

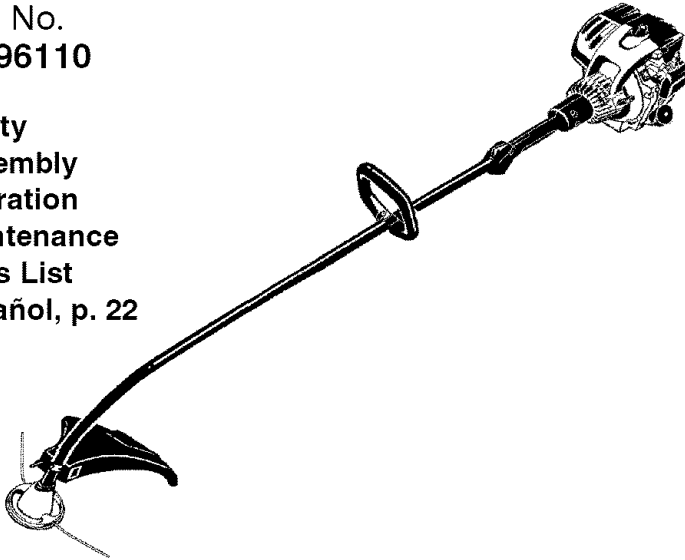
Operator's Manual



34cc/2.1 cu.in. 4-Cycle GASOLINE WEEDWACKER®

Model No.
358.796110

- Safety
- Assembly
- Operation
- Maintenance
- Parts List
- Español, p. 22



WARNING:

Read and follow all Safety Rules and Operating Instructions before first use of this product.



For answers to your questions about this product:
Call 7 am–7 pm, Mon.–Sat., or 10 am–7 pm, Sun.

1-800-235-5878 (Hours listed are Central Time)

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.

545082937

9/12/06

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WARRANTY STATEMENT

TWO YEAR FULL WARRANTY ON CRAFTSMAN® GAS WEEDWACKER®

When used and maintained according to the operator's manual, if this product fails due to a defect in material or workmanship within one year from the date of purchase, return it to any Sears store, Sears Service Center, or other Craftsman outlet in the United States for free repair (or replacement if repair proves impossible).

This warranty excludes cutting line, spark plug and air filter, which are expendable parts that can wear out from normal use in less than two years.

This warranty applies for only 30 days from purchase date if this product is used for commercial or rental purposes.

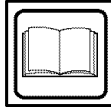
This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Sears, Roebuck and Co., Hoffman Estates, IL 60179

IDENTIFICATION OF SYMBOLS



WARNING! This trimmer can be dangerous! Careless or improper use can cause serious or even fatal injury.



Read and understand the operator's manual before using the trimmer.



Always wear appropriate ear protection, eye protection and head protection.

SAFETY RULES

⚠ WARNING: When using gardening appliances, basic safety precautions must always be followed to reduce the risk of fire and serious injury. Read and follow all instructions.

This power unit can be dangerous! Operator is responsible for following instructions and warnings on unit and in manual. Read entire operator's manual before using unit! Be thoroughly familiar with the controls and the proper use of the unit. Restrict the use of this unit to persons who have read, understand, and will follow the instructions and warnings on the unit and in the manual. Never allow children to operate this unit.



OPERATOR'S
MANUAL



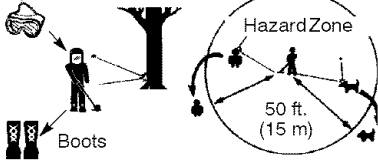
SAFETY INFORMATION
ON THE UNIT

⚠ DANGER: Never use blades or flailing devices. This unit is designed for line trimmer use only. Use of any other accessories with line trimmer attachment will increase the risk of injury.



⚠ WARNING: Trimmer line throws objects violently. You and others can be blinded/injured. Wear eye and leg protection. Keep body parts clear of rotating line.

Eye Protection



⚠ WARNING: Hazard zone for thrown objects. Trimmer line can throw objects violently. Others can be blinded or injured. Keep children, bystanders, and animals 50 feet (15 meters) away. Stop unit immediately if approached. If situations occur which are not covered in this manual, use care and good judgment. If you need assistance, contact your Sears Service Center or call 1-800-235-5878.

OPERATOR SAFETY

- Dress properly. Always wear safety glasses or similar eye protection when operating, or performing maintenance, on your unit (safety glasses are available). Eye protection should be marked Z87.
- Always wear face or dust mask if operation is dusty.
- Always wear heavy, long pants, long sleeves, boots, and gloves. Wearing safety leg guards is recommended.
- Always wear foot protection. Do not go barefoot or wear sandals. Stay clear of spinning line.
- Secure hair above shoulder length. Secure or remove loose clothing or clothing with loosely hanging ties, straps, tassels, etc. They can be caught in moving parts.
- Being fully covered also helps protect you from debris and pieces of toxic plants thrown by spinning line.
- Stay Alert. Do not operate this unit when you are tired, ill, upset or under the influence of alcohol, drugs, or medication. Watch what you are doing; use common sense.
- Wear hearing protection.
- Never start or run inside a closed room or building. Breathing exhaust fumes can kill.
- Keep handles free of oil and fuel.

UNIT / MAINTENANCE SAFETY

- Disconnect the spark plug before performing maintenance except carburetor adjustments.
- Look for and replace damaged or loose parts before each use. Look for and repair fuel leaks before use. Keep in good working condition.
- Replace trimmer head parts that are chipped, cracked, broken, or damaged in any other way before using the unit.
- Maintain unit according to recommended procedures. Keep cutting line at proper length.
- Use only Craftsman® brand line. Never use wire, rope, string, etc.
- Install required shield properly before using the unit. Use only specified trimmer head; make sure it is properly installed and securely fastened.
- Make sure unit is assembled correctly as shown in this manual.
- Make carburetor adjustments with lower end supported to prevent line from contacting any object.

- Keep others away when making carburetor adjustments.
- Use only recommended Craftsman accessories and replacement parts.
- Have all maintenance and service not explained in this manual performed by a Sears Service Center.

FUEL SAFETY

- Pour fuel outdoors.
- Keep away from sparks or flames.
- Use a container approved for fuel.
- Do not smoke or allow smoking near fuel or the unit.
- Avoid spilling fuel or oil. Wipe up all fuel spills.
- Move at least 10 feet (3 meters) away from fueling site before starting engine. Stop engine and allow to cool before removing fuel cap.
- Empty the fuel tank before storing or transporting the unit. Use up fuel left in the carburetor by starting the engine and letting it run until it stops.
- Store unit and fuel in area where fuel vapors cannot reach sparks or open flames from water heaters, electric motors or switches, furnaces, etc.
- Always store gasoline in a container approved for flammable liquids.

CUTTING SAFETY

⚠ WARNING: Inspect the area before each use. Remove objects (rocks, broken glass, nails, wire, etc.) which can be thrown by or become entangled in line. Hard objects can damage the trimmer head and be thrown causing serious injury.

- Use only for trimming, scalping, mowing and sweeping. Do not use for edging, pruning or hedge trimming.
- Keep firm footing and balance. Do not overreach.
- Keep all parts of your body away from muffler and spinning line. Keep engine below waist level. A hot muffler can cause serious burns.
- Cut only from your right to your left. Cutting on left side of the shield will throw debris away from the operator.
- Use only in daylight or good artificial light.
- Use only for jobs explained in this manual.

TRANSPORTING AND STORAGE

- Stop the unit before carrying.
- Allow engine to cool before storing or transporting in vehicle.
- Empty the fuel tank before storing or transporting the unit. Use up fuel left in the carburetor by starting the engine and letting it run until it stops.

- Store or transport unit with spark plug facing up.
- Do not store or transport unit with spark plug facing down (see STORAGE section for additional information).
- Store unit and fuel in area where fuel vapors cannot reach sparks or open flames from water heaters, electric motors or switches, furnaces, etc.
- Store unit so line limiter blade cannot accidentally cause injury.
- Store unit out of reach of children.

This unit is not equipped with an anti-vibration system and is intended for occasional use only.

SAFETY NOTICE: 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 swellings. 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 the use of this tool and seek medical attention. An anti-vibration system does not guarantee the avoidance of these problems. Users who operate power tools on a continual and regular basis must monitor closely their physical condition and the condition of this tool.

SPECIAL NOTICE: This unit is equipped with a temperature limiting muffler and spark arresting screen which meets the requirements of California Codes 4442 and 4443. All U.S. forest land and the states of California, Idaho, Maine, Minnesota, New Jersey, Oregon, and Washington require by law that many internal combustion engines be equipped with a spark arresting screen. If you operate in a locale where such regulations exist, you are legally responsible for maintaining the operating condition of these parts. Failure to do so is a violation of the law. For normal homeowner use, the muffler and spark arresting screen will not require any service. After 50 hours of use, we recommend that your muffler be serviced or replaced by a Sears Service Center.

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

ASSEMBLY

CARTON CONTENTS

Check carton contents against the following list.

Model 358.796110

- Trimmer
- Shield
- Wing Nut (screwed onto shield)
- Shoulder strap
- Container of line
- Container of oil

Examine parts for damage. Do not use damaged parts.

NOTE: If you need assistance or find parts missing or damaged, call 1-800-235-5878.

It is normal for the fuel filter to rattle in the empty fuel tank.

Finding fuel or oil residue on muffler is normal due to carburetor adjustments and testing done by the manufacturer.

ASSEMBLY

WARNING: Always stop unit and disconnect spark plug before performing any assembly procedures.

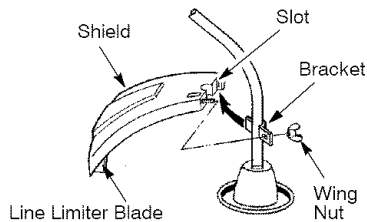
WARNING: If received assembled, read and use this ASSEMBLY section to verify that your unit is properly assembled and that all fasteners are tightened securely.

ATTACHING SHIELD

WARNING: The shield must be properly installed. The shield provides partial protection to the operator and others from the risk of thrown objects, and is equipped with a line limiter blade which cuts excess line to the proper length. The line limiter blade (on underside of shield) is sharp and can cut you.

For proper orientation of shield, see KNOW YOUR TRIMMER illustration in OPERATION section.

1. Remove wing nut from shield.
2. Insert bracket into slot as shown.
3. Pivot shield until bolt passes through hole in bracket.
4. Securely tighten wing nut onto bolt.



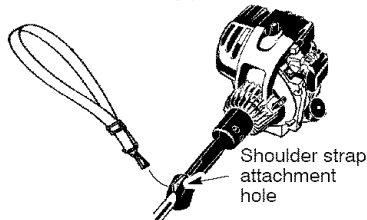
ATTACHING THE SHOULDER STRAP

WARNING: Proper shoulder strap adjustments must be made with the engine completely stopped before using unit.

1. Insert your right arm and head through the shoulder strap and allow it to rest on your left shoulder.

NOTE: A one-half twist is built in the shoulder strap to allow the strap to rest flat on the shoulder.

2. Adjust the strap, allowing the hook to be about 6 inches below the waist.
3. Fasten the strap hook to the shoulder strap attachment hole located on the trigger handle and lift the tool to the operating position.



4. Try on shoulder strap and adjust for fit and balance before starting the engine or beginning a cutting operation.

ADJUSTING THE ASSIST HANDLE

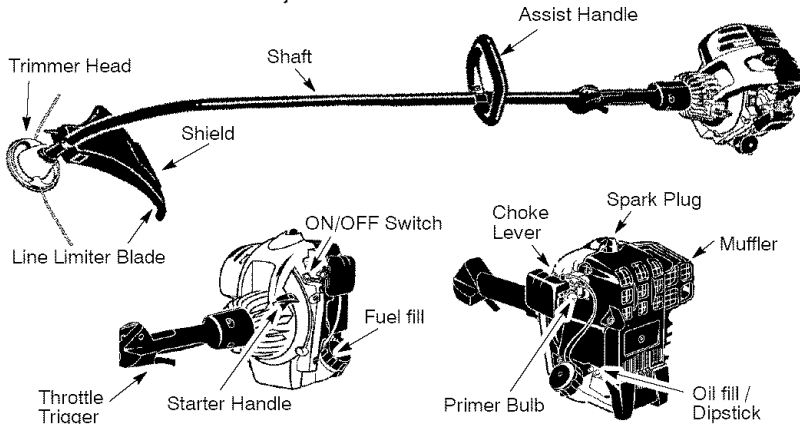
WARNING: When adjusting the assist handle, be sure it remains above the safety label and below the mark or arrow on the shaft.

1. Loosen wing nut on handle.
2. Rotate the handle on the shaft to an upright position; retighten wing nut.

OPERATION

KNOW YOUR TRIMMER

READ THIS OPERATOR'S MANUAL AND SAFETY RULES BEFORE OPERATING YOUR UNIT. Compare the illustrations with your unit to familiarize yourself with the location of the various controls and adjustments. Save this manual for future reference.



ON/OFF SWITCH

The ON/OFF switch is used to stop the engine. Move the switch to the OFF position to stop the engine.

CHOKE

The CHOKE helps to supply fuel to the engine to aid in cold starting. Activate the choke by moving the red choke lever to the FULL CHOKE position.

PRIMER BULB

The PRIMER BULB removes air from the carburetor and fuel lines and fills them with fuel. This allows you to start the engine with fewer pulls on the starter rope. Activate the primer bulb by pressing it and allowing it to return to its original form.

BEFORE STARTING ENGINE

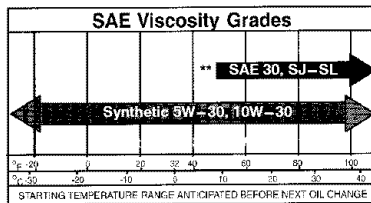
WARNING: Be sure to read the fuel information in the safety rules before you begin. If you do not understand the safety rules, do not attempt to fuel your unit. Call 1-800-235-5878.

OIL CAPACITY

The engine holds approximately 3 ounces of oil. Use only high quality detergent oil rated with API service classification SJ-SL. Select the oil's SAE viscosity grade according to your expected operating temperature. For most applications, SAE-30 oil is recommended. Do not use special additives.



NOTE: Synthetic oil meeting ILSAC GF-2, API certification mark and API service symbol (shown at left) with "SJ/CF ENERGY CONSERVING" or higher, is an acceptable oil at all temperatures. **Use of synthetic oil does not alter required oil change intervals.**



CAUTION: Air cooled engines run hotter than automotive engines. The use of non-synthetic multi-viscosity oils (5W30, 10W30, etc.) in temperatures above 40°F (4°C) will result in higher than normal oil consumption. When using a multi-viscosity oil, check oil level more frequently to avoid possible engine damage from running low on oil.

***CAUTION:** Synthetic oil must be used when operating engine under 40°F (4°C) or engine damage will occur.

****CAUTION:** SAE 30 oil, if used below 50°F (10°C), will result in hard starting and possible engine damage due to inadequate lubrication.

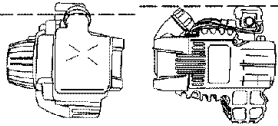
ADD OIL

Your trimmer is shipped without oil in the engine. The engine holds approximately 3 fluid ounces (90 ml) of oil when at the FULL mark on the oil dipstick. Included with this trimmer is a 3.4 ounce (90 ml) container of SAE 30 SJ-SL oil for properly filling the engine with oil for first time use only. Pour the entire contents of this 3.4 ounce container of oil into the oil fill spout.

NOTE: The dipstick will show slightly above FULL. This is acceptable for first time use only as the engine breaks in. After the first time oil fill, simply refill the engine with oil to the FULL mark on the dipstick as needed.

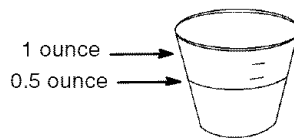
CAUTION: DO NOT overfill engine with oil or it will smoke on start-up.

CAUTION: KEEP ENGINE LEVEL



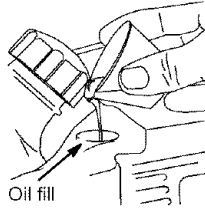
Engine must be level, with oil fill facing up, to check oil. If engine is not level, dipstick reading will not be accurate. This will lead to possible over or under filling causing damage to the engine.

- Check oil level *before* starting the engine.
- Check oil level before every use.
- Keep oil level at FULL.
- DO NOT overfill. Use a measure cup for filling.
- Add only 1 ounce--0.5 ounce at a time.

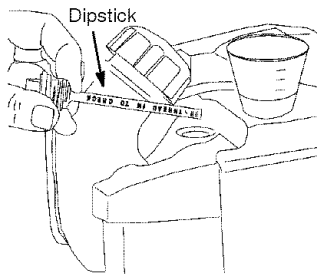


1. Be sure engine is level and area around oil fill is clean.
2. Remove oil dipstick from oil fill spout.
3. Using a measure cup, pour oil slowly down the oil fill spout into the engine. **Do not overfill.**

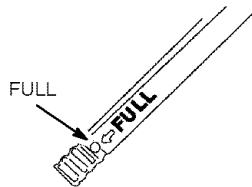
NOTE: Engine holds approximately 3 ounces (90 ml) of oil.



4. Wait one minute to allow oil to settle. Insert and hand tighten dipstick.
5. Remove dipstick and wipe clean with cloth. Clear dipstick hole of oil. Insert and hand tighten dipstick, then remove it to check oil level.



6. Verify FULL level of oil by presence of oil in hole on dipstick, or by measure line.



7. If needed, add 0.5 ounce of oil at a time and recheck the dipstick until oil reaches the FULL level.
8. Always be sure to retighten oil dipstick before starting engine.

Check oil level before each use. Add oil if needed. Fill to FULL line on dipstick. Change oil after first 4 hours of use, then every 8 hours of operation or each season (see CHANGE ENGINE OIL in the MAINTENANCE section). Change oil every 4 hours when operating the engine under heavy load or in high temperatures. You may need to change the oil more often under dusty, dirty conditions.

ADD GASOLINE

Use fresh, clean, regular unleaded gasoline with a minimum of 87 octane. **Do not mix oil with gasoline.** Purchase fuel in quantities that can be used within 30 days to assure fuel freshness.

IMPORTANT

Alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, empty the fuel system before storage for 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season.

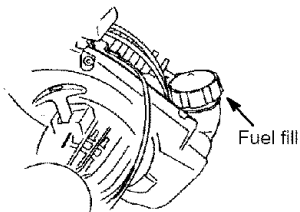
Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.

See the STORAGE section for additional information.

⚠ WARNING: Fill to bottom of gas tank filler neck. **DO NOT** overfill. Wipe off any spilled fuel. Do not store, spill or use gasoline near an open flame.

⚠ WARNING: Allow engine to cool for 2 minutes before removing fuel cap for refueling. Remove fuel cap slowly.

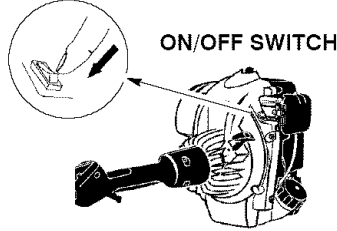
1. Tilt engine in angle shown to properly fill fuel tank.



2. Remove fuel cap by turning counterclockwise. Fill tank to bottom of tank filler neck.
3. Replace fuel cap before starting.

HOW TO STOP YOUR UNIT

- Release the throttle trigger.
- Move the ON/OFF switch to the OFF position.
- If engine does not stop, move red choke lever to FULL CHOKE position.

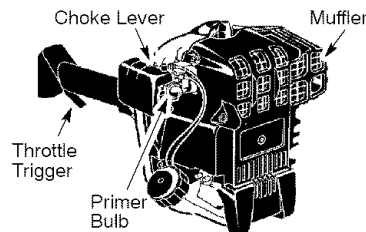


HOW TO START YOUR UNIT



If you are starting your engine for the FIRST time, follow the steps listed in the STARTING A NEW ENGINE section.

⚠ WARNING: Avoid any contact with the muffler. A hot muffler can cause serious burns.



STARTING A NEW ENGINE

NOTE: Add oil and fuel as instructed in this manual prior to attempting to start engine (see ADD OIL and ADD GASOLINE sections).

1. Set unit on a flat surface.
2. Slowly press the primer bulb 15 times.
3. Move red choke lever to FULL CHOKE position.
4. Squeeze the throttle trigger fully and hold through *all remaining steps*.

5. Pull starter rope handle sharply until engine runs.
6. Once the engine starts, allow it to run a maximum of 10 seconds at FULL CHOKE. Then, slowly move the red choke lever to the HALF CHOKE position.
7. Allow the unit to run a minimum of 20 more seconds at HALF CHOKE (colder temperatures may require longer warm-up periods before the engine will accept a load and accelerate properly).
8. Move red choke lever to OFF CHOKE position and allow the unit to run a minimum of 20 more seconds at OFF CHOKE. Release the throttle trigger.

STARTING ENGINE

NOTE: Check oil level before starting. Oil level should be at the FULL mark on the dipstick. If not, add oil (see ADD OIL section).

1. Set unit on a flat surface.
2. Slowly press the primer bulb 8 times.
3. Move red choke lever to FULL CHOKE position.
4. Squeeze the throttle trigger fully and hold through *all remaining steps*.
5. Pull starter rope handle sharply until engine runs.
6. Once the engine starts, allow it to run a maximum of 10 seconds at FULL CHOKE. Then, slowly move the red choke lever to the HALF CHOKE position.
7. Allow the unit to run a minimum of 20 more seconds at HALF CHOKE (colder temperatures may require longer warm-up periods before the engine will accept a load and accelerate properly).
8. Move red choke lever to OFF CHOKE position and allow the unit to run a minimum of 20 more seconds at OFF CHOKE. Release the throttle trigger.

RESTARTING A WARM ENGINE

Follow steps listed in the STARTING ENGINE section without squeezing throttle trigger.

If the unit will not start, refer to the TROUBLESHOOTING TABLE or call 1-800-235-5878.

OPERATING POSITION



Cut only from your right to your left.

WARNING: Always wear eye protection. Never lean over the trimmer head. Rocks or debris can ricochet or be thrown into eyes and face and cause blindness or other serious injury. When operating unit, stand as shown and check for the following:

- Wear eye protection and heavy clothing.
- Hold trigger handle with right hand and assist handle with left hand.
- Hold unit so that engine is below waist level.
- Cut only from your right to your left to ensure debris is thrown away from you. Without bending over, keep line near and parallel to the ground and not crowded into material being cut. Do not run the engine at a higher speed than necessary. The cutting line will cut efficiently when the engine is run at less than full throttle. At lower speeds, there is less engine noise and vibration. Always release the throttle trigger and allow the engine to return to idle speed when not cutting.

HOW TO STOP YOUR UNIT

- Release the throttle trigger.
- Move the ON/OFF switch to the OFF position.

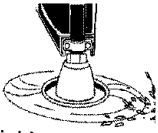
CUTTING METHODS

WARNING: Use minimum speed and do not crowd the line when cutting around hard objects (rock, gravel, fence posts, etc.), which can damage the trimmer head, become entangled in the line, or be thrown causing a serious hazard.

- The tip of the line does the cutting. You will achieve the best performance and minimum line wear by not crowding the line into the cutting area. The right and wrong ways are shown in the following illustrations.

Tip of the Line Does The Cutting

Line Crowded Into Work Area



Right

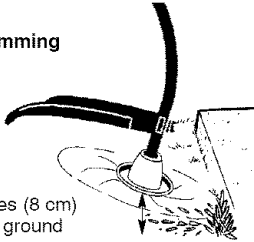


Wrong

- The line will easily remove grass and weeds from around walls, fences, trees and flower beds, but it also can cut the tender bark of trees or shrubs and scar fences.
- For trimming or scalping, use less than full throttle to increase line life and decrease head wear, especially:
 - During light duty cutting.
 - Near objects around which the line can wrap such as small posts, trees or fence wire.
- For mowing or sweeping, use full throttle for a good clean job.

TRIMMING - Hold the bottom of the trimmer head about 3 inches (8 cm) above the ground and at an angle. Allow only the tip of the line to make contact with vegetation. Do not force trimmer line into work area.

Trimming

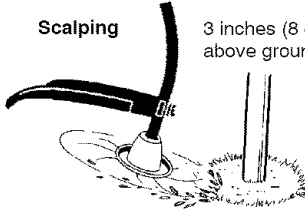


3 inches (8 cm) above ground

SCALPING - The scalping technique removes unwanted vegetation down to the ground. Hold the bottom of the trimmer head about 3 inches (8 cm) above the ground and at an angle. Allow the tip of the line to strike the ground around trees, posts, monuments, etc. This technique increases line wear.

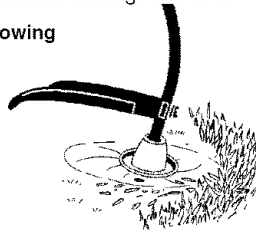
Scalping

3 inches (8 cm) above ground



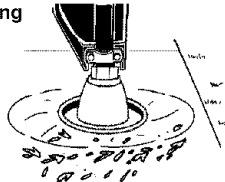
MOWING - Your trimmer is ideal for mowing in places conventional lawn mowers cannot reach. In the mowing position, keep the line parallel to the ground. Avoid pressing the head into the ground as this can scalp the ground and damage the tool.

Mowing



SWEEPING - The fanning action of the rotating line can be used to blow away loose debris from an area. Keep the line parallel to and above the area surface and swing the tool from side to side.

Sweeping



MAINTENANCE

MAINTENANCE SCHEDULE

⚠ WARNING: Disconnect the spark plug before performing maintenance except for carburetor adjustments.

CARE & MAINTENANCE TASK	Before Every Use	After Every Use	8 Hours or Every Season	50 Hours or Every Season
Check for loose fasteners and parts	✓			
Check for damaged or worn parts	✓			
Check engine oil level	✓			
Inspect and clean unit and decals		✓		
Change engine oil			✓*	
Service air filter			✓**	
Inspect muffler and spark arresting screen				✓
Replace spark plug				✓
Replace fuel filter				✓

* **Change oil after first 4 hours of use**, then every 8 hours or every season. Change oil every 4 hours when operating the engine under heavy load or in high temperatures.

** Clean more often under dusty conditions or when airborne debris is present. Replace air cleaner parts if very dirty.

GENERAL RECOMMENDATIONS

The warranty on this unit does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, the operator must maintain unit as instructed in this manual. Various adjustments will need to be made periodically to properly maintain your unit. Some adjustments will need to be made periodically to properly maintain your unit. All adjustments in the SERVICE AND ADJUSTMENTS section of this manual should be checked at least once each season.

- Once each year, replace the spark plug and air filter. A new spark plug and clean/new air filter assure proper air-fuel mixture and help your engine run better and last longer.
- Follow the maintenance schedule in this manual.

CHECK FOR LOOSE FASTENERS AND PARTS

- Spark Plug Boot
- Air Filter
- Housing Screws
- Assist Handle Screw
- Debris Shield

CHECK FOR DAMAGED OR WORN PARTS

For replacement of damaged or worn parts, contact Sears Service or call 1-800-235-5878.

- ON/OFF Switch – Ensure ON/OFF switch functions properly by moving the switch to the OFF position. Make sure engine stops. Restart engine and continue.
- Fuel System – Discontinue use of unit if fuel lines, tank, or cap show signs of damage or leaks.
- Debris Shield – Discontinue use of unit if debris shield is damaged.

CHECK ENGINE OIL LEVEL

- See ADD OIL in the OPERATION section.

INSPECT AND CLEAN UNIT AND DECALS

- After each use, inspect complete unit for loose or damaged parts. Clean the unit and decals using a damp cloth with a mild detergent.
- Wipe off unit with a clean dry cloth.

CHANGE ENGINE OIL

To prolong the useful life of your trimmer, change engine oil as recommended in this section.

- **Change oil after first 4 hours of use**, then every 8 hours or every season. Change oil every 4 hours when operating the engine under heavy load or in high temperatures.

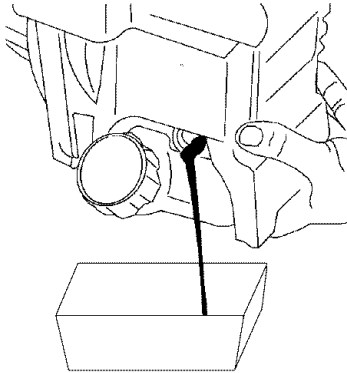
Change the oil after every 8 hours of operation or at least once a year if the unit is not used for 25 hours in one year. Check the crankcase oil level before each start. Tighten oil dipstick securely each time you check the oil level.

CHANGING OIL AND CHECKING LEVEL

CAUTION: Used oil is a hazardous waste product. Dispose of used oil properly. Do not discard with household waste. Contact Sears Service for information regarding safe disposal/recycling facilities.

Change oil while engine is OFF, but still warm. Ensure fuel cap is tightened securely.

1. Remove engine oil fill cap/dipstick; lay aside on a clean surface.
2. Drain oil into a suitable container in direction shown (see illustration).



3. Wipe off any spilled oil from trimmer.
4. Fill engine with oil (see ADD OIL in the OPERATION section).
5. Replace engine oil fill cap/dipstick. Tighten securely.

CLEAN AIR FILTER

A dirty air filter decreases engine performance and increases fuel consumption and harmful emissions. Always clean after every 8 hours of operation. Clean more often under dusty conditions or when airborne debris is present. Replace air cleaner parts if very dirty.

1. Clean the cover and the area around it to keep dirt from falling

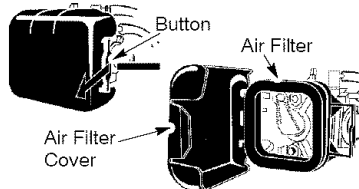
into the carburetor chamber when the cover is removed.

NOTE: Move red choke lever to FULL CHOKE position before removing components.

2. Remove parts by pressing button to release air filter cover.

NOTE: To avoid creating a fire hazard or producing harmful evaporative emissions, do not clean filter in gasoline or other flammable solvent.

3. Wash the filter in soap and water.
4. Allow filter to dry.
5. Add a few drops of oil to the filter; squeeze the filter to distribute oil.
6. Re-assemble parts.



INSPECT MUFFLER AND SPARK ARRESTING SCREEN

As the unit is used, carbon deposits build up on the muffler and spark arresting screen. For normal homeowner use, however, the muffler and spark arresting screen will not require any service. After 50 hours of use, we recommend that your muffler and spark arresting screen be serviced or replaced by a Sears Service Center.

REPLACE SPARK PLUG

Replace the spark plug each year to ensure the engine starts easier and runs better. Set spark plug gap at 0.025 inch. Ignition timing is fixed and nonadjustable.

1. Twist, then pull off spark plug boot.
2. Remove spark plug from cylinder and discard.
3. Replace with Champion RDJ-7Y spark plug and tighten securely with a 5/8 inch socket wrench.
4. Reinstall the spark plug boot.

SERVICE AND ADJUSTMENTS

LINE REPLACEMENT

- Always use Craftsman replacement line.

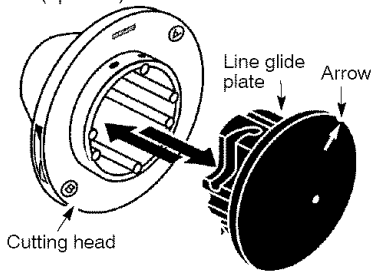
Choose the line size best suited for the job at hand. Red line is designed for cutting grass and small weeds.

The black colored line is designed for cutting larger weeds and light brush.

NOTE: Before inserting new line into the holes in the cutting head, identify the proper holes. Follow directions as shown on the line glide plate.

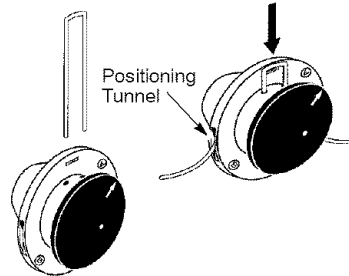
1. Remove the old line and line glide plate from the cutting head.
2. Clean entire surface of cutting head.
3. Reinstall line glide plate (see illustration). Align arrow with:

- (A) when using medium (red) or large (black) line
- (B) when using lines with diameter smaller than medium (red) line (optional)

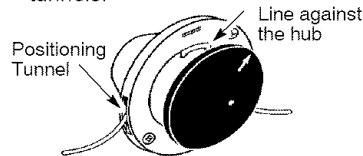


NOTE: Line glide plate must be reinstalled in cutting head before inserting new line.

4. Insert both ends of your line through the proper holes in the side of the cutting head.



5. Pull the line and make sure the line is against the hub and extended full through the positioning tunnels.



6. Correctly installed line will be the same length on both ends.

CARBURETOR ADJUSTMENT

Adjusting the carburetor is a complicated task. Carburetor adjustment is critical and if done improperly can permanently damage the engine as well as the carburetor. We recommend that you take your unit to a Sears Service Center for any necessary adjustments.

STORAGE

⚠ WARNING: Perform the following steps after each use:

- Allow engine to cool before storing or transporting.
- Store unit and fuel in a well ventilated area where fuel vapors cannot reach sparks or open flames from water heaters, electric motors or switches, furnaces, etc.
- Store unit with all guards in place. Position unit so that any sharp object cannot accidentally cause injury.
- Store unit and fuel well out of the reach of children.
- Store the unit in a horizontal position with the spark plug facing up.
- DO NOT store or transport the unit with the spark plug facing down.

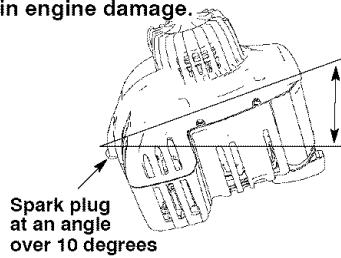
SEASONAL STORAGE

Prepare unit for storage at end of season or if it will not be used for 30 days or more.

If your unit is to be stored for a period of time:

- Clean the entire unit before lengthy storage.
- Store in a clean dry area.
- Lightly oil external metal surfaces.
- We highly recommend that you drain the fuel tank prior to lengthy storage (30 days or more). Drain all fuel from the fuel tank into the proper receptacles for storage.
- Press purge bulb 15 times to remove all fuel from carburetor and fuel line. Drain this fuel into proper receptacles. If fuel is to be disposed, please refer to local rules for proper disposal.
- Remove spark plug.
- Place 5cc of oil into spark plug hole. Do not overfill.
- Pull the starter rope slowly 8 - 10 times to properly coat the cylinder bore and piston for storage. Replace plug and tighten. Any residual oil may burn off in subsequent starts which may result in white smoke from the muffler.
- Store the unit in a horizontal position with the spark plug up. DO NOT store or transport the unit with the spark plug down.

CAUTION: Storing unit in position shown could result in engine damage.



NOTE: Storing or transporting the unit with the spark plug down may result in white smoke coming from the muffler or difficult starting.

- When removing the unit from storage, only use fresh gasoline. Perform the routine operation checks as described in this manual before any start.

FUEL SYSTEM

Empty the fuel system before storage for 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Under ADD GASOLINE in the OPERATION section of this manual, see message labeled **IMPORTANT** regarding the use of gasohol in your engine.

- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- Use fresh fuel next season.

ENGINE OIL

- Drain engine oil (with engine warm) and replace with clean oil. See CHANGE ENGINE OIL in the MAINTENANCE section.

CYLINDER

- Replace spark plug with new one of recommended type and heat range.

OTHER

- Clean air filter.
- Check entire unit for loose screws, nuts, and bolts. Replace any damaged, broken, or worn parts.
- Do not store gasoline from one season to another.
- Replace your gasoline can if it starts to rust.

TROUBLESHOOTING TABLE

⚠ WARNING: Always stop unit and disconnect spark plug before performing all of the recommended remedies below except remedies that require unit to be operating.

TROUBLE	CAUSE	REMEDY
Engine will not start.	<ol style="list-style-type: none"> 1. ON/OFF switch in OFF position. 2. Air filter dirty. 3. Fuel tank empty. 4. Stale fuel. 5. Water in fuel. 6. Spark plug wire is disconnected. 7. Spark plug not firing. 8. Fuel not reaching carburetor. 9. Air in fuel lines. 	<ol style="list-style-type: none"> 1. Move ON/OFF switch to ON position. 2. Clean or replace air filter. 3. Fill fuel tank. 4. Drain tank and carburetor and refill with fresh, clean fuel. 5. Drain tank and carburetor and refill tank with fresh gasoline. 6. Connect wire to plug. 7. Install new spark plug. 8. Check for dirty fuel filter; replace. Check for kinked or split fuel line; repair or replace. 9. Press primer bulb to remove air from fuel lines.
Engine will not idle properly.	<ol style="list-style-type: none"> 1. Choke lever in FULL CHOKE position. 2. Carburetor requires adjustment. 3. Stale fuel. 4. Crankshaft seals worn. 5. Compression low. 	<ol style="list-style-type: none"> 1. Move choke lever to OFF CHOKE. 2. See "Carburetor Adjustment" in Service and Adjustments Section. 3. Drain tank and carburetor and refill with fresh, clean fuel. 4. Contact Sears Service (see back cover). 5. Contact Sears Service (see back cover).
Engine will not accelerate, lacks power, or dies under a load.	<ol style="list-style-type: none"> 1. Air filter dirty. 2. Spark plug fouled. 3. Choke lever in FULL CHOKE position. 4. Stale fuel. 5. Carburetor requires adjustment. 6. Carbon build-up on muffler outlet screen. 7. Too much oil in engine. 8. Engine not warmed up in cooler temperature. 9. Cutting line assembled incorrectly or line length incorrect. 	<ol style="list-style-type: none"> 1. Clean or replace air filter. 2. Clean or replace plug and regap. 3. Move choke lever to OFF CHOKE. 4. Drain tank and carburetor and refill with fresh, clean fuel. 5. See "Carburetor Adjustment" in Service and Adjustments Section. 6. Contact Sears Service (see back cover). 7. Check oil level. Drain to proper level. 8. Run unit for longer period. 9. Check line assembly and length.
Engine smokes excessively.	<ol style="list-style-type: none"> 1. Air filter dirty. 2. Too much oil in engine. 3. Oil migration from incorrect storage or transportation. 	<ol style="list-style-type: none"> 1. Clean or replace air filter. 2. Check oil level. Drain to proper level. 3. Allow unit to sit 24 hours in correct storage position, or remove spark plug, pull rope 2 - 3 times, then replace spark plug. Pull rope until engine starts.
Engine runs hot.	<ol style="list-style-type: none"> 1. Spark plug incorrect. 2. Carburetor requires adjustment. 3. Debris clogging starter housing. 4. Carbon build-up on muffler outlet screen. 	<ol style="list-style-type: none"> 1. Replace with correct spark plug. 2. See "Carburetor Adjustment" in Service and Adjustments Section. 3. Clean starter housing area. 4. Contact Sears Service (see back cover).

U.S. EPA/CALIFORNIA EMISSION CONTROL SYSTEM WARRANTY STATEMENT

YOUR WARRANTY RIGHTS AND OBLIGATIONS: EMISSION CONTROL WARRANTY COVERAGE IS APPLICABLE TO CERTIFIED ENGINES PURCHASED IN CALIFORNIA IN 1995 AND THEREAFTER WHICH ARE USED IN CALIFORNIA, AND TO CERTIFIED MODEL YEAR 1997 AND LATER ENGINES WHICH ARE PURCHASED AND USED ELSEWHERE IN THE UNITED STATES (AND AFTER JANUARY 1, 2001, IN CANADA).

CALIFORNIA AND UNITED STATES EMISSION CONTROL DEFECTS WARRANTY STATEMENT: The U.S. Environmental Protection Agency/California Air Resources Board and Sears, Roebuck and Co., U.S.A., are pleased to explain the emissions control system warranty on your year 2000 and later small off-road engine (SORE). In California, all new small off-road engines must be designed, built, and equipped to meet the State's stringent anti-smog standards. Elsewhere in the United States, new non-road, spark-ignition engines certified for model year 1997 and later, must meet similar standards set forth by the U.S. EPA. Sears must warrant the emission control system for the periods of time listed below provided there has been no abuse, neglect, or improper maintenance of your small off-road engine. Your emission control system includes parts such as the carburetor, air cleaner, ignition system, muffler and catalytic converter. Also included may be connectors and other emissions-related assemblies. Where a warrantable condition exists, Sears will repair your small off-road engine at no cost to you. Expenses covered under warranty include diagnosis, parts and labor.

MANUFACTURER'S EMISSION CONTROL DEFECTS WARRANTY COVERAGE: Small off-road engines are warranted relative to emission control parts defects for a period of two years, subject to these provisions. If any covered part on your engine is defective, the part will be repaired or replaced by Sears. **OWNER'S WARRANTY RESPONSIBILITIES:** As the small off-road engine engine owner, you are responsible for the performance of the required maintenance listed in your operating and maintenance instructions. Sears recom-

mends that you retain all receipts covering maintenance on your small off-road engine, but Sears 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 engine owner, however, you should be aware that Sears 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 an approved Sears Service Center as soon as a problem exists. The undisputed warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days. If you have any questions regarding your warranty rights and responsibilities, you should contact your nearest approved service center or call Sears Service at 1-800-469-4663. The emission warranty is a defects warranty. Defects are judged on normal engine performance. The warranty is not related to an in-use emission test.

SEARS EMISSION CONTROL DEFECTS WARRANTY PROVISIONS

The following are specific provisions relative to your Emission Control Defects Warranty Coverage. It is in addition to the Sears engine warranty for non-regulated engines found in the operating and maintenance instructions.

1. Warranted Parts

Coverage under this warranty extends only to the parts listed below (the emission control systems parts) to the extent these parts were present on the engine purchased.

- a. Fuel Metering System
 - Cold start enrichment system
 - Carburetor and internal parts
 - Fuel pump
- b. Air Induction System
 - Air cleaner
 - Intake manifold
- c. Ignition System
 - Spark plug(s)
 - Magneto ignition system
- d. Catalyst System
 - Catalytic converter
 - Exhaust manifold
 - Air injection system or pulse valve

e. Miscellaneous Items Used in Above Systems

- Vacuum, temperature, position, time sensitive valves and switches
- Connectors and assemblies

2. Length of Coverage

Sears warrants to the initial owner and each subsequent purchaser that the Warranted Parts shall be free from defects in materials and workmanship which caused the failure of the Warranted Parts for a period of two years from the date the engine is delivered to a retail purchaser.

3. No Charge

Repair or replacement of any Warranted Part will be performed at no charge to the owner, including diagnostic labor which leads to the determination that a Warranted Part is defective, if the diagnostic work is performed at an approved Sears Service Center.

4. Claims and Coverage Exclusions

Warranty claims shall be filed in accordance with the provisions of the Sears warranty policy. Warranty coverage shall be excluded for failures of warranted parts which are not original Sears parts or because of abuse, neglect or improper maintenance as set forth in the Sears Engine Warranty Policy. Sears is not liable to cover failures of Warranted Parts caused by the use of add-on, non-original, or modified parts.

5. Maintenance

Any Warranted Part which is not scheduled for replacement as required maintenance or which is scheduled only for regular inspection to the effect of "repair or replace as necessary" shall be warranted as to defects for the warranty period. Any Warranted Part which is scheduled for replacement as required maintenance shall be warranted as to defects only for the period of time up to the first scheduled replacement for that part. Any replacement part that is equivalent in performance and durability may be used in the performance of any maintenance or repairs. The owner is responsible for the performance of all required maintenance, as defined in the operating and maintenance instructions.

6. Consequential Coverage

Coverage hereunder shall extend to the failure of any engine components caused by the failure of any Warranted Part still under warranty.

In the U.S.A. and Canada, a 24-hour hot line, 1-800-469-4663, has a menu of pre-recorded messages offering you engine maintenance information.

LOOK FOR RELEVANT EMISSIONS DURABILITY PERIOD AND AIR INDEX INFORMATION ON YOUR ENGINE EMISSIONS LABEL

Engines that are certified to meet the California Air Resources Board (CARB) Tier 2 Emissions Standards must display information regarding the Emissions Durability Period and Air Index. Sears makes this information available to the consumer on our emission labels and hang tags.

The **Emissions Durability Period** describes the number of hours of actual running time for which the engine is certified to be emissions compliant, assuming proper maintenance in accordance with the operating and maintenance instructions. The following categories are used:

Moderate: Engine is certified to be emission compliant for 50 hours of actual engine running time.

Intermediate: Engine is certified to be emission compliant for 125 hours of actual engine running time.

Extended: Engine is certified to be emission compliant for 300 hours of actual engine running time.

For example, a typical consumer string trimmer is used 5 to 10 hours per year. Therefore, the **Emissions Durability Period** of an engine with an **moderate** rating would equate to 5 to 6 years.

The **Air Index** is a calculated number describing the relative level of emissions for specific engine family. The lower the **Air Index**, the cleaner the engine. This information is displayed in graphical form on the emissions label or hang tag.

AFTER JULY 1, 2000, LOOK FOR EMISSIONS COMPLIANCE PERIOD ON ENGINE EMISSIONS COMPLIANCE LABEL

After July 1, 2000, certain Craftsman engines will be certified to meet the United States Environmental Protection Agency (U.S. EPA) Phase 2 Class IV emissions standards. For Phase 2 Class IV certified engines, 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. For engines equal to or greater than 20 cc, and less than 50 cc displacement, Category C = 50 hours, B = 125 hours, and A = 300 hours.

The displacement of Model Series 21000 engines is 34 cc, 21100 engines is 40 cc.

This is a generic representation of the emissions compliance label typically found on a certified engine:



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

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