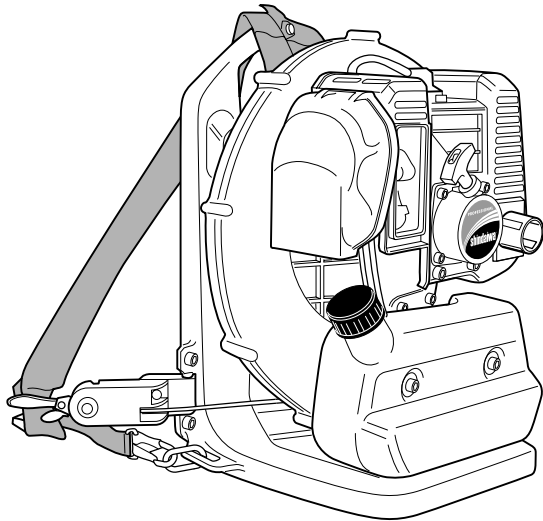


**SHINDAIWA OWNER'S/OPERATOR'S MANUAL**

# **EB501 BLOWER**

*High Performance*



**WARNING!**

Minimize the risk of injury to yourself and others! Read this manual and familiarize yourself with the contents. Always wear eye and hearing protection when operating this unit. Minimize the risk of injury: Read this manual and familiarize yourself with its contents.

**shindaiwa**

Part Number 68232-94011 Rev. 11/06

# INTRODUCTION

## IMPORTANT!

Before using this product, consult local regulations concerning noise restrictions and hours of operation!

The Shindaiwa EB501 has been designed and built to deliver superior performance and reliability without compromise to quality, comfort, safety, or durability.

Shindaiwa high performance engines represent the leading edge of 2-cycle engine technology, and deliver exceptionally high power at remarkably low displacement and weight. As a professional owner/operator, you'll soon discover why Shindaiwa is simply in a class by itself!

## IMPORTANT!

The information contained in this manual describes machines available at the time of production. While every attempt has been made to give you the very latest information about your Shindaiwa EB501 blower, there may be some differences between your machine and what is described here. Shindaiwa Inc. reserves the right to make changes in production without prior notice, and without obligation to make alterations to machines previously manufactured.

### CAUTION!

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

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### CAUTION!

This EB501 blower is equipped with a spark-arresting muffler! Never operate this machine without both the muffler and spark arrester installed and properly functioning!

# ATTENTION STATEMENTS

This manual contains special “attention statements” surrounded by boxes and preceded by the triangular Attention Symbol.



## **WARNING!**

A statement preceded by the word “WARNING” contains information that should be acted upon to prevent serious bodily injury.

## **CAUTION!**

A statement preceded by the word “CAUTION” contains information that should be acted upon to prevent damaging your machine.

Additional attention statements that are not preceded by the Attention Symbol are:

## **IMPORTANT!**

A statement preceded by the word “IMPORTANT” is one that possesses special significance.

## **NOTE:**

A statement preceded by the word “NOTE” contains information that is handy to know and may make your job easier.



Read and follow this manual. Failure to do so could result in serious injury.



Wear eye and hearing protection at all times during the operation of this machine.



Do not operate this machine if you are tired, ill or under the influence of alcohol, drugs, or medicine.

## **IMPORTANT!**

The operational procedures described in this manual are intended to help you get the most from your machine and also to protect you and others from harm. These procedures are general guidelines only, and are not intended to replace any safety rules/laws that may be in force in your area. If you have any questions regarding your EB501 blower, or if you do not understand something in this manual, your Shindaiwa dealer will be glad to assist you.

For additional information, you may also contact Shindaiwa Inc. at the address printed on the back of this manual.



## **WARNING!**

Do not make unauthorized modifications to this machine!

# NOMENCLATURE

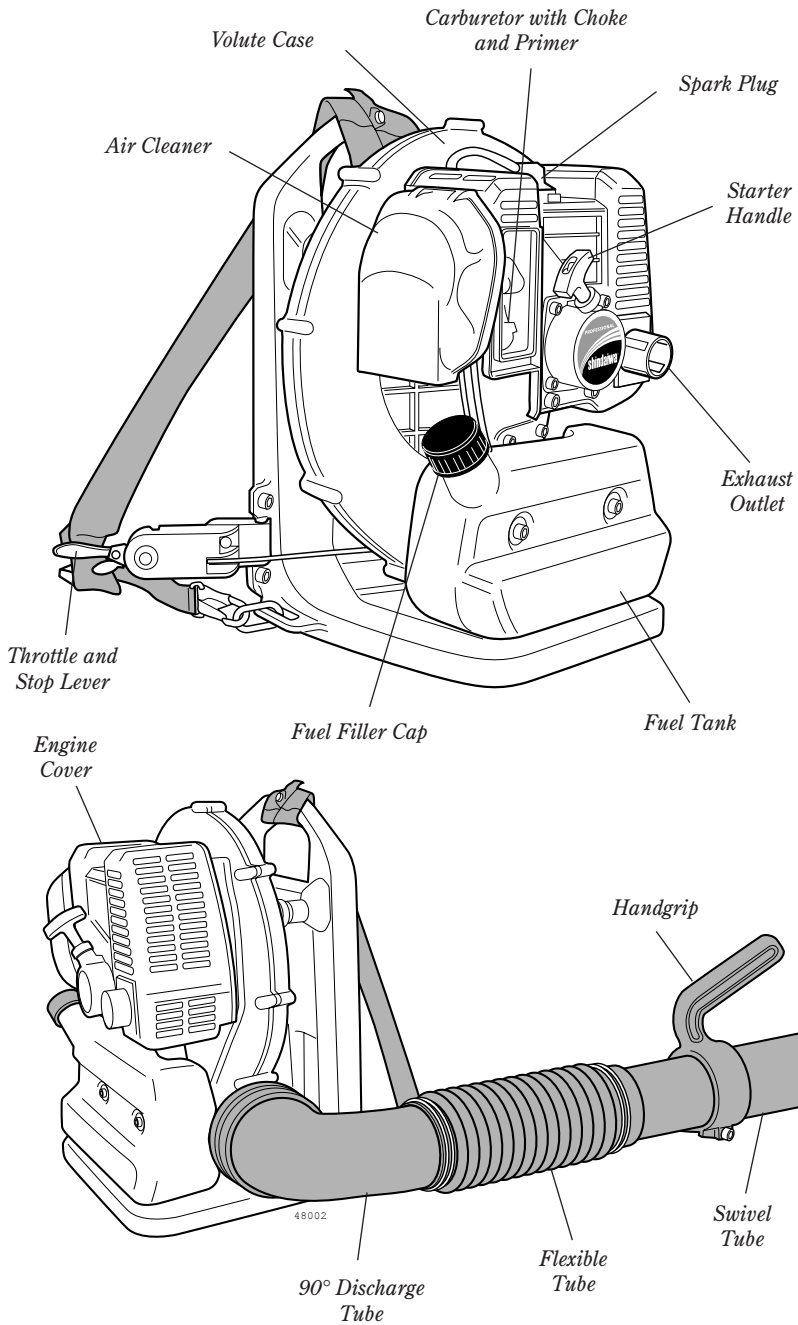


Figure 1

# SPECIFICATIONS

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Model .....	EB501
Dimensions (L x W x H) .....	330 x 375x 475 mm
Engine Type .....	2 cycle, catalyst, air cooled gas engine, vertical-cylinder
Bore & Stroke.....	41 x 33 mm (1.6 x 1.3 inches)
Displacement.....	43.6 cc (2.66 cu. inches)
Fuel/oil ratio.....	Gasoline/oil mixture (50:1 with ISO EGD or JASO FC class 2-cycle EngineOil)
Carburetor .....	Walbro diaphragm-type with primer pump
Ignition .....	All transistor electronic ignition system
Spark Plug.....	Champion CJ8
Starting.....	Recoil starter
Stopping .....	Throttle lever (fuel shut-off)
Fuel Tank Capacity .....	2.1 liters (71 oz.)
Exhaust System.....	Spark-arrester muffler
Air Filtration .....	Dry element
Weight (dry; without blower tubes), EB501 .....	8.6 kg (19 lbs.)

---

Specifications are subject to change without notice.

## Prior to Assembly

Before assembling, make sure you have all the components required for a complete unit:

- 90° Discharge Tube
- Flexible Tube
- Swivel Tube
- Straight Tube
- Nozzle Tube

- Handgrip (removable)
- Three Tube Clamps (115 mm, 100 mm, 85 mm) See figure 2.

## Standard Tools

- Spark Plug Wrench
- Three Hex Wrenches (3 mm, 4mm, 5mm)

# ASSEMBLING THE BLOWER

---

1. Place the blower upright on the ground or a sturdy work surface.
2. Fit the 90° discharge tube over the blower outlet port, and secure with the 115mm dia. clamp.
3. Slip the flexible tube over the opposite end of the 90° discharge tube, and secure with the 100mm clamp.
4. Push the swivel tube into the flexible tube, and then install and tighten the 85mm clamp over the rotating band on the swivel tube.
5. Slide the handgrip over the swivel tube, and secure with the bolt, washer, and nut.

# ASSEMBLING THE BLOWER (continued)

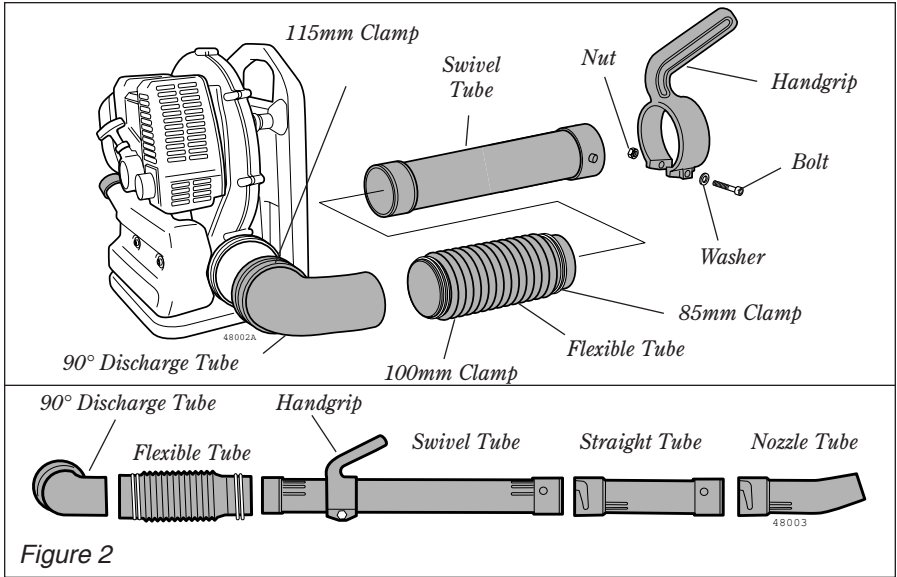


Figure 2

6. Grasp the straight tube as shown, and push the tube over the swivel tube locking pins (right). See figure 3.
7. Lock the straight tube to the swivel tube by rotating the straight tube.
8. Grasp the nozzle tube and lock the nozzle to the straight tube as in Steps 6 and 7.

## IMPORTANT!

Blower tube installation affects blower balance and performance! Make sure the tubes and nozzle are correctly assembled per above, and that all connections are tight.



## WARNING!

### Danger from rotating impeller!

Stop the engine before installing or removing the blower tubes! Never perform any maintenance or assembly procedures on this machine while the engine is running!

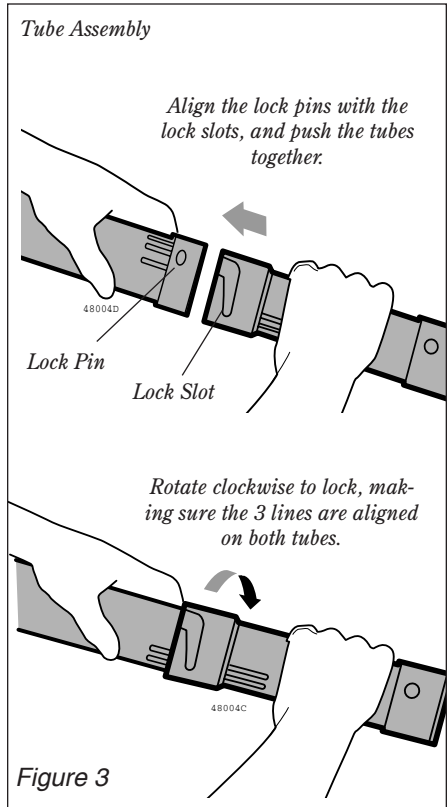


Figure 3

# MIXING FUEL

## Fuel Requirements

- Use only fresh, clean fuel.
- Use only fuel with an octane rating of 87 or above.
- Mix all fuel with ISO EGD or JASO FC class 2-cycle Engine Oil at a gasoline/oil ratio of 50:1 (1 gallon gasoline to 2.6 oz. mixing oil).

### CAUTION!

Use of mixing oil other than ISO EGD or JASO FC rated oil can lead to excessive carbon deposits.



### WARNING!

#### Danger of fire!

Never transfer or store fuels in the presence of combustible materials! Before starting the engine, always move the blower to a clear area at least 10 feet (3 meters) away from fuels and other combustible materials!

### IMPORTANT!

Mix only enough fuel for your immediate needs! If fuel must be stored longer than 30-days, it should first be treated with a stabilizer such as StaBil™ or equivalent product!

### CAUTION!

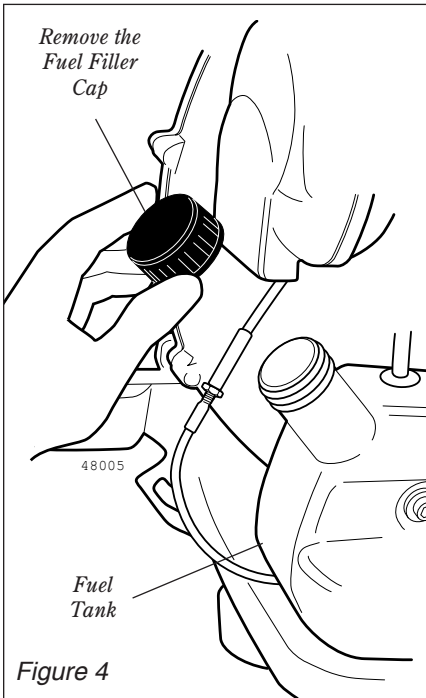
Never attempt to mix fuel in the blower fuel tank! Always mix all fuels in a clean, approved container!

Some gasolines contain ethanol alcohol as an oxygenate! Oxygenated fuels may cause increased engine operating temperatures! Under certain conditions, alcohol-based fuels may also reduce the lubricating qualities of some mixing oils!

Never use any fuel containing more than 10% ethanol alcohol by volume!

Generic oils and some outboard mixing oils are not intended for use in high-performance air cooled 2-cycle engines, and should never be used in your Shindaiwa blower!

## FILLING THE FUEL TANK



1. Place the blower upright on the ground or on a sturdy work surface and wipe any debris from around the fuel cap.
2. Remove the fuel cap. See figure 4.
3. Fill the tank with clean, fresh fuel (see page 6).
4. Replace the cap and wipe away any spilled fuel before starting the blower engine.



### **WARNING!** Danger of fire and burn injury!

- **Always** use extreme care when handling fuel! Fuel is highly flammable!
- **Never** operate this blower if fuel system components are damaged or are leaking!
- **Never** attempt to refuel the engine while it is running!
- **Never** attempt to refuel a hot engine! Always allow the blower engine to cool before fueling!
- **Never** smoke or light any fires near the blower or fuels!
- **Always** transport and store fuels in an approved container!
- **Never** place flammable material close to the engine muffler!
- **Never** operate the blower without a properly functioning muffler and spark arrester installed!
- **Never** operate this blower unless it is properly assembled and in good working condition!



# STARTING AND STOPPING THE BLOWER



## WARNING!

### Danger from rotating impeller!

The impeller will rotate whenever the blower is operating! Never operate this blower unless the intake cover and blower tubes are properly installed and in good working order!

**Danger from thrown dust or debris!** Always wear eye and respiratory protection when operating this machine! Never direct the blower stream toward people or animals!

Never operate this blower unless all controls are properly installed and in good working order.

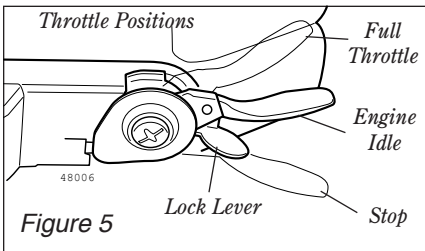
## CAUTION!

Avoid continuous running of the engine without the blower tubes installed, or if the intake cover or blower tubes are blocked. Doing so can cause engine overheating resulting in severe engine damage!

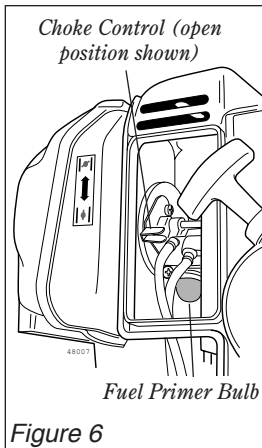
## Starting Procedure

### WARM OR COLD ENGINE

1. While squeezing the throttle lock lever, move the throttle lever to the "engine idle" position. See figure 5.



2. Prime the fuel system by depressing the fuel primer bulb repeatedly until the bulb fills with fuel and resistance is felt. See figure 6.



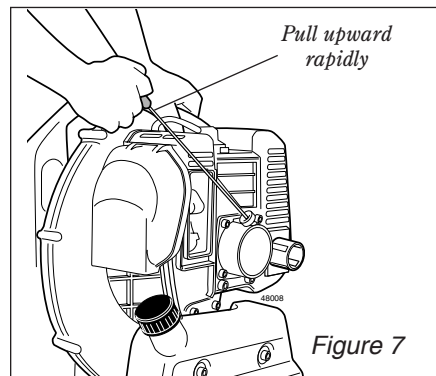
3. Place the blower on the ground, and hold the blower firmly with your left hand on the volute case. See figure 7.



## WARNING!

The engine cover will be hot after blower operation!

4. Using your right hand, pull the starter handle slowly until you feel the starter engage.



- As the starter engages, pull the starter handle upward rapidly.
- If necessary, repeat Steps 4 and 5 2–3 times until the engine starts.

### CAUTION!

The recoil starter can be damaged by abuse!

- Never pull the starter cord to its full length.
- Always engage the starter before cranking the engine. Always rewind the starter cord slowly.

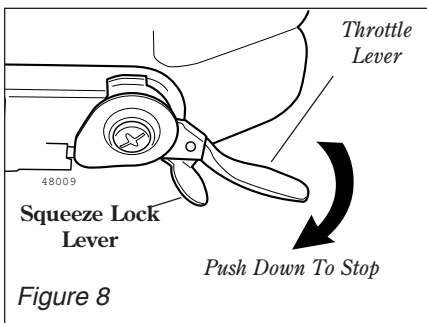
### WHEN THE ENGINE STARTS

- As the engine warms, open the choke gradually by slowly moving the choke control down to the fully OPEN position.
- Run the engine at idle speed until operating temperature is reached (2-3 minutes).

**The blower should now be ready for use.**

### STOPPING THE ENGINE

- Cool the engine by allowing it to run at idle for 2–3 minutes.
- While squeezing the throttle lock lever, push and hold the throttle lever down until the engine stops. See figure 8.



### IMPORTANT!

If the engine continues to run with the throttle lever in the “off” position, stop the engine by moving the choke control UP to the fully closed position. Adjust idle setting as described on page 10.

### IF THE ENGINE DOES NOT START

Repeat the appropriate starting procedures for “warm” or “cold” engine. If the engine still will not start, follow the “Starting a Flooded Engine” procedure as below:



### WARNING!

Never operate the blower unless all controls are properly installed and in good working order. Never operate the blower if the intake cover or blower tubes are missing or damaged!

### STARTING A FLOODED ENGINE

- Disconnect the spark plug lead, and use the spark plug wrench to remove the spark plug in a counter-clockwise direction (see the diagram on page 14).
- If the spark plug is fouled or is soaked with fuel, clean or replace the plug as required.
- Clear excess fuel from the combustion chamber by cranking the engine several times while the spark plug is removed.
- Install and tighten the spark plug, and reconnect the spark plug lead.
- Repeat the starting procedures for “warm engine.”
- If the engine still fails to start or fire, refer to the troubleshooting flow chart at the end of this manual.

# ADJUSTING ENGINE IDLE SPEED

1. Start the engine by following the procedures described on the preceding pages. Make sure the throttle lever is in the "idle" position.
2. Run the engine at idle speed until operating temperature is reached (2-3 minutes).
3. Loosen the throttle cable locknut. See figure 9.
4. Turn the cable adjuster in or out until the engine idles smoothly at approximately 2500-3000 rpm.
  - Turn the throttle cable adjuster clockwise to decrease engine idle speed.
  - Turn the throttle cable adjuster counter-clockwise to increase engine idle speed.
5. Tighten the throttle cable locknut securely.

## IMPORTANT!

A clean and unrestricted airflow is essential to your blower's engine performance and durability! Before attempting any carburetor adjustments, inspect and clean the engine air filter as described on page 13 of this manual.

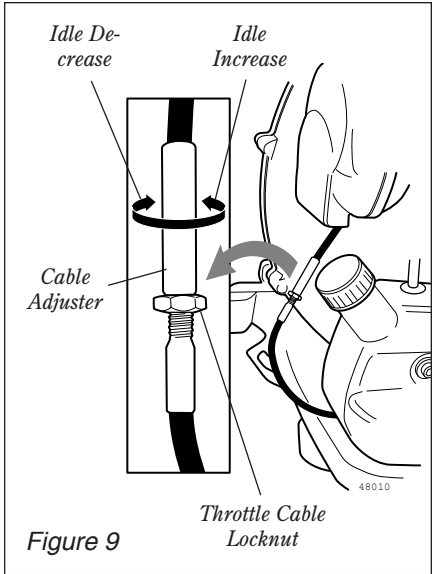


Figure 9

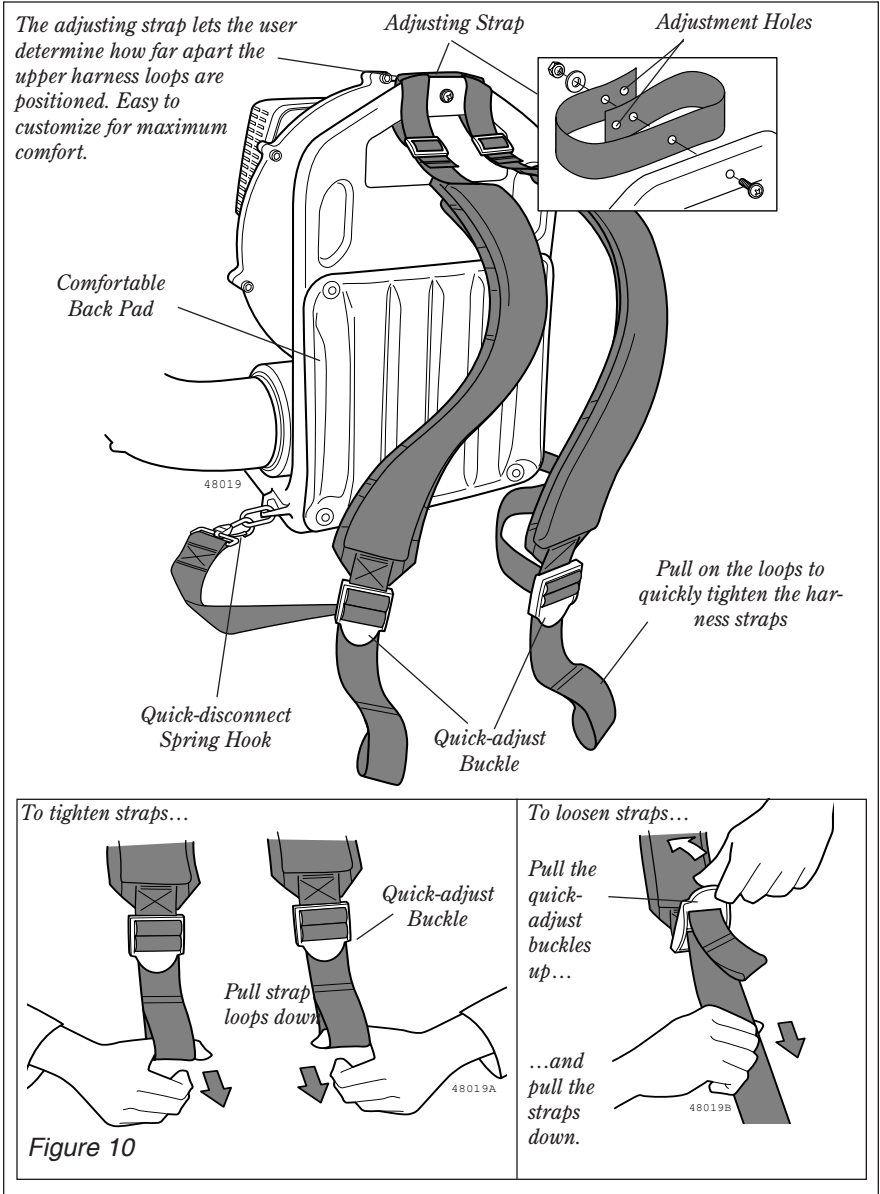
## IMPORTANT!

Blower tubes and intake cover must be in place while adjusting engine idle! Engine idle speed will also be affected if either the intake cover or blower tubes are blocked or incorrectly installed!

# ADJUSTING THE HARNESS

The Shindaiwa EB501 Blower features an advanced harness system that helps ensure maximum operator comfort and ease of operation.

- The shoulder harness is filled with soft padding for reduced operator fatigue.
- The simplified adjustment system makes it easy to match the harness to every body size and type. See figure 10.



# USING THE BLOWER



**THINK SAFETY!**

## OPERATING TIPS

In the hands of an experienced operator, the EB501 can efficiently move a wide variety of debris ranging from grass clippings to gravel. As a general rule, operate your EB501 at the **lowest throttle setting** required to get the job done:

- Use low throttle settings when clearing lightweight materials from around lawns or shrubbery.
- Use medium to higher throttle settings to move grass or leaves from parking lots or walkways.
- Use full throttle when moving heavy loads such as dirt or snow.

## IMPORTANT!

Blower noise increases at higher throttle settings! Always use the lowest throttle setting required to get the job done!

*Wear close-fitting clothing to protect your legs and arms, and Do not wear clothing or jewelry that could get caught in machinery! Secure hair so that it is above shoulder length!*

*Wear eye protection that meets ANSI Z87.1 such as a face shield or goggles while operating this machine!*

*Wear hearing protection when operating the blower.*

*Wear a dust mask to reduce the risk of inhalation injuries.*



*Never operate the blower if any component parts are damaged, loose, or missing!*

*Always be aware of the strength and direction of the blower discharge stream! Never direct the blower discharge stream toward people or animals!*

*Never operate the blower when visibility is poor.*

Figure 11

# ROUTINE MAINTENANCE EVERY 10 HOURS

## IMPORTANT!

Maintenance, replacement or repair of emission control devices and systems may be performed by any repair establishment or individual. However, warranty repairs must be performed by a dealer or service center authorized by Shindaiwa Corporation. The use of parts that are not equivalent in performance and durability to authorized parts may impair the effectiveness of the emission control system and may have a bearing on the outcome of a warranty claim.



### WARNING!

Before performing any maintenance on this blower, stop the engine and disconnect the spark plug wire!

## Daily Maintenance

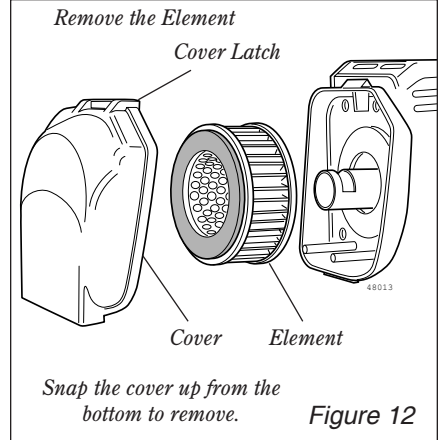
- Remove dirt and debris from the blower exterior.
- Inspect the engine, tank, and hoses for possible fuel leaks, and repair as necessary.
- Inspect the entire blower for loose, damaged, or missing components, and repair as necessary.
- Inspect the engine cooling fins for accumulations of dirt or debris, and clean as necessary.

### CAUTION!

Dirty or damaged cooling system components may allow the engine to overheat, possibly causing serious engine damage!

Operating the blower with loose, missing, or damaged components could allow the engine to over-speed, possibly causing serious engine damage!

(more frequently in dusty conditions)



1. Remove the air cleaner cover by gently lifting the cover latch. See figure 12.
2. Inspect the filter. If the element is damaged or distorted, replace it with a new one.

## IMPORTANT!

The EB501 uses a special high capacity dry-type air filter element. The filter should not be cleaned with a liquid cleaner and must NEVER be oiled!

3. Tap filter gently on a hard surface to dislodge debris from element or use compressed air to blow debris from the air filter element.

## IMPORTANT!

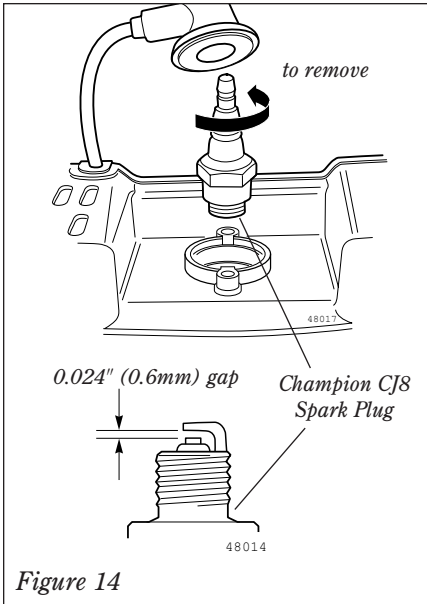
Direct the air stream at the inside face of the filter only!

4. Wash the filter cover with soap and water and blow dry.
5. Install the filter element and cover in the reverse order of removal.

### CAUTION!

Never operate the blower if the air cleaner assembly is damaged or missing!

## EVERY 10/15 HOURS



1. Use the spark plug wrench to remove the spark plug (turn counter-clockwise to remove). See figure 13.
2. Clean and adjust the spark plug gap to 0.024" (0.6mm). Replace any damaged or visibly worn plug with a Champion CJ8 or equivalent. See figure 13.
3. Install the spark plug finger-tight in the cylinder head, then tighten it firmly with the spark plug wrench. Avoid overtightening.

### CAUTION!

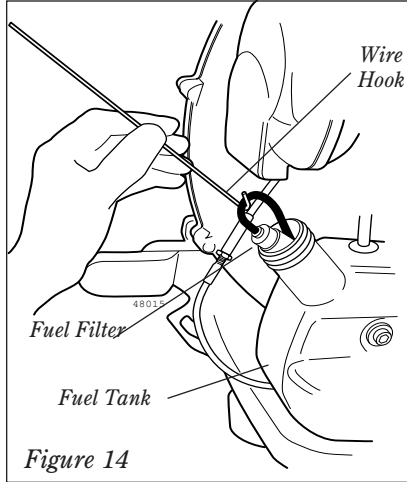
**Never** allow dirt or debris to enter the cylinder bore! Before removing the spark plug, thoroughly clean the spark plug and cylinder head area!

Allow the engine to cool before servicing the spark plug! Cylinder threads can be damaged by tightening or loosening the spark plug while the engine is hot!

## EVERY 50 HOURS

(more frequently if reduced performance is noted)

- **INSPECTION** Inspect the entire blower and tubes for damage, including loose or missing components, and repair as necessary.
- **SPARK PLUG** Replace the spark plug with a Champion CJ8 or equivalent, gapped to 0.024 inch (0.6mm).



**FUEL FILTER** Use a bent piece of wire to extract the fuel filter from inside the fuel tank, and then remove and replace with a new element. See figure 14.

### CAUTION!

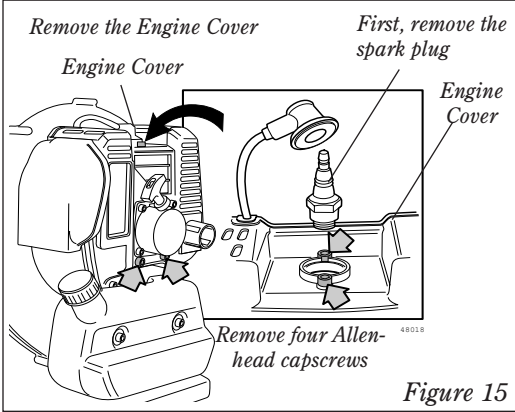
Do not nick or perforate fuel tube with wire hook!

Before reinstalling the filter, inspect the condition of the fuel line. If damage or deterioration are noted, the blower should be removed from service until it can be inspected by a Shindaiwa-trained service technician.

- **COOLING SYSTEM** Use a wood or plastic scraper and a soft brush to remove dirt and debris from the cylinder fins and crankcase.

# 135-HOUR MAINTENANCE

Every 135 hours of operation, remove and clean the muffler.



## WARNING!

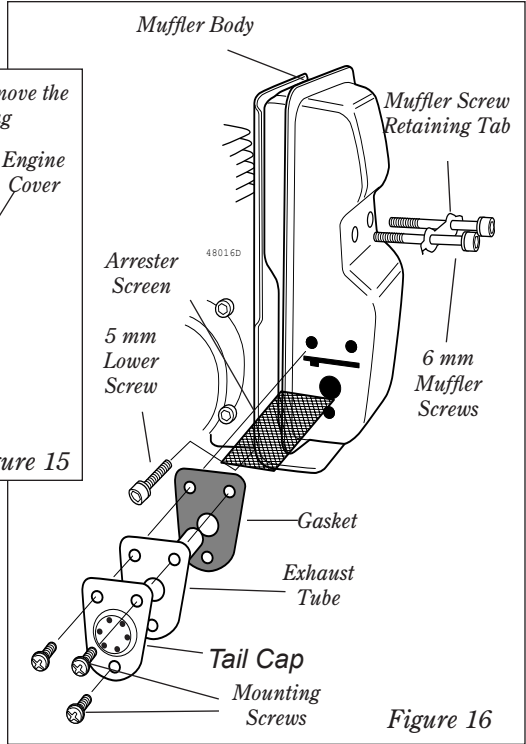
Never operate the machine with a damaged or missing muffler or spark arrester! Operating with missing or damaged exhaust components is a fire hazard and could also damage your hearing.

## Remove the Muffler.

1. Remove the spark plug.
2. Use the 4mm Allen wrench to remove the four engine cover screws, and then slide the cover from the engine taking care not to misplace the cylinder-to-cover insulating gasket. See figure 15.
3. Pry the muffler screw retaining tabs away from the screw heads and remove the two 6 mm muffler screws. Remove the 5 mm lower muffler screw, then remove the muffler assembly from the engine. See figure 16.

## Remove the Spark Arrester.

4. Use the screwdriver to remove the three exhaust tube mounting screws, and then remove the tail cap, exhaust tube, gasket, and arrester screen. See figure 16.



5. Use a plastic scraper or wire brush to remove carbon deposits from the arrester screen, exhaust tube and tail cap.
6. Inspect the screen carefully, and replace any screen that has been perforated, distorted, or is otherwise unserviceable.
7. Gently tap the muffler on a wood surface to dislodge any loose carbon.
8. Inspect the cylinder exhaust port for carbon buildup.

## IMPORTANT!

If you note excessive carbon buildup, consult your servicing dealer.

9. Reassemble the muffler in the reverse order of disassembly.

## IMPORTANT!

Reset the muffler screw retaining tabs to prevent the muffler screws from loosening.



## **STORAGE** (30 days or longer)

---

- **CLEANING** Thoroughly clean the blower exterior.
- **INSPECTION** Inspect the entire blower and tubes for damage, including loose or missing components, and repair as necessary.
- **FUEL** Drain the fuel tank, and then clear any remaining fuel from the carburetor and lines by running the blower until it stops from lack of fuel.
- **LUBRICATION** Remove the spark plug, and then pour approximately 1/4-oz of 2-cycle oil into the cylinder through the spark plug hole. Before reinstalling the spark plug, pull the recoil starter gently 2–3 times to distribute the oil over the cylinder walls.
- **AIR CLEANER** Remove, clean, and reinstall the filter element as described under “daily maintenance.”
- **STORAGE** Store the blower in a clean, dry, dust-free environment.

### **CAUTION!**

Never store this product with any fuel remaining in the tank, fuel lines, or carburetor! Your Shindaiwa warranty does not include coverage for damage caused by “stale” or contaminated fuels!

# TROUBLESHOOTING GUIDE

## ENGINE DOES NOT START

What To Check	Possible Cause	Remedy
Does the engine crank? <b>YES</b> ↓	<b>NO</b> → Faulty recoil starter. Fluid in the crankcase. Internal damage.	Consult with an authorized servicing dealer.
Good compression? <b>YES</b> ↓	<b>NO</b> → Loose spark plug. Excess wear on cylinder, piston, rings.	Tighten and re-test. Consult with an authorized servicing dealer.
Does the tank contain fresh fuel of the proper grade? <b>YES</b> ↓	<b>NO</b> → Fuel/mixture incorrect, stale, contaminated.	Refill with fresh fuel of the correct mixture (gasoline and ISO EGD or JASO FC class 2-cycle Engine Oil).
Is fuel filling the fuel primer bulb during priming operations? <b>YES</b> ↓	<b>NO</b> → Check for clogged fuel filter and/or vent.	Clean as required; re-start.
Is there spark at the spark plug wire terminal? <b>YES</b> ↓	<b>NO</b> → Faulty ignition ground.	Consult with an authorized servicing dealer.
Check the spark plug	If the plug is wet, excess fuel may be in the cylinder.  The plug may be fouled or improperly gapped.  The plug may be damaged internally or of the wrong size.	Crank the engine with the plug removed, replace the plug, and re-start.  Clean and re-gap the plug to 0.24 inch (0.6 mm); re-start.  Replace the plug with a Champion CJ8.

# TROUBLESHOOTING GUIDE (continued)

## LOW POWER OUTPUT

What To Check	Possible Cause	Remedy
Is the engine overheating?	Operator is overworking the machine.	Use lower throttle setting.
	Improper fuel/oil ratio.	Refill with fresh fuel of the correct mixture (gasoline and ISO EGD or JASO FC class 2-cycle Engine Oil, 50:1 ratio).
	Fallen leaves or dust on the intake cover.	Clean the intake cover.
	Fan, fan cover, or cylinder fins are dirty or damaged.	Clean, repair or replace as necessary.
	Carbon deposits in the muffler.	Decarbonize muffler. (See 135 hr. maint. page 15).
	Carbon deposits in the combustion chamber and/or exhaust port.	Consult with an authorized servicing dealer.
	Missing or damaged blower tubes.	Replace missing or damaged blower tubes.
Engine is rough at all speeds. May also have black smoke and/or unburned fuel at the exhaust.	Clogged air cleaner element.	Clean or replace air cleaner element.
	Loose or damaged spark plug.	Tighten or replace.
	Air leakage or clogged fuel line.	Repair or replace filter and/or fuel line.
	Water in the fuel.	Drain the fuel system, replace the fuel.
	Piston seizure.	Consult with an authorized servicing dealer.
	Faulty carburetor and/or diaphragm.	

# TROUBLESHOOTING GUIDE (continued)

## ADDITIONAL PROBLEMS

What To Check	Possible Cause	Remedy
Engine is knocking.	Overheating condition.	Idle engine until cool; find reason for overheat.
	Improper fuel.	Check fuel octane rating. Check for presence of alcohol in fuel. Refuel as necessary.
	Carbon deposits in combustion chamber and/or exhaust port.	Consult with an authorized servicing dealer.
Poor acceleration.	Clogged air cleaner element.	Clean the element.
	Spark arrester is clogged.	Clean the Spark arrester. (page 15).
	Clogged fuel filter.	Replace fuel filter.
	Carburetor mixture too lean.	Consult with an authorized servicing dealer.
	Idle speed set too low.	Set to 2500-3000 RPM.
	Leaking or damaged blower housing or tube assembly.	Repair or replace components as required.
Engine difficult to shut off.	Debris is tangled in blower impeller blades.	Consult with an authorized servicing dealer.
	Overheated engine.	Idle engine to cool.
	Throttle cable is incorrectly adjusted.	Choke engine to stop. Adjust throttle cable.
	Overheating due to incorrect spark plug.	Replace spark plug with Champion CJ8.

# TROUBLESHOOTING GUIDE (continued)

## ADDITIONAL PROBLEMS

What To Check	Possible Cause	Remedy
Engine stops abruptly.	Throttle lever is the "OFF" position.	Move throttle lever to the run position and restart.
	Fuel tank empty.	Refuel.
	Clogged fuel filter.	Replace fuel filter.
	Water in the fuel.	Drain; replace with clean fuel. Replace fuel filter.
	Shorted spark plug or loose terminal.	Clean or replace spark plug; tighten the terminal.
	Ignition failure.	Consult with an authorized servicing dealer.
Excessive vibration.	Piston seizure.	Consult with an authorized servicing dealer.
	Warped or damaged blower fan.	Consult with an authorized servicing dealer.
	Loose bolt or fastener	Tighten as required.
	Internal engine damage.	Consult with an authorized servicing dealer.
Engine over-speeding.	Damaged A-V cushions.	Replace cushions.
	Blower intake or discharge ports or tubes are clogged with debris.	Remove debris.
	Impeller blades are missing or damaged.	Consult with an authorized servicing dealer.

*The following statement only applies to United States and its territories*

**Shindaiwa Corporation**  
**Federal Emission Design And Defect Limited Warranty**  
**Utility And Lawn And Garden Engines**

Shindaiwa Corporation warrants to the initial purchaser and each subsequent owner, that this utility equipment engine (herein engine) is designed, built and equipped to conform at the time of initial sale, to all applicable regulations of the U.S. Environmental Protection Agency (EPA), and that the engine is free of defects in materials and workmanship that would cause this engine to fail to conform with EPA regulations during its warranty period. This emission warranty is applicable in all States, except the State of California.

For parts listed under PARTS COVERED, the dealer authorized by Shindaiwa Corporation will, at no cost to you, make the necessary diagnosis, repair, or replacement of any defective emission-related component to ensure that the engine complies with applicable U.S. EPA regulations.

**MANUFACTURERS WARRANTY COVERAGE**

When sold within the U.S., this engine's emission control system is warranted for a period of two (2) years from the date this product is first delivered to the original retail purchaser.

**OWNER'S WARRANTY RESPONSIBILITIES**

As the engine owner, you are responsible for the performance of the required maintenance listed in your owner's manual. Shindaiwa Corporation recommends that you retain all receipts covering maintenance on your engine, but Shindaiwa Corporation cannot deny a warranty claim solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.

As the engine owner, you should however be aware that Shindaiwa Corporation may

deny your warranty coverage if your engine or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

You are responsible for presenting your engine to the nearest dealer authorized by Shindaiwa Corporation when a problem exists.

If your Shindaiwa Dealer is unable to answer questions regarding your warranty rights and responsibilities, you should then contact your Shindaiwa Distributor.

For the name and telephone number of the Shindaiwa Distributor in your area, please call Shindaiwa Inc. at (503) 692-3070 between the hours of 8:00 AM and 5:00 PM Pacific Standard Time.

**PARTS COVERED**

Listed below are the parts covered by the Federal Emission Design and Defect Warranty. Some parts listed below may require scheduled maintenance and are warranted up to the first scheduled replacement of that part. The warranted parts include:

1. Carburetor Internal Components
  - Valve Assembly-throttle, Jet, Metering Diaphragm
2. Ignition System Components
  - Ignition Coil
  - Flywheel Rotor

The emission control system for your particular Shindaiwa engine may also include certain related hoses and connectors.

**LIMITATIONS**

The Federal Emission Design and Defect Warranty shall not cover any of the following:

- (a) conditions resulting from tampering, misuse, improper adjustment

(unless they were made by the dealer or service center authorized by Shindaiwa Corporation during a warranty repair), alteration, accident, failure to use the recommended fuel and oil, or not performing required maintenance services,

- (b) the replacement parts used for required maintenance services,
- (c) consequential parts used for required maintenance services,
- (d) diagnosis and inspection fees that do not result in eligible warranty service being performed, and
- (e) any non-authorized replacement part, or malfunction of authorized parts due to use of non-authorized parts.

## **MAINTENANCE AND REPAIR REQUIREMENTS**

You are responsible for the proper use and maintenance of the engine. You should keep all receipts and maintenance records covering the performance of regular maintenance in the event questions arise. These receipts and maintenance records should be transferred to each subsequent owner of the engine. Shindaiwa Corporation reserves the right to deny warranty coverage if the owner has not properly maintained the engine. Shindaiwa Corporation will not deny warranty repairs, however, solely because of the lack of repair, maintenance or failure to keep maintenance records.

**MAINTENANCE, REPLACEMENT OR REPAIR OF EMISSION CONTROL DEVICES AND SYSTEMS MAY BE PERFORMED BY ANY REPAIR ESTABLISHMENT OR INDIVIDUAL; HOWEVER, WARRANTY REPAIRS MUST BE PERFORMED BY A DEALER OR SERVICE CENTER AUTHORIZED BY SHINDAIWA CORPORATION. THE USE OF PARTS THAT ARE NOT EQUIVALENT IN PERFORMANCE AND DURABILITY TO AUTHORIZED PARTS MAY IMPAIR THE EFFECTIVENESS OF THE EMISSION CONTROL SYSTEM AND MAY HAVE A BEARING ON THE OUTCOME OF A WARRANTY CLAIM.**

If other than the parts authorized by Shindaiwa Corporation are used for maintenance replacements or for the repair of components affecting emission control, you should assure yourself that such parts are warranted by their manufacturer to be equivalent to the parts authorized by Shindaiwa Corporation in their performance and durability.

## **OBTAINING WARRANTY SERVICE**

All repairs qualifying under this limited warranty must be performed by a dealer authorized by Shindaiwa Corporation

If any emission-related part is found defective during the warranty period, it is your responsibility to present the product to an authorized Shindaiwa dealer. Bring your sales receipts showing the date of purchase for this engine. The dealer authorized by Shindaiwa Corporation will perform the necessary repairs or adjustments within a reasonable amount of time and furnish you with a copy of the repair order. All parts and accessories replaced under this warranty become the property of Shindaiwa Corporation

To locate an authorized Shindaiwa dealer near you, contact your Shindaiwa Distributor. For the name and telephone number of the Shindaiwa Distributor in your area, please call Shindaiwa Inc. at (503) 692-3070 between the hours of 8:00 AM and 5:00 PM Pacific Standard Time.

## **THIS WARRANTY IS ADMINISTERED BY**

Shindaiwa Inc.

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# shindaiwa

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