# **shindaiwa**®

# Operator's Manual PS262 Power Broom<sup>TM</sup>

# **WARNING**

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

# WARNING



Read and understand all provided literature before use. Failure to do so could result in serious injury.

Note: This product complies with CAN ICES-2/NMB-2.

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### INTRODUCTION

Specifications, descriptions and illustrative material in this literature are as accurate as known at the time of publication, but are subject to change without notice. Illustrations may include optional equipment and accessories, and may not include all standard equipment.



Read and understand all provided literature. Literature contains specifications and information for safety, operation, maintenance, storage and assembly specific to this product. Scan QR codes for more information.



For additional literature, including safety manuals where applicable, or questions regarding terms used in this manual, visit:

https://www.echo-usa.com/manuals

OR



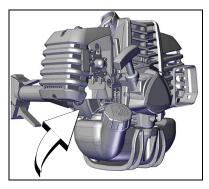


https://www.shindaiwa-usa.com/manuals

### SERVICING INFORMATION

### Parts/Serial Number

Genuine SHINDAIWA Parts and Assemblies for your SHINDAIWA products are available only from an Authorized SHINDAIWA Dealer. When you do need to buy parts always have the Model Number and Serial Number of the unit with you. You can find these numbers on the engine housing. For future reference, write them in the space provided below.



Model No. S	Serial No.

### Service

Service of this product during the warranty period must be performed by an Authorized SHINDAIWA Service Dealer. For the name and address of the Authorized SHINDAIWA Service Dealer nearest you, ask your retailer or call: 1-877-986-7783. Dealer information is also available on WWW.SHINDAIWA-USA.COM. When presenting your unit for Warranty service/repairs, proof of purchase is required.

### **Consumer Product Support**

If you require assistance or have questions concerning the application, operation or maintenance of this product you may call the SHINDAIWA Consumer Product Support Department at 1-877-986-7783 from 8:00 am to 5:00 pm (Central Standard Time) Monday through Friday. Before calling, please know the model and serial number of your unit.

### **Product Registration**

To ensure trouble free warranty coverage it is important that you register your SHINDAIWA equipment on-line at WWW.SHINDAIWA-USA.COM or by filling out the product registration sheet included in this manual. Registering your product confirms your warranty coverage and provides a direct link between you and ECHO if we find it necessary to contact you.

### **Additional Literature**

In addition to finding information online, information is available from your Authorized Shindaiwa Service Dealer, or by contacting ECHO Inc., 400 Oakwood Road, Lake Zurich, IL 60047 (1-800-432-ECHO (3246)).

### **SAFETY**

# **International Symbols**

Symbol	Description	Symbol	Description
	Warning, See Operator's Manual	H	Carburetor Adjustment - High Speed Mixture
	Wear Eye, Ear and Head Protection	T	Carburetor Adjustment - Idle Speed
	Wear Hand and Foot Protection	L	Carburetor Adjustment - Low Speed Mixture
<b>A</b>	Safety/Alert	STOP	Emergency Stop
	Hot Surface	+0	Fuel and Oil Mixture
	DO NOT Allow Flames or Sparks Near Fuel		Ignition ON / OFF
	DO NOT Smoke Near Fuel Prim		Primer Bulb
	Choke Control "RUN" Position (Choke Open)	<u></u>	Choke Control "COLD START" Position (Choke Closed)

SAFETY PS262

Symbol	Description	Symbol	Description
Sam(Scrip		Keep Bystan Away 1	ders and Helpers 5 m (50 ft.)
	Thrown Objects		Rotating Cutting Attachment



### **Read the Manuals**

 Provide all users of this equipment with the Operator's Manual for instructions on Safe Operation.

### Clear the Work Area

Spectators and fellow workers must be warned, and children and animals
prevented from coming nearer than 15 m (50 ft.) while the unit is in use.

### Keep a Firm Grip

 Always hold throttle handle and support handle with thumbs and fingers tightly encircling the handles.

### Keep a Solid Stance

 Maintain footing and balance at all times. Do not stand on slippery, uneven or unstable surfaces. Do not work in odd positions or on ladders. Do not over reach.

### **Avoid Hot Surfaces**

 Keep exhaust area clear of flammable debris. Avoid contact during and immediately after operation.





### **Equipment**

# **WARNING**

Use only SHINDAIWA attachments. Serious injury may result from the use of a non-approved attachment combination. ECHO, INC. will not be responsible for the failure of cutting devices, attachments or accessories which have not been tested and approved by ECHO. Read and comply with all safety instructions listed in this manual and safety manual.

- Check unit for loose/missing nuts, bolts, and screws. Tighten and/or replace as needed.
- Inspect unit for damage and broken, missing, or incorrectly installed parts.
- Check that the attachment is correctly installed and in safe operating condition.
- Assure all safety devices are attached and that unit is as clean as possible.

# WARNING

Moving parts can amputate fingers or cause severe injuries. Keep hands, clothing and loose objects away from all openings.

- ◆ ALWAYS stop engine, disconnect spark plug, and make sure all moving parts have come to a complete stop before removing obstructions, clearing debris, or servicing unit.
- ◆ DO NOT start or operate unit unless all guards and protective covers are properly assembled to unit.
- ◆ NEVER reach into any opening while the engine is running. Moving parts may not be visible through openings.

# **WARNING**

Periodically Check fuel system (fuel lines, vent, grommet, fuel tank, and fuel cap) for leaks especially if the unit is dropped. If damage or leaks are found, do not use unit, otherwise serious personal injury or property damage may occur. Have unit repaired by an authorized servicing dealer before using.

# **EMISSION CONTROL (EXHAUST & EVAPORATIVE)**

### CARB And EPA Emissions Control Information

The emission control system for the engine is EM (engine modification) and, if the second to last character of the Engine Family on the Emission Control Information label (sample below) is "B", "C", "K", or "T", the emission control system is EM and TWC (3way catalyst). The fuel tank/fuel

EMISSION CONTROL INFORMATION ENGINE FAMILY: (2) EHXS.0214EQ DISPLACEMENT: 21.2cc EMISSION COMPLIANCE PERIOD: 50Hours THIS ENGINE MEETS 2013 U.S.EPA EXH/EVP & CALIFORNIA EXH/EVP EMISSION REGULATIONS FOR S.O.R.E. REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS.

YAMABIKO CORP. MMM/YYYY



line emission control system is EVAP (evaporative emissions). Evaporative emissions for California models are only applicable to fuel tanks and fuel feed lines.

An Emission Control Label is located on the engine. (This is an EXAMPLE ONLY, information on label varies by engine FAMILY).

### **Product Emission Durability** (Emission Compliance Period)

### EMISSION CONTROL INFORMATION

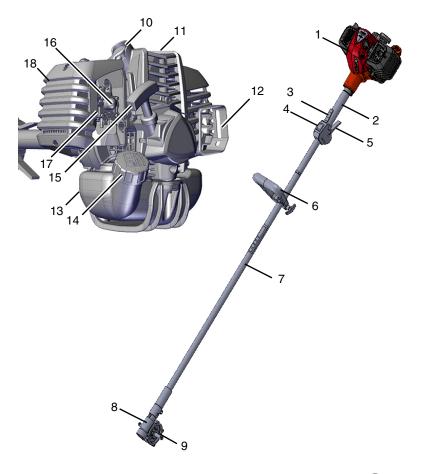
ENGINE FAMILY: CEHXS.0214KL DISPLACEMENT: 21.2cc EMISSION COMPLIANCE PERIOD: 300Hours THIS ENGINE MEETS 2012 U.S. EPA EXHVEVP & CALIFORNIA EXH/EVP EMISSION REGULATIONS FOR S.O.R.E. REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS. YAMABIKO CORP. MMM/YYYY



The 50 or 300 hour emission compliance period is the time span selected by the manufacturer certifying the engine emissions output meets applicable emissions regulations, provided that approved maintenance procedures are followed as listed in the Maintenance Section of this manual.

### **DESCRIPTION**

Locate the safety decal(s) on your unit. Make sure the decal(s) is legible and that you understand and follow the instructions on it. If a decal cannot be read, a new one can be ordered from your dealer. Safety label is for example only. Your label my appear slightly different.







CONTENTS PS262

- 1. Power Head
- 2. Throttle Handle For Right Hand
- 3. Throttle Trigger Lockout
- 4. Stop Switch
- 5. Throttle Trigger
- 6. Support Handle For Left Hand
- 7. Drive Shaft Assembly
- 8. Gear Case
- 9. Gear Output Shaft
- 10. Spark Plug
- 11. Top Guard
- 12. Spark Arrestor Muffler Or Spark Arrestor Muffler With Catalyst
- 13. Fuel Tank
- 14. Fuel Tank Cap
- 15. Recoil Starter / Handle
- 16. Purge Bulb
- 17. Choke
- 18. Air Cleaner

### **CONTENTS**

The SHINDAIWA product you purchased has been factory pre-assembled for your convenience. Due to packaging restrictions, some assembly may be necessary.

After opening the carton, check for damage. Immediately notify your retailer or SHINDAIWA Dealer of damaged or missing parts. Use the contents list to check for missing parts.

- 1 Power Head / Drive Shaft Assembly
- 1 Operator's Manual
- 1 Warranty Sheet

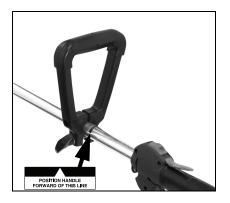


### **ASSEMBLY**

### **Support Handle**

 If necessary, position support handle for comfortable operation and securely tighten screw.

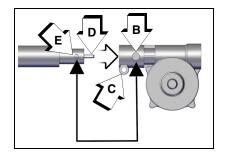
Note: Label shows minimum spacing for support handle location.



# **Gear Housing to Lower Drive Shaft Assembly**

Parts Required: Gear Housing Assembly, Lower Drive Shaft Assembly, Tube Protector

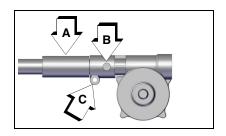
- Remove vinyl cap from lower end of drive shaft tube (end without labels).
- Remove gear housing shaft alignment screw (B) from right side of gear case.
- 3. Loosen gear housing shaft clamp bolt (C).
- 4. Insert tip of flex shaft (D) into gear housing drive socket.



- 5. Align hole in drive shaft tube (E) with alignment hole in gear housing (B).
- 6. Insert lower drive shaft tube (end without model number/coupling alignment decal) into gear housing shaft mount.

ASSEMBLY PS262

- 7. Install and tighten alignment screw (B).
- 8. Tighten gear housing shaft clamp bolt (C).
- 9. Slide tube protector (A) flush against gear case housing.



### **Drum Assembly**

Parts Required: 1 - Gear Housing/Lower Shaft Assembly

2 - Drums

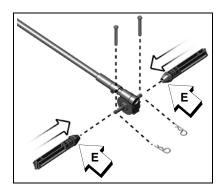
2 - Plastic Drum Axles

2 - Clevis Pins

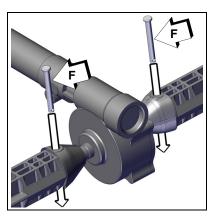
2 - Hitch Pins

2 - Split Pins

 Slide tapered end of plastic drum axles (E) onto gear housing output shafts.

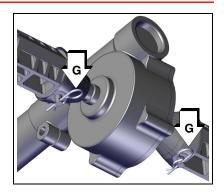


 Align mounting holes, and secure drum axles to shafts with clevis pins (F).

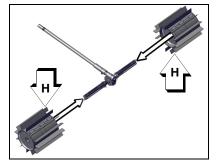


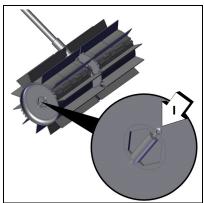
PS262 ASSEMBLY

 Insert hitch pins (G) through holes in tip of clevis pins to retain clevis pins.



 Slide recessed ends of sweeper drums (H) onto plastic axles, and secure with split pins (I). Spread tips of split pins out to retain pins in axles.





# **CAUTION**

Thrown objects hazard. Install lower drive shaft to coupler so that gear housing clamping bolt faces downward. Otherwise debris will be thrown toward users.

### **OPERATION**

# **WARNING**

Moving parts can amputate fingers or cause severe injuries. Keep hands, clothing and loose objects away from all openings. Always stop engine, disconnect spark plug, and make sure all moving parts have come to a complete stop before removing obstructions, clearing debris, or servicing unit.

# WARNING

Engine exhaust IS HOT, and contains Carbon Monoxide (CO), a poison gas. Breathing CO can cause unconsciousness, serious injury, or death. Exhaust can cause serious burns. ALWAYS position unit so that exhaust is directed away from your face and body.

# **WARNING**

Operation of this equipment may create sparks that can start fires around dry vegetation. This unit is equipped with a spark arrestor to prevent discharge of hot particles from the engine. Metal cutters can also create sparks if the cutter strikes rocks, metal, or other hard objects. Contact local fire authorities for laws or regulations regarding fire prevention requirements.

**OPERATION PS262** 

### Fuel

# **A** WARNING

Diesel fuels and alternative fuels, such as E15 (15% ethanol). E85 (85% ethanol) or any fuels not meeting Shindaiwa requirements are NOT approved for use in Shindaiwa 2-stroke or Hybrid 4-stroke gasoline engines. Use of diesel or alternative fuels may cause performance problems, loss of power, overheating, fuel vapor lock, and unintended machine operation, including, but not limited to, improper clutch engagement. Diesel or alternative fuels may also cause premature deterioration of fuel lines, gaskets, carburetors and other engine components.

### **Fuel Requirements**

Gasoline - Use 89 Octane [R+M/2] (mid grade or higher) gasoline known to be good quality. Gasoline may contain up to 10% Ethanol (grain alcohol) or 15% MTBE (methyl tertiary-butyl ether). Gasoline containing methanol (wood alcohol) is NOT approved. Use of ECHO branded fuel is recommended to extend engine life in all air-cooled 2-stroke and 2/4-stroke hybrid engines.

Two Stroke Oil - A 2-stroke engine oil, such as Shindaiwa branded 2-stroke oils, meeting ISO-L-EGD (ISO/CD 13738) and J.A.S.O. FD Standards must be used. Shindaiwa branded 2-stroke oils meet these standards. Engine problems due to inadequate lubrication caused by failure to use an ISO-L-EGD (ISO/CD 13738) and J.A.S.O. M345-FD certified oil will void the 2stroke engine warranty.

# **WARNING**

2-Stroke engine oil contains petroleum distillates and other additives that may be harmful if swallowed. Heated oil can release vapors that can cause flash fire, or ignite with explosive force. Read and follow the oil manufacturer's instructions, and observe all safety warnings and precautions for handling flammable liquids. For more detailed safety and first aid information, visit www.echo-usa.com for a copy of the Material Safety Data Sheet.

- ◆ KEEP OUT OF REACH OF CHILDREN.
- ◆ If swallowed, do not induce vomiting. CALL PHYSICIAN OR A POISON CONTROL CENTER IMMEDIATELY.
- WEAR SAFETY GLASSES when mixing or handling.

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- AVOID repeated or prolonged skin contact.
- AVOID inhaling oil mists or vapors.

# NOTICE

Shindaiwa branded 2-stroke oils may be mixed at 50:1 ratio for application in all Shindaiwa engines sold in the past, regardless of ratio specified in those manuals.

### **Handling Fuel**

# **▲** DANGER

Fuel is VERY flammable. Use extreme care when mixing, storing or handling, or serious personal injury may result.

- Use an approved fuel container.
- ◆ DO NOT smoke near fuel.
- DO NOT allow flames or sparks near fuel.
- Fuel tanks/cans may be under pressure. Always loosen fuel caps slowly allowing pressure to equalize.
- NEVER refuel a unit when the engine is HOT or RUNNING!
- DO NOT fill fuel tanks indoors. ALWAYS fill fuel tanks outdoors over bare ground.
- ◆ DO NOT overfill fuel tank. Wipe up spills immediately.
- Securely tighten fuel tank cap and close fuel container after refueling.
- Inspect for fuel leakage. If fuel leakage is found, do not start or operate unit until leakage is repaired.
- ◆ Move at least 3 m (10 ft.) from refueling location before starting the engine.

# **A** DANGER

Gasoline vapor is heavier than air, and can travel along the ground to nearby sources of ignition such as electrical motors, pilot lights, and hot or running engines. Vapors ignited by an ignition source can flash back to the fuel container, resulting in an explosion, fire, serious or fatal injuries, and extensive property damage.

### Mixing Instructions

- Fill an approved fuel container with half of the required amount of gasoline.
- 2. Add the proper amount of engine oil to gasoline.
- 3. Close container and shake to mix oil with gasoline.
- 4. Add remaining gasoline, close fuel container, and remix.

Fuel	Fuel to Oil Mix – 50:1 Ratio				
US		Ме	tric		
Gas	Oil	Gas	Oil		
gal.	fl. oz.	L	СС		
1	2.6	5	100		
2	5.2	10	200		
5	13	25	500		

# NOTICE

Spilled fuel is a leading cause of hydrocarbon emissions. Some states may require the use of automatic fuel shut-off containers to reduce fuel spillage.

### After use

 Empty the fuel tank prior to storing the unit. Return unused fuel to an approved fuel storage container.

**Storage** - Fuel storage laws vary by locality. Contact your local government for the laws affecting your area. As a precaution, store fuel in an approved, airtight container. Store in a well-ventilated, unoccupied building, away from sparks and flames.

# NOTICE

Stored fuel ages. Do not mix more fuel than you expect to use in thirty (30) days, ninety (90) days when a fuel stabilizer is added.

# NOTICE

Stored 2-stroke fuel may separate. ALWAYS shake fuel container thoroughly before each use.

# NOTICE

Used oil and gasoline, and soiled towels are hazardous waste materials. Disposal laws vary by locality.

OPERATION PS262

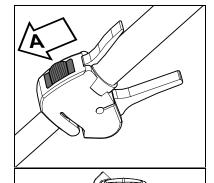
### **Starting Cold Engine**

# **WARNING**

The attachment will operate immediately when the engine starts, and could result in possible serious injury. Keep movable parts of the attachment away from objects that could become entangled or thrown, and surfaces that could cause loss of control.

### 1. Stop Switch

Move stop switch (A) away from the STOP position.

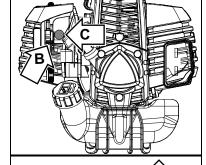


### 2. Choke

Move choke (B) to COLD START (►) (CLOSED) position.

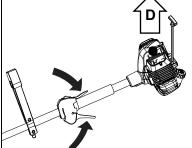
### 3. Purge Bulb

Pump purge bulb (C) until fuel is visible and flows freely in the clear fuel tank return line. Pump bulb an additional 4 or 5 times.



### 4. Recoil Starter

Lay the unit on a flat area and keep movable attachment parts clear of all obstacles. Firmly grasp throttle handle and throttle trigger lockout with left hand and fully depress throttle trigger to wide open position. Rapidly pull recoil starter handle/rope (D) until engine fires (or maximum five [5] pulls).



5. Choke

position. Firmly grasp throttle handle and throttle trigger lockout with left hand and fully depress throttle trigger to wide open position. Pull starter handle/rope until engine starts and runs. Release throttle trigger and allow unit to warm up at idle for several minutes.

Note: If engine does not start with choke in "Run" position after 5 pulls, repeat instructions 2 - 5.

### 6. Throttle Trigger

After engine warm-up, grip throttle handle and support handle. Depress the throttle trigger lockout, and gradually depress throttle trigger to increase engine RPM to operating speed.

### **Starting Warm Engine**

The starting procedure is the same as Cold Start except DO NOT close the choke, and do not hold throttle trigger fully depressed.

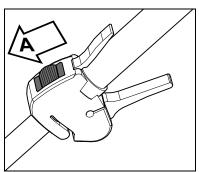
# WARNING

The attachment should not move at idle, otherwise serious personal injury may result.

Note: If attachment moves, readjust carburetor according to "Carburetor Adjustment" instructions in this manual or see your Dealer.

### 1. Stop Switch

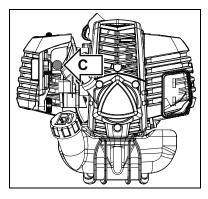
Move stop switch (A) away from the STOP position.



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### 2. Purge Bulb

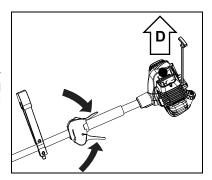
Pump purge bulb (C) until fuel is visible and flows freely in the clear fuel tank return line. Pump bulb an additional 4 or 5 times.



### 3. Recoil Starter

Lay the unit on a flat area and keep movable attachment parts clear of all obstacles. Firmly grip throttle handle and throttle trigger lockout with left hand. Rapidly pull recoil starter handle/rope (D) until engine fires.

Note: If engine does not start after 5 pulls, use Cold Start Procedure.



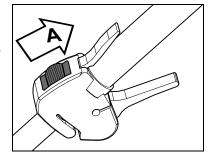
### **Stopping Engine**

### 1. Throttle

Release throttle trigger and allow engine to return to idle before shutting off engine.

### 2. Stop Switch

Move stop switch (A) to STOP position.



# **▲** WARNING

If engine does not stop when stop switch is moved to STOP position, close choke - COLD START position - to stall engine. Have your dealer repair stop switch before using unit again.

### **Sweeping Operation**

# WARNING

- Always beware of thrown debris.
- ◆ Do not operate with paddles close to your body, which could result in loss of control and possible serious injury.
- If drum assemblies jam, switch engine off and inspect attachment for damage.
- Never operate around objects that could entangle the drums or cause loss of control.
- Never contact electrical wires or fences.

Never allow engine to run at high RPM without a load.

- Hold unit from left side, resting sweeper paddles on work surface.
- 2. Firmly grasp throttle handle with right hand and support handle with left hand.
- 3. Position unit well out in front of your body.
- 4. Accelerate to full throttle and allow paddles to push debris ahead. Sweep to an area where debris can be piled and collected



OPERATION PS262

5. Debris may be swept out and away from corners by turning unit over to reverse paddle direction. Grip unit securely using both hands. Operate throttle trigger with thumb of right hand. For extended use, reposition front handle to allow comfortable grip. Return handle to normal position for regular operation.



# **A** WARNING

Turning unit over to reverse sweeper drum rotation will cause debris to be swept toward operator. Reduce engine speed, and be alert for unstable footing caused by loose debris.

# NOTICE

Extended use of unit at low throttle settings could cause damage to clutch because of clutch slipping.

### **MAINTENANCE**

# WARNING

Moving parts can amputate fingers or cause severe injuries. Keep hands, clothing and loose objects away from all openings. Always stop engine, disconnect spark plug, and make sure all moving parts have come to a complete stop before removing obstructions, clearing debris, or servicing unit. Allow unit to cool before performing service. Wear gloves to protect hands from sharp edges and hot surfaces.

# WARNING

Operating a poorly maintained unit can result in serious injuries to operator or bystanders. Always follow all maintenance instructions as written, otherwise serious personal injury may result.

Your unit is designed to provide many hours of trouble free service. Regular scheduled maintenance will help your unit achieve that goal. If you are unsure or are not equipped with the necessary tools, we recommend that you take your unit to a Servicing Dealer for maintenance. To help you decide whether you want to DO-IT-YOURSELF or have the Dealer do it, each maintenance task has been graded. If the task is not listed, see your Dealer for repairs.

# NOTICE

The use of emission control components other than those specifically designed for this unit is a violation of federal law.

### Skill Levels

**Level 1** = Easy to do. Common tools may be required.

**Level 2** = Moderate difficulty. Some specialized tools may be required.

**Level 3** = See your dealer.

Click HERE or go to http://www.echo-usa.com/products/maintenance-kit

or

HERE https://www.shindaiwa-usa.com/vou-can.aspx

For information about maintenance kits.

### **Maintenance Intervals**

COMPONENT/SYSTEM	MAINTENANCE PROCEDURE	REQ'D SKILL LEVEL		
Daily or Before Use				
Air Filter	Inspect/Clean *	1		
Choke Shutter	Inspect/Clean *	1		
Fuel System	Inspect <sup>2</sup>	1		
Cooling System	Inspect/Clean	2		
Recoil Starter Rope	Inspect/Clean *	1		
Screws/Nuts/Bolts	Inspect/Tighten/Replace *	1		
Every Refuel				
Fuel System	Inspect <sup>2</sup>	1		
3 Months				
Air Filter	Replace *	1		
Fuel Filter	Inspect *	1		
Fuel Cap Gasket	Inspect *	1		
Spark Plug	Inspect/Clean/Replace *	1		
Muffler Spark Arrestor	Inspect/Clean/Replace *	2		
Cylinder Exhaust Port	Inspect/Clean/De-carbon	2		
Yearly				
Fuel Filter	Inspect/Replace *	1		
Fuel Cap Gasket	Replace *	1		
Gear Housing	Grease <sup>1</sup>	2		

**IMPORTANT NOTE** - Time intervals shown are maximum. Actual use and your experience will determine the frequency of required maintenance.

### **MAINTENANCE PROCEDURE NOTES:**

- 1 Apply Mobil SHC634 Synthetic Gear Oil every 300 hours of use.
- 2 Low evaporative fuel tanks DO NOT require regular maintenance to maintain emission integrity.
- \* Replacement is recommended based on the finding of damage or wear during inspection.

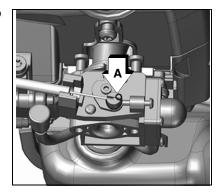
### Air Filter

### Level 1

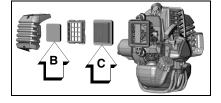
Parts Required: Tune Up Kit.

- Close choke (COLD START position). This prevents dirt from entering the carburetor throat when the air filter is removed. Brush accumulated dirt from air cleaner area.
- 2. Remove air filter cover. Brush dirt from inside cover.

Assure throttle wire retaining clip (A) remains in place as shown when removing or installing air filter cover.



- 3. Remove foam pre-filter (B) and air filter (C) and clean as indicated below:
- 4. Foam Pre-filter.
  - Clean foam filter in water/ detergent solution and rinse with clean water.



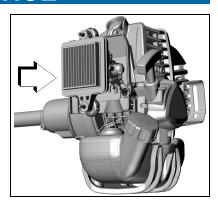
 Wrap the filter in a clean, dry cloth and squeeze (do not wring) dry. Allow to dry completely before reuse. Do not oil.

### Air Filter

- · Lightly brush debris from filter. Replace filter if it is damaged, fuel soaked, very dirty, or the rubber sealing edges are deformed.
- 5. Assemble components in reverse order.

# NOTICE

Assure air filter is assembled with pleats oriented vertically.



### **Fuel Filter**

Level 1.

Parts Required: Tune Up Kit.

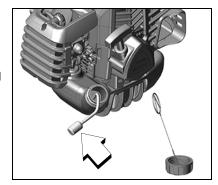
# **▲** DANGER

Fuel is VERY flammable. Use extreme care when mixing, storing or handling, or serious personal injury may result.

# NOTICE

Do not damage fuel line while removing Fuel Filter from tank.

- Use a clean rag to remove loose dirt from around fuel cap and empty fuel tank.
- Pull fuel filter out through gas port, and inspect fuel filter.
- 3. When the fuel filter is dirty, replace it as follows:
  - Do not remove the wire coil clamp to remove the fuel filter. Pinch the fuel filter with the fingers on one hand and the fuel line with the other hand. Pull and twist slightly to separate.
  - b. Install the new fuel filter with the reverse action.



When the inside of the fuel tank is dirty, rinse the tank out with gasoline to clean it.

Note: Federal EPA regulations require all model year 2012 and later gasoline powered engines produced for sale in the United States to be equipped with a special low permeation fuel supply hose between the carburetor and fuel tank. When servicing model year 2012 and later equipment, only fuel supply hoses certified by EPA can be used to replace the original equipment supply hose. Fines up to \$37,500 may be enforced for using an un-certified replacement part.

### Spark Plug

### Level 2.

Parts Required: Tune Up Kit.

# NOTICE

Use only NGK CMR7H spark plug otherwise severe engine damage may occur.

- Remove spark plug and check for fouling, worn and rounded center electrode.
- 2. Clean the plug or replace with a new one. DO NOT sand blast to clean. Remaining sand will damage engine.
- 3. Adjust spark plug gap by bending outer electrode.



4. Tighten spark plug to 102-153 kgfecm (89-133 inelbf).

### **Cooling System**

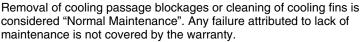
Level 2.

# **NOTICE**

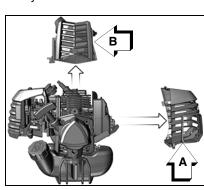
To maintain proper engine operating temperatures, cooling air must pass freely through the cylinder fin area. This flow of air carries combustion heat away from the engine.

Overheating and engine seizure can occur when:

- Air intakes are blocked, preventing cooling air from reaching the cylinder.
- Dust and grass build up on the outside of the cylinder. This build up insulates the engine and prevents the heat from leaving.



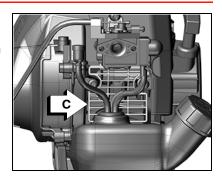
- 1. Remove spark plug lead.
- 2. Remove muffler cover (A).
- 3. Remove engine cover (B).



# NOTICE

DO NOT use a metal scraper to remove dirt from the cylinder fins.

- 4. Use brush to remove dirt from the cylinder fins.
- 5. Remove grass and leaves from the grid (C) between the recoil starter and fuel tank.
- 6. Assemble components in reverse order.



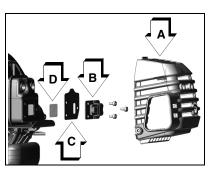
### **Exhaust System**

### **Spark Arrestor Screen**

### Level 2.

Parts Required: Spark Arrestor Screen, Gasket

- 1. Remove spark plug lead.
- 2. Remove muffler cover (A).
- 3. Place piston at Top Dead Center (TDC) to prevent carbon or dirt from entering cylinder.
- 4. Remove spark arrestor screen cover (B), gasket (C), and screen (D), from muffler body.
- Clean carbon deposits from 5. muffler components.



Note: When cleaning carbon deposit, be careful not to damage the catalytic element inside muffler.

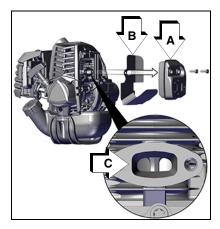
- 6. Replace screen if it is cracked, plugged, or has holes burned through.
- 7. Assemble components in reverse order.

### **Exhaust Port Cleaning**

### Level 2.

Parts Required: Heat Shield (as needed)

- Remove spark plug lead from spark plug, and remove muffler cover.
- Place piston at top dead center. Remove muffler (A) and heat shield (B).
- Use a wood or plastic scraping tool to clean deposits from cylinder exhaust port (C).



# NOTICE

Never use a metal tool to scrape carbon from the exhaust port. Do not scratch the cylinder or piston when cleaning the exhaust port. Do not allow carbon particles to enter the cylinder.

- 4. Inspect heat shield, and replace if damaged.
- 5. Install heat shield and muffler.
- Tighten muffler mounting bolts (or nuts) to 90-110 kgf•cm (80-95 in•lbf).
- 7. Install muffler cover and attach spark plug lead.
- 8. Start engine, and warm to operating temperature.
- 9. Stop engine, and re-tighten mounting bolts (or nuts) to specifications.

### **Carburetor Adjustment**

Level 2.

# **WARNING**

When carburetor adjustment is completed, the cutting attachment should not move at idle, otherwise serious personal injury may result.

### **Engine Break-In**

New engines must be operated a minimum duration of two tanks of fuel break-in before carburetor adjustments can be made. During the break-in period your engine performance will increase and exhaust emissions will stabilize. Idle speed can be adjusted as required.

### **High Altitude Operation**

This engine has been factory adjusted to maintain satisfactory starting and durability performance up to 330 m (1100 ft.) above sea level (ASL) (96.0 kPa). To maintain proper engine operation above 330 m (1100 ft.) ASL the carburetor may need to be adjusted by an authorized service dealer.

# NOTICE

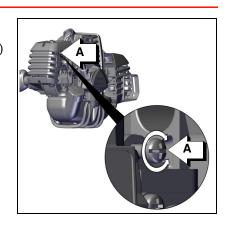
If the engine is adjusted for operation above 330 m (1100 ft.) ASL, the carburetor must be re-adjusted when operating the engine below 330 m (1100 ft.) ASL, otherwise severe engine damage may result.

Note: Every unit is run at the factory and the carburetor is set in compliance with emission regulations. Carburetor adjustments, other than idle speed, must be performed by an authorized dealer.

# WARNING

- The cutting attachment may be moving during carburetor adjustments.
- Wear your protective equipment and observe all safety instructions.
- For units equipped with a clutch, be sure the cutting attachment stops moving when the engine idles.
- When the unit is turned off, make sure the cutting attachment has stopped before the unit is set down.

 Check idle speed and reset if necessary. If a tachometer is available, idle speed screw (A) should be set to the specifications found on "Specifications" page of this manual. Turn idle screw (A) clockwise to increase idle speed; counterclockwise to decrease idle speed.



### **Maintenance Intervals**

COMPONENT/SYSTEM	MAINTENANCE PROCEDURE	REQ'D SKILL LEVEL
Daily or Before Use		
Air Filter	Inspect/Clean *	1
Choke Shutter	Inspect/Clean *	1
Fuel System	Inspect <sup>2</sup>	1
Cooling System	Inspect/Clean	2
Recoil Starter Rope	Inspect/Clean *	1
Screws/Nuts/Bolts	Inspect/Tighten/Replace *	1
Every Refuel		
Fuel System	Inspect <sup>2</sup>	1
3 Months		
Air Filter	Replace *	1
Fuel Filter	Inspect *	1
Fuel Cap Gasket	Inspect *	1
Spark Plug	Inspect/Clean/Replace *	1
Muffler Spark Arrestor	Inspect/Clean/Replace *	2
Cylinder Exhaust Port	Inspect/Clean/De-carbon	2
Yearly		
Fuel Filter	Inspect/Replace *	1

COMPONENT/SYSTEM	MAINTENANCE PROCEDURE	REQ'D SKILL LEVEL
Fuel Cap Gasket	Replace *	1
Gear Housing	Grease <sup>1</sup>	2

IMPORTANT NOTE - Time intervals shown are maximum. Actual use and your experience will determine the frequency of required maintenance.

### **MAINTENANCE PROCEDURE NOTES:**

- 1 Apply Mobil SHC634 Synthetic Gear Oil every 300 hours of use.
- 2 Low evaporative fuel tanks DO NOT require regular maintenance to maintain emission integrity.
- \* Replacement is recommended based on the finding of damage or wear during inspection.

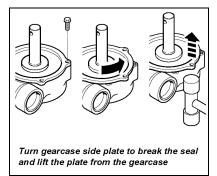
### Gear Case Lubrication

The gear case should be filled with 60 cc (2.0 fl.oz.) of Mobil SHC634 Synthetic Gear Oil. A maximum of 75-80 cc can be used, but never to exceed 80 cc. Operation with excessive oil level will result in high operating temperatures. Do not overfill when replacing the gear case oil.

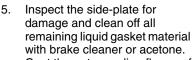
# WARNING

### BURN DANGER! The gear case will be extremely hot after use!

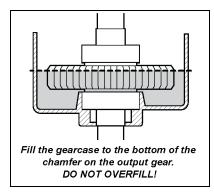
- 1. Disconnect spark plug wire at engine.
- 2. Remove the LH Drum and axle assembly (as viewed from the operating position). Wipe the side-plate clean and remove four screws (it is not necessary to remove the gear case from the outer tube).
- 3. Turn gear case side plate to break the seal and lift the plate from the gear case.



Note: It may be necessary to use a heat gun to soften the sealer material. Place the gear case on the RH side and supported so the outer tube is parallel to the ground.
 Refill the gear case with 60 cc (2.0 fl.oz) of Mobil SHC634
 Synthetic Gear Oil to the bottom of the chamfer on the output gear. The correct oil depth is 5/8 in. (15.5 mm). DO NOT OVERFILL!



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- Coat the outer sealing flange of the side-plate with silicon sealant.
- 6. Replace the cover and install the four side-plate screws. Tighten securely.
- 7. Reinstall the drum and axle assembly. Refer to the section "Assembly: Sweeper Assembly" for instructions.

# **TROUBLESHOOTING**

ENGINE PROBLEM TROUBLESHOOTING CHART				
Problem	Check	Status	Cause	Remedy
	Fuel at carburetor	No fuel at carburetor	Fuel strainer or fuel line obstructed	Clean or replace See your dealer
		No fuel at cylinder	Carburetor	See your dealer
				OPEN choke
Engine starts hard	Fuel at cylinder	Muffler wet with fuel	Fuel mixture too	Clean or replace air filter
or		Williade	HOH	Adjust carburetor
Engine				See your dealer
does not start	Spark at		Stop switch OFF - Electrical	Turn switch to ON
	end of plug wire		problem - Interlock switch	See your dealer
	Spark at plug	No spark	Incorrect gap - Covered with carbon - Fouled	Adjust to 0.65mm (0.026 in.)
	piag		with fuel - Plug defective	Clean or replace plug
	Air filter	Air filter dirty	Normal wear	Clean or replace
	Fuel filter	Fuel filter dirty	Contaminants or residue in fuel	Replace filter or replace fuel
Engine	Fuel vent	Fuel vent plugged	Contaminated fuel	Clean or replace
runs, but dies	Spark plug	Plug dirty or worn	Normal wear	Clean and adjust or replace
or Engine	Carburetor	Improper adjustment	Vibration	Adjust
does not accelerate properly	Cooling system	Cooling system dirty or plugged	Extended operation in dirty or dusty locations	Clean
	Spark arrestor screen	Spark arrestor screen plugged	Normal wear	Replace

ENGINE PROBLEM TROUBLESHOOTING CHART				
Problem	Check	Status	Cause	Remedy
Engine does not crank	N/A		Internal engine problem	See your dealer

# **A** DANGER

Fuel vapors are extremely flammable and may cause fire and/or explosion. Never test for ignition spark by grounding spark plug near cylinder plug hole, otherwise serious personal injury may result.

### **STORAGE**

# **WARNING**

During operation the muffler or catalytic muffler and surrounding cover become hot. Always keep exhaust area clear of flammable debris during transportation or when storing, otherwise serious property damage or personal injury may result.

### Long Term Storage (Over 30 Days)

Do not store your unit for a prolonged period of time (30 days or longer) without performing protective storage maintenance which includes the following:

1. Store unit in a dry, dust free place, out of the reach of children.

# **▲** DANGER

Do not store in enclosure where fuel fumes may accumulate or reach an open flame or spark.

- Place the stop switch in the "OFF" position.
- Remove accumulation of grease, oil, dirt and debris from exterior of unit.
- Perform all periodic lubrication and services that are required.
- Tighten all the screws and nuts.

**PS262** 

- 6. Drain fuel tank completely. Press purge bulb 6-7 times to remove remaining fuel from carburetor then drain the tank again. Close choke, start and run the engine until it stops due to lack of fuel.
- 7. Allow engine to cool. Remove the spark plug lead from the spark plug. Remove the spark plug. Pour 7 cc (0.25 oz.) of fresh, clean, two-stroke engine oil into the cylinder through the spark plug hole.
- Pull the recoil starter handle 2-3 times to distribute the oil inside the 8. engine.
- 9. Observe the piston location through the spark plug hole. Pull the recoil handle slowly until the piston reaches the top of its travel and leave it there.
- 10. Install the spark plug. Connect the spark plug lead to the spark plug.

### **SPECIFICATIONS**

MODEL	PS262
Length	1794 mm (70.6 in.)
Width	272 mm (10.7 in.)
Height	301 mm (11.9 in.)
Weight (dry) w/o attachment	6.04 kg (13.3lb.)
Engine Type	Air cooled, two-stroke, single cylinder gasoline engine
Bore	34 mm (1.34in.)
Stroke	28 mm (1.10 in.)
Displacement	25.4 cc (1.55 cu. in.)
Exhaust	Spark arrestor muffler or spark arrestor muffler with catalyst
Carburetor	Diaphragm w/purge pump
Ignition System	Flywheel magneto, capacitor discharge ignition type
Spark Plug	NGK CMR7H Gap 0.6 mm (0.026 in.)
Fuel	Mixed (Gasoline and Two-stroke Oil)
Fuel/Oil Ratio	50 : 1
Gasoline	Use 89 Octane unleaded. Do not use fuel containing methyl alcohol, more than 10% ethyl alcohol or 15% MTBE. Do not use alternative fuels such as E15 or E85.
Oil	ISO-L-EGD (ISO/CD 13738) and J.A.S.O. M345- ED, two-stroke, air-cooled engine oil.
Fuel Tank Capacity	.61L (20.6 US fl. oz.)

MODEL	PS262
Starter System	Automatic Rewind Starter
Clutch	Centrifugal Type
Vibration Isolated System	Rubber cushion on engine mount (heavy duty). Rubber grip on throttle handle.
Operating Rod	25.0 mm Aluminum Tube
Drive Shaft	7mm (.28 in) Solid Shaft
Gear Case Ratio	40:1
Handle	Front - loop, Rear Handle
Shoulder Harness	Optional
Idle Speed	3,000 RPM
Clutch Engagement Speed	4,300 RPM
Wide Open Throttle Speed (W.O.T.)	11,370 RPM

### PRODUCT REGISTRATION

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