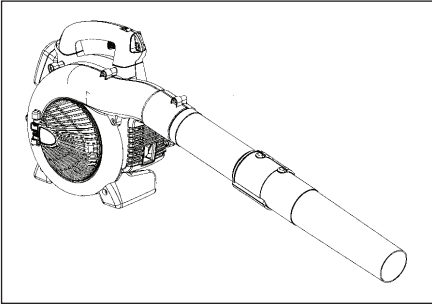




OWNER/OPERATOR MANUAL MANUEL D'INSTRUCTIONS MANUAL DE INSTRUCCIONES



BLOWER

SOUFFLEUR

SOPLADOR

HB280

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:
ENGINE UNIT 2010-001N00001 and up

NUMEROS DE SERIE APPLICABLES:
MOTEUR 2010-001N00001 et au-delà

NÚMEROS DE SERIE APLICABLES:
UNIDAD DE MOTEUR 2010-001N00001 y superior

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Maintenance, replacement, or repair of the emission control devices and system may be performed by any nonroad engine repair establishment or individual.



WARNING

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

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.

This operator's manual describes in detail how to use and service the blower and how to carry out regular maintenance.

It also describes which measures should be taken to achieve maximum safety while operating the blower, how the safety devices work and how they should be serviced.

Note! The section of the manual that deals with safety, must be read and understood by all persons who come in contact with the blower.

This operator's manual has been written for those who need guidance when it comes to fault tracing, thorough servicing and carrying out corrective maintenance of the blower.

There are warning symbols on the blower. Should any of the warning symbols on the blower become disfigured or worn, new ones should be ordered and fitted to the blower as soon as possible. Note that some of the warning symbols may be molded in certain components of the blower.

The blower is used for blowing away leaves and other debris on the ground. When operating the blower, the operator must stand with both feet firmly on the ground.

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 EVAP. EMISSIONS REGULATIONS FOR SMALL OFF ROAD ENGINES					
REDMAX, 2010 US EPA/CALIF.					
FAMILY/DISP					
MODEL#					
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 blower:

Model Number: _____

Serial Number: _____















Purchase Date: _____

Purchased From: _____



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.

KEY TO SYMBOLS

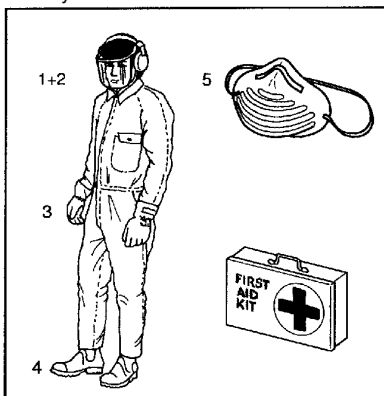
Symbol	Description	Location		Symbol	Description	Location	
		Blower	Operator's manual			Blower	Operator's manual
	Checks and/or maintenance shall be carried out after having switched off the engine and disconnected the spark plug.		X		WARNING! The blower may throw objects at high velocity that can ricochet and hit the operator. This may cause serious eye damage.	X	X
	Cleaning at regular intervals is required.	X			The blower operator must make sure that no bystanders or animals come nearer than 50 feet (15 meters). Whenever several operators are working in the same work area, they should maintain a safe distance of at least 50 feet (15 meters) from one another.	X	X
	Approved protective goggles or visor must be worn.		X		Choke	X	
	Approved protective goggles or visor, ear protection, and face mask in dusty environments must be worn.	X	X		Refueling	X	
	WARNING! The blower can be dangerous! Careless or improper use can cause serious, even fatal injury.	X	X		Stop switch	X	
	WARNING! Read the operator's manual before use. Failure to follow instructions could result in serious injury to the operator and/or bystanders. Save operator's manual.	X	X		Instructions on how to open the inlet cover.		X
	WARNING! Make sure that the inlet cover is locked in the closed position or that the vacuum tube is mounted on the blower. Never touch the impeller unless the unit is off, the impeller has stopped moving and the spark plug is disconnected.	X	X				
	Always wear approved, protective gloves.	X	X				
				Other symbols/decals on the machine refer to special certification requirements for certain markets.			

SAFETY INSTRUCTIONS

Personal safety equipment

Persons who use the blower shall wear the following safety equipment:

1. Approved ear protection.
2. Approved eye protection.
3. Approved protective gloves.
4. Boots or work shoes with a non-slip sole.
5. Face mask when operating the blower in dusty environments.



Personal safety

The following instructions apply to persons operating the blower:

- The operator shall have read and understood the contents of this manual.
- Do not wear loose clothing, scarves or neckchains or let long hair hang loose, since these can be drawn into rotating parts of the blower and cause injury.
- Do not operate the blower while under the influence of alcohol, drugs or when you are tired.
- Do not allow minors to operate the blower.
- Always have a first aid kit nearby.

Fuel safety



WARNING: The fuel used to run the blower has the following dangerous characteristics:

1. **Volatile liquid: its vapor and exhaust fumes are poisonous.**
2. **Direct contact can cause skin irritation.**
3. **It is extremely flammable.**

Special safety instructions apply to the type of fuel used for the blower. These instructions are specified under the Fuel handling section.

Muffler

The muffler is designed to give the lowest possible noise level and to direct the engine's exhaust fumes away from the operator. Mufflers fitted with catalytic converters are also designed to reduce harmful exhaust components.



WARNING: The exhaust fumes from the engine are hot and may contain sparks which can start a fire. Never start the machine indoors or near flammable material!



WARNING: Mufflers fitted with catalytic converters become extremely hot during use and after stopping. This also applies at idling speeds. Contact can result in burns to the skin. Be aware of the risk of fire!

Safety equipment



WARNING: The blower must never be used if any of the safety devices or guards are missing, damaged or not in working order.

The blower is equipped with a number of safety devices and guards for the prevention of accidents. These are described in the general description of the blower.

The safety devices and guards also require regular inspection and maintenance. These measures and the interval at which they should be carried out are specified in the Maintenance section.

Safety while operating the blower

- Do not allow bystanders or animals to be in the work area, i.e. 50 feet (15 meters) from the operator.
- The blower may throw objects at high velocity that can ricochet and hit the operator. This may cause serious eye damage.
- Never point the blower nozzle toward people or animals.
- Stop the engine before fitting or dismantling accessories or other components.
- Never operate the blower if any of the guards are missing.
- Never operate the blower in poorly ventilated spaces where exhaust fumes might otherwise be inhaled.
- Stop the engine before refueling. Move the unit at least 10 feet (3 meters) from fueling site before attempting to start.
- The catalytic muffler is extremely hot while the blower is running and after it has stopped. The same applies when the blower is running at idling speed. Be aware of the danger of fire, especially while operating the blower near flammable materials and/or where flammable fumes are present.

SAFETY INSTRUCTIONS

- Never touch the spark plug or plug cord while the engine is in operation. Doing so may result in being subjected to an electrical shock.
- Never touch the muffler, spark plug, other metallic parts of the engine or engine cover while the engine is in operation or immediately after shutting down the engine. These metallic parts and engine cover reach high temperatures during operation and doing so could result in serious burns.
- Be careful, particularly if left hand operation is applied. Avoid any direct body contact with inlet cover area. Keep jewelry, loose clothing, or clothing with loosely hanging straps, ties, tassels, etc., away from inlet cover area.
- Do not operate the blower while standing on a ladder or a stand.

Other safety measures

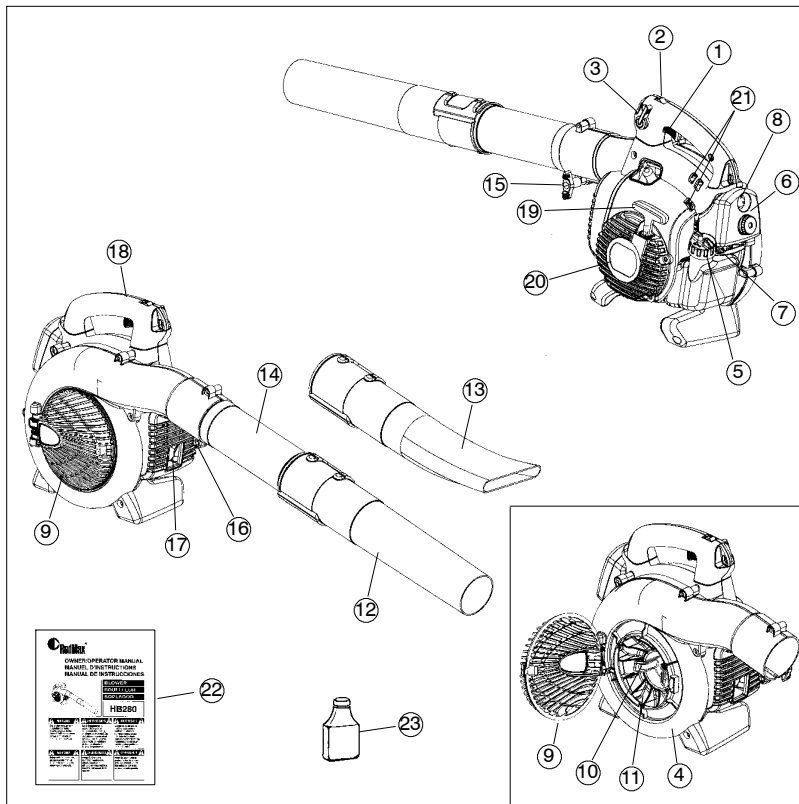
- Operate the blower only at reasonable hours, i.e. not early in the morning or late at night when people might be disturbed. Comply with times listed in local ordinances. Usual recommendations are 9:00 a.m. to 5:00 p.m., Monday through Saturday.
- To reduce sound levels, limit the number of pieces of equipment used at any one time.
- Operate the blower at the lowest possible throttle setting to do the job.
- Check the condition of the blower before operation, especially the muffler, air intake and air filter.
- Use a rake or a broom to loosen ground debris before blowing.
- Under dusty conditions, slightly spray the work area with a hose.
- Conserve water by using blowers instead of hoses for many lawn and garden applications, including areas such as roof gutters, screens, patios and gardens etc.
- Watch out for children, pets, open windows or vehicles, and blow debris safely away.
- Use the full nozzle extension so the air stream can work close to the ground.
- After using the blower, clean up and dispose of debris in trash receptacles.

Disposal

- When disposing of your machine and/or fuel or oil for the machine, be sure to follow all local regulations.

DESCRIPTION

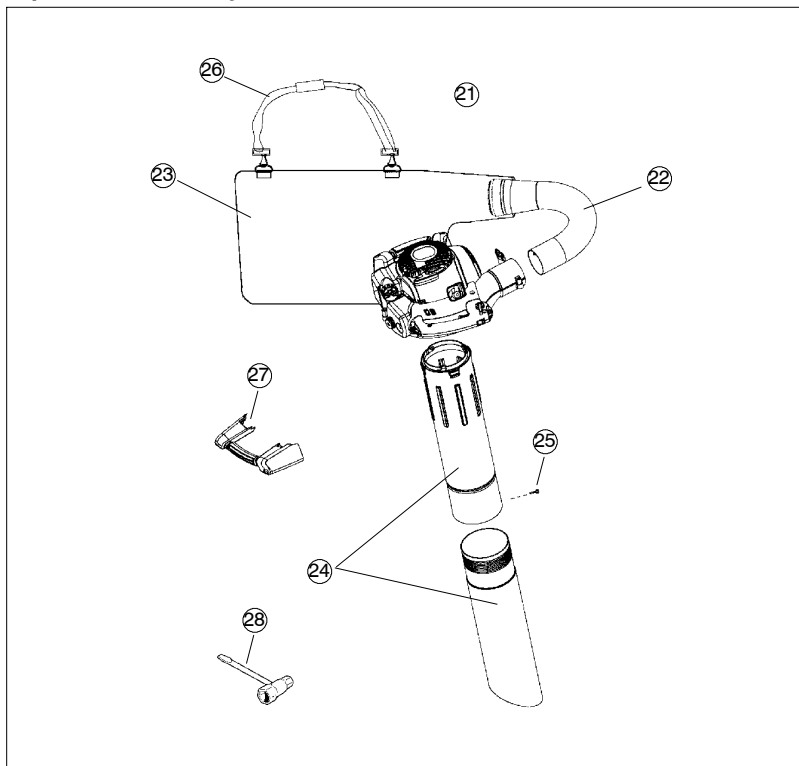
The blower



1. Throttle trigger
2. STOP switch
3. Variable speed control
4. Fan housing
5. Fuel cap
6. Air filter
7. Choke
8. Primer bulb
9. Inlet cover
10. Cutters
11. Fan impeller
12. Standard nozzle
13. High velocity nozzle
14. Blower tube
15. Tube clamp bolt
16. Tube clamp nut
17. Muffler
18. Ground wire
19. Starter handle
20. Starter device
21. Carburetor adjustment screws
22. Operator's manual
23. 2-stroke engine oil

DESCRIPTION

Optional accessory



- 21. Vacuum accessory with collection components consisting of items 22-28 below
- 22. Collection bag tube
- 23. Collection bag
- 24. Vacuum tube in two sections
- 25. Screw
- 26. Shoulder strap
- 27. Vacuum assist handle
- 28. Screwdriver

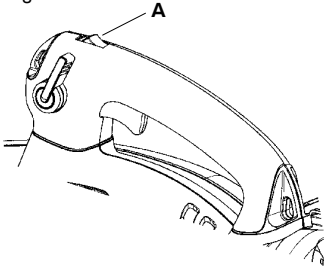
DESCRIPTION

Safety equipment

The following equipment on the blower is designed for protecting personnel and materials. These components should receive special attention whenever you operate, inspect and service the blower.

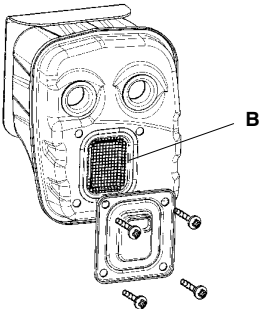
Stop switch

- The stop switch (A) is used to stop the engine.



Muffler

- The muffler is designed to give the lowest possible noise level and to direct the engine's exhaust fumes away from the operator. Mufflers fitted with catalytic converters are also designed to reduce harmful exhaust components.
- The engine exhaust fumes are hot and can contain sparks, which may cause fire if they come in contact with dry or flammable material.
- Some blower models, especially those sold in countries where the climate is dry, are equipped with a spark arresting screen (B). This screen must be cleaned or replaced at specific intervals. See the Maintenance section.

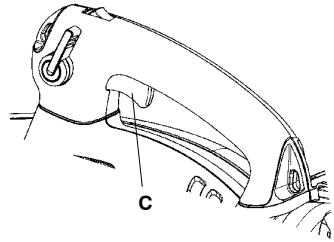


WARNING: The muffler is extremely hot while the engine is running and after it has stopped. DO NOT TOUCH THE MUFFLER IF IT IS HOT! This can cause severe burns.

Other equipment

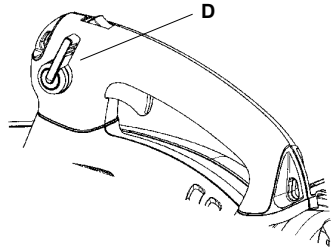
Throttle trigger

- The speed and the output of the engine are regulated by the throttle trigger (C).



Variable speed control

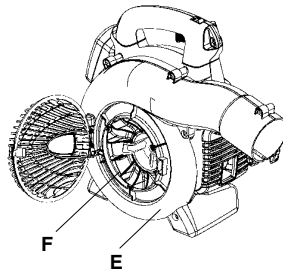
- The variable speed control (D) is designed to allow setting engine speed as necessary during blower use only.



- To avoid causing damage to the unit, DO NOT attempt to use the variable speed control during starting or during vacuum use.

Fan housing

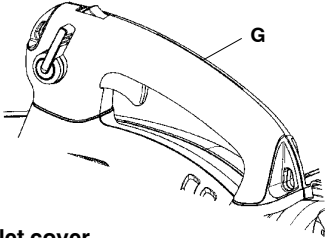
- The blower fan housing (E) and the fan impeller (F) provide high performance air discharge.



DESCRIPTION

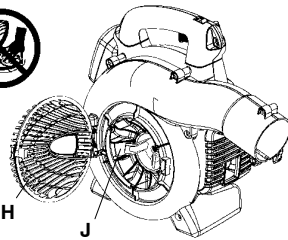
Ground wire

- The ground wire (G) reduces static build-up during operation in dry conditions.



Inlet cover

- An inlet cover (H) is located on the side of the fan housing. Opening this cover allows access for cleaning and inspecting the impeller. If the optional vacuum accessory is used, the vacuum tubes must be fitted to the opening in the inlet cover. To open the inlet cover, use a tool to lift the edge of the cover opposite the hinge (indicated by arrow on inlet cover).



WARNING: Never start the blower if the inlet cover is not closed, is damaged or cannot be closed (except if the vacuum tube is fitted).

Cutters

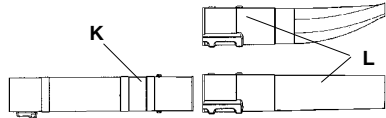
- Two cutters (J) are fastened to the impeller. The cutters are there to mulch leaves and other debris that have been vacuumed before they enter the collection bag.

Blower tube and nozzle

NOTE: The tube clamp bolt and nut must be installed prior to initial use (see the general description of the blower on page 6).

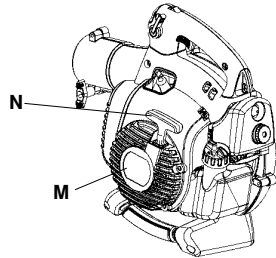
- The blower tube (K) has a pegged slot mounting system to the unit. To install or remove the blower tube (or collection bag tube for the optional vacuum accessory), the tube clamp bolt must be removed. Align slot in the blower air outlet with the raised rib on the tube and insert tube until the holes in the tube and housing align. Re-insert the tube clamp bolt and tighten.

- The nozzles (L) have a bayonet mount for connection to the blower tube. Air is channeled through the blower tube to the nozzles, where the air discharge velocity increases and the air stream discharge pattern is formed to provide best performance. The length of the blower tube can be adjusted by twisting the nozzle to the left to disengage the bayonet mount and sliding the nozzle to the appropriate position. Twist the nozzle to the right until a click is felt to resecure the nozzle.



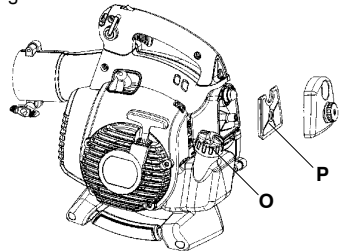
Starter device and starter handle

- The starter device (M) is located on the side of the engine shrouding and engages the crankshaft only when the starter handle (N) is pulled.



Fuel cap

- The fuel cap (O) is located at the rear of the engine shrouding on the fuel tank and has a seal to prevent fuel from leaking out.



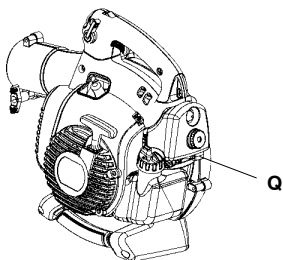
Air filter

- The air filter (P) consists of a fiber filter medium in a resilient frame. The air filter should be cleaned at specific intervals (see Maintenance section). Otherwise, the blower will consume too much fuel, the performance will be reduced and an oily deposit may form on the spark plug electrodes.

DESCRIPTION

Choke

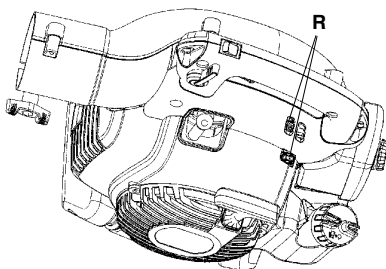
- The choke (Q) is located below the air filter cover and should be used every time the engine is cold-started.



Adjusting the carburetor

NOT FOR ALL MODELS

- There are three adjusting screws (R) for adjusting the carburetor:
 - Low speed jet
 - High speed jet
 - Adjustment screw for idling
- Adjusting the carburetor involves adapting the engine to local operating conditions, e.g. climate, altitude, gasoline and type of two-stroke engine oil used. For details about carburetor adjustment, see the Maintenance section.



FUEL HANDLING

Fuel

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 (eq. 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 two-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 maximum of 10% Ethanol (grain alcohol) or up to 15% MTBE (Methyl tertiary-butyl ether). Gasoline containing Methanol (Wood Alcohol) is **NOT** approved.

- **NOTE:** 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.

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

WARNING: Alternative fuels (not gasoline) 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.

FUEL HANDLING

- 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".



- 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.**



WARNING: 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.

IMPORTANT: GASOLINE/OIL MIXTURE STORAGE 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.

How to mix fuel



Recommended mixing ratio:
Gasoline 50 : Oil 1
(when using RedMax air-cooled "Max Life" synthetic blend premium 2-stroke engine oil)



50:1 MIXING CHART

GASOLINE (gal.)	1	2	3	4	5
2-CYCLE OIL (fl.oz.)	2.6	5.2	7.8	10.4	13

GASOLINE (liter)	1	2	3	4	5
2-CYCLE OIL (mL)	20	40	60	80	100



WARNING: Pay attention to agitation.

- Measure out the quantities of gasoline and oil to be mixed.
- Put some of the gasoline into a clean, approved fuel container.
- Pour in all of the oil and agitate well for 10 seconds.
- Pour in the rest of gasoline and agitate again for at least one minute. As some oils may be difficult to agitate depending on oil ingredients, sufficient agitation is necessary. Be careful that, if the agitation is insufficient, there is an increased danger of early piston seizure due to abnormally lean mixture.
- Place a clear indication on the outside of the container to avoid mixing up with gasoline or other containers that don't contain oil.
- Indicate the contents on outside of container for easy identification.

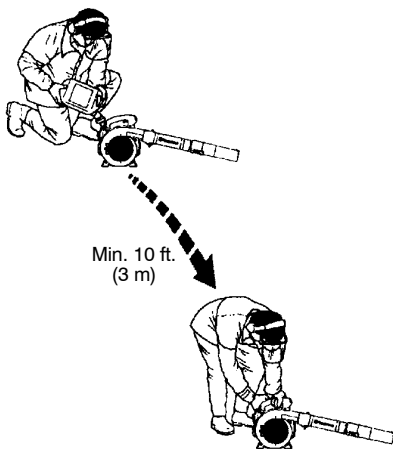
FUEL HANDLING

Fueling your unit



1. Untwist and remove the fuel cap. Rest the cap on a clean surface.
2. Put fuel into the fuel tank to 80% of the full capacity.
3. Fasten the fuel cap securely and wipe up any fuel spillage around the unit.

WARNING: Select flat and bare ground for fueling. Move at least 10 feet (3 meters) away from the fueling point before starting the engine. Stop the engine before refueling the unit. At that time, be sure to sufficiently agitate the mixed gasoline in the container.



To extend engine life, avoid:

1. FUEL WITH NO OIL (RAW GASOLINE) - It will cause severe damage to the internal engine parts very quickly.
2. GASOHOL - It can cause deterioration of rubber and/or plastic parts and disruption of engine lubrication.
3. OIL FOR 4-CYCLE ENGINE USE - It can cause spark plug fouling, exhaust port blocking, or piston ring seizure.
4. Mixed fuels which have been left unused for a period of one month or more may clog the carburetor and result in the engine failing to operate properly.
5. In the case of storing the product for a long period of time, clean the fuel tank after rendering it empty. Next, Start the engine and run the carburetor dry residual fuel.
6. In the case of scrapping the used mixed oil container, scrap it only at an authorized depository site.

STARTING AND STOPPING

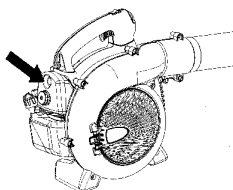
Starting and stopping



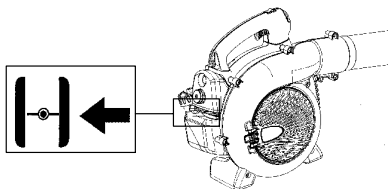
WARNING: Never start the blower if the inlet cover is not closed, is damaged or cannot be closed (except if the vacuum tube is fitted).

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 over to the FULL CHOKE (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.

WARNING: Never wrap the starter cord around your hand.

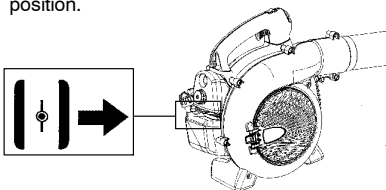
Pull starter handle until engine attempts to run, but no more than 3 pulls. Move choke to $\frac{1}{2}$ position and pull the cord until the engine starts and runs. Allow the engine to warm up for approximately 10 seconds; then, move the choke to the OFF CHOKE (opened) position.

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.

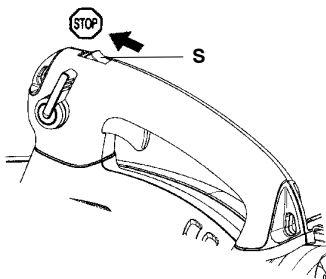
Warm engine

With a warm engine, squeeze and hold the throttle trigger. Move choke to $\frac{1}{2}$ position. Pull starter rope sharply while squeezing throttle trigger until engine runs. Move the choke to the OFF CHOKE (opened) position.



Stopping

To stop the engine, push and release the engine STOP switch (S). The switch will automatically return to the ON position. Wait 7 seconds before attempting to restart unit to allow switch to reset.



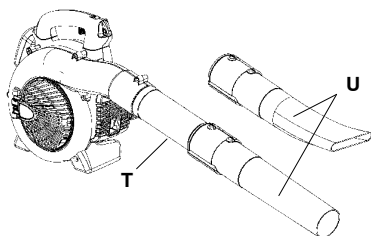
USING THE BLOWER

To blow away debris on the ground

Fitting the blower tube and nozzle on the blower

WARNING: When fitting the blower tube and nozzle, the engine must be switched off.

The blower tube (T) has a pegged slot mounting system to the unit. To install or remove the blower tube, the tube clamp bolt must be removed. Align slot in the blower air outlet with the raised rib on the tube and insert tube until the holes in the tube and housing align. Re-insert the tube clamp bolt and tighten.



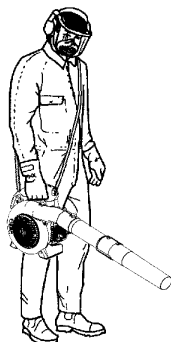
The nozzles (U) have a bayonet mount for connection to the blower tube. Air is channeled through the blower tube to the nozzles, where the air discharge velocity increases and the air stream discharge pattern is formed to provide best performance. The length of the blower tube can be adjusted by twisting the nozzle to the left to disengage the bayonet mount and sliding the nozzle to the appropriate position. Twist the nozzle to the right until a click is felt to re-secure the nozzle.

Blowing

Before you begin blowing, put on the required safety equipment.

WARNING: When working with the blower, wear the required personal safety equipment:

1. Hearing protection.
2. Eye protection.
3. Protective gloves.
4. Face mask in dusty environments.



WARNING: Never point the blower nozzle at people or animals. The high-velocity air stream can contain particles that may cause serious injury, especially if the blower has previously been used for vacuuming. Be careful, particularly if left hand operation is applied. Avoid any direct body contact with inlet cover area. Keep jewelry, loose clothing, or clothing with loosely hanging straps, ties, tassels, etc., away from inlet cover area.

USING THE BLOWER

WARNING: Never start the blower if the inlet cover is not closed, is damaged or cannot be closed (except if the vacuum tube is fitted).

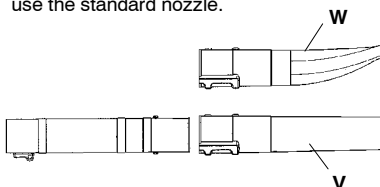
WARNING: Do not operate the blower while standing on a ladder or a stand.

Start the blower as described in the Starting and Stopping section. Work according to the following instructions:

1. Never blow air toward fixed objects such as walls, large rocks, automobiles and fences.
2. When working inside corners, blow from the corner and inward toward the center of the work area. Otherwise, debris can fly up in your face and cause eye injury.
3. Never point the blower nozzle at delicate plants.

Standard nozzle

The standard nozzle (V) is included with the HB280. When greater accuracy and high air stream concentration is desired, use the standard nozzle.



High-velocity nozzle

The high-velocity nozzle (W) is also included with the HB280 blower.

When a wider air stream and greater air velocity is desired, use the high-velocity nozzle.

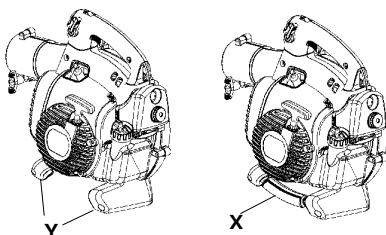
To vacuum debris from the ground (using optional vacuum accessory)

The vacuuming device is an optional accessory.

Fitting the vacuum assist handle

Before vacuuming, the assist handle (X) must be assembled to the blower.

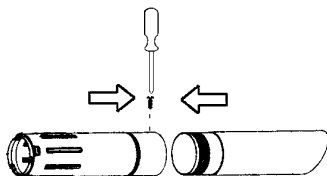
1. Loosen and remove screws from front and rear impact feet (Y) of blower. Remove both feet.
2. Install vacuum assist handle (X).
3. Reinstall two screws. Tighten securely.




Fitting the collection bag with the various vacuum tubes

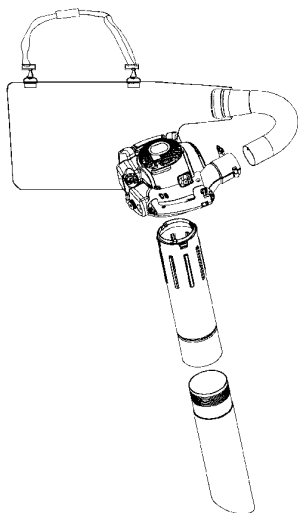
WARNING: When fitting the tubes to the blower, the engine must be switched off.

1. Open the collection bag. Insert the collection bag tube from inside the bag to fit in the vacuum inlet opening of the bag as shown. Ensure elastic is seated in groove. Close the zipper on the bag.
2. Remove the blower tube and install the collection bag tube. Install and tighten tube clamp bolt. Attach the carrying strap to the collection bag loops.
3. Align arrows on lower vacuum tube and upper vacuum tube. Push lower vacuum tube into upper vacuum tube until the lower tube is securely seated in the upper tube (about 3 inches/7 cm). Permanently assemble the two tubes together with the supplied screw.



4. Open the cover on the side of the blower by using a screwdriver to pry up under the edge of the cover on the side opposite the hinge (indicated by arrow on inlet cover).
5. Press the vacuum tubes in the large opening at the underside of the blower and align the tabs with the slots in the tube. Turn it until the bayonet mount locks (lock symbols  align).

USING THE BLOWER



Vacuumping

Before vacuuming, put on the required safety equipment.

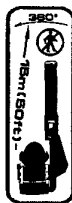


WARNING: When working with the blower, wear the required personal safety equipment:

1. Hearing protection.
2. Eye protection.
3. Protective gloves.
4. Face mask in dusty environments.



When operating the blower, the collection bag must be supported by the shoulder strap. The strap should be worn over the shoulder as shown.



WARNING: Always check that the collection bag is intact and the zipper is closed before starting the blower. Never use a damaged bag. There is risk of injury due to flying debris. Be careful, particularly if left hand operation is applied. Avoid any direct body contact with the exhaust outlet area.



WARNING: Never start the blower if the inlet cover is not closed, is damaged or cannot be closed (except if the vacuum tube is fitted).



WARNING: Do not operate the blower while standing on a ladder or a stand.

Start the blower as described in the Starting and Stopping section. Work according to the following instructions:

1. Do not vacuum large solid objects that can damage the fan, such as wood, cans (tins) or lengths of string or ribbon.
2. Do not let the vacuum tube strike the ground.
3. The collection bag can be emptied by first stopping the unit and then opening the zipper on the side.

MAINTENANCE

Maintenance Safety

The owner is responsible for the performance of all required maintenance as defined in the operator's manual. Disconnect the spark plug before performing maintenance, except carburetor adjustments.

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.

Function



- The carburetor governs the engine's speed via the throttle control. Air and fuel are mixed in the carburetor.
- The T-screw (Z) 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.

Recommended idle speed:

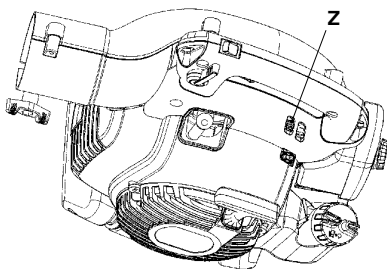
See "Technical data" section.

Recommended max. speed:

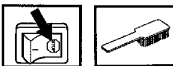
See "Technical data" section.

Fine adjustment of the idle speed-T

Adjust the idle speed using the idle adjustment T-screw if it is necessary to readjust. The idle speed is correctly adjusted when the engine will run smoothly in every position.



Muffler



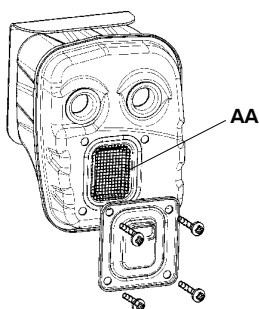
Some mufflers are fitted with catalytic converters. See the Technical data section to find out if your machine is equipped with a catalytic converter.

The muffler is designed to dampen the noise level and to direct the exhaust fumes away from the user. The exhaust fumes are hot and can contain sparks, which can result in fire if the exhaust fumes are directed towards a dry and flammable material.

Some mufflers are equipped with a special spark arresting screen (AA). If your machine is fitted with this type of screen, it should be cleaned regularly. To access the screen, remove the outlet cover on the front of the muffler. Use a wire brush to clean the screen. On mufflers without a catalytic converter the screen should be cleaned weekly, or replaced if necessary. On mufflers fitted with a catalytic converter the screen should be checked and cleaned monthly. If the screen is damaged it should be replaced. If the screen is frequently blocked, this can be a sign that the function of the catalytic converter is impaired. Contact your dealer to inspect the muffler. A blocked screen will cause the engine to overheat resulting 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.

MAINTENANCE

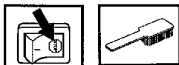


WARNING: Mufflers fitted with catalytic converters get very hot during use and remain so for some time after stopping. This also applies at idle speed. Contact can result in burns to the skin. Remember the risk of fire!

WARNING: Bear in mind that: Engine exhaust fumes contain carbon monoxide, which can cause carbon monoxide poisoning. For this reason you should 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 flammable material!

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

Cooling system



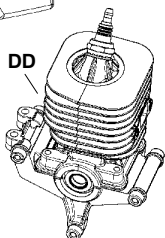
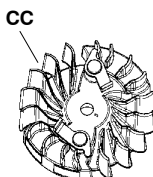
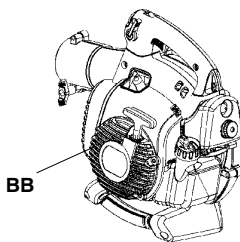
The engine is equipped with a cooling system for maintaining the right operating temperature.

The cooling system consists of the following components:

1. Air intake on the starter device (BB).
2. Fan blades on the flywheel (CC).
3. Cooling fins on the cylinder (DD).
4. Cylinder cowling (guides cooling air flow against cylinder surfaces).

Clean the cooling system by brushing once a week, or more often, if necessary.

A dirty or blocked cooling system will cause the blower to overheat and this will damage the cylinder and piston.

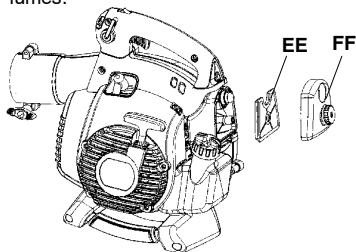


Air filter



The air filter (EE) 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
- Elevated content of harmful exhaust fumes.



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

Cleaning the air filter

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

CAUTION! A damaged air filter must always be replaced.

MAINTENANCE

Spark plug

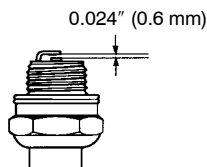


The spark plug condition is influenced by:

- Incorrect carburetor adjustment.
- An incorrect fuel mixture (too much or incorrect type of oil).
- Poor quality gasoline and/or 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.

Maintenance schedule

Below you will find some general maintenance instructions.

Daily maintenance

- Clean the exterior surfaces of the blower.
- Check that the variable speed control and the throttle trigger function in a safe manner. Replace damaged parts.
- Check that the stop switch works properly. Replace if necessary.
- Clean the air filter. Replace if necessary.
- Check that the inlet cover can be locked in the closed position. Carefully check that the fan impeller is clean, especially if the blower has been used for collecting debris (vacuuming).
- Check that all nuts and screws are properly tightened.
- Check that all the housings are free of cracks. Replace damaged parts.
- Check that the collection bag is intact and that the zipper works. Replace it if necessary.

Weekly maintenance

- Check the condition of the starter device, the starter cord and the tensioning spring. Replace damaged parts.
- Check the condition of the air intake at the starter device. Remove debris if it is clogged.
- 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 fan blades on the flywheel.
- Clean or replace the spark arresting screen (not on mufflers with a catalytic converter).
- Clean the carburetor area.
- Clean the air filter.

Monthly maintenance

- Clean the fuel tank.
- Clean the outside of the carburetor and the area around it.
- Clean the fan blades on the flywheel and the area around it.
- Check fuel lines for cracks or other damage. Change if necessary.
- Change the fuel filter in fuel tank.
- Check all cables and connections. Replace damaged parts.
- Replace the spark plug. Use spark plug Champion RCJ-8Y or equivalent.
- Change the air filter.

Storage

Before storing the blower:

- Drain the fuel tank and push the primer bulb until it becomes empty of fuel.
- Remove the spark plug and drop a spoonful of 2-cycle oil into the cylinder. Crank the engine several times, then install the spark plug.
- Store unit in a dry, dust free place, out of the reach of children.

TECHNICAL DATA

Technical data

	HB280
Engine	
Cylinder volume, cu.in./cm ³	1.7/28
Cylinder bore, inch/mm	1.4/35
Stroke, inch/mm	1.130/28.7
Idle speed, rpm	2,800-3,200
Max. speed - blowing, rpm:	8,600
Max. speed - vacuuming, rpm*:	7,500
Max. engine output, acc. to ISO 8893, hp/kW	1.1/0.8
Catalytic converter muffler	Yes
Speed-regulated ignition system	No
Ignition system	
Manufacturer/type of ignition system	Phelon/CD
Spark plug	Champion RCJ-6Y
Electrode gap, inch/mm	0.024/0.6
Fuel and lubrication system	
Manufacturer/type of carburetor	Zama
Fuel tank capacity, US pint/liter	1.05/0.5
Weight	
Weight, without fuel but with blower tube and standard nozzle fitted, lbs/kg	9.6/4.4
Sound levels	
Equivalent sound pressure level - blowing, measured according to ANSI B175.2-2000, dB(A)	70
Equivalent sound pressure level - vacuuming, measured according to ANSI B175.2-2000, dB(A)	71
Vibration levels	
Vibration levels at handles, measured according to ANSI B175.3-1997, m/s ²	
At idle:	5.0
At max. speed:	11.8

Fan	
Type	Radial fan
Max. air velocity, mph (m/s), standard nozzle	134 (60)
Max. air velocity, mph (m/s), high velocity nozzle	170 (76)
Air volume with tube - blowing, cfm (m ³ /min.)	425 (12.0)
Air volume without tube - blowing, cfm (m ³ /min.)	470 (13.3)
Air volume with tubes - vacuuming, cfm (m ³ /min.)*	445 (12.6)

*optional accessory

Model HB280		
Approved accessories	Model no.	Part. no.
Vacuum kit	VK-280	952 711 677

Model HB280		
Approved accessories	Model no.	Part. no.
Gutter clean-out kit	GK-280	952 711 678

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. 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.

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
7349 Statesville Rd.
Charlotte, NC 28269

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

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 2010 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.

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.

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.

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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.

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.

MAINTENANCE STATEMENT:

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

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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