Water contacting a hot engine can cause damage. If the engine has been running, allow it to cool before washing.

Grass Bag

Remove the bag from the mower, and wash it with a garden hose or pressure washer. Allow the bag to dry completely before storage.

Drying

After washing the lawn mower, wipe dry all accessible surfaces.

Place the mower with its wheels on a level surface. Start the engine outdoors and let it run until it reaches normal operating temperature to evaporate any water remaining on the engine.

Stop the engine and allow it to cool.

After the lawn mower is clean and dry, touch up any damaged paint, and coat other areas that may rust with a light film of oil.

Storage Location

If your mower will be stored with petrol in the fuel tank and carburetor, it is important to reduce the hazard of petrol vapor ignition. Store the mower in a well-ventilated room away from naked flames such as may be found in hot water heaters, furnaces, or clothes dryers. Also avoid any area with a spark-producing electric motor, or where power tools are operated.

Store fuel in a cool place in a container specifically designed for the purpose. In general, plastics containers are unsuitable.

Make sure the fuel valve is in the OFF position to reduce the possibility of fuel leakage.

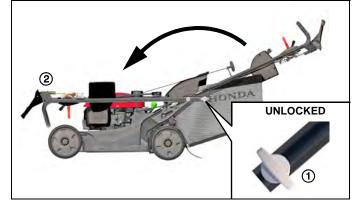
Place the mower with its wheels on a level surface. Tilting can cause fuel or oil leakage.

With the engine and exhaust system cool, cover the mower to keep out dust. A hot engine and exhaust system can ignite or melt some materials. Do not use sheet plastic as a dust cover. A nonporous cover will trap moisture around the mower, promoting rust and corrosion.

Handlebar

Remove the grass bag if installed. You can place it on top of the engine with the bag opening to the front.

- 1. Turn the handlebar adjust knobs 90 degrees to unlock the locating pins ①.
- 2. Fold the handlebar forward ⁽²⁾; do not pinch or kink the cable. Ensure the handlebar control levers clear the front of the engine when folding the handlebar forward.



Removing From Storage

When unfolding the handlebar, be sure to lock the handlebar adjust knobs to secure the handlebar in the mowing position.

Check your mower as described in "BEFORE EACH OPERATION" on page 4.

If the cylinder was coated with oil during storage preparation, the engine may smoke briefly at startup.

TROUBLESHOOTING

Engine Will Not Start

Possible Cause	Correction
Throttle lever in wrong position	Move the throttle lever to the FAST position (page 8).
Starter turns slowly or not at all	 Use the recoil starter for at least one mowing session to allow the battery to charge. Check for blown fuse (page 15).
Fuel valve OFF	Turn the fuel valve ON (page 3).
Out of fuel	Refuel (page 7).
Bad fuel; mower stored without treating petrol, or refueled with bad petrol	Refuel with fresh petrol (page 7).
Spark plug faulty, fouled, or improperly gapped	Gap or replace the spark plug (page 14).
Spark plug wet with fuel (flooded engine)	Dry and reinstall the spark plug.
Fuel filter clogged, carburetor malfunction, ignition malfunction, valves stuck, etc.	Take the mower to an authorised Honda servicing dealer for repair.

Loss of Power

Possible Cause	Correction
Throttle not set to FAST	Move the throttle lever to the FAST position (page 8).
Grass is too tall	Raise the cutting height (page 6), cut a narrower swath, use a slower ground speed, or cut more frequently. Instead of mulching, try rear discharging or bagging.
Mower deck is clogged	Clean out the mower deck (page 16).
Air filter is clogged	Clean or replace the air filter (page 13).
Bad fuel; mower stored without treating petrol, or refueled with bad petrol	Refuel with fresh petrol (page 7).
Fuel filter clogged, carburetor malfunction, ignition malfunction, valves stuck, etc.	Take the mower to an authorised Honda servicing dealer for repair.

Vibration

Possible Cause	Correction
Grass and debris lodged under the mower deck	Clean out the mower deck (page 16).
Blades loose	Tighten loose blade bolts (page 12).

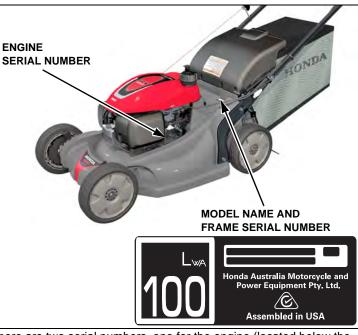
Blades bent, damaged, or unbalanced by improper sharpening	Take the mower to an authorised Honda servicing dealer for repair.
Mechanical damage, such as a bent crankshaft	

Mowing and Bagging Problems

Possible Cause	Correction
Mower is moving too fast for lawn conditions	Move the shift lever toward the SLOW position (page 9).
Cutting height adjustment levers set at different positions	Set all levers at the same cutting height position (page 6).
Grass bag clogged	Wash the grass bag (page 16).
Mower deck is clogged	Clean out the mower deck (page 16).
Blades dull, worn, or damaged	Sharpen or replace the blades if necessary (page 12).
Wrong blades installed	Install correct blades (page 12).

TECHNICAL INFORMATION

Serial Number Locations



There are two serial numbers, one for the engine (located below the fuel valve) and one for the mower frame. Record the engine and frame serial numbers in the space below. You will need these serial numbers when ordering parts and when making technical or warranty inquiries.

Engine serial number: _____

Frame serial number: _____

Date of purchase: _____

High Altitude Operation

At high altitudes, the standard carburetor air-fuel mixture will be too rich. Performance will decrease, and fuel consumption will increase. A very rich mixture will also foul the spark plug and cause hard starting. Operation at an altitude that differs from that at which this engine was certified, for extended periods of time, may increase emissions.

High altitude performance can be improved by specific modifications to the carburetor. If you always operate your lawn mower at altitudes above 610 metres, have your servicing dealer perform this carburetor modification. This engine, when operated at high altitude with the carburetor modifications for high altitude use, will meet each emission standard throughout its useful life.

Even with carburetor modification, engine horsepower will decrease about 3.5% for each 300-metre increase in altitude. The effect of altitude on horsepower will be greater than this if no carburetor modification is made.

NOTICE

When the carburetor has been modified for high altitude operation, the air-fuel mixture will be too lean for low altitude use. Operation at altitudes below 610 metres with a modified carburetor may cause the engine to overheat and result in serious engine damage. For use at low altitudes, have your servicing dealer return the carburetor to original factory specifications.

Specifications

Mower Features

HRX217K6HZU	Honda rotary mower, 530 mm mower deck, self-charging electric start, Clip Director, hydrostatic transmission, blade brake clutch, Auto Choke System
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Dimensions and Weights

Length	1665 mm
Width	588 mm
Overall height *	1122 mm
Dry weight	47.9 kg
Cutting width	530 mm
Cutting heights (7)	19 ~ 101 mm
Grass bag capacity	76 L
Noise level	97 dB(A)

* 32 mm cutting height and handle in highest position

Engine Design and Performance

Model	GCV200
Туре	4-stroke, single-cylinder, air-cooled
Displacement	201 cm ³
Bore and stroke	66.0 x 59.0 mm
Compression ratio	8.0:1
Ignition system	Transistorized magneto

Transmission Design and Performance

Transmission type	Variable speed
Ground speed	0 to 1.60 ~ 1.85 m/s

Maintenance

Fuel	Unleaded petrol with a pump octane rating of 86 or higher containing no more than 10% ethanol by volume Capacity: 0.91 litres See "AVOIDING FUEL-RELATED PROBLEMS" on page 19	page 7
Blade Bolt Torque	49 ~ 59 N∙m	page 12
Engine Oil	SAE 10W-30, API SJ or later Capacity: 0.40 litres Refill amount: 0.35 ~ 0.40 litres*	page 13
Spark Plug	Type: NGK - BPR5ES Gap: 0.7 ~ 0.8 mm	page 14
Maximum Governed Speed	2,950 ~ 3,100 rpm **	Shop manual
Valve clearance (cold)	Intake: 0.10 ± 0.02 mm Exhaust: 0.10 ± 0.02 mm	Shop manual

* Actual amount will vary due to residual oil in the engine. Always use the dipstick to confirm the actual level (page 6).

** Do not over-speed the engine or alter governor settings. Excessive speed is dangerous and shortens mower life.

AVOIDING FUEL-RELATED PROBLEMS

When properly maintained, your Honda lawn mower should provide years of trouble-free operation. This includes the fuel system. However, petrol can quickly deteriorate (in as little as 30 days) causing starting or running problems and, in some cases, damage to the fuel system. Most fuel-related problems can be avoided by following the precautions listed below. Fuel system damage and engine performance problems resulting from deteriorated petrol are not covered by the *Limited Warranty* (see page 23).

Follow These Precautions to Prevent Most Fuel-Related Problems

During the Normal Mowing Season	Reason
Do not use petrol containing more than 10% ethanol (E10). Not all automotive fuel is safe to use in your power product.	Higher levels of ethanol in fuel attract water, and can corrode or damage the fuel system and cause performance problems.
Store fuel in a clean, plastic, sealed container approved for fuel storage. Store your fuel supply container away from direct sunlight; if the container has a vent, keep it closed.	A plastic container eliminates the risk of rust and metallic contaminants from a metal container entering the fuel system. fuel will deteriorate faster when exposed to air and sunlight.
Purchase only enough fuel to last for 1 to 2 months (about 30 to 60 days). If you purchase enough fuel to last for more than 60 days, add a fuel stabilizer to your storage container when you fill it.	Fuel deteriorates with age so try to avoid storing it for long periods, especially in summer heat. Fuel stabilizer will extend the shelf life of fuel, but it will not reconstitute stale fuel.
Keep the lawn mower's fuel tank full of fresh fuel when not in use. Turn the fuel valve OFF.	If the fuel tank is only partially filled, air in the tank will promote fuel deterioration.
Keep the air filter clean and properly serviced. Check it before each use.	A properly maintained air filter will help prevent dirt from entering the carburetor. The small passages inside the carburetor can become blocked.
3 to 4 Weeks Before Next Use	Reason
Keep the lawn mower's fuel tank full of fresh fuel when not in use. Turn the fuel valve OFF.	If the fuel tank is only partially filled, air in the tank will promote fuel deterioration.
Turn the fuel valve to the OFF position, start the engine and let it run approximately 3 minutes until the carburetor is empty and the engine stops.	The small amount of fuel in your engine's carburetor will deteriorate faster than the fuel in the fuel tank due to its small volume and heat from the engine.
1 to 3 Months Before Next Use	Reason
If you did not add fuel stabilizer to your fuel storage container when you filled it up, fill your product's fuel tank with fresh fuel.	If the fuel tank is only partially filled, air in the tank will promote fuel deterioration.
Add fuel stabilizer to the lawn mower's fuel tank according to the stabilizer manufacturer's instructions.	Fuel stabilizer will extend the life of fuel, but it will not reconstitute stale fuel.
Run the engine outdoors for 10 minutes.	This makes sure treated fuel has replaced untreated fuel throughout the fuel system.
Turn the fuel valve to the OFF position, start the engine, and let it run approximately 3 minutes until the carburetor is empty and the engine stops.	The small amount of fuel in your engine's carburetor will deteriorate faster than the fuel in the fuel tank due to its small volume and heat from the engine.
More Than 3 Months Before Next Use	Reason
Start the engine and let it run long enough to empty all the fuel from the entire fuel system, including the fuel tank. Do not allow fuel to remain in your lawn mower's fuel tank for more than 3 months (about 90 days) of inactivity.	All fuel stabilizers have a shelf life. It is good practice to empty the fuel system for long term inactivity.

CUSTOMER INFORMATION

Parts, Accessories, and Service Items

Contact an authorised Honda servicing dealer to purchase any Honda Genuine items for your lawn mower.

Dealer Locator Information

To find an authorised Honda Servicing Dealer anywhere in Australia:

Visit http://dl.hondampe.com.au and click on POWER EQUIPMENT.

How to Contact Honda

Honda Power Equipment dealership personnel are trained professionals. They should be able to answer any question you may have. If you encounter a problem that your dealer does not solve to your satisfaction, please discuss it with the dealership's management. The Service Manager or General Manager can help. Almost all problems are solved in this way.

If you are dissatisfied with the decision made by the dealership's management, contact the Honda Power Equipment Customer Relations Office:

Honda Australia Motorcycle & Power Equipment 1954 Sydney Road, Campbellfield Victoria, Australia 3061

Ph: 1300 559 846 or if calling from a mobile please call (03) 9270 1348

Monday to Friday, 8:00 a.m. - 7:00 p.m. EST

9:00 a.m. ~ 1:00 p.m. Saturday

enquire via weblink: contact.hondampe.com.au email: customer.relations@honda.com.au website: www.hondampe.com.au

When you write or call, please give us this information.

- Model and serial numbers (page 17)
- Name of the dealer who sold the lawn mower to you
- · Name and address of the dealer who services your lawn mower
- Date of purchase
- Your name, address, and telephone number
- A detailed description of the problem

Honda Publications

This publication will give you information for maintaining your lawn mower.

Owner's Manual

Keep this owner's manual handy so you can refer to it at any time. Consider this owner's manual a permanent part of the lawn mower; please give it to the new owner if you resell the lawn mower.

The information and specifications included in this publication were in effect at the time of approval for printing. Honda Motor Co., Inc. reserves the right, however, to discontinue or change specifications or design at any time without notice and without incurring any obligation whatever. No part of this publication may be reproduced without written permission.

SERVICE RECORD

Here is an easy way to keep track of the hours your Honda lawn mower has done. Record how many hours you get from a tank of fuel, and then simply record the number of tanks used. TANK x HOURS per TANK = TOTAL HOURS USE. (Refer to the Maintenance Schedule on page 11).

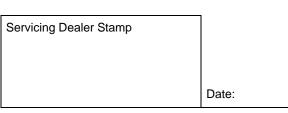
1st 25 Hour Service

1st Month or 5 Hour Service

Date	Notes
	Date

Hours Use (Tanks x Hrs/Tank)	Date	Notes

Servicing Dealer Stamp	
	Date:



Every 6 Months or 50 Hour Service

Date	Notes
	Date

(Tanks x Hrs/Tank)	

Servicing Dealer Stamp		Servicing Dealer Stamp	
	Date:		Date:

Every year or 100 Hour Service

Date

Notes

Hours Use

Service Record

Here is an easy way to keep track of the hours your Honda lawn mower has done. Record how many hours you get from a tank of fuel, and then simply record the number of tanks used. TANK x HOURS per TANK = TOTAL HOURS USE. (Refer to the Maintenance Schedule on page 11).

Every 2 years or 150 Hour Service

Date	Notes
	Date

Servicing Dealer Stamp	
	Date:

Next Service

Hours Use (Tanks x Hrs/Tank)	Date	Notes

Servicing Dealer Stamp	
	Date:

Next Service

Hours Use (Tanks x Hrs/Tank)	Date	Notes

Servicing Dealer Stamp	
	Date:

Next Service

Hours Use (Tanks x Hrs/Tank)	Date	Notes

Servicing Dealer Stamp	
	Date:

LIMITED WARRANTY

Honda Power Equipment

This warranty is limited to the following Honda Power Equipment products when distributed by Honda Motor Co., Inc., Power Equipment Division.

PRODUCTS COVERED BY THIS WARRANTY	LENGTH OF WARRANTY (from date of original retail purchase)	
	PRIVATE RESIDENTIAL ⁽¹⁾	COMMERCIAL/RENTAL/ INSTITUTIONAL
HRX Mower and deck	24 months	3 months

(1) Private residential: Used in maintaining owner's primary and/or secondary residence. Any other use, including but not limited to informal "for hire" use, is considered commercial/rental/institutional use.

To Qualify for This Warranty:

The product must be purchased in Australia from a dealer authorised by Honda to sell those products. This warranty applies to first retail purchaser and each subsequent owner during the applicable warranty time period, unless noted otherwise.

What Honda Will Repair or Replace Under Warranty:

Honda will repair or replace, at its option, any part that is proven to be defective in material or workmanship under normal use during the applicable warranty time period. Warranty repairs and replacements will be made without charge for parts or labor. Anything replaced under warranty becomes the property of Honda Motor Company, Inc. All parts replaced under warranty will be considered as part of the original product, and any warranty on those parts will expire coincident with the original product warranty.

To Obtain Warranty Service:

You must, at your expense, take the Honda Power Equipment product, and proof of purchase to any Honda Power Equipment dealer in Australia who is authorised to sell and/or service that product, during the dealer's normal business hours. To locate a dealer near you, visit our web site at http://dl.hondampe.com.au and click on POWER EQUIPMENT.

If you are unable to obtain warranty service or are dissatisfied with the warranty service you receive, contact the owner of the dealership involved;

normally this will resolve the problem. However, if you should require further assistance, write or call the Power Equipment Customer Relations Department of Honda Motor Co., Inc. See "How to Contact Honda" on page 20.

Exclusions:

- 1. Any damage or deterioration resulting from the following:
- Neglect of the periodic maintenance as specified in this manual
- Improper repair or maintenance
- Operating methods other than those indicated in this manual
- The use of non-genuine Honda parts, accessories, lubricants, and fluids other than those approved by Honda
- Exposure of the product to soot and smoke, chemical agents, bird droppings, sea water, sea breeze, salt or other environmental phenomena
- Collision, fuel contamination or deterioration, neglect, unauthorised alteration, misuse, incorporation or use of unsuitable attachments or parts
- Normal wear and tear (including, but not limited to, normal fading of painted or plated surfaces, sheet peeling, and other natural deterioration)
- 2. Consumable parts: Honda does not warrant parts deterioration due to normal wear and tear. The following parts are not covered by warranty (unless they are needed as a part of another warranted repair): spark plug, fuel filter, air cleaner element, clutch disc, tyre, wheel bearing, recoil starter rope, cable, belt, cutter blade, oil, and grease.
- Cleaning, adjustment, and normal periodic maintenance work (carburetor cleaning, engine oil draining, blade sharpening, belt and cable adjustments).
- 4. Any product that has ever been declared a total loss or sold for salvage by a financial institution or insurer.
- Auger and paddle assemblies of snow throwers, tiller tines of roto-tillers, mower blades and mower deck housings, are specifically not warranted against impact damage, including but not limited to, abrasive damage.

Disclaimer of Consequential Damage and Limitation of Implied Warranties:

Honda disclaims any responsibility for loss of time or use of the product, transportation, commercial loss, or any other incidental or consequential damage. Any implied warranties are limited to the duration of this written limited warranty. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions and limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Honda Parts, Accessories, and Apparel

What Honda Will Repair or Replace Under Warranty:

Honda will repair or replace, at its option, any Honda Power Equipment parts, accessories, replacement parts, or apparel that are proven to be defective in material or workmanship under normal use during the applicable warranty time period. Anything replaced under warranty becomes the property of Honda Motor Company, Inc. The warranty on all parts, accessories, and apparel replaced under warranty will expire coincident with the original warranty on the replaced parts, accessories, or apparel. Parts and accessories installed by a dealer who is authorised by Honda to sell them will be repaired or replaced under warranty without charge for parts or labor. If installed by anyone else, parts and accessories will be the responsibility of the purchaser.

To Obtain Warranty Service:

You must, at your expense, take the Honda Power Equipment product, and proof of purchase to any Honda Power Equipment dealer in Australia who is authorised to sell and/or service that product, during the dealer's normal business hours. To locate a dealer near you, visit our web site at http://dl.hondampe.com.au and click on POWER EQUIPMENT.

Exclusions:

This warranty does not extend to parts, accessories, or apparel affected or damaged by collision, normal wear, use in an application for which the product was not designed or any other misuse, neglect, incorporation or use of unsuitable attachments or parts, unauthorised alteration, improper installation, or any causes other than defects in material or workmanship of the product. Installing parts and accessories on non-Honda products or engines voids this warranty.

Disclaimer of Consequential Damage and Limitation of Implied Warranties:

Honda disclaims any responsibility for loss of time or use of the product, or the power equipment on which the product is installed, transportation, commercial loss, or any other incidental or consequential damage. Any implied warranties are limited to the duration of this written warranty. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions and limitations may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. PWL50623-AUS



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