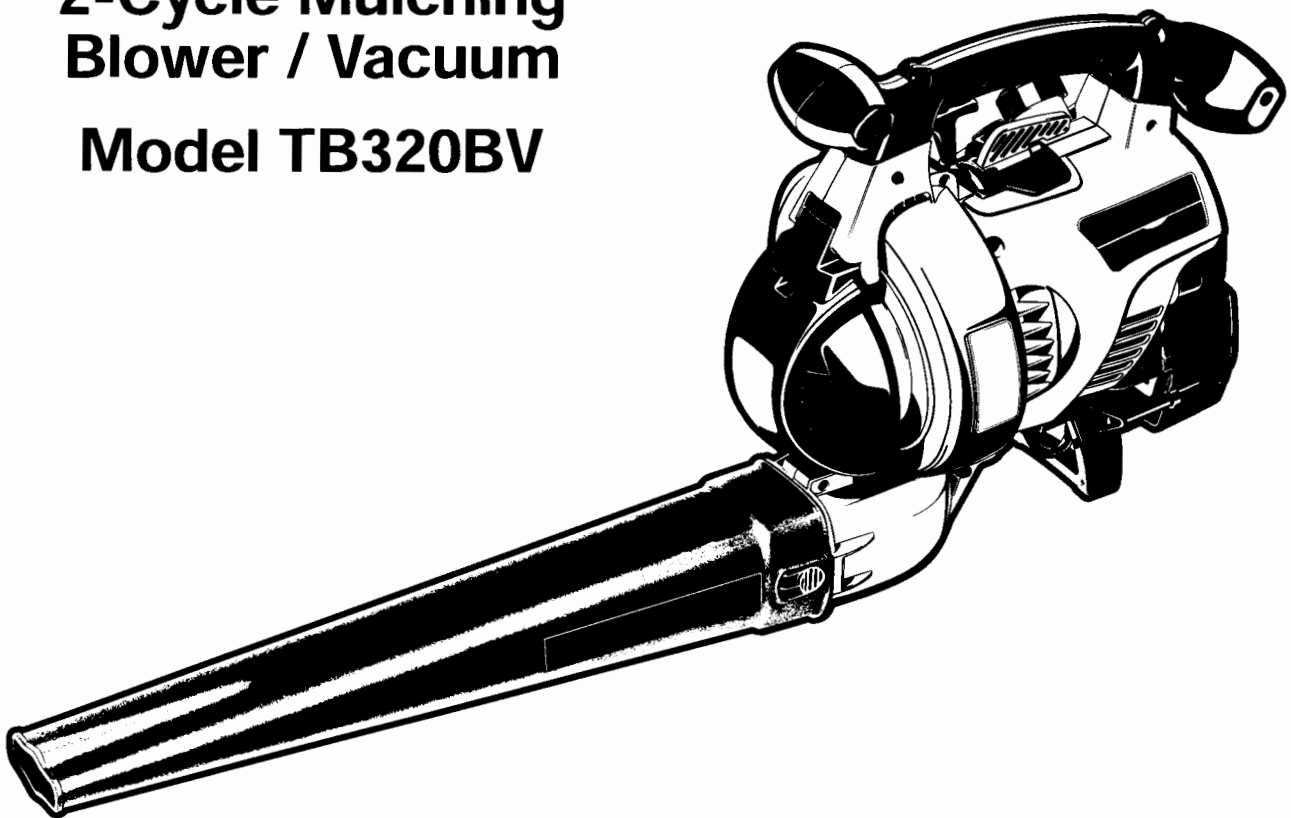




Operator's Manual

**2-Cycle Mulching
Blower / Vacuum**

Model TB320BV



SAVE THESE INSTRUCTIONS

DO NOT THROW AWAY

P/N 769-01410 (11/04)
PRINTED IN USA

INTRODUCTION

THANK YOU

Thank you for buying this quality product. This modern outdoor power tool will provide many hours of useful service. You will find it to be a great labor-saving device. This operator's manual provides you with easy-to-understand operating instructions. Read the whole manual and follow all the instructions to keep your new outdoor power tool in top operating condition.

PRODUCT REFERENCES, ILLUSTRATIONS AND SPECIFICATIONS

All information, illustrations, and specifications in this manual are based on the latest product information available at the time of printing. We reserve the right to make changes at any time without notice.

Copyright© 2004 MTD SOUTHWEST INC, All Rights Reserved.

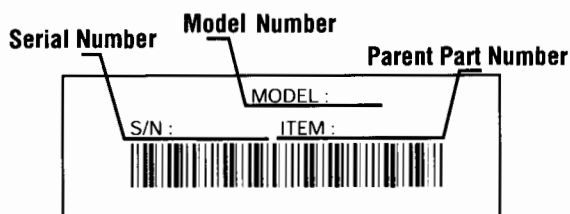
SERVICE INFORMATION

Service on this unit both within and after the warranty period should be performed only by an authorized and approved service dealer.

For service call **1-800-520-5520** to obtain a list of authorized service dealers near you. For more details about your unit, visit our website at **www.troybilt.com**.

DO NOT RETURN THE UNIT TO THE RETAILER. PROOF OF PURCHASE WILL BE REQUIRED FOR WARRANTY SERVICE.

Before beginning, locate the unit's model plate. It lists the model and serial numbers of your unit. Refer to the sample plate below and copy the information for future reference.



Copy the model and parent part number here: _____

Copy the serial number here: _____

Make sure you carefully read and understand this manual before starting or operating this equipment.

THIS PRODUCT IS COVERED BY ONE OR MORE U.S. PATENTS. OTHER PATENTS PENDING.

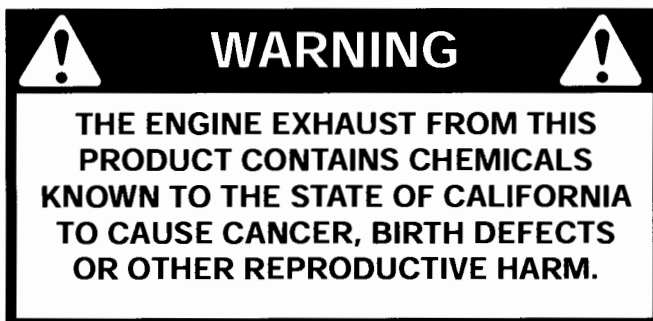
TABLE OF CONTENTS

Service Information	2
Rules for Safe Operation	3
Know Your Unit	7
Assembly Instructions	8
Oil and Fuel Information	11
Starting/Stopping Instructions	12
Operating Instructions	13
Maintenance and Repair Instructions	15
Cleaning and Storage	18
Accessories and Replacement Parts	18
Troubleshooting Chart	19
Specifications	20
Warranty Information	22
Parts List	Inside Back Cover

SPARK ARRESTOR NOTE

NOTE: For users on U.S. Forest Land and in the states of California, Maine, Oregon and Washington. All U.S. Forest Land and the state of California (Public Resources Codes 4442 and 4443), Oregon and Washington require, by law that certain internal combustion engines operated on forest brush and/or grass-covered areas be equipped with a spark arrester, maintained in effective working order, or the engine be constructed, equipped and maintained for the prevention of fire. Check with your state or local authorities for regulations pertaining to these requirements. Failure to follow these requirements could subject you to liability or a fine. **This unit is factory equipped with a spark arrester.** If it requires replacement, ask your LOCAL SERVICE DEALER to install the **Accessory Part #753-04689 Spark Arrester Kit.**


CALIFORNIA PROPOSITION 65 WARNING



RULES FOR SAFE OPERATION

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

SYMBOL	MEANING
--------	---------

	<p>SAFETY ALERT: Indicates danger, warning or caution. Attention is required in order to avoid serious personal injury. May be used in conjunction with other symbols or pictographs.</p>
---	--

NOTE: Advises you of information or instructions vital to the operation or maintenance of the equipment.

Read the Operator's Manual(s) and follow all warnings and safety instructions.


Failure to do so can result in serious injury to the operator and/or bystanders.

FOR QUESTIONS, CALL 1-800-520-5520

SYMBOL	MEANING
--------	---------


	<p>DANGER: Failure to obey a safety warning will result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.</p>
---	---

	<p>WARNING: Failure to obey a safety warning can result in injury to yourself and others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.</p>
---	---

	<p>CAUTION: Failure to obey a safety warning may result in property damage or personal injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.</p>
---	---

• IMPORTANT SAFETY INSTRUCTIONS •

READ ALL INSTRUCTIONS BEFORE OPERATING

	<p>WARNING: When using the unit, you must follow the safety rules. Please read these instructions before operating the unit in order to ensure the safety of the operator and any bystanders. Please keep these instructions for later use.</p>
---	--

- Read the instructions carefully. Be familiar with the controls and proper use of the unit.
- Do not operate this unit when tired, ill, or under the influence of alcohol, drugs, or medication.
- Children and teens under the age of 15 must not use the unit, except for teens guided by an adult.
- All guards and safety attachments must be installed properly before operating the unit.
- Inspect the unit before use. Replace damaged parts. Check for fuel leaks. Make sure all fasteners are in place and secure. Replace parts that are cracked, chipped, or damaged in any way. Do not operate the unit with loose or damaged parts.
- Carefully inspect the area before starting the unit. Remove all debris and hard or sharp objects such as glass, wire, etc.

- Clear the area of children, bystanders, and pets. At a minimum, keep all children, bystanders, and pets outside a 50 feet (15 m.) radius; there still may be a risk to bystanders from thrown objects. Bystanders should be encouraged to wear eye protection. If you are approached, stop the unit immediately.

SAFETY WARNINGS FOR GAS UNITS

	<p>WARNING: Gasoline is highly flammable, and its vapors can explode if ignited. Take the following precautions:</p>
---	---

- Store fuel only in containers specifically designed and approved for the storage of such materials.
- Avoid creating a source of ignition for spilled fuel. Do not start the engine until fuel vapors dissipate.
- Always stop the engine and allow it to cool before filling the fuel tank. Never remove the cap of the fuel tank, or add fuel, when the engine is hot. Never operate the unit without the fuel cap securely in place. Loosen the fuel tank cap slowly to relieve any pressure in the tank.
- Mix and add fuel in a clean, well-ventilated outdoor area where there are no sparks or flames. Slowly remove the fuel cap only after stopping engine. Do not smoke while fueling or mixing fuel. Wipe up any spilled fuel from the unit immediately. Always wipe unit dry before using.
- Move the unit at least 30 feet (9.1 m) from the fueling source and site before starting the engine. Do not smoke or allow sparks and open flames near the area while adding fuel or operating the unit.

RULES FOR SAFE OPERATION

WHILE OPERATING

- Never start or run the unit inside a closed room or building. Breathing exhaust fumes can kill. Operate this unit only in a well-ventilated outdoor area.
- To reduce the risk of injury associated with thrown objects, wear safety glasses or goggles that are marked as meeting ANSI Z87. standards.
- Never run the unit without the the proper equipment attached. When using this unit, always install the blower/vacuum tubes and vacuum bag depending on model. Make sure the vacuum bag is completely zipped closed.
- To reduce the risk of hearing loss associated with sound level(s), always wear ear/hearing protection when operating this unit.
- Wear heavy, long pants, boots, and gloves. Do not wear short pants, sandals, or go barefoot.
- To avoid static electricity shock, do not wear rubber gloves or any other insulated gloves while operating this unit.
- To reduce the risk of injury associated with objects being drawn into rotating parts, do not wear loose clothing, jewelry, scarves, and the like. Secure hair above shoulder level.
- Wear a face or dust mask if the operation is dusty. Long sleeve shirts are recommended.
- Use the unit only in daylight or good artificial light.
- Keep outside surfaces free from oil and fuel.
- Avoid accidental starting. Be in the starting position whenever pulling the starter rope. The operator and unit must be in a stable position while starting. Refer to *Starting/Stopping Instructions*.
- Do not set unit on any surface except a clean, hard area while engine is running. Debris such as gravel, sand, dust, grass, etc. could be picked up by the air intake and thrown out by the discharge opening, damaging unit, property, or causing serious injury to bystanders or operator.
- Use the right tool. Only use this tool for the purpose intended.
- Do not force unit. It will do the job better and with less likelihood of injury at a rate for which it was designed.
- Do not overreach or use from unstable surfaces such as ladders, trees, steep slopes, rooftops, etc. Always keep proper footing and balance.

- Always hold the unit with a firm grip when operating.
- Keep hands, face, and feet at a distance from all moving parts. Do not touch or try to stop the impeller when it is rotating. Do not operate without guards in place.
- Do not put any object into openings. Do not use with any opening blocked; keep free of dirt, debris, and anything that may reduce the air flow.
- Do not touch the engine or muffler. These parts get extremely hot from operation. When turned off they remain hot for a short time.
- Do not operate the engine faster than the speed needed to do the job. Do not run the engine at high speed when not in use.
- Always stop the engine when operation is delayed or when walking from one location to another.
- Stop the engine for maintenance, repair, to install or remove the blower tubes or vacuum attachments. The unit must be stopped and the impeller no longer turning to avoid contact with the rotating blades.
- Use only original equipment manufacturer replacement parts when servicing this unit. These parts are available from your authorized service dealer. Do not use unauthorized parts, accessories, or attachments for this unit. Doing so could lead to serious injury to the user, or damage to the unit, and void your warranty.
- Never use this unit for spreading chemicals, fertilizers or other substances which may contain toxic materials.
- To reduce fire hazard, replace faulty muffler and spark arrestor, keep the engine and muffler free from grass, leaves, excessive grease or carbon build up.

WHILE OPERATING UNIT AS A BLOWER

- Never point the blower in the direction of people or pets, or in the direction of windows. Always direct the blowing debris away from people, animals, and windows. Use extra caution when blowing debris near solid objects such as trees, automobiles, walls, etc.

WHILE OPERATING UNIT AS A VACUUM

- 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.

RULES FOR SAFE OPERATION

- The unit is designed to pickup dry material such as leaves, grass, small twigs, and bits of paper. Do not attempt to vacuum wet debris and/or standing water as this may result in damage to the blower/ vacuum. To avoid severe damage to the impeller, do not vacuum metal, broken glass, etc.

OTHER SAFETY WARNINGS

- Always disconnect the spark plug before performing maintenance or accessing movable parts.
- Never store the unit, with fuel in the tank, inside a building where fumes may reach an open flame (pilot lights, etc.) or sparks (switches, electrical motors, etc.).
- Allow the engine to cool before storing or transporting. Be sure to secure the unit while transporting.
- Store the unit in a dry place, either locked up or up high to prevent unauthorized use or damage. Keep out of the reach of children.

- Never douse or squirt the unit with water or any other liquid. Keep handles dry, clean, and free from debris. Clean after each use, see *Cleaning and Storage* instructions.
- Keep these instructions. Refer to them often and use them to instruct other users. If you loan this unit to others, also loan these instructions to them.

SPECIAL NOTE: Exposure to vibrations through prolonged use of gasoline powered hand tools could cause blood vessel or nerve damage in the fingers, hands, and joints of people prone to circulation disorders or abnormal swelling. Prolonged use in cold weather has been linked to blood vessel damage in otherwise healthy people. If symptoms occur such as numbness, pain, loss of strength, change in skin color or texture, or loss of feeling in the fingers, hands or joints, discontinue use of this tool and seek medical attention. An anti-vibration system does not guarantee avoidance of these problems. Users who operate power tools on a regular basis must closely monitor their physical condition and the condition of this tool.

SAVE THESE INSTRUCTIONS

RULES FOR SAFE OPERATION

SAFETY AND INTERNATIONAL SYMBOLS

This operator's manual describes safety and international symbols and pictographs that may appear on this product. Read the operator's manual for complete safety, assembly, operating and maintenance and repair information.

SYMBOL	MEANING	SYMBOL	MEANING
	<ul style="list-style-type: none"> • SAFETY ALERT SYMBOL <p>Indicates danger, warning, or caution. May be used in conjunction with other symbols or pictographs.</p>		<ul style="list-style-type: none"> • ON/OFF STOP CONTROL <p>ON / START / RUN</p>
	<ul style="list-style-type: none"> • WARNING - READ OPERATOR'S MANUAL <p>Read the Operator's Manual(s) and follow all warnings and safety instructions. Failure to do so can result in serious injury to the operator and/or bystanders.</p>		<ul style="list-style-type: none"> • ON/OFF STOP CONTROL <p>OFF OR STOP</p>
	<ul style="list-style-type: none"> • WEAR EYE AND HEARING PROTECTION <p>WARNING: Thrown objects and loud noise can cause severe eye injury and hearing loss. Wear eye protection meeting ANSI Z87.1-1989 standards and ear protection when operating this unit. Use a full face shield when needed.</p>		<ul style="list-style-type: none"> • HOT SURFACE WARNING <p>Do not touch a hot muffler or cylinder. You may get burned. These parts get extremely hot from operation. When turned off they remain hot for a short time.</p>
	<ul style="list-style-type: none"> • UNLEADED FUEL <p>Always use clean, fresh unleaded fuel.</p>		<ul style="list-style-type: none"> • BLOWERS - ROTATING IMPELLER BLADES CAN CAUSE SEVERE INJURY <p>WARNING: Stop the engine and allow the impeller to stop before opening the vacuum door, installing or changing tubes or bag, or before cleaning or performing any maintenance.</p>
	<ul style="list-style-type: none"> • OIL <p>Refer to operator's manual for the proper type of oil.</p>		<ul style="list-style-type: none"> • THROTTLE CONTROL <p>Indicates "HIGH" or "FASTEST" speed.</p>
	<ul style="list-style-type: none"> • THROWN OBJECTS AND ROTATING CUTTER CAN CAUSE SEVERE INJURY <p>WARNING: Keep clear of blower outlet. Never point the blower at yourself or others. Objects can be thrown from blower. Do not operate unit without proper attachments and guards in place.</p>		<ul style="list-style-type: none"> • THROTTLE CONTROL <p>Indicates "IDLE," "LOW" or "SLOWEST" speed.</p>
			<ul style="list-style-type: none"> • KEEP BYSTANDERS AWAY <p>WARNING: Keep all bystanders, especially children and pets, at least 50 feet (15 m.) from the operating area.</p>

RULES FOR SAFE OPERATION

KNOW YOUR UNIT

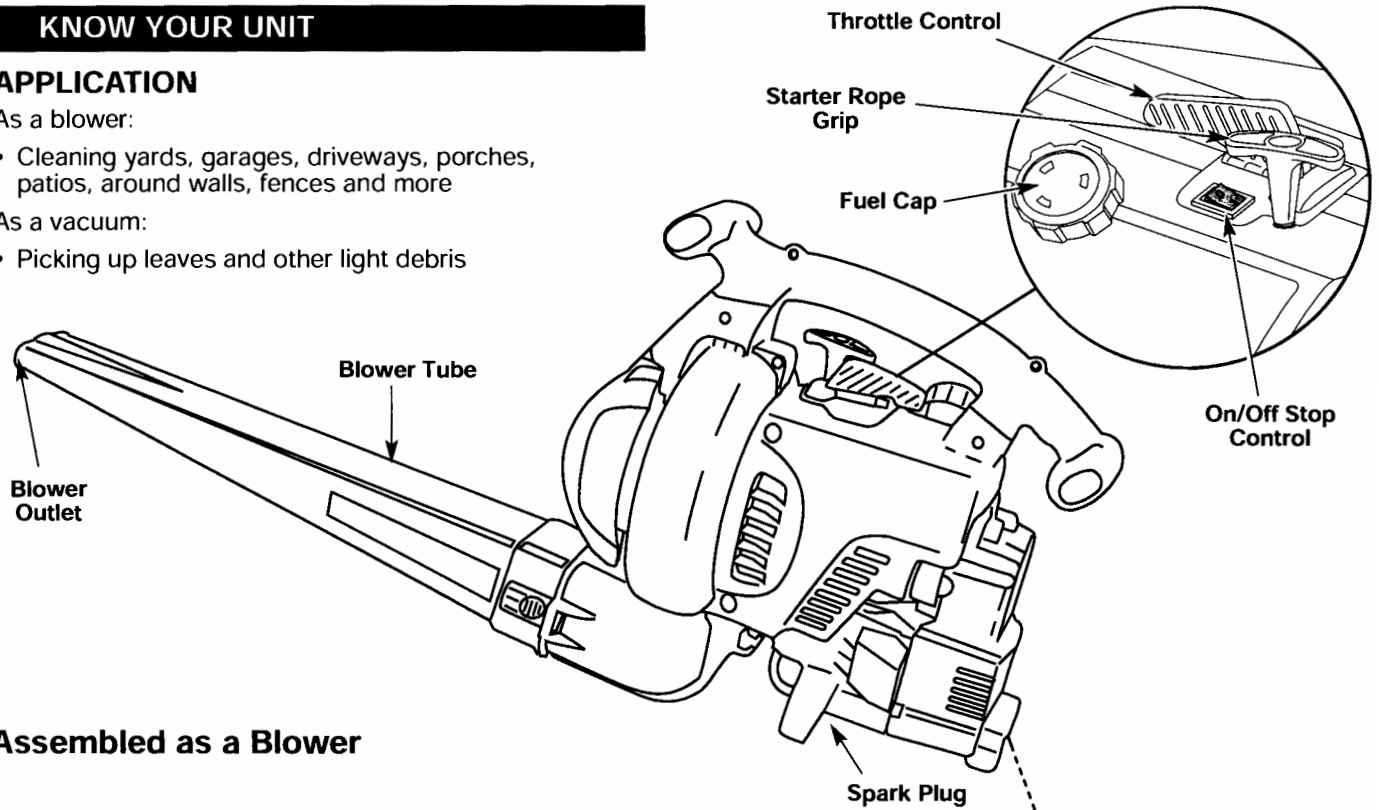
APPLICATION

As a blower:

- Cleaning yards, garages, driveways, porches, patios, around walls, fences and more

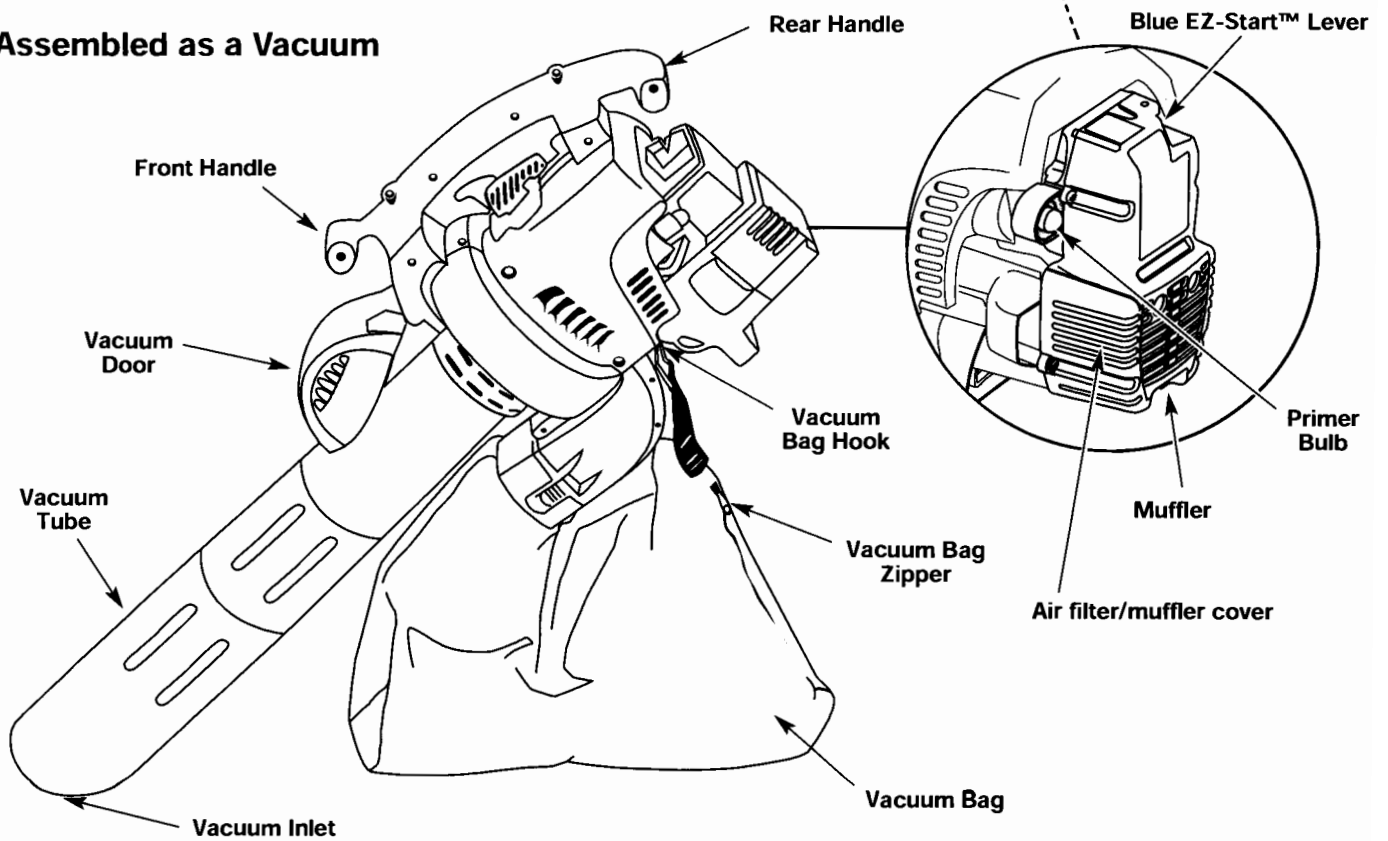
As a vacuum:

- Picking up leaves and other light debris



Assembled as a Blower

Assembled as a Vacuum



ASSEMBLY INSTRUCTIONS

ASSEMBLING UNIT AS A BLOWER

Blower Tube Assembly



WARNING: To prevent serious personal injury, stop the engine and allow the impeller to stop before attaching or removing tubes.



WARNING: To prevent serious personal injury or damage to the unit, the blower tube must be installed while operating this unit as a blower.

NOTE: If the unit was assembled as a vacuum unit, remove all vacuum parts and store away in a secure place for later use.

Installing

- Install the blower tube over the blower outlet and push it on until both tabs snap into place (Fig. 1).

Removing

- Remove the blower tube by pressing both tabs at the same time and pulling off the blower (Fig. 1).

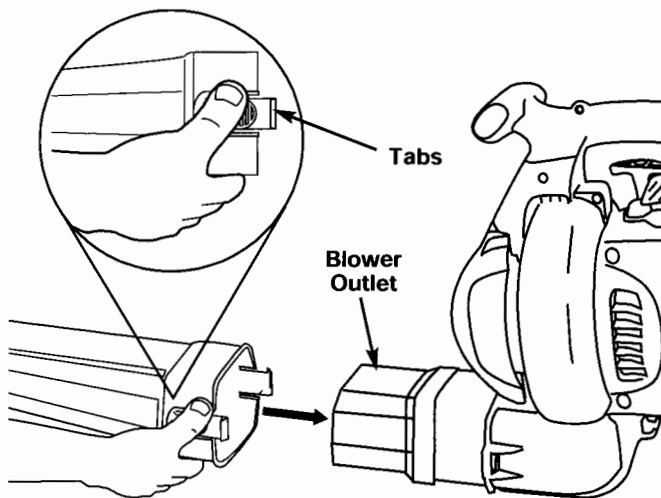


Fig. 1

ASSEMBLING UNIT AS A VACUUM

To assemble the unit as a vacuum, begin by removing the blower tube. Refer to the previous section.

Vacuum Tube Assembly



WARNING: To prevent serious personal injury, stop the engine and allow the impeller to stop before attaching or removing tubes.



WARNING: To prevent serious personal injury or damage to the unit, always install vacuum tubes and the vacuum bag, and make sure the vacuum bag is completely zipped closed when operating this unit as a vacuum.

NOTE: If the unit was assembled as a blower unit, remove the blower tube and store away in a secure place for later use.

Installation

1. Align the small arrow on the lower vacuum tube with the arrow on the upper vacuum tube (Fig. 2).
2. Grasp the lower and upper vacuum tubes firmly with both hands, and push the lower vacuum tube into the upper vacuum tube. Turn the lower vacuum tube clockwise until it snaps into detente and locks. When properly assembled, the dot on the lower tube aligns with the dot on the upper tube.

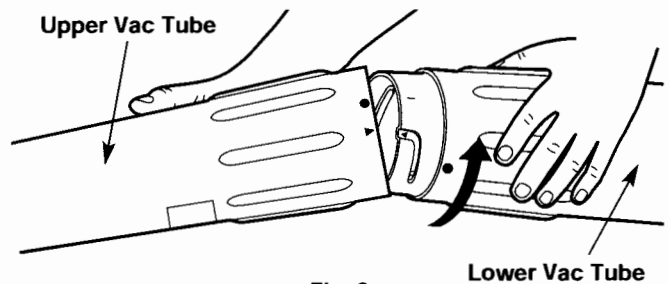


Fig. 2

3. Flip the unit so it is standing straight up on the muffler cover. The front of the unit and the vacuum door should face you (Fig. 3).

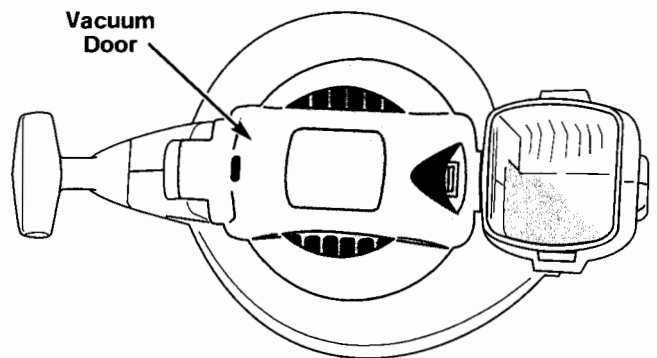


Fig. 3

ASSEMBLY INSTRUCTIONS

4. Insert a flat head screwdriver into the slot at the lower end of the vacuum door. Make contact with the vacuum door locking clip and push inward and upwards (Fig. 4). Then pull the vacuum door and hold it open.

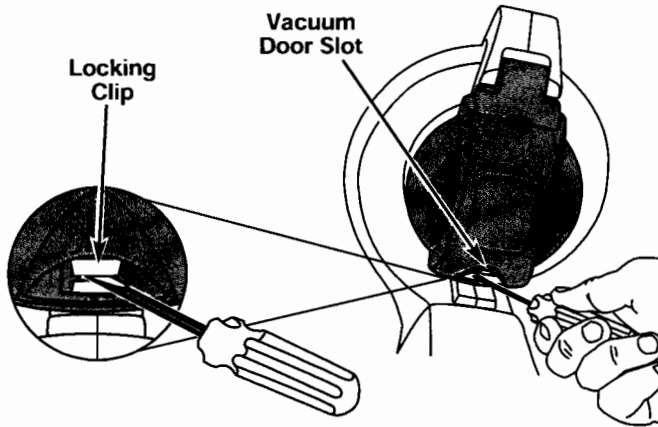


Fig. 4

5. While holding the vacuum door open, locate the assembled vacuum tube (put together in Step 2). Arrange the tube so the flat area faces the vacuum door. The grooves on the side of the tube will line up with the small tabs in the impeller intake (Fig. 5). From the exterior, align the small arrow on the vacuum tube with the arrow on the impeller intake.
6. Push the vacuum tube in firmly and grip it with both hands. Turn the tube clockwise as far as possible until it snaps into the detente and locks. When properly assembled, the dot on the vacuum tube will align with the dot on the impeller intake.

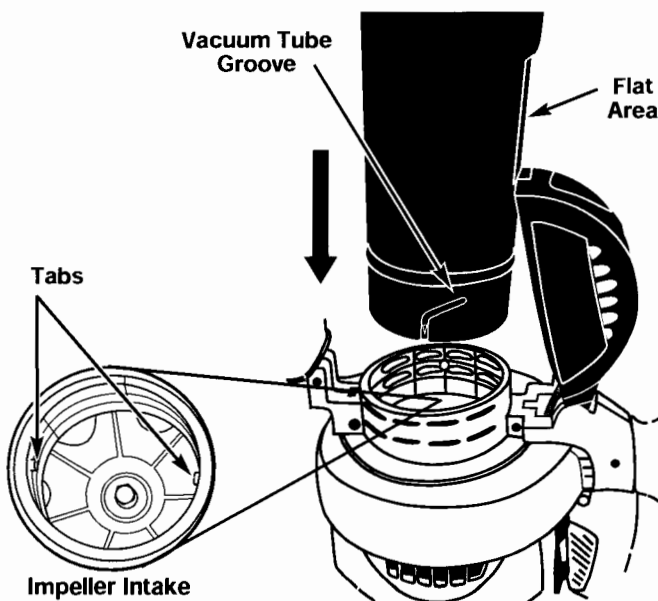


Fig. 5

Installing the Vacuum Bag

7. Install the vacuum bag tube over the blower outlet and push it on until both tabs snap into place (Fig. 6). Position the bag so its interior elbow slants downward.
8. Attach the vacuum bag to the vacuum bag hook located at the underside of the unit.
9. Keep the bag zipped and shut.

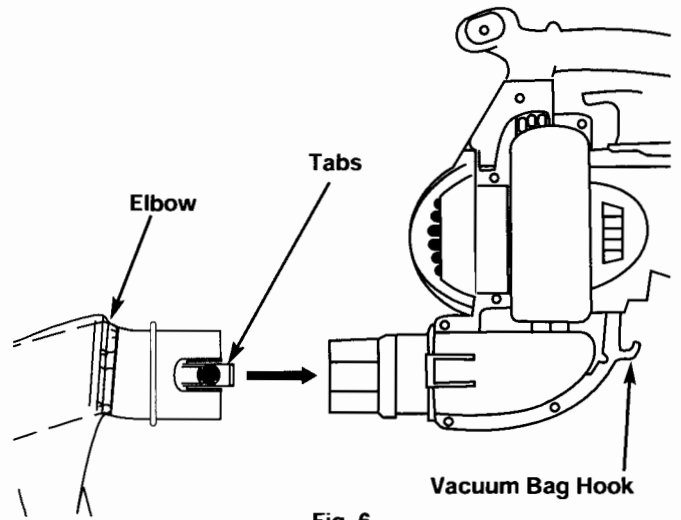


Fig. 6

Removing the Vacuum Bag

1. Unhook the bag.
2. Remove the vacuum bag by pressing both tabs on the vacuum bag elbow at the same time and pulling the bag off the blower (Fig. 6).
3. Install the blower tube in order to assemble the unit as a blower.
4. Make sure the vacuum door is securely latched shut.



WARNING: Never operate the unit in the blower configuration without the vacuum door secured and latched shut.

ASSEMBLY INSTRUCTIONS

INSTALLING THE SHOULDER HARNESS (Optional)



WARNING: To avoid serious personal injury, never attempt to start the unit when standing with the unit clipped to the shoulder strap. Always follow the starting procedures as described in the *Starting/Stopping Instructions* section.

The shoulder strap is an optional accessory.

1. Push the strap through the center of the buckle.
2. Pull the strap over the cross bar and down through the slot in the buckle (Fig. 7).

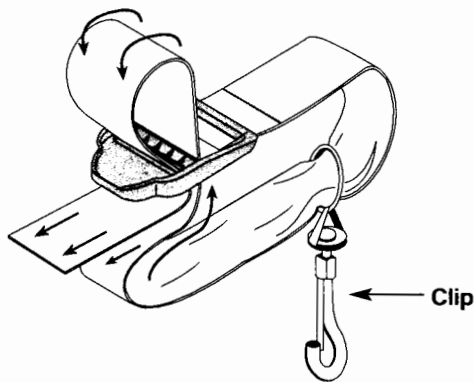


Fig. 7

3. Snap the clip on to the support fittings on the front or back of the handle. Clip to the front portion of the handle when using the unit as a blower, and clip to the back portion of the handle when using the unit as a vacuum (Fig. 8).

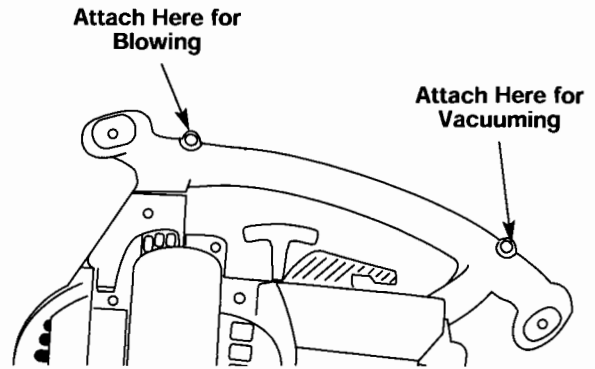


Fig. 8

4. While standing in the operating position, adjust the length to fit the operator's size. Pull the tab to lengthen, pull the strap to shorten (Fig. 9).

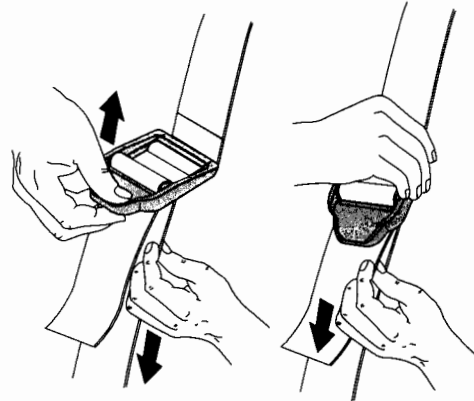


Fig. 9

OIL AND FUEL INFORMATION

OIL AND FUEL MIXING INSTRUCTIONS

Old and/or improperly mixed fuel are the main reasons for the unit not running properly. Be sure to use fresh, clean unleaded fuel. Follow the instructions carefully for the proper fuel/oil mixture.

Definition of Blended Fuels

Today's fuels are often a blend of gasoline and oxygenates such as ethanol, methanol, or MTBE (ether). Alcohol-blended fuel absorbs water. As little as 1% water in the fuel can make fuel and oil separate. It forms acids when stored. When using alcohol-blended fuel, use fresh fuel (less than 60 days old).

Using Blended Fuels


If you choose to use a blended fuel, or its use is unavoidable, follow recommended precautions:

- Always use the fresh fuel mix explained in your operator's manual
- Always agitate the fuel mix before fueling the unit
- Drain the tank and run the engine dry before storing the unit

Using Fuel Additives



The bottle of 2-cycle oil that came with your unit contains a fuel additive which will help inhibit corrosion and minimize the formation of gum deposits. It is recommended that you use our 2-cycle oil with this unit.

If unavailable, use a good 2-cycle oil designed for air-cooled engines along with a fuel additive, such as STA-BIL® Gas Stabilizer or an equivalent. Add 0.8 oz. (23 ml.) of fuel additive per gallon of fuel according to the instructions on the container. NEVER add fuel additives directly to the unit's fuel tank.


	CAUTION: For proper engine operation and maximum reliability, pay strict attention to the oil and fuel mixing instructions on the 2-cycle oil container. Using improperly mixed fuel can severely damage the engine.
---	---

Thoroughly mix the proper ratio of 2-cycle engine oil with unleaded gasoline in a separate fuel can. Use a 40:1 fuel/oil ratio. Do not mix them directly in the engine fuel tank. See the table below for specific gas and oil mixing ratios.


NOTE: One gallon (3.8 liters) of unleaded gasoline mixed with one 3.2 oz. (95 ml.) bottle of 2-cycle oil makes a 40:1 fuel/oil ratio.

	+	
UNLEADED GAS		2 CYCLE OIL
1 GALLON US (3.8 LITERS)		3.2 FL. OZ. (95 ml)
1 LITER		25 ml

MIXING RATIO - 40:1

	WARNING: Gasoline is extremely flammable. Ignited Vapors may explode. Always stop the engine and allow it to cool before filling the fuel tank. Do not smoke while filling the tank. Keep sparks and open flames at a distance from the area.
--	--

	WARNING: Remove fuel cap slowly to avoid injury from fuel spray. Never operate the unit without the fuel cap securely in place.
---	--

	WARNING: Add fuel in a clean, well ventilated outdoor area. Wipe up any spilled fuel immediately. Avoid creating a source of ignition for spilt fuel. Do not start the engine until fuel vapors dissipate.
---	---

NOTE: Dispose of the old fuel/oil mix in accordance to Federal, State and Local regulations.

STARTING/STOPPING INSTRUCTIONS



WARNING: Operate this unit only in a well-ventilated outdoor area. Carbon monoxide exhaust fumes can be lethal in a confined area.



WARNING: Avoid accidental starting. Make sure you are in the starting position when pulling the starter rope (Fig. 12 and 13). To avoid serious injury, the operator and unit must be in a stable position while starting. Do not set unit on any surface except a clean, hard area while starting. Debris such as gravel, sand, dust and grass could be picked up by the air intake and thrown out by the discharge opening. This could damage the unit, property, or cause serious injury to bystanders or the operator.

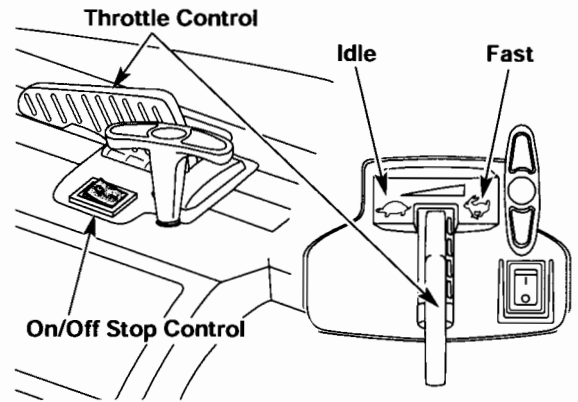


Fig. 10

STARTING INSTRUCTIONS

1. Mix gas with oil. Fill fuel tank with fuel/oil mixture. See *Oil and Fuel Mixing Instructions*.



WARNING: To avoid serious personal injury, always remove the vacuum bag prior to refueling the unit. The bag may become a fire hazard when saturated with fuel.

NOTE: There is no need to turn the unit on. The On/Off Stop Control is in the ON (I) position at all times.

2. Fully press and release the primer bulb 10 times, slowly. Some amount of **fuel should be visible in the primer bulb** and fuel lines (Fig. 11). If you can't see fuel in the bulb, press and release the bulb as many times as it takes before you can see fuel in it.
3. Place the unit in the starting position (Fig. 12 as a blower, Fig. 13 as a vacuum). *Move the throttle control to the **idle position** (☛) (Fig. 10).* This is especially important during cold starting.
4. **Push the blue EZ-Start™ Lever towards the primer bulb** until it clicks and locks into place (Fig. 11).
5. Pull the starter rope out with a **controlled and steady motion** until the engine attempts to start. Repeat until the engine starts.

NOTE: The unit uses Spring Assist Starting™, which significantly reduces the effort required to start the engine. You must pull the starter rope out far enough to hear the engine attempt to start. There is no need to pull the rope briskly-- there is no harsh resistance when pulling. Be aware that this starting method is vastly different from (and much easier than) what you may be used to.

6. When the engine starts, move the throttle control to the fast position (☛) and let the engine warm up for 15 to 30 seconds. **The blue EZ-Start™ Lever will click off automatically** when you move the throttle control to the fast position.

IF... The engine does not start, go back to step 2.

NOTE: If you are having trouble starting the unit or are operating in extreme temperatures (below 40° F, above 90° F), refer to the *Troubleshooting* section.

STOPPING INSTRUCTIONS

1. Move the throttle control to the idle position (☛). Allow the engine to cool down by idling.
2. Put the On/Off Stop Control in the OFF (O) position.

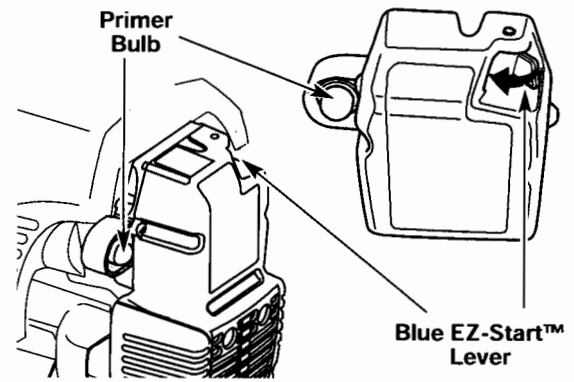


Fig. 11

Blower Starting Position

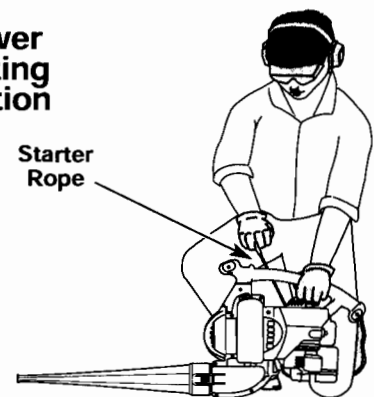


Fig. 12

Vacuum Starting Position

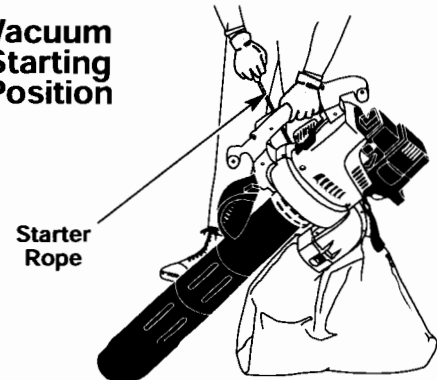


Fig. 13

OPERATING INSTRUCTIONS

HOLDING THE BLOWER/VACUUM

Before operating the unit, stand in the operating position. Check for the following:

- Operator is wearing proper clothing, such as boots, safety glasses or goggles, ear/hearing protection, gloves, long pants and long sleeve shirt



WARNING: To avoid serious personal injury, wear goggles or safety glasses at all times when operating this unit. Wear a face mask or dust mask in dusty locations.

- If the conditions are dusty, the operator is wearing a dust mask or face mask
- The unit is in good working condition
- The tubes and guards are in place and secure



WARNING: To prevent serious personal injury or damage to the unit, make sure blower tubes or vacuum tubes and the vacuum bag are in place before you operate the unit.

OPERATING TIPS

- Be sure the vacuum bag is zipped closed before operating the unit.
- Assure the unit is not directed at anybody or any loose debris before starting the unit.
- Verify that the unit is in good working condition. Make sure the tubes and guards are in place and secure.
- Always hold the unit securely when operating. Keep a firm grip on both the front and rear handles.
- To reduce the risk of hearing loss associated with sound level(s), hearing protection is required.
- Operate power equipment only at reasonable hours—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 am to 5:00 pm, Monday through Saturday.
- To reduce noise levels, limit the number of pieces of equipment used at any one time.
- To reduce noise levels, operate power blowers at the lowest possible 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 or use a mister attachment when water is available.
- Conserve water by using power blowers instead of hoses for many lawn and garden applications, including areas such as screens, patios, grills, porches, and gardens.

- 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.
- Clean up after using blowers and other equipment. Dispose of debris appropriately.

OPERATING AS A BLOWER

- 1 Use the blower for trees, shrubs, flower beds and hard-to-clean areas (Fig. 14).
2. Use the unit around buildings and for other normal cleaning procedures (Fig. 14).
3. Use the blower around walls, overhangs, fences and screens (Fig. 15).

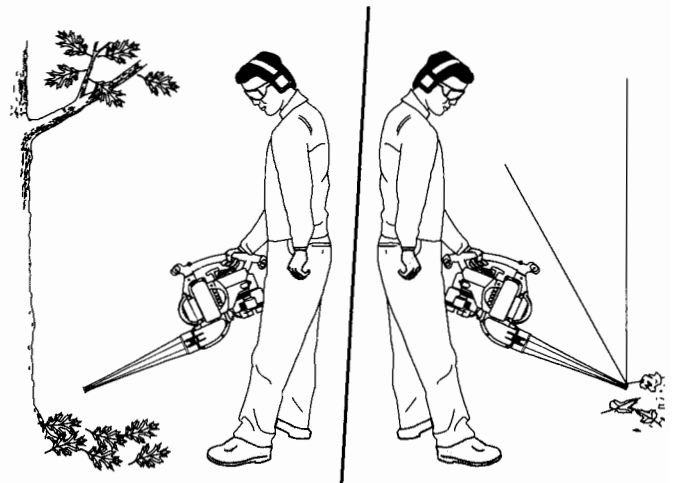


Fig. 14

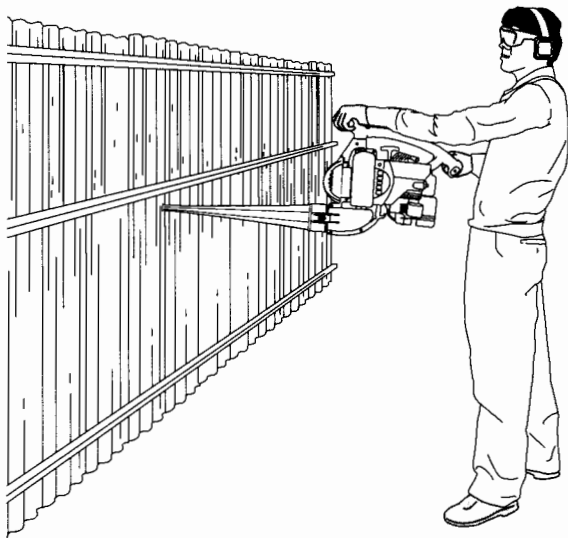



Fig. 15

OPERATING INSTRUCTIONS

OPERATING AS A VACUUM

	WARNING: To prevent serious personal injury or damage to the unit, always install vacuum tubes, vacuum bag and make sure the vacuum bag is completely zipped closed when operating this unit as a vacuum.
---	--

Check for the following before operating the unit:


- Operator is wearing proper clothing, such as boots, safety glasses or goggles, ear/hearing protection, gloves, long pants and long sleeve shirt
- If the conditions are dusty, operator is equipped with a dust mask or face mask
- The unit is in good working condition-- the vacuum tubes and vacuum bag are in place and secure.
- The vacuum bag harness is in place and correctly adjusted


Operation Procedure


Use the unit for vacuuming up light debris like leaves and paper.

Hold the vacuum, tilting the suction tube slightly (2-4 in or 50-100 mm above the ground), and use a sweeping action to collect light debris (Fig. 16). The debris will flow into the vacuum bag. Items such as small leaves and small twigs will be mulched as they pass through the fan housing, allowing the vacuum bag to hold more debris.

When the bag is full, suction will noticeably decrease. Turn off the unit and allow the impeller to stop before you unzip the bag. Unzip the bag and empty the contents before continuing. Refer to *Emptying the Vacuum Bag*.

	WARNING: To avoid serious personal injury, never unzip the vacuum bag without stopping the unit first
---	--


	WARNING: As a vacuum, the unit is designed to pick up dry material such as leaves, grass, small twigs and bits of paper. To avoid serious personal injury, do not attempt to vacuum wet debris and/or standing water as this may result in damage to the blower/ vacuum. To avoid severe damage to the impeller, do not vacuum metal, broken glass or similar items.
---	---

	WARNING: 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.
---	--

	WARNING: When the upper and lower vacuum tubes are removed, make sure the vacuum door is snapped closed and secured before using the unit, to avoid injury from the impeller.
---	--

Emptying the Vacuum Bag

1. Remove the bag from the vacuum bag hook.
2. While wearing eye protection and a dust mask, unzip the vacuum bag and empty the contents into a garbage bag or container.

	WARNING: To avoid serious personal injury, turn off the unit and allow the impeller to stop before opening vacuum door or installing or removing vacuum bag.
---	---

3. Turn the bag inside out after initial emptying and vigorously shake out dust and debris.
4. Zip close and reinstall the vacuum bag.



Fig. 16

MAINTENANCE AND REPAIR INSTRUCTIONS

MAINTENANCE SCHEDULE

Perform these required maintenance procedures at the frequency stated in the table. These procedures should also be a part of any seasonal tune-up.

NOTE: Some maintenance procedures may require special tools or skills. If you are unsure about these procedures take your unit to any non-road engine repair establishment, individual or authorized service dealer. Call 1-800-520-5520 for more information.

NOTE: Maintenance, replacement, or repair of the emission control devices and system may be performed by any non-road engine repair establishment, individual or authorized service dealer.

In order to assure peak performance of your engine, inspection of the engine exhaust port may be necessary after 50 hours of operation. If you notice lost RPM, poor performance or general lack of acceleration, this service may be required. If you feel your engine is in need of this inspection, refer service to any non-road engine repair establishment, individual or authorized service dealer for repair. **DO NOT** attempt to perform this process yourself as engine damage may result from contaminants involved in the cleaning process for the port.

	<p>WARNING: To prevent serious injury, never perform maintenance or repairs with unit running. Always service and repair a cool unit. Disconnect the spark plug wire to ensure that the unit cannot start.</p>
--	---

FREQUENCY	MAINTENANCE REQUIRED	REFER TO
Before starting engine	Fill fuel tank with fresh fuel	Page 11
Every 10 hours	Clean and re-oil air filter	Page 15
Every 25 hours	Check and clean spark arrestor Check spark plug condition and gap	Page 16 Page 17
Every 50 hours	Inspect exhaust port and spark arrestor screen for clogging or obstruction to assure maximum performance levels	Page 16

AIR FILTER MAINTENANCE

Removing the Air Filter/Muffler Cover

	<p>WARNING: To avoid serious personal injury, always turn your unit off and allow it to cool before you clean or service it.</p>
--	---

1. Remove the four (4) screws securing the air filter/muffler cover (Fig. 17). Use a T20 Torx bit screwdriver.
2. Pull the cover from the engine. Do not force.

Cleaning the Air Filter

Clean and re-oil the air filter every 10 hours of operation. It is an important item to maintain. Failure to maintain your air filter properly can result in poor performance or can cause permanent damage to your engine.

1. Remove air filter/muffler cover. Refer to *Removing the Air Filter/Muffler Cover*.
2. Turn cover over and look inside to locate the air filter. Remove the air filter from inside the air filter/muffler cover (Fig. 18).
3. Wash the filter in detergent and water (Fig. 19). Rinse the filter thoroughly. Squeeze out excess water. Allow it to dry completely.

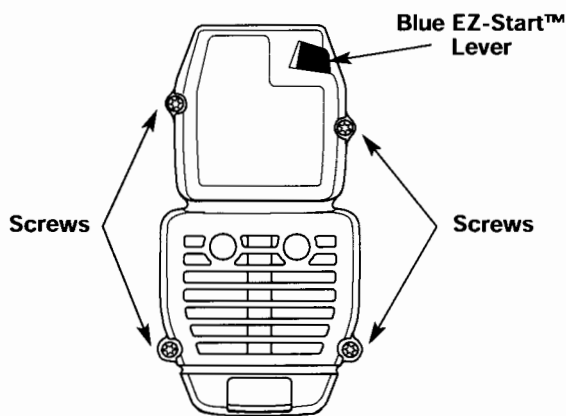


Fig. 17

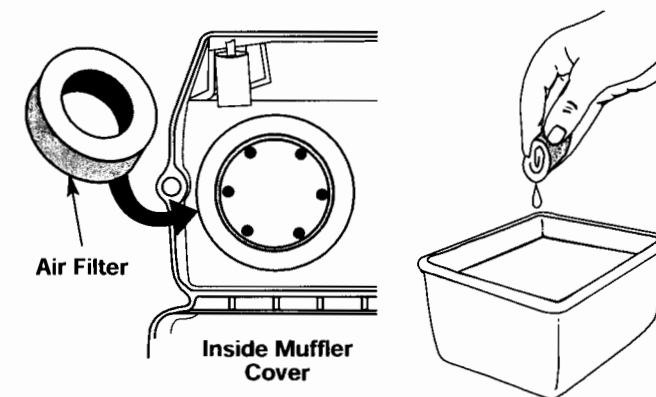


Fig. 18

Fig. 19

MAINTENANCE AND REPAIR INSTRUCTIONS

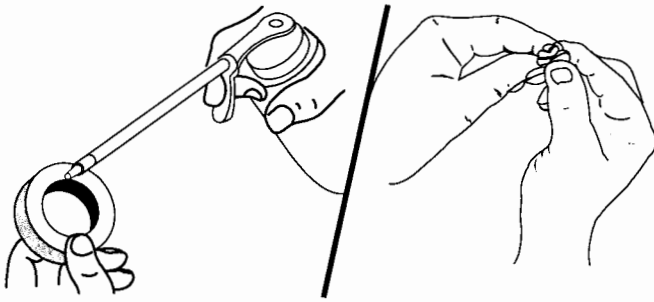


Fig. 20

Fig. 21

4. Apply enough clean SAE 30 oil to lightly coat the filter (Fig. 20).
5. Squeeze the filter to spread and remove excess oil (Fig. 21).
6. Replace the air filter inside the air filter/muffler cover (Fig. 18).

NOTE: Operating the unit without the air filter and air filter/muffler cover assembly will VOID the warranty.

Reinstalling the Air Filter/Muffler Cover

1. Place the air filter/muffler cover over the back of the carburetor and muffler. Align the screw holes.
2. Insert the four (4) screws into the holes in the air filter/muffler cover (Fig. 17) and tighten.
Do not over tighten.

SPARK ARRESTOR MAINTENANCE

NOTE: The exhaust can only flow in one direction: AWAY from the engine. Pay close attention when disassembling the muffler so you can put it back together correctly. Failure to do so will damage the unit and may cause serious personal injury.

1. Remove air filter/muffler cover. Refer to *Removing the Air Filter/Muffler Cover*.
2. Locate the muffler, but do not remove it. Find the two (2) screws on the bottom of the muffler (Fig. 22). These two screws hold the Spark Arrestor Hood Assembly and the spark arrestor screen to the bottom of the muffler. Remove the two (2) screws using either a torx #20 or flat blade screwdriver.
3. Using a small flat blade screwdriver, carefully pry up the spark arrestor screen from the recessed hole, taking care to notice that the "raised" part of the spark arrestor screen is inside the recessed hole. Remove the spark arrestor screen from the muffler.

4. Clean the spark arrestor screen with a wire brush. Replace it if it is damaged, or if you are unable to clean it thoroughly.
5. Reinstall the spark arrestor screen by putting the "raised" portion of the screen inside the recessed hole of the muffler. Make sure that the spark arrestor screen fits flat against the muffler.
6. Place the spark arrestor plate on top of the spark arrestor with the "raised" side up and the opening facing towards the engine (Fig. 22).
7. Place the spark arrestor hood on top of the spark arrestor plate with the "raised" side up and the opening facing AWAY from the engine (Fig. 22). Verify that the exhaust will be directed AWAY from the engine.
8. Replace the two screws you removed in Step 2 and tighten them securely.
9. Reinstall the air filter/muffler cover.

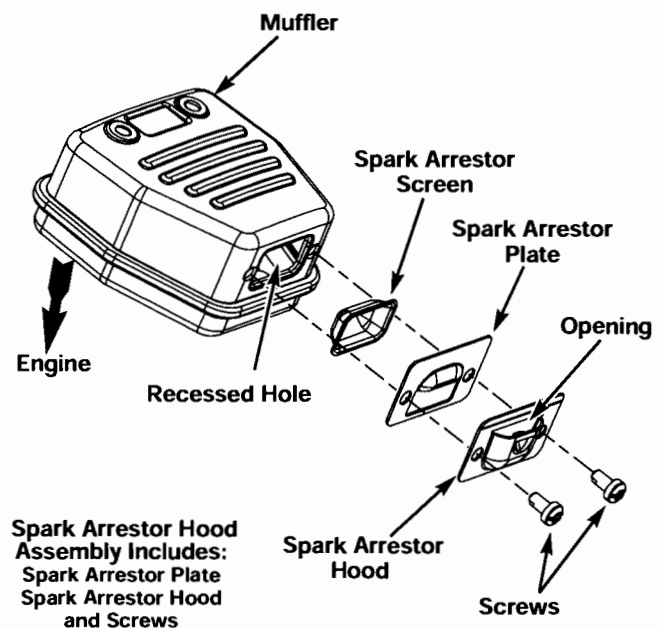
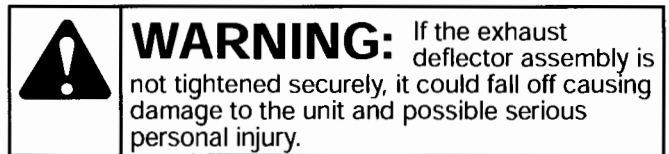


Fig. 22

MAINTENANCE AND REPAIR INSTRUCTIONS

CARBURETOR ADJUSTMENT

The idle speed of the engine is adjustable through the air filter/muffler cover (Fig. 23).

NOTE: Careless adjustments can seriously damage your unit. An authorized service dealer should make carburetor adjustments.

Check Fuel Mixture

Old and/or improperly mixed fuel is usually the reason for improper unit performance. Drain and refill the tank with fresh, properly-mixed fuel prior to making any adjustments. Refer to *Oil and Fuel Information*.

Clean Air Filter

The condition of the air filter is important to the operation of the unit. A dirty air filter will restrict air flow and change the air/fuel mixture. This is often mistaken for an out of adjustment carburetor. Check the condition of the air filter before adjusting the idle speed screw. Refer to *Air Filter Maintenance*.

Adjust Idle Speed Screw



WARNING: This unit will need to be running during idle speed adjustment. Wear protective clothing and observe all safety instructions to prevent serious personal injury.

Also, DO NOT set unit on any surface except a clean, hard area while starting or performing any adjustments. Debris such as gravel, sand, dust, grass, etc. could be picked up by the air intake and thrown out by the discharge opening, damaging unit, property, or causing serious injury to bystanders or operator.

If after checking the fuel mixture and cleaning the air filter the engine still will not idle, adjust the idle speed adjuster as follows.

1. Start the engine and let it run at the fast position for a minute to warm up.
2. Move the throttle control to the idle position and let the engine idle. If the engine stops, insert a small phillips screwdriver into the hole in the air filter/muffler cover (Fig. 23). Turn the idle speed adjuster in, clockwise, 1/8 of a turn at a time (as needed) until the engine idles smoothly.
3. If the unit appears to be idling too fast, turn the idle speed adjuster counterclockwise 1/8 of a turn at a time (as needed), to reduce idle speed.

Checking the fuel mixture, cleaning the air filter, and adjusting the idle speed should solve most engine problems. If not and all of the following are true:

- the engine will not idle
- the engine hesitates or stalls on acceleration
- there is a loss of engine power

Have the carburetor adjusted by an authorized service dealer. Call 1-800-520-5520 for more information.

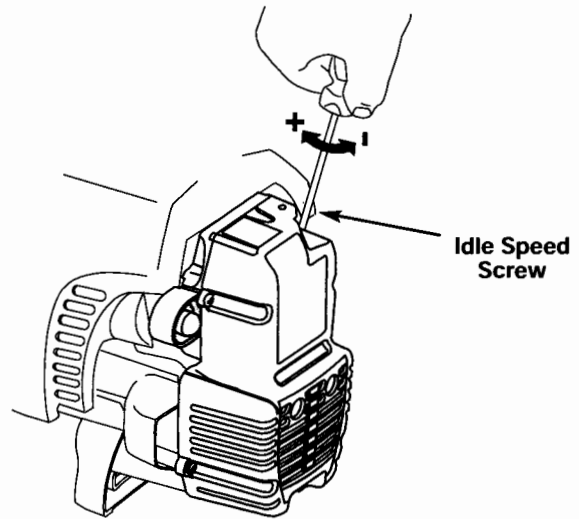


Fig. 23

REPLACING THE SPARK PLUG

Use a Champion RDJ7Y spark plug, or equivalent. The correct air gap is **0.020 inch (0.5 mm)**. Remove the plug after every 25 hours of operation and check its condition.

1. Stop the engine and allow it to cool. Grasp the plug wire firmly and pull it from the spark plug.
2. Clean around the spark plug. Remove the spark plug from the cylinder head by turning a 5/8-inch socket counterclockwise.
3. Replace a cracked, fouled or dirty spark plug. Set the air gap at **0.020 in. (0.5 mm)** using a feeler gauge (Fig. 24).



WARNING: Do not sand blast, scrape or clean electrodes. Grit in the engine could damage the cylinder.

4. Install a correctly-gapped spark plug in the cylinder head. Tighten by turning the 5/8-inch socket clockwise until snug.

If using a torque wrench torque to:

110-120 in.·lb. (12.3-13.5 N·m)

Do not over tighten.

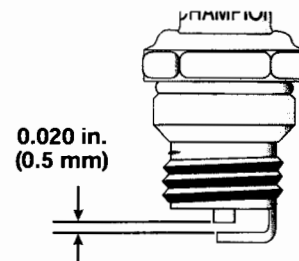


Fig. 24

MAINTENANCE AND REPAIR INSTRUCTIONS

CLEANING THE UNIT



WARNING: To avoid serious personal injury, always turn your unit off and allow it to cool before you clean or service it.

Use a small brush to clean off the outside of the unit. Do not use strong detergents. Household cleaners that contain aromatic oils such as pine and lemon, and solvents such as kerosene, can damage plastic housing or handle. Wipe off any moisture with a soft cloth.

CLEANING THE VACUUM BAG

1. Empty the bag after each use to avoid deterioration and obstructing air flow, which will reduce the performance of the vacuum.
2. Wearing eye protection and a dust mask, clean the bag as needed. Turn the bag inside out after initial emptying and vigorously shake out dust and debris.
3. Wash the bag once a year or more often if needed:
 - a. Remove the vacuum bag.
 - b. Turn bag inside out.
 - c. Hang it up.
 - d. Hose it down thoroughly.
 - e. Hang to dry.
 - f. Turn bag right-side out and reinstall.

STORAGE

- Never store a fueled unit where fumes may reach an open flame or spark.
- Allow the engine to cool before storing.
- Store the unit locked up to prevent unauthorized use or damage.
- Store the unit in a dry, well-ventilated area.
- Store the unit out of the reach of children.

CLEARING A BLOCKED TUBE / IMPELLER



WARNING: To avoid serious personal injury, be sure the unit is off before cleaning or performing any maintenance on it.



WARNING: To avoid serious personal injury, always wear gloves to protect yourself from the impeller blades or other sharp objects.

1. Press the On/Off Stop control down in the **STOP (O)** position until the engine comes to a complete stop (Fig. 10).
2. Disconnect the spark plug wire to prevent the unit from starting.

3. Remove the blower/vacuum tube and the vacuum bag.
4. Carefully remove material blocking the tube or impeller. Inspect the blades to assure no damage has occurred. Rotate the impeller blades by hand to assure the blockage is completely cleared.
5. Reinstall the vacuum bag and blower/vacuum tube.
6. Reconnect the spark plug wire.

LONG TERM STORAGE

If you plan on storing the unit for an extended time, use the following storage procedure:

1. Drain all fuel from the fuel tank into a container with the same 2-cycle fuel mixture. Do not use fuel that has been stored for more than 60 days. Dispose of the old fuel/oil mix in accordance to Federal, State and Local regulations.
2. Start the engine and allow it to run until it stalls. This ensures that all fuel has been drained from the carburetor.
3. Allow the engine to cool. Remove the spark plug and put 1 oz. (30 ml) of any high quality motor oil or 2-cycle oil into the cylinder. Pull the starter rope slowly to distribute the oil. Reinstall the spark plug.

NOTE: Remove the spark plug and drain all of the oil from the cylinder before attempting to start the unit after storage.

4. Thoroughly clean the unit and inspect it for any loose or damaged parts. Repair or replace damaged parts and tighten loose screws, nuts or bolts. The unit is ready for storage.

TRANSPORTING

- Allow the engine to cool before transporting.
- Drain fuel from unit.
- Tighten fuel cap before transporting.
- Secure the unit while transporting.

TROUBLESHOOTING

ENGINE WILL NOT START

CAUSE

Blue EZ-Start lever wasn't flipped/set
 Throttle lever is in the incorrect position
 Empty fuel tank
 Primer bulb wasn't pressed enough
 Engine flooded
 Old or improperly mixed fuel
 Fouled spark plug
 Plugged spark arrestor
 The outside temperature is below 40° F
 The outside temperature is above 90° F

ACTION

Move lever to the starting position
 Refer to the Starting/Stopping instructions
 Fill fuel tank with properly mixed fuel
 Press primer bulb fully and slowly 10 times
 Flip throttle lever to FAST and pull starter rope
 Drain gas tank / Add fresh fuel mixture
 Replace or clean the spark plug
 Clean or replace spark arrestor
 Pull the starter rope up to 10-15 times
 Squeeze the throttle control and pull the starter rope

ENGINE WILL NOT IDLE

CAUSE

Air filter is plugged
 Old or improperly mixed fuel
 Improper carburetor adjustment

ACTION

Replace or clean the air filter
 Drain gas tank / Add fresh fuel mixture
 Adjust according to the *Carburetor Adjustments* section

ENGINE WILL NOT ACCELERATE

CAUSE

Old or improperly mixed fuel
 Improper carburetor adjustment

 Dirty air filter
 Plugged spark arrestor

ACTION

Drain gas tank / Add fresh fuel mixture
 Take to an authorized service dealer for carburetor adjustment
 Clean or replace the air filter
 Clean or replace spark arrestor

ENGINE LACKS POWER OR STALLS

CAUSE

Old or improperly mixed fuel
 Air filter is plugged
 Improper carburetor adjustment

 Fouled spark plug
 Plugged spark arrestor

ACTION

Drain gas tank / Add fresh fuel mixture
 Replace or clean the air filter
 Take to an authorized service dealer for carburetor adjustment
 Replace or clean the spark plug
 Clean or replace spark arrestor

UNIT WILL NOT BLOW OR VACUUM

CAUSE

Bag full
 Blocked tube

 Blocked impeller

 Damaged impeller

ACTION

Empty bag, as described in *Empty the Vacuum Bag*
 Clear the blockage as described in *Clearing a Blocked Tube/ Impeller*
 Clear the blockage as described in *Clearing a Blocked Tube/ Impeller*
 Take the unit to an authorized service dealer

**If further assistance is required, contact your authorized service dealer.
 Call 1-800-520-5520 for more information.**

SPECIFICATIONS

ENGINE*

Engine Type.....	Air-Cooled, 2-Cycle
Displacement.....	31 cc (1.9 cu. in)
Vacuum Operating RPM.....	6,800+ rpm
Blower Operating RPM.....	7,200+ rpm
Idle Speed RPM.....	3,200 - 4,400 rpm
Ignition Type.....	Electronic
On/Off Stop Control.....	Rocker Switch
Spark Plug Gap.....	0.020 inch (0.5 mm)
Lubrication.....	Fuel/Oil Mixture
Fuel/Oil Ratio.....	40:1
Carburetor.....	Diaphragm, All-Position
Starter.....	Auto Rewind
Muffler.....	Baffled with Guard
Fuel Tank Capacity.....	13 ounces (384 ml)

BLOWER / VACUUM*

Throttle Control.....	Finger-Tip Lever
Blower Velocity.....	up to 205 mph (330 kmh)
Blower Air Output.....	up to 425 cfm (12.1 cmm)
Mulching Ratio.....	up to 10:1
Vacuum Bag Capacity.....	1.5 bushels (52.8 Liters)
Shoulder Harness.....	Single Quick-Snap
Approximate Unit Weight (no fuel, with blower tube).....	11.4 lb. (5.2 kg)

*All specifications are based on the latest product information available at the time of printing. We reserve the right to make changes at any time without notice.

California / EPA Emission Control Warranty Statement

Your Warranty Rights and Obligations

The California Air Resources Board, the Environmental Protection Agency and MTD LLC (MTD) are pleased to explain the emission control system warranty on your 2000 and later small off-road engine. New small off-road engines must be designed, built and equipped to meet stringent anti-smog standards. MTD 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 may include parts such as the carburetor or fuel-injected system, the ignition system, and catalytic converter. Also included may be hoses, belts, connectors and other emission-related assemblies.

Where a warrantable condition exists, Troy-Bilt will repair your small off-road engine at no cost to you including diagnosis, parts and labor.

The 2000 and later small off-road engines are warranted for two years. If any emission-related part on your engine is defective, the part will be repaired or replaced by Troy-Bilt.

Owners 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. Troy-Bilt recommends that you retain all receipts covering maintenance on your small off-road engine, but Troy-Bilt 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 however should be aware that Troy-Bilt may deny you warranty coverage if your small off-road engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.
- You are responsible for presenting your small off-road engine to a Troy-Bilt Authorized Service Center 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 call 1-800-520-5520.

Manufacturer's Warranty Coverage

- The warranty period begins on the date the engine or equipment is delivered to the retail purchaser.
- The manufacturer warrants to the initial owner and each subsequent purchaser, that the engine is free from defects in material and workmanship which cause the failure of a warranted part for a period of two years.
- Repair or replacement of warranted part will be performed at no charge to the owner at an Authorized Troy-Bilt Service Center. For the nearest location please contact Troy-Bilt at: 1-800-520-5520.
- Any warranted part which is not scheduled for replacement, as required maintenance or which is scheduled for only for regular inspection to the effect of "Repair or Replace as Necessary" is warranted for the warranty period. Any warranted part which is scheduled for replacement as required maintenance will be warranted for the period of time up to the first scheduled replacement point for that part.
- The owner will 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 Authorized Troy-Bilt Service Center.
- The manufacturer is liable for damages to other engine components caused by the failure of a warranted part still under warranty.
- Failures caused by abuse, neglect or improper maintenance are not covered under warranty.
- The use of add-on or modified parts can be grounds for disallowing a warranty claim. The manufacturer is not liable to cover failures of warranted parts caused by the use of add-on or modified parts.
- In order to file a claim, go to your nearest Authorized Troy-Bilt Service Center. Warranty services or repairs will be provided at all Authorized Troy-Bilt Service Centers.
- Any manufacturer approved replacement part may be used in the performance of any warranty maintenance or repair of emission related parts and will be provided without charge to the owner. Any replacement part that is equivalent in performance or durability may be used in non-warranty maintenance or repair and will not reduce the warranty obligations of the manufacturer
- The following components are included in the emission related warranty of the engine, air filter, carburetor, primer, fuel lines, fuel pick up/ fuel filter, ignition module, spark plug and muffler.

MANUFACTURER'S LIMITED WARRANTY FOR:



The limited warranty set forth below is given by Troy-Bilt LLC with respect to new merchandise purchased and used in the United States, its possessions and territories.

Troy-Bilt LLC warrants this product against defects in material and workmanship for a period of two (2) years commencing on the date of original purchase and will, at its option, repair or replace, free of charge, any part found to be defective in material or workmanship. This limited warranty shall only apply if this product has been operated and maintained in accordance with the Operator's Manual furnished with the product, and has not been subject to misuse, abuse, commercial use, neglect, accident, improper maintenance, alteration, vandalism, theft, fire, water or damage because of other peril or natural disaster. Damage resulting from the installation or use of any accessory or attachment not approved by Troy-Bilt LLC for use with the product(s) covered by this manual will void your warranty as to any resulting damage. This warranty is limited to ninety (90) days from the date of original retail purchase for any Troy-Bilt product that is used for rental or commercial purposes, or any other income-producing purpose.

HOW TO OBTAIN SERVICE: Warranty service is available, WITH PROOF OF PURCHASE THROUGH YOUR LOCAL AUTHORIZED SERVICE DEALER. To locate the dealer in your area, visit our website at www.troybilt.com, check for a listing in the Yellow Pages, call **1-800-520-5520** or write to P.O. Box 361131, Cleveland, OH 44136-0019.

This limited warranty does not provide coverage in the following cases:

- A. Tune-ups - Spark Plugs, Carburetor Adjustments, Filters
- B. Wear items - Bump Knobs, Outer Spools, Cutting Line, Inner Reels, Starter Pulley, Starter Ropes, Drive Belts
- C. Troy-Bilt LLC does not extend any warranty for products sold or exported outside of the United States of America, its possessions and territories, except those sold through Troy-Bilt's authorized channels of export distribution.

Troy-Bilt LLC reserves the right to change or improve the design of any Troy-Bilt Product without assuming any obligation to modify any product previously manufactured.

No implied warranty, including any implied warranty of merchantability or fitness for a particular purpose, applies after the applicable period of express written warranty above as to the parts as identified. No other express warranty or guaranty, whether written or oral, except as mentioned above, given by any person or entity, including a dealer or retailer, with respect to any product shall bind Troy-Bilt LLC During the period of the Warranty, the exclusive remedy is repair or replacement of the product as set forth above. (Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.)

The provisions as set forth in this Warranty provide the sole and exclusive remedy arising from the sales. Troy-Bilt LLC shall not be liable for incidental or consequential loss or damages including, without limitation, expenses incurred for substitute or replacement lawn care services, for transportation or for related expenses, or for rental expenses to temporarily replace a warranted product. (Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.)

In no event shall recovery of any kind be greater than the amount of the purchase price of the product sold. Alteration of the safety features of the product shall void this Warranty. You assume the risk and liability for loss, damage, or injury to you and your property and/or to others and their property arising out of the use or misuse or inability to use the product.

This limited warranty shall not extend to anyone other than the original purchaser, original lessee or the person for whom it was purchased as a gift.

How State Law Relates to this Warranty: This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

To locate your nearest service dealer dial **1-800-520-5520**.

Troy-Bilt LLC

P.O. Box 361131

Cleveland, OH 44136-0019