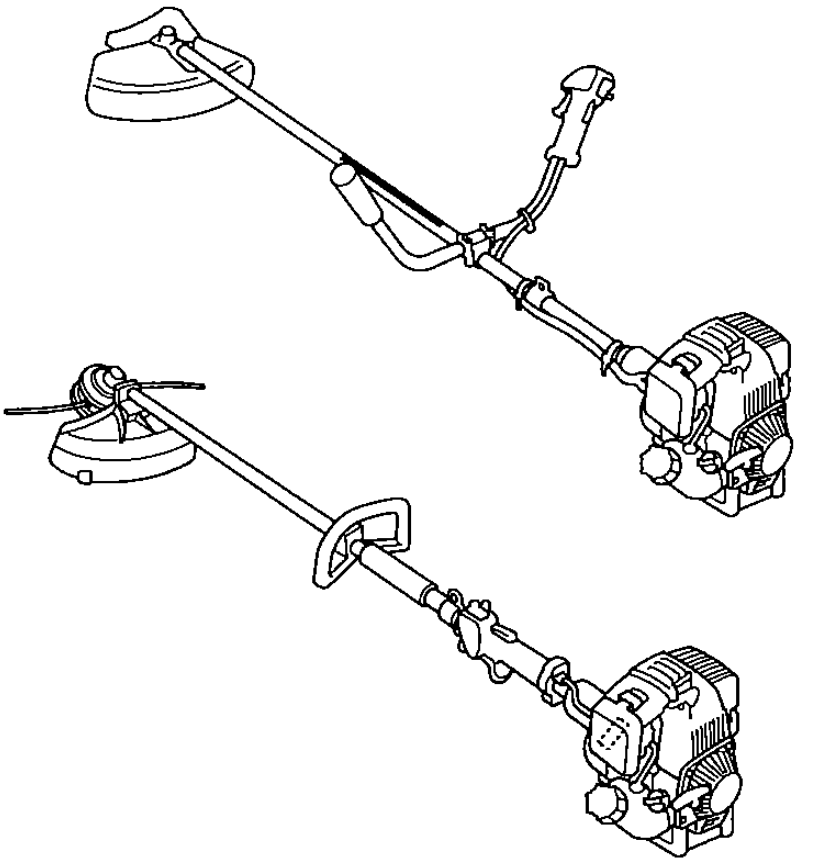
HONDA
POWER EQUIPMENT

Grass / Weed Trimmer
UMK422 - UMK431



OWNER'S MANUAL
MANUEL DE L'UTILISATEUR
BEDIENUNGSANLIETUNG

K1

HONDA UMK422/UMK431

OWNER'S MANUAL

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INTRODUCTION

Thank you for purchasing a Honda grass/weed trimmer.

This manual covers the operation and maintenance of the Honda GRASS/WEED TRIMMER UMK422/UMK431.

Honda Motor Co., Ltd. reserves the right to make changes at any time without notice and without incurring any obligation.

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This manual should be considered a permanent part of the grass/weed trimmer and should remain with it if it is resold.

Pay special attention to statements preceded by the following words;

⚠WARNING Indicates a strong possibility of severe personal injury or death if instructions are not followed.

CAUTION: Indicates a possibility of personal injury or equipment damage if instructions are not followed.

NOTE: Gives helpful information.

If a problem should arise, or if you have any questions about the grass/weed trimmer, consult an authorized Honda dealer.

Honda grass/weed trimmers are designed to give safe and dependable service if operated according to instructions.

⚠WARNING Operating a grass/weed trimmer requires special effort to ensure the safety of the operator and the safety of others. Read and understand this Owner's Manual before operating the grass/weed trimmer; failure to do so could result in personal injury or equipment damage.

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- **The illustrations may vary according to the type.**

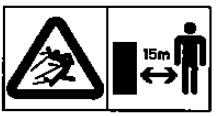
⚠ WARNING

To ensure safe operation

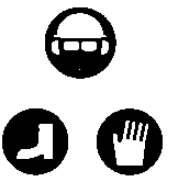
For your safety and safety of others, pay special attention to these precautions:



- **Honda grass/weed trimmer is designed to give safe and dependable service if operated according to instructions. Read and understand the Owner's Manual before operating the grass/weed trimmer. Failure to do so could result in personal injury or equipment damage.**



- **Keep all persons and pets away from the grass/weed trimmer operating area.**
- **To prevent accidental contacts with the wheeling cutting attachment (nylon-line cutting head, cutting blade or saw blade) or thrown objects from the wheeling cutting attachment, keep people and pets at least 15 m (50 ft.) away from the grass/weed trimmer when it is in use.**



- **Wear eye protection, helmet and other protective devices to protect your eyes and body from all objects (gravel, glass, wire, etc.) thrown by the wheeling cutting attachment.**

⚠WARNING

To ensure safe operation

Operator Responsibility

- Any part from the machine is a potential source of danger if the machine is used in abnormal conditions or if the maintenance is not done correctly.
- Read the owner's manual carefully. Be familiar with the controls and their proper use of the grass/weed trimmer. Know how to stop the engine rapidly, and how to unhook a harnessed grass/weed trimmer quickly.
- Use the grass/weed trimmer for the purpose it is intended for, that is trimming. Any other use could be dangerous or damage the grass/weed trimmer. Do not use the grass/weed trimmer as a pruning hook.
- Never allow children or people unfamiliar with this owner's manual to use the grass/weed trimmer. Local regulations may restrict the age of the operator.
- If you lend or resell your grass/weed trimmer to a third person, instruct him or her with how to handle the product and alert him or her to read the Owner's Manual carefully before operation.
- Never operate the grass/weed trimmer while:
  — people, especially children or pets are nearby.
  — user is fatigued or under medication, or has swallowed substances known to affect judgement or reactions.
- Keep people and pets at least 15 m (50 ft.) away from the operator during operation. Note that an assistant to the operator should work at least 15 m (50 ft.) away from the operator, too. We recommend to decide the engine stop signal and other signals between the operator and assistant, and use them for safety during operation.
- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

⚠ WARNING

To ensure safe operation

Operator Responsibility

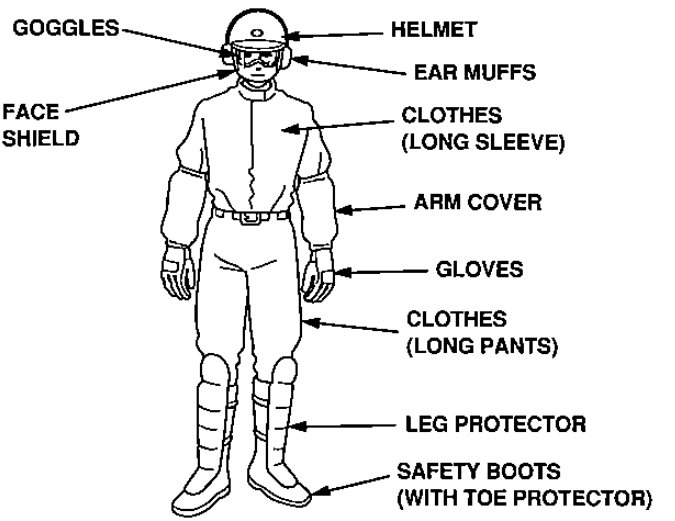
- While operating the grass/weed trimmer, always wear following protective clothing and protective devices.
  — Protective clothing
  Wear adequate clothes with long sleeves and long pants.
  The clothes must fit your body and button up or zip up the clothes securely. Do not leave the sleeves and bottom of the shirt/jacket loose. Wear the arm covers, too.
  Do not wear the clothes with the tapes, laces and/or ribbons, loose clothes, necktie, necklace, etc. during operation. They can be caught in the grass/weed trimmer or on the weed causing injury. Bind your hair if it is long, and do not let your hair below your shoulder.
  — Protective devices
  * Goggles
    Wear the goggles or other eye protection to protect your eyes from the debris that is thrown by the wheeling cutting attachment (nylon-line cutting head, cutting blade or saw blade).
  * Helmet
    Wear the helmet to protect your head from the overhead branches and the falling foreign material.
  * Face shield
    Wear face shield to protect your face from the debris thrown by the wheeling cutting attachment.
  * Ear muffs/ear plugs
    Wear the ear muff, ear plugs or other hearing protection to protect your ears from the noise.
  * Gloves
    Wear the gloves to protect your hands.

⚠WARNING

To ensure safe operation

Operator Responsibility

* Safety boots
  Wear the safety boots with the non-slip sole and toe protector to protect your feet from the flying debris.
  Do not operate the equipment when barefoot or wearing open sandals.
  Wear the leg protectors as well.
* Dust mask
  We recommend that you wear the dust mask if you suffer from the allergic rhinitis, e.g. pollinosis, etc. The dust mask is available at a pharmacy and it is helpful for reducing the amount of pollens you breathe.



- Before each use, visually inspect the grass/weed trimmer including a cutting attachment for any damage and looseness of fastening part.
- Avoid operating the grass/weed trimmer at night or in a bad weather of poor visibility, because there is much possibility of accident.
- Walk, never run during operation.
- Avoid operating the grass/weed trimmer on a steep slope.
  The steep slope is very slippery, so you can slip down.

⚠ WARNING

To ensure safe operation

Operator Responsibility

- Do not operate the grass/weed trimmer with the debris shield, labels, and other parts removed.
  Note that the debris shield is provided for protection of the operator from the debris that are thrown from the wheeling cutting attachment (nylon-line cutting head, cutting blade or saw blade). Never operate the grass/weed trimmer with the debris shield removed or before installing the debris shield in the proper position securely.
- Do not mount an incorrect part and do not tamper with the grass/weed trimmer as it can result in personal injury and/or equipment damage. Use the cutting attachment that is designated for your model and application.
- Do not change the engine governor settings or overspeed the engine.
- Before cranking the engine, be sure to check the cutting attachment cannot come into contact with the ground or any obstruction.
- Start the engine carefully according to instructions and with hands and feet well away from the cutting attachment.
- Start the grass/weed trimmer on a level surface, free of high grass or obstacle.
- Do not raise the cutting attachment above your knee height during operation. You can be hit by the debris thrown by the wheeling cutting attachment in your eyes and face causing injury.
- Never carry the grass/weed trimmer while the cutting attachment is turning. Before you carry the grass/weed trimmer, be sure to stop the engine and confirm the cutting attachment stops its turning. If a cutting or saw blade is used, cover the blade with the protective plastic cover while carrying the trimmer.

⚠WARNING

To ensure safe operation

Operator Responsibility

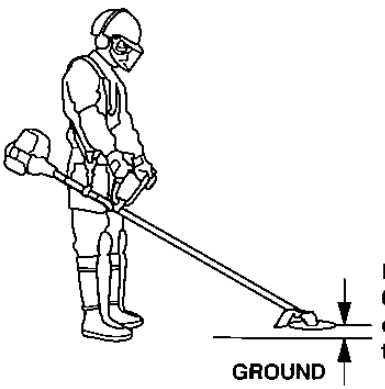
- Stop the engine and disconnect the spark plug cap in the following cases:
  — Before any operation around the cutting attachment (nylon-line cutting head, cutting blade or saw blade).
  — Before checking, cleaning or working on the grass/weed trimmer.
  — After striking a foreign object. Inspect the grass/weed trimmer for damage and make repairs before restarting and operating the grass/weed trimmer again.
  — If grass/weed trimmer starts to vibrate abnormally. Check immediately the cause of the vibration and perform the necessary repair.
- Stop the engine in the following caces:
  — Whenever you leave the grass/weed trimmer unattended.
  — Before refuelling.
  — When any person or pet is approaching.
  — Shut off the engine immediately when the grass/weed trimmer shows abnormal vibration suddenly. Sudden vibration can suggest the damaged rotating parts or loose fasteners. Examine the cause of the problem, and do not start the engine before repair is made.
  — When wires catch on the wheeling cutting attachment and flap around. Remove the wires after the cutting attachment has stopped turning.
  — Before placing the grass/weed trimmer on the ground, make sure the cutting attachment stops turning as well.
  Note that the cutting attachment is turning by inertia right after returning the throttle trigger and while the engine is idling.
- The grass/weed trimmer is faulty when the engine is idling by returning the throttle but the cutting attachment keeps turning, and idle speed adjustment must be made. Consult your authorized Honda dealer.
- Keep all nuts, bolts and screws tight to be sure the grass/weed trimmer is in safe working condition. Regular maintenance is an essential aid to user's safety and retaining a high level of performance.
- Do not use the grass/weed trimmer with worn or damaged parts. Parts must be replaced, or repaired. Replace worn or damaged parts with HONDA genuine parts. Non equivalent quality parts may damage the machine and be prejudicial to your safety.

⚠ WARNING

To ensure safe operation

Operator Responsibility

- Adjust the holding position of your grass/weed trimmer.
  Be sure to adjust the holding position with the engine stopped. Adjust the carrying harness so that the quick-release latch is positioned at your right hip. Hook the grass/weed trimmer to the carrying harness. Adjust the carrying harness length so that the cutting attachment is parallel to the ground and stays above the ground keeping the clearance specified below. Note that it might be hard to hold the grass/weed trimmer in the correct position if you are very tall. Do not operate the grass/weed trimmer if the cutting attachment is close to your feet when you hold the grass/weed trimmer at the correct position.
- Check the balance of the grass/weed trimmer between its front and rear sides for proper control and less fatigue.
  Hold the grass/weed trimmer at the correct position as described above. Slacken your grip on the handle gradually. Do not release but put your hands lightly on the handle and check that the cutting attachment-to-ground clearance does not change large this time.
  Balancing adjustment is necessary if the cutting attachment rises above your knees. Do not operate the grass/weed trimmer without the balancing adjustment.



Parallel to the ground and 0 – 30 cm (0 – 11.8 in.) for the nylon-line cutting head and 10 – 30 cm (3.9 – 11.8 in.) for the cutting/saw blade clear of the ground.

- Hold the grass/weed trimmer firmly with your both hands during operation to keep the trimmer under control at all times.

⚠WARNING

To ensure safe operation

Operator Responsibility

- Injury caused by vibration and cold:
  You may feel the prickling or burning pain in your fingers, and the fingers may lose color and feeling depending on your constitution. It is believed that these symptoms are brought by vibration and/or exposure to cold. The specific trigger point of these symptoms are not identified yet, but observe the following instructions.
  * Limit the amount of time you spend operating the grass/weed trimmer in a day.
    A day's work should consist of the work with the grass/weed trimmer and the other work without the hand-held equipment so you can limit the amount of time when your hands are exposed to the machine vibration.
  * Keep your body warm, especially your hands, wrists and arms.
  * Take your breaks at shorter intervals and arm exercises well to maintain good blood circulation. Do not smoke while working.
  * When you feel discomfort, redness and swelling of the fingers followed by whitening and loss of feeling, consult your doctor promptly.
- Injury caused by repeated operation:
  Performing the repeated operation for a prolonged time may cause injury. Observe the following instructions to reduce the causes of the injury.
  * Avoid the repeated operation by using your wrist(s) in bent, stretched or twisted position.
  * Take your breaks regularly to minimize the effect of the repeated operation. Take your time when performing the repeated operation. Do not rush to operate the grass/weed trimmer.
  * When your fingers, hands, wrists and/or arms are throbbing or numbed, consult your doctor.

⚠ WARNING

To ensure safe operation

Child Safety

- Keep children indoors and supervised at all times any outdoor power grass/ weed trimmer is being used nearby. Young children move quickly and are attracted especially to the grass/weed trimmer and trimming activity.
- Never assume children will remain where you last saw them. Be alert and turn the grass/weed trimmer off if children enter the area.
- Children should never be allowed to operate the grass/weed trimmer, even under adult supervision.

Thrown Object Hazard

Objects hit by the wheeling cutting attachment (nylon-line cutting head, cutting blade or saw blade) can be thrown from the grass/weed trimmer with great force, and may cause serious injury.

- Thoroughly inspect the area where the grass/weed trimmer is to be used and remove all objects (stones, branches, wires, bones, etc...) which may be thrown by the wheeling cutting attachment.

⚠ WARNING

To ensure safe operation

Fire and Burn Hazard

Gasoline is extremely flammable, and gasoline vapor can explode.
Use extreme care when handling gasoline. Keep gasoline out of reach of children.

- Store fuel in containers specifically designed for this purpose.
- Refuel outdoors only, and do not smoke while refuelling or handling fuel.
- Add fuel before starting the enging. Never remove the cap of the fuel tank or add petrol while the engine is running or when the engine is hot.
- If gasoline is spilled, do not attempt to start the engine but move the grass/ weed trimmer away from the area of spillage and avoid creating any source of ignition until gasoline vapours have dissipated.
- Tighten all fuel tanks and container caps securely.
- When you start the engine after refueling, be sure to start the engine at least 3 m (3.2 ft.) away from the refueling spot.
- Never store the grass/weed trimmer with gasoline in the tank inside a building where fumes may reach an open flame, spark or high temperature source.
- Allow the engine to cool before storing in any enclosure.
- To reduce the fire hazard, keep the grass/weed trimmer, especially the engine, muffler, the gasoline storage area as well, free of grass, leaves, or excessive grease.
  Do not leave containers of vegetable matters in or near a building.
- If the fuel tank has to be drained, this should be done outdoors, with a cold engine.

⚠WARNING

To ensure safe operation

Carbon Monoxide Poisoning Hazard

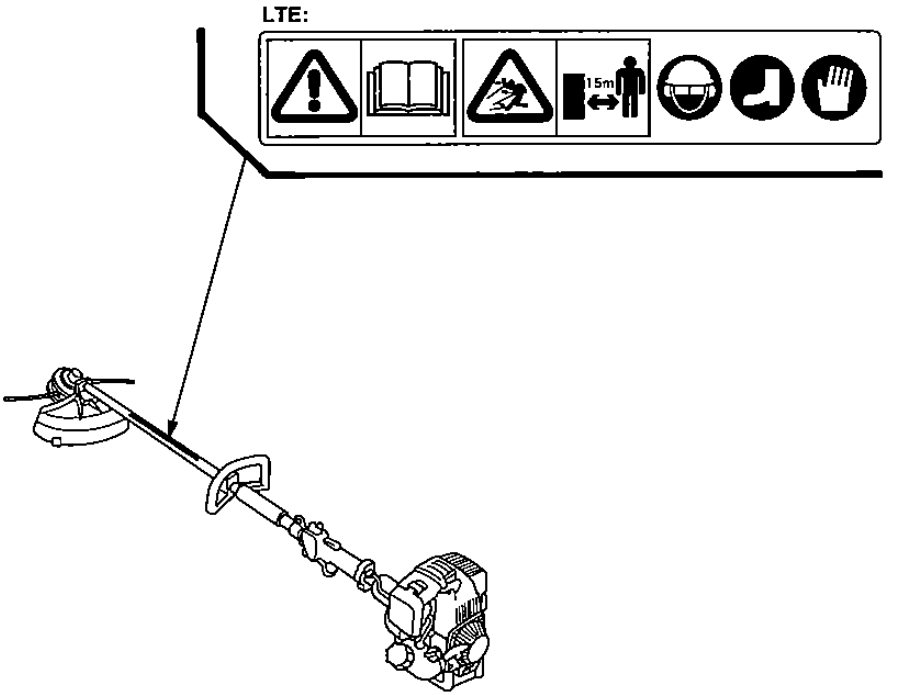
Exhaust contains poisonous carbon monoxide, a colorless and odorless gas. Breathing exhaust can cause loss of consciousness and may lead to death.

- If you run the engine in an area that is confined or even partially enclosed, the air you breathe could contain a dangerous amount of exhaust gas. To keep exhaust gas from building up, provide adequate ventilation.
- Replace faulty muffler.
- Do not operate the engine in a confined space where dangerous carbon monoxide fumes can collect.

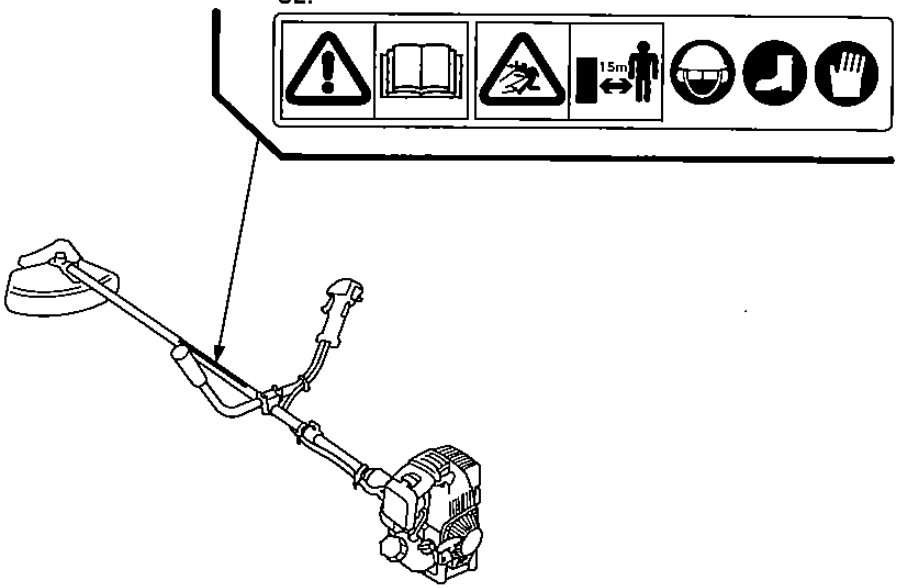
2. SAFETY LABEL LOCATIONS

Your grass/weed trimmer must be used with care. Therefore, decals have been placed on the machine, to remind you pictorially of main precautions to take during use. Their meanings are explained on page 3.

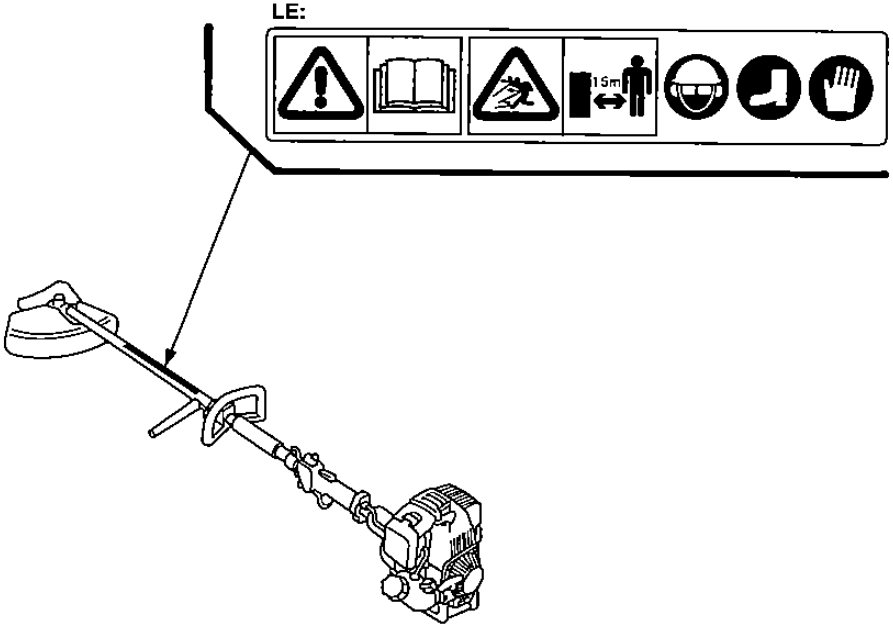
These decals are considered as a part of the grass/weed trimmer. Should one become detached or unreadable, contact your Honda dealer for its replacement.



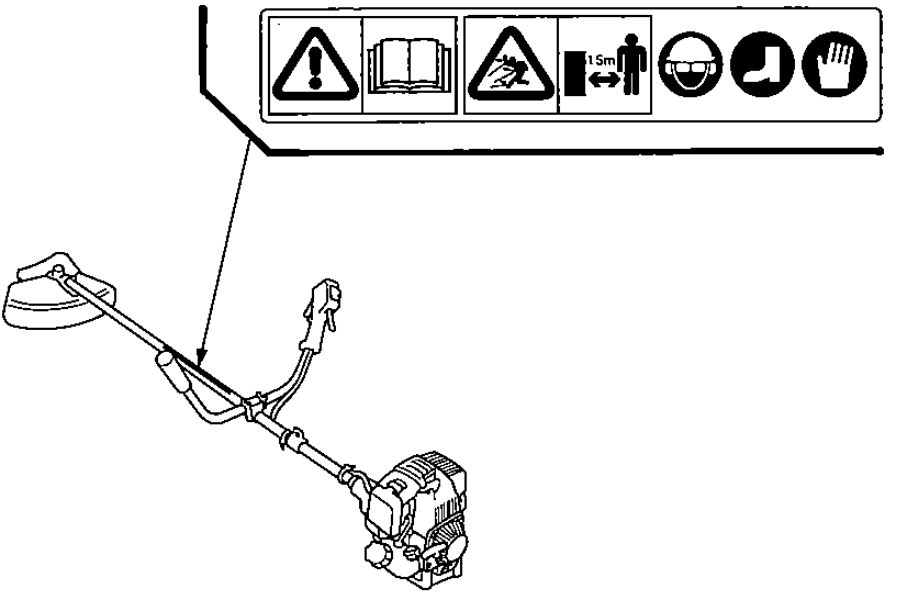
UE:



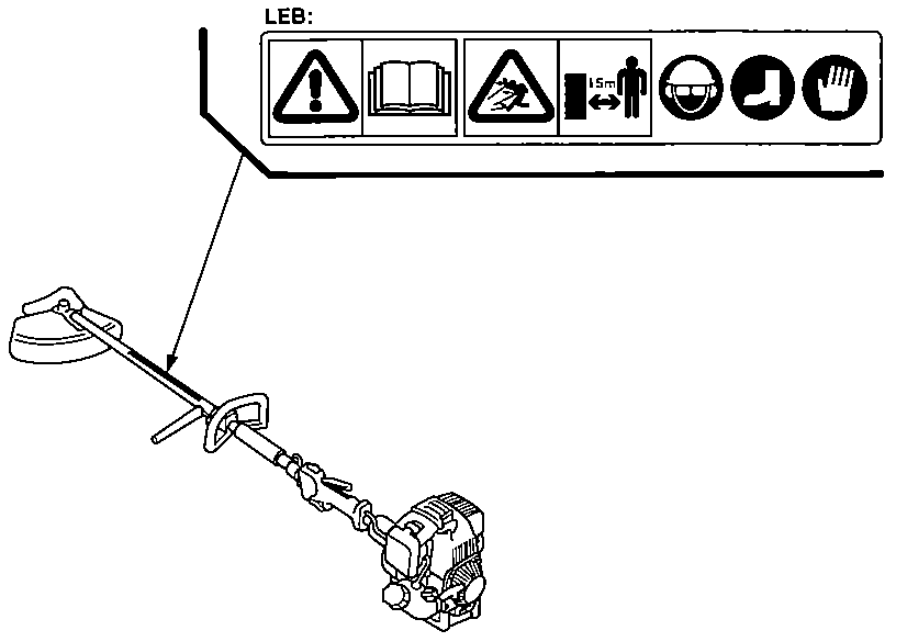
LE:



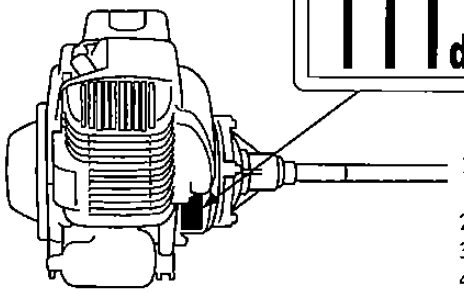
UEB:

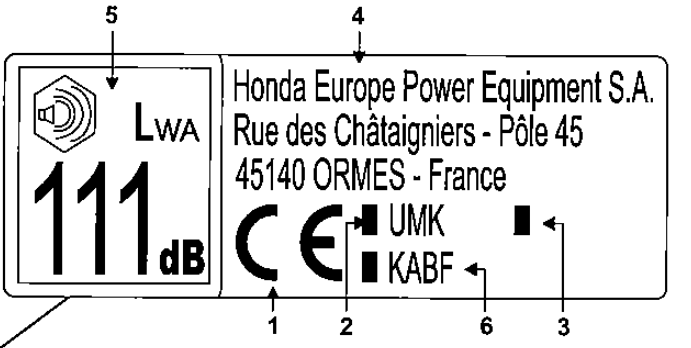


LEB:



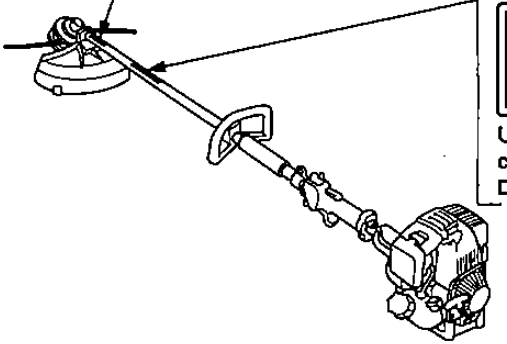
CE mark location

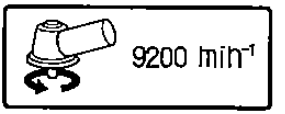




1. conformity mark, according to the 89/392/CEE modified Directive
2. Model and type
3. Year of manufacture
4. Name and adresse of the manufacturer
5. Acoustic power level according to the directive 2000/14/EC
6. Serial number

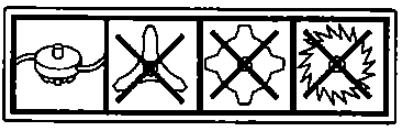
Blade label





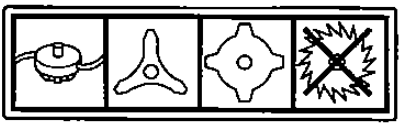
Maximum transmission shaft roration speed.

LTE:



The trimmer is to be operated with a nylon line cutting head only.

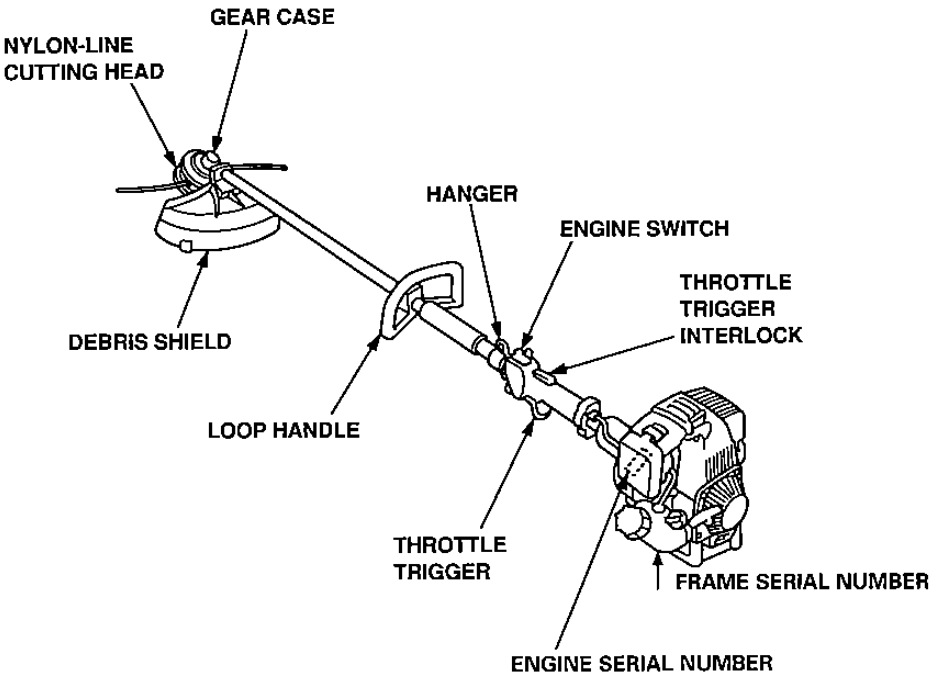
LE & LEB:



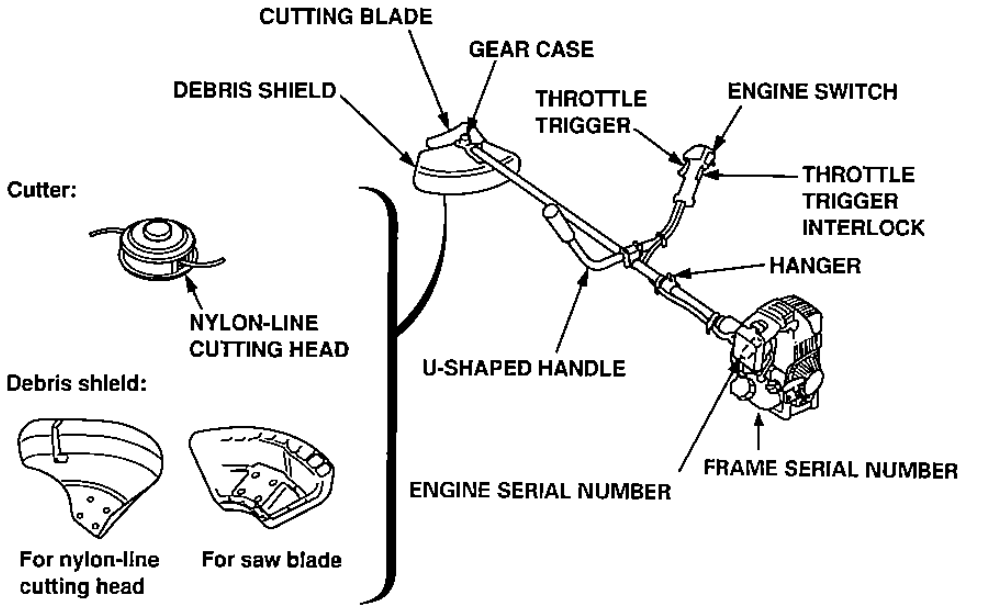
Use the brush cutter with a nylon line type cutting head or plastic or metal blades only. Do not use circular saw blades.

3. COMPONENT IDENTIFICATION

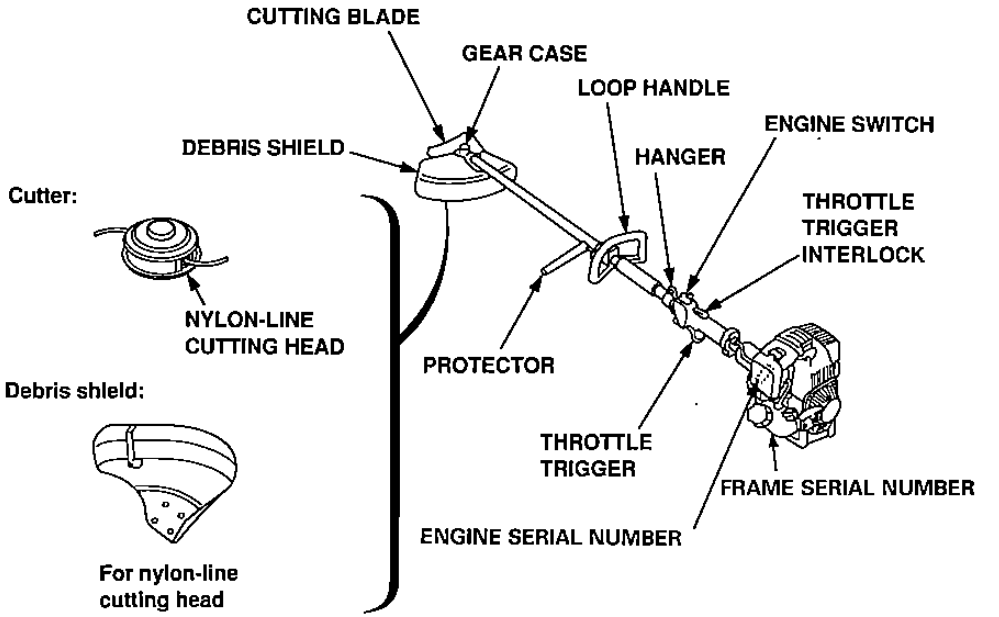
LTE:



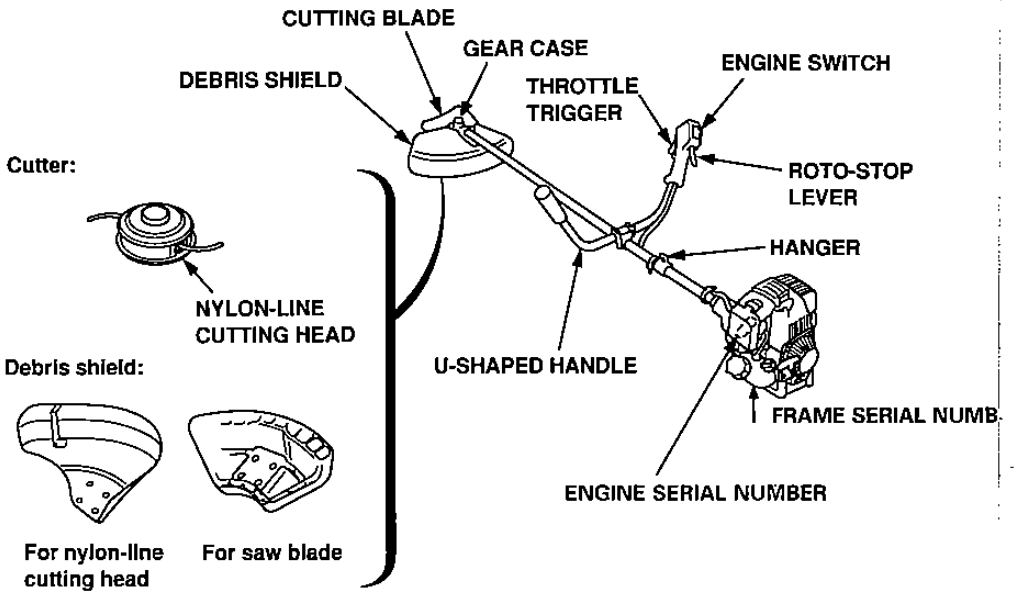
UE:


CUTTING BLADE
GEAR CASE
DEBRIS SHIELD
THROTTLE TRIGGER
ENGINE SWITCH
THROTTLE TRIGGER INTERLOCK
HANGER
Cutter:
NYLON-LINE CUTTING HEAD
U-SHAPED HANDLE
Debris shield:
For nylon-line cutting head
For saw blade
ENGINE SERIAL NUMBER
FRAME SERIAL NUMBER

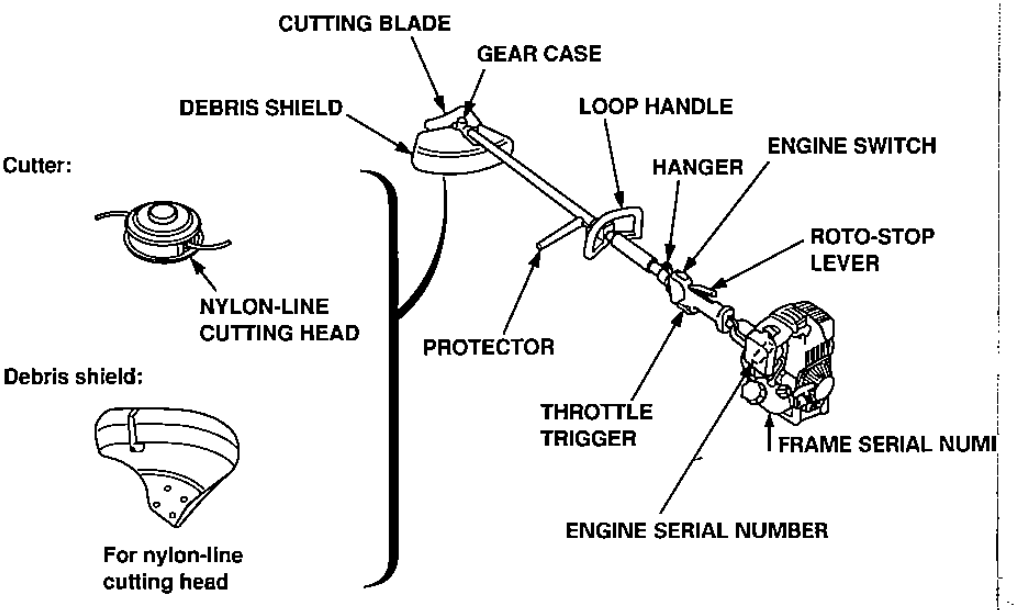
LE:

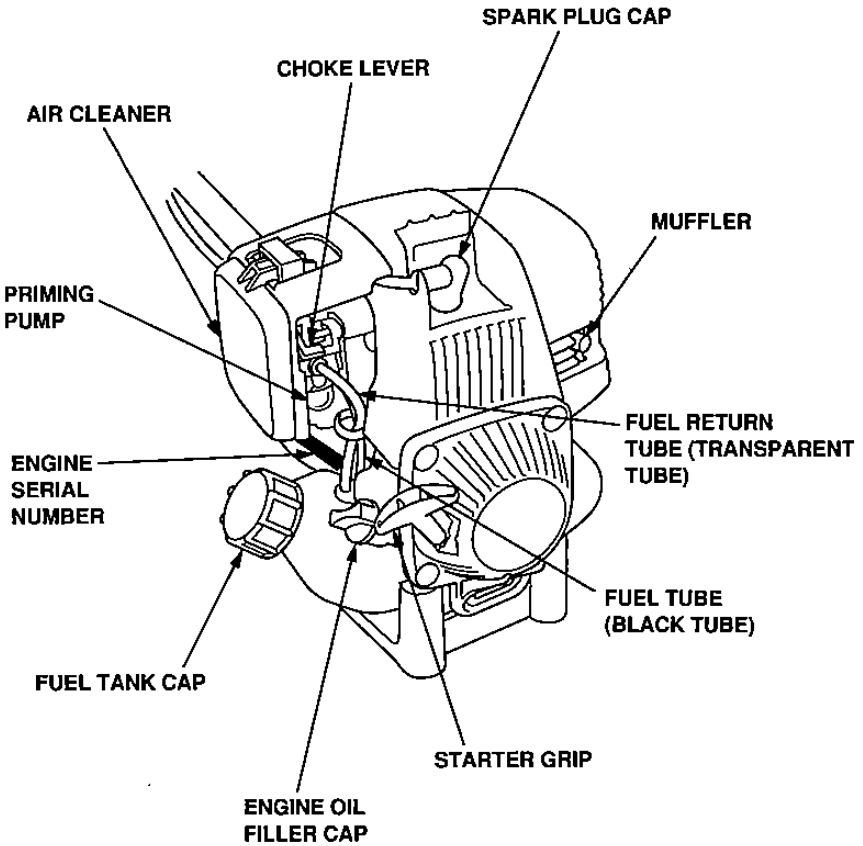

CUTTING BLADE
GEAR CASE
LOOP HANDLE
ENGINE SWITCH
DEBRIS SHIELD
HANGER
THROTTLE TRIGGER INTERLOCK
Cutter:
NYLON-LINE CUTTING HEAD
PROTECTOR
Debris shield:
THROTTLE TRIGGER
FRAME SERIAL NUMBER
ENGINE SERIAL NUMBER
For nylon-line cutting head

UEB:


CUTTING BLADE
GEAR CASE
DEBRIS SHIELD
THROTTLE TRIGGER
ENGINE SWITCH
Cutter:
ROTO-STOP LEVER
HANGER
NYLON-LINE CUTTING HEAD
U-SHAPED HANDLE
Debris shield:
FRAME SERIAL NUMB
ENGINE SERIAL NUMBER
For nylon-line cutting head
For saw blade

LEB:


CUTTING BLADE
GEAR CASE
DEBRIS SHIELD
LOOP HANDLE
ENGINE SWITCH
Cutter:
HANGER
ROTO-STOP LEVER
NYLON-LINE CUTTING HEAD
PROTECTOR
Debris shield:
THROTTLE TRIGGER
FRAME SERIAL NUMI
ENGINE SERIAL NUMBER
For nylon-line cutting head


SPARK PLUG CAP
CHOKE LEVER
AIR CLEANER
MUFFLER
PRIMING PUMP
FUEL RETURN TUBE (TRANSPARENT TUBE)
ENGINE SERIAL NUMBER
FUEL TUBE (BLACK TUBE)
FUEL TANK CAP
STARTER GRIP
ENGINE OIL FILLER CAP

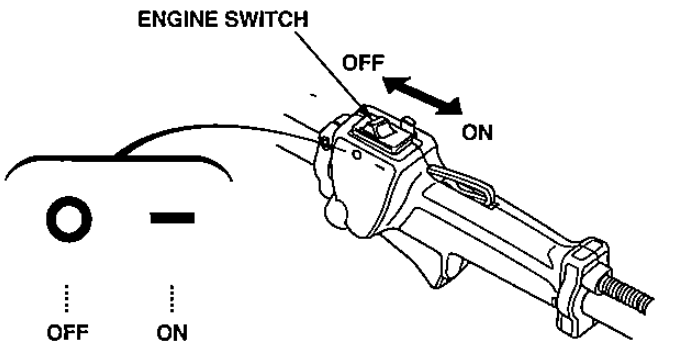
1. Engine switch

The engine switch enables and disables the ignition system.

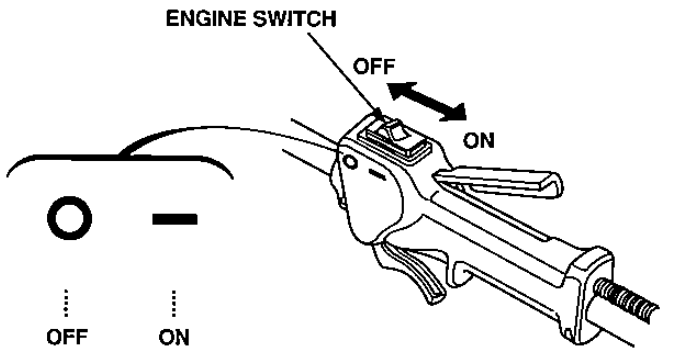
The engine switch must be in the ON position for the engine to run.

Turning the engine switch to the OFF position stops the engine.

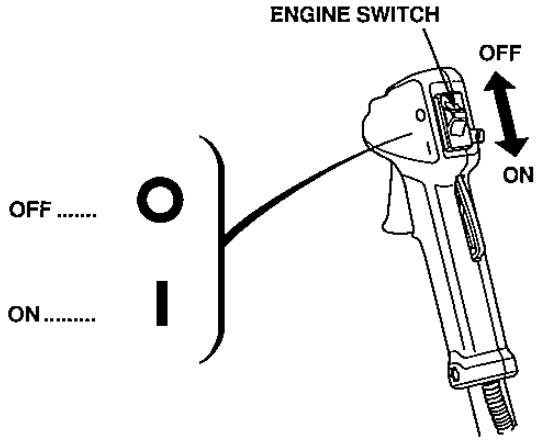
Loop handle type (LTE and LE):



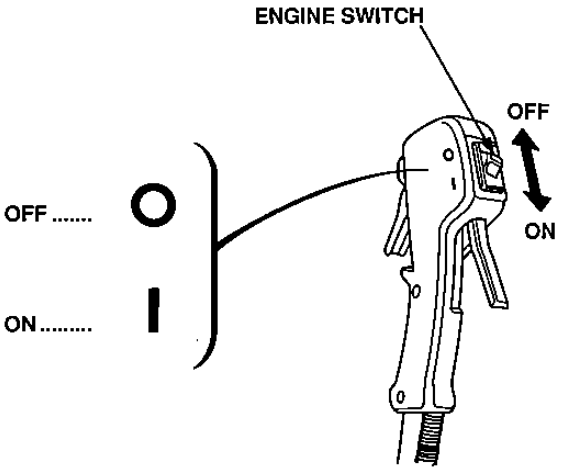
Loop handle type (LEB):



U-shaped handle type (UE):



U-shaped handle type (UEB):

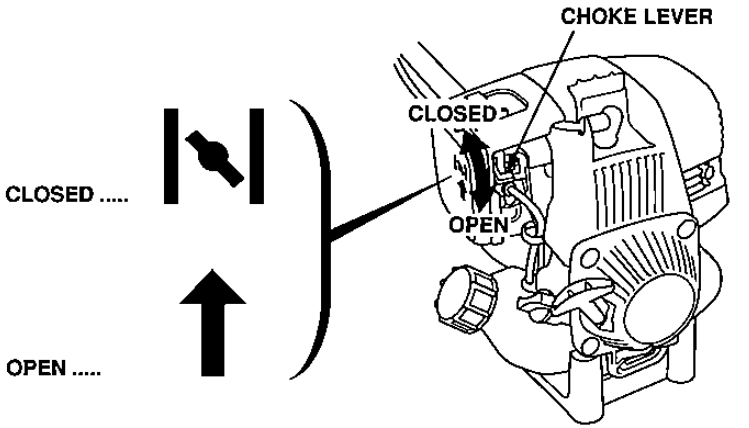


2. Choke lever

The choke lever opens and closes the choke valve in the carburetor.

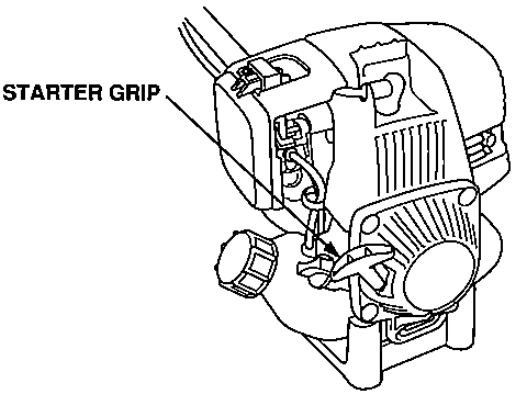
The CLOSED position enriches the fuel mixture for starting a cold engine.

The OPEN position provides the correct fuel mixture for operation after starting, and for restarting a warm engine.



3. Starter grip

Pulling the starter grip operates the recoil starter to crank the engine.



4. Throttle trigger (LTE, LE and UE)

The throttle trigger controls engine speed.

Pulling and releasing the throttle trigger shown below makes the engine run faster or slower.

NOTE: The throttle trigger interlock must be depressed before the throttle trigger can be activated.

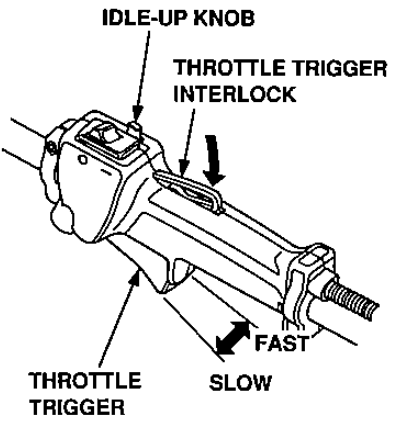
By pulling the throttle trigger gradually, the engine speed increases and the cutting attachment (nylon-line cutting head, cutting blade or saw blade) starts to run.
Pull the throttle trigger more to accelerate the engine speed and the cutting rotating speed.

By releasing the throttle trigger, the engine speed decreases and the cutting attachment keeps turning for a while by inertia, then it stops.

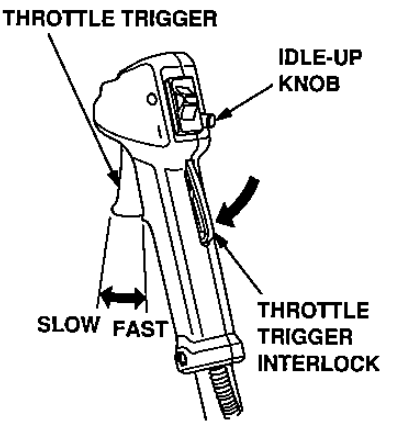
Throttle trigger interlock:
The throttle trigger interlock makes the throttle trigger operable. The throttle trigger cannot be pulled unless the throttle trigger interlock has been pushed beforehand.

Idle-up knob:
When it is hard to start the engine, the idle-up knob helps the engine to start (see page 44).

LTE and LE:



UE:



Throttle trigger (LEB and UEB)

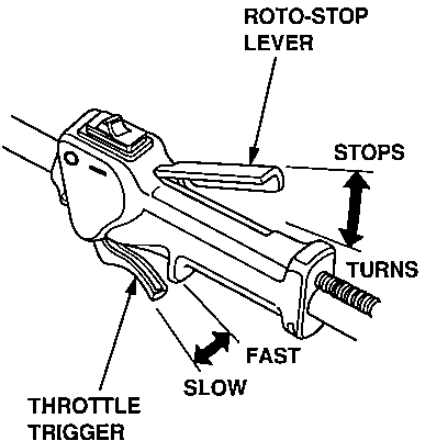
The throttle trigger controls engine speed.

Pressing and releasing the throttle trigger makes the engine run faster or slower.
NOTE: The roto-stop lever must be depressed to unlock and operate the throttle trigger.

By pulling the throttle trigger gradually, the engine speed increases and the cutting attachment (nylon-line cutting head, cutting blade or saw blade) starts to run.
Press the throttle trigger to reach the cutting tool operating speed.

By releasing only the throttle trigger, the engine speed decreases and the cutting attachment keeps turning for a while by inertia, then it stops.
By releasing both throttle trigger and roto-stop lever simultaneously, the engine decreases to idle speed and the cutting tool is stopped.

LEB:

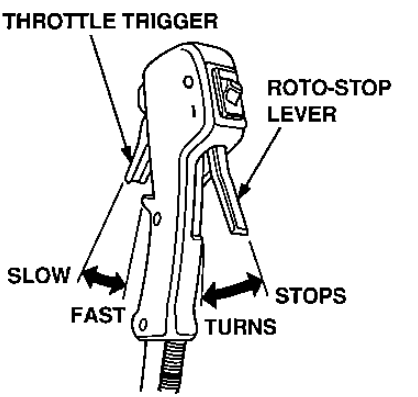


Roto-Stop lever:

The roto-sop lever has two functions:

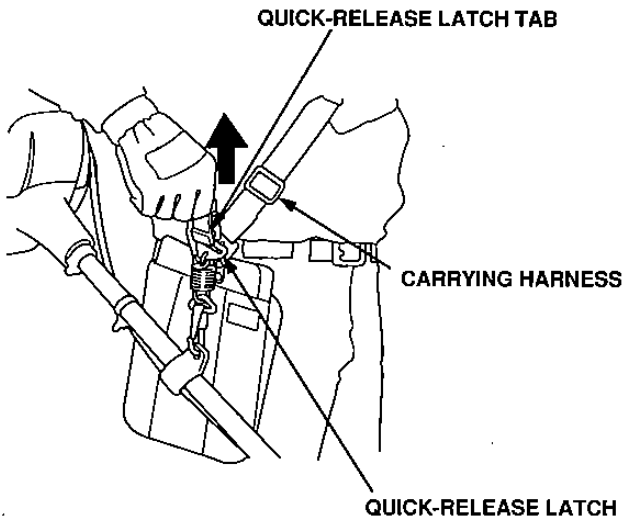
1. Roto-stop lever unlocks the throttle trigger.
   Throttle trigger cannot be activated without depressing the rotostop lever.
2. Roto-stop lever stops the cutting tool when released.

UEB:



5. Quick-release latch

The quick-release latch tab is provided to detach the grass/weed trimmer from your body in an emergency.
Pull up the quick-release latch tab, and the grass/weed trimmer is detached from the carrying harness.



5. PRE-OPERATION CHECKS

For safe and efficient trimming, always make a pre-operation inspection before operating:

⚠WARNING Perform a pre-operation inspection on firm, level surface with the engine stopped and spark plug cap removed from the spark plug.

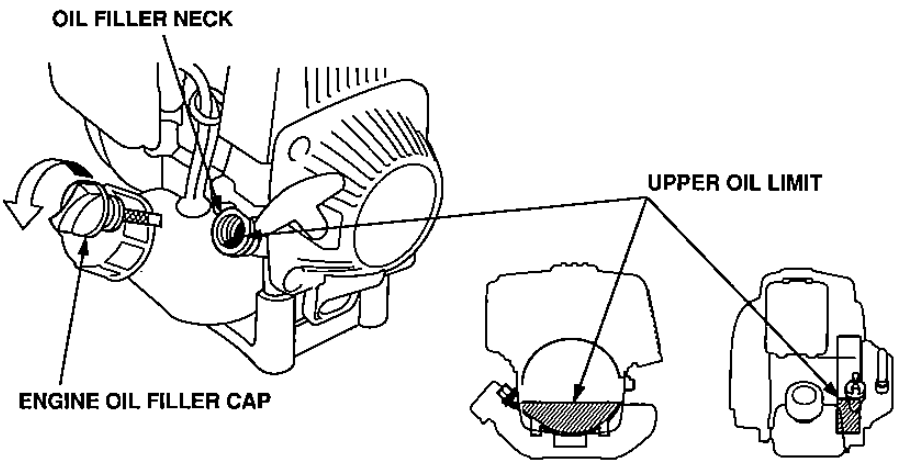
1. Check the engine oil level

CAUTION: Running the engine with low oil level will cause serious engine damage.

1. Place the grass/weed trimmer on a level surface and remove the oil filler cap.
2. Check the oil level: it should reach to the edge of the oil filler neck, and check the engine oil for contamination and deterioration.
3. If the oil level is low, fill to the edge of the oil-filler neck with the recommended oil.
   If the oil is contaminated or deteriorated, replace it (see page 53).
4. Install the oil filler cap.

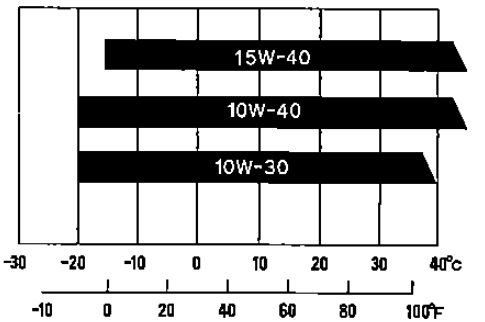
Every 10 hours, check the engine oil level and replenish oil up to the top of the oil filler neck if the engine is operated for more than 10 hours continuously.

ENGINE OIL CAPACITY: 0.1 ℓ (0.11 US qt, 0.09 Imp qt)



Use Honda 4-stroke, or an equivalent high detergent, premium quality motor oil certified to meet or exceed U.S. automobile manufacturer's requirements for service classification SG, SF. Motor oils classified SG, SF will show this designation on the container.
Select the appropriate viscosity for the average temperature in your area.

SAE Viscosity Grades



AMBIENT TEMPERATURE

CAUTION:
Using nondetergent oil or 2-stroke engine oil could shorten the engine's service life.

The recommended operating range of this engine is –5°C to 40°C (23°F to 104°F).

2. Check the fuel level

Use automotive gasoline (Unleaded or lowleaded is preferred to minimize combustion chamber deposits).

FOR NEW SOUTH WALES ONLY:
Use unleaded fuel only.

Never use an oil/gasoline mixture or dirty gasoline. Avoid getting dirt, dust or water in the fuel tank.

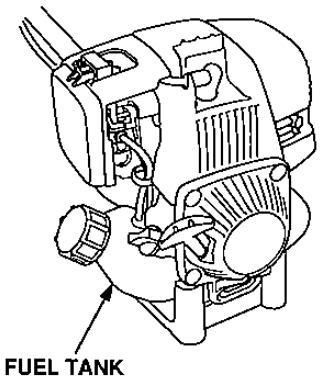
⚠WARNING

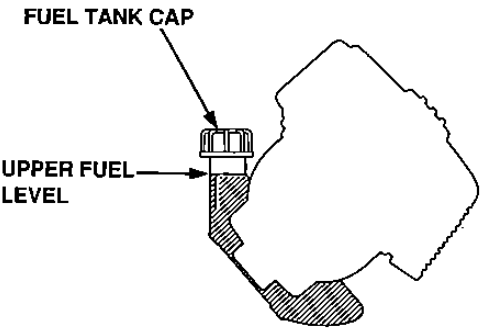
- **Gasoline is extremely flammable and is explosive under certain conditions.**
- **Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow flames or sparks in the area where the engine is refueled or where gasoline is stored.**
- **Do not overfill the fuel tank (there should be no fuel in the filler neck). After refueling, make sure the tank cap is closed properly and securely.**
- **Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.**
- **Avoid repeated or prolonged contact with skin or breathing of vapor. KEEP OUT OF REACH OF CHILDREN.**

CAUTION: Gasoline substitutes are not recommended; they may be harmful to fuel system components.

1. Check the fuel level visually from the outside of the fuel tank while keeping the fuel filler neck upright.
2. If the fuel level is low, refuel the fuel tank until the level as specified. Remove the fuel tank cap gradually to release a pressurized air in the fuel tank. Fuel in the fuel tank may spout out, if the fuel tank cap is removed quickly.

FUEL TANK CAPACITY: UMK422: 0.45 ℓ (0.119 US gal, 0.099 Imp gal)
UMK431: 0.65 ℓ (0.172 US gal, 0.143 Imp gal)





Gasolines containing alcohol

If you decide to use a gasoline containing alcohol (gasohol), be sure it's octane rating is at least as high as that recommended by Honda. There are two types of "gasohol": one containing ethanol, and the other containing methanol. Do not use gasohol that contains more than 10% ethanol. Do not use gasoline containing methanol (methyl or wood alcohol) that does not also contain cosolvents and corrosion inhibitors for methanol. Never use gasoline containing more than 5% methanol, even if it has cosolvents and corrosion inhibitors.

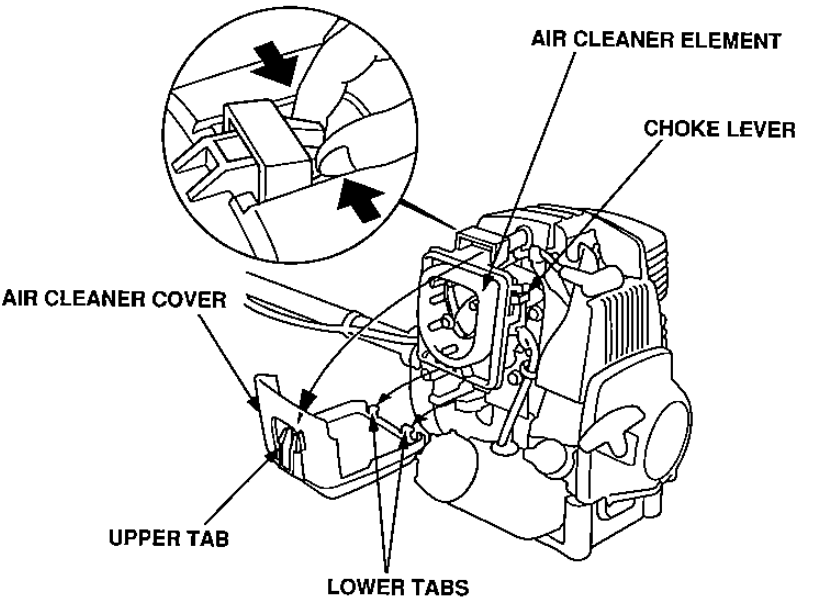
NOTE:

- Fuel system damage or engine performance problems resulting from the use of fuels that contain alcohol is not covered under the warranty. Honda cannot endorse the use of fuels containing methanol since evidence of their suitability is as yet incomplete.
- Before buying fuel from an unfamiliar station, try to find out if the fuel contains alcohol, if it does, confirm the type and percentage of alcohol used. If you notice any undersirable operating symptoms while using a gasoline that contains alcohol, or one thay you think contains alcohol, switch to a gasoline that you know does not contain alcohol.

3. Check the air cleaner elements

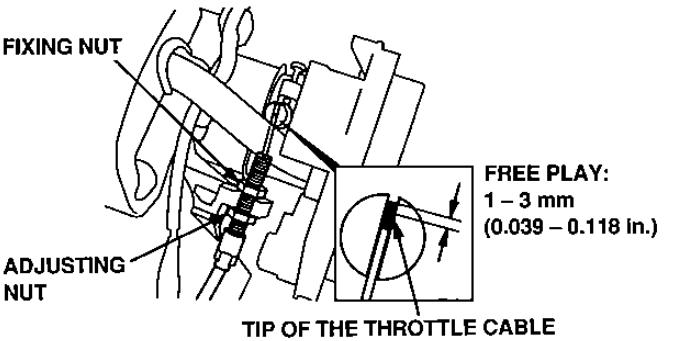
CAUTION: Never run the engine without the air cleaner; rapid engine wear will result.

1. Move the choke lever to the CLOSED (upwards) position.
2. Remove the air cleaner cover by unhooking the upper tab on the top of the air cleaner cover and its two lower tabs.
3. Check the air cleaner element for dirt or obstruction.
   Clean the air cleaner element, if it is dirty (see page 55).
4. Reinstall the air cleaner element.
5. Reinstall the air cleaner cover by inserting the lower tabs, then insert the upper tab.



4. Check the throttle cable free play

- Check the throttle cable free play at the tip of the cable by pulling and releasing the throttle trigger a few times. It should be 1 – 3 mm (0.039 – 0.118 in.) at the tip of the throttle cable.

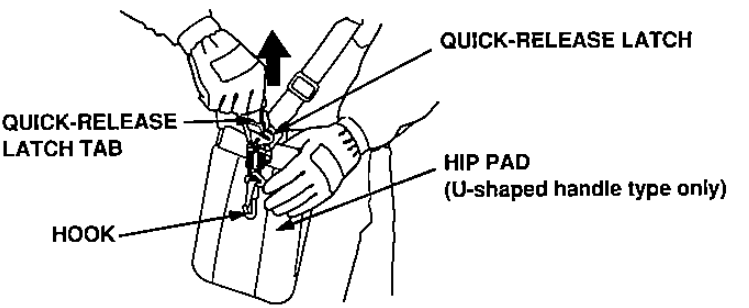


If the free play is not as specified above, adjust the free play (see page 64).

- Check the throttle trigger operates smoothly and always spring back to the idle position.

5. Check the quick-release latch

1. Put on the carrying harness.
2. Check the latch is released as soon as the quick-release latch tab is pulled upwards while holding the hip pad (U-shaped handle type only) with your left hand.
3. Insert the latch tongue in the slot of the quick-release latch to reattach the trimmer to the carrying harness.



If the latch is not released, have your device inspected and repaired by your servicing dealer.

6. Inspect the cutting attachment

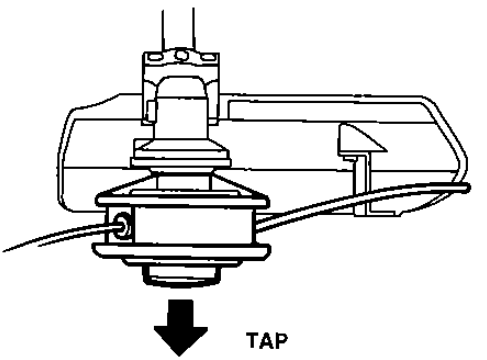
Nylon-line cutting head inspection:

⚠WARNING For safety, check the cutting head before starting the engine. Operating the grass/weed trimmer with the loose, cracked, or other damaged cutting head can cause a personal injury or equipment damage. Thrown cutting head by loose fastening can hit the operator or bystanders causing death or serious injury.

CAUTION: Wear heavy gloves to protect your hands, when you turn a spool.

1. Stop the engine and remove the spark plug cap.
2. Check the cutting head for looseness.
   Tighten the cutting head securely if it is loose (see page 56).
   If it is hard to do it yourself, consult your authorized Honda dealer.
3. Check the nylon line for fluffing.
   If the nylon line is damaged, have the nylon line advance according to the following procedures.

The nylon line advances when the cutting head is tapped against the ground while the engine is running. A debris shield with cut-off knife must be used with it.



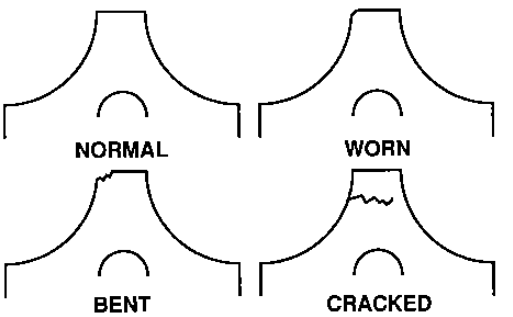
Blade inspection:

⚠ WARNING For safety, check the blade for wear and damage and check the tightness of the blade nut before starting the engine. Operating the grass/weed trimmer with a worn, cracked, or damaged blade can cause a personal injury or equipment damage. A worn, cracked or damaged blade can break and pieces of the damaged blade can hit the operator or bystanders causing death or serious injury.

CAUTION: Wear heavy gloves to protect your hands, when working around the blade.

1. Stop the engine and remove the spark plug cap.
2. Check the tightness of the blade nut.
   Tighten the nut if it is loose (see page 58).
   If it is hard to do it yourself, consult your authorized Honda dealer.
3. Check the blade for wear, bend, crack and other damage.
   If the blade is worn out, cracked, chipped, or otherwise damaged replace the damaged blade with new one which is a genuine Honda replacement blade or its equivalent (see page 58).

   A dull blade can be sharpened.
   If it is hard to do it yourself, consult your authorized Honda dealer.



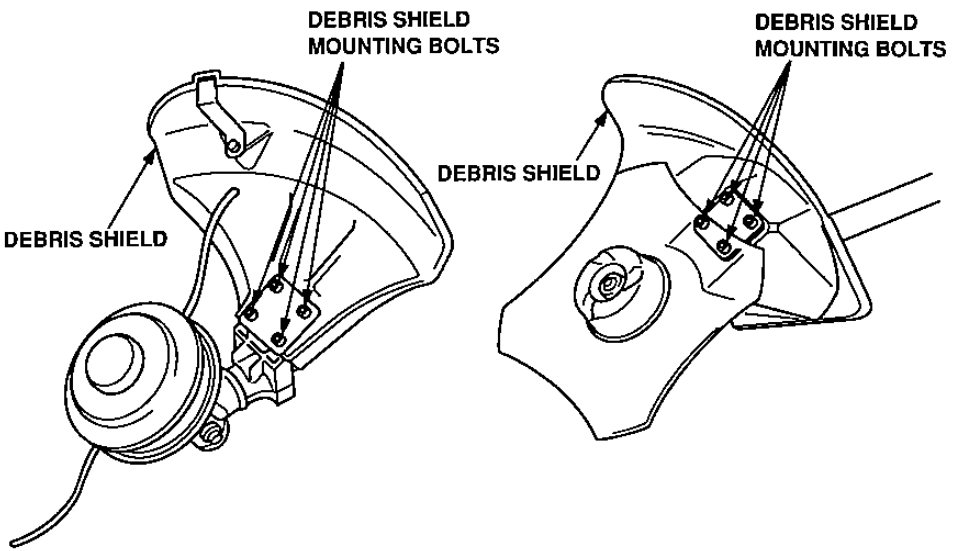
7. Inspect the debris shield

⚠WARNING

- **Never use the grass/weed trimmer without its debris shield. Stones or other foreign objects thrown outward by the wheeling cutting attachment (nylon-line cutting head, cutting blade or saw blade) or contact with the wheeling cutting attachment could cause personal injury or property damage.**
- **Do not touch the line cut-off knife. Contact with it may hurt your fingers.**

1. Inspect the debris shield to be sure that they are correctly installed and are not damaged. If the debris shield is damaged, replace it before using the grass/weed trimmer.
2. Check the debris shield mounting bolts for looseness.
   Tighten the bolts securely, if necessary.

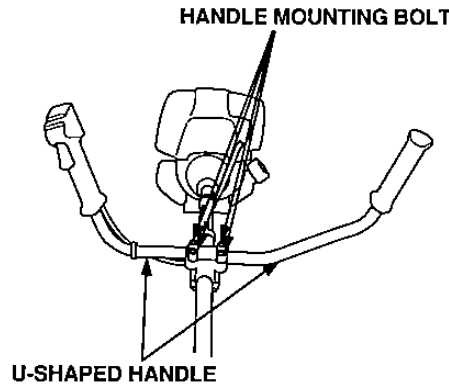
Nylon-line cutting head: **Cutting/saw blade:**



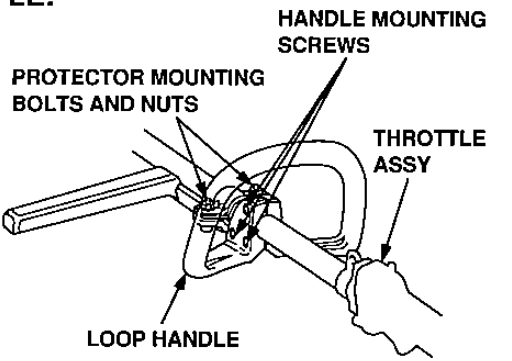
8. Check all bolts and nuts

1. Check each bolt and nut for looseness. Tighten them securely if necessary.
2. Check the handle for loose mounting bolts or screws, and tighten them securely if necessary.

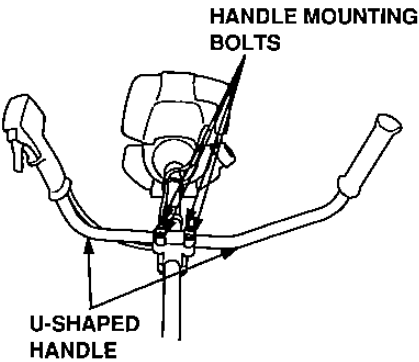
UE:



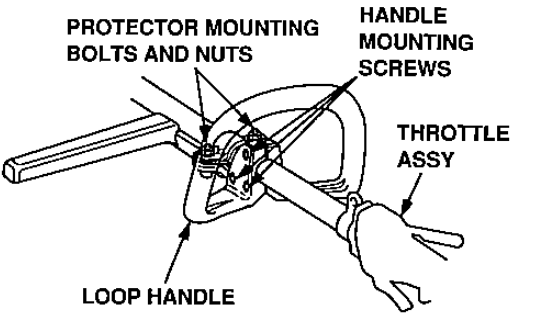
LE:



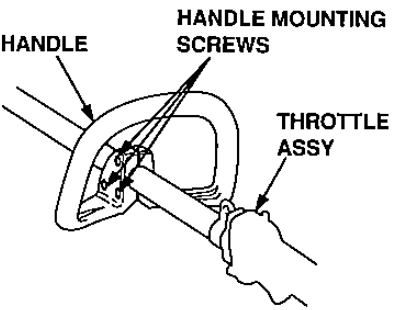
UEB:



LEB:



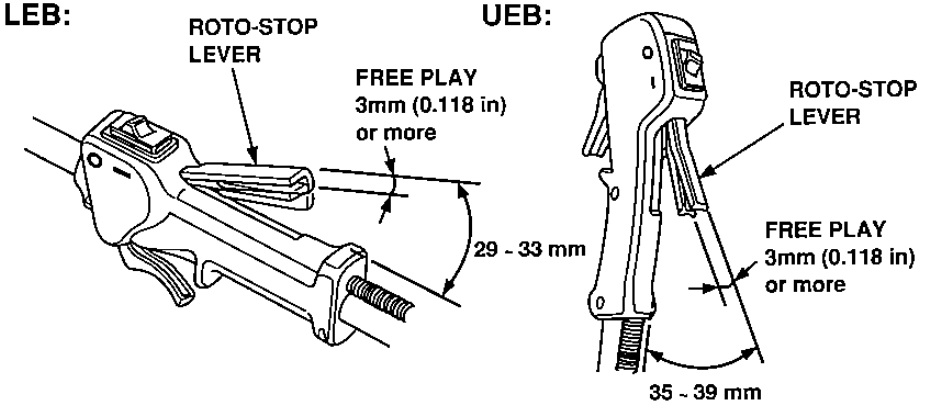
LTE:



9. Check the roto-stop lever (LEB and UEB)

1. Check that roto-stop lever:
   - ♦ has a full stroke between 29 ~ 33 mm (LEB), 35 ~ 39 mm (UEB)
   - ♦ always returns back to its starting point.
   - ♦ operates smoothly and freely in the 3 following cases:
     a. Squeeze the roto-stop lever and release it slowly.
     b. With squeezing the roto-stop lever, pull the throttle trigger and release only it slowly.
     c. Squeeze the roto-stop lever and pull the throttle trigger, and release them slowly at the same time.

   If something seems abnormal, have the grass/weed trimmer inspected and repaired by your authorised servicing dealer.
2. Check that the roto-stop lever free play is more than 3 mm.
   If the free play is not as specified above, have the grass/weed trimmer inspected and repaired by your servicing dealer.



10.Check the roto-stop system operation check (LEB and UEB)

⚠WARNING To avoid severe personal Injury, disconnect the spark plug cap to prevent accidental starting.

CAUTION: Wear heavy gloves to protect your hands, when handling the cutting attachment.

Stop the engine and remove the spark plug cap.
Check that roto-stop system operates properly.
Check that there is resistance difference of turning the cutting attachment manually between when the roto-stop lever is released and when it is squeezed. If you can turn the cutting attachment smoothly without squeezing the roto-stop lever, there is no resistance difference between when the roto-stop lever is released and when it is squeezed, you feel it abnormal, have the grass/weed trimmer inspected and repaired your authorized servicing dealer.

6. STARTING THE ENGINE

⚠ WARNING

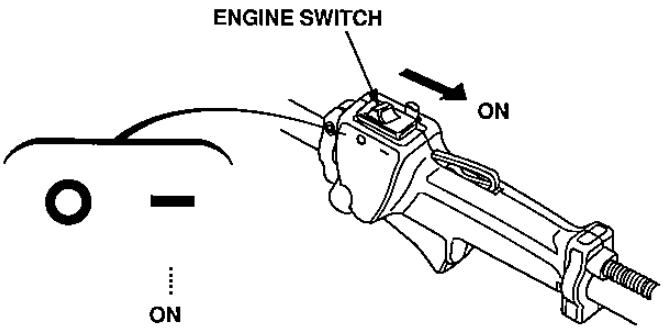
- **Exhaust gas contains poisonous carbon monoxide. Never run the engine in an enclosed area. Be sure to provide adequate ventilation.**
- **Start the engine in a place away from the people, pets, and surrounding buildings. Be sure there are no obstacles in the working area.**

CAUTION: Do not start the engine with the grass/weed trimmer hanged from the carrying harness or raised in the air off the ground. The trimmer can make unexpected movement causing injury in your legs, etc.

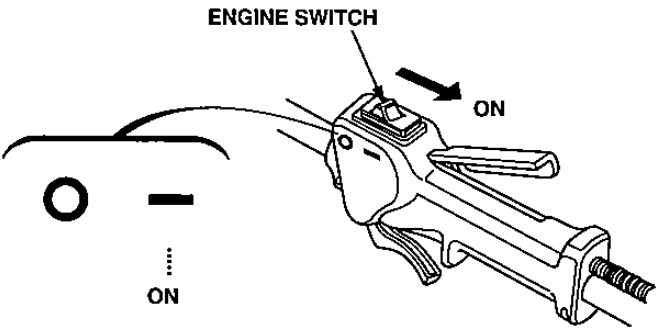
NOTE: Place the grass/weed trimmer in an area free from the obstacles, and be sure the cutting attachment is not in contact with the ground and other materials.

1. Turn the engine switch to the ON position.

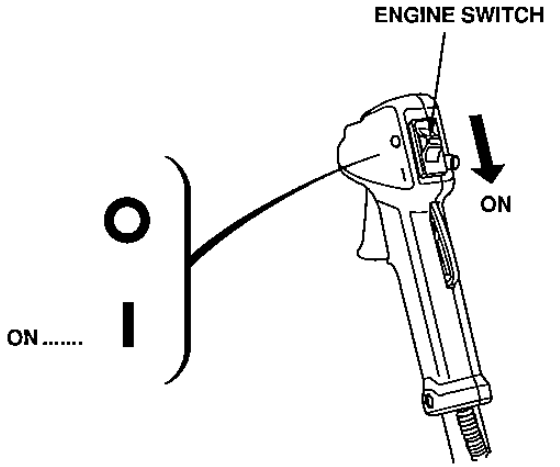
Loop handle type (LTE and LE):



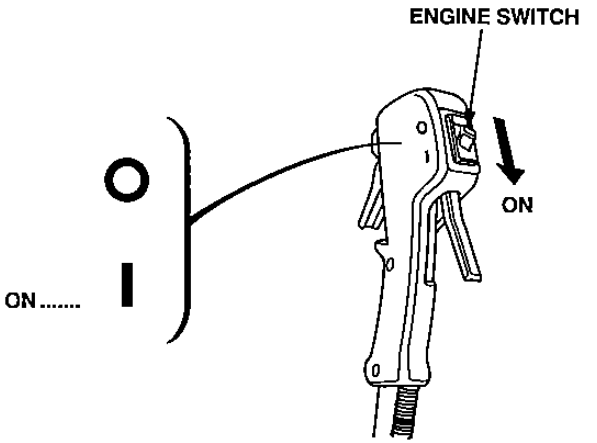
Loop handle type (LEB):



U-shaped handle type (UE):

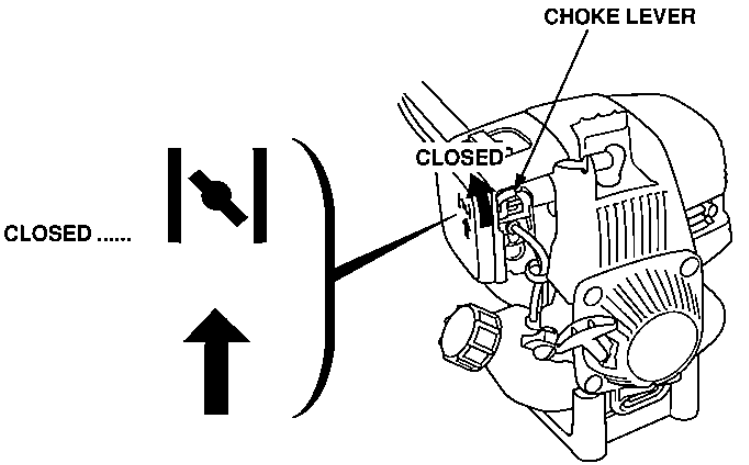


U-shaped handle type (UEB):

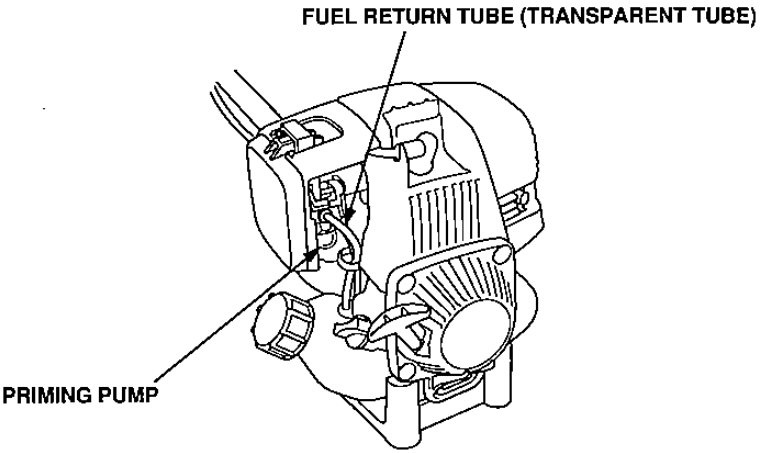


2. To start a cold engine, move the choke lever to the CLOSED position.

   To restart warm engine, leave the choke lever in the OPEN position.



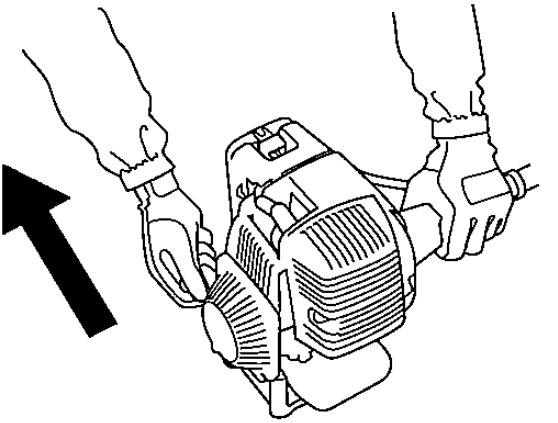
3. Press the priming pump several times until a flow in the fuel return tube (transparent tube) is visually noticed.



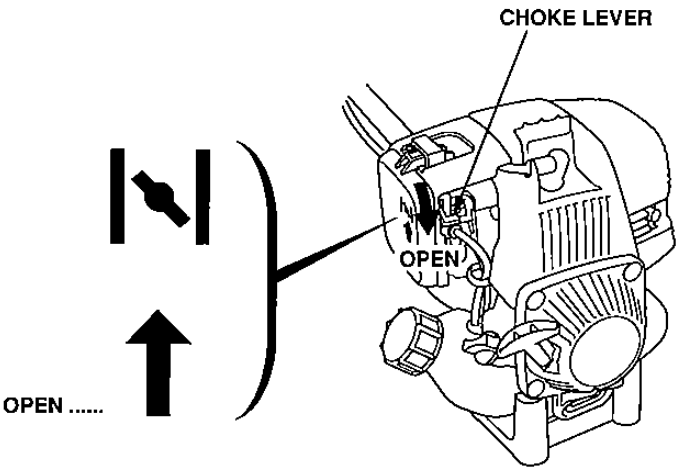
4. Pull the starter grip lightly until you feel resistance while holding the main pipe, then pull briskly. Return the starter grip gently.

CAUTION:

- **Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.**
- **Damage may result if the starter grip is pulled while the engine is running.**



5. If the choke lever has been moved to the CLOSED position to start the engine, gradually move it to the OPEN position as the engine warms up.



Idle-up function (LTE, LE and UE)

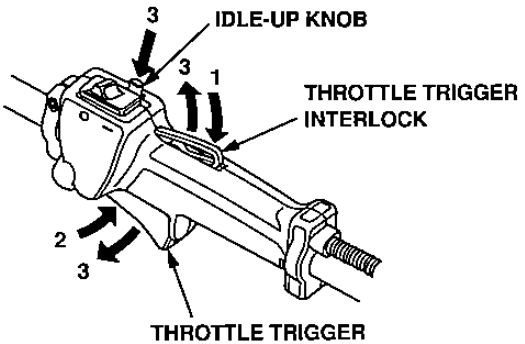
The idle-up function is a function that helps an engine to start by opening the throttle valve in the carburetor moderately when the engine won't start.

1. Hold down the throttle trigger interlock.
2. Pull the throttle trigger.
3. Push the idle-up knob, then release the throttle trigger and throttle trigger interlock in that order.
4. Start the engine.

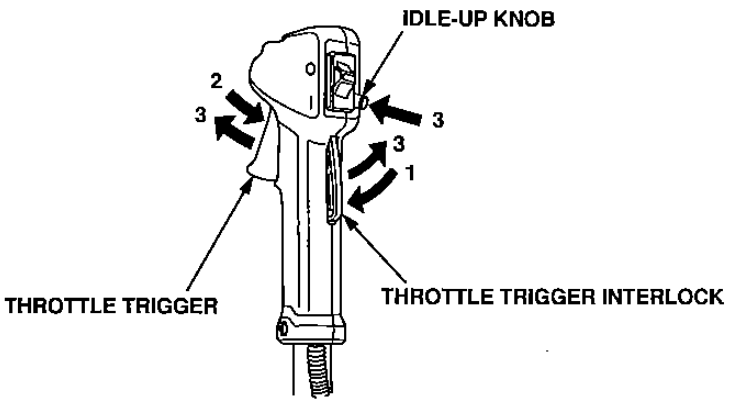
NOTE: This function must not be used while trimming work.

If the engine won't start after performing the idle-up function, consult the Honda servicing dealer.

Loop handle type:



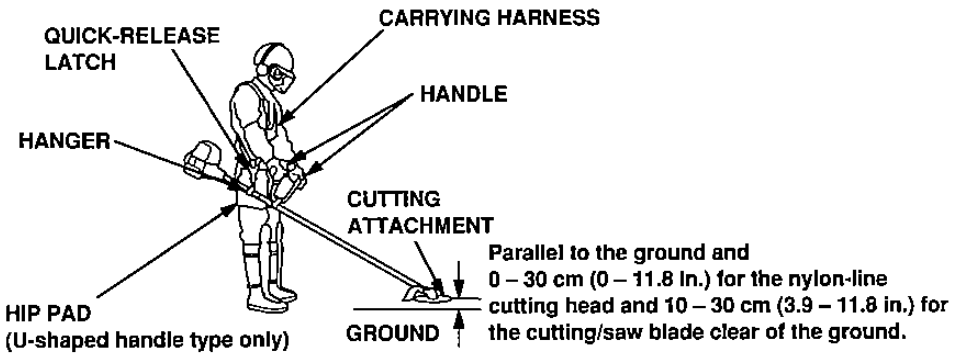
U-shaped handle type:



Read and understand the safety instructions on pages 4 to 13 before operating the grass/weed trimmer.
If you notice any abnormal sound, smell, vibration, or other unusual signs, stop the engine immediately and consult your authorized Honda dealer.

Grass/weed trimmer holding position adjustment:
Stop the engine and adjust the length of the carrying harness.

1. Adjust the carrying harness so that the quick-release latch is positioned at your right hip.
2. Hang the trimmer on the carrying harness hook by its hanger.
3. Keep the trimmer so that the cutting attachment (nylon-line cutting head, cutting blade or saw blade) is parallel to the ground by holding the handle with your both hands.
4. Adjust the carrying harness length so that the cutting attachment is parallel to the ground and stays above the ground keeping the clearance specified below.



⚠ WARNING Do not operate the grass/weed trimmer if the wheeling cutting attachment could reach your feet. Your feet can get injured if the wheeling cutting attachment touches your feet.

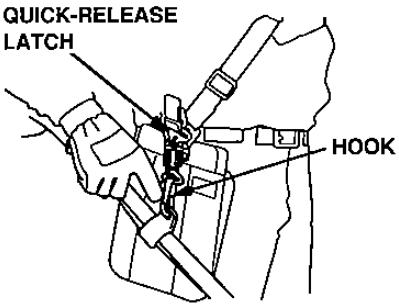
Stop the engine and check the balance of the grass/weed trimmer between its front and rear sides.

1. Hold the grass/weed trimmer at the correct position as mentioned above.
2. Slacken your grip on the handle gradually. Do not release but put your both hands lightly on the handle, and be sure that the height of the cutting attachment from the ground does not change large this time.
   Adjustment is necessary if the cutting attachment rises high above your knees. Do not operate the grass/weed trimmer before adjustment, and consult your authorized Honda dealer for adjustment.

Basic operation:

- With the engine idling, hook the trimmer to your carrying harness and hold the trimmer at the correct position. Be careful to avoid contact with the cutting attachment (nylon-line cutting head, cutting blade or saw blade) while handling the trimmer with the engine running.

  The cutting attachment should not rotate with the engine idling. If there is rotation at idle, adjust the idle speed correctly before using the trimmer. For idle adjustment, consult your servicing dealer.



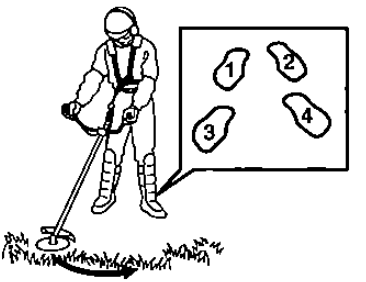
- Hold the trimmer firmly with both hands, with your fingers and thumbs encircling the handles as shown. This will help you to keep the trimmer under control at all times.

  - Keep firm footing and balance.
  - Do not overreach.
  - Keep the cutting attachment below your knee height.
  - Keep all part of your body away from the rotating cutting attachment and hot surfaces.

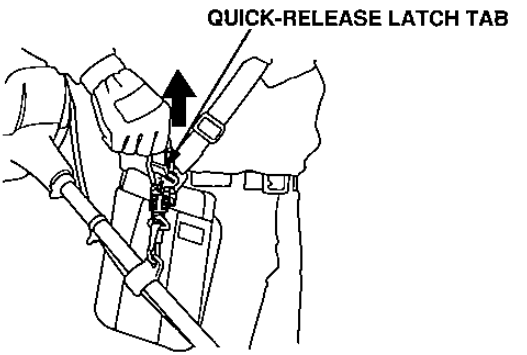


- Operate the grass/weed trimmer not by using your arm force but by using your waist so that the cutting attachment swings in a level arc from right to left.
  Hold the grass/weed trimmer so that you can shift your weight to the right leg then to the left leg safely and easily, and walk slowly.
- When operating the grass/weed trimmer on a moderate slope, stand at the down side of the slope. The steep slope is slippery and you can lose your balance. Do not operate the grass/weed trimmer on a steep slope.

CAUTION: Take good care of your step. Do not operate the grass/weed trimmer in a place where is slippery, or you can lose your balance.



- In an emergency, pull up the quick-release latch tab to detach the grass/ weed trimmer from the carrying harness.



- Your grass/weed trimmer is not designed to cut down the trees. Do not use your grass/weed trimmer as a pruner hook.

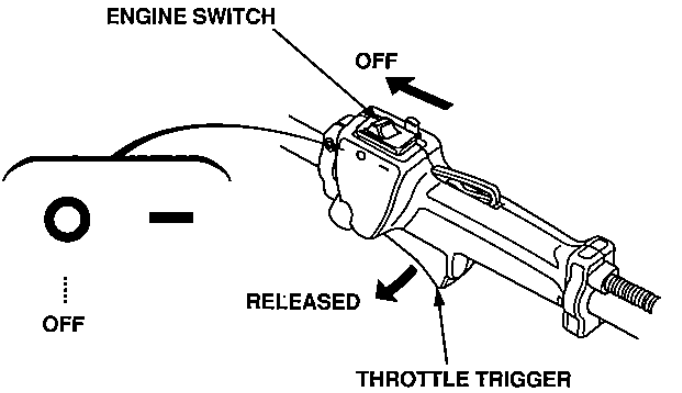
8. STOPPING THE ENGINE

1. Release the throttle trigger.

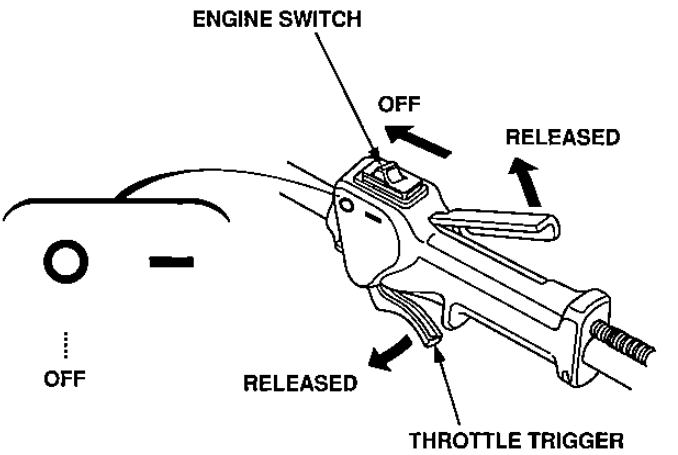
2. Turn the engine switch to the OFF position.

CAUTION: Note that the cutting attachement keeps turning for a while by inertia after the engine is stopped.

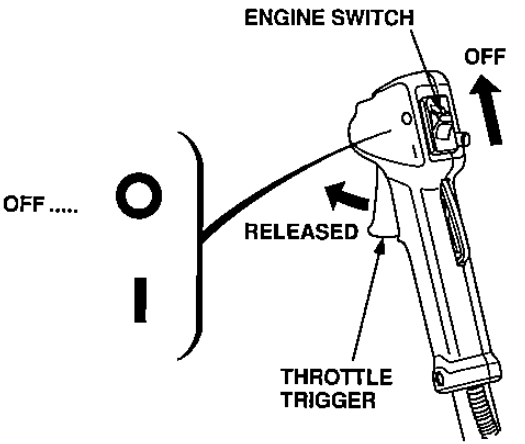
Loop handle type (LTE and LE):



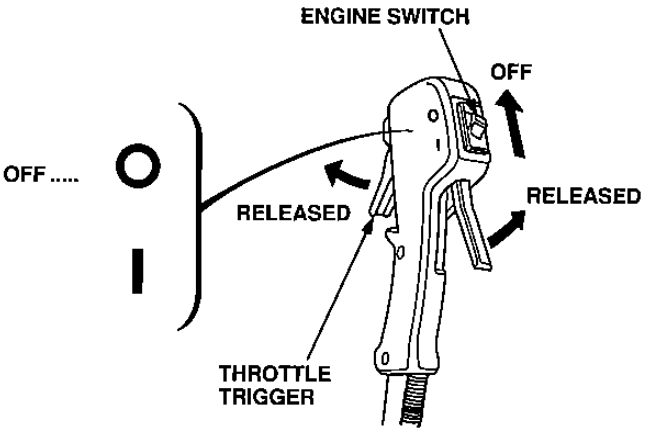
Loop handle type (LEB):



U-shaped handle type (UE):



U-shaped handle type (UEB):



NOTE: Be sure that the engine is stopped and the cutting attachment stops turning before placing the grass/weed trimmer on the ground.

9. MAINTENANCE

⚠ WARNING

- Before performing any maintenance, place the grass/weed trimmer on a level surface, stop the engine and remove the spark plug cap to be certain the engine will not start accidentally.
- The grass/weed trimmer should be serviced by an authorized Honda dealer unless the owner has proper tools and service data and feels he is mechanically qualified.

CAUTION: Use only genuine Honda parts or their equivalent for maintenance or repair. Replacement parts which are not of equivalent quality may damage the trimmer.

Periodic inspection and adjustment of the Honda UMK422/UMK431 are essential if high level performance is to be maintained. Regular maintenance will also help to extend service life. The required service intervals and the kind of maintenance to be performed are described in chart on the following page.

For longer service and efficiency, keep the underside of the debris shield clean and free of accumulated grass clippings by washing it down with a hose after each use and/or cleaning it with a wire brush and scraper.

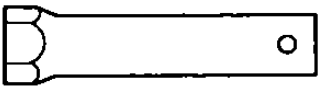
Maintenance schedule

REGULAR SERVICE PERIOD (4) Perform at every indicated month or operating hour interval, whichever comes first. ITEM		Before each use	First Month or 10 Hrs.	Every 3 Months or 25 Hrs.	Every 6 Months or 50 Hrs.	Every Year or 100 Hrs.	Every 2 years or After each 300 Hrs.	Refer to page
Engine oil	Check	○						28
	Change		○		○			53
Air cleaner	Check	○						33
	Clean			○ (1)				55
Cutting attachment	Check	○						35
Debris shield	Check	○						37
Nuts, bolts, fasteners	Check (Retighten if necessary)	○						38
Shoulder harness quick-release	Check	○						34
Throttle cable	Check	○						34, 64
Throttle lever with roto-stop lever work & freeplay	Check	○ (3)						39
Roto-stop efficiency	Check	○ (3)						39
Roto-stop cable	Check-Adjust		○ (2)(3)		○ (2)(3)			
Roto-stop shoe & Clutch drum	Check-Adjust				○ (2)(3)			
Gear case	Lubricate				○ (2)			
Clutch shoes and drum	Check				○ (2)			
Spark plug	Check-Adjust					○		62
	Replace						○	62
Engine cooling fins	Check				○			66
Idle speed	Check-Adjust					○ (2)		
Valve clearance	Check-Adjust					○ (2)		
Combustion chamber	Clean						○ (2)	
Fuel filter	Check					○		67
Fuel tank	Clean					○		68
Fuel line	Check	Every 2 years [Replace(2) if necessary]						

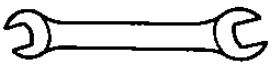
NOTE: (1) Service more frequently when used in dusty areas.
(2) These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient. Refer to Honda shop manual for service procedures.
(3) Roto-stop type only.
(4) Los hours of operation to determine proper maintenance intervals.

Tool kit

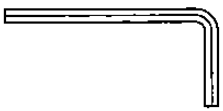
The tools supplied are necessary for performing some periodic maintenance, simple adjustments and repairs.



SPARK PLUG WRENCH



10 x 12 mm WRENCH



4 mm HEXAGON WRENCH
5 mm HEXAGON WRENCH



BAR (used to turn a spark plug wrench)

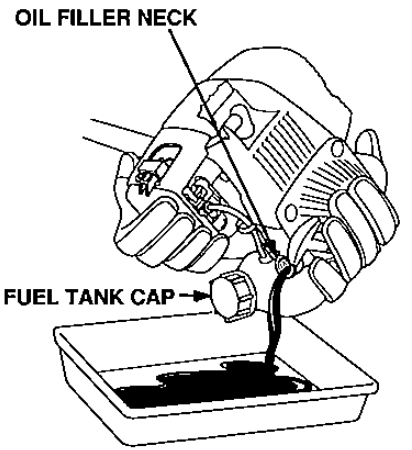
1. Engine oil change

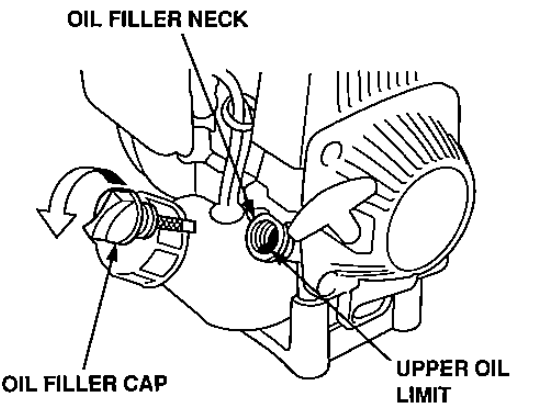
NOTE:
- Drain the oil while the engine is still warm to assure rapid and complete draining.

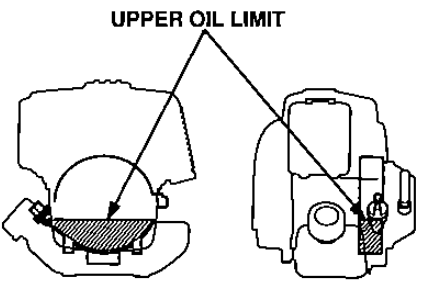
1. Check the fuel tank cap is tightened.
2. Remove the oil filler cap and drain the oil into the oil container by tipping the engine toward the oil filler neck.
3. Refill with the recommended oil (see page 29) and check the oil level (see page 28).
4. Install the oil filler cap.

ENGINE OIL CAPACITY: 0.10 ℓ (0.11 US qt, 0.09 Imp qt)

Wash your hands with soap and water after handling used oil.







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

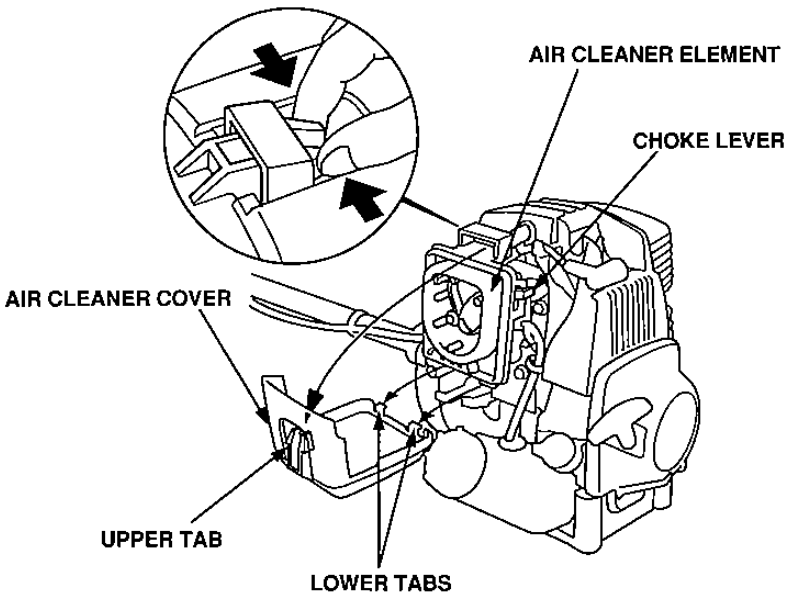
2. Air cleaner service

A dirty air cleaner will restrict air flow to the carburetor. To prevent carburetor malfunction, service the air cleaner regularly. Service more frequently when operating the grass/weed trimmer in extremely dusty areas.

⚠ WARNING Never use gasoline or low flash point solvents for cleaning the air cleaner element. A fire or explosion could result.

CAUTION: Never run the engine without the air cleaner. Rapid engine wear will result.

1. Move the choke lever to the CLOSED (upwards) position.
2. Remove the air cleaner cover by unhooking the upper tab on the top of the air cleaner cover and its two lower tabs.
3. Wash the element in a nonflammable or high flash point solvent and dry it thoroughly.
4. Soak the element in clean engine oil and squeeze out the excess oil.
5. Reinstall the air cleaner element.
6. Reinstall the air cleaner cover by inserting the lower tabs, then insert the upper tab.



3. Cutting attachment replacement

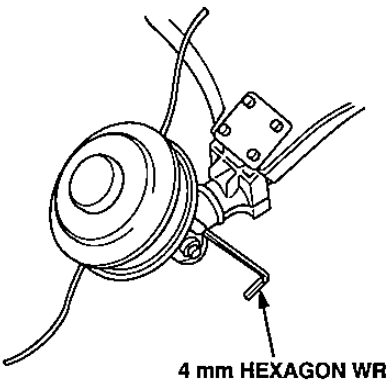
Nylon-line cutting head:

⚠ WARNING

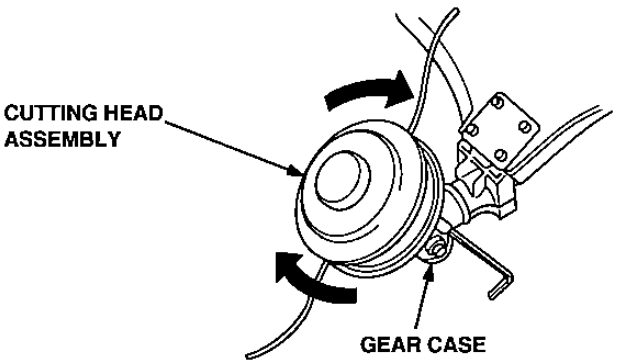
- **To avoid severe personal injury, disconnect the spark plug cap to prevent accidental starting.**
- **Use a genuine Honda replacement cutting head or its equivalent.**

CAUTION: Wear heavy gloves to protect your hands when replacing the cutting head.

1. Stop the engine and remove the spark plug cap.
2. Insert a 4 mm hexagon wrench into the locking tool hole to keep the drive shaft from turning.

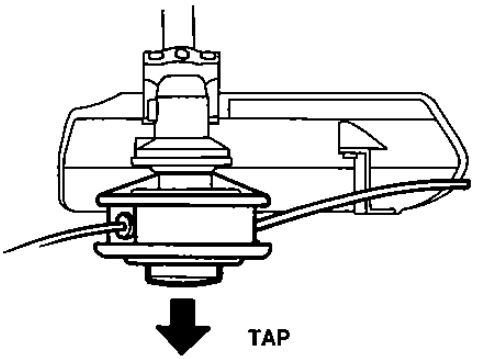


3. Turn the cutting head assembly clockwise to remove it from the gear case. Replace it with new one.



The line feeding action:

The nylon line comes out when the cutting head is tapped against the ground while the engine is running. A debris shield with cut-off knife must be used with it.



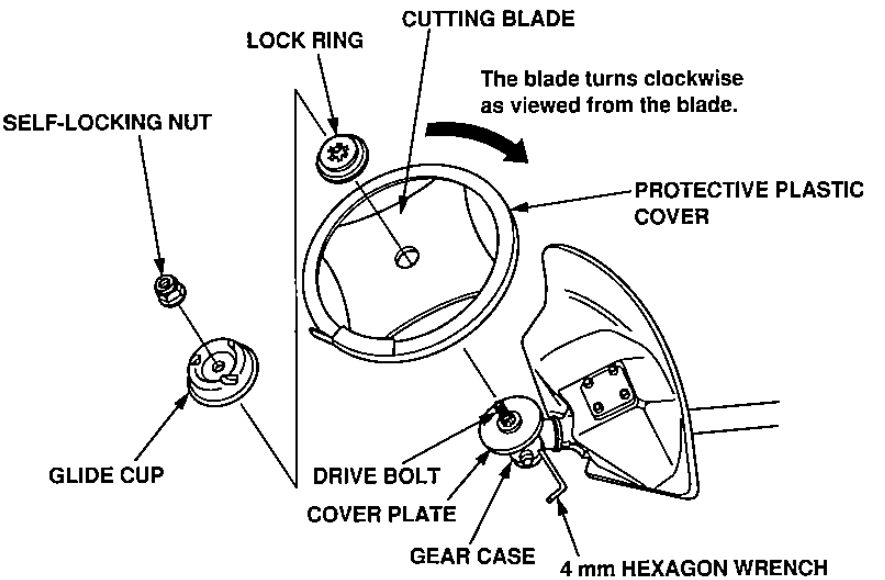
Cutting blade:

⚠ WARNING

- **To avoid severe personal injury, disconnect the spark plug cap to prevent accidental starting.**
- **Use a genuine Honda replacement cutting blade or its equivalent.**

CAUTION: Wear heavy gloves to protect your hands, when working around the cutting blade.

1. Install a protective plastic cover (that came with the blade) on the edge of the cutting blade for safety and protecting the blade.
2. Insert the tip of the 4 mm hexagon wrench (supplied with your trimmer) fully into the hole on the gear case.
3. Turn the cutting blade until you feel the tool drops into the hole in the internal locking ring. Verify the blade does not turn. The drive bolt and blade nut use left-hand threads. Make sure the 4 mm hexagone wrench remains in the hole, then loosen (turn clockwise) the self-locking nut. Pay attention to the order and orientation of the parts as they are removed.
4. Installation can be performed in the reverse order of removal. Make sure you install the blade with the cutting edge in the direction of rotation. Torque the blade nut to 1.9 kgf-m (19 N·m, 14 ft-lb).



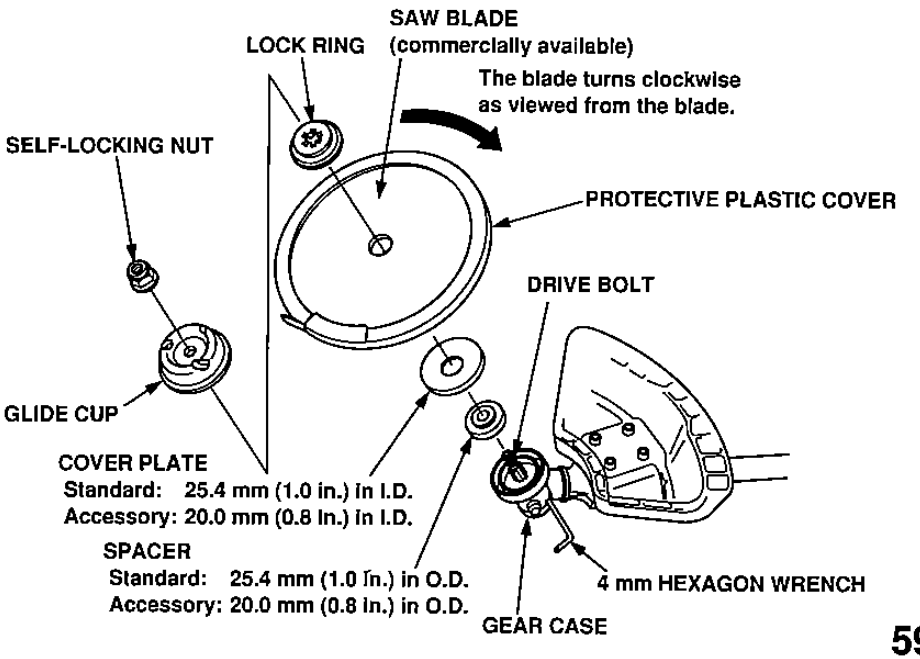
Saw blade (for UE and UEB types only):

⚠ WARNING

- **To avoid severe personal injury, disconnect the spark plug cap to prevent accidental starting.**

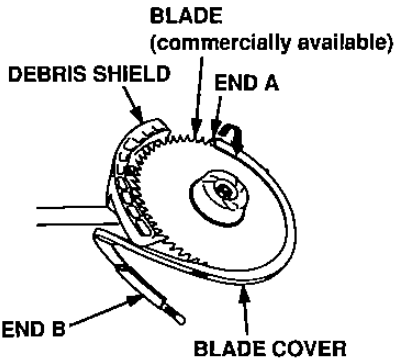
CAUTION: Wear heavy gloves to protect your hands, when working around the saw blade.

1. Install a protective plastic cover (that came with the blade) on the edge of the saw blade for safety and protecting the blade (see page 60).
2. Insert the tip of the 4 mm hexagon wrench (supplied with your trimmer) fully into the hole on the gear case.
3. Turn the saw blade until you feel the tool drops into the hole in the internal locking ring. Verify the blade does not turn. The drive bolt and blade nut use left-hand threads. Make sure the 4 mm hexagone wrench remains in the hole, then loosen (turn clockwise) the self-locking nut. Pay attention to the order and orientation of the parts as they are removed.
4. Installation can be performed in the reverse order of removal. Make sure you install the blade with the cutting edge in the direction of rotation. Torque the blade nut to 1.9 kgf-m (19 N•m, 14 ft-lb).

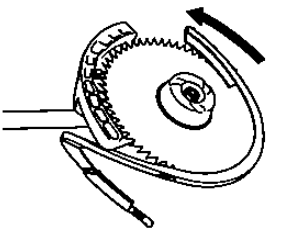


Blade cover installation and removal on and from saw blade: (for UE and UEB types only)

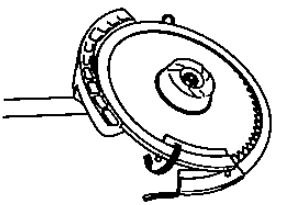
1. Place the blade cover on the blade halfway starting with the end A. To prevent the tabs on the end A from interferring with the debris shield, remove the end A from the blade and place it on the blade as shown.



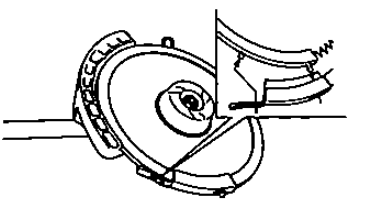
2. Turn the blade little by little until the end A is clear of the debris shield.



3. Replace the end A on the blade.



4. Secure the end B to the end A by inserting the two tabs on the end A in the holes in the end B.



The blade cover can be removed in the reverse order of installation.

4. Debris shield change

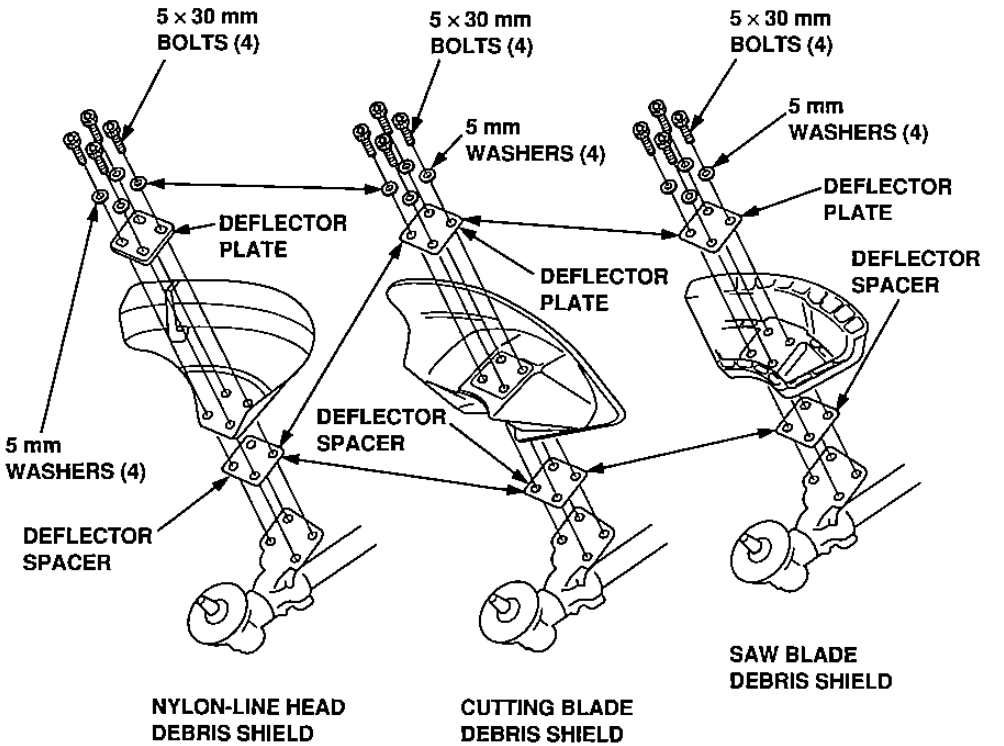
⚠WARNING

- **Install the debris shield in the proper position securely to protect you from the debris that are thrown from a wheeling cutting attachment.**

CAUTION: Wear heavy gloves to protect your hands, when working around the cutting attachment.

Refer to the illustration below for removing and installing the debris shields. Note that the debris shield for the nylon-line cutting head uses an additional spacer plate and the longer 5 × 30 mm bolts.

Tighten the bolts securely. Torque the bolts to 0.34 kgf-m (3.4 N•m, 2.5 ft-lb).



5. Spark plug service

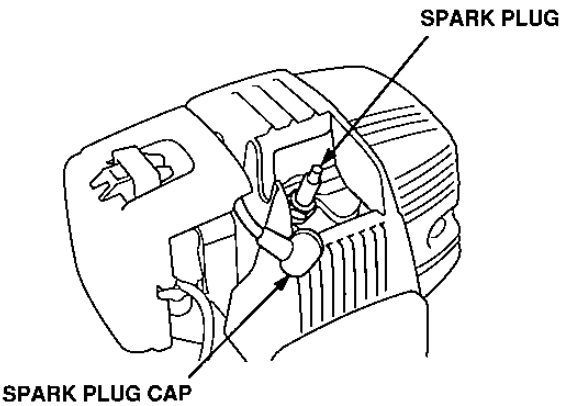
Recommended spark plug: CR5HSB (NGK), U16FSR-UB (DENSO)

To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.

⚠WARNING If the engine has been running, the muffler will be very hot, be careful not to touch the muffler.

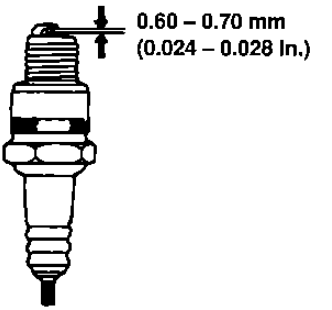
CAUTION: Never use a spark plug of incorrect heat range.

1. Remove the spark plug cap and use the proper size spark plug wrench to remove the spark plug.

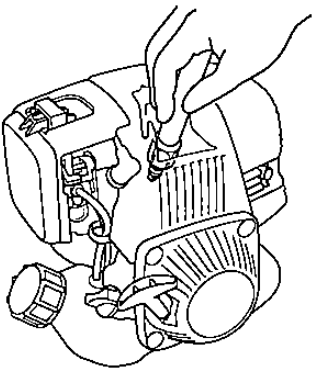


2. Visually inspect the spark plug. Discard it if there is apparent wear or the insulator is cracked or chipped. Clean the spark plug with a wire brush if it is to be reused.

3. Measure the plug gap with a feeler gauge.
   The gap should be 0.60 – 0.70 mm (0.024 – 0.028 in.) Correct as necessary by carefully bending the side electrode.



4. Check that the spark plug washer is in good condition and thread the spark plug in by hand to prevent cross-threading.
5. After the spark plug is seated, tighten with a spark plug wrench to compress the washer.



NOTE:
After a new spark plug has been seated by hand, it should be tightened 1/2 turn with a wrench to compress its washer.
If a used plug is being reinstalled, it should only require 1/8 to 1/4 turn after being seated.

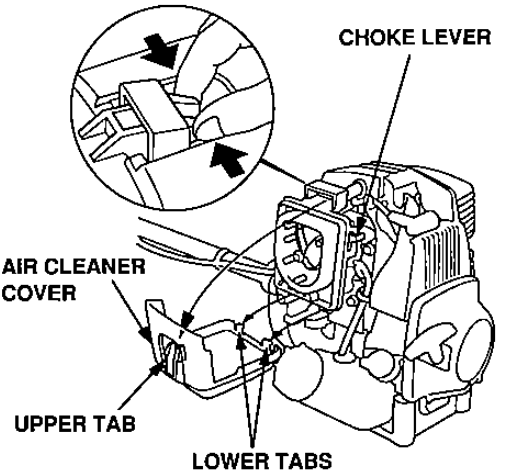
CAUTION: The spark plug must be securely tightened. An improperly tightened plug can become very hot and possibly damage the engine.

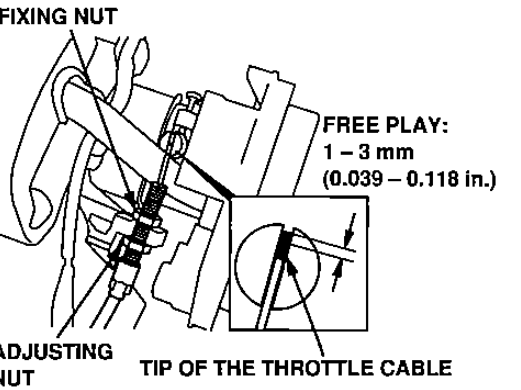
6. Throttle cable check and adjustment

Adjust the throttle cable free play properly.

Adjustment:

1. Move the choke lever to the CLOSED (upwards) position.
2. Remove the air cleaner cover by unhooking the upper tab on the top of the air cleaner cover and its two lower tabs.
3. Loosen the throttle cable fixing nut.
4. Check the throttle cable free play at the tip of the cable by pulling and releasing the throttle trigger a few times and adjust the free play by using the adjusting nut. It should be 1 – 3 mm (0.039 – 0.118 in.) at the tip of the throttle cable.





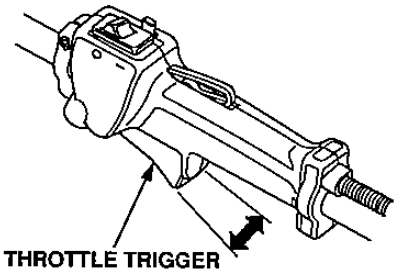
5. Reinstall the air cleaner cover by inserting the lower tabs, then insert the upper tab.

CAUTION:

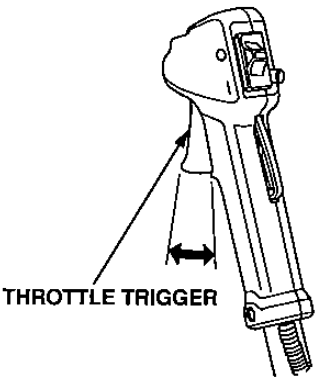
- **After removing the air cleaner cover, reinstall the air cleaner cover securely.**
  Failure to tighten the cover securely may cause the cover to come out of position by vibration or some sort of engine malfunction.
- **Operating the engine without the air cleaner or improperly installed air cleaner will allow dirt to enter the inside of the engine, causing adverse effect to the engine.**

After adjustment, check the throttle trigger for smooth operation. Check the throttle cable free play at the tip of the cable again.
Consult your authorized Honda dealer if necessary.

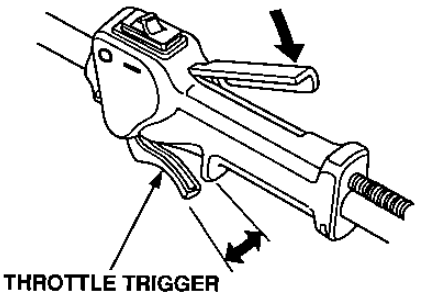
Loop handle type (LTE and LE):



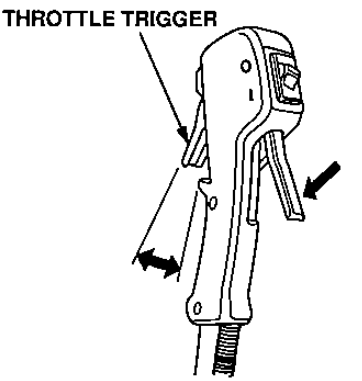
U-shaped handle type (UE):



Loop handle type (LEB):

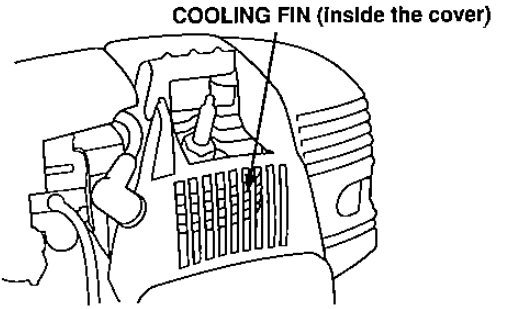


U-shaped handle type (UEB):



7. Engine cooling fin inspection

Inspect the cooling fin visually through the cover. If there are dry grass, leaves and mud clogged, consult your authorized Honda power equipment dealer for cleaning it.



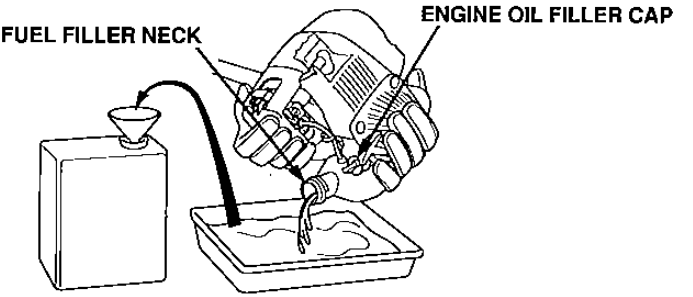
8. Fuel tank strainer service

Note that the clogged fuel filter can cause poor engine performance.

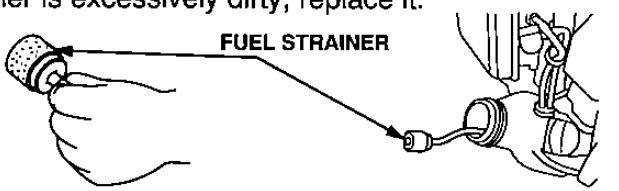
⚠WARNING Gasoline is extremely flammable and is explosive under certain conditions. You can be burned or seriously injured when handling fuel. Observe the following when servicing the fuel tank strainer.

- **Stop the engine.**
- **Inspect in a well-ventilated area.**
- **Keep heat, sparks, and flame away. Do not smoke.**
- **Do not spill the gasoline. If you spilled the gasoline, wipe it up immediately and dispose of the cloth or shop towel you wiped the spilled gasoline in a manner that is compatible with the environment.**

1. Be sure that the engine oil filler cap is tightened securely.
2. Remove the fuel tank cap and drain the gasoline into the container by tipping the engine toward the fuel filler neck.



3. Pull out the fuel tank strainer with the mechanic's wire from the fuel filler neck gently.
4. Check the fuel tank strainer for contamination. If the fuel tank strainer is dirty, wash it gently with nonflammable or high flash point solvent. If the fuel tank strainer is excessively dirty, replace it.



5. Reinstall the fuel tank strainer into the fuel tank and tighten the fuel tank cap securely.

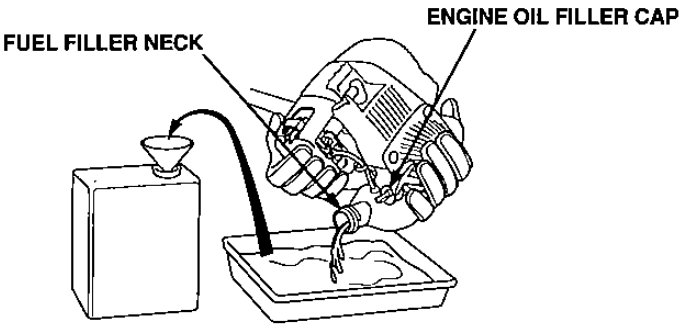
9. Fuel tank cleaning

Water and dust, dirt or foreign material in the fuel tank cause a poor engine performance.

⚠WARNING Gasoline is extremely flammable and is explosive under certain conditions. You can be burned or seriously injured when handling fuel. Observe the following when cleaning the fuel tank.

- **Stop the engine.**
- **Inspect in a well-ventilated area.**
- **Keep heat, sparks, and flame sway. Do not smoke.**
- **Do not spill the gasoline. If you spilled the gasoline, wipe it up immediately and dispose of the cloth or shop towel you wiped the spilled gasoline in a manner that is compatible with the environment.**

1. Be sure that the engine oil filler cap is tightened securely.
2. Remove the fuel tank cap and drain the gasoline into the container by tipping the engine toward the fuel filler neck.



3. Pull out the fuel tank strainer with the mechanic's wire from the fuel filler neck gently.
4. Remove water and dirt stood in the fuel tank by rinsing the inside of the fuel tank with nonflammable or high flash point solvent.
5. Reinstall the fuel tank strainer into the fuel tank and tighten the fuel tank cap securely.

Proper storage preparation is essential for keeping your grass/weed trimmer trouble free and looking good. The following steps will help to keep rust and corrosion from impairing your grass/weed trimmer.

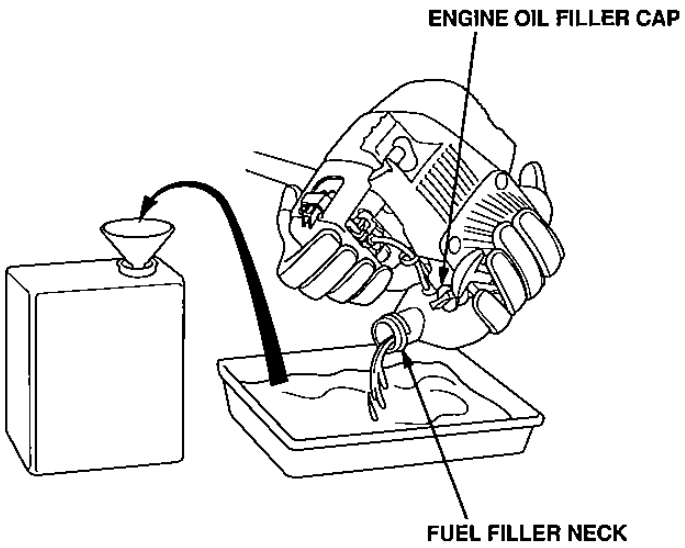
CAUTION:

- **If the grass/weed trimmer has been running, the engine will be very hot; allow it to cool before proceeding.**
- **Place the grass/weed trimmer on a level surface and remove the spark plug cap to be certain the engine will not start accidentally.**

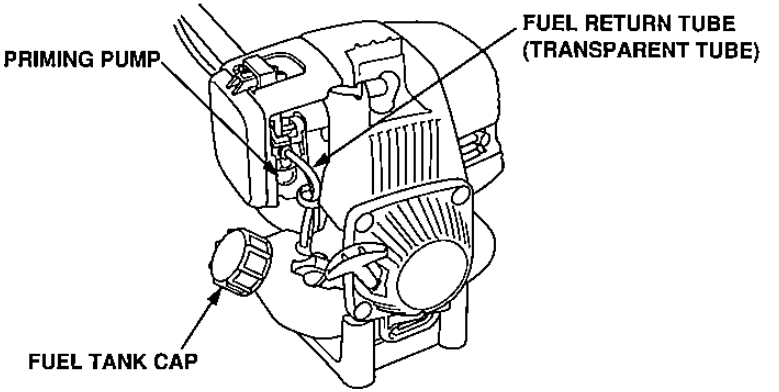
1. Clean all exterior surfaces, touch up any damaged paint, and coat other areas that may rust with a light film of oil.
2. Drain the fuel.

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

a. Be sure that the engine oil filler cap is tightened securely.
b. Remove the fuel tank cap and drain the fuel into the container by tipping the engine toward the fuel filler neck.



c. Press the priming pump several times until all fuel left in the fuel return tube is returned into the fuel tank.



d. Tip the engine toward the fuel filler neck again to drain the fuel left in the fuel tank into the container.
e. Tighten the fuel tank cap securely after draining the fuel completely.

3. Change the engine oil (see page 53).
4. Clean the air cleaner (see page 55).
5. Remove the spark plug and pour about a tablespoon of clean engine oil into the cylinder.
6. Crank the engine several revolutions to distribute the oil, then reinstall the spark plug. Pull the starter grip slowly until resistance is felt.
7. Cover the grass/weed trimmer to keep out dust.

When the engine will not start:

1. Is the engine switch in the ON position?
2. Is there fuel in the fuel tank (see page 30)?

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

3. Is gasoline reaching the carburetor?
   To check, press the priming pump several times (see page 42).
4. Is there a spark at the spark plug (see page 62)?
   a. Remove the spark plug cap. Clean any dirt from around the spark plug base, then remove the spark plug.
   b. Install the spark plug in the plug cap.
   c. Turn the engine switch ON.
   d. Grounding the side electrode to the cooling fin below the spark plug hole, pull the recoil starter to see if sparks jump across the gap.
   e. If there is no spark, replace the spark plug.
      If OK, reinstall the spark plug and try to start the engine according to the instructions.
5. If the engine still does not start, take the grass/weed trimmer to an authorized Honda dealer.

When an abnormal vibration occurs during operation, immediately turn off the engine and check the cutting attachment is properly installed and tightened securely, and inspect it for wear, crack or any other damage. If necessary, replace it (see page 56).

12. SPECIFICATIONS

Model	UMK422K1
Power products description code	KAAF

Frame

Type		UE
Handle type		U-shaped
Overall length		1,900 mm (74.8 in)
Overall width		610 mm (24.0 in)
Overall height		430 mm (16.9 in)
Dry weight (without cutting head)		6.5kg (14.3lbs)
Clutch type		Centrifugal clutch
Cutter	Tool	Nylon-line
	Type	Semi-automatic line feed
	O.D.	420 mm (16.5 in)

Accessory cutting attachment

Type		UE
Cutter	Tool	Cutting blade
	Shape	4-tooth blade
	O.D.	230 mm (9.1 in)

Applicable debris shield

Type	UE
For nylon-line cutting head	○
For cutting blade	○
For saw blade: less than 254 mm (10.0 in) in O.D.	○

NOTE:
Specifications may vary according to the types, and are subject to change without notice.

Model	UMK422k1
Power products description code	KAAF

Frame

Type		LTE	LE
Handle type		Loop	
Overall length		1,885 mm (74.2 in)	1,900 mm (74.8 in)
Overall width		345 mm (13.6 in)	355 mm (14.0 in)
Overall height		265 mm (10.4 in)	265 mm (16.9 in)
Dry weight (without cutting head)		6.2 kg (13.7 lbs)	6.4 kg (14.1 lbs)
Clutch type		Centrifugal clutch	
Cutter	Tool	Nylon-line	
	Type	Semi-automatic line feed	
	O.D.	420 mm (16.5 in)	

Accessory cutting attachment

Type		LTE	LE
Cutter	Tool	Not assigned	Cutting blade
	Shape		4-tooth blade
	O.D.		230 mm (9.1 in)

Applicable debris shield

Type	LTE	LE
For nylon-line cutting head	○	○
For cutting blade		○

NOTE:
Specifications may vary according to the types, and are subject to change without notice.

Model	UMK431K1
Power products description code	KABF

Frame

Type		UE	UEB
Handle type		U-shaped	
Overall length		1,900 mm (74.8 in)	1,875 mm (73.8 in)
Overall width		610 mm (24.0 in)	605 mm (23.8 in)
Overall height		430 mm (16.9 in)	450 mm (17.7 in)
Dry weight (without cutting head)		7.5 kg (16.5 lbs)	7.4 kg (16.3 lbs)
Clutch type		Centrifugal clutch	
Roto-stop			○
Cutter	Tool	Nylon-line	
	Type	Semi-automatic line feed	
	O.D.	445 mm (17.5 in)	

Accessory cutting attachment

Type		UE	UEB
Cutter	Tool	Cutting blade	
	Shape	4-tooth blade	
	O.D.	230 mm (9.1 in)	

Applicable debris shield

Type	UE	UEB
For nylon-line cutting head	○	○
For cutting blade	○	○
For saw blade: less than 254 mm (10.0 in) in O.D.	○	○

NOTE:
Specifications may vary according to the types, and are subject to change without notice.

Model	UMK431K1
Power products description code	KABF

Frame

Type		LE	LEB
Handle type		Loop	
Overall length		1,900 mm (74.8 in)	1,885 mm (74.2 in)
Overall width		355 mm (14.0 in)	345 mm (13.6 in)
Overall height		265 mm (16.9 in)	265 mm (16.9 in)
Dry weight (without cutting head)		7.1 kg (15.7 lbs)	7.2 kg (15.9 lbs)
Clutch type		Centrifugal clutch	
Roto-stop			○
Cutter	Tool	Nylon-line	
	Type	Semi-automatic line feed	
	O.D.	445 mm (17.5 in)	

Accessory cutting attachment

Type		LE	LEB
Cutter	Tool	Cutting blade	
	Shape	4-tooth blade	
	O.D.	230 mm (9.1 in)	

Applicable debris shield

Type	LE	LEB
For nylon-line cutting head	○	○
For cutting blade	○	○

NOTE:
Specifications may vary according to the types, and are subject to change without notice.

Sound pressure levels and vibrations:

LTE type:

Model		UMK422K1
Type		LTE
Sound Power level guaranteed (in accordance with directive 2000/14/CE)		109 dB(A)
Sound Pressure Level at operator's ears (ISO-7917)		87 dB(A)
Vibrations Measurement at idling (ISO-7916)	Lefthand side	1 m/s²
	Righthand side	9.2 m/s²
Vibrations Measurement at maximum throttle (ISO-7916)	Lefthand side	5 m/s²
	Righthand side	3.2 m/s²

UE type:

Model			UMK422K1	UMK431K1
Type			UE	
Sound Power level guaranteed (in accordance with directive 2000/14/CE)		Nylon-line head	111 dB(A)	111 dB(A)
		Cutting blade	104 dB(A)	109 dB(A)
Sound Pressure Level at operator's ears (ISO-7917)		Nylon-line head	87 dB(A)	101 dB(A)
		Cutting blade	82 dB(A)	92 dB(A)
Vibrations Measurement at lefthand side (ISO-7916)	at idling	Nylon-line head	5 m/s²	6.7 m/s²
		Cutting blade	6 m/s²	3.4 m/s²
	at max.throttle	Nylon-line head	4.6 m/s²	4.5 m/s²
	at racing	Cutting blade	2.7 m/s²	7.4 m/s²
Vibrations Measurement at righthand side (ISO-7916)	at idling	Nylon-line head	4.7 m/s²	5.5 m/s²
		Cutting blade	4.3 m/s²	4.9 m/s²
	at max.throttle	Nylon-line head	3.3 m/s²	4.1 m/s²
	at racing	Cutting blade	3.2 m/s²	2.8 m/s²

NOTE:
Specifications may vary according to the types, and are subject to change without notice.

Sound pressure levels and vibrations (cont'd):

LE type:

Model			UMK422K1	UMK431K1
Type			LE	
Sound Power level guaranteed (in accordance with directives 2000/14/CE)		Nylon-line head	109 dB(A)	111 dB(A)
		Cutting blade	104 dB(A)	109 dB(A)
Sound Pressure Level at operator's ears (ISO-7917)		Nylon-line head	87 dB(A)	101 dB(A)
		Cutting blade	82 dB(A)	92 dB(A)
Vibrations Measurement at lefthand side (ISO-7916)	at idling	Nylon-line head	1.6 m/s^2	2.9 m/s^2
		Cutting blade	1.6 m/s^2	1.8 m/s^2
	at max.throttle	Nylon-line head	7.6 m/s^2	4.3 m/s^2
	at racing	Cutting blade	4.4 m/s^2	3.6 m/s^2
Vibrations Measurement at righthand side (ISO-7916)	at idling	Nylon-line head	1.9 m/s^2	5.7 m/s^2
		Cutting blade	1.8 m/s^2	4.4 m/s^2
	at max.throttle	Nylon-line head	5.1 m/s^2	5.6 m/s^2
	at racing	Cutting blade	7.5 m/s^2	7.1 m/s^2

UEB type:

Model			UMK431K1
Type			UEB
Sound Power level guaranteed (in accordance with directives 2000/14/CE)		Nylon-line head	111 dB(A)
		Cutting blade	109 dB(A)
Sound Pressure Level at operator's ears (ISO-7917)		Nylon-line head	101 dB(A)
		Cutting blade	92 dB(A)
Vibrations Measurement at lefthand side (ISO-7916)	at idling	Nylon-line head	3.9 m/s^2
		Cutting blade	6.2 m/s^2
	at max.throttle	Nylon-line head	5.5 m/s^2
	at racing	Cutting blade	7.4 m/s^2
Vibrations Measurement at righthand side (ISO-7916)	at idling	Nylon-line head	2.2 m/s^2
		Cutting blade	2.1 m/s^2
	at max.throttle	Nylon-line head	5.4 m/s^2
	at racing	Cutting blade	6.5 m/s^2

NOTE:
Specifications may vary according to the types, and are subject to change without notice.

Sound pressure levels and vibrations (cont'd):
LEB type:

Model			UMK431K1
Type			LEB
Sound Power level guaranteed (in accordance with directives 2000/14/CE)		Nylon-line head	111 dB(A)
		Cutting blade	109 dB(A)
Sound Pressure Level at operator's ears (ISO-7917)		Nylon-line head	101 dB(A)
		Cutting blade	92 dB(A)
Vibrations Measurement at lefthand side (ISO-7916)	at idling	Nylon-line head	2.6 m/s^2
		Cutting blade	2.6 m/s^2
	at max.throttle	Nylon-line head	6.3 m/s^2
	at racing	Cutting blade	5.6 m/s^2
Vibrations Measurement at righthand side (ISO-7916)	at idling	Nylon-line head	3.9 m/s^2
		Cutting blade	3.1 m/s^2
	at max.throttle	Nylon-line head	7.4 m/s^2
	at racing	Cutting blade	5.9 m/s^2

Engine

MODEL	UMK422K1	UMK431K1
Engine model	GX22	GX31
Engine description code	GCAFF	GCAGF
Engine type	4-stroke, overhead valve, 1 cylinder	
Displacement	22 cm^3 (1.3 cu-in)	31 cm^3 (1.9 cu-in)
Bore × Stroke	33 × 26 mm (1.3 × 1.0 in)	39 × 26 mm (1.5 × 1.0 in)
Max. output (ISO 8893)	0,56 kW (0,75PS)/7,000 rpm	0,84 kW (1,13 PS)/7,000 rpm
Max. torque	1.09 N·m (0.11 kgf-m)/ 4,500 rpm	1.64 N·m (0.17 kgf-m)/ 4,500 rpm
Fuel consumption	340 g/kWh (250 g/PSh)	
Cooling system	Forced air	
Ignition system	Transistor magneto	
Oil capacity	0.1 ℓ (0.11 US qt, 0.09 Imp qt)	
Fuel tank capacity	0.45 ℓ (0.119 US gal, 0.099 Imp gal)	0.65 ℓ (0.172 US gal, 0.143 Imp gal)
Spark plug	NGK: CR5HSB, DENSO: U16FSR-UB	

NOTE:
Specifications may vary according to the types, and are subject to change without notice.

13. MAJOR HONDA DISTRIBUTOR ADDRESSES IN EUROPE

NAME OF FIRM (COMPANY)	ADDRESS	TEL: FAX:
Honda (U.K.) Limited	470 London Road Slough Berkshire SL3 8QY United Kingdom	Tel: 01753-590-590 Fax: 01753-590-000
Honda Europe Power Equipment S.A.	Pole 45 Rue des Chataigniers 45140 Ormes France	Tel: 1-38-65-06-00 Fax: 1-38-65-06-05
Honda Deutschland GmbH.	Sprendlinger, Landstraße 166 D-63069 Offenbach/Maín Germany	Tel: 069-83-09-0 Fax: 069-83-09-519
Honda Belgium H.V.	Wijngaardveld 1, 9300 Aalst Belgium	Tel: 053-725-111 Fax: 053-725-100
Honda Italia Industriale S.P.A.	Via della Cecchignola, 5/7 00143 ROMA Italy	Tel: 06-54928-1 Fax: 06-54928-400
Honda (Suisse) S.A.	Route des Mouliéres 10 Case Postale Ch 1214 Vernier-Geneve, Switzerland	Tel: 022-341-22-00 Fax: 022-341-09-72
Honda Nederland B.V.	Nikkelstraat 17 2984 Ridderkerk Netherlands	Tel: 018-04-57-333 Fax: 018-04-91-888
Honda Austria G.M.B.H.	Honda Strasse 1 A-2351 Wiener Neudorf Austria	Tel: 223-66-900 Fax: 223-66-4130
Honda Power Equipment Sweden A.B.	Ostmästargränd 8 Stockholm-Årsta Sweden	Tel: 08-602-24-60 Fax: 08-722-36-27
Honda Produtos De Força, Portugal, S.A.	Lugar da Abrunheira S. Pedro de Penaferrim 2710 Sintra, Portugal	Tel: 351-1-9150374 Fax: 351-1-9111021
Berema A/S	Berghagan 5, Langhus Box 454, 1401 Ski Norway	Tel: 64-86-05-00 Fax: 64-86-05-49
OY Brandt AB	Tuupakantie 4 SF-01740, Vantaa Finland	Tel: 90-895-501 Fax: 90-878-5276

NAME OF FIRM (COMPANY)	ADDRESS	TEL: FAX:
TIMA PRODUCTS A/S	Tårnfalkevej 16, Postboks 511 DK 2650 Hvidovre Denmark	Tel: 31-49-17-00 Fax: 36-77-16-30
Greens	Polig. Industrial Congost 08530, La Garriga (Barcelona), Spain	Tel: 93-871-84-50 Fax: 93-871-81-80
Automocion Canarias S.A. (AUCASA)	Apartado, de Correos, num 206 Santa Cruz de Tenerife Canary Island	Tel: 922-61-13-50 Fax: 922-61-13-44
The Associated Motors Company Ltd.	148, Rue D'Argens, Msida Malta	Tel: 356-333001 Fax: 356-340473
Two Wheels Ltd.	Crosslands Business Park, Ballymount Road, Dublin 12, Ireland	Tel: 4602111 Fax: 4566539
General Automotive Co., S.A.	P.O. Box 1200, 101 73 Athens Greece	Tel: 346-5321 Fax: 346-7329
BG Technik s.r.o.	Radlická 117/520 158 01 Praha 5 Czech Republic	Tel: 2-5694 573 Fax: 2-5694 571
Aries Power Equipment Lid.	01-493 Warszawa, ul Wroclawska 25a Poland	Tel: 22-685 17 06 Fax: 22-685 16 03
MO.TOR.PEDO Ltd.	1134 Budapest, Dózsa Gy.út 61-63. Hungary	Tel: 1-4652080 Fax: 1-4652081

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