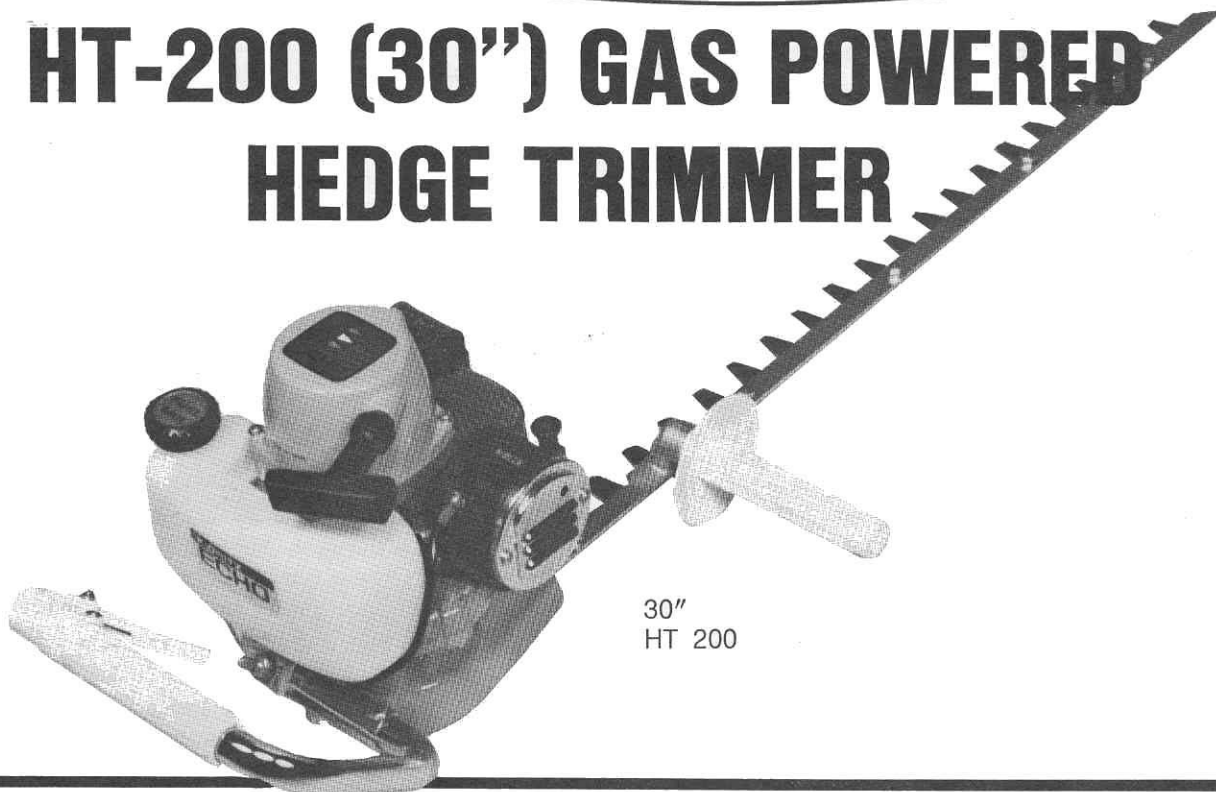


INSTRUCTIONS

FOR THE **ECHO**

HT-200 (30") GAS POWERED HEDGE TRIMMER



CAUTION: TO GUARD AGAINST INJURY, BASIC SAFETY PRECAUTIONS SHOULD BE OBSERVED, INCLUDING THE FOLLOWING:

Assembly Instructions

Remove handle and hedge trimmer from carton. Screw handle into handle adapter located on frame bar in threaded hole provided. Handle should be sufficiently tightened to insure that at least three or four clicks are felt on locking notches.

Install gasoline motor to hedge trimmer by first aligning the hex head drive on the hedge trimmer with the hex socket in the gasoline motor and place motor over one inch (1") diameter stem of hedge trimmer and secure with 5/16" hex socket wrench. Make certain motor is fully engaged into hedge trimmer before securing with 5/16" socket. Remove the two 1/4"-20 nuts preassembled to handle and place handle on hedge trimmer. Insert the two 1/4"-20 handle bolts into 1/4 inch holes and half round slot provided at rear of hedge trimmer housing and secure the handle with the 1/4"-20 nuts and hex head bolts provided. For engine operating instructions, read engine manual carefully. Make certain that you use the proper gasoline and air-cooled engine oil mix. **THIS TWO-CYCLE ENGINE REQUIRES A GAS AND OIL MIXTURE. DO NOT ATTEMPT TO OPERATE ON GAS ONLY.**

Care and Safety

1. **READ AND FOLLOW ALL INSTRUCTIONS.**
2. **DRESS PROPERLY** — Do not wear loose clothing or jewelry. They can be caught in moving parts. Use of sturdy gloves, non-skid footwear and safety glasses is recommended.
3. **STAY ALERT** — Watch what you are doing and use common sense. Do not operate trimmer when fatigued.
4. **CAUTION — CUT HAZARD — KEEP HANDS AWAY FROM BLADES** — Keep both hands on handles when power is on. Do not attempt to remove cut material nor hold material to be cut when blades are moving. Make sure engine switch is off when clearing jammed material from blades. Never grasp the exposed cutting blades on cutting edges of trimmer.
5. **KEEP CHILDREN AND INCAPABLE PERSONS AWAY** — Keep children a safe distance from work area. Never allow a person mentally ill, under influence of alcoholic drinks or drugs, or too young in age, to operate the hedge trimmer.

6. **USE TRIMMER PROPERLY** — Use only for trimming the type of shrub, growth, etc. described in the operating instructions. Do not abuse trimmer.
7. **DON'T OVERREACH OR STAND ON UNSTABLE SUPPORT** — Keep good footing and balance at all times.
8. **WARNING** — Do not fuel, refuel or check fuel system when smoking or near an open fire. Do not run the engine when fueling or refueling. Stop engine when transporting from one place to another. Do not leave engine running while hedge trimmer is unattended.
9. **CAUTION** — Do not start or run engine indoors as poisonous carbon monoxides are emitted.
10. **MULTIPLE OPERATORS** — Keep a safe distance between two or more operators when working together simultaneously.
11. Do not use the hedge trimmer if electric system causes sparks outside the cylinder. Check spark plug from time to time. When checking, keep plug a safe distance from cylinder to avoid burning of evaporated fuel from cylinder.
12. **MAINTAIN & EXAMINE TRIMMER WITH CARE** — Follow maintenance instructions given in manual. Do not use the hedge trimmer if the muffler is defective or missing.
13. **STORE TRIMMER INDOORS** — When not in use store trimmers indoors in a sheltered area (a dry place) where not accessible to children.
14. **DO NOT ATTEMPT TO REPAIR TRIMMER** — Have repairs made by qualified dealer or repairman. See that only identical replacement parts are used.

Lubrication and Maintenance

1. A few drops of oil should be placed at each adjusting screw approximately every four hours of normal operation.
2. To obtain trouble free trimming, it is necessary to remove gum that collects on the blades. This should be done with a 50-50 mixture of kerosene and machine oil, after each use.
3. The gear housing has been permanently lubricated with a special grease which should last for the life of the trimmer. When blades are replaced, or any other time that the bottom cover plate is removed, check for proper amount of grease in gear housing; use a new gasket to insure proper seating of cover plate. Use only Lubrico M3-3K-9K grease in the gear housing.

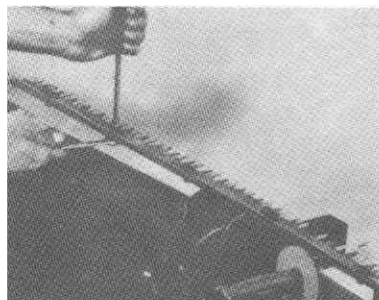
Instructions for Safe Operation

1. READ CARE AND SAFETY INSTRUCTIONS CAREFULLY.
2. For fuel mixture and engine operation, read engine operating instructions carefully. BEFORE STARTING, BE SURE STOP SWITCH IS IN RUN POSITION. Follow engine operating instructions for starting.

3. To operate, hold trimmer firmly, squeeze throttle to accelerate engine, tilt trimmer so cutting tooth is angled slightly toward the hedge or shrub and proceed to cut. The unit is designed to cut any type of hedge or shrub; however, **thickness of branches should not exceed 1/4 inch in diameter.**
4. *Be careful of hidden metallic objects in the hedge or shrubbery which may damage trimmer.*

Adjustment for Hedge Trimmer Blades

The care and adjustment of the blades is most important to the efficient operation of the trimmer and especially to the long life of the motor.



◀ Figure
(1)

1. Place trimmer in vise as shown in figure 1, clamping on frame bar with blades pointing away from you. Support motor housing as shown.
2. Check that nothing is in the way of the cutting blades during the process of adjustment.
3. Using 7/16" wrench, loosen all jam nuts. Next using screwdriver, loosen all large head screws, two turns. Then snug all nuts to keep screws from tightening by themselves.
4. Start motor and depress throttle.
5. STARTING WITH THE SCREW NEAREST THE GEAR HOUSING, hold the hex nut in the snug position and tighten large head screw slowly until the motor begins to slow down. Now loosen head screw 1/4 turn and tighten the jam nut.
6. Repeat step #5 on each screw and nut until all are adjusted.

Engine Operating Instructions:

KIORITZ MODEL SV-2, TWO-CYCLE ENGINE

Fuel and Lubricating Oil (engine only)

Your ECHO hedge trimmer is powered by a Kioritz 21cc, two stroke, air cooled gasoline engine which requires a fuel mixture of gasoline and lubricating oil. The approved fuel to oil ratio is 20:1 which means six fluid ounces of oil to one gallon of gasoline. (US) Regular grade leaded gasoline is recommended. Use only a reputable brand of **two cycle, air cooled engine oil**. Two cycle air cooled engine lubricating oil such as motorcycle or chain saw oil is recommended. The oil and gasoline should be thoroughly

mixed in a clean container. **Do not attempt to mix in the hedge trimmer gas tank.** Pour half the gasoline into the container, add the oil and shake to ensure thorough mixing. Now add the remainder of the gasoline and shake once again. The fuel tank capacity is 17.5 fluid ounces or 1.1 pints.

Starting the Engine Cold

1. Ensure that the fuel tank is filled with the correct mixture of gas and 2 cycle oil.
2. Switch the ignition to the "ON" position.
3. Squeeze the throttle lever to a fast idle (over ½ way.) **Caution:** The clutch will engage, and the unit will function at fast idle.
4. PULL OUT THE CHOKE.
5. Pull the recoil starter rope smoothly and quickly until the engine fires.
6. If the engine stops, push in the choke and pull on the rope until the engine starts and continues to run.
7. With the engine now running at a high idle speed, release throttle lever and allow to run at normal idle speed until warm.

Starting the Engine Hot

1. Switch the ignition to the "ON" position.
2. Pull the recoil starter rope smoothly and quickly until the engine runs.
3. Follow the procedure for starting a cold engine after the engine has been left stopped for half an hour or more.
4. In starting the engine by pulling the choke button, be sure to push in the button as soon as the engine fires.
5. If the engine does not fire after a few pulls, set the throttle to fast idle and try again.
6. If it still does not start, check the plug.
7. In the event that the engine has run out of gas, it will be necessary after refueling to pull the recoil starter 8-10 times in order that the fuel pump can prime the carburetor.

Stopping the Engine:

The engine will normally be stopped by moving ignition switch to the "OFF" position. In an emergency should the switch fail to stop the engine, pull the choke out to the closed position and the engine will slowly come to a stand-still.

Steps to Be Taken During Operation

1. After starting, idle the engine for 3-5 minutes for warm up.
2. After idling, gradually open the throttle and the unit will start to operate as the engine attains clutch engagement speed of approximately 3,400 rpm.

3. The engine keeps on running even when the unit has stopped due to an excessive load. In such cases, stop the engine and remove the cause of overload before again starting the engine and resuming the job.

Fuel Feed Adjuster

Normally, do not adjust the fuel adjusting needle valve. The needle is set at the optimum position at the time of shipment.

To adjust the carburetor, proceed as follows:

- Low-speed needle valve (L) $1 \pm \frac{1}{4}$ turn
- High-speed needle valve (H) $1 \pm \frac{1}{4}$ turn

Turn the corresponding adjusting screw lightly clockwise to fully closed position and return the screw by the number of turns indicated above.

Lower the throttle lever and idle the engine for 3-5 minutes to cool it off. Then, stop the engine by depressing the stop button.

Storing

If the unit is to be stored for a long period of time, drain fuel completely from tank. Gasoline stored under the most ideal conditions may start to go stale in 30 days. Stale gasoline has a high gum content which can clog carburetor and restrict the fuel flow.

Start engine and allow to run until it stops. Choke and restart engine to make sure all fuel has been used from the carburetor. This prevents formation of gum deposits. Remove the spark plug. Pour about a teaspoonful of clean oil through the spark plug hole into the combustion chamber. Pull the starter handle slowly at least twice. This will coat the interior of the combustion chamber with oil. Clean, gap and replace spark plug.

Ignition Spark Plug

CAUTION: Do not attempt to remove the plug from a hot aluminum cylinder head.

This will prevent possible damage to the threads.

Clean or replace the plug if fouled with black oil deposits. Replace the plug if the center electrode is rounded at the end, or if the ground electrode is worn. Adjust the gap 0.6-0.7mm (.024-.028"). **Caution:** Do not over tighten the plug. Correct torque = 18-22 lbs. ft.

Air Filter

The performance, lubrication and temperature of the two stroke engine is seriously affected by a choked air filter. It is strongly recommended, therefore, that the filter should be cleaned every time the unit is used. Dust and dry dirt are readily removed from the wire gauze element, which can be washed in kerosene if necessary to remove oil accumulation.