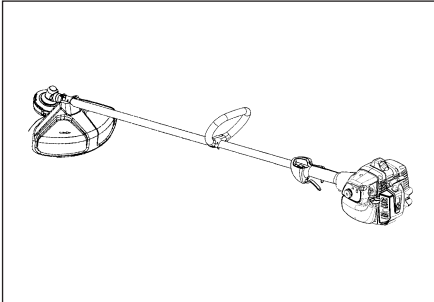




# OWNER/OPERATOR MANUAL MANUEL D'INSTRUCTIONS MANUAL DE INSTRUCCIONES



**GRASS TRIMMER**

**COUPE-HERBE**

**RECORTADORA**

**BC280**

**! WARNING !**

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

**! AVERTISSEMENT !**

Les échappements du moteur de ce produit contiennent des produits chimiques connus par l'Etat de Californie comme étant responsables de cancers, d'anomalies congénitales et d'autres atteintes à l'appareil reproducteur.

**! ADVERTENCIA !**

Los gases de escape del motor de este producto contienen sustancias químicas conocidas por el Estado de California como causantes de cáncer, malformaciones en recién nacidos y otros problemas de reproducción.

**! WARNING !**

Before using our products, please read this manual carefully to understand the proper use of your unit.

**! AVERTISSEMENT !**

Avant d'utiliser ce produit, veuillez lire attentivement ce manuel afin de bien comprendre le bon fonctionnement de cet appareil.

**! ADVERTENCIA !**

Antes de usar nuestros productos, lea detenidamente este manual a fin de familiarizarse con el uso correcto de este aparato.

This spark ignition system complies with the Canadian standard ICES-002.

Ce système d'allumage est conforme à la norme NMB-002 du Canada.

Este sistema de la ignición se conforma con los requisitos del estándar Canadiense ICES-002.

APPLICABLE SERIAL NUMBERS:

NUMEROS DE SERIE APPLICABLES:

NÚMEROS DE SERIE APLICABLES:

ENGINE UNIT 2010-001N00001 and up

MOTEUR 2010-001N00001 et au-delà

UNIDAD DE MOTEUR 2010-001N00001 y superior

115391527 Rev. 4 5/15/12 BRW

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### Note the following before starting:

RedMax has a policy of continuous product development and therefore reserves the right to modify the design and appearance of products without prior notice. Long-term exposure to noise can result in permanent hearing impairment. Always use approved hearing protection. Maintenance, replacement, or repair of the emission control devices and system may be performed by any off-road engine repair establishment or individual.

The Emissions Compliance Period referred to on the Emissions Compliance label indicates the number of operating hours for which the engine has been shown to meet Federal emissions requirements. Category C = 50 hours, B= 125 hours, and A = 300 hours.

EMISSION CONTROL INFORMATION					
THIS ENGINE MEETS EXH AND ECV EMISSIONS REGULATIONS FOR 2012 US EPA/CALIFORNIA SMALL OFF ROAD ENGINES					
REDMAX					
FAMILY/DISP					
MODEL#					
EMISSION COMPLIANCE PERIOD	HOURS				
BAR CODE					
THE AIR INDEX OF THIS ENGINE IS					
0	2	4	6	8	10
THE LOWER THE AIR INDEX, THE LESS POLLUTION					
REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS					

**For reference, please fill out the following information that will be needed for future servicing of your trimmer:**

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Purchased From: \_\_\_\_\_

**WARNING:** A clearing saw, brushcutter or trimmer can be dangerous if used incorrectly or carelessly, and can cause serious or fatal injury to the operator or others. It is extremely important that you read and understand the contents of this operator's manual.

**WARNING:** Under no circumstances may the design of the machine be modified without the permission of the manufacturer. Always use genuine accessories. Non-authorized modifications and/or accessories can result in serious personal injury or the death of the operator or others. Your warranty may not cover damage or liability caused by the use of non-authorized accessories or replacement parts.

## WARNING

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

# KEY TO SYMBOLS

## Symbols

**WARNING:** Clearing saws, brush-cutters and trimmers can be dangerous! Careless or incorrect use can result in serious or fatal injury to the operator or others.



Please read the operator's manual carefully and make sure you understand the instructions before using the machine.



Always wear:

- Hearing protection
- Approved eye protection



Watch out for thrown objects and ricochets.



The operator of the machine must ensure, while working, that no persons or animals come closer than 50 feet (15 meters).



Arrows which show limits for handle positioning.



Always wear approved protective gloves.



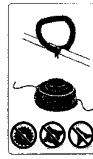
Wear sturdy, non-slip boots.



Only use non-metallic, flexible cutting attachments, i.e. trimmer heads with trimmer line.



Only intended for trimmer heads.



Use unleaded or quality leaded 89 or higher octane gasoline and ISO-L-EGD certified or JASO FD registered two-stroke oil mixed at a ratio of 2% (50:1).



**Other symbols/decals on the machine refer to special certification requirements for certain markets.**

Stop the engine by pushing and holding the stop switch in the STOP position until the engine stops before carrying out any checks or maintenance.



Regular cleaning is required.



Visual check.



Approved eye protection must always be used.



# SAFETY INSTRUCTIONS

## Personal protective equipment

**WARNING:** Whenever you use a clearing saw, brushcutter or trimmer you must wear personal protective equipment that is approved by the authorities. Personal protective equipment does not eliminate the risk of accidents, but it can reduce the effects of an injury in the event of an accident. Ask your dealer for help when choosing protective equipment.

**IMPORTANT!** Listen for warning signals or shouts when you are wearing hearing protection. Always remove your hearing protection as soon as the engine stops.

### GLOVES

Gloves should be worn when necessary, e.g., when fitting cutting attachments.



### HEARING PROTECTION

Wear hearing protection that provides adequate noise reduction.



### EYE PROTECTION

Always wear approved eye protection. If you use a visor then you must also wear approved protective goggles. Approved protective goggles must comply with standard ANSI Z87.1.



### BOOTS

Wear sturdy, non-slip boots.



### CLOTHING

Wear clothes made of a strong fabric and avoid loose clothing that can catch on twigs and branches. Always wear heavy, long pants. Do not wear jewelry, shorts sandals or go barefoot. Secure hair so it is above shoulder level.

## FIRST AID KIT

Always have a first aid kit nearby.



## Machine's safety equipment

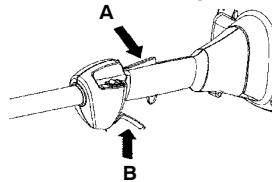
This section describes the machine's safety equipment, its purpose, and how checks and maintenance should be carried out to ensure that it operates correctly. See the "What is what" section to locate where this equipment is positioned on your machine. The life span of the machine can be reduced and the risk of accidents can increase if machine maintenance is not carried out correctly and if service and/or repairs are not carried out professionally. If you need further information please contact your nearest service workshop.

**IMPORTANT!** All servicing and repair work on the machine requires special training. This is especially true of the machine's safety equipment. If your machine fails any of the checks described below you must contact your servicing dealer. When you buy any of our products we guarantee the availability of professional repairs and service. If the retailer who sells your machine is not a servicing dealer, ask him for the address of your nearest servicing dealer.

**WARNING:** Never use a machine that has faulty safety equipment! Carry out the inspection, maintenance and service routines listed in this section. If your machine fails any of these checks, contact your service agent to get it repaired.

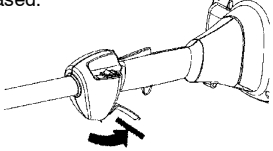
### Throttle lock-out

The throttle lock-out is designed to prevent accidental operation of the throttle control. When you press the lock (A) (i.e. when you grasp the handle) it releases the throttle control (B). When you release the handle, the throttle control and the throttle lock-out both move back to their original positions. This movement is controlled by two independent return springs. This arrangement means that the throttle control is automatically locked at the idle setting.

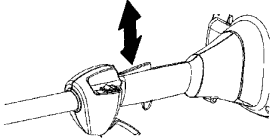


## SAFETY INSTRUCTIONS

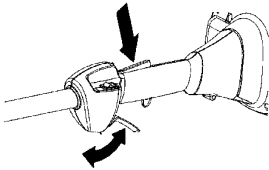
Make sure the throttle control is locked at the idle setting when the throttle lock-out is released.



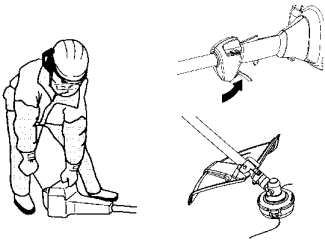
Press the throttle lock-out and make sure it returns to its original position when you release it.



Check that the throttle control and throttle lock-out move freely and that the return springs work properly.

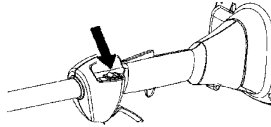


See instructions under the heading Start. Start the machine and apply full throttle. Release the throttle and check that the cutting attachment stops and remains at a standstill. If the cutting attachment rotates with the throttle in the idle position then the carburettor idle setting must be checked. See instructions under the heading Maintenance.



### Stop switch

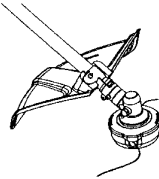
Make sure the engine stops when you push and hold the stop switch.



### Cutting attachment guard



This guard is intended to prevent loose objects from being thrown towards the operator. The guard also protects the operator from accidental contact with the cutting attachment.



Check that the guard is undamaged and not cracked. Replace the guard if it has been exposed to impact or is cracked.

Always use the recommended guard for the cutting attachment you are using. See the "Technical data" section.

**WARNING:** Never use a cutting attachment without an approved guard. See the section on "Technical data". If an incorrect or faulty guard is fitted this can cause serious personal injury.

Use of incorrectly wound trimmer line or an incorrect cutting attachment increases the level of vibration.

**WARNING:** Overexposure to vibration can lead to circulatory damage or nerve damage in people who have impaired circulation. Contact your doctor if you experience symptoms of overexposure to vibration. Such symptoms include numbness, loss of feeling, tingling, pricking, pain, loss of strength, changes in skin color or condition. These symptoms normally appear in the fingers, hands or wrists. The risk increases at low temperatures.

## SAFETY INSTRUCTIONS

### Muffler

The muffler is designed to reduce the noise level and to direct the exhaust gases away from the operator.

**CAUTION!** Muffler is fitted with a catalytic converter designed to reduce exhaust gas emissions.



For mufflers, it is very important that you follow the instructions on checking, maintaining, and servicing your machine. See Checking, maintaining and servicing the machine's safety equipment section.

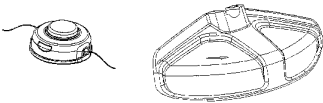
**CAUTION:** Mufflers fitted with catalytic converters get very hot during use and remain so for some time after stopping. This also applies at idle speed. Contact can result in burns to the skin. Remember the risk of fire!

**WARNING:** The inside of the muffler contain chemicals that may be carcinogenic. Avoid contact with these elements in the event of a damaged muffler.

**WARNING:** Engine exhaust fumes contain carbon monoxide, which can cause carbon monoxide poisoning. **DO NOT** start or run the machine indoors, or anywhere that is poorly ventilated. The exhaust fumes from the engine are hot and may contain sparks which can start a fire. Never start the machine indoors or near combustible material!

### Cutting equipment

A trimmer head is intended for trimming grass.



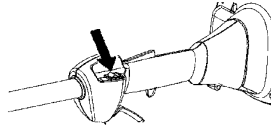
### Checking, maintaining and servicing the machine's safety equipment

#### IMPORTANT!

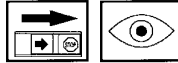
All servicing and repair work on the machine requires special training. This is especially true of the machine's safety equipment. If your machine fails any of the checks described below you must contact your servicing dealer. When you buy any of our products we guarantee the availability of professional repairs and service. If the retailer who sells your machine is not a servicing dealer, ask him for the address of your nearest servicing dealer.

#### Stop switch

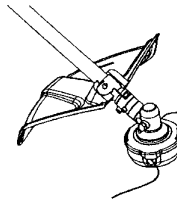
- Start the engine and make sure the engine stops when you push and hold the stop switch.



#### Cutting attachment guard



- Ensure that the guard is undamaged and is not cracked.



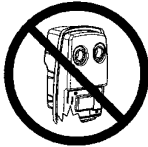
- Replace the guard if it has been exposed to impact or is cracked.
- Always use the recommended guard for the cutting attachment you are using. See section on "Technical data".

## SAFETY INSTRUCTIONS

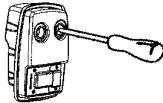
### Muffler



- Never use a machine that has a faulty muffler.



- Regularly check that the muffler is securely attached to the machine.



- The muffler on this unit is equipped with a special spark arrestor mesh. The mesh should be checked and, if necessary, cleaned by a servicing dealer. A blocked mesh will cause the machine to overheat, which can lead to serious damage. Never use a muffler with a defective spark arrestor mesh. See the Maintenance section.

### Cutting equipment

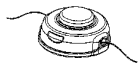
This section describes how to choose and maintain your cutting equipment in order to:

- Obtain maximum cutting performance.
- Extend the life of cutting equipment.

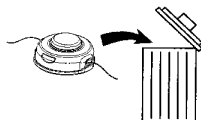
#### General rules:



1. Only use cutting attachments with the guards we recommend! See the section on "Technical Data".



2. Check the cutting attachment for damage or cracks. A damaged cutting attachment should always be replaced.



**WARNING:** Never use a machine with faulty safety equipment. The machine's safety equipment must be checked and maintained as described in this section. If your machine fails any of these checks contact your servicing dealer to get it repaired. Use of a machine with faulty safety equipment increases the risk of serious personal injury to the operator or others.

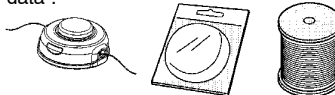
#### IMPORTANT!

This section describes how to choose and maintain your cutting equipment in order to: Obtain maximum cutting performance. Extend the life of cutting equipment. Only use cutting attachments with the guards we recommend! See the section on "Technical data".

Refer to the instructions for the cutting attachment to check the correct way to load the trimmer line and the correct line diameter.

#### Trimmer head

- Only use the recommended cutting attachments. See the section on "Technical data".



- Smaller machines generally require small trimmer heads and vice versa. This is because when clearing using trimmer line the engine must throw out the trimmer line radially from the trimmer head and overcome the resistance of the grass being cleared.
- The length of the trimmer line is also important. A longer trimmer line requires greater engine power than a shorter trimmer line of the same diameter.
- Make sure that the cutter on the trimmer guard is intact. This is used to cut the trimmer line to the correct length.
- To increase the life of the trimmer line it can be soaked in water for a couple of days. This will make the line tougher so that it lasts longer.

#### IMPORTANT!

Always ensure the trimmer line is wound tightly and evenly around the drum, otherwise the machine will generate harmful vibration.



**WARNING:** Always stop the engine before doing any work on the cutting attachment. This continues to rotate even after the throttle has been released. Ensure that the cutting attachment has stopped completely and disconnect the lead from the spark plug before you start to work on it.

# SAFETY INSTRUCTIONS

## General safety precautions

### IMPORTANT!

- The machine is only designed for trimming grass.
- The only accessories you can operate with this engine unit are the cutting attachments we recommend in the "Technical data" section.
- Never use wire, rope, string, etc.
- Never use the machine if you are tired, if you have drunk alcohol, or if you are taking medication that could affect your vision, your judgment or your coordination.
- Never use the machine in extreme weather conditions such as severe cold, very hot and/or humid climates.
- Never use a machine that has been modified in any way from its original specification.
- Wear personal protective equipment. See instructions in the "Personal protective equipment" section.
- Never use a machine that is faulty. Carry out the checks, maintenance and service instructions described in this manual. Some maintenance and service measures must be carried out by trained and qualified specialists. See instructions in the "Maintenance" section.
- All covers and guards must be fitted before starting. Make sure the spark plug cap and lead are not damaged. Otherwise you could get an electric shock.
- The machine operator must ensure that no people or animals come closer than 50 feet (15 meters) while working.
- Stay clear of spinning line.
- Secure or remove loose clothing or clothing with loosely hanging ties, straps, tassels, etc. They can be caught in moving parts.
- Being fully covered also helps protect you from debris and pieces of toxic plants thrown by spinning line.
- Keep handles free of oil and fuel.
- Always keep the engine on the right hand side of your body.
- Hold the unit firmly with both hands.
- Keep trimmer head below waist level and away from all parts of your body. Do not raise engine above your waist.
- Keep all parts of your body away from muffler and spinning line. Keep engine below waist level. A hot muffler can cause serious burns.
- Keep firm footing and balance. Do not overreach or use from unstable surfaces such as ladders, trees, steep slopes, rooftops, etc.
- Use only in daylight or good artificial light.
- Use only for jobs explained in this manual.

**WARNING:** A faulty cutting attachment may increase the risk of serious personal injury.

### Personal protection



- Always wear boots and other equipment described in the "Personal protective equipment" section.
- Always wear working clothes and heavy-duty long pants.
- Never wear loose fitting clothes or jewelry.
- Persons with long hair should (for personal safety) put their hair up.

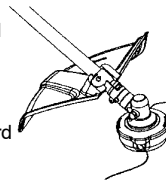
### Safety instructions regarding the surroundings

- Never allow children to use the machine.
- Ensure no one comes closer than 50 feet (15 meters) when working.
- Never allow anyone else to use the machine without first ensuring that they have understood the contents of the operator's manual.

### Safety instructions before starting work



- Inspect the working area. Remove any objects such as stones, broken glass, nails, steel wire, string, etc. that can be thrown or can wrap around the cutting head or shaft.
- Keep others at a safe distance. Children, animals, onlookers and helpers should stand outside of the safety zone of 50 feet (15 meters). Bystanders should be encouraged to wear safety glasses. Stop the machine immediately if anyone should approach.
- Check the entire machine before starting work. Replace damaged parts. Check for fuel leakage and that all safety guards and covers are complete and fastened securely. Check all nuts and bolts.
- Check the cutting head for cracks or any other damage.
- Ensure the trimmer guard is mounted and not damaged.





## SAFETY INSTRUCTIONS

- Check that the trimmer head and guard are correctly secured.
- When adjusting the carburetor, make sure the lower end is supported and that no one is in the immediate vicinity.
- Make sure the cutting head does not rotate when idling.
- Make sure the handle and safety features are in order. Never use a machine that has parts missing or has been changed in relation to the specification.
- Only use the machine for the purpose for which it was intended.

### Starting



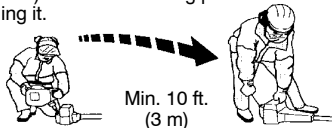
**WARNING:** When the engine is started with the choke in either the choke or start throttle positions the cutting attachment will start to rotate immediately.

- Ensure that all of the engine covers and housings are properly fitted before the unit is started.
- Never start or attempt to run the unit with the clutch, clutch drum, clutch cover, or driveshaft removed.
- Never start the machine indoors. Exhaust fumes can be dangerous if inhaled.
- Observe your surroundings and make sure that there is no risk of people or animals coming into contact with the cutting equipment.
- See the "Starting and Stopping" section for complete instructions.

### Fuel safety



- Always use a fuel container with an anti-spill valve.
- Never refuel the machine while the engine is running.
- Always stop the engine and let it cool for a few minutes before refueling.
- Make sure there is plenty of ventilation when refueling or mixing fuel (gasoline and 2-stroke oil).
- Move the machine at least 10 feet (3 meters) from the refueling point before starting it.



- Never start the machine:
  - If you have spilled fuel on it. Wipe off the spillage and allow remaining fuel to evaporate.
  - If you have spilled fuel on yourself or your clothes, change your clothes. Wash any part of your body that has come in contact with fuel. Use soap and water.
  - If the machine is leaking fuel. Check regularly for leaks from the fuel cap and fuel lines.
  - Avoid all skin contact with fuel. Fuel is a skin irritant and may even cause skin damage.

### Transporting and storage

- Store and transport the machine and fuel so that there is no risk of any leakage or fumes coming into contact with sparks or naked flames, for example, from electrical machinery, electric motors, electrical relays/switches or boilers.
- When storing and transporting fuel always use approved containers intended for this purpose.
- When storing the machine for long periods the fuel tank must be emptied. Contact your local gas station to find out where to dispose of excess fuel.
- Ensure the machine is cleaned and that a complete service is carried out before long-term storage.

**WARNING:** Take care when handling fuel. Bear in mind the risk of fire, explosion and inhaling fumes.

### General working instructions

#### IMPORTANT!

This section describes the basic safety precautions for working with trimmers. If you encounter a situation where you are uncertain how to proceed you should ask an expert. Contact your servicing dealer. Avoid all usage which you consider to be beyond your capability. You must understand the difference between forestry clearing, grass clearing and grass trimming before use.

### Basic safety rules



#### 1. Look around you:

- To ensure that people, animals or other things cannot affect your control of the machine.
- To ensure that people, animals, etc., do not come into contact with the cutting attachment or loose objects that are thrown out by the cutting attachment.

## SAFETY INSTRUCTIONS

- **CAUTION!** Do not use the machine unless you are able to call for help in the event of an accident.
- 2. Do not use the machine in bad weather, such as dense fog, heavy rain, strong wind, intense cold, etc. Working in bad weather is tiring and often brings added risks, such as icy ground, unpredictable felling direction, etc.
- 3. Make sure you can move and stand safely. Check the area around you for possible obstacles (roots, rocks, branches, ditches, etc.) in case you have to move suddenly. Take great care when working on sloping ground.



- 4. Switch off the engine before moving to another area.
- 5. Never put the machine down with the engine running or while the cutting attachment is rotating.

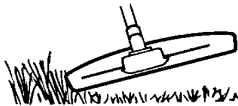
### Basic working techniques

- Always slow the engine to idle speed after each working operation. Long periods at full throttle without any load on the engine can lead to serious engine damage.
- **It is recommended that the engine not be operated for longer than 1 minute at full throttle with no load.**

### Grass trimming using a trimmer head Trimming



- Hold the trimmer head just above the ground at an angle. It is the end of the trimmer line that does the work. Let the trimmer line work at its own pace. Never press the trimmer line into the area to be cut.



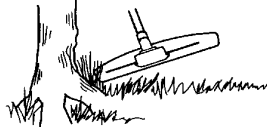
- The trimmer line can easily remove grass and weeds up against walls, fences, trees and borders, however it can also damage sensitive bark on trees and bushes, and damage fence posts.

- Reduce the risk of damaging plants by shortening the trimmer line to 4-4 1/2 inches (10-12 cm) and reducing the engine speed.
- When trimming you should use less than full throttle so that the trimmer line lasts longer and to reduce the wear on the trimmer head.

### Clearing



- The clearing technique removes all unwanted vegetation. Keep the trimmer head just above the ground and tilt it. Let the end of the trimmer line strike the ground around trees, posts, statues and the like. **CAUTION!** This technique increases the wear on the trimmer line.

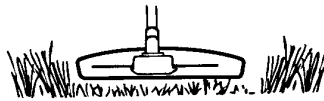


- The trimmer line wears quicker and must be fed forward more often when working against stones, brick, concrete, metal fences, etc., than when coming into contact with trees and wooden fences.

### Cutting



- The trimmer is ideal for cutting grass that is difficult to reach using a normal lawn mower. Keep the trimmer line parallel to the ground when cutting. Avoid pressing the trimmer head against the ground as this can ruin the lawn and damage the tool.



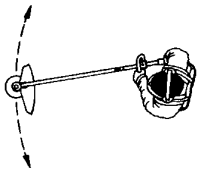
- Do not allow the trimmer head to constantly come into contact with the ground during normal cutting. Constant contact of this type can cause damage and wear to the trimmer head.

## SAFETY INSTRUCTIONS

### Sweeping



- The fan effect of the rotating line can be used for quick and easy clearing up. Hold the trimmer line parallel to and above the area to be swept and move the tool to and fro.

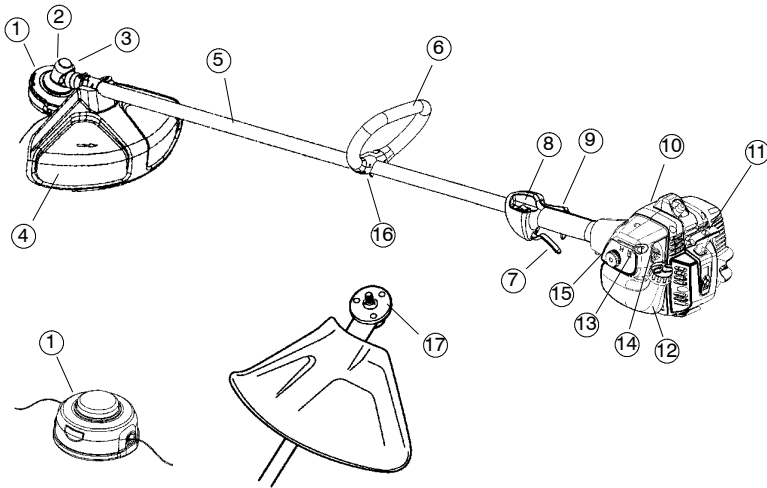


- When cutting and sweeping you should use full throttle to obtain the best results.

**WARNING:** Sometimes branches or grass get caught between the guard and cutting attachment or wrapped around the shaft. Neither the operator of the machine nor anyone else may attempt to remove the cut material while the engine is running or the cutting equipment is rotating, as this can result in serious injury. Stop the engine and cutting equipment before you remove material. The bevel gear can get hot during use and may remain so for a while afterwards. You could get burned if you touch it.

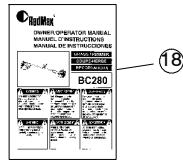
**WARNING:** Watch out for thrown objects. Always wear approved eye protection. Never lean over the cutting attachment guard. Stones, rubbish, etc. can be thrown up into the eyes causing blindness or serious injury. Keep unauthorised persons at a distance. Children, animals, onlookers and helpers should be kept outside the safety zone of 15 m. Stop the machine immediately if anyone approaches. Never swing the machine around without first checking behind you to make sure no one is within the safety zone.

## WHAT IS WHAT?



### What is what?

- |                             |                             |
|-----------------------------|-----------------------------|
| 1. Trimmer head             | 10. Cylinder cover          |
| 2. Grease filler cap        | 11. Starter handle          |
| 3. Bevel gear               | 12. Fuel tank               |
| 4. Cutting attachment guard | 13. Choke control           |
| 5. Shaft                    | 14. Primer bulb             |
| 6. Loop handle              | 15. Air filter cover        |
| 7. Throttle control         | 16. Handle adjustment       |
| 8. Stop switch              | 17. Drive disc              |
| 9. Throttle lock-out        | 18. Operator's manual (EPA) |

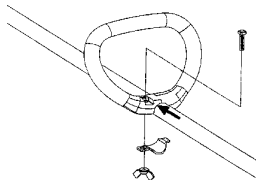


## ASSEMBLY

**NOTE:** Make sure unit is assembled correctly as shown in this manual.

### Fitting the loop handle

- Position the handle on the shaft. Note that the handle must be mounted between the two arrows on the shaft.

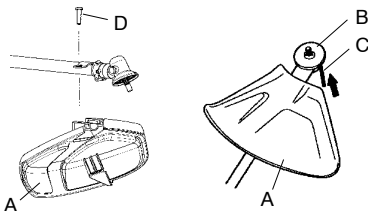


- Fit the screw, securing plate and wing nut as shown in the diagram.
- Tighten the wing nut.

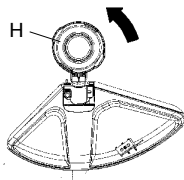
### Fitting the trimmer guard and trimmer head



- Fit the correct trimmer guard (A) for use with the trimmer head. Hook the trimmer guard/combination guard onto the fitting on the shaft and secure with the bolt (D).



- Fit the drive disc (B) on the output shaft.
- Turn the shaft until one of the holes in the drive disc aligns with the corresponding hole in the gear housing.
- Insert hex wrench (C) in the hole to lock the shaft.
- Screw on the trimmer head (H) in the opposite direction to the direction of rotation.




- To dismantle, follow the instructions in the reverse order.

## FUEL HANDLING


### Fuel

**Note!** The machine is equipped with a 2-stroke engine and must always be run using a mixture of gasoline and two-stroke engine oil. It is important to accurately measure the amount of oil to be mixed to ensure that the correct mixture is obtained. When mixing small amounts of fuel, even small inaccuracies can drastically affect the ratio of the mixture.

 **WARNING:** Always ensure there is adequate ventilation when handling fuel.

### Gasoline

- Use good quality unleaded gasoline.

 **WARNING:** Gasoline is very flammable. Avoid smoking or bringing any flame or sparks near fuel. Make sure to stop the engine and allow it cool before refueling the unit. Select outdoor bare ground for fueling and move at least 10 feet (3 meters) away from the fueling point before starting the engine.

### Gasoline requirements

- All 2-stroke RedMax products are powered by professional-commercial duty, hi-performance, hi-RPM, **air cooled** 2-stroke engines. RedMax hi-performance 2-stroke engines produce higher HP outputs as compared to standard home owner duty or light commercial duty production engines offered by most manufacturers.
- Exhaust emission are controlled by the fundamental engine parameters and components (eg. carburation, ignition timing and port timing) without addition of any major hardware or the introduction of an inert material during combustion.
- The RedMax engines are registered and certified with CARB (California Air Resources Board) and EPA (Environmental Protection Agency) to operate on clean, mid-grade 89 octane or premium, unleaded (lead-free) gasoline and RedMax air-cooled "Max Life" synthetic blend premium 2-stroke engine oil mixed at 50:1 ratio.
- Unleaded gasoline is recommended to reduce the contamination of the air for the sake of your health and the environment.
- This hi-performance air cooled 2-stroke engine requires the use of **minimum** 89 octane [R+M]/2 (mid-grade or premium) clean gasoline. Gasoline may contain a maximum of 10% Ethanol (grain alcohol) or up to 15% MTBE (Methyl tertiary-butyl ether). Gasoline containing Methanol (Wood Alcohol) is **NOT** approved.

**IMPORTANT!** If the octane rating of the mid-grade gasoline in your area is lower than 89 octane use premium unleaded gasoline. The majority of all 2-stroke engine manufacturers in the USA and Canada recommend using gasoline with 89 octane or higher.

**CAUTION!** Gasoline with an octane rating lower than 89 will greatly increase the engines operating temperature. Low octane gasoline will cause detonation (knock) resulting in piston seizures and major internal engine components damage. Poor quality gasolines or oils may damage sealing rings, fuel lines or fuel tank of the engine.

**IMPORTANT!** Failures caused by operating engines on gasoline with octane rating lower than 89 are not covered by the RedMax 2-stroke engine warranty.

**CAUTION!** Alternative fuels such as E-15 (15% ethanol), E-20 (20% ethanol), E-85 (85% ethanol) are NOT classified as gasoline and are NOT approved for use in RedMax 2-stroke gasoline engines. Use of alternative fuels will cause major engine performance and durability problems such as: improper clutch engagements, overheating, vapor lock, power loss, lubrication deficiency, deterioration of fuel lines, gaskets and internal carburetor components, etc. Alternative fuels cause high moisture absorption into the fuel/oil mixture leading to oil and fuel separation.

### Oil requirements

- Use only RedMax "Max Life" synthetic blend premium air-cooled 2-stroke engine oil or oil certified to ISO-L-**EGD** (ISO/CD 1378) standard and one that is JASO-**FD** registered. RedMax air-cooled "Max Life" synthetic blend premium 2-stroke engine oil and ISO-L-**EGD** (ISO/CD 1378) AND JASO-**FD** oils are fully compatible with gasoline's containing 10% Ethanol. RedMax air-cooled "Max Life" synthetic blend premium 2-stroke engine oil and ISO-L-**EGD** (ISO/CD 1378) AND JASO-**FD** oils are universal and should be mixed at 50:1 ratio for all 2-stroke air cooled engines sold in the past regardless of mixing ratios specified in those manuals.
- If the oil is registered with JASO, the JASO Logo with FD and registration number will be displayed on the container. The highest JASO rating is "FD", which equals the ISO-L-EGD rating. Lower ratings are "FC", "FB", and "FA".

## FUEL HANDLING



- Engine problems due to inadequate lubrication caused by failure to use ISO-L-EGD certified and JASO FD registered oil such as RedMax air-cooled "MaxLife" synthetic blend premium 2-stroke oil **WILL VOID THE REDMAX TWO-STROKE ENGINE WARRANTY.**

**CAUTION!** Do not use NMMA (National Marine Manufacturers Association), BIA (Boating Industry Association), and TCW (two-cycle water cooled) oils designed for mopeds or outboard, water cooled marine engines. Do not use API (American Petroleum Institute), TC (2-cycle) labeled oils. The API-TC test standard has been discontinued by API in 1995 and it no longer exists.

### Gasoline/oil mixture recommendations

Store your gasoline or gasoline/oil mixture in a cool, dry area in a tightly sealed approved container to limit the entry of moisture and additional air (oxygen). Moisture and air cause the development of varnish and gum, making the fuel stale. Stored gasoline and gasoline/oil mixture ages and loses its octane rating and volatility. Do not mix more gasoline/oil than you intend to use in 30 days, and 60 days when fuel stabilizer is added. RedMax air-cooled "Max Life" synthetic blend premium 2-stroke engine oil contains fuel stabilizer and will automatically extend your gasoline/oil mixture life up to 60 days.

### Mixing ratio

Recommended mixing ratio:  
50:1 for all engines

Gasoline	2-stroke oil
	2% (50:1)
Liter	Liter
5	0.10
10	0.43/0.20
15	0.30
20	0.40
U.S. gallon	U.S. fl. oz.
1	2 1/2
2 1/2	6 1/2
5	12 7/8

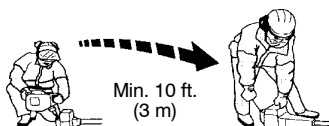
### Mixing

- Always mix the gasoline and oil in a clean container intended for fuel.
- Always start by filling half the amount of the gasoline to be used. Then add the entire amount of oil. Mix (shake) the fuel mixture. Add the remaining amount of gasoline.
- Mix (shake) the fuel mixture thoroughly before filling the machine's fuel tank.
- Do not mix more than one month's supply of fuel at a time.
- If the machine is not used for some time, the fuel tank should be emptied and cleaned.

### Fueling



**AVERTISSEMENT!** Taking the following precautions will lessen the risk of fire:  
**Do not smoke and do not place any hot objects in the vicinity of fuel. Always stop the engine and let it cool for a few minutes before refueling.**  
**When refueling, open the fuel cap slowly so that any excess pressure is released gently. Tighten the fuel cap carefully after refueling.**  
**Always move the machine away from the refueling area before starting.**

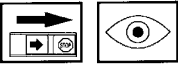


- Clean the area around the fuel cap. Contamination in the tank can cause operating problems.
- Ensure that the fuel is well mixed by shaking the container before filling the tank.

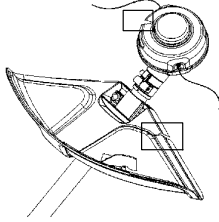
**WARNING:** Fuel and fuel vapors are highly flammable. Take care when handling fuel. Be aware of the risks of fire, explosion and those associated with inhalation.

## STARTING AND STOPPING

### Check before starting



- Inspect the unit before each use. Replace damaged parts. Check for fuel leaks. Make sure all fasteners are in place and secure. Make sure the cutting attachment is properly installed and securely fastened. Use only flexible, non-metallic line recommended by the manufacturer. Never use, for example, wire or wire rope, which can break off and become a dangerous projectile.
- Check that the trimmer head and trimmer guard are not damaged or cracked. Replace the trimmer head or trimmer guard if they have been exposed to impact or are cracked.



- Never use the machine without a guard nor with a defective guard.

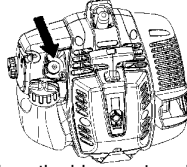
### Starting and stopping



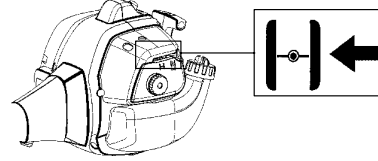
**WARNING:** The complete clutch, clutch cover, and shaft must be fitted before the machine is started, otherwise parts could come loose and cause personal injury. Always move the machine away from the refueling area before starting. Place the machine on a flat surface. Ensure the cutting attachment cannot come into contact with any object. Make sure no unauthorized persons are in the working area, otherwise there is a risk of serious personal injury. The safety distance is 50 feet (15 meters).

### Cold engine

**Primer bulb:** Press the primer bulb 10 times until fuel begins to fill the bulb. The primer bulb need not be completely filled.



**Choke:** Move the blue engine choke lever to the closed position.



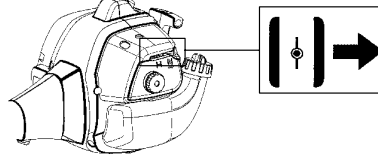
### Starting

Hold the body of the machine on the ground using your left hand (**CAUTION!** Not with your foot!).

Firmly grip the starter rope handle with your right hand. **DO NOT squeeze throttle trigger.** Slowly pull out the cord until you feel some resistance (the starter pawls grip); then quickly and powerfully pull the cord.

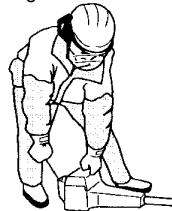
**Never wrap the starter cord around your hand.**

Repeat pulling the cord until the engine attempts to start. Move the blue engine choke lever to the ½ position. Pull starter rope until engine runs. Move the blue engine choke lever to the opened position.



**NOTE:** If engine dies, return blue engine choke lever to the closed position and repeat starting steps.

**CAUTION!** Do not pull the starter cord all the way out and do not let go of the starter handle when the cord is fully extended. This can damage the machine.





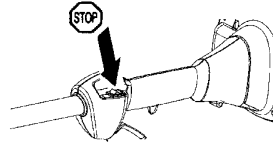
## STARTING AND STOPPING

### Warm engine

With a warm engine, move the blue engine choke lever to the ½ position. Pull starter rope until engine runs. Move the blue engine choke lever to the opened position.

### Stopping

Stop the engine by pushing and holding the stop switch in the STOP position until the engine stops.



**WARNING:** When the engine is started with the choke in the closed position the cutting attachment will start to rotate immediately.

## MAINTENANCE

The owner is responsible for the performance of all required maintenance as defined in the operator's manual.

**WARNING:** Improper maintenance could result in serious engine damage or in serious injury.

### Carburetor

Your product has been designed and manufactured to specifications that reduce harmful emissions. After the engine has used 8-10 tanks of fuel, the engine will be run-in. To ensure that it continues to run at peak performance and to minimize harmful exhaust emissions after the run-in period, ask your servicing dealer to adjust your carburetor.

**WARNING:** The complete clutch, clutch cover, and shaft must be fitted before the machine is started, otherwise parts could come loose and cause personal injury.

### Function



- The carburetor governs the engine's speed via the throttle control. Air and fuel are mixed in the carburetor.
- The T-screw regulates the throttle setting at idle speed. If the T-screw is turned clockwise this gives a higher idle speed; turning it counterclockwise gives a lower idle speed.

### Basic setting

- The basic carburetor settings are adjusted during testing at the factory. Fine adjustment should be carried out by a skilled technician.

**WARNING:** The cutting attachment may be spinning during carburetor adjustments. Wear your protective equipment and observe all safety instructions. Be sure the cutting attachment stops turning when the engine idles. When the unit is turned off, make sure the cutting attachment has stopped before the unit is set down.

**CAUTION!** If the cutting attachment rotates when the engine is idling the idle adjustment screw T should be turned counterclockwise until the cutting attachment stops.

### Rec. idle speed:

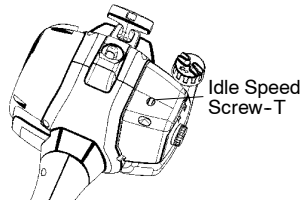
See "Technical data" section.

### Recommended max. speed:

See "Technical data" section.

### Fine adjustment of the idle speed-T

Adjust the idle speed using the idle adjustment screw-T if it is necessary to readjust. First, turn the idle adjustment screw-T clockwise until the cutting attachment starts to rotate. Then, turn the screw counterclockwise until the cutting attachment stops. The idle speed is correctly adjusted when the engine will run smoothly in every position. The idle speed should also be well below the speed at which the cutting attachment starts to rotate.



# MAINTENANCE

**WARNING:** If the idle speed cannot be adjusted so that the cutting attachment stops, contact your servicing dealer. Do not use the machine until it has been correctly adjusted or repaired.

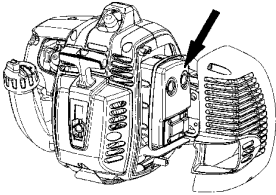
## Unit/Maintenance Safety

Disconnect the spark plug before performing maintenance, except carburetor adjustments.

## Muffler

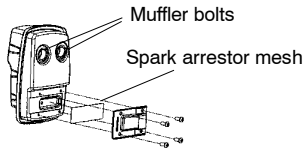


**CAUTION!** Muffler is fitted with a catalytic converter designed to reduce harmful exhaust gases.



The muffler is designed to reduce the noise level and to direct the exhaust gases away from the operator. The exhaust gases are hot and can contain sparks, which may cause fire if directed against dry and combustible material.

Mufflers are equipped with a special spark arrestor mesh. The mesh should be checked and, if necessary, cleaned by a servicing dealer. **If the mesh is damaged, it should be replaced.** If the mesh is frequently blocked, this can be a sign that the performance of the catalytic converter is impaired. Contact your servicing dealer to inspect the muffler. A blocked mesh will cause the machine to overheat and result in damage to the cylinder and piston.



**CAUTION!** Never use a machine that has a faulty or loose muffler. Ensure the muffler bolts are tight.

**CAUTION:** Mufflers fitted with catalytic converters get very hot during use and remain so for some time after stopping. This also applies at idle speed. Contact can result in burns to the skin. Remember the risk of fire!

**WARNING:** The inside of the muffler contain chemicals that may be carcinogenic. Avoid contact with these elements in the event of a damaged muffler.

**WARNING:** Engine exhaust fumes contain carbon monoxide, which can cause carbon monoxide poisoning. **DO NOT** start or run the machine indoors, or anywhere that is poorly ventilated. The exhaust fumes from the engine are hot and may contain sparks which can start a fire. Never start the machine indoors or near combustible material!

## Spark plug



The spark plug condition is influenced by:

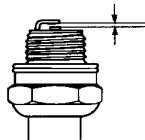
- Incorrect carburetor adjustment.
- An incorrect fuel mixture (too much or incorrect type of oil).
- A dirty air filter.

These factors cause deposits on the spark plug electrodes, which may result in operating problems and starting difficulties.

If the machine is low on power, difficult to start or runs poorly at idle speed: always check the spark plug first before taking any further action. If the spark plug is dirty, clean it and check that the electrode gap is 0.024" (0.6 mm). The spark plug should be replaced after about a month in operation or earlier if necessary.

**CAUTION!** Always use the recommended spark plug type! Use of the wrong spark plug can damage the piston/cylinder.

0.024" (0.6 mm)



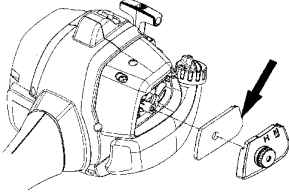
# MAINTENANCE

## Air filter



The air filter must be regularly cleaned to remove dust and dirt in order to avoid:

- Carburetor malfunctions
- Starting problems
- Loss of engine power
- Unnecessary wear to engine parts
- Excessive fuel consumption



Clean the filter every 25 hours, or more regularly if conditions are exceptionally dusty.

### Cleaning the air filter

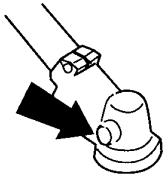
Remove the air filter cover and take out the filter. Wash it clean in warm, soapy water. Rinse thoroughly. Ensure that the filter is dry before refitting it.

An air filter that has been in use for a long time cannot be cleaned completely. The filter must therefore be replaced with a new one at regular intervals. **A damaged air filter must always be replaced.**

## Bevel gear



The bevel gear is filled with the right quantity of grease at the factory. However, before using the machine you should check that the bevel gear is filled three-quarters full with grease.



The grease in the bevel gear does not normally need to be changed except if repairs are carried out.

## Maintenance schedule

Below you will find some general maintenance instructions.

### Daily maintenance

- Check throttle trigger and throttle trigger lockout function.
- Check that the stop switch works correctly.
- Check that there are no fuel leaks from the engine, tank or fuel lines.
- Check that the cutter does not rotate when the engine is idling.
- Clean the outside of the machine.
- Check that the harness is not damaged.
- Check that the blade guard is not damaged or cracked.
- Replace the blade guard if it is exposed to impact or is cracked.
- A non-balanced trimmer head induces heavy vibrations that may damage the machine.
- Check that nuts and screws are tight.
- Check that the trimmer head is tight.

### Weekly maintenance

- Check the starter and starter cord.
- Clean the carburetor area.
- Clean the outside of the spark plug. Remove it and check the electrode gap. Adjust the gap to 0.024" (0.6 mm), or replace the spark plug. Use resistor spark plug Champion RCJ-8Y or equivalent.
- Clean the cooling fins on the cylinder and check that the air intake near the starter is not blocked.
- Clean the air filter.

### Monthly maintenance

- Clean the fuel tank.
- Clean the outside of the carburetor and the space around it.
- Clean the fan and the area around it.
- Check fuel lines for cracks or other damage. Change if necessary.
- Change the fuel filter in fuel tank.
- Check the clutch, clutch springs and the clutch drum for wear. Replace if necessary.
- Check electrical wires and connections.
- Replace the spark plug. Use resistor spark plug Champion RCJ-8Y or equivalent.
- Change the air filter.

# Trimmer Head Line Loading Instructions



<b>1</b> 	<b>2</b> 	<b>3</b> 
<b>4</b> 	<b>5</b> 	
<b>6</b> 	<b>7</b> 	<b>8</b> 
<b>9</b> 		

## TECHNICAL DATA

### Technical data

	<b>BC280</b>
<b>Engine</b>	
Cylinder volume, cu.in./cm <sup>3</sup>	1.7/28
Cylinder bore, inch/mm	1.4/35
Stroke, inch/mm	1.130/28.7
Idle speed, rpm	2,800–3,200
Recommended max. speed, rpm	10,000
Speed of output shaft, rpm	8,000
Max. engine output, acc. to ISO 8893, hp/kW	1.1/0.8
Catalytic converter muffler	Yes
Speed-regulated ignition system	Yes
<b>Ignition system</b>	
Manufacturer/type of ignition system	Walbro/CD
Spark plug	Champion RCJ-8Y
Electrode gap, inch/mm	0.024/0.6
<b>Fuel and lubrication system</b>	
Manufacturer/type of carburetor	Zama
Fuel tank capacity, US pint/liter	0.85/0.4
<b>Weight</b>	
Weight without fuel, cutting attachment and guard, lbs/kg	11/4.8
<b>Sound levels</b> (see note 1)	
Equivalent sound pressure level at the user's ear, measured according to ANSI B175.3-1997, dB(A), min/max:	94/97
<b>Vibration levels</b>	
Vibration levels at handles, measured according to ANSIB175.3-1997, m/s <sup>2</sup>	
At idle, left/right handles:	3/5
At max. speed, left/right handles:	9/8

**NOTE!** This spark ignition system complies with the Canadian standard ICES-002.

**Note 1:** Equivalent sound pressure level is calculated as the time-weighted energy total for sound pressure levels under various working conditions with the following time distribution: 1/2 idle and 1/2 max. speed.

**NOTE!** Sound pressure at the user's ear and vibration on the handles are measured with all the machine's approved cutting equipment fitted.

Model BC280 (M10 LH arbor shaft thread)		
Approved accessories	Type	Cutting attachment / guard, part. no.
Trimmer head	MT104	576 26 08-01 / 545 08 17 03

## LIMITED WARRANTY STATEMENT

**RedMax** Limited Warranty, provides to the **ORIGINAL** retail purchaser that this **RedMax** product is free from **DEFECTS** in **MATERIAL** and **WORKMANSHIP** under normal use and maintenance from the date of retail purchase. **RedMax** agrees to repair or replace at our discretion, any defective product, free of charge at any authorized **RedMax** servicing dealer using original **RedMax** replacement parts, within the listed below application time periods, limitations and exclusions.

**THIS LIMITED WARRANTY IS EXTENDED TO THE FIRST, ORIGINAL RETAIL PURCHASER ONLY, AND IT IS NOT TRANSFERABLE TO SUBSEQUENT OWNERS.**

This warranty is separate from the Emission Control Warranty Statement supplied with your new product. Please consult your Emission Control Warranty Statement for details.

### PRODUCT WARRANTY PERIOD

#### PRODUCTS PURCHASED FOR NON-INCOME PRODUCING USE (Home Owner)

Complete units purchased for residential, or non-income producing use, will be covered by this limited warranty for **two (2) years** from the date of **retail** purchase. The electronic ignition module, the brush cutter/trimmer drive shafts, are warranted for the life\* of the product on parts only.

#### PRODUCTS PURCHASED FOR COMMERCIAL, INSTITUTIONAL, AGRICULTURAL, INDUSTRIAL, OR INCOME PRODUCING USE

Complete units used for commercial, institutional, agricultural, industrial, or income producing use will be covered by this limited warranty for a period of **two (2) years**, from the date of retail purchase. Chainsaws, BT280, BC280, TR2301S/2350S, CHT2200/2250, and Sprayers are covered for **one (1) year**. **Exceptions are Models:** GZ400, BT250, BC250, HB250/280, and HE250F. These **EXCEPTIONS** are covered for **ninety (90) days**. The electronic ignition module and the brush cutter/trimmer drive shafts, are warranted for the life\* of the product on parts only.

#### RENTAL APPLICATION

Complete units for rental use will be covered against defects in material and workmanship for a period of **ninety (90) days** from the date of purchase.

**The following carry No Rental Warranty. They are:** GZ400, BT250, BC250, TR2301S/2350S, HB250/280, CHT2200/2250 and HE250F. These products have **NO** Rental Warranty.

**RedMax** liability under the “Lifetime” coverage is limited to furnishing parts only after the Standard Warranty coverage expires as specified under the **PRODUCT WARRANTY PERIOD** section of this

warranty statement. “Lifetime” free of charge parts is only for a period of **seven (7) years** after the last date of the complete unit’s final production. This warranty does not cover damage other than that resulting from **defects in material or workmanship**. **RedMax DOES NOT OFFER AN OVER THE COUNTER EXCHANGE PROGRAM.** Any product sold, serviced or re-built by other than a **RedMax** Authorized Servicing Dealer, is sold as is **without RedMax** standard warranty coverage. Repair parts and accessories replaced under this warranty are warranted only for the **BALANCE** of the original unit or accessory warranty period. All parts or products replaced under warranty become the property of **RedMax**.

#### PURCHASED REPAIR PARTS, SHORT BLOCKS AND ACCESSORIES

These items carry a 90-day residential, or non-income producing use, and 90-day commercial, institutional, agricultural, industrial, income producing, or rental application warranty.

#### CUTTING ATTACHMENTS SUPPLIED WITH PRODUCTS

All original equipment cutting attachments used in residential, or non-income producing use, such as, but not limited to, bars, chains, sprockets, blades, nylon trimmer heads, will be covered for failures due to defects in material or workmanship for a period of **sixty (60) days** from the original product purchase date. Any misuse from contact with, rocks, or other non-approved materials and/or structures is not covered by this warranty. When used in a commercial, institutional, agricultural, industrial, income producing or rental application, the cutting attachment warranty is for **thirty (30) days**.

**All Maxtre Series, Split Shaft attachments carry the same warranty duration as the units they are designed to fit.**

#### DISCLAIMER OF IMPLIED WARRANTIES

Any implied warranty is limited to the duration of the limited warranty. Otherwise, this limited warranty is in lieu of all other expressed or implied warranties, including any warranty of **FITNESS FOR A PARTICULAR PURPOSE OR USE** and any implied warranty of **MERCHANTABILITY** otherwise applicable to this product. **RedMax** and its affiliated companies shall not be liable for any special incidental or consequential damage, including lost profits. There are no warranties extended other than as provided herein. This warranty may be modified only by **RedMax**.

## LIMITED WARRANTY STATEMENT

### ATTENTION TWO-STROKE ENGINE POWERED PRODUCT OWNERS

**RedMax** Hi-Performance 2-Stroke engines produce higher HP (horse power) outputs as compared to standard Home Owner Duty or Light Commercial Duty production engines offered by most manufacturers. To help insure trouble free performance of the unit, it is required to use oil which meets the ISO-L-EGD Standard per ISO/CD 13738 and one that is registered under JASO M345/FD Standards. **RedMax MaxLife™ Synthetic Blend 2-Stroke Oil** is a premium 2-stroke oil specifically formulated to meet ISO-L-EGD (ISO/CD 13738) and JASO M345/FD Standards.

The use of un-registered oils designed for other applications, such as for outboard motors or lawnmowers, or low RPM, low HP output engines, can result in severe engine damage, and void your 2-stroke engine warranty. This Hi-Performance Air Cooled 2-Stroke engine requires the use of **MINIMUM 89 Octane (mid-grade or premium)** clean gasoline. If octane rating of the mid-grade gasoline is lower than 89 octane, use premium unleaded gasoline.

**Warning:** Gasoline with octane rating lower than 89 will greatly increase engines operating temperature. Low octane gasoline will cause detonation (knock) resulting in piston seizures and major internal engine component damage. Engine failures caused by operating engines on gasoline with octane rating lower than 89 **are not covered** by the **RedMax 2-Stroke Engine Warranty**. (Emission related parts only are covered for two years, regardless of 2-stroke oil used, per the statement listed in the EPA or California Emission Defect Warranty Explanation.)

### THIS WARRANTY DOES NOT INCLUDE, OR COVER DAMAGE TO THE UNIT OR ENGINE CAUSED BY:

1. Lack of lubrication or engine failure, due to the use of 2-stroke oils that do not meet the ISO-L-EGD (ISO/CD 13738) and are not registered to meet JASO M345/FD Standards. Engine problems due to inadequate lubrication caused by failure to use an ISO-L-EGD compliant and JASO M345/FD registered oil, **WILL VOID** the **RedMax 2-Stroke Engine Warranty**. **RedMax MaxLife™ synthetic blend 2-stroke Oil** meets the ISO-L-EGD and is registered to JASO Standard M345/FD.
2. Damage caused by use of gasohol, containing methanol (wood alcohol), or gasoline containing **LESS than 89 OCTANE**. Only use gasolines which contain **89 octane or Higher**.

Gasohol which contains a maximum 10% ethanol (grain alcohol) or 15% MTBE (methyl/tertiary/butyl/ether) is also approved. The prescribed mixing ratio of gasoline to oil is 50:1 and is listed on the **RedMax** oil label and covered in your operator's manual.

3. **Engine damage caused by use of ether or any starting fluids. Damage caused by pressure or steam cleaning the unit.**
4. Overheating and detonation damage caused by use of spark plugs other than those meeting emissions performance requirements listed in the operator's manual.
5. Damage caused by tampering with engine speed governor or emission components, or running engines above specified and recommended engine speeds as listed in your operator's manual.
6. **THIS WARRANTY DOES NOT COVER DAMAGE TO THE UNIT OR ENGINE CAUSED BY: Operation of the unit with improperly installed/ removed cutting shields, guards or safety devices.**
7. Damage caused by removed/damaged air filter, dirt, abrasives, salt water, moisture corrosion, rust, varnish, stale fuel, or any adverse reaction due to incorrect storage procedures.
8. Defects, malfunctions or failures resulting from abuse, misuse, neglect, modifications, alterations, normal wear, improper servicing, use of unauthorized attachments, including failure to provide or perform required maintenance services as prescribed in the operator's manual. **Preventative maintenance as outlined in the operator's manual is the owner's/ customer's responsibility.**
9. Failures due to improper set-up, pre-delivery service or repair service by anyone other than an authorized **RedMax** servicing dealer during the warranty period.
10. Certain parts and other items are not warranted, including but not limited to: spark plugs, filters, lubricants, starter cords, sprockets, and debris bags. Overheating or carbon scoring failures due to restricted/clogged exhaust port, blocked spark arrester screen, or combustion chamber.
11. Set-up and pre-delivery service, engine tune-ups, including natural discoloration due to ultraviolet light.
12. Adjustments after the first (30) thirty days of purchase and beyond, such as carburetor adjustment and throttle cable adjustment.

## LIMITED WARRANTY STATEMENT

13. Damage to gears or gear cases caused by dirt contaminated grease, use of incorrect type of gear case grease, and/or failure to comply with recommended greasing intervals.
14. Damage caused by sprayers pumping or spraying caustic or flammable materials, lack of or broken strainers.
15. Additional damage to parts or components due to continued use after operational problem or failure occurs. Should operational problem or failure occur, the product should not be used, but delivered as is to an authorized **RedMax** Servicing Dealer.

### IMPORTANT OWNER'S RESPONSIBILITY

The owner shall demonstrate **reasonable care and use**, and follow preventative maintenance, storage, fuel and oil usage as prescribed in the enclosed operator's manual. Should a product difficulty occur within the applicable warranty period, you must, at your expense, deliver or ship your **RedMax** unit to an authorized **RedMax Servicing Dealer** only for warranty repairs and arrange for pick-up or return of your unit after the repairs have been made. If you do not know the location of your nearest authorized **RedMax Servicing Dealer**, consult your telephone yellow pages or call **RedMax** at 1-800-291-8251 during the hours of 8:00 am to 5:00 pm Eastern Standard time, or visit [www.redmax.com](http://www.redmax.com). Should you require assistance or have questions concerning this Warranty Statement, you may contact us at 1-800-291-8251 during the hours of 8:00 a.m. to 5:00 p.m. Eastern Standard time or contact us through the web at [www.redmax.com](http://www.redmax.com).

### IMPORTANT OWNER'S RESPONSIBILITY

**IT IS A CUSTOMER'S AND/OR DEALER'S RESPONSIBILITY TO COMPLETE AND RETURN WITHIN 10 DAYS OF THE DATE OF PURCHASE, THE WARRANTY REGISTRATION CARD SUPPLIED WITH YOUR REDMAX PRODUCT.**

**YOUR RECEIPT OF PURCHASE INCLUDING DATE, MODEL AND ENGINE SERIAL NUMBER MUST BE MAINTAINED AND PRESENTED TO AN AUTHORIZED REDMAX SERVICING DEALER FOR WARRANTY SERVICE. PROOF OF PURCHASE RESTS SOLELY WITH THE OWNER-CUSTOMER.**

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE 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. THIS WARRANTY IS GIVEN **ONLY BY REDMAX.**

Our address is:



**RedMax**  
9335 Harris Corners Parkway  
Charlotte, NC 28269



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# U.S. EPA / CALIFORNIA / ENVIRONMENT CANADA EMISSIONS CONTROL WARRANTY STATEMENT

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**IMPORTANT:** This product is compliant with U.S. EPA Phase 3 regulations for exhaust and evaporative emissions. To ensure EPA Phase 3 compliance, we recommend using only genuine RedMax brand replacement parts. Use of non-compliant replacement parts is a violation of federal law.

## **YOUR WARRANTY RIGHTS AND OBLIGATIONS:**

The U.S. Environmental Protection Agency, California Air Resources Board, Environment Canada and RedMax are pleased to explain the emissions control system warranty on your year 2012 and later small off-road engine. In California, all small off-road engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. RedMax must warrant the emission control system on your small off-road engine for the periods of time listed below provided there has been no abuse, neglect, or improper maintenance of your small off-road engine. Your emission control system includes parts such as the carburetor, the ignition system and the fuel tank. Where a warrantable condition exists, RedMax will repair your small off-road engine at no cost to you. Expenses covered under warranty include diagnosis, parts and labor.

## **MANUFACTURER'S WARRANTY COVERAGE:**

If any emissions related part on your engine (as listed under Emissions Control Warranty Parts List) is defective or a defect in the materials or workmanship of the engine causes the failure of such an emission related part, the part will be repaired or replaced by RedMax.

## **OWNER'S WARRANTY RESPONSIBILITIES:**

As the small off-road engine owner, you are responsible for the performance of the required maintenance listed in your operator's manual. RedMax recommends that you retain all receipts covering maintenance on your small off-road engine, but RedMax cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance. As the small off-road engine owner, you should be aware that RedMax may deny you warranty coverage if your small off-road engine or a part of it has failed due to abuse, neglect, improper maintenance, unapproved modifications, or the use of parts not made or approved by the original equipment manufacturer. You are responsible for presenting your small off-road engine to a RedMax authorized repair center as soon as a problem exists. Warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have any questions regarding your warranty rights and responsibilities, you should contact your nearest authorized service center, call RedMax at 1-800-291-8251, or send e-mail correspondence to [service@redmax.com](mailto:service@redmax.com).

## **WARRANTY COMMENCEMENT DATE:**

The warranty period begins on the date the small off-road engine is purchased.

## **LENGTH OF COVERAGE:**

This warranty shall be for a period of two years from the initial date of purchase, or until the end of the product warranty (whichever is longer).

## **WHAT IS COVERED: REPAIR OR REPLACEMENT OF PARTS.**

Repair or replacement of any warranted part will be performed at no charge to the owner at an approved RedMax servicing center. If you have any questions regarding your warranty rights and responsibilities, you should contact your nearest authorized service center, call RedMax at 1-800-291-8251, or send e-mail correspondence to [service@redmax.com](mailto:service@redmax.com).

## **WARRANTY PERIOD:**

Any warranted part which is not scheduled for replacement as required maintenance, or which is scheduled only for regular inspection to the effect of "repair or replace as necessary" shall be warranted for 2 years. Any warranted part which is scheduled for replacement as required maintenance shall be warranted for the period of time up to the first scheduled replacement point for that part.

## **DIAGNOSIS:**

The owner shall not be charged for diagnostic labor which leads to the determination that a warranted part is defective if the diagnostic work is performed at an approved RedMax servicing center.

## **CONSEQUENTIAL DAMAGES:**

RedMax may be liable for damages to other engine components caused by the failure of a warranted part still under warranty.

## **WHAT IS NOT COVERED:**

All failures caused by abuse, neglect, or improper maintenance are not covered.

## **ADD-ON OR MODIFIED PARTS:**

The use of add-on or modified parts can be grounds for disallowing a warranty claim. RedMax is not liable to cover failures of warranted parts caused by the use of add-on or modified parts.

## **HOW TO FILE A CLAIM:**

If you have any questions regarding your warranty rights and responsibilities, you should contact your nearest authorized service center, call RedMax at 1-800-291-8251, or send e-mail correspondence to [service@redmax.com](mailto:service@redmax.com).

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## U.S. EPA / CALIFORNIA / ENVIRONMENT CANADA EMISSIONS CONTROL WARRANTY STATEMENT

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### WHERE TO GET WARRANTY SERVICE:

Warranty services or repairs shall be provided at all RedMax service centers. Call RedMax at 1-800-291-8251, or send e-mail correspondence to [service@redmax.com](mailto:service@redmax.com).

### MAINTENANCE, REPLACEMENT AND REPAIR OF EMISSION RELATED PARTS:

Any RedMax approved replacement part used in the performance of any warranty maintenance or repair on emission related parts will be provided without charge to the owner if the part is under warranty.

### EMISSION CONTROL WARRANTY PARTS LIST:

Carburetor, air filter (covered up to maintenance schedule), ignition system: spark plug (covered up to maintenance schedule), ignition module, muffler including catalyst (if equipped), fuel tank, line and cap.

### MAINTENANCE STATEMENT:

The owner is responsible for the performance of all required maintenance as defined in the operator's manual.

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This engine is certified to be emissions compliant for the following use:

- Moderate (50 hours)
- Intermediate (125 hours)
- Extended (300 hours)

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