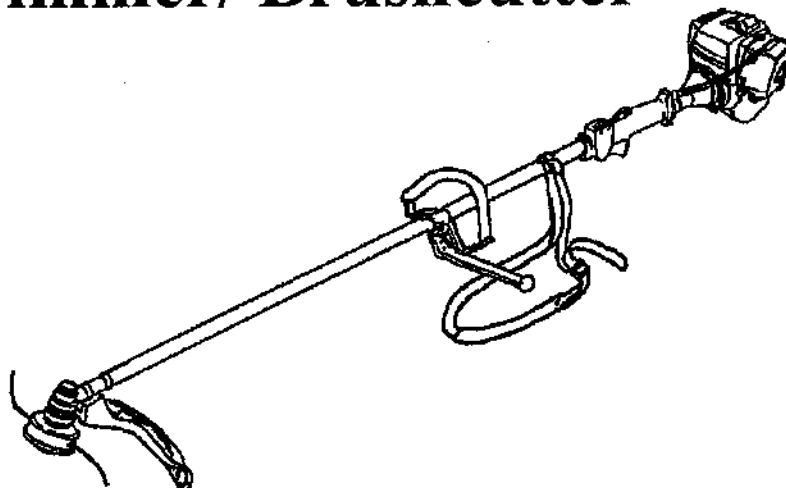


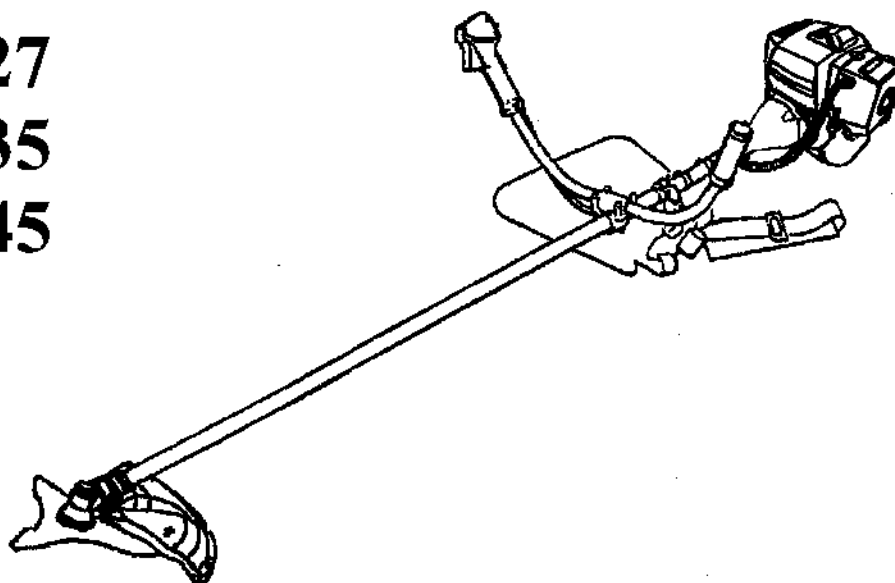
# PLP

# POWERUP LAWNCARE PRODUCTS

## String Trimmer/ Brushcutter LK27



**BCK27**  
**BCK35**  
**BCK45**



# Owner's / Operator's Manual

Completely read and understand this manual before using this product.

# Foreword

This Owner's/ Operator's 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 Trimmer/ Brushcutter.

It is essential that any operator of this Trimmer/ Brushcutter reads and understands the contents this manual before using the Trimmer/ Brushcutter.

For additional assistance, contact any local authorized PLP dealer.

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# Safety Instructions

The warning system in This manual identifies potential hazards and has special safety messages that help you and others avoid personal injury, even death.

**⚠ DANGER**, **⚠ WARNING** and **⚠ CAUTION** are signal words to identify the level of hazard.

**⚠ DANGER** : signals an extreme hazard that will cause serious injury or death if the recommended precautions are not followed.

**⚠ WARNING** : signals a hazard that may cause serious injury or death if the recommended precautions are not followed.

**⚠ CAUTION** : signals a hazard that may cause minor or moderate injury if the recommended precautions are not followed. Two other words are also used to highlight information. "Important" calls attention to special mechanical information and "Note" emphasizes general information worthy of special attention.

## Operator safety

1. Read and understand this Manual before using the Trimmer/ Brushcutter. Be thoroughly familiar with the proper use of this Trimmer/ Brushcutter.
2. Always wear eye protection and hearing protection.
3. Always wear heavy long pants, a long sleeved shirt, boots and gloves. Do not wear loose clothing, jewelry, short pants, sandals, or go barefoot. Secure hair so it is above shoulder length.
4. Never operate this Trimmer/ Brushcutter when you are tired, ill, or under the influence of alcohol, drugs or medication.
5. Never start or run the engine inside a closed room or building. Breathing exhaust fumes can cause death.
6. Keep the grip of handles clean of oil, fuel and dirt.

## Trimmer/ Brushcutter safety

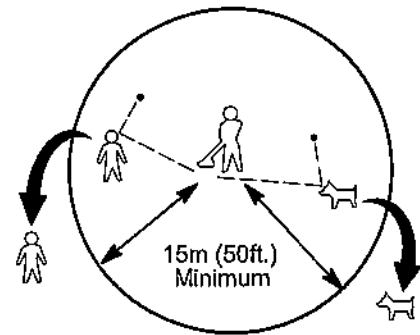
1. Shut off the engine and be certain the cutting attachment has completely stopped rotating before inverting the Trimmer/ Brushcutter, performing maintenance on or working on the machine.
2. Make sure the Trimmer/ Brushcutter is assembled correctly and that the cutting attachment is correctly installed and securely fastened as instructed in the Assembly section on page 5.
3. Inspect the Trimmer/ Brushcutter before each use. Replace damaged parts. Check for fuel leaks. Make sure all fasteners are in place and tightened securely. Follow the maintenance instructions beginning on page 18.
4. Make sure the cutting attachment does not rotate at engine idle speed. Refer to Idle Speed Adjustment, page 11.
5. Inspect the cutting attachment and replace any parts that are cracked, chipped or damaged before using the Trimmer/ Brushcutter.
6. Make sure the cutting attachment blade is installed and positioned correctly before using the Trimmer/ Brushcutter.
7. Never use a cutting attachment or replacement parts that are not approved by PLP.
8. Maintain the Trimmer/ Brushcutter according to the recommended maintenance intervals and procedures in the Maintenance section beginning on page 18.
9. If running problems or excessive vibration occur, stop immediately and inspect the unit for the cause. If the cause cannot be determined or is beyond your ability to correct, return the Trimmer/ Brushcutter to your servicing PLP dealer for repair.

## Fuel safety

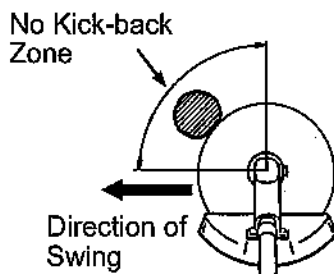
1. Gasoline is highly flammable and must be handled and stored carefully. Use a container approved for fuel for storing gasoline.
2. Pour fuel outdoors and where there are no sparks or flames.
3. Do not smoke near fuel or Trimmer/ Brushcutter, or while using the Trimmer/ Brushcutter.
4. Do not overfill the fuel tank. Stop filling upper fuel level of the tank (see KAWASAKI ENGINES Owner's Manual).
5. Wipe up any spilled fuel before starting the engine.
6. Move the Trimmer/ Brushcutter at least 3m away from the fueling location before starting the engine.
7. Do not remove the Trimmer/ Brushcutter fuel tank cap immediately after stopping the engine.
8. Allow the engine to cool before refueling.
9. Drain the tank and run the engine dry before storing the unit.
10. Store fuel and Trimmer/ Brushcutter away from open flame, sparks and excessive heat. Make sure fuel vapors cannot reach sparks or open flames from water heaters, furnaces, electric motors, etc.

## Trimmer/ Brushcutter Operating safety

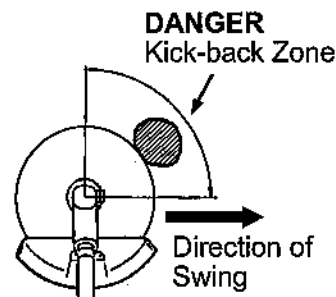
1. THIS TRIMMER/BRUSHCUTTER CAN CAUSE SERIOUS INJURIES. Read the instructions carefully. Be familiar with all controls and the proper use of the Trimmer/ Brushcutter.
2. Never allow children to operate the Trimmer/ Brushcutter. It is not a toy. Never allow adults to operate the unit without first reading this Operator's Manual.
3. Avoid using the Trimmer/ Brushcutter near rocks, gravel, stones and similar material that would cause harmful missiles.
4. Keep children, bystanders and animals outside a 15m (50ft.) radius from the operator and Trimmer/ Brushcutter.



5. If you are approached while operating the Trimmer/ Brushcutter, stop the engine and cutting attachment rotation.
6. Use the Trimmer/ Brushcutter only in daylight or good artificial light.
7. Never operate the Trimmer/ Brushcutter without proper guards in place.
8. Do not put hands or feet near or under any rotating parts. Keep clear at all times. Keep all parts of your body away from the rotating cutting attachment and hot surfaces such as the muffler.
9. When cutting heavy brush or small trees, always swing the Brushcutter from right to left to prevent kick-back.



**CORRECT**



**INCORRECT**

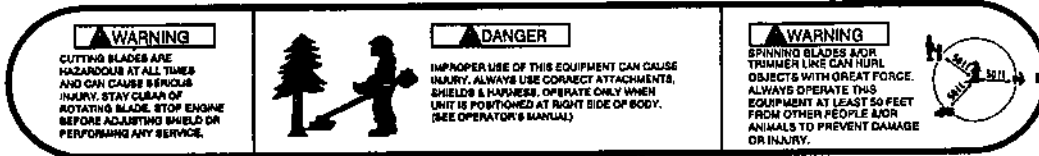
10. Keep a firm footing and balance. Do not overreach.
11. Use the right tool for the job. Do not use the Trimmer/ Brushcutter for any job that is not recommended by PLP.

## Safety and Instruction Decals

Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any that are damaged or lost.



ON SHAFT (Part No. 221501)



ON SHAFT (Part No. 221502)



ON ENGINE  
[LK27, BCK27]  
(Part No. 223075)



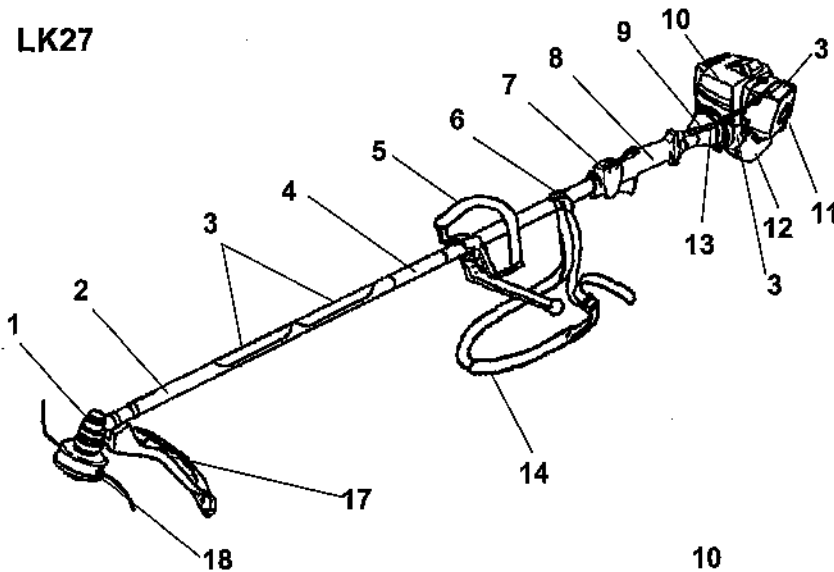
ON ENGINE  
[BCK35, BCK45]  
(Part No. 267433)



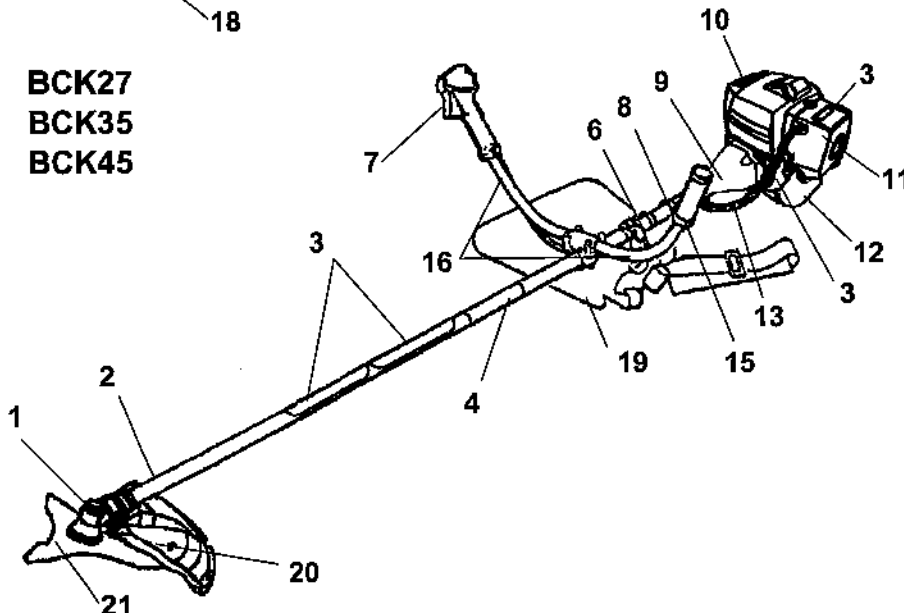
ON ENGINE  
(Part No. 624513)

## Product Description

LK27



BCK27  
BCK35  
BCK45



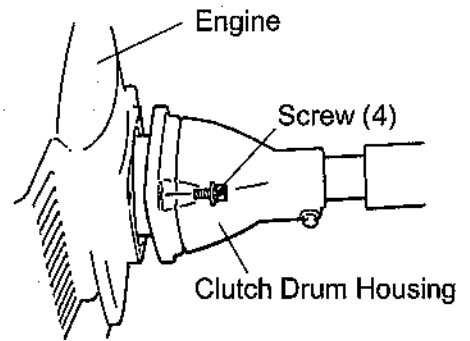
1. Gearcase
2. Shaft Assembly
3. Safety and Instruction Decals
4. Model Name
5. Loop Handle
6. Attachment Ring for Shoulder Harness/ Strap
7. Throttle Trigger and Stop Switch
8. Shaft Grip
9. Clutch Drum Housing
10. Engine
11. Air Filter
12. Fuel Tank
13. Throttle Cable and Stop Switch Wires
14. Shoulder Strap
15. Handle Grip
16. Horn Handle
17. Trimmer Head Guard
18. Trimmer Head
19. Shoulder Harness
20. Blade Guard
21. Brushcutter Blade

# Assembly

## Assembling Engine and Drive Shaft Assembly

[MODEL: BCK27, BCK35, BCK45]

Attach the clutch drum housing to the engine using the four screws supplied with the unit.

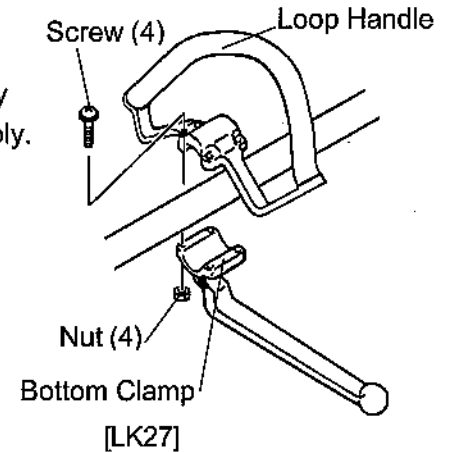


## Handle Installation

### LOOP HANDLE

[Model: LK27]

1. Place the loop handle and the bottom clamp on the shaft approximately 28cm(11 inches) from the end of the stop switch/throttle trigger assembly.
2. Install the four screws and nuts. Tighten the screws evenly.
3. Reposition the loop handle up or down the driveshaft to the most comfortable position, and tighten the screw and nuts.

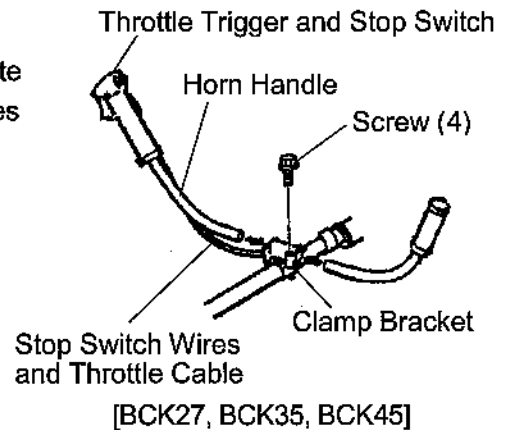


### HORN HANDLE

[MODEL: BCK27, BCK35, BCK45]

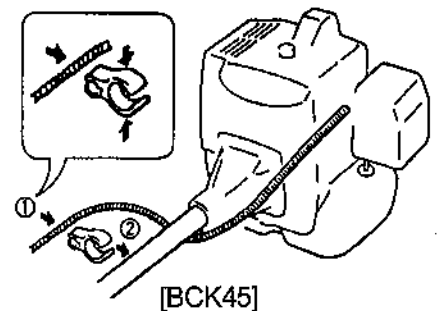
**IMPORTANT:** Be careful not to damage the throttle cable and stop switch wires when you remove the horn handles from the carton.

1. Loosen the four screws on the top of the clamp bracket.
2. Insert the left and right horn handles into the clamp bracket. Note that the horn handle with the throttle trigger and stop switch goes on the right-hand side of the brushcutter.
3. Adjust the horn handles to the desired position, then tighten the four screws.



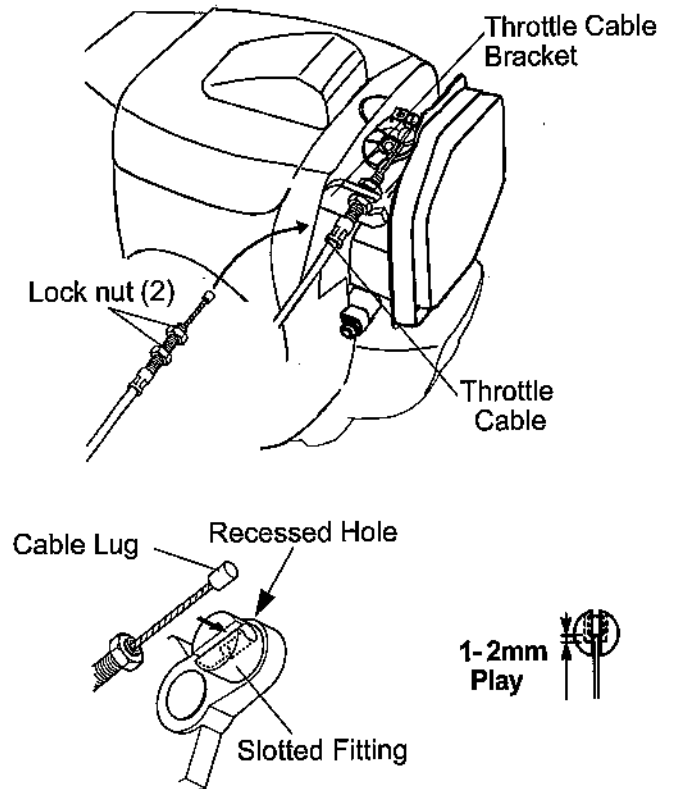
[Model BCK45]

4. Clamp the throttle cable assembly as shown.



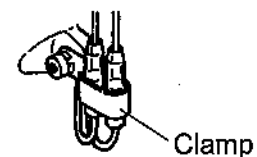
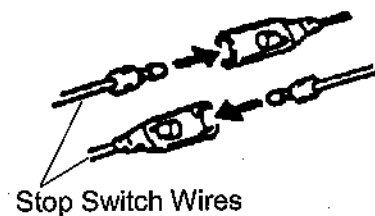
## Connecting Throttle Cable

1. With air filter cover removed, Put two cable adjuster nuts (packed with Engine Box ) on the end of throttle cable. Slip the throttle cable through the slot in the slotted fitting, making sure the cable lug drops into the recessed hole (See sketch).
2. Position the throttle cable in the throttle cable bracket fix it with tightening the two lock nuts. Adjust the cable position to keep 1-2mm play between cable lug and slotted fitting (See sketch).
3. Operate the throttle trigger a few times to make sure that it works correctly. Check the stop on the carburetor throttle cam just contacts the idle speed adjustment screw when the throttle trigger is fully depressed.
4. When the throttle cable is adjusted correctly, tighten two lock nuts.



## Connecting Stop Switch Wires

1. Plug the stop switch wires into the matching connectors from the engine.
2. Lap and fix the stop switch wires and connectors with clamp.



## Installing Guard



**WARNING**

### POTENTIAL HAZARD

- Foreign objects can be thrown by Trimmer/Brushcutter.

### WHAT CAN HAPPEN

- Contact with thrown objects can cause personal injury.

### HOW TO AVOID THE HAZARD

- Never operate the Trimmer/Brushcutter without the guard in place.

[Model: LK27]

1. Fasten the string cutoff blade to the guard with M5×15 screws as shown on Fig.1.
2. Attach the guard to the shaft with the two M5x30 screws and plate as shown.

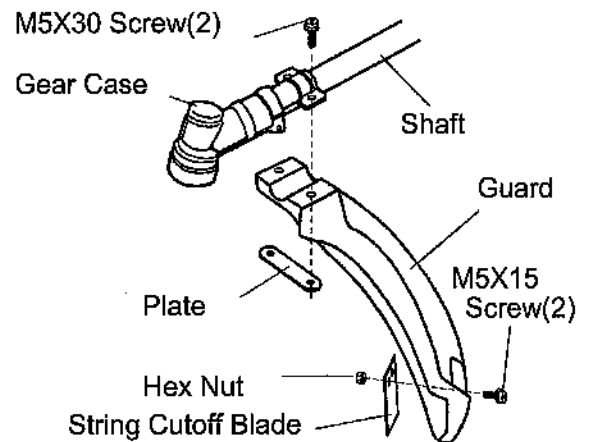


Fig.1

[Model: BCK27, BCK35, BCK45]

### Blade Guard

Attach the blade guard to the gearcase with the two M6×30 screws as shown on Fig.2.

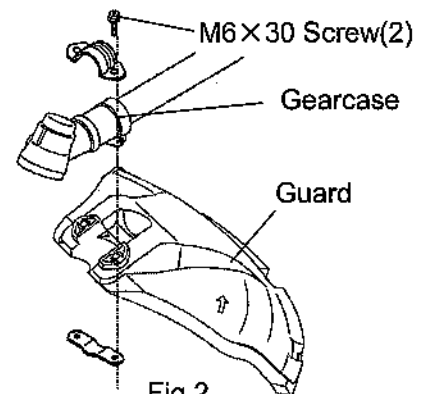


Fig.2

### Trimmer Head Guard

(Install the string cutoff blade and guard extension to the blade guard.)

1. Insert the square nut into guard extension as shown on Fig. 3.
2. Attach the String Cutoff Blade to guard extension using M5×20 Screw, locking with square nut (on Fig.3) as shown on Fig. 4.
3. Enter the guide in the slot of Blade Guard on Fig. 5. Make sure place the three hooks into the position on the guard as shown on Fig. 6.

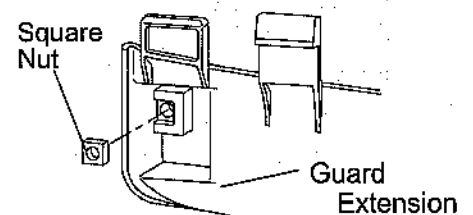


Fig.3

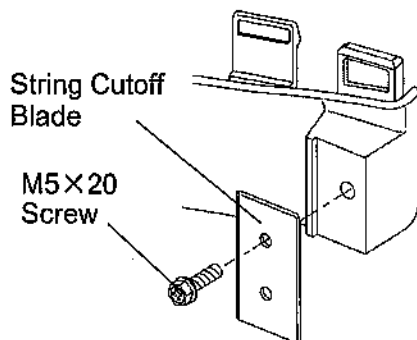


Fig.4

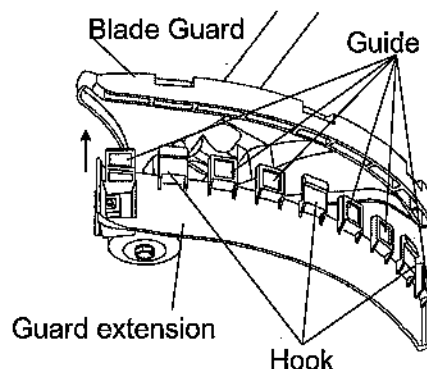


Fig.5

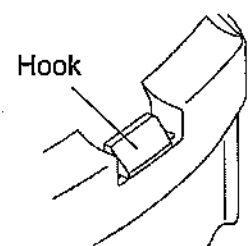


Fig.6

# Installing Cutting Attachments

## Trimmer Head

### CAUTION

#### POTENTIAL HAZARD

- If the Brushcutter blade is not adequately tightened, it can come loose from the Brushcutter during use.

#### WHAT CAN HAPPEN

- This may cause damage to property or personal injury.

#### HOW TO AVOID THE HAZARD

- Make sure the brushcutter blade is securely fastened to the attaching shaft in the gearcase.

#### [Model: LK27, BCK27]

1. Remove the blade bolt, stabilizer and clamping washer from the attaching shaft out of the gearcase.

**Note: The blade bolt has left-hand thread.**

#### [Model: BCK35, BCK45]

1. Remove the blade bolt and stabilizer from the attaching shaft out of the gearcase.

**Note: The blade bolt has left-hand thread.**

#### [All Models]

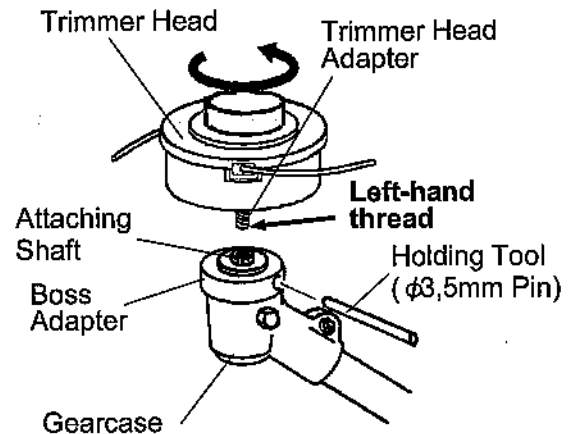
2. Align the hole in the boss adapter with the guide slot in the gearcase.

3. Insert the  $\phi 3,5\text{mm}$  pin into the hole in the boss adapter and the guide slot in the gearcase to lock the attaching shaft.

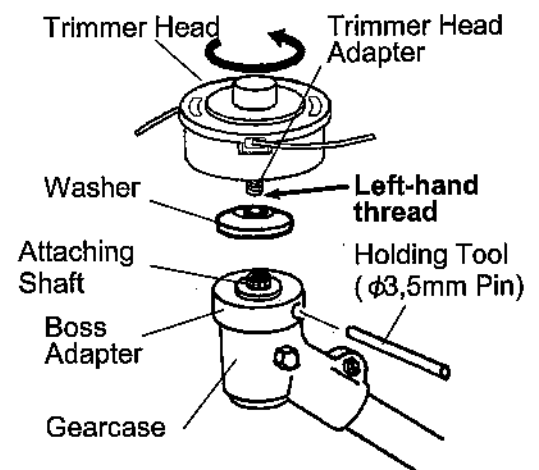
4. Thread the trimmer head adapter into the attaching shaft, then tighten the trimmer head by hand.

**Note: The trimmer head adapter has left-hand thread.**

5. Remove the  $\phi 3,5\text{mm}$  pin from the boss adapter and gearcase.



[LK27, BCK27]



[BCK35, BCK45]

## Brushcutter Blade

1. Remove the blade bolt, stabilizer and clamping washer from the attaching shaft out of the gearcase.

**Note:** The blade bolt has left-hand thread.

### WARNING

#### POTENTIAL HAZARD

- Brushcutter blade is sharp.

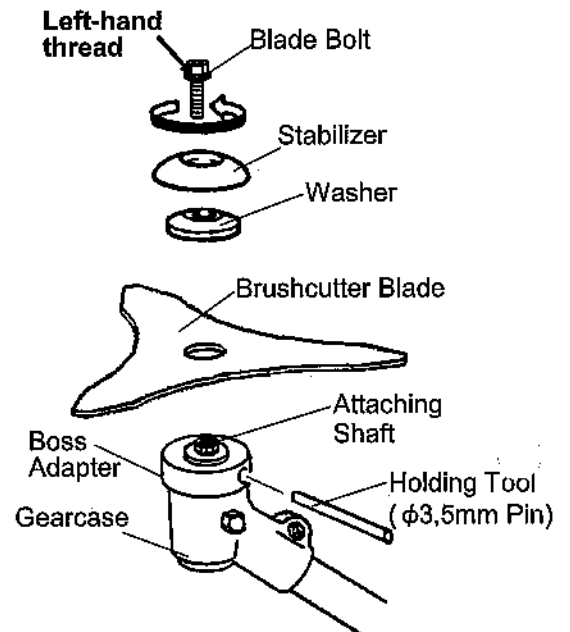
#### WHAT CAN HAPPEN

- Contact with sharp blade can cause serious personal injury.

#### HOW TO AVOID THE HAZARD

- Wear gloves when you handle the blade.

2. Install the brushcutter blade onto the boss adapter, then re-install the clamping washer, stabilizer and blade bolt.
3. Align the hole in the boss adapter with the guide slot in the gearcase.
4. Insert the  $\phi 3,5$ mm pin into the hole in the boss adapter and the guide slot in the gearcase to lock the attaching shaft.
5. Tighten the blade bolt to 11,3 N·m (100 in. -lbs.).
6. Remove the  $\phi 3,5$ mm pin from the boss adapter and gearcase.



## Attaching Shoulder Harness/ Strap

### WARNING

#### POTENTIAL HAZARD

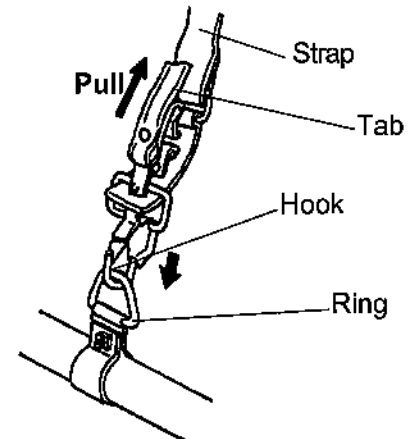
- Without the Shoulder Harness/ Strap Installed on the Brushcutter, the blade can produce side thrust which can expose the operator and bystanders to blade contact.

#### WHAT CAN HAPPEN

- Contact with Brushcutter blade can cause severe personal injury.

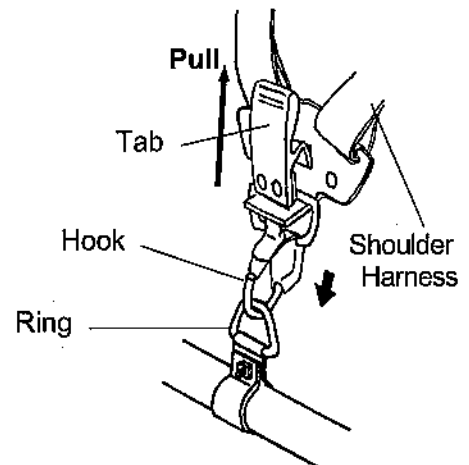
#### HOW TO AVOID THE HAZARD

- Never operate the Brushcutter without installing and using the Shoulder Harness/ Strap.



[Model LK27]

Snap the Hook into the ring on the drive shaft. To detach the hanging strap quickly from the Brushcutter, pull upward on the Tab.



[Model BCK27, BCK35, BCK45]

# Before Operation

## Oil and Fuel

Please see KAWASAKI ENGINES Owner's Manual.

### WARNING

#### POTENTIAL HAZARD

- Gasoline contains gasses that can build up pressure inside a fuel tank.

#### WHAT CAN HAPPEN

- fuel can be sprayed on you when removing fuel tank cap.

#### HOW TO AVOID THE HAZARD

- Remove fuel tank cap slowly to avoid injury from fuel spray.

### DANGER

#### POTENTIAL HAZARD

- In certain conditions gasoline is extremely flammable and highly explosive.

#### WHAT CAN HAPPEN

- A fire or explosion from gasoline can burn you, others and cause property damage.

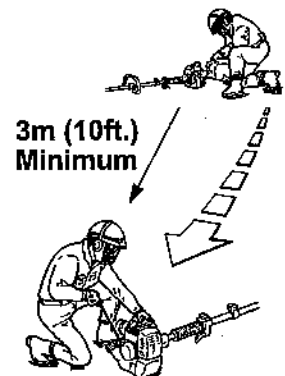
#### HOW TO AVOID THE HAZARD

- Use a funnel and fill the fuel tank outdoors, in an open area, when the engine is cold. Wipe up any gasoline that spills.
- Never smoke when handling gasoline, and stay away from an open flame with gasoline in an approved container and keep it out of the reach of children.

## Starting and Stopping

### Before Starting the Engine

1. Move the Trimmer/ Brushcutter at least 3m away from the fueling location and fuel storage container before starting the engine.
2. Rest the Trimmer/ Brushcutter on the ground.
3. Make sure the cutting attachment is clear of any broken glass, nails, wire, rocks or other debris.
4. Keep all bystanders, children and animals away from the working area.



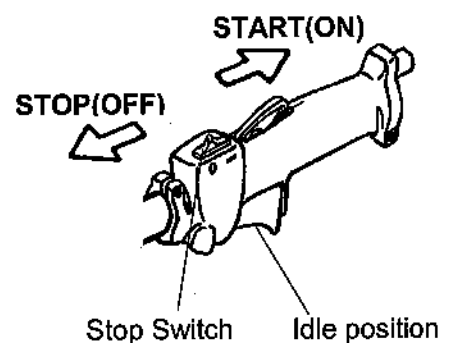
### Starting Engine

Please see KAWASAKI ENGINES Owner's Manual.

If the engine fails to start after you follow the procedures, contact an authorized PLP dealer.

### To Stop the Engine

1. Release the throttle trigger.
2. Slide the switch to "STOP" position.



## Idle Speed Adjustment

This Trimmer/ Brushcutter is equipped with non-adjustable fuel mixture carburetor. The idle speed is the only adjustment for the operator.

Please see **KAWASAKI ENGINES Owner's Manual**.

### **WARNING**

#### **POTENTIAL HAZARD**

- Engine must be running to make carburetor adjustments.
- When engine is running, Cutting attachment is rotating and other parts are moving.

#### **WHAT CAN HAPPEN**

- Contact with rotating Cutting attachment or other moving parts could cause serious personal injury or death.

#### **HOW TO AVOID THE HAZARD**

- Keep hands, feet and clothing away from Cutting attachment and other moving parts.
- Keep all bystanders and pets away from unit while making carburetor adjustments.

The cutting attachment may be rotating during idle speed adjustment. Wear the recommended personal protective equipment and observe all safety instructions. Keep hands and body away from the cutting attachment.

**If idle speed adjustment is necessary, and after adjustment the cutting attachment rotates or the engine stalls, stop using the Trimmer/ Brushcutter immediately!**

Contact your local authorized PLP Dealer for assistance and servicing.

# Trimmer Operation

## CAUTION

Read the Safety instructions beginning on page 3 concerning proper use of the String Trimmer.

## Trimmer Operating Position

## CAUTION

Always wear gloves and protective clothing when operating the String Trimmer.

Before using the Trimmer, check the following:

1. The operator must be wearing the shoulder strap or shoulder harness attached to the Trimmer, and the Trimmer should be on operator's right side.

### [Model LK27]

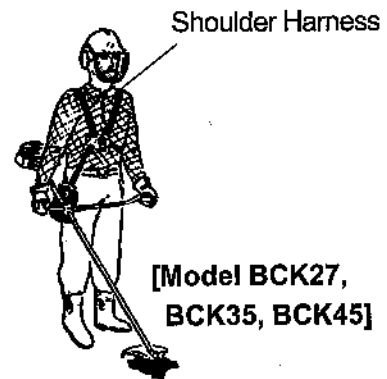
2. The operator's right hand should be holding the shaft grip, with his or her fingers on the throttle trigger. The right arm should be slightly bent.
3. The left hand should be holding the loop handle with the fingers and thumb fully enclosed around the grip. The left arm should be extended. Reposition the loop handle up or down the driveshaft if necessary for a comfortable position.



[Model LK27]

### [Model BCK27, BCK35, BCK45]

2. The operator's right hand should be holding the right-hand horn handle grip, with the fingers on the throttle trigger.
3. The left hand should be holding the left-hand horn handle grip with the fingers and thumb fully enclosed around the grip.



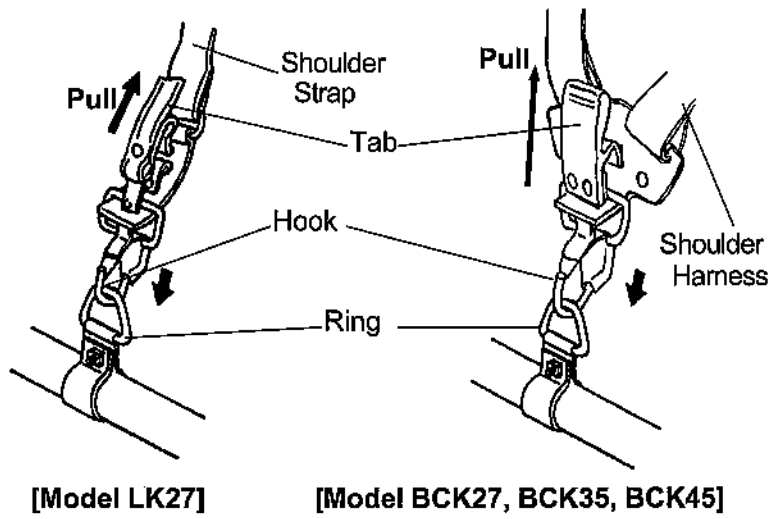
[Model BCK27,  
BCK35, BCK45]

### [All models]

4. The Trimmer weight should be evenly distributed between the arms. The trimmer head should be near and parallel to the ground.
5. Accelerate and hold the engine at cutting speed before entering the material to be cut.
6. Always release the throttle trigger and allow the engine to return to idle speed when not cutting.
7. Stop the Trimmer engine when moving between work sites.
  - If the trimmer head becomes 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 String Trimmer that has a chipped, cracked or broken trimmer head.

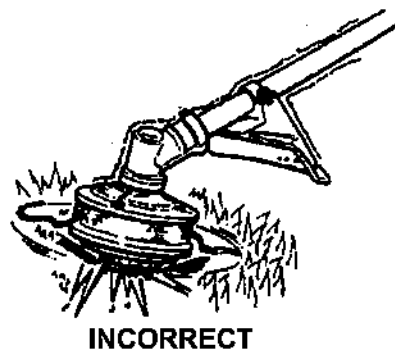
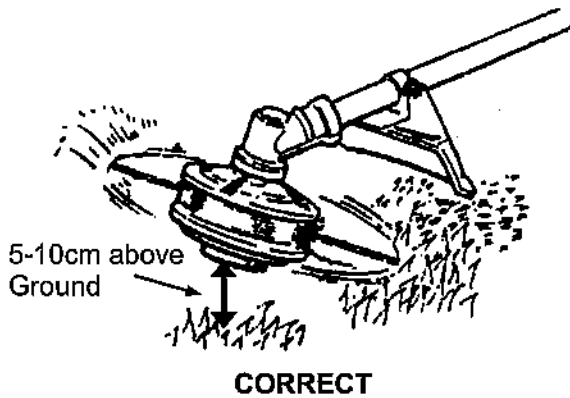
**IMPORTANT:**

To detach the shoulder harness/ strap quickly from the Trimmer, pull upward on the Tab.



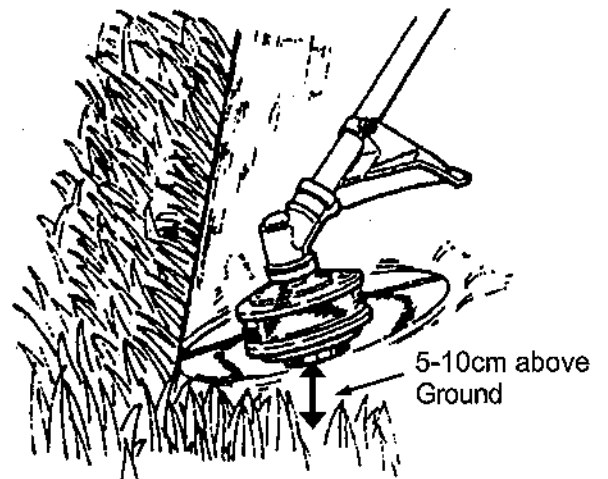
**Cutting with Trimmer Head**

- The tip of the line does the cutting. The line should stay extended while cutting.
- Do not force the line into the material. Forcing the line will cause it to slap against the material, increasing line usage and causing poor cutting results.



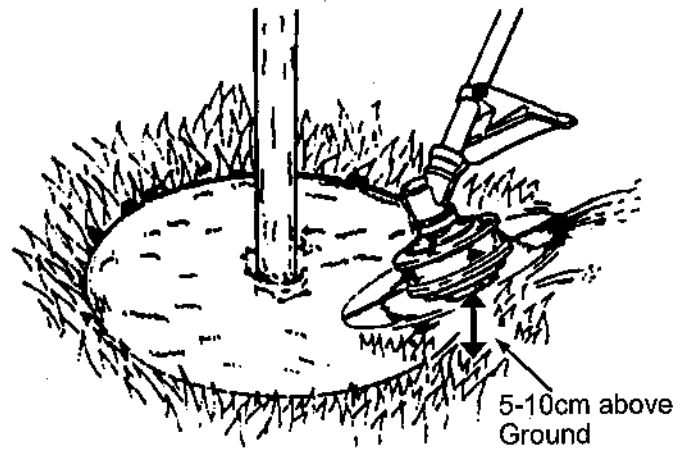
**Trimming**

Hold the bottom of the trimmer head about 5-10cm above the ground and at an angle. Allow only the tip of the line to make contact.



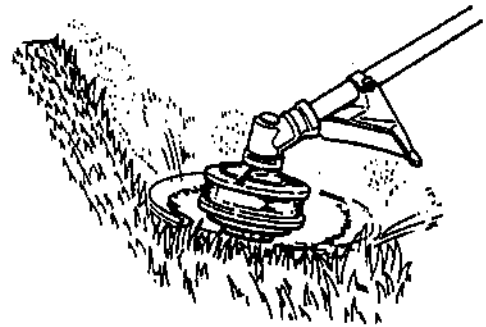
## Scaling

To remove unwanted vegetation, hold the trimmer head about 5-10cm above the ground and at an angle. Allow the tip of the line to strike the ground cutting the vegetation off at the surface.



## Mowing

Keep the line parallel to the ground and use a gentle side-to-side motion.



# Brushcutter Operation

## WARNING

### POTENTIAL HAZARD

- Foreign objects can be thrown by Brushcutter.

### WHAT CAN HAPPEN

- Contact with thrown objects can cause personal injury.

### HOW TO AVOID THE HAZARD

- Never operate the Brushcutter without the blade guard in place.

## CAUTION

- Read the Safety instructions beginning on page 3 concerning proper use of the Brushcutter.

## Brushcutter Operating Position

Before using the Brushcutter, check the following:

## WARNING

### POTENTIAL HAZARD

- Without the shoulder hanging Strap installed, the Brushcutter blade can produce side thrust which can expose the operator and bystanders to blade contact.
- If the Brushcutter is not correctly positioned on the operator's right side, the blade can produce side thrust which can expose the operator and bystanders to blade contact.

### WHAT CAN HAPPEN

- Contact with the Brushcutter blade can cause severe personal injury.

### HOW TO AVOID THE HAZARD

- Never operate the Brushcutter without installing and using the shoulder hanging strap.
- Always operate the Brushcutter with the unit on your right side.

1. The operator must be wearing the shoulder strap or shoulder harness attached to the Brushcutter, and the Brushcutter must be on the operator's right side.

#### [Model LK27]

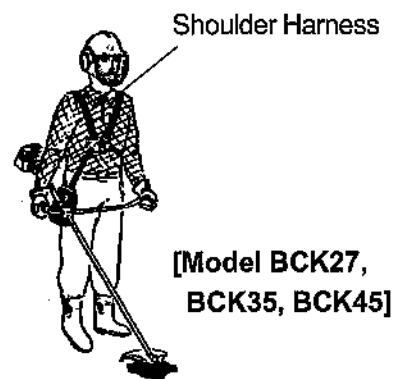
2. The operator's right hand should be holding the shaft grip, with his or her fingers on the throttle trigger. The right arm should be slightly bent.
3. The left hand should be holding the loop handle with the fingers and thumb fully enclosed around the grip. The left arm should be extended. Reposition the loop handle up or down the driveshaft if necessary for a comfortable position.

#### [Model BCK27, BCK35, BCK45]

2. The operator's right hand should be holding the right-hand horn handle grip, with his or her fingers on the throttle trigger.
3. The left hand should be holding the left-hand horn handle grip with the fingers and thumb fully enclosed around the grip.



[Model LK27]



[Model BCK27,  
BCK35, BCK45]

**[All models]**

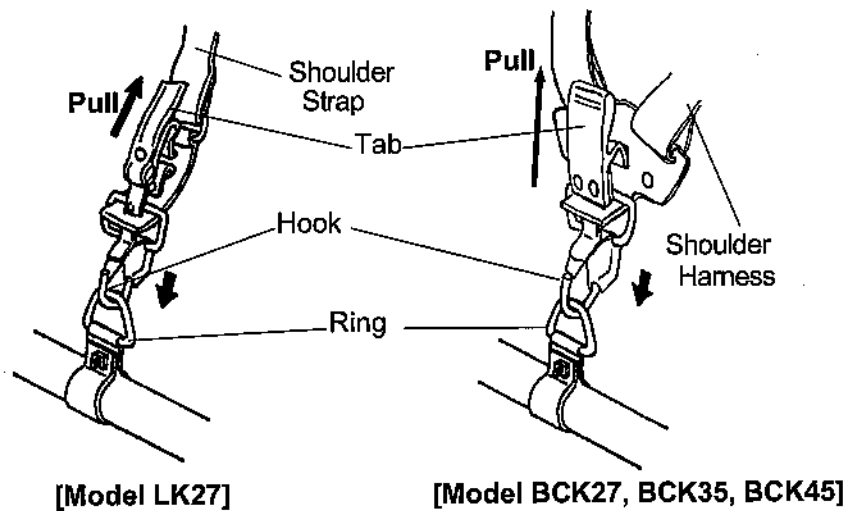
4. Always release the throttle trigger and allow the engine to return to idle speed when not cutting.
5. Stop the Brushcutter engine when moving between work sites.

**⚠ CAUTION**

- Always wear gloves and protective clothing when operating the Brushcutter.

- If the Brushcutter blade becomes 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 Brushcutter that has chipped, cracked or broken cutting attachment or guard.

**IMPORTANT:** To detach the shoulder harness/ strap quickly from the Brushcutter, pull upward on the Tab.



## Cutting Direction of Brushcutter Blade

### **WARNING**

#### **POTENTIAL HAZARD**

- Cutting heavy brush or small trees from the wrong direction can cause the Brushcutter blade to kick back.

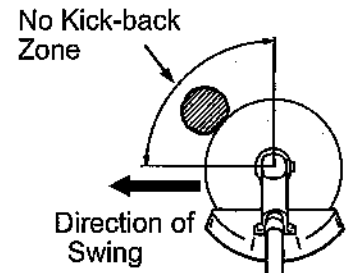
#### **WHAT CAN HAPPEN**

- Contact with the Brushcutter blade can cause severe personal injury.

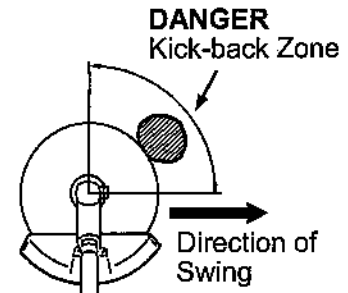
#### **HOW TO AVOID THE HAZARD**

- Always swing the Brushcutter from right to left when cutting heavy brush or small trees as shown.

When cutting heavy brush or small trees, always swing the Brushcutter from right to left. Swinging the Brushcutter from left to right can cause the blade to kick back.



**CORRECT**



**INCORRECT**

## Cutting Blades

1. Use only the correct blade (PLP genuine part) approved for the application and model Brushcutter.
2. Carefully check the condition of the blades before and after operation.
3. Sharpen dull blades. Replace any blade that is worn, cracked or damaged.
4. If a blade produces eccentric rotation or vibration, replace the blade and the boss adapter with genuine PLP parts.

# Maintenance

Please see KAWASAKI ENGINES Owner's Manual.

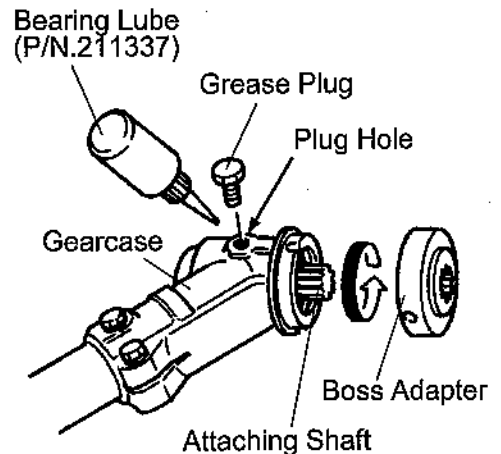
## Gearcase

### Maintenance Interval

The gearcase should be checked for lubrication after each 50 hours of use.

### Gearcase Lubrication

Remove the cutting attachment and the boss adapter. Clean any dirt and debris from the area between the boss adapter and the gearcase. Remove the grease plug from the side of the gearcase. While rotating the attaching shaft, inject lithium-base bearing lube (P/N 211337) through the plug hole until the gearcase is full. Reinstall the boss adapter and grease plug.



## General Cleaning and Tightening

### ⚠ WARNING

#### POTENTIAL HAZARD

- When engine is running, cutting head is rotating and other parts are moving.

#### WHAT CAN HAPPEN

- Contact with rotating cutting head or other moving parts could cause serious personal injury or death.

#### HOW TO AVOID THE HAZARD

- Always turn off your Trimmer/ Brushcutter before you clean or perform any maintenance on it.

The PLP Trimmer/ Brushcutter 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.

## Storage

Please see KAWASAKI ENGINES Owner's Manual.

1. Perform all regular maintenance procedures and any repairs.
2. Store the Trimmer/ Brushcutter in a dry place away from excessive heat, sparks or open flame.

## Troubleshooting

Problem	Cause	Action
Engine will not start	<ul style="list-style-type: none"> <li>• STOP switch set to off position</li> <li>• Empty fuel tank</li> <li>• Priming pump wasn't pushed enough</li> <li>• Engine flooded</li> </ul>	<ul style="list-style-type: none"> <li>• Move switch to on position</li> <li>• Fill fuel tank</li> <li>• Press Priming pump until fuel flows through fuel return line</li> <li>• Use warm engine starting procedure</li> </ul>
Engine will not Idle	<ul style="list-style-type: none"> <li>• Idle speed set incorrectly</li> </ul>	<ul style="list-style-type: none"> <li>• Set Idle speed</li> </ul>
Engine lacks power or stalls when cutting	<ul style="list-style-type: none"> <li>• Throttle wire has come loose</li> <li>• Dirty air filter</li> </ul>	<ul style="list-style-type: none"> <li>• Tighten throttle wire</li> <li>• Clean or replace air filter</li> </ul>

If further assistance is required, contact your local authorized PLP service dealer.

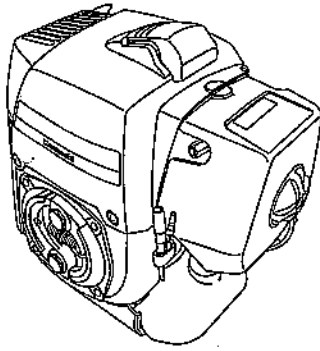
# Specifications

	LK27	BCK27	BCK 35	BCK45
Dry Weight, kg ※1.	5,1kg	5,6kg	7,0 kg	8,0 kg
Engine Displacement, cm <sup>3</sup>	26,3		34,4	45,4
Fuel Tank Capacity, L	0,5		0,7	0,9
Carburetor	Diaphragm Type			
Ignition System	Solid State			
Spark Plug	NGK BPMR7A			
Fuel Mixture	2 - Cycle Oil Mix 50:1 Ratio			
Cutting equipment Grass blade Grass blade(optional) Trimmer Head	( $\phi$ 255 3-teeth, 4-teeth, 8teeth) Semi-auto head(L)4	$\phi$ 255 3-teeth ( $\phi$ 255 4-teeth,8teeth) Semi-auto head(L)4	$\phi$ 255 3-teeth ( $\phi$ 255 4-teeth,8teeth)	Semi-auto head(L)5

※1. Dry weight without Cutting Attachment, Harness/ strap and fuel.

**PLP POWERUP**  
**LAWNCARE PRODUCTS**  
 Free Post 5 Redcliffe Qld 4020

# OWNER'S MANUAL



## KAWASAKI ENGINE

TYPE TJ27E/TJ35E/TJ45E

Thank you for buying this TJ27E/TJ35E/TJ45E Kawasaki Engine. For safety, read this Owner's Manual and understand it thoroughly before operating this ENGINE. And also, read the Owner's Manual for equipment. Read warning labels which are on the engine and understand them. If any label is missing, damaged, or worn get a replacement from your Kawasaki dealer and install it in the correct position.

**Kawasaki**  
KAWASAKI HEAVY INDUSTRIES, LTD.  
Consumer Products & Machinery Company

P/N 99976-2089-02

Whenever you see the symbols shown below, heed their instructions! Always follow safe operating and maintenance practices.

### WARNING

This warning symbol identifies special instructions or procedures which, if not correctly followed, could result in personal injury, or loss of life.

### WARNING

- Do not run the engine in a closed area. Exhaust gas contains carbon monoxide, an odorless and deadly poison.
- Gasoline is extremely flammable and can be explosive under certain conditions.
  - Stop engine and allow the engine to cool before refueling.
  - Do not smoke. Make sure the area is well ventilated and free from any source of flame or sparks including the pilot light of any appliance while refueling, servicing fuel system, draining gasoline and/or adjusting carburetor.
  - Do not fill the tank so the fuel level rises into the filler neck. If the tank is overfilled, heat may cause the fuel to expand and overflow through the vents in the tank cap.
  - Wipe off any spilled gasoline immediately.
- To prevent fire hazard:
  - Keep the engine at least 1 m (3.3 ft) away from buildings, obstructions and other burnable objects.
  - Do not place flammable objects close to the engine.
  - Do not expose combustible materials to the engine exhaust.
  - Do not use the engine on any forest covered, bush covered or grass covered unimproved land unless spark arrester is installed on the muffler.
- To avoid getting an electric shock, do not touch the spark plug, plug cap or spark plug lead during engine running.
- To avoid a serious burn, do not touch a hot engine or muffler. The engine becomes hot during operation. Before you service or remove parts, stop the engine and allow the engine to cool.
- Always remove the spark plug cap from the spark plug when servicing the engine to prevent accidental starting.

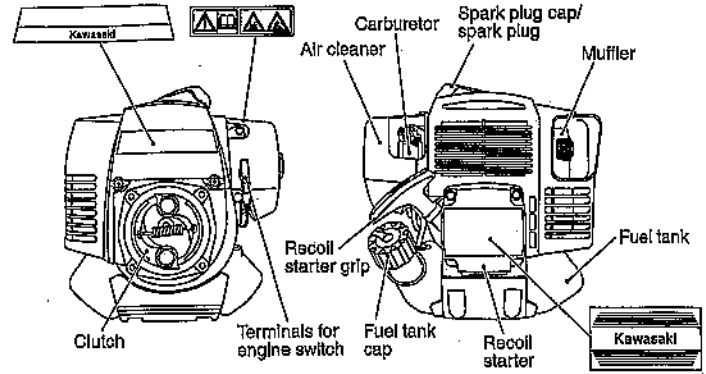
### CAUTION

This caution symbol identifies special instructions or procedures which, if not strictly observed, could result in damage to, or destruction of equipment.

### NOTE

○ Indicates points of particular interest for more efficient and convenient operation.

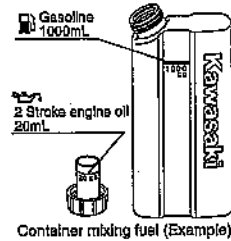
## 1. LOCATION OF PARTS :



## 2. FUEL AND OIL :

The fuel is mixture of gasoline and oil. A 50 to 1 mixture is recommended (50 parts gasoline to 1 part oil).

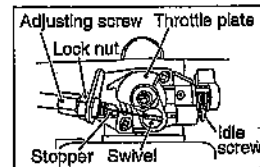
Mix it thoroughly before pouring it into the fuel tank.  
Recommended engine oil:  
High quality 2-stroke engine oil  
JASO Service Classification:  
FC class  
Before filling the fuel tank always shake a container of 50:1 premixed fuel that has been left standing to avoid the possibility of fuel/oil separation.



### CAUTION

Running on gasoline only will cause the engine to seize.

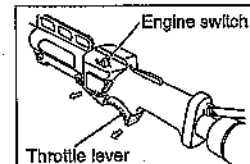
## 3. ADJUSTMENT OF THROTTLE CABLE :



○ When setting the engine to equipments (bush cutter, Etc.), adjust the throttle cable in the following procedures.

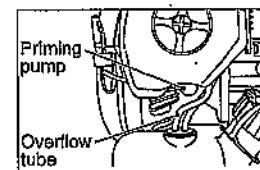
1. Remove the Air cleaner cap. Loosen the Lock nut.
2. Turn the Adjusting screw. Be sure that the idle screw touches Throttle plate at the Swivel and the play of the throttle cable is around 2 mm.
3. Squeeze the throttle lever. Be sure that throttle plate touches the Stopper.
4. Tighten the Lock nut.

## 4. STARTING :



○ Turn the engine switch on the engine or the equipment to the "I" (starting) position.

○ Move the throttle lever on the equipment to the fully CLOSED (engine idle speed) position.

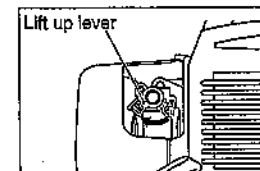


○ Slowly push the priming pump several times until the fuel comes out of the overflow tube.

### NOTE

○ The fuel that overflows by pushing the priming pump is by design returned to the fuel tank.

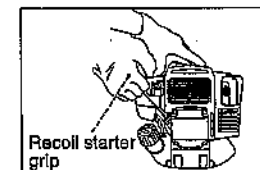
○ There is no fear of flooding the engine, so push the priming pump enough times to get the engine started.



○ Push down the lift up lever to switch to the "Starting" position.

### NOTE

○ When the engine is already warm or on hot days, do not push down the lift up lever.



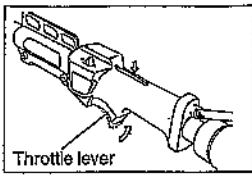
○ Pull the recoil starter grip slowly to engage the starter, then give a short, quick pull.

### NOTE

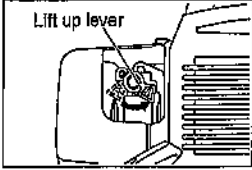
○ If the throttle lever is squeezed or locked at half position, the engine won't start. Be sure the throttle lever is in the fully closed position.

### WARNING

Recoil starter rope can cause injury if released suddenly. When starting the engine, grasp the recoil starter grip firmly. Do not grasp the starter rope itself. Always control the rope during rewind into the housing. Releasing the starter rope suddenly may allow the rope to whip around and injure you or damage the recoil starting mechanism.



Throttle lever



Lift up lever

- Slightly squeeze the throttle lever to switch the lift up lever to the "RUNNING" (engine idle speed) position, and then release the throttle lever back to fully CLOSED (engine idle speed) position.

**NOTE**

- Should the engine fail to start, do not try to pull the recoil starter grip too many times with the lift up lever to the "Starting" position. This will cause the fuel to flood into the cylinder and make starting even more difficult. In this case, set the lift up lever to the "Running" position and repeat the starting procedure.
- After starting, vary the engine speed a few times, by operating the throttle lever to draw out the remaining air in the carburetor.

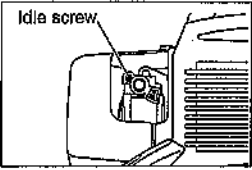
**5. WARMING UP :**

- After starting the engine, run the engine at the idling speed (throttle lever position is fully CLOSED) for a few minutes.

**CAUTION**

Allow sufficient warm-up time to prevent engine damage. The engine should be run at idle speed for a few minutes to allow it to warm up before applying a load. This will allow oil to reach engine parts, and allow piston clearance to reach design specifications.

**6. ADJUSTING :**



Idle screw

**Idling Speed**

- If the cutting blade move when the engine is running at the idle speed, turn the idle screw counterclockwise to decrease the engine idle speed.
- If the engine does not run the idle speed, it may be changed too low, turn the idle screw clockwise to increase the engine idle speed. The stable idle speed is shown below.

	TJ27E	TJ35E	TJ45E
Stable idle speed r/min (rpm)	3000	3000	2800

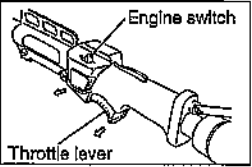
**Fuel Adjustment**

The carburetor has been adjusted to the optimum fuel supply at the factory. Don't reset the carburetor setting.

**NOTE**

- If adjustment is needed, it should be performed by your authorized Kawasaki dealer.

**7. STOPPING :**



Engine switch

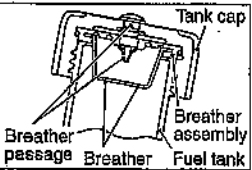
Throttle lever

- Move the throttle lever on the equipment to the fully CLOSED (engine idle speed) position, and the engine running at idle speed.
- Turn the engine switch to the "O" (stopping) position.

**CAUTION**

Suddenly stopping engine from high-speed operation can cause engine damage. Reduce engine speed to idle speed for one minute before shutting engine off after high-speed, full-load operation.

**8. MAINTENANCE :**



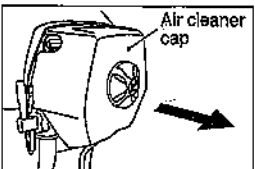
Tank cap

Breather assembly

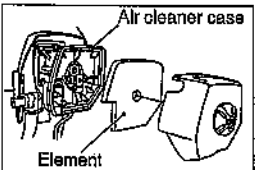
Breather passage Breather Fuel tank

**Fuel Tank Cap Service**

A breather passage is incorporated in the tank cap. If the breather passage is clogged, the fuel will not flow into the carburetor, causing problems with starting or running the engine. At the same time, make sure that the base of the breather assembly is fitted firmly into the groove inside the tank cap as shown.



Air cleaner cap



Air cleaner case

Element

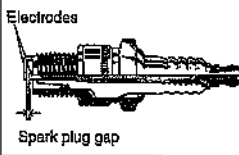
**Air Cleaner Service**

Clean the air cleaner element every 20 hours.

- Remove the air cleaner cap from the air cleaner case by removing the air cleaner cap screw.
- Remove the element from the air cleaner case.
- Wash the element in detergent and water, and dry it thoroughly.
- Reinstall the element in the air cleaner case and reinstall the air cleaner, and tighten the screw.

**CAUTION**

Improper element cleaning can result in engine damage. Do not use compressed air to clean or dry element. Always clean element with an approved high flash point solvent only. Never use gasoline. Do not operate engine with air filter parts removed.



Electrodes

Spark plug gap

**Spark Plug Service**

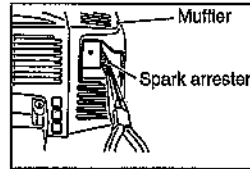
Every 50 hours of operation

- Take the spark plug cap with fingers, and pull it up.
- Remove the spark plug by using a suitable plug wrench.
- Clean the electrodes by scraping or with a wire brush to remove carbon deposits and wetness.
- Inspect for cracked porcelain or other wear and damage. Replace the spark plug with a new one if necessary.

- Check the spark plug gap and reset it if necessary. The gap must be between 0.6 and 0.7mm (0.024 and 0.028in). To change the gap, bend only side-electrode, using a spark plug tool.
- Install and tighten the spark plug to 14N·m (1.4kgf·m).
- Fit the spark plug cap on the spark plug securely.
- Pull up the spark plug cap lightly to make sure of the installation of the spark plug cap.

Recommended spark plug: NGK BPMR7A

- Pull up the spark plug cap lightly to make sure of the installation of the spark plug cap.



Muffler

Spark arrester

**Spark Arrester Service**

Every 50 hours of operation

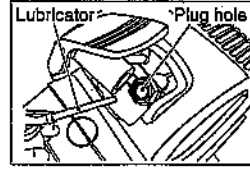
- Remove the spark arrester from the exhaust hole of muffler
- Clean deposits from the spark arrester screen by brushing it.
- Install the spark arrester.

**Carbon Removal of Engine Internal Parts**

Every 50 hours of operation

These items must be performed with proper tool. See your authorized Kawasaki dealer for service.

**9. STORAGE :**



Lubricator

Plug hole

Engine to be stored over 30 days should be completely drained of fuel to prevent gum deposits forming on essential carburetor parts fuel filter and fuel tank.

- Clean the engine.
- Remove all the fuel from the tank and run the engine at idling to use up the fuel in the carburetor.
- Remove the spark plug, pour in 0.5 mL of new 2-stroke engine oil through the plug hole, pull the recoil starter grip several times, and reinstall the spark plug.
- Slowly pull the recoil starter grip until resistance is felt.
- Store the engine in a clean and dry place.

**WARNING**

Gasoline is a toxic substance. Dispose of gasoline properly. Contact your local authorities for approved disposal methods.

**10. ENVIRONMENTAL PROTECTION :**

To protect our environment, properly dispose of used batteries, engine oil, gasoline, coolant, or other components that you might discard.

Consult your authorized Kawasaki dealer or local environmental waste agency for the proper disposal procedures.

**11. SPECIFICATIONS :**

	TJ27E	TJ35E	TJ45E
Type :	Forced air-cooled, 2-stroke piston valve, gasoline engine.		
Displacement ml (cu.in)	26.3 (1.6)	34.4 (2.09)	45.4 (2.77)
Dry weight kg (lbs)	2.5 (5.5)	3.1 (6.8)	3.9 (8.6)
Tank capacity L	0.5	0.7	0.9

The above specifications are subject to change without notice due to improvements in design and performance during production.