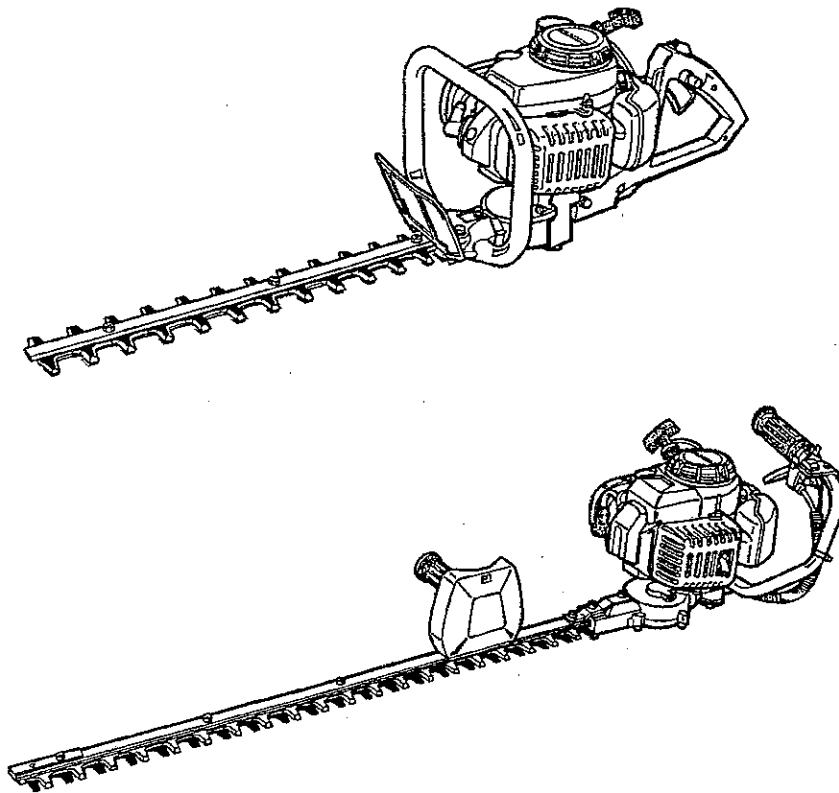





## INSTRUCTION MANUAL

### FOR POWER HEDGE TRIMMER

MODELS: HT210/HT210L/HT220/HT220L/HT250/HT250L



It is essential that any operator of a MARUYAMA POWER Hedge Trimmer reads and understands the contents of this manual before the engine is started. Important safety instructions will be identified by the safety symbol.  Failure to comply with the instructions in this manual may result in serious injury.

# FOREWORD

This instruction Manual is designed to familiarize the operator with the various features and component parts of the equipment and to assist you with the assembly, operation and maintenance of your new Power Hedge Trimmer.

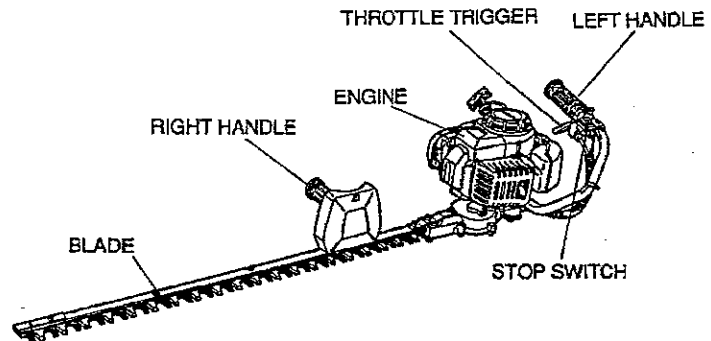
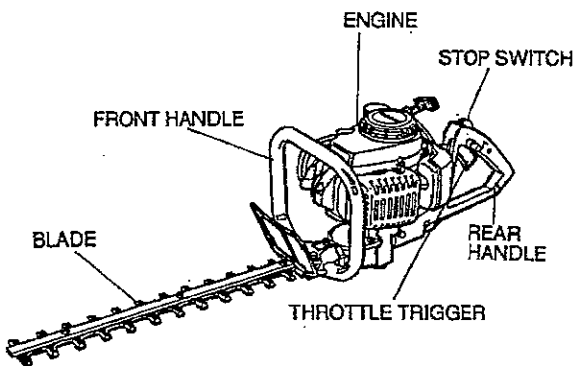
Special attention should be given to the SAFETY INSTRUCTIONS provided throughout the Instruction Manual.

Please read this Instruction Manual carefully before using the Power Hedge Trimmer and acquaint yourself thoroughly with the equipment. For additional assistance, contact any local authorized MARUYAMA dealer, or MARUYAMA U.S., Inc., 301-30<sup>th</sup> St. NE, Suite 118, Auburn, WA 98002.

## MODEL IDENTIFICATION

**MODEL: HT210. HT210L**

**MODEL: HT220. HT220L. HT250. HT250L**



## SPECIFICATIONS

MODELS		HT210	HT210L	HT220	HT220L	HT250	HT250L
DRY WEIGHT		9.9 lbs	10.5 lbs	12.9 lbs	14.4 lbs	12.5 lbs	14 lbs
DIMENSIONS L x W x H		33.3 x 9.1 x 8.5 in.	39.8 x 9.1 x 8.5 in.	42 x 11 x 10.2 in.	56 x 11 x 10.2 in.	42 x 11 x 10.2 in.	56 x 11 x 10.2 in.
ENGINE	MODEL	MITSUBISHI TL-20		KAWASAKI TF22		MITSUBISHI TL-26	
	TYPE	2-stroke, air cooled					
	DISPLACEMENT	20 cc		22.6 cc		25.6 cc	
	CARBURETOR	Diaphragm type					
FUEL TANK CAPACITY		0.4 qts		0.5 qts		0.6 qts	
BLADE LENGTH		16 in.	24 in.	30 in.	40 in.	30 in.	40 in.



## SAFETY INSTRUCTIONS



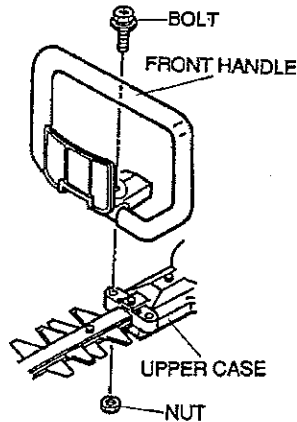
1. Read and understand this Instruction Manual before using the equipment. Be thoroughly familiar with the proper use of the Power Hedge Trimmer.
2. Never allow children to operate the Power Hedge Trimmer. It is not a toy. Never allow adults to operate the unit without first reading the Instruction Manual.
3. Become familiar with the controls and know how to stop the engine quickly.
4. ALWAYS WEAR SAFETY GLASSES or other suitable eye protection, and hearing protection.
5. Keep the area of operation clear of all persons, particularly small children and pets.
6. Never operate a Power Hedge Trimmer when you are fatigued.
7. Never operate a Power Hedge Trimmer without proper guards or other protective safety devices in place.
8. Dress properly; do not wear loose clothing or jewelry. They can be caught in moving parts. Always wear substantial footwear, long pants, and long sleeved shirt.
9. Gasoline is highly flammable; handle it carefully. Fill the fuel tank with the correct mixture of gasoline and oil before trying to start the engine.
  - A. Use an approved fuel container for storing the gasoline/oil mixture.
  - B. Do not fill the tank when the engine is hot or running.
  - C. Do not smoke while handling gasoline.
  - D. Fill the fuel tank outdoors and up to about one-half inch from the top of the tank, not the top of the filler neck.
  - E. Wipe any spilled gasoline before starting the engine.
10. Always be sure of your footing; keep a firm hold of the handles with both hands, and walk, never run.
11. Use the right tool for the job. Do not use the Power Hedge Trimmer for any job that is not recommended by the manufacturer.
12. Keep all fasteners tight to be sure the Power Hedge Trimmer is in safe working condition. Follow the maintenance instructions provided on page 9 to 11 of this manual.
13. Do not put hands or feet near or under any moving parts. Keep clear at all times.
14. If the Power Hedge Trimmer should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
15. Avoid using the power Hedge Trimmer near rocks, fencing, cable/wires and similar material that would cause harmful damage.
16. Use the Power Hedge Trimmer only in daylight or good artificial light.
17. Shut off the engine and be certain the cutting blades have completely stopped moving before servicing the machine.

The MARUYAMA Power Hedge Trimmer includes a Tool Kit, Instruction Manual, and a Warranty Registration Card.

## ASSEMBLY INSTRUCTIONS

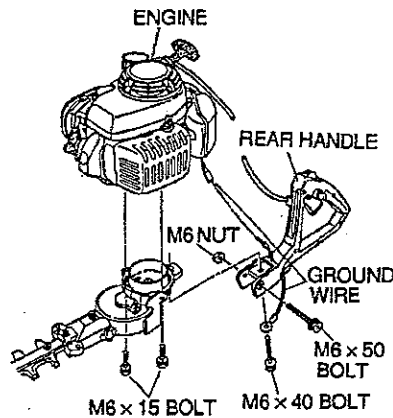
### MODELS: HT210. HT210L

#### FRONT HANDLE



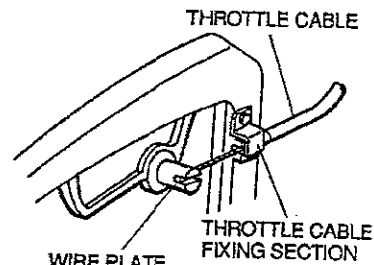
The front handle attaches to the upper case with two M6 x 30 bolts and M6 nuts, as shown.

#### ENGINE AND REAR HANDLE



The engine is attached to the upper case with bolt, as shown. Connect the engine ground wire with the rear handle ground wire, and fasten the rear handle with M6 x 40 bolt, M6 x 50 bolt and M6 nut. The ground wire terminal is tightened jointly with M6 x 40 bolt.

#### THROTTLE CABLE

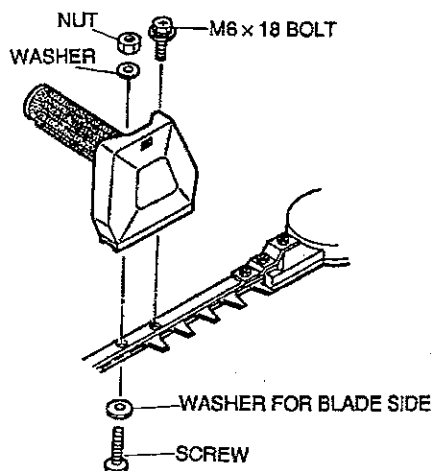


Pass the throttle cable through the throttle cable-fixing section of the rear handle. Hook one cable end with the other and engage it with the groove. Adjust the throttle cable so that there is a small amount of free-play between the end of the cable and the wire plate when the throttle trigger is released.

\* Please make certain that the blades come to a complete standstill when the engine is idling.

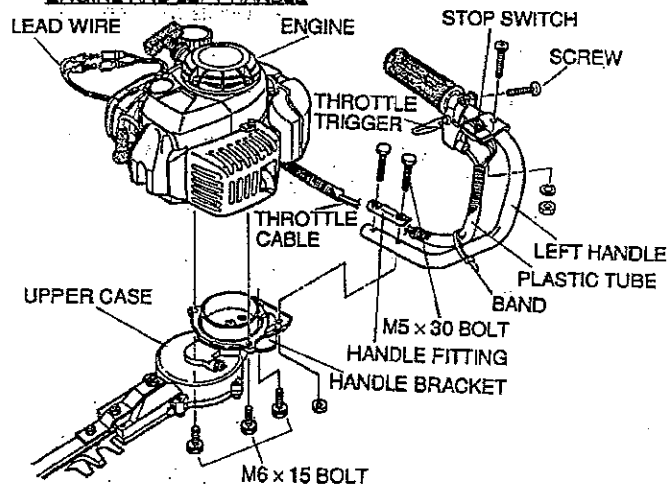
### MODELS: HT220. HT220L. HT250. HT250L

#### RIGHT HANDLE



- ① Temporarily fix the right handle to the blade with nut, washer, washer for blade side and screw.
- ② Fix the right handle to the remaining hole of the blade with M6 x 18 bolt.
- ③ Turn the screw in until snug, then turn the screw back out one-fourth to a half.
- ④ Tighten the nut.
- ⑤ Make sure the blade side washer can be moved slightly with your fingers. If not, repeat the same procedure of ③.

#### ENGINE AND LEFT HANDLE



Fix the throttle trigger to the left handle with screw. The left handle attaches to the handle bracket with M5 x 30 bolts. The engine attaches to the upper case with three M6 x 15 bolts. Set the throttle cable to the throttle trigger. Connect two lead wires of Stop Switch to the engine. Install the plastic tube around the throttle cable and lead wires, and clamp to the left handle with band as shown.

# BEFORE OPERATION

## FUEL: MIXING GASOLINE AND OIL



**CAUTION-READ SAFETY INSTRUCTIONS CONCERNING GASOLINE ON PAGE (2).**

The two-cycle engine used on the MARUYAMA Power Hedge Trimmer requires a mixture of GASOLINE and OIL for lubrication of bearings and other moving parts. The correct fuel mixture ratio depends upon the type of two-cycle motor oil that is used. If MARUYAMA two-cycle oil is used, the proper fuel mixture ratio is 50:1, which is 2.5oz. of oil mixed with one gallon of gasoline. If other oil for two-cycle air cooled engines is used, the proper fuel mixture ratio is 25:1, which is 5.0 oz. of oil mixed with one gallon of gasoline.

**NOTE:** Gasoline and oil must be premixed in a clean gasoline container. Never mix gasoline and oil indoors or in the Power Hedge Trimmer fuel tank. Always use fresh gasoline.

Add a small quantity of unleaded regular gasoline to a gasoline container. Pour the proper amount of two-cycle oil into the gasoline container. Do not use multi-viscosity oils. Install the cap on the gasoline container before shaking. Shake the gasoline container vigorously so the oil mixes with the gasoline. Add the additional gasoline needed to complete the required amount (see the fuel mixture chart below).

**IMPORTANT:** Do not fill the fuel tank with gasoline that does not have oil mixed in it. Do not use gasoline additives because the engine could be damaged.



**WARNING!!-NEVER USE GASOHOL OR ALCOHOL BLENDED FUELS IN MARUYAMA ENGINES.**

Before filling the Power Hedge Trimmer fuel tank, clean around the fuel tank cap so dirt and debris does not enter the fuel tank. Always shake the fuel container before filling the fuel tank. Remove the fuel cap, then fill the fuel tank to within 1/4-1/2 inch from the top of the tank. Avoid filling the fuel tank filler neck. Install the cap securely onto the fuel tank.

## FUEL MIXTURE CHART

<b>MARUYAMA 2-CYCLE OIL (50:1)</b>	<b>OTHER 2-CYCLE OIL (25:1)</b>
WITH 1 GALLON GASOLINE MIX 2.5 OZ OIL	WITH 1 GALLON GASOLINE MIX 5.0 OZ OIL
2 GALLON GASOLINE MIX 5.0 OZ OIL	2 GALLON GASOLINE MIX 10.5 OZ OIL
5 GALLON GASOLINE MIX 12.5 OZ OIL	5 GALLON GASOLINE MIX 25.0 OZ OIL

## ADJUSTING THE CUTTING BLADES

Before operating the Power Hedge Trimmer it is necessary to check the adjustment of the cutting blades. Blades that are too loose may vibrate, and will not provide a clean, smooth cut.



**CAUTION-BLADES THAT ARE TOO TIGHT CAN CAUSE OVERLOADING WHICH MAY DAMAGE THE EQUIPMENT.**

To adjust the cutting blades, refer to the illustrations and locate the screws.

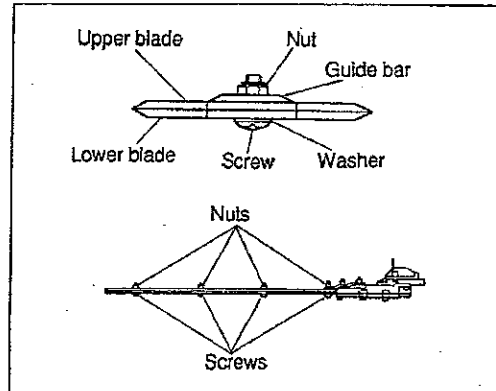
Loosen the nuts.

Gently turn the screws in until snug, then turn the screws back out 1/4 turn.

While holding the screws in place, tighten the nuts. Liberally coat the cutting blades with light oil.

Start the engine and operate the Hedge Trimmer at full speed for at least one minute.

Stop the engine, and when the blades are motionless, touch the blades with your hand.



**CAUTION-DO NOT TOUCH THE SHARPENED EDGES OF THE CUTTING BLADES. THE CUTTING BLADES ARE EXTREMELY SHARP AND DANGEROUS AT ALL TIMES!!**

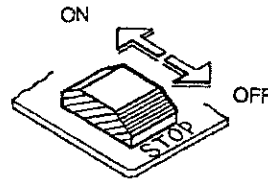
The blades may be warm, but if they are too hot to touch, loosen the screws 1/8 turn.

## **OPERATING INSTRUCTIONS**

Check if any of the bolts and nuts need to be tightened.

### STARTING PROCEDURE

- (1) Pump the primer-bulb at the bottom of the carburetor until fuel can be seen flowing through the fuel-return line to the fuel tank.
- (2) Turn the choke lever to the close ( I ) position.
- (3) With the switch "ON", pull the starter cord.  
After the engine is started, turn the choke lever to the open ( ≡ ) position.



For starting an engine that is already warmed-UP, or if the ambient temperature exceeds 20°C (68°F), perform (1), turn the choke lever to the open ( ≡ ) position, and perform (3).

### STOPPING THE ENGINE

Always run the engine at idle speed for a few minutes to allow cooling before stopping. To stop the engine, move the stop-switch to the STOP position.



*If the stop-switch fails to stop the engine, pump the primer-bulb at the bottom of the carburetor a few times, then turn the choke lever to the close ( I ) position. (Repair the stop-switch.)*

## OPERATING THE POWER HEDGE TRIMMER



*CAUTION—Read the SAFETY INSTRUCTIONS on page (2) concerning the proper use of the Power Hedge Trimmer.*

The MARUYAMA Power Hedge Trimmer is designed for cutting and trimming foliage and small branches up to 1/4 inches in diameter. Although the MARUYAMA Power Hedge Trimmer is capable of cutting larger diameter branches, wear and tear of the machine would be proportionally increased.



*CAUTION—Always wear gloves and protective clothing when operating the Power Hedge Trimmer.*

If the cutting blades become jammed, stop the engine immediately. Make certain all moving parts have stopped and disconnect the spark plug before inspecting the equipment for damage. Never use a Power Hedge Trimmer that has chipped, cracked, or broken cutting blades.

## REGULAR MAINTENANCE

### ENGINE

Refer to "ENGINE INSTRUCTION MANUAL".

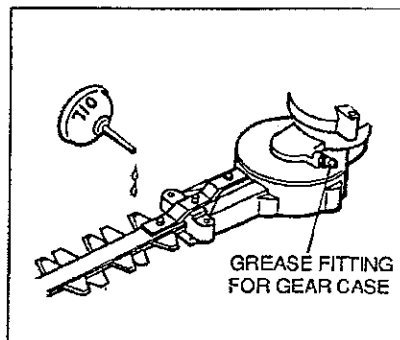
### LUBRICATION: GEARCASE AND ANGLE DRIVE

The gearcase and angle drive should be checked for lubrication after each 10 to 20 hours of use. Grease fittings are installed into both components.

Use a good quality #2 lithium-base bearing lubricant.

Lubrication of the cutting blades should be maintained at all times.

Use a light oil (#10 wt.)



### GENERAL CLEANING AND TIGHTENING

The MARUYAMA Power Hedge Trimmer will provide maximum performance for many, many hours if it is maintained properly. Good maintenance includes regular checking of all fasteners for correct tightness, and cleaning the entire machine. Pitch and gum deposits should be removed from the cutting blades daily. Adjustment of the cutting blade tension should be checked regularly. Refer to page 5 for instructions to adjust cutting blades.

## STORAGE

**ALL MODELS:** For long-term storage of the Power Hedge Trimmer, perform all regular maintenance procedures and needed repairs. Empty the fuel tank. Disconnect the fuel-return tube from the carburetor, then continue to pump the primer bulb until fuel stops discharging from the fuel-return fitting. Start the engine and allow it to run until it stops. Pull the starter cord a few times to remove any excess fuel from the engine. Remove the spark plug and insert a small amount of oil. Pull the starter cord once and bring the piston to a position closest to the spark plug hole. Re-install the spark plug. Apply a thin coating of oil to the entire machine and store in a dry place.



## LIMITED WARRANTY STATEMENT

All Maruyama products are warranted to the original purchaser to be free from defects in material and workmanship from the date of purchase for the time periods listed as follows:

- Lifetime for inner drive shafts on trimmers and brushcutters and all ignition modules.
- 3 years for residential, non-institutional, non-income producing use.
- 2 years for industrial, commercial, institutional and income producing use.
- 1 year for rental use.

Any part of a Maruyama product found to be defective within the applicable warranty period shall, at Maruyama's option, be repaired or replaced without charge. Warranty consideration is obtained by delivering any Maruyama product believed to be defective to an Authorized Maruyama Service Dealer within the applicable warranty period.

**EMISSION-RELATED PARTS WARRANTY :** In addition to the above warranty coverage, Maruyama Mfg. Co., Inc. will repair or replace, free of charge, for the original purchaser and each subsequent purchaser any emission-related part or parts found to be defective in material and workmanship for two (2) years from original retail delivery date. **Emission-related parts are the carburetor assembly, the ignition coil assembly, the ignition rotor and the spark plug.** Any replacement part that is equivalent in performance and durability may be used in non-warranty maintenance or repairs, and shall not reduce the warranty obligations of Maruyama Mfg. Co., Inc.

**This warranty does not cover the following :**

1. Maintenance items (excluding defects in materials and workmanship) including hoses, spark plugs, starter rope, air and fuel filters, vibration isolators, throttle cables and all cutting attachments.
2. Extra expenses including shipping and handling, travel, payment for lost time or pay and for any inconvenience and storage.
3. Alterations or modifications including aftermarket parts not authorized by Maruyama.
4. Wear, accident, abuse, neglect, misuse, negligence, improper fuels, lubricants, fuel mixtures (when applicable), or failure to operate or maintain the product in accordance with instructions approved by Maruyama.

Repair or replacement as provided under this warranty is the exclusive remedy of the consumer. Maruyama shall not be liable for any incidental or consequential damages for breach of any express or implied warranty on these products except to the extent prohibited by applicable law. Any implied warranty of merchantability or fitness for a particular purpose on these products is limited in duration to the warranty period as defined in the limited warranty statement. Maruyama reserves the right to change or improve the design of the product without notice and does not assume obligation to update previously manufactured products.

This warranty provides you with specific legal rights which may vary from state to state.

It is the Owner's and Dealer's responsibility to make sure the Warranty Registration Card is properly filled out and mailed to Maruyama U.S., Inc.

Proof of purchase and registration will be required in order to obtain warranty service.

**CONTACT**

Maruyama U.S., Inc.  
PO Box 309

Auburn, WA 98071-0309

Effective October 1, 1994