

# **OPERATOR'S MANUAL**

# BLOWER/VACUUM RY08548/RY09903



Your blower/vacuum has been engineered and manufactured to our high standard for dependability, ease of operation, and operator safety. When properly cared for, it will give you years of rugged, trouble-free performance.

**WARNING:** To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

Thank you for your purchase.

# SAVE THIS MANUAL FOR FUTURE REFERENCE

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# INTRODUCTION

This tool has many features for making its use more pleasant and enjoyable. Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.

# **GENERAL SAFETY RULES**

## A WARNING:

**Read and understand all instructions.** Failure to follow all instructions listed below may result in electric shock, fire and/or carbon monoxide poisoning which will cause death or serious personal injury.

- Do not allow children or untrained individuals to use this unit.
- Never start or run the engine inside a closed area; breathing exhaust fumes can kill.
- Wear eye protection which is marked to comply with ANSI Z87.1 as well as hearing protection when operating this equipment.
- Keep all bystanders, children, and pets at least 50 feet away.
- Wear heavy long pants, boots, and gloves. Do not wear loose-fitting clothing, short pants, jewelry of any kind, or go barefoot.
- To reduce the risk of injury associated with objects being drawn into rotating parts, do not wear loose clothing, scarves, neck chains, and the like. Secure long hair so it is above shoulder level to prevent entanglement in any rotating parts.
- Do not operate this unit when you are tired, ill, or under the influence of alcohol, drugs, or medication.
- Do not operate in poor lighting.
- Keep all parts of your body away from any moving parts and all hot surfaces of the unit.
- Wear a face filter mask in dusty conditions to reduce the risk of injury associated with the inhalation of dust.
- Check the work area before each use. Remove all objects such as rocks, broken glass, nails, wire, or string which can be thrown or become entangled in the machine.

- Keep firm footing and balance. Do not overreach. Overreaching can result in loss of balance or exposure to hot surfaces.
- Never operate the unit without a spark arrestor screen; this screen is located inside the muffler.
- Product users on United States Forest Service land, and in some states, must comply with fire prevention regulations. This product is equipped with a spark arrestor; however, other user requirements may apply. Check with the federal, state, or local authorities in your area.
- Before storing, allow the engine to cool.
- Use only Ryobi replacement parts and accessories. Failure to do so may cause poor performance or possible injury.
- Maintain the unit per maintenance instructions in this operator's manual.
- Inspect the unit before each use for loose fasteners, fuel leaks, etc. Replace damaged parts.

#### SERVICE

- Before cleaning, repairing, or inspecting, shut off the engine and make certain all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the plug to prevent starting.
- Service on the blower/vacuum must be performed by qualified repair personnel only. Service or maintenance performed by unqualified personnel could result in injury to the user or damage to the product.
- Use only identical replacement parts when servicing the blower/vacuum. Use of unauthorized parts may create a risk of serious injury to the user, or damage to the product.

## **SPECIFIC SAFETY RULES**

- Always hold the blower in your right hand. Refer to the OPERATION instructions later in this manual for additional information.
- To reduce the risk of hearing loss associated with sound level(s), hearing protection is required.
- To reduce the risk of injury associated with contacting rotating parts, stop the engine before installing or removing attachments. Do not operate without guard(s) in place. Always disconnect the spark plug before performing maintenance or accessing any movable parts.
- Do not point the blower nozzle in the direction of people or pets.
- Never run the unit without the blower tubes installed.
- Never place objects inside the blower tubes.
- Use only as directed in this operator's manual.
- Do not operate vacuum without vacuum bag installed; flying debris could cause serious injury. Always close vacuum bag completely before operating.
- Rotating impeller blades can cause severe injury. Stop the engine before opening the vacuum door or installing/ changing tubes. Do not put hands or any other object into the vacuum tubes while they are installed on the unit.
- Never run the unit without the proper equipment attached. When used as a blower, always install the blower tubes. When used as a vacuum, always install the vacuum tubes and vacuum bag. Make sure the vacuum bag is completely zipped when the unit is running to avoid flying debris.
- Avoid situations that could catch the vacuum bag on fire. Do not operate near an open flame. Do not vacuum warm ash from fireplaces, barbecue pits, brush piles, etc. Do not vacuum discarded cigars or cigarettes unless the cinders are completely cool.

#### REFUELING

- Fuel is highly flammable. Take precautions when using to reduce the chance of serious personal injury.
- Store fuel in a cool, well-ventilated area, safely away from spark and/or flame-producing equipment.
- Store fuel in containers specifically designed for this purpose.
- Only refuel outdoors and do not smoke while refueling.
- Add fuel before starting the engine. Never remove the cap of the fuel tank or add fuel while the engine is running or when the engine is hot.
- Do not smoke while handling fuel.
- Mix and store fuel in a container approved for gasoline.
- Mix fuel outdoors where there are no sparks or flames.
- Loosen fuel cap slowly to release pressure and to keep fuel from escaping around the cap.
- Tighten the fuel cap securely after refueling.
- Wipe spilled fuel from the unit. Move 30 feet away from refueling site before starting engine.
- Never attempt to burn off spilled fuel under any circumstances.
- To reduce the risk of fire and burn injury, handle fuel with care. It is highly flammable.
- If fuel is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until fuel vapors have dissipated.
- Replace all fuel tank and container caps securely.
- Empty fuel tank and restrain the unit from moving before transporting in a vehicle.
- When draining the fuel tank, use an approved fuel storage container in a well-ventilated area.
- Select bare ground, stop engine, and allow to cool before refueling.
- Save these instructions. Refer to them frequently and use them to instruct others who may use this tool. If you loan someone this tool, loan them these instructions also.

# SYMBOLS

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

SYMBOL	NAME EXPLANATION	
	Safety Alert Symbol	Precautions that involve your safety.
	Read the Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Wear Eye and Hearing Protection	Wear eye protection which is marked to comply with ANSI Z87.1 as well as hearing protection when operating this equipment.
	Vacuum Door	Do not run unit while vacuum door is unsecured.
	Long Hair	Risk of long hair being drawn into air inlet.
	Loose Clothing	Risk of loose clothing being drawn into air intake.
	Gasoline and Oil	Use unleaded gasoline intended for motor vehicle use with an octane rating of 87 [( $R + M$ ) / 2] or higher. This product is powered by a 2-cycle engine and requires pre-mixing gasoline and 2-cycle oil.

# SYMBOLS

The following signal words and meanings are intended to explain the levels of risk associated with this product.		
SYMBOL	SIGNAL	MEANING
	DANGER:	Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.
	WARNING:	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.
	CAUTION:	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.
	CAUTION:	(Without Safety Alert Symbol) Indicates a situation that may result in property damage.

### SERVICE

Servicing requires extreme care and knowledge and should be performed only by a qualified service technician. For service we suggest you return the product to the nearest **AUTHORIZED SERVICE CENTER** for repair. When servicing, use only identical replacement parts.

## **WARNING:**

To avoid serious personal injury, do not attempt to use this product until you read thoroughly and understand completely the operator's manual. If you do not understand the warnings and instructions in the operator's manual, do not use this product. Call Ryobi customer service for assistance.

## WARNING:



The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and, when needed, a full face shield. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.

# SAVE THESE INSTRUCTIONS

# FEATURES

### **PRODUCT SPECIFICATIONS**

Weight
Engine Displacement
Air Velocity:
MPH
CFM



# **FEATURES**



#### KNOW YOUR BLOWER/VACUUM

See Figures 1a - 1b.

The safe use of this product requires an understanding of the information on the tool and in this operator's manual as well as a knowledge of the project you are attempting. Before use of this product, familiarize yourself with all operating features and safety rules.

#### **BLOWER TUBE AND NOZZLE**

The blower tubes can be assembled and installed on the blower using no tools.

#### **CRUISE CONTROL/THROTTLE LOCK**

The cruise control (throttle lock) feature allows the user to operate the blower without holding the throttle trigger. To slow the engine, simply push the cruise control lever forward.

# HIGH VELOCITY NOZZLE WITH WET LEAF SCRAPER

The high velocity nozzle is great for wet sticky leaves. It allows you to scrape wet leaves or debris while operating the blower.

#### MOTOR

The blower has a powerful 25.4cc engine with sufficient power to handle tough blowing and vacuuming jobs.

### MULCHER

The blower is equipped with a steel mulching blade that efficiently reduces leaves at a 12:1 ratio.

#### SWEEPER NOZZLE

The sweeper nozzle allows for more area to be covered during blower operation.

#### THROTTLE TRIGGER

The blower can be operated at any speed between idle and full throttle.

#### VACUUM/MULCHER

Converting the blower to a vacuum/mulcher can be done without using tools.

#### **VACUUM BAG**

The vacuum bag attaches to the blower easily by using the vacuum bag adaptor.

#### VACUUM HANDLE

This feature allows user to perform vacuuming duties comfortably.

#### **VACUUM TUBES**

The vacuum tubes can be installed on the blower without using any tools.

# ASSEMBLY

### UNPACKING

This product requires assembly.

- Carefully remove the product and any accessories from the box. Make sure that all items listed in the packing list are included.
- Inspect the product carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the product.
- If any parts are damaged or missing, please call 1-800-860-4050 for assistance.

### **PACKING LIST**

Blower Upper Blower Tube

Sweeper Nozzle

High Velocity Nozzle

Vacuum Handle

Vacuum Handle Knobs (2)

Upper and Lower Vacuum Tubes

Vacuum Tube Screws (2)

Vacuum Bag Assembly

Vacuum Bag Adaptor

2-Cycle Engine Oil

Operator's Manual

**NOTE:** Read and remove all hang tags and store with your operator's manual.

## WARNING:

If any parts are damaged or missing do not operate this product until the parts are replaced. Failure to heed this warning could result in serious personal injury.

## WARNING:

Do not attempt to modify this product or create accessories not recommended for use with this product. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.

## WARNING:

To prevent accidental starting that could cause serious personal injury, always disconnect the engine spark plug wire from the spark plug when assembling parts.

### ASSEMBLING THE BLOWER TUBES

See Figure 2.

- Align raised tabs on main housing to the slots on upper tube; slide together and tighten securely by twisting. Check tightness after initial run and retighten if needed.
- To remove the tubes, rotate the tubes to unlock them and remove from the blower housing outlet.

### INSTALLING THE VACUUM HANDLE

See Figure 3.

- Lay unit on side as shown.
- Insert vacuum handle into the base of unit.
- Secure vacuum handle in place using two knobs as shown.



# ASSEMBLY

### **GROUNDING INSTRUCTIONS**

See Figure 4.

After installing the vacuum handle, connect the grounding wire as shown. This will help prevent static shock when using the vacuum in low humidity conditions.



### **INSTALLING THE VACUUM BAG**

See Figures 5 - 6.

- Remove the nozzle and upper blower tube from the blower.
- Unzip the vacuum bag and place the adaptor inside as shown.
- Align the raised slots on the bag adaptor with the raised locking tabs on the blower housing outlet; push the bag adaptor onto the housing. Twist to lock into place.
- Rotate the vacuum bag until the shoulder strap is upright.
- Make sure the vacuum bag is zipped and closed before starting the unit.



# ASSEMBLY

### **INSTALLING THE VACUUM TUBES**

See Figures 7 - 8.

## **WARNING:**

Rotating impeller blades can cause severe injury. Always stop the engine before opening the vacuum door or installing/changing tubes. Do not put hands or any other object into the vacuum tubes while they are installed on the unit.

**NOTE:** This vacuum/blower is equipped with a vacuum door interlock. If vacuum door is open and vacuum tubes are not installed, engine will not start.

#### To install the vacuum tubes:

- Secure the upper and lower vacuum tubes together by aligning the raised locking tabs with the raised slots.
- Tap tube assembly on ground until the screw holes in lower tube are in the raised slot of the upper tube. Secure with supplied screws.
- Depress door tab and open vacuum door.
- Align tabs on housing with tube assembly. Insert tube assembly into vacuum opening. Twist clockwise and lock the upper vacuum tube into the blower housing.

#### To remove the vacuum tubes:

- Twist to loosen the upper vacuum tube by turning counterclockwise.
- Remove the vacuum tube assembly from the blower housing.
- Close the inlet cover door securely.



### WARNING:

Do not allow familiarity with this product to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

## WARNING:

Always wear safety goggles or safety glasses with side shields when operating power tools. Failure to do so could result in objects being thrown into your eyes resulting in possible serious injury.

# WARNING:

Do not use any attachments or accessories not recommended by the manufacturer of this product. The use of attachments or accessories not recommended can result in serious personal injury.

### APPLICATIONS

You may use this product for the purposes listed below:

- Clear leaves and other debris from your lawn
- Keep decks and driveways free from leaves and pine needles

## WARNING:

Gasoline is extremely flammable and explosive. A fire or explosion from gasoline will burn you and others.

### **MIXING THE FUEL**

This product is powered by a 2-cycle engine and requires pre-mixing gasoline and 2-cycle oil. The mixture should be at a 50:1 ratio, using Premium Exact Mix<sup>™</sup> 2-cycle engine oil. If Premium Exact Mix<sup>™</sup> 2-cycle engine oil is not available, use a high quality synthetic 2-cycle engine oil, mixed at a 50:1 ratio. See chart later in this section.

### To mix the fuel:

- Use a clean container that is approved for use with gasoline.
- Mix the Premium Exact Mix<sup>™</sup> 2-cycle engine oil with unleaded gasoline in the container, according to the instructions on the oil package.

**NOTE:** This engine is certified to operate on unleaded gasoline intended for automotive use with an octane rating of 87 [(R + M) / 2] or higher. Do not use automotive oil or 2-cycle outboard oil. **NOTE:** Premium Exact Mix<sup>™</sup> fuel mixture will stay fresh up to 30 days. DO NOT mix quantities larger than can be used in a 30 day period.

_	PREMIUM EXACT	<sup>-</sup> MIX™ (50:1)
⊡)	GASOLINE	OIL
U	1 gallon (US) 1 liter	2.6 oz. 20 cc (20 ml)

### FILLING THE TANK

### WARNING:

Always stop the engine before filling the fuel tank. Never add fuel to a machine with a running or hot engine. Move at least 30 ft. from the refueling area before starting engine. Do not smoke while filling the tank.

- Clean the surface around the fuel cap to prevent contamination.
- Loosen the fuel cap slowly, by turning it counterclockwise.
- Pour the fuel mixture carefully into the tank.
- Clean and inspect the fuel cap gasket before replacing the fuel cap.
- Replace the fuel cap and tighten it by turning it clockwise.
- Wipe spilled fuel from the product.
- Move at least 30 ft. away from refueling area before starting the product.

**NOTE:** It is normal for smoke to be emitted from a new engine during first use.

## WARNING:

Check for fuel leaks. If you find any leaks, correct the problem before using the product.

## WARNING:

A leaking fuel cap is a fire hazard and must be replaced immediately.

### STARTING AND STOPPING

See Figures 9 - 10.

#### To start an engine that is cold or has run dry:

- Fill the fuel tank, if necessary. Always use the proper oil/gasoline mixture. See Mixing the Fuel on page 12.
- Disengage the cruise control lever.

**NOTE:** Do not engage the throttle trigger during the starting process.

- Slowly push the primer bulb seven times.
- Set the choke lever to the START position.

**NOTE:** If restarting a warm engine, leave the choke lever in the **RUN** position.

- Pull the starter cord until the engine runs.
- Return the starter cord gently to the starter housing. Do not allow the rope to snap back.
- Allow the engine to run for 15 seconds to warm up before using.
- Engage the throttle trigger to operate.

#### To stop the blower/vacuum:

- Release the throttle trigger.
- Press and hold the engine switch to the "O" or STOP position.

### **OPERATING THE BLOWER**

See Figures 11 - 12.

## WARNING:

Never run the unit without the blower tubes installed or the vacuum door securely closed. Failure to heed this warning could result in serious personal injury.

Start the blower. Refer to Starting and Stopping earlier in this manual. Hold the blower with the upper handle in your right hand.

## WARNING:

Keep away from all hot surfaces of the blower. Failure to do so could result in possible serious personal injury.

- To keep from scattering debris, blow around the outer edges of a debris pile. Never blow directly into the center of a pile.
- Operate power equipment at reasonable hours only not early in the morning or late at night when people might be disturbed. Comply with the times listed in local ordinances.
- To reduce sound levels, limit the number of pieces of equipment used at any one time.



- Conserve water by using power blowers instead of hoses for many lawn and garden applications, including areas such as gutters, screens, patios, grills, porches, and gardens.
- Operate blower at the lowest possible throttle speed to do the job.
- Check your equipment before operation, especially the muffler, air intakes, and air filters.
- Use rakes and brooms to loosen debris before blowing.
- In dusty conditions, slightly dampen surfaces when water is available.
- Watch out for children, pets, open windows, or freshly washed cars, and blow debris safely away.
- Use the full blower nozzle extension so the air stream can work close to the ground.
- After using blowers or other equipment, CLEAN UP! Dispose of debris in trash receptacles.
- Use the sweeper nozzle for the everyday blowing operation. This nozzle allows for more area to be covered during the blowing operation.
- The high velocity nozzle is specifically designed for wet sticky leaves. It allows you to scrape wet leaves or debris while operating the blower.

### **CRUISE CONTROL/THROTTLE LOCK**

#### See Figure 13.

The cruise control (throttle lock) can be used to operate the blower without holding the throttle trigger.

#### To engage the cruise control/throttle lock:

- Pull cruise control lever back towards user, and stop at the desired throttle setting.
- To release the cruise control, push cruise control lever all the way towards the front of unit.



### VACUUM OPERATION

See Figure 14.

## WARNING:

Never run the unit without the vacuum tubes, vacuum bag, and vacuum handle installed. Failure to heed this warning could result in serious personal injury.

- Install the vacuum tubes, vacuum handle, and bag. Refer to the ASSEMBLY section earlier in this manual.
- Start the blower. Refer to Starting and Stopping earlier in this manual.
- Place the vacuum bag strap over your right shoulder. Hold the upper handle in your left hand and the vacuum handle in your right hand.
- Move the blower/vacuum from side to side along outer edge of the debris. To avoid clogging, do not place the vacuum tube directly into the debris pile.
- Hold the engine higher than the inlet end of the vacuum tube.
- Always point vacuum tube downhill when working on a hillside.
- To avoid injury to the operator or unit, do not pick up rocks, broken glass, bottles, or other similar objects.
- If the vacuum tubes should clog, stop the engine and disconnect the spark plug wire before cleaning out the obstruction.

Remove the vacuum tubes and clear the debris from the blower fan housing. Remove the bag and clear the tube. A small rod or stick may be required to clear the entire tube length. Ensure that all debris has been cleared before reassembling the vacuum tubes.



# MAINTENANCE

## WARNING:

When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage.

# WARNING:

Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If operation is dusty, also wear a dust mask.

## **WARNING:**

Before inspecting, cleaning, or servicing the machine, shut off engine, wait for all moving parts to stop, and disconnect spark plug wire and move it away from spark plug. Failure to follow these instructions can result in serious personal injury or property damage.

### **GENERAL MAINTENANCE**

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.

## WARNING:

Do not at any time let brake fluids, gasoline, petroleumbased products, penetrating oils, etc., come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic which may result in serious personal injury.

Only the parts shown on the parts list are intended to be repaired or replaced by the customer. All other parts should be replaced at a an Authorized Service Center.

# MAINTENANCE

### **REPLACING AND CLEANING AIR FILTER**

See Figure 15.

A wet or dirty air filter can affect the way the engine starts, performs, and wears. The air filter should be checked and cleaned after 8 hours of operation.

For best performance, the air filter should be replaced once each year.

#### To clean the air filter:

- Loosen the knob on the air filter cover.
- Remove the cover.
- Lift the edge of the air filter carefully and peel it out.
- Wash the air filter with warm, soapy water.
- Rinse and squeeze to dry.
- Reinstall the air filter.

**NOTE:** Make sure the filter is seated properly inside the cover. Installing the filter incorrectly will allow dirt to enter the engine, causing rapid engine wear.

- Reinstall the cover.
- Tighten knob to secure.



### SPARK ARRESTOR

The muffler is equipped with a spark arrestor screen inside muffler body. After extended use the screen can become dirty, and you may need to have the screen replaced by an authorized servicing dealer.

## WARNING:

To avoid a fire hazard, never run the blower without the spark arrestor in place.

### CLEANING THE EXHAUST PORT AND MUFFLER

Depending on the type of fuel used, the type and amount of oil used, and/or your operating conditions, the exhaust port, muffler, and/or spark arrestor screen may become blocked with carbon deposits. If you notice a power loss with your gas powered tool, you may need to remove these deposits to restore performance. We highly recommend that only qualified service technicians perform this service.

### VACUUM BAG

A dirty bag will reduce performance. To clean the bag, turn it inside out and shake. Wash the bag in soapy water at least once a year. To obtain a replacement bag, see **How to Order Replacement Parts** on the back page of this manual.

### **FUEL CAP**

The fuel cap contains a non-serviceable filter and a check valve. A clogged fuel filter will cause poor engine performance. If performance improves when the fuel cap is loosened, the check valve may be faulty or filter clogged. Replace the fuel cap if required.

## **WARNING:**

A leaking fuel cap is a fire hazard and must be replaced immediately.

### SPARK PLUG

This engine uses a Champion RCJ4 with 0.63 mm (0.025 in.) electrode gap. Use an exact replacement spark plug and replace annually.

### STORING THE PRODUCT

- Clean all foreign material from the product. Store it in a well-ventilated place that is inaccessible to children. Keep away from corrosive agents such as garden chemicals and de-icing salts.
- Abide by all Federal and local regulations for the safe storage and handling of gasoline.

#### WHEN STORING 1 MONTH OR LONGER:

Drain all fuel from tank into a container approved for gasoline. Run engine until it stops.

#### IF THESE SOLUTIONS DO NOT SOLVE THE PROBLEM, CONTACT YOUR AUTHORIZED SERVICING DEALER.

PROBLEM	CAUSE	REMEDY	
Engine fails to start	No fuel in tank	Fill tank.	
	Spark plug shorted or fouled	Replace spark plug.	
	Spark plug is broken (cracked porcelain or electrodes broken)	Replace spark plug.	
	Ignition lead wire shorted, broken, or disconnected from spark plug	Replace lead wire or attach to spark plug.	
	Ignition inoperative	Contact authorized service center.	
Engine hard to start	Water in gasoline or stale fuel mixture	Drain entire system and refill with fresh fuel.	
	Too much oil in fuel mixture	Drain and refill with correct mixture.	
	Engine is under or over choked	Adjust choke as necessary.	
	Weak spark at spark plug	Contact authorized service center.	
Engine lacks power	Air filter clogged	Clean or replace air filter.	
Engine overheats	Insufficient oil in fuel mixture	Mix fuel as described in starting instructions.	



# **CALL US FIRST**

For any questions about operating or maintaining your product, call the Ryobi® Help Line! Your product has been fully tested prior to shipment to ensure your complete satisfaction.

### LIMITED WARRANTY STATEMENT

Techtronic Industries North America, Inc., warrants to the original retail purchaser that this RYOBI® brand outdoor product is free from defect in material and workmanship and agrees to repair or replace, at Techtronic Industries North America, Inc.'s, discretion, any defective product free of charge within these time periods from the date of purchase.

- Two years if the product is used for personal, family or household use;
- 90 days, if used for any other purpose, such as commercial or rental.

This warranty extends to the original retail purchaser only and commences on the date of the original retail purchase.

Any part of this product found in the reasonable judgment of Techtronic Industries North America, Inc. to be defective in material or workmanship will be repaired or replaced without charge for parts and labor by an authorized service center for RYOBI® brand outdoor products (Authorized Ryobi Service Center).

The product, including any defective part, must be returned to an authorized Ryobi service center within the warranty period. The expense of delivering the product to the service center for warranty work and the expense of returning it back to the owner after repair or replacement will be paid by the owner. Techtronic Industries North America, Inc.'s, responsibility in respect to claims is limited to making the required repairs or replacements and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any RYOBI® brand outdoor product. Proof of purchase will be required by the dealer to substantiate any warranty claim. All warranty work must be performed by an authorized service dealer.

This warranty is limited to ninety (90) days from the date of original retail purchase for any RYOBI® brand outdoor product that is used for rental or commercial purposes, or any other income-producing purpose.

This warranty does not cover any product that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in this operator's manual. This warranty does not apply to any damage to the product that is the result of improper maintenance or to any product that has been altered or modified. The warranty does not extend to repairs made necessary by normal wear or by the use of parts or accessories which are either incompatible with the RYOBI® brand outdoor product or adversely affect its operation, performance, or durability. In addition, this warranty does not cover:

- A. Tune-ups Spark Plugs, Carburetor, Carburetor Adjustments, Ignition, Filters
- B. Wear items Bump Knobs, Outer Spools, Cutting Lines, Inner Reels, Starter Pulleys, Starter Ropes, Drive Belts, Tines, Felt Washers, Hitch Pins, Mulching Blades, Blower Fans, Blower and Vacuum Tubes, Vacuum Bag and Straps, Guide Bars, Saw Chains

Techtronic Industries North America, Inc., reserves the right to change or improve the design of any RYOBI® brand outdoor product without assuming any obligation to modify any product previously manufactured.

ALL IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE STATED WARRANTY PERIOD. ACCORDINGLY, ANY SUCH IMPLIED WARRANTIES INCLUDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE, ARE DISCLAIMED IN THEIR ENTIRETY AFTER THE EXPIRATION OF THE APPROPRIATE TWO-YEAR, ONE-YEAR, OR NINETY-DAY WARRANTY PERIOD. TECHTRONIC INDUSTRIES NORTH AMERICA, INC.'S, OBLIGATION UNDER THIS WARRANTY IS STRICTLY AND EXCLUSIVELY LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS AND TECHTRONIC INDUSTRIES NORTH AMERICA, INC., DOES NOT ASSUME OR AUTHORIZE ANYONE TO ASSUME FOR THEM ANY OTHER OBLIGATION. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. TECHTRONIC INDUSTRIES NORTH AMERICA, INC., ASSUMES NO RESPONSIBILITY FOR INCIDENTAL, CONSEQUENTIAL, OR OTHER DAMAGES INCLUDING, BUT NOT LIMITED TO, EXPENSE OF RETURNING THE PRODUCT TO AN AUTHORIZED RYOBI SERVICE CENTER AND EXPENSE OF DELIVERING IT BACK TO THE OWNER, MECHANIC'S TRAVEL TIME, TELEPHONE OR TELEGRAM CHARGES, RENTAL OF A LIKE PRODUCT DURING THE TIME WARRANTY SERVICE IS BEING PERFORMED. TRAVEL. LOSS OR DAMAGE TO PERSONAL PROPERTY, LOSS OF REVENUE, LOSS OF USE OF THE PRODUCT, LOSS OF TIME, OR INCONVENIENCE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION 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 applies to all RYOBI® brand outdoor products manufactured by or for Techtronic Industries North America, Inc., and sold in the United States and Canada.

To locate your nearest Authorized Ryobi Service Center, dial 1-800-860-4050.

## WARRANTY

#### THE FOLLOWING CALIFORNIA AIR RESOURCES BOARD (CARB) STATEMENT ONLY APPLIES TO MODEL NUM-BERS REQUIRED TO MEET THE CARB REQUIREMENTS.

#### TECHTRONIC INDUSTRIES NORTH AMERICA, INC., LIMITED WARRANTY STATEMENT FOR FEDERAL AND CALIFORNIA EMISSION CONTROL SYSTEMS NON-ROAD AND SMALL OFF-ROAD ENGINES YOUR WARRANTY RIGHTS AND OBLIGATIONS

The U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and Techtronic Industries North America, Inc., are pleased to explain the Emissions Control System Warranty on your 2007 model year non-road or small offroad engine. In California, new equipment that uses small off-road engines must be designed, built, and equipped to meet the state's stringent anti-smog standards. In other states, new 2000 and later model year non-road engines must be designed, built, and equipped at the time of sale to meet the U.S. EPA regulations for small non-road engines. The non-road engine must be free from defects in materials and workmanship which cause it to fail to conform with U.S. EPA standards for the first two years of engine use from the date of sale to the ultimate purchaser. Techtronic Industries North America, Inc., must warrant the emission control system on your non-road or small off-road engine for the period of time listed above provided there has been no abuse, neglect, or improper maintenance of your non-road or small off-road engine.

Your emission control system may include parts such as the carburetor or fuel injection system, the ignition system, catalytic converters, fuel tanks, valves, filters, clamps, connectors, and other associated components. Also included may be hoses, belts and connectors, and other emission-related assemblies.

Where a warrantable condition exists, Techtronic Industries North America, Inc., will repair your non-road or small off-road engine at no cost to you, including diagnosis, parts, and labor performed at an authorized service center for RYOBI® brand outdoor products.

#### MANUFACTURER'S WARRANTY COVERAGE:

This product's emissions control system is warranted for two years. If any emission-related part on your engine is defective, the part will be repaired or replaced by Techtronic Industries North America, Inc., free of charge.

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

(a) As the non-road or small off-road engine owner, you are responsible for the performance of the required maintenance listed in your operator's manual. Techtronic Industries North America, Inc., recommends that you retain all receipts covering maintenance on your non-road or small off-road engine, but Techtronic Industries North America, Inc., cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance. Any replacement part or service that is equivalent in performance and durability may be used in non-warranty maintenance or repairs, and shall not reduce the warranty obligations of Techtronic Industries North America, Inc. (b) As the non-road or small off-road engine owner, you should be aware, however,

that Techtronic Industries North America, Inc., may deny you warranty coverage if your non-road or small off-road engine or a part has failed due to abuse, neglect, improper maintenance, or unapproved modifications.

(c) You are responsible for presenting your non-road or small off-road engine to an authorized service dealer as soon as a problem exists. The 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 a Techtronic Industries North America, Inc., Customer Representative at 1-800-860-4050.

#### DEFECT WARRANTY COVERAGE REQUIREMENTS:

(a) The warranty period begins on the date the engine or equipment is delivered to an ultimate purchaser.

(b) General Emissions Warranty Coverage. Techtronic Industries North America, Inc., warrants to the ultimate purchaser and each subsequent purchaser that your non-road or small off-road engine is designed, built, and equipped at the time of sale to conform with all applicable regulations adopted by the California Air Resources Board or the United States Environmental Protection Agency; and that it is free from defects in materials and workmanship which cause the engine to fail to conform with applicable regulations for a period of two years from the date the non-road or small off-road engine is purchased by the initial purchaser.

(c) The warranty on emissions-related parts will be interpreted as follows: Any warranted part that is not scheduled for replacement as required in the Emissions Maintenance Schedule and Warranty Parts List set forth below is warranted for two years. If any such part (including any part that is scheduled only for regular inspection) fails during the period of warranty coverage, it will be repaired or replaced at any RYOBI® Authorized Service Center at no charge. Any such part repaired or replaced under warranty will be warranted for the remaining warranty period. A statement to the effect of "repair or replace as necessary" would not reduce the period of warranty coverage. Any warranted part that is scheduled for replacement as required maintenance in the Emissions Maintenance Schedule and Warranty Parts List is warranted for the period of time prior to the first scheduled replacement point for that part. Any such part repaired or replaced under warranty is warranted for the remainder of the period prior to the first scheduled replacement point, and will be repaired or replaced at any RYOBI® Authorized Service Center for no charge until that replacement point is reached.

Techtronic Industries North America, Inc., shall remedy warranty defects at any authorized RYOBI® Authorized Service Center, including any distribution center that may be franchised to service the subject engines. Any diagnostic work done at a RYOBI® Authorized Service Center shall be free of charge to the owner if such work determines that a warranted part is defective. Any manufacturer-approved or equivalent replacement part may be used for any warranty maintenance or repairs on emission-related parts, and must be provided free of charge to the owner if the part is still under warranty. Techtronic Industries North America, Inc., is liable for damages to other engine components caused by the failure of a warranted part still under warranty.

Add-on or modified parts that are not exempted by the California Air Resource Board may not be used. The use of any non-exempted add-on or modified parts will be grounds for disallowing a warranty claim. Techtronic Industries North America, Inc., will not be liable to warrant failures of warranted parts caused by the use of a non-exempted add-on or modified part.

The California Air Resources Board's Emission Warranty Parts List specifically defines the emission-related warranted parts. (EPA's regulations do not include a parts list, but the EPA considers emission-related warranted parts to include all the parts listed below.) Techtronic Industries North America, Inc., will provide any documents that describe its warranty procedures or policies within five days upon request by the California Air Resources Board.

#### EMISSIONS PARTS LIST

Emissions parts vary from product to product. Your emissions control system warranty applies to any of the following components that may be included on your product: (1) Fuel Metering System

- Carburetor and internal parts (and/or pressure regulator or fuel injection system).
- (ii) Air/fuel ratio feedback and control system.
- (iii) Cold start enrichment system.
- (iv) Fuel Tank.
- (2) Air Induction System
  - (i) Controlled hot air intake system.
  - (ii) Intake manifold.
  - (iii) Air filter.
- (3) Ignition System
  - (i) Spark Plugs.
  - (ii) Magneto or electronic ignition system.
  - (iii) Spark advance/retard system.
- (4) Exhaust Gas Recirculation (EGR) System
  - (i) EGR valve body and carburetor spacer, if applicable.
  - (ii) EGR rate feedback and control system.
- (5) Air Injection System
  - (i) Air pump or pulse valve.
  - (ii) Valves affecting distribution of flow.
  - (iii) Distribution manifold.
- (6) Catalyst or Thermal Reactor System
  - (i) Catalytic converter.
  - (ii) Thermal reactor.
  - (iii) Exhaust manifold.
- (7) Particulate Controls
  - Traps, filters, precipitators, and any other device used to capture particulate emissions.

(8) Miscellaneous Items Used in Above Systems

- (i) Electronic controls.
- (ii) Vacuum, temperature, and time sensitive valves and switches.
- (iii) Hoses, belts, connectors, and assemblies.

Techtronic Industries North America, Inc., will furnish with each new engine written instructions for its maintenance and use by the owner.

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 emission requirements. Category C=50 hours, B=125 hours, and A=300 hours.

# WARRANTY

### THIS PRODUCT WAS MANUFACTURED WITH A CATALYST MUFFLER

**Congratulations!** You have made an investment toward protecting the environment. In order to maintain this product's original emission level, please refer to the maintenance section below.

EMISSIONS MAINTENANCE SCHEDULE AND WARRANTED PARTS LIST					
Emissions Parts	Inspect Before Each Use	Clean Every 5 Hours	Replace Every 25 Hours or Yearly	Clean Every 25 Hours or Yearly	Replace Every 50 Hours
AIR FILTER ASSY includes:					X
Filter		X	X		
SPARK SCREEN				X	
CARBURETOR ASS	SY				
includes:					
Heat Dam					
Gaskets					
FUEL TANK ASSY					
includes:					
Fuel Lines	X				
Fuel Cap	X				
Fuel Filter					
IGNITION ASSY					
includes:					
Spark Plug			X		
	ELATED PARTS ARE V SCHEDULED REPLAC		R TWO YEARS OR FO EVER COMES FIRST.	OR THE PERIOD O	F TIME PRIOR TO

# NOTES




# RY08548/RY09903

## WARNING:

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

### CALIFORNIA PROPOSITION 65

## • PARTS AND SERVICE

Prior to requesting service or purchasing replacement parts, please obtain your model and serial number from the product data plate.

- MODEL NUMBER
- SERIAL NUMBER

## • HOW TO OBTAIN REPLACEMENT PARTS:

Replacement parts can be purchased online at **www.ryobitools.com** or by calling 1-800-860-4050. Replacement parts can also be obtained at one of our Authorized Service Centers.

• HOW TO LOCATE AN AUTHORIZED SERVICE CENTER: Authorized Service Centers can be located online at **www.ryobitools.com** or by calling 1-800-860-4050.

• HOW TO OBTAIN CUSTOMER OR TECHNICAL SUPPORT: To obtain Customer or Technical Support please contact us at 1-800-860-4050.

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### **TECHTRONIC INDUSTRIES NORTH AMERICA, INC.**

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