



# 65CC MULTI TOOL

SKU: PBGG

## INSTRUCTION MANUAL

**Use 2 Stroke Fuel Mix 25:1**



Before putting the unit into operation, read this instruction manual thoroughly.

## CONTENTS

Instructions .....	3
Safety messages .....	4
Safety label location .....	4
Warning labels on the machine .....	4
Symbols on the machine .....	5
Safety information .....	5
Unit .....	9
Accessories .....	10
Set up the equipment .....	10
Joint attachment .....	10
Installing handle .....	11
Chain tension set up .....	11
Bar and chain replacement .....	12
Installing the guide bar and saw chain .....	13
Change the equipment from chain saw to hedge trimmer.....	13
Before operation checks .....	14
Fuel and chain oil .....	14
Safe operating precautions .....	15
Starting engine .....	15
Stopping engine .....	17
Operation .....	17
Pole saw .....	17
Checking oil supply .....	17
Adjusting oil flow rate .....	18
Pole hedge trimmer .....	19
Adjusting the angle of the cutting blades .....	19
Maintenance .....	20
The importance of maintenance .....	20
Maintenance schedule .....	21
Engine .....	22
Air cleaner .....	22
Spark plug .....	22
Muffler .....	22
Pole hedge trimmer .....	23
Blades .....	23
Quick tip .....	23
Transmission .....	23
Pole chain saw .....	24
Oiling port .....	24
Guide bar .....	24
Sprocket .....	25

Saw chain ..... 25

Cutter setting standards ..... 25

Transmission ..... 27

Storage ..... 27

Troubleshooting guide ..... 28

Specification ..... 30

Dear Customer:

Thank you for purchasing our products!

We want to help you to get the best results from your new product and to operate it safely. This manual contains information on how to do that; **please read it carefully** before operating the product. If a problem should arise, or if you have any questions about your product, consult the servicing dealer.

All information in this publication is based on the latest product information available at the time of printing. Jono & Johno reserves the right to make changes at any time without notice and without incurring any obligation. No part of this publication may be reproduced without written permission.

This manual should be considered a permanent part of the product and should remain with the engine if resold.






# SAFETY MESSAGES

Your safety and the safety of others is very important. We have provided important safety messages in this manual and on the engine. Please read these messages carefully.

A safety message alerts you to potential hazards that could hurt you or others. Each safety message is preceded by a safety alert symbol and one of three words, DANGER, WARNING, or CAUTION.

These signal words mean:

-  **DANGER** be KILLED or SERIOUSLY HURT if you don't follow instructions.
-  **WARNING** be KILLED or SERIOUSLY HURT if you don't follow instructions.
-  **CAUTION** be HURT if you don't follow instructions.

Each message tells you what the hazard is, what can happen, and what you can do to avoid or reduce injury.

## SAFETY LABEL LOCATION

This label warns you of potential hazards that can cause serious injury. Read it carefully. If the label comes off or becomes hard to read, contact our dealer for replacement.








## WARNING LABLES ON THE MACHINE







There are various symbols on the power chain saw plate.

They will facilitate essential information on the product or instructions for use.

- Notice: When handling the power chain saw, special safety precautions are required.
- Read and try to understand the entire instruction manual before you gat down to using the saw.

Non-observance the instructions for use may be DANGEROUS TO LIFE!

						
Warning/caution	No fire, no unprotected source of light, no smoking	Keep bystanders away	Beware of hazardous gases	Danger from overhead electric-power lines	Protect the equipment from rain and damp	Keep bystanders at least 15m away

					
Wear protective glasses, hearing protection, and a	Wear protective shoes	Use protective gloves	Wear protective clothing	Read operating manual before use	Wear safety helmet.

## SYMBOLS ON THE MACHINE

For safe operation and maintenance, symbols are carved in relief on the machine. According to these indications, please be careful not to make a mistake.



The port to refuel the "MIX GASOLINE"

**Position:** FUEL TANK CAP



The direction to close the choke

**Position:** AIR CLEANER COVER



The direction to open the choke

**Position:** AIR CLEANER COVER



If you turn the rod by screwdriver follow the arrow to the

"MAX" position, the chain oil flow more, and if you turn to the "MIN" position, less.

**Position:** Bottom of the TRANSMISSION

## SAFETY INFORMATION

### GENERAL SAFETY INSTRUCTION

- This machine can cause serious injuries. Read the instructions carefully for the correct handling, preparations, maintenance, starting and stopping of the machine. Be familiar with all controls and the proper use of the machine.
- Keep this manual handy so that you may refer to it later whenever any questions arise. Also note, if you have any questions which cannot be answered herein, contact the dealer from whom you purchased the product.
- Never allow children or anyone unable to fully understand the directions given in the manual to use the machine.

### PERSONAL SAFETY EQUIPMENT

- When cutting, make sure to wear the following safety equipment:
  - (1) Helmet
  - (2) Ear protectors
  - (3) Protection goggles or face protector
  - (4) Thick work gloves
  - (5) Non-slip-sole work boots
- Do not wear loose clothing, jewelry, short trousers, sandals, or go barefoot. Do not wear anything which might be caught by a moving part of the unit. Secure hair so it is above shoulder length.

### WORK PLACE

- Never start the engine inside a closed room or building. Exhaust gases contain dangerous carbon monoxide.
- Never use the product:
  - a. when the ground is slippery or when you can't maintain a steady posture.
  - b. At night, at times of heavy fog, or at any other times when your field of vision might be limited

and it would be difficult to gain a clear view of the working area.

- c. During rain storms, during lightning storms, at times of strong or gale-force winds, or at any other times when weather conditions might make it unsafe to use the product.
- The machine may not be used unless it is undamaged and functions properly. If the equipment or parts of it have become defective, have it repaired by a specialised technician.
- Always obey the current national and international safety, health, and working regulations.
- Do not operate the machine unless you did not find any faults on checking. If a part has become defective, make sure to replace it before you use the machine again.
- The environment must be free of easily flammable and explosive materials.
- Do not overload the machine. Use the machine only for its intended purpose.
- Always work with care, and stay alert: Do not operate the machine when you are tired, ill, or under the influence of alcohol, drugs or medication, as you will no longer be able to operate the machine safely.

## BEFOR STARTING THE ENGINE

- Make sure that no persons or animals are within your work area when you start working.
- Make sure there are no obstacles in your work area.
- Ensure that your machine has been fully and properly assembled.
- Check that the machine works properly and make sure, in particular, that the chain rail or hedge trimmer head sits tightly and properly, t, and that the On/Off switch works properly. Do not operate the machine with a damaged or extensively worn cutting device.
- The machine will vibrate during operation. This may cause its screws and parts to loosen. Therefore, check all screws and parts for tightness.

## USING THE PRODUCT

### **⚠ WARNING**

Cut only materials recommended by the manufacturer. And use only for tasks explained in the manual.

- Keep bystanders and animals at least 15m away from the operating point. If you are approached, immediately stop the engine.
- Grip the handles firmly with both hands using your whole hand.
- Assume a firm standing position during operation:
  - Make sure you cannot slip or fall over.
  - Do not stretch your arms too far in front of you.
  - Do not work above shoulder level.
- After starting the engine, check to make sure that the cutting attachment stops rotating when the throttle is moved fully back to its original position. If it continues to rotate even after the throttle has been moved fully back, turn off the engine and take the unit to the dealer for repair.
- If the unit starts to shake or vibrate, turn off the engine and check the whole unit. Do not use it until the trouble has been properly corrected.
- Keep all parts of your body away from rotating cutting attachment and hot surfaces.
- Never touch the muffler, spark plug, or other metallic parts of the engine while the engine is in operation or immediately after shutting down the engine. Doing so could result in serious burns or electrical shock.
- While the motor is still hot, keep the machine away from anything flammable, such as dry grass,

debris, leaves or excessive lubricant.

- Before laying down the machine, make sure the motor is turned off!
- Never work alone!

Make sure you are within shouting distance or have visual or other kind of contact with another person who will be able to provide first aid in an emergency situation.

- Always be aware of your surroundings and stay alert for possible hazards that you may not hear due to the noise of the machine
- **Never operate the pruner at an angle greater than 60° in order to reduce the risk of being struck by falling objects during operation.**
- **Avoid operating while people, especially children are nearby.**

## MAINTENANCE

- In order to maintain your product in proper working order, perform the maintenance and checking operations described in the manual at regular intervals.
- Always be sure to turn off the engine before performing any maintenance or checking procedures.

### **⚠ DANGER**

**The metallic parts reach high temperatures immediately after stopping the engine**

- Use only original replacement parts. Only these spare parts are guaranteed to be designed and suitable for use with this machine. Using other spare parts will void your warranty and may cause danger to yourself and your surroundings.
- In the event that any part must be replaced or any maintenance or repair work not described in this manual must be performed, please contact our servicing dealer for assistance.
- Under no circumstances should you ever take apart the product or alter it in any way. Doing so might result in the product becoming damaged during operation or the product becoming unable to operate properly.

## HANDLING FUEL

- The engine is designed to run on a mixed fuel, which contains highly flammable gasoline. Never store cans of fuel or refill the tank of the unit in any place where there is a boiler, stove, wood fire, electrical sparks, welding sparks, or any other source of heat or fire which might ignite the fuel.
- Never smoke while operating the unit or refilling its fuel tank.
- When refilling the tank, always turn off the engine and allow it to cool down. Take a careful look around to make sure that there are no sparks or open flames anywhere nearby before refueling.
- Wipe spilled fuel completely using a dry rag if any fuel spillage occurs during refueling.
- After refueling, screw the fuel cap back tightly onto the fuel tank and then carry the unit to a spot 3 m or more away from where it was refueled before turning on the engine.

## TRANSPORT AND STORAGE

- When you finish cutting in one location and wish to continue work in another spot, turn off the engine, lift the unit and carry it paying attention to the blade.
- When transporting or storing the machine always fit the cutting device guard or guide bar cover.
- When hand-carrying the product, cover over the cutting part if necessary, lift the product and carry it paying attention to the blade.
- Never transport the product over rough roads over long distances by vehicle without removing all fuel from the fuel tank. If doing so, fuel might leak from the tank during transport.

- Protect the machine from damage when transporting it.

## KICKBACK SAFETY PRECAUTIONS FOR CHAIN SAW USERS

### **⚠ DANGER**

- (1) Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut. Tip contact in some cases may cause a lightning fast reverse reaction, kicking the guide bar up and back towards the operator. Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back towards the operator. Either of these reactions may cause you to lose control of the saw, which could result in serious personal injury.
  - (2) Do not rely exclusively on the safety devices built into your saw. As a chain saw user you should take several steps to keep cutting jobs free from accident or injury.
- With a basic understanding of kickback, you can reduce or eliminate the element of surprise. Sudden surprise contributes to accidents.
  - Keep a good grip on the saw with both hands, the right hand on the rear handle, and the left hand on the front handle, when the engine is running. Use a firm grip with thumbs and fingers encircling the chain saw handles. A firm grip will help you reduce kickback and maintain control of the saw.
  - Make certain that the area in which you are cutting is free from obstructions. Do not let the nose of the guide bar contact a log, branch, or any other obstruction which could be hit while you are operating the saw.
  - Cut at high engine speeds.
  - Follow the manufacturer's sharpening and maintenance instructions for the saw chain.
  - Only use replacement bars and chains specified by the manufacturer or the equivalent.

### **⚠ DANGER**

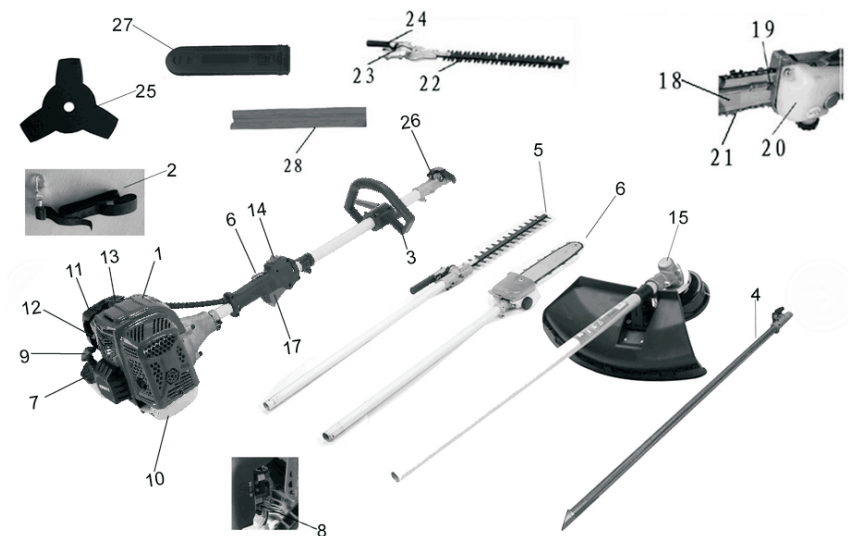
**Make sure the chain and guide bar are correctly adjusted before operating the equipment (see page 8 for adjustment procedures). Never attempt chain adjustment with the engine running!**

- Always make sure the cutting attachment is properly installed and firmly tightened before operation.
- Never use a cracked or warped guide bar: replace it with a serviceable one and make sure it fits properly.
- If a saw blade should bind fast in a cut, shut off the engine immediately. Push the branch or tree to ease the bind and free the blade.
- Do not operate the pole pruner with the muffler removed.
- When cutting a limb that is under tension, be alert for spring back so that you will not be struck by the moving limb.
- Always stop the engine immediately and check for damage if you strike a foreign object or if the machine becomes tangled. Do not operate with broken or damaged equipment.

### **⚠ WARNING**

**Do not make unauthorized modifications or substitutions to the guide bar or chain. Never allow the engine to run at high RPM without a load. Doing so could damage the engine. Keep the pruner as clean as possible. Keep it free of loose vegetation, mud, etc**

## UNIT



- |   |                               |  |
|---|-------------------------------|--|
| 1 Engine unit                               | 2 Shoulder harness            | 3 Handle                                     |
| 4 Extension tube assembly                   | 5 hedge trimmer head assembly | 6 Chain saw head assembly                    |
| 7 Fuel tank cap                             | 8 Primer bulb                 | 9 Starting handle                            |
| 10 Fuel tank                                | 11 Air filter                 | 12 Chock                                     |
| 13 Spark plug cap                           | 14 Switch                     | 15 Brush cutter head assembly (nylon cutter) |
| 16 Throttle lock                            | 17 Throttle                   | 18 Guide bar                                 |
| 19 Adjusting screw                          | 20 Oil tank                   | 21 Saw chain                                 |
| 22 Cutting unit                             | 23 Adjusting handle           | 24 Adjusting handle lock lever               |
| 25 Brush cutter head assembly (metal blade) | 26 jointer                    | 27 bar cover                                 |
| 28 blade cover                              |                               |  |

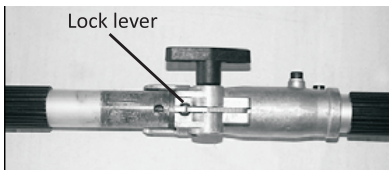
## ACCESSORIES

- engine
- pole chain saw head assembly( include attachment tube)
- extension tube assembly
- pole hedge trimmer head assembly
- screw driver
- spanner
- owner's manual

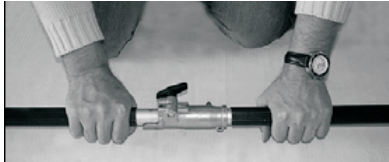
## SET UP THE EQUIPMENT

### JOINT ATTACHMENT

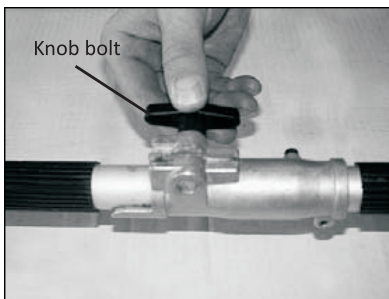
1 Press the lock lever down.



2 Insert the attachment to the main shaft. Fix the lock lever into the hole;

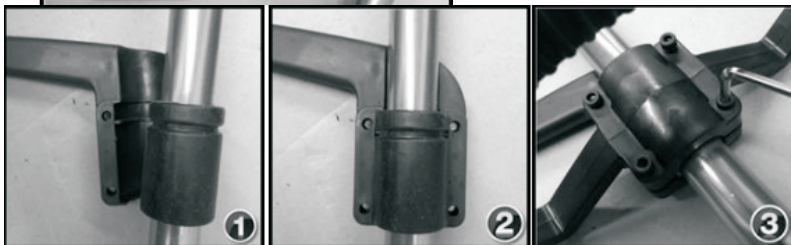
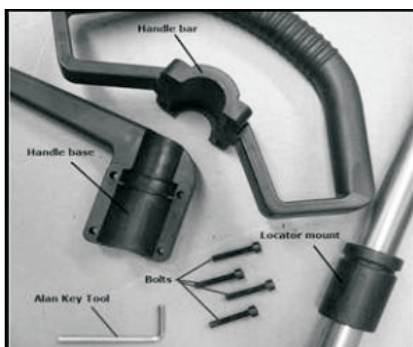


3 Tighten the knob bolt securely.



## INSTALLING HANDLE

1. Set the engine down on a flat surface in the upright position
2. Position the rubber "locator rubber" just below the throttle in a position  
Allowing mounting of the handles in a comfortable location
3. Holding the handle base under the locator mount place the "handlebar" over the base
4. Firmly bolt the "handlebar" to the base using the 4 bolts and Alan Key. Screw each bolt down an even amount until the "handlebar" does not flex or slide on the shaft



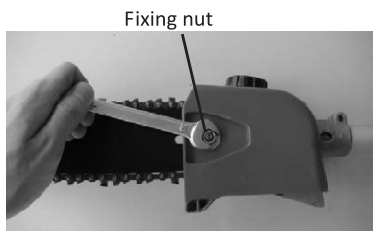
## CHAIN TENSION SET UP

### ⚠ WARNING

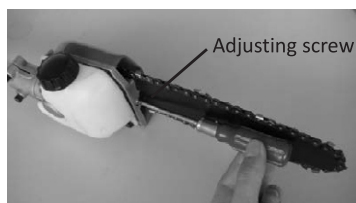
- The saw chain has very sharp edges. Use protective gloves for safety.
- Always pay attention to the chain tension. A slackened chain will increase the risk of backlash. If slackened, the chain could spring out of the guide, could cause injury to the operator and get damaged. A slackened chain wears out very quickly and the sprocket wheel and the guide bar wears out

- 1 Unscrew the fixing nut



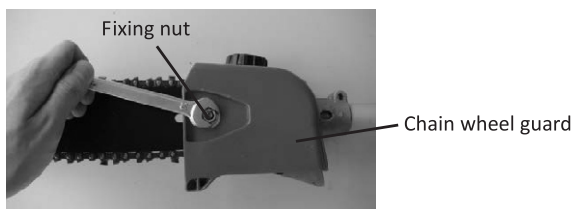


2 Turn the adjusting screw until the chain fits but may be moved with ease.

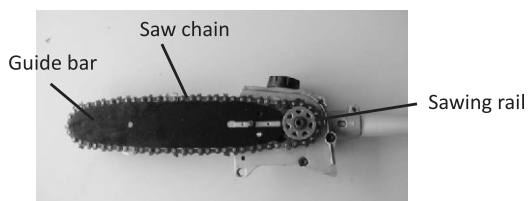


## BAR AND CHAIN REPLACEMENT

1 Unscrew the fixing nut and remove the chain wheel guard.



2 Remove the saw chain and guide bar.



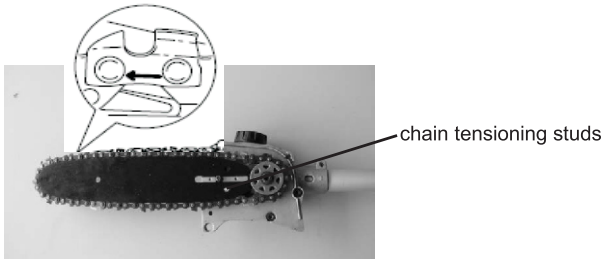
3 Now, you can exchange the bar or the saw chain.

## INSTALLING THE GUIDE BAR AND SAW CHAIN

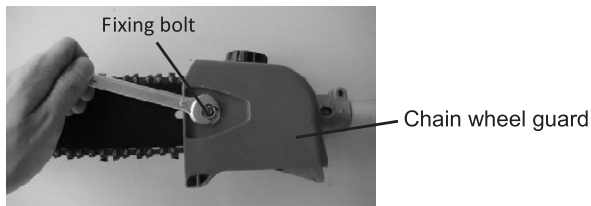
1 Place the sawing chain onto the sawing rail.



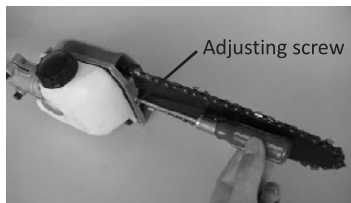
2 Position the guide bar so that the chain tensioning studs project into the guide bar. **Ensure that the saw chain runs in the correct direction!**



3 Attach the chain wheel protection and then tighten the fixing bolt lightly.



4 Tighten the tensioning screw.



5 Tighten the fixing nut.

### NOTE!

The chain should not sag, but it should be possible to pull it a few millimeters away from the saw rail.

## OPERATION:

### BEFOR OPERATION CHECKS

#### **⚠ WARNING**

**For your safety, and to maximize the service life of your equipment, it is very important to take a few moments before you operate the engine to check its condition. Be sure to take care of any problem you find, or have your servicing dealer correct it.**

Before beginning your preoperational checks, be sure the switch is in the OFF position.

Always check the following items before you start the engine:

- Cutting head correct mount
- Switches easy run
- The ignition plug safely mounted. If the plug is loose, sparkle and subsequent ignition of fuel-air mixture may occur.
- Make sure that handgrips are clean so that scythe may be led safely.
- The cutting head must move freely.

#### **⚠ DANGER**

**If in doubt when putting the scythe saw in operation, take advice from a professional of an authorized servicing centre. Non-professional advice may be dangerous to life!**

## OPERATION

### FUEL AND CHAIN OIL

#### **⚠ DANGER**

**Gasoline is very flammable. Avoid smoking or bringing any flame or sparks near fuel. Make sure to stop the engine and allow it cool before refueling the unit. Select outdoor bare ground for fueling and move at least 3 m (10 ft) away from the fueling point before starting the engine.**

#### **□ FUEL:**

**Mix lead-free petrol with air-cooled 2-stroke engine oil at ratio 25:1.**

- These engines are certified to operate on unleaded gasoline.
- Make sure to use gasoline with a minimum octane number of 93RON
- If you use a gasoline of a lower octane value than prescribed, there is a danger that the engine temperature may rise and an engine problem such as piston seizing may consequently occur.
- Unleaded gasoline is recommended to reduce the contamination of the air for the sake of your health and the environment.
- Poor quality gasolines or oils may damage sealing rings, fuel lines or fuel tank of the engine.

#### **□ CHAIN OIL**

Use a good quality Chainsaw Bar & Chain Oil

## SAFE OPERATING PRECAUTIONS

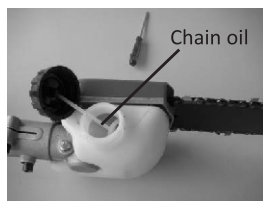
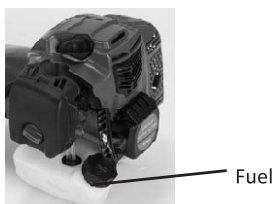
Before operating the engine for the first time, please review the SAFETY INFORMATION and the BEFORE OPERATION CHECKS!

- Hold the equipment firmly and safely with both the hands!
- Work thoughtfully and do not expose anybody to a risk while operation. Be calm and considerate while working.
- Do not work unless the visual and lighting conditions are good!
- Observe the cutting head!
- Never work standing on a ladder!
- Work on firm and stable bases only!
- In the course of work procedure, make sure that no persons or animals are standing within 10 m diameter. Switch the machine off immediately if anybody, children in the first place, enter the reach of machine
- Use the machine at daylight only.

## STARTING ENGINE

1. Feed 2 stroke fuel into the fuel tank and tighten the cap securely.

(Pole chain saw only) Feed the chain oil into the oil tank and tighten the cap securely.

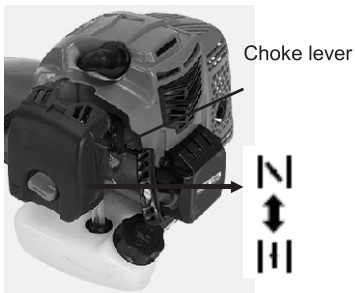


2. Rest the unit on a flat, firm place. Keep the cutting head off the ground and clear of surrounding objects, as it will start rotating upon starting of the engine.

3. Press the primer several times until overflow fuel flows out in the clear tube.

4. Move the choke lever to the closed position.





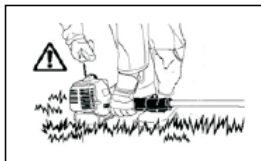
5. Set the stop switch to the "STAR" position. Press down the throttle lock.



#### ⚠ CAUTION

**Place the unit on a flat, firm place.  
Keep the cutting head clear of everything around it.**

6. While holding the unit firmly, pull out the starter rope quickly until engine fires.



7. Move the choke lever downward to open the choke. And restart engine.

#### ⚠ WARNING

**The product is equipped with a centrifugal clutch mechanism, so the cutting attachment**

#### ⚠ CAUTION

begins to rotate as soon as the engine is started by putting the throttle into the start position. When starting the engine, place the product onto the ground in a flat clear area and hold it firmly in place so as to ensure that neither the cutting part nor the throttle come into contact with any obstacle when the engine starts.

**CAUTION!**

**Do not pull too far. Watch the cutting/mowing head while pull the starting cable.**

8. Allow the engine to warm up for a several minutes before starting operation.

**NOTE**

1. When restarting the engine immediately after stopping it, leave the choke open.
2. Over choking can make the engine hard to start due to excess fuel. When the engine failed to start after several attempts, open the choke and repeat pulling the rope, or remove the spark plug and dry it.

**STOPPING ENGINE**

1. Release the throttle lever and run the engine for half a minute.
2. Shift the stop switch to the STOP position.

**⚠ WARNING**

- Except for an emergency, avoid stopping the engine while pulling the throttle lever.
- When it doesn't stop at the stop switch, move the choke level to the closed position.

**OPERATION- POLE SAW**

**⚠ DANGER**

- Always wear work gloves made of leather or some other sturdy material when using the pole saw.
- Falling branches may fall onto the face or into the eyes, resulting in injuries, scratches, and cuts, and for this reason you should always be sure to wear a helmet and face protector when using your pole saw.

**CHECKING OIL SUPPLY**

After starting the engine, run the chain at medium speed and see if chain oil has scattered off, as shown in the figure.



#### **NOTE**

The oil reservoir has a capacity sufficient to provide about 40 minutes of cutting time (when set to deliver the minimum flow rate, or about as long as you'll get from a tank of fuel). Be sure to refill the oil tank every time when refueling the saw.

#### **ADJUSTING OIL FLOW RATE**

##### **⚠ CAUTION**

**Never fill the oil reservoir nor adjust the oiler with the engine running.**

An increase in bar oil flow rate will speed oil consumption, requiring more frequent checks on the oil reservoir. To ensure sufficient lubrication, it may be necessary to check the oil level more frequently than at fuel tank refills.

The guide bar and chain are lubricated automatically by a pump that operates whenever the chain rotates. The pump is set at the factory to deliver a minimum flow rate, but it can be adjusted in the field. A temporary increase in oil flow is often desirable when cutting things like hardwood or wood with a lot of pitch.

Adjust the pump as follows:

1. Stop the engine and make sure the stop switch is in the OFF position.
2. Place the unit on its side with the oil reservoir up.
3. With a screwdriver, push in on the oil flow rate adjusting screw and turn in the desired direction



##### **⚠ CAUTION**

The oil flow adjusting screw must be pressed in slightly in order to turn. Failure to do so could damage the pump and screw.

## OPERATION- POLE HEDGE TRIMMER:

### **⚠ DANGER**

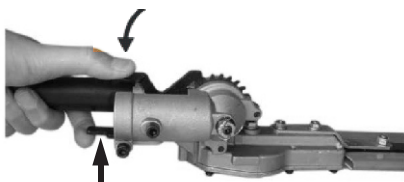
This product is equipped with extremely sharp blades, and when used improperly these blades can be extremely dangerous and improper handling can cause accidents, which may in turn lead to serious injury or death. For this reason, you should always be careful to follow the following instructions when using your trimmer.

- Never hold the trimmer in a way in which the blades are pointed towards someone else.
- Never allow the blades to come into proximity with your body while the engine of the trimmer is in operation.
- Always be sure to turn off the engine before changing the angle of the blades, removing branches which have become stuck in the blades, or at any other time when coming into close proximity with the blades.
- Always wear work gloves made of leather or some other sturdy material when using the trimmer.
- Always place the blade cover provided with the trimmer over the blades when not in use.
- Falling branches may fall onto the face or into the eyes, resulting in injuries, scratches, and cuts, and for this reason you should always be sure to wear a helmet and face protector when using your trimmer.

### **⚠ CAUTION**

The thickness of branches, which may be cut using this trimmer, is limited to up to approximately 3/16" (5 mm). Never try to cut branches thicker than this, as doing so may result in damage to the trimmer.

## ADJUSTING THE ANGLE OF THE CUTTING BLADES



1. Stop the engine.
2. Lift the lock lever and press down the adjusting lever.
3. Adjust the angle of the blades to the desired angle and loose your hand.

## OPERATION FOR BRUSH CUTTER

To turn the machine off, the switch has to be in "STOP" position.

- When mowing, mind the specific regulations of a country or specific communal regulations.
- Do not mow at times of generally recognized rest.
- Any hard objects – stones, metal parts etc. – have to be removed. They could be thrown away and cause personal or material damage.



- Working in high shrubs or bushes, the working height must be 15cm as a minimum not to expose animals, such as hedgehogs at any risk.

### **Grass Mowing**

-Working on grass areas, hold the scythe at an angle of ca 30° and make semicircle turns to the left and right.

The best results are achieved with grass 15cm high. If it is higher, it is recommended to repeat mowing several times.

**CAUTION! When the machine is running never put the mowing head on the ground.**

### **If the mowing output decreases**

- 1.) Hold the running machine over the grass and knock the ground several times with the mowing head the fiber will get prolonged in this way.
- 2.) The cutter enclosed in the protection shield will cut the fiber to the required length.

**Caution! The fiber remnant may be thrown off and cause an injury.**

### **If the machine is vibrating:**

Clean it or, where necessary, and remove the grass stuck on the mowing head and protection shield.

- 1 Hold the clipper form and safely with both the hands.
- 2 Mow the grass and weed only, low shrubbery may be cut with a thick blade.
- 3 Work in a careful manner and do not threaten anybody while mowing. Work quietly and considerately!
- 4 Work only in conditions of sufficient visibility and sufficient light!
- 5 Watch the cutting head!
- 6 Never mow/cut above the height of your shoulders!
- 7 Never replace the plastic cord with steel wire – risk of injury and destruction!
- 8 Never work standing on a ladder!

Work on strong and stable bases!

- Use the unit after you have read the operating instructions carefully.
- Observe all the safety instruction in the manual.
- Be responsible to the others.

## **MAINTENANCE**

### **THE IMPORTANCE OF MAINTENANCE**

Good maintenance is essential for safe, economical and trouble free operation. It will also help reduce pollution.

### **▲ DANGER**

- Improper maintenance, or failure to correct a problem before operation, can cause a

malfunction in which you can be seriously hurt or killed.

- **Always follow the inspection and maintenance recommendations and schedules in this owner's manual.**

To help you properly care for your equipment, the following pages include a maintenance schedule, routine inspection procedures, and simple maintenance procedures using basic hand tools. Other service tasks that are more difficult, or require special tools, are best handled by professionals and are normally performed by our dealer or other qualified mechanic.

#### **▲ WARNING**

- **Make sure that the engine has stopped and is cool before performing any service to the machine. Contact with moving cutting head or hot muffler may result in a personal injury.**
- **Read the instructions before you begin, and make sure you have the tools and skills required.**
- **To reduce the possibility of fire or explosion, be careful when working around gasoline. Use only a nonflammable solvent, not gasoline, to clean parts. Keep cigarettes, sparks and flames away from all fuel related parts.**

## MAINTENANCE SCHEDULE

	System/components	Procedure	Before use	Every 25 hours after	Every 50 hours after	Every 100 hours after	Note
engine	fuel leaks, fuel spillage	wipe out	✓				
	air cleaner	inspect	✓				replace, if necessary (2)
		clean		✓(1)			
	fuel tank, fuel filter	inspect	✓				replace, if necessary (2)
		clean		✓			
	idle adjusting screw	adjusting idling speed		✓			replace carburetor if necessary
	spark plug	clean and readjust plug gap			✓(2)		GAP: .025 in (0.6 ~ 0.7 mm) replace, if necessary
	cylinder fins, intake air cooling vent	clean		✓			
others	muffler, cylinder exhaust port	clean			✓		
	Combustion chamber	clean				✓(2)	
	throttle lever, stop switch	check operation	✓				
	cutting parts	replace if something's wrong	✓				Pole hedge trimmer only
	transmission	grease		✓(2)			
	screws/nuts/bolts	tighten/replace	✓			✓	not adjusting screws
	guide bar	clean	✓				Pole chain saw only
	sprocket	inspect/replace			✓		Pole chain saw only
	saw chain	inspect/sharp	✓				Pole chain saw only

(1) Service more frequently when used in dusty areas.

(2) These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient.

## ENGINE

### AIR CLEANER

The air cleaner clogged, will reduce the engine performance. Check and clean the filter element in warm, soapy water as required. Dry completely before installing. If the element is broken or shrunk, replace with a new one.

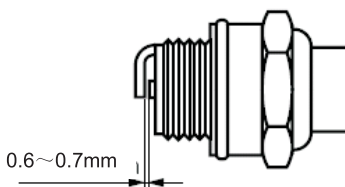


Air filter

### SPARK PLUG

Starting failure and misfiring are often caused by a fouled spark plug. Clean the spark plug and check that the plug gap is in the correct range. For a replacement plug.

**Recommended spark plugs: NHSP, LD L8RTF, NGK BPMR7A,**



#### ▲ CAUTION

- Note that using any spark plug other than those designated may result in the engine failing to operate properly or in the engine becoming overheated and damaged.
- To install the spark plug, first turn the plug until it is finger tight, then tighten it a quarter turn more with a socket wrench.

Tightening torque: 9.8 ~ 11.8 N.m (1 ~ 1.2 kg.m)

### MUFFLER

#### ▲ WARNING

- Inspect periodically, the muffler for loose fasteners, any damage or corrosion. If any sign of exhaust leakage is found, stop using the machine and have it repaired immediately.
- Note that failing to do so may result in the engine catching on fire.

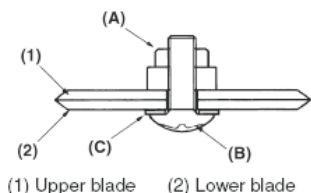
Remove the muffler, insert a screwdriver into the vent, and wipe away any carbon buildup. Wipe away any carbon buildup on the muffler exhaust vent and cylinder exhaust port at the same time.



## **HEDGE TRIMMER:**

### **BLADE:**

- When refilling the tank or resting, it is often a good idea to use the time to oil the cutting blades.
- If a gap exists between the upper and lower blades, follow the procedure below to adjust them so that they fit more closely together.



1. Loosen lock nut (A) as shown in the diagram.
2. Tighten screw (B) fully, and then turn one-third to one half of a rotation backward.
3. While holding onto the screw to keep it in position, tighten the lock nut.
4. Check to make sure that the flat washer (C) is loose enough so that it may be turned by pressing on it with

### **NOTE!**

Screwing in the screw too tightly may make it impossible for the blades to move. Conversely, not screwing in the screw tightly enough may make the blades of the trimmer feel dull and cause leaves and branches to become caught in the blades of the trimmer.

### **QUICK TIP**

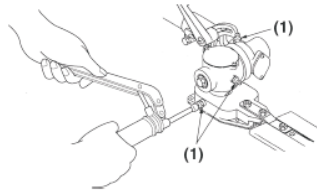
If the blades become so worn down that it is no longer possible to eliminate the gap between them, you should contact the dealer from which you purchased your trimmer to have the blades sharpened or replaced.

### **TRANSMISSION**

The reduction gears are lubricated by multipurpose grease in the transmission.

Supply new grease every 25 hours of use or more often depending on the job condition.

When adding lubricant, use a grease gun to insert lubricant into the three grease nipples located on the transmission.

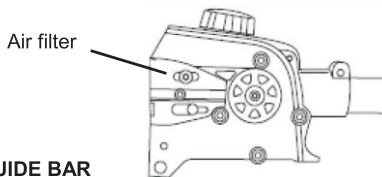


(1) Grease fitting

## POLE CHAIN SAW

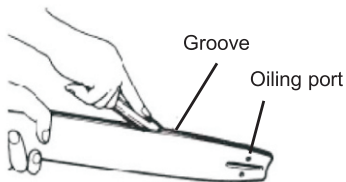
### OILING PORT

Dismount the guide bar and check the oiling port for clogging.

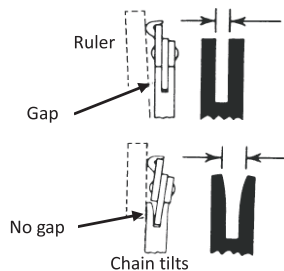


### GUIDE BAR

Remove sawdust in the bar groove and the oiling port.

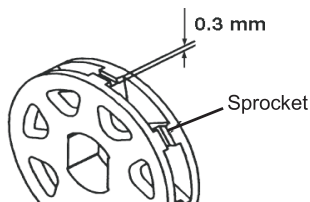


The bar rail should always be a square. Check for wear of the bar rail. Apply a ruler to the bar and the outside of a cutter. If a gap is observed between them, the rail is normal. Otherwise, the bar rail is worn. Such a bar needs to be corrected or replaced.



## SPROCKET

Check for extensive wear, and replace it when the teeth are worn over 0.3 mm.



## SAW CHAIN

### ⚠ CAUTION

It is very important for smooth and safe operation to keep the cutters always sharp.

Your cutters need to be sharpened when:

- Sawdust becomes powder-like.
- You need extra force to saw in.
- The cut way does not go straight.
- Vibration increases.
- Fuel consumption increases.

## CUTTER SETTING STANDARDS

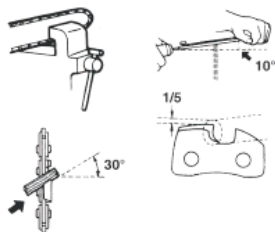
### ⚠ WARNING

Be sure to wear safety gloves.

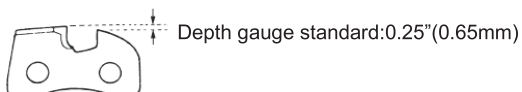
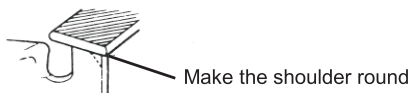
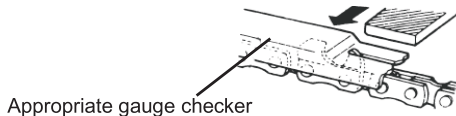
Before filing:

- Make sure the saw chain is held securely.
- Make sure the engine is stopped.
- Use a round file of proper size for your chain.
- Chain type : 3/8LP 050 45DL
- File size : 5/32 in (4.0 mm)

Place your file on the cutter and push straightforward.  
Keep the file position as illustrated.



After every cutter has been set, check the depth gauge and file it to the proper level as illustrated.



**NOTE!**

**Be sure to round off the front edge to reduce the chance of kickback or tie-strap breakage. .025" (0.65 mm)**

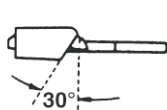
Make sure every cutter has the same length and edge angles as illustrated.



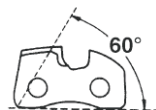
Cutter length



Side plate angle



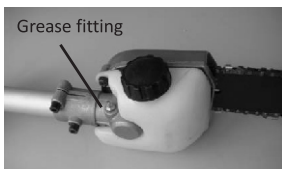
Filing angle



Top plate cutting angle

## TRANSMISSION

The reduction gears are lubricated by multipurpose, lithium-based grease in the transmission. Supply new grease every 25 hours of use or more often depending on the job condition. When adding lubricant, use a grease gun to insert lubricant into the three grease nipples located on the transmission.



## STORAGE

Aged fuel is one of major causes of engine starting failure. Before storing the unit, empty the fuel tank and run the engine until it uses all the fuel left in the fuel line and the carburetor. Cleaning and maintenance the machine before storage. Store the unit indoor taking necessary measures for rust prevention.

## Disposal

When disposing your machine, fuel or oil for the machine, be sure to allow your local regulations.



## TROUBLESHOOTING GUIDE

### Case 1. Starting failure

CHECK		PROBABLE CAUSES		ACTION
fuel tank	→	incorrect fuel	→	drain it and use correct fuel
fuel filter	→	fuel filter is clogged	→	clean
carburetor adjustment screw	→	out of normal range	→	adjust to normal range
sparkign (no spark)	→	spark plug is fouled/wet	→	clean/dry
	→	plug gap is incorrect	→	correct (GAP: 0.6 ~ 0.7 mm)
spark plug	→	disconnected	→	retighten

### Case 2. The engine will not reach the maximum output

CHECK		PROBABLE CAUSES		ACTION
Spark plug	→	Fouled plug, (the carbon residues on electrodes) too big distance between the electrodes.	→	Clean the plug, check the thermal value and replace it if necessary Set 0.6 - 0.7 mm
Carburetor	→	Fouled carburetor or carburetor jets.	→	Clean the carburetor blow it off
Air filter	→	Fouled air filter	→	Clean
exhaust	→	Exhaust, exhaust pipe	→	Remove the exhaust pipe, clean and remove carbon residues.
Cylinder /piston /piston ring	→	The packing ring in the crankcase leaking Worn cylinders, pistons, piston rings	→	Replace the cylinder, piston or piston rings, grind cylinder and piston, install
fuel	→	Poor fuel mix (too much oil	→	Fill up according to instructions

### Case 3. The engine will not stop

CHECK		PROBABLE CAUSES		ACTION
Spark plug	→	The plug is pale grey with marks of white-hot (melting drops)	→	Fit in the plug of higher thermal value.
Cylinder	→	Carbon residue in the ignition area.	→	Clean the cylinder head, piston bottom and cylinder the engine block

### Case 3. The pruner runs but is not cutting

CHECK		PROBABLE CAUSES		ACTION
Guide bar & saw chain	→	The chain is fitted in reverse on the guide bar	→	Refer to the assembly of guide bar and chain

### Case 4. Insufficient chain lubrication.

CHECK		PROBABLE CAUSES		ACTION
Oil tank	→	Oil tank empty.	→	Replenish oil tank.
Guide bar	→	Has the oil guide groove of the saw rail become clogged?	→	Clean the oil guide groove.

## SPECIFICATION

### ENGINE

NO.	Parameter items	Comments
1	Engine models	JPETS65M
2	Engine displacement	65 cm <sup>3</sup>
3	Volumes of fuel tank	1100 cm <sup>3</sup>
4	Fuel ratio (gasoline : 2-cycle motor oil)	25:1

### Pole Hedge trimmer

NO.	Parameter items	Comments
1	Cutting speed	Max 7500 min <sup>-1</sup>
2	Cutting length	395

### Pole Chain saw

NO.	Parameter items	Comments
1	Volumes of oil tank	150ml
2	Cutting attachment type and size	Bar & Chain 12"
5	maximum cutting speed	9000 min <sup>-1</sup>

### BRUSH CUTTER[Metal Blade]

Blade	255 x 1,6 mm
Blade centre hole diameter	25,4
Blade rotational speed at maximum allowed engine	8000/min

### Nylon Cutter

Max. cutting width	440 mm
String diameter	2,5mm



