



Operator's Manual PB-580 H/T Power Blower

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.

SINCE 1979

precisionusa.com
YOUR GOLF COURSE SUPERMARKET

800-345-1960

X7505200609

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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 ECHO Parts and Assemblies for your ECHO products are available only from an Authorized ECHO Dealer. When you do need to buy parts always have the Model Number and Serial Number of the unit with you. For future reference write them in the space provided below.



Model No. _____

Serial No. _____

Service

Service of this product during the warranty period must be performed by an Authorized ECHO Service Dealer. For the name and address of the Authorized ECHO Service Dealer nearest you, ask your retailer or call: 1-800-432-ECHO (3246). Dealer information is also available on our Web Site www.echo-usa.com. When presenting your unit for Warranty service/repairs, proof of purchase is required.

ECHO Consumer Product Support

If you require assistance or have questions concerning the application, operation, or maintenance of this product, call the ECHO Consumer Product Support Department at 1-800-432-ECHO (3246) 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

Register your ECHO equipment on-line at www.echo-usa.com or by filling out the product registration sheet included in this manual. Registering your product confirms warranty coverage and provides a direct link to ECHO if we find it necessary to contact you.

Additional Literature

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

SAFETY

Manual Safety Symbols and Important Information

Throughout this manual and on the product itself, you will find safety alerts and helpful, informational messages preceded by symbols or key words. The following is an explanation of those symbols and key words and what they mean to you.



The safety alert symbol accompanied by the word “DANGER” calls attention to an act or condition which WILL lead to serious personal injury or death if not avoided.

WARNING

The safety alert symbol accompanied by the word “WARNING” calls attention to an act or condition which CAN lead to serious personal injury or death if not avoided.

CAUTION

The safety alert symbol accompanied by the word “CAUTION” calls attention to an act or condition which may lead to minor or moderate personal injury if not avoided.

NOTICE

The enclosed message provides information necessary for the protection of the unit.

Note: This enclosed message provides tips for use, care and maintenance of the unit.

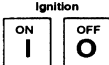


CIRCLE AND SLASH SYMBOL

This symbol means the specific action shown is prohibited. Ignoring these prohibitions can result in serious or fatal injury.

International Symbols

Symbol	Description	Symbol	Description
	Read and Understand the Operator's Manual	H	Carburetor Adjustment - High Speed Mixture
	Wear Eye, Ear and Head Protection	T	Carburetor Adjustment - Idle Speed
	Wear Hand Protection	L	Carburetor Adjustment - Low Speed Mixture
	Safety/Alert		Emergency Stop

Symbol	Description	Symbol	Description
	Hot Surface		Fuel and Oil Mixture
	Idle speed		Fast speed
	Finger severing		Primer Bulb
	DO NOT Allow Flames or Sparks Near Fuel		Ignition ON / OFF
	DO NOT Smoke Near Fuel		Choke Control "COLD START" Position (Choke Closed)
	Choke Control "RUN" Position (Choke Open)		Wear Slip Resistant Footwear
		Beware of thrown objects	
		Keep Bystanders and Helpers Away 15 m (50 ft.).	



Personal Condition and Safety Equipment

WARNING

Cancer and Reproductive Harm
www.P65Warnings.ca.gov

WARNING



The muffler or catalytic muffler and surrounding cover may become extremely hot. Always keep clear of exhaust and muffler area, otherwise serious personal injury may occur.

WARNING

Users of this product risk injury to themselves and others if the unit is used improperly and/or safety precautions are not followed. Proper clothing and safety gear must be worn when operating unit.

Physical Condition

Your judgment and physical dexterity may not be good:

- If you are tired or sick
- If you are taking medication
- If you have taken alcohol or drugs

Operate unit only if you are physically and mentally well.

Eye Protection



- ◆ **Eye protection that meets ANSI Z87.1 or CE requirements must be worn whenever you operate the unit.**
- ◆ **For additional safety, a full-face shield may be worn over safety glasses or goggles to provide protection from sharp branches or flying debris.**

Hand Protection

Wear sturdy, no-slip, rubber work gloves to improve your grip on the handles. Gloves also provide protection against cuts and scratches, cold environments, and reduce the transmission of machine vibration to your hands.

Hearing/Ear Protection

ECHO recommends wearing personal protection whenever unit is used.

Breathing Protection

Operators who are sensitive to dust or other common airborne allergens may need to wear a dust mask to prevent inhaling these materials while operating unit. Dust masks can provide protection against dust, plant debris, and other plant matter such as pollen. Make sure the mask does not impair your vision, and replace the mask as needed to prevent air restrictions.

Proper Clothing

Wear snug-fitting, durable clothing:

- Pants should have long legs, shirts should have long sleeves.
- DO NOT WEAR SHORTS.
- DO NOT WEAR TIES, SCARVES, JEWELRY, or clothing with loose or hanging items that could become entangled in moving parts or surrounding growth.
- Keep clothing buttoned or zipped, and keep shirt tails tucked in.
- Wear sturdy work shoes with nonskid rubber soles:
- DO NOT WEAR OPEN TOED SHOES.
- DO NOT OPERATE UNIT BAREFOOTED.

Keep long hair away from engine and air intake. Retain hair with cap or net.

Heavy protective clothing can increase operator fatigue, which may lead to heat stroke. Schedule heavy work for early morning or late afternoon hours when temperatures are cooler.

WARNING

The components of this machine generate an electromagnetic field during operation, which may interfere with some pacemakers. To reduce the risk of serious or fatal injury, persons with pacemakers should consult with their physician and the pacemaker manufacturer before operating this machine. In the absence of such information, ECHO does not recommend the use of this machine by anyone who has a pacemaker.

Extended Operation / Extreme Conditions

CAUTION

Prolonged exposure to cold and/or vibration may result in injury. Read and follow all safety and operation instructions to minimize risk of injury. Failure to follow instructions may result in painful wrist/hand/arm injuries.

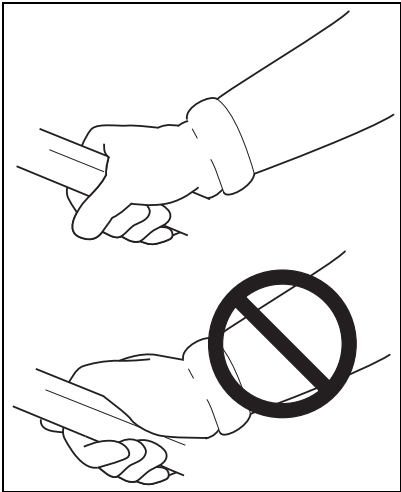
It is believed that a condition called Raynaud's Phenomenon, which affects the fingers of certain individuals, may be brought about by exposure to vibration and cold. Exposure to vibration and cold may cause tingling and burning sensations, followed by loss of color and numbness in the fingers. The following precautions are strongly recommended, because the minimum exposure, which might trigger the ailment, is unknown.

- Keep your body warm, especially the head, neck, feet, ankles, hands, and wrists.
- Maintain good blood circulation by performing vigorous arm exercises during frequent work breaks, and also by not smoking.
- Limit the hours of operation. Try to fill each day with jobs where operating the unit or other hand-held power equipment is not required.
- If you experience discomfort, redness, and swelling of the fingers followed by whitening and loss of feeling, consult your physician before further exposing yourself to cold and vibration.

Repetitive Stress Injuries (RSI)

It is believed that overusing the muscles and tendons of the fingers, hands, arms, and shoulders may cause soreness, swelling, numbness, weakness, and extreme pain in those areas. Certain repetitive hand activities may put you at a high risk for developing a Repetitive Stress Injury (RSI). An extreme RSI condition is Carpal Tunnel Syndrome (CTS), which could occur when your wrist swells and squeezes a vital nerve that runs through the area. Some believe that prolonged exposure to vibration may contribute to CTS. CTS can cause severe pain for months or even years.

To reduce the risk of RSI/CTS, do the following:

- Avoid using your wrist in a bent, extended, or twisted position. Instead try to maintain a straight wrist position. Also, when grasping, use your whole hand, not just the thumb and index finger.
 - Take periodic breaks to minimize repetition and rest your hands.
 - Reduce the speed and force with which you do the repetitive movement.
- 
- Do exercises to strengthen the hand and arm muscles.
 - Immediately stop using all power equipment and consult a doctor if you feel tingling, numbness, or pain in the fingers, hands, wrists, or arms. The sooner RSI/CTS is diagnosed, the more likely permanent nerve and muscle damage can be prevented.

DANGER

All over head electrical conductors and communications wires can have electricity flow with high voltages. This unit is not insulated against electrical current. Never touch wires directly or indirectly, otherwise serious injury or death may result.

 DANGER

Do not operate this product indoors or in inadequately ventilated areas. Engine exhaust contains poisonous emissions and can cause serious injury or death.

Read the Manual

- Provide all users of this equipment with literature for instructions on safe operation.

Clear the Work Area

- Clear the area of children, bystanders, and pets. At a minimum, keep all children, bystanders, and pets outside a 15 m (50 ft.) radius; outside the 15 m (50 ft.) zone, there is still a risk of injury from thrown objects. Bystanders should be encouraged to wear eye protection. If you are approached, stop the engine.
- Avoid blowing debris towards people, pets, open windows, or vehicles when using unit.
- Review area to be cleared. Look for potential hazards such as stones or metal objects.

Keep a Firm Grip

- To prevent from dropping the unit, hold the handle in one hand, with thumb and fingers encircling the handle.

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 approved 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.

- ◆ Do not attempt to modify this product. Serious injury can result from the use of any modified product.
- ◆ Check unit for loose/missing nuts, bolts, and screws. Tighten and/or replace as needed.
- ◆ Do not use blower if any part is missing or damaged.
- ◆ Have repairs done only by an authorized service dealer.

 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 (3-way catalyst). The fuel tank/fuel 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)

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.

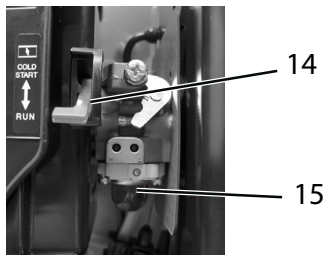
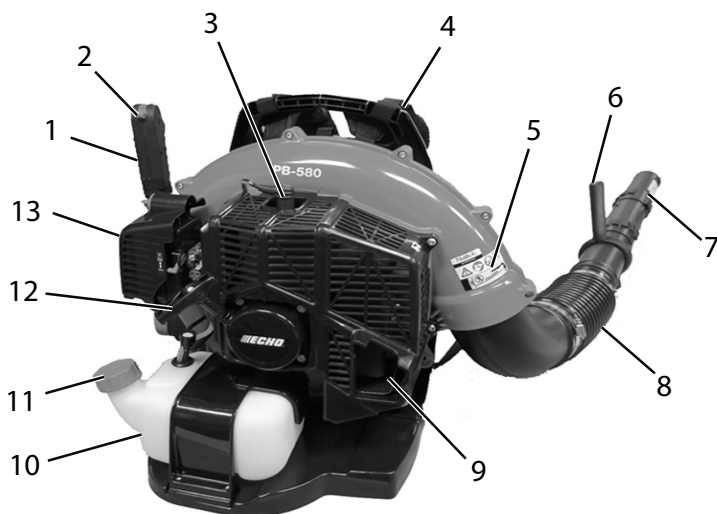
EMISSION CONTROL INFORMATION
ENGINE FAMILY: CEHXS.0214EQ DISPLACEMENT: 21.2cc
EMISSION COMPLIANCE PERIOD: 50Hours
THIS ENGINE MEETS 2013 U.S. EPA EXH/EVP & CALIFORNIA
EXH/EVP EMISSION REGULATIONS FOR S.O.R.E. REFER TO OWNER'S
MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS.
YAMABIKO CORP. MMM/YYYY 

EMISSION CONTROL INFORMATION
ENGINE FAMILY: CEHXS.0214KL DISPLACEMENT: 21.2cc
EMISSION COMPLIANCE PERIOD: 300Hours
THIS ENGINE MEETS 2012 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 

DESCRIPTION

PB-580 H

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 ECHO dealer. The safety decal is for example only. Your label may appear slightly different.



70dB(A)
per ANSI B175.2

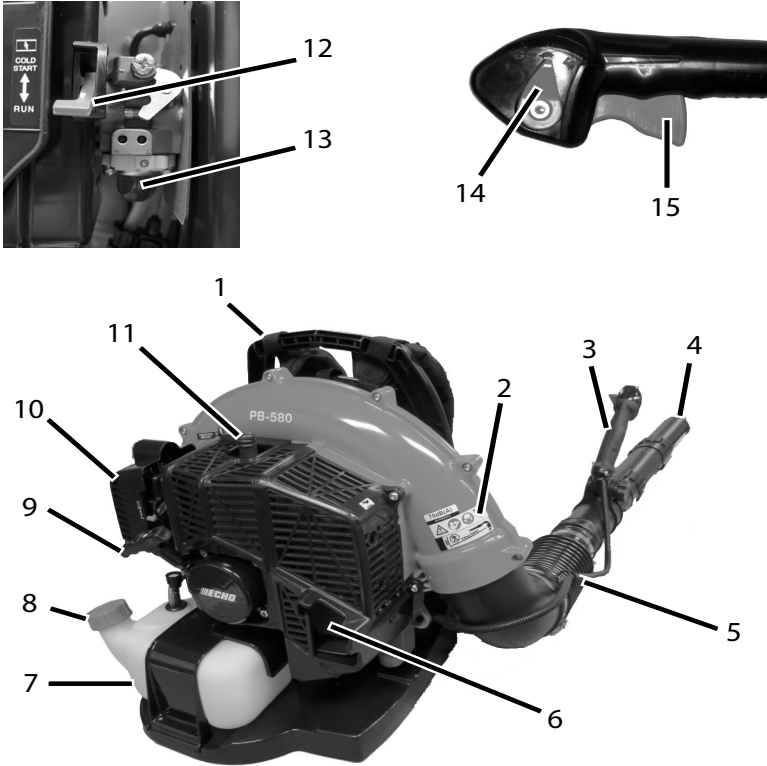


CAN ICES-2/NMB-2

1. Handle
2. Throttle Position Lever/stop Switch
3. Spark Plug
4. Shoulder Harness
5. Safety Decal
6. Stick Handle
7. Blower Pipes
8. Flexible Pipes
9. Spark Arrestor Muffler (with or without Catalyst)
10. Fuel Tank
11. Fuel Tank Cap
12. Recoil Starter Handle
13. Air Cleaner
14. Choke
15. Purge Bulb

PB-580T

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 ECHO dealer. The safety decal is for example only. Your label may appear slightly different.



1. Shoulder Harness
2. Safety Decal
3. Throttle Control
4. Blower Pipes
5. Flexible Pipes
6. Spark Arrestor Muffler (with or without Catalyst)
7. Fuel Tank
8. Fuel Tank Cap
9. Recoil Starter Handle
10. Air Cleaner
11. Spark Plug
12. Choke
13. Purge Bulb
14. Throttle Position Lever
15. Throttle Switch

CONTENTS

The ECHO 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 ECHO Dealer of damaged or missing parts. Use the contents list to check for missing parts.

PB-580 H

- 1 Power Head
- 1 Flex Pipe
- 1 Pipe With Swivel
- 1 Straight Pipe
- 1 Straight Pipe With Decal
- 1 Quick Start Guide
- 1 Warranty Statement
- 2 Clamps With Screws
- 1 Stick Handle
- 1 Bolt 6 x 45 mm
- 1 Washer 6 mm
- 1 Wing nut

PB-580 T

- 1 Power Head
- 1 Flex Pipe
- 1 Pipe With Swivel
- 1 Straight Pipe
- 1 Straight Pipe With Decal
- 1 Quick Start Guide
- 1 Warranty Statement
- 2 Clamps With Screws

ASSEMBLY

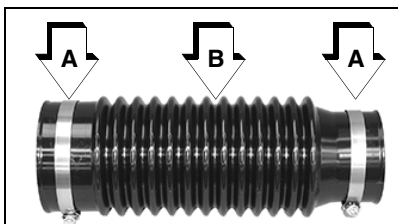
PB-580 H

WARNING

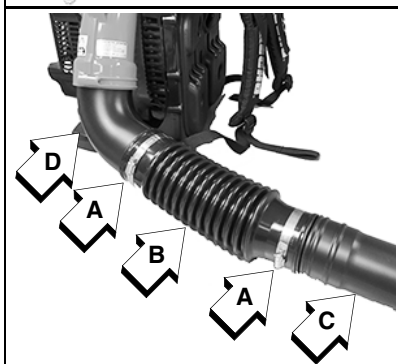
Never perform maintenance or assembly procedures with engine running or serious personal injury may result.

Install Blower Pipes and Stick Handle

1. Assemble clamps (A) onto both ends of flexible pipe (B).

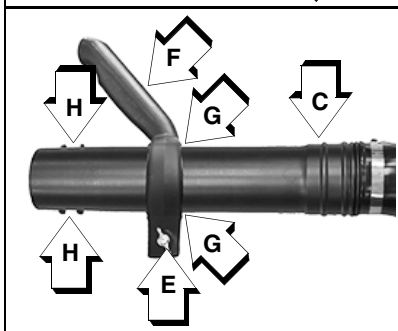


2. Assemble straight pipe with swivel (C) into flexible pipe (B).
3. Assemble flexible pipe (B) to elbow (D) on blower and tighten clamps (A).

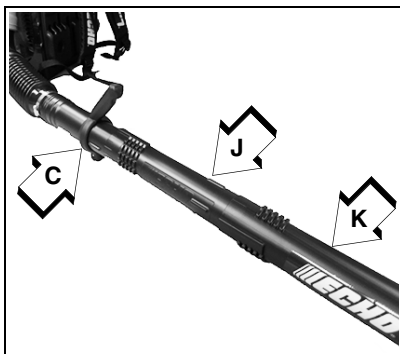


Note: A light lubricant may be used to ease assembly of flexible pipe to blower elbow.

4. Loosen wing nut (E) completely and expand stick handle clamp (F). Align notches (G) in handle clamp with tabs (H).
5. Slide stick handle onto swivel pipe (C). Stick handle (F) should be angled away from operator.
6. Position stick handle (F) for comfortable operation. Tighten wing nut (E).



7. Assemble straight pipe (J) onto swivel pipe (C), until you feel light resistance. Hold swivel pipe and turn straight pipe clockwise, engaging positive locking channels, until connection is firm. Do not force connection.
8. Assemble straight pipe with decal (K) to straight pipe (J) as in step 7.



Note: Blower use will eventually loosen pipe connections. Exclusive positive locking system allows pipes to be tightened. If loosening occurs, remove two straight pipes and install according to instructions 7 & 8.

PB-580T

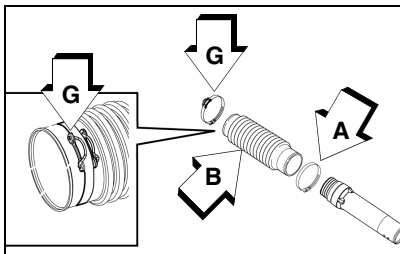
WARNING

Never perform maintenance or assembly procedures with engine running or serious personal injury may result.

Install Blower Pipes

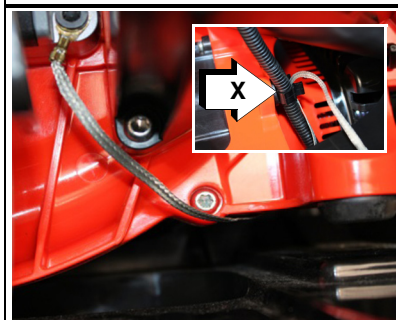
1. Assemble clamps (A) and (G) onto both ends of flexible pipe (B).

Note: Clamp with cable guide loop (G) fits elbow end of flexible pipe.



Note: Anti-static wire before installation.

2. Route anti-static wire below fan housing and clip wire into throttle cable retaining clip (X). Position wire outside blower elbow.



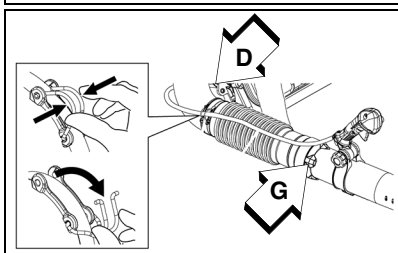
3. Insert anti-static wire through flex tube. Leave enough slack in anti-static wire to allow for full rotation of elbow.

Note: A light lubricant may be used to ease assembly of flexible pipe to blower elbow.

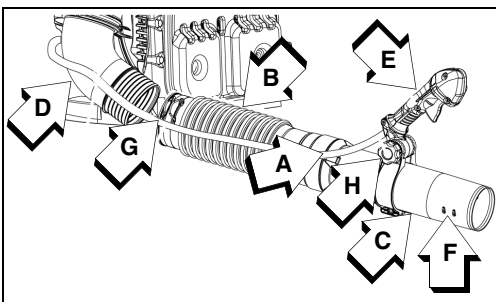


4. Assemble flexible pipe to elbow (D) on blower. Position clamp with cable guide loop (G) on outside of flexible pipe and tighten clamp.

Note: Hang handle freely from blower to assure throttle cable is not twisted before installing handle (E).

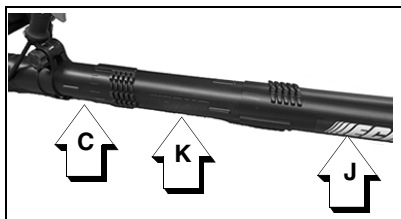


5. Position throttle cable along the outside of elbow. Loosen knob (H) on handle (E). Align notches in handle with tabs (F) and install onto swivel pipe (C) past long ridges in pipe.



6. Insert anti-static wire through swivel pipe (wire will hang freely in pipe).
7. Assemble swivel pipe into flexible pipe and tighten clamp (A).
8. Clip throttle cable into throttle cable guide loop.
9. Move handle (E) to desired position. Tighten knob (H) hand tight.

10. Assemble straight pipe (K) onto swivel pipe, until you feel light resistance. Hold swivel pipe and turn straight pipe clockwise, engaging positive locking channels, until connection is firm. Do not force connection.



11. Assemble straight pipe with decal (J) to straight pipe as in step 10.

Note: Blower use will eventually loosen pipe connections. Exclusive positive locking system allows pipes to be tightened. If loosening occurs, remove two straight pipes and install according to instructions 10 & 11.

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. Blower housing may contain shredder blades and other sharp edges that can cause serious injuries if touched, even if engine is off and blades are not moving. Wear gloves to protect hands from sharp edges and hot surfaces.

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. Contact local fire authorities for laws or regulations regarding fire prevention requirements.

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

- ◆ This blower should be used for clearing leaves, grass, debris, and dust in yards, gardens, driveways, and parking lots only.
- ◆ Always maintain a direct, clear line of site to the unit and the work being performed.
- ◆ Always be alert for changes in operation of unit.
- ◆ Always shut engine off before transporting unit to new location.
- ◆ Always secure the unit during transportation to prevent turnover, fuel spillage, and damage to the unit.

Fuel

 WARNING

Diesel fuels and alternative fuels, such as E-15 (15% ethanol), E-85 (85% ethanol) or any fuels not meeting ECHO requirements are NOT approved for use in ECHO 2-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 two-stroke engine oil, such as ECHO branded 2-stroke oils, meeting ISO-L-EGD (ISO/CD 13738) and J.A.S.O. FD Standards must be used. ECHO 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 two-stroke 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.**

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

NOTICE

ECHO branded 2-stroke oils may be mixed at 50:1 ratio for application in all ECHO 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. Mark fuel containers as containing 2-stroke mixture fuel.***
- ◆ ***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.***

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

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

Fuel to Oil Mix – 50:1 Ratio			
US		Metric	
Gas	Oil	Gas	Oil
gal.	fl.oz.	L	cc
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 locations may require the use of automatic fuel shut-off containers to reduce fuel spillage.

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.

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

NOTICE

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

NOTICE

Stored two-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.

Starting Cold Engine

- Recoil starter: Use short pulls - only 1/2 - 2/3 of rope length for starting. Do not allow the rope to snap back in. Always hold the unit firmly.
- (PB-580H): Rotate spring loaded throttle arm downward to a comfortable operating position.

1. Throttle Lever

Move throttle lever (A) to IDLE position.

2. Choke

Move choke (B) UP to COLD START () position.

3. Purge Bulb

Pump purge bulb (C) until fuel is visible. Pump bulb an additional 4 or 5 times.

4. Recoil Starter

Pull recoil starter handle (D) until engine fires, or a maximum of 5 pulls

5. Choke

After engine fires (or 5 pulls), move choke lever back to RUN () position, then pull starter handle/rope until engine starts and runs. Allow unit to warm up at idle for several minutes.

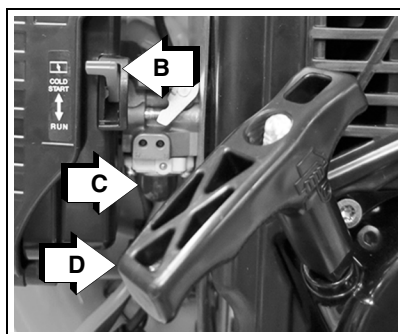
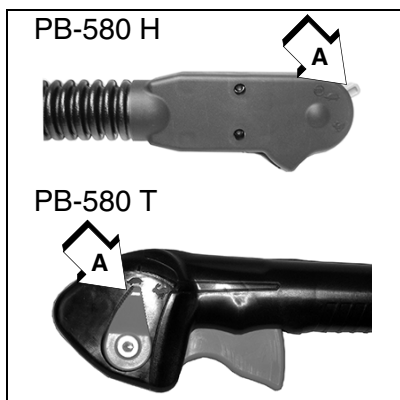
Note: If engine does not start with choke in "RUN" position after 5 pulls, move choke to COLD START () position, and repeat steps 3- 5.

6. Throttle Lever

Allow engine to warm up for several minutes before use.

7. Throttle Lever

After engine warm-up, move throttle lever gradually to increase engine RPM to desired operating speed.



Starting Warm Engine

The starting procedure is the same as Cold Start except DO NOT close the choke.v

1. Throttle Lever

Move throttle lever (A) to IDLE position.

2. Purge Bulb

Pump purge bulb (C) until fuel is visible. Pump bulb an additional 4 or 5 times.

3. Recoil Starter

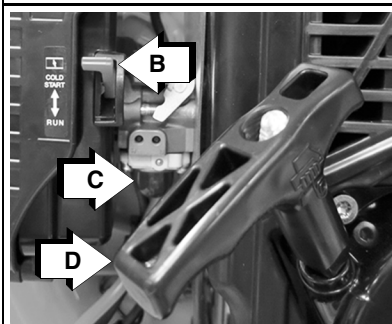
Pull recoil starter handle (D) and engine should start. Do not use choke (B)

Note: If engine does not start after 5 pulls, use cold start procedures.

PB-580 H



PB-580 T



Stopping Engine

- PB-580 H

1. Throttle Lever

Move throttle lever (A) to IDLE position and allow engine to return to idle before shutting off engine.

2. Throttle Lever

Move throttle lever (A) to "O" (STOP) position.

PB-580 H



PB-580 T



- PB-580 T1. *Throttle Lever*

Release throttle trigger. Move Throttle Lever (A) forward to idle position and allow engine to return to idle before shutting off engine.

2. *Throttle Lever*

Move Throttle Lever (A) all the way forward 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.

Operating Blower **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

Always wear safety glasses, hearing protection and a face filter mask or serious personal injury may result. Do not point the blower pipe in the direction of people or pets.

NOTICE

Use reduced speed only when performing light-duty tasks or to comply with local noise regulations. Continuous low speed operation may allow fuel/oil residue to build-up on the piston and cause rapid build-up of carbon on the spark arrestor screen, resulting in overheating and engine damage. To reduce harmful build-up, run engine at wide open throttle for at least 5 minutes every hour, and inspect/clean the spark arrestor screen after approximately 40 hours of operation.

Read the Safety Section carefully.

NOTICE

To avoid engine damage due to over-revving, do not block blower pipe.

1. Use only during appropriate hours. Contact your local government for the ordinances affecting your area.
2. To reduce sound levels, limit the number of pieces of equipment used at any one time.
3. Allow the engine to warm up at a fast idle for a few minutes.

4. **PB-580 H**

Set engine speed with throttle lever (A).

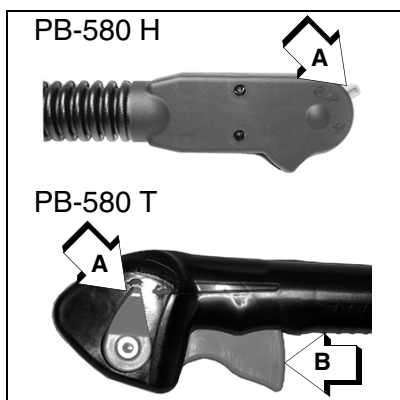
PB-580 T

Control engine speed with throttle trigger (B), or for continuous use, set engine speed with throttle lever (A).

5. Use lower speed to blow dry leaves from walks, patios and drives. Use rakes and brooms to loosen debris before blowing.
6. Additional speed may be necessary to clean grass and leaves from a lawn or flower bed.
7. Higher speed may be necessary to move gravel, dirt, snow, bottles or cans from a driveway, street, parking lot or stadium.
8. Always stop unit using stop engine procedure.

Note: Never use a higher speed setting than necessary to perform a task. Remember, the higher the engine speed, the louder the blower noise.

9. Minimize dust by using blower at lower speeds or dampen surface with water. Blower can be used to clean most surfaces when water conservation is desired.
10. Use the full blower pipe configuration when blowing.
11. After using blowers and other equipment, CLEAN UP! Dispose of debris in trash receptacles.



CAUTION

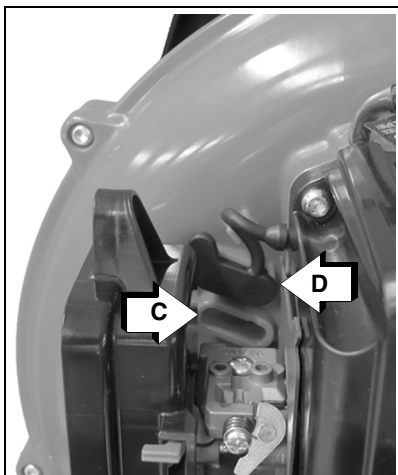
Contacting blower pipe tip on abrasive surfaces can create sharp cutting edges and can result in personal injury if touched. Do not scrape or drag blower pipe tip when operating or transporting unit. Replace blower pipe assembly if protective metal ring is worn, cracked or deformed.

Cold Weather Operation

Plug

For operation in cold weather, install plug in cold weather position (C), otherwise icing can occur.

For operation in normal weather, install plug in warm weather position (D), otherwise over heating can occur.



Intake Cover (optional)

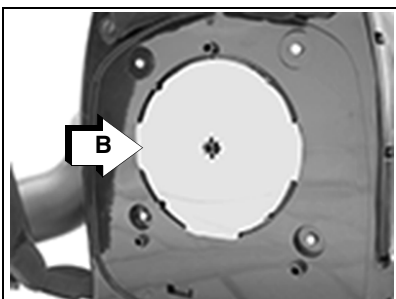
In cold weather, intake cover can be installed for operator comfort. Intake cover is not included.

1. Remove back cushion (A) from frame.



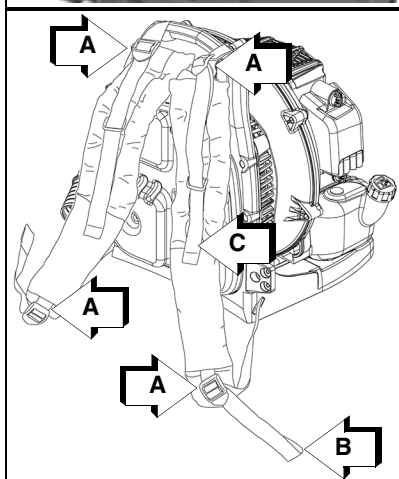
2. Install intake cover (B) on frame over air intake.
3. Install back cushion (A) to frame over intake cover.

Note: Blower performance may be reduced slightly.



Adjust the Harness

1. Loosen upper and lower buckles (A), then put blower on your back.
2. Pull strap (B) downward to adjust position of blower.
3. Pull (C) to adjust angle between your back and the blower.



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](http://www.echo-usa.com/products/maintenance-kit) or go to <http://www.echo-usa.com/products/maintenance-kit>

or

[HERE](http://www.shindaiwa-usa.com/you-can.aspx) <http://www.shindaiwa-usa.com/you-can.aspx>

For information about maintenance kits.

Maintenance Intervals

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

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

MAINTENANCE PROCEDURE NOTES:

1. Replacement is recommended based on the finding of damage or wear during inspection.

Air Filter

Level 1.

Parts Required: Tune Up Kit.

1. 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.
3. Remove air filter and lightly brush debris from filter. Replace filter if it is damaged, fuel soaked, very dirty, or the rubber sealing edges are deformed.
4. If filter can be reused, be certain it:
 - Fits tightly in the air filter cavity
 - Is installed with the original side out
5. Install air filter cover.



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.

1. Use a clean rag to remove loose dirt from around fuel cap and empty fuel tank.
2. Pull the fuel line and filter from the tank.
3. Remove the filter from the line and install the new filter.



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

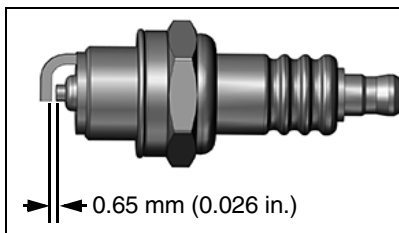
Level 2.

Parts Required: Tune Up Kit.

NOTICE

Use only NGK BPM8Y spark plug (BPMP8Y in Canada) otherwise severe engine damage may occur.

1. 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 150-170 kgf • cm (130-150 in • lbf).



Cooling System

Level 2.

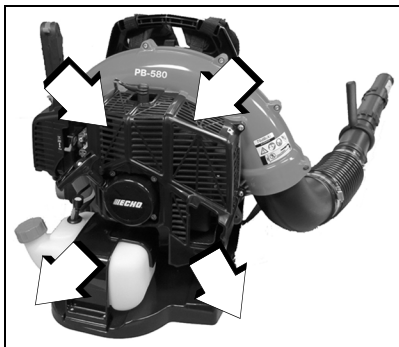
NOTICE

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.

Removal of cooling passage blockages or cleaning of cooling fins is considered "Normal Maintenance." Any failure attributed to lack of maintenance is not warranted.

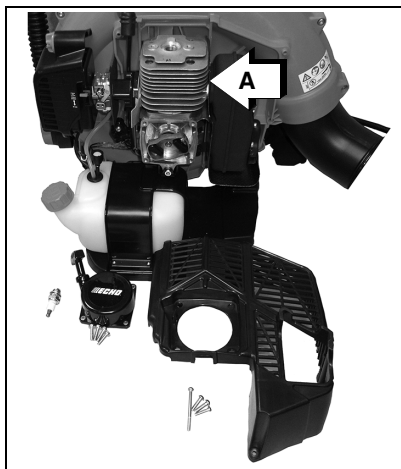


Cleaning Grill

1. Brush accumulated debris from intake grill between backpack frame and blower housing.

Cleaning Cylinder Fins

1. Remove spark plug.
2. Remove starter
3. Remove engine cover.
4. Clean cylinder fins (A) to allow cooling air to pass freely
5. Assemble components in reverse order.



Exhaust System

Spark Arrestor Screen

Level 2.

Parts Required: Spark Arrestor Screen, Gasket

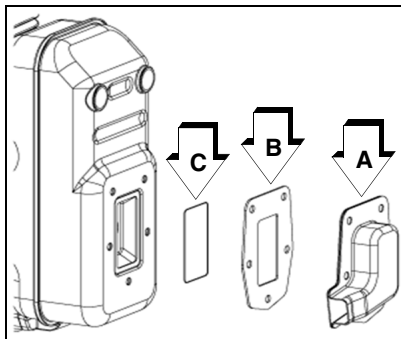
NOTICE

Carbon deposits in muffler will cause a drop in engine output and overheating. Spark arrestor screen must be checked periodically.

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

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

7. Replace screen if it is cracked, plugged, or has holes burned through.



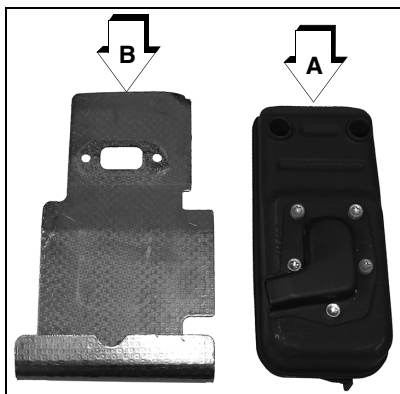
8. Replace gasket.
9. Assemble components in reverse order.

Exhaust Port Cleaning

Level 2.

Parts Required: Heat Shield

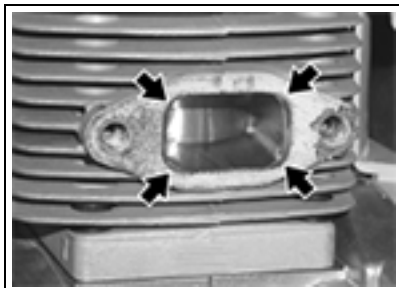
1. Remove spark plug.
2. Remove starter
3. Remove engine cover.
4. Place piston at top dead center. Remove muffler (A) heat shield (B).
5. Use a wood or plastic scraping tool to clean deposits from cylinder exhaust port.



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.

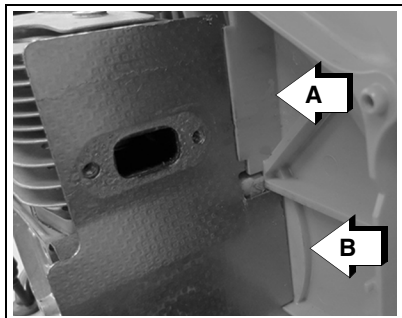
6. Replace heat shield.



NOTICE

Assure heat shield is installed correctly behind rib (A) and in front of rib (B) in fan case.

7. Install muffler.
8. Tighten muffler mounting bolts (or nuts) to 90-110 kgf • cm (80-95 in • lbf).
9. Assemble components in reverse order.
10. Start engine, and warm to operating temperature.
11. Stop engine, and re-tighten mounting bolts (or nuts) to specifications.



Carburetor Adjustment

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, emission, and durability performance up to 1,100 feet above sea level (ASL) (96.0 kPa). To maintain proper engine operation and emission compliance above 1,100 feet ASL the carburetor may need to be adjusted by an authorized service dealer.

NOTICE

If the engine is adjusted for operation above 1,100 feet ASL, the carburetor must be re-adjusted when operating the engine below 1,100 feet ASL, otherwise severe engine damage may result.

Level 2.

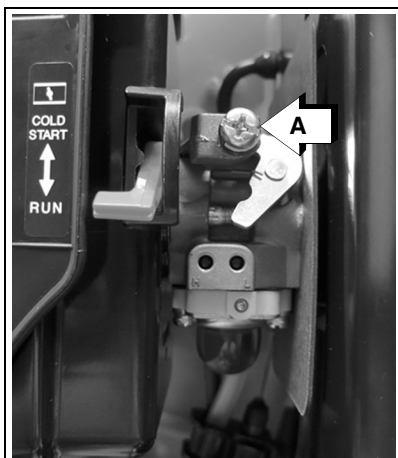
Note: Every unit is run at the factory and the carburetor is set in compliance with emission regulations. Carburetor adjustments, other than idle speed, must be performed by an authorized dealer.

Idle Adjustment

Before adjustment make sure that:

- Air filter is clean and properly installed.
- Spark arrestor screen and muffler are free of carbon.
- Blower pipes are installed.

1. Start engine, run at idle for one minute.
2. Complete warm up by running at full throttle for 5 minutes, operating choke twice to clear air from carburetor chambers.
3. 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; counter clockwise to decrease idle speed.

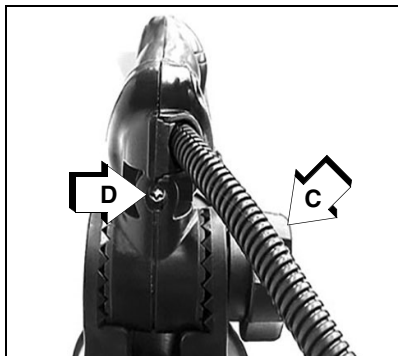


Throttle Cable Adjustment

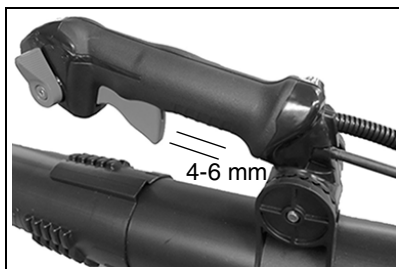
Level 1

If engine idle speed changes when blower pipe is moved, or engine will not reach full wide open throttle speed, adjust throttle cable.

1. Loosen handle adjustment knob (C) and tilt Tube Throttle handle forward to expose Adjustment Screw (D).



2. Turn Adjustment Screw until Throttle Trigger free play is 4 - 6 mm (3/16-1/4 in.).
3. After adjustment, squeeze and release Throttle Trigger several times to verify Carburetor Throttle Shaft has full range of movement from idle to wide open throttle positions.



TROUBLESHOOTING

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.

ENGINE PROBLEM TROUBLESHOOTING CHART				
Problem	Check	Status	Cause	Remedy
Engine starts hard or Engine does not start	Fuel at carburetor	No fuel at carburetor	Fuel strainer or fuel line obstructed	Clean or replace See your dealer

ENGINE PROBLEM TROUBLESHOOTING CHART				
Problem	Check	Status	Cause	Remedy
Engine starts hard or Engine does not start	Fuel at cylinder	No fuel at cylinder	Carburetor	See your dealer
		Muffler wet with fuel	Fuel mixture too rich	OPEN choke
	Clean or replace air filter			
	Adjust carburetor			
	See your dealer	Spark at end of plug wire	No spark	Ignition at STOP position
Electrical problem				See your dealer
Spark at plug	Incorrect gap - Covered with carbon - Fouled with fuel - Plug defective	Adjust to 0.65mm (0.026 in.)		
			Clean or replace plug	
Engine runs, but dies or Engine does not accelerate properly	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
	Fuel vent	Fuel vent plugged	Contaminated fuel	Clean or replace
	Spark plug	Plug dirty or worn	Normal wear	Clean and adjust or replace
	Carburetor	Improper adjustment	Vibration	Adjust
	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 does not crank	N/A		Internal engine problem	See your dealer

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.

2. Place the stop switch or lever in the "OFF" position.
3. Remove accumulation of grease, oil, dirt and debris from exterior of unit.
4. Perform all periodic lubrication and services that are required.
5. Tighten all the screws and nuts.
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.
8. Pull the recoil starter handle 2-3 times to distribute the oil inside the 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.
11. Remove blower pipe assembly from unit.

SPECIFICATIONS

MODEL	PB-580 H	PB-580 T
Length (w/o pipes)	379 mm (14.92in.)	379 mm (14.92 in.)
Width (w/o pipes)	537 mm (21.14 in.)	478 mm (18.82 in.)
Height (w/o pipes)	459 mm (18.07 in.)	
Weight (dry) (w/o pipes)	9.4 kg (20.7 lb.)	9.3 kg (20.5 lb.)
Engine Type	Air cooled, two-stroke, single cylinder gasoline engine	
Bore	46.0 mm (1.81 in.)	
Stroke	35.0 mm (1.38 in.)	
Displacement	58.2 cc (3.55 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 BPM8Y (NGK BPMR8Y in Canada) (Gap 0.65 mm [0.026 in.])	
Fuel	Mixed (Gasoline and Two-stroke Oil)	
Gasoline/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 E-15 or E-85.	
Oil	ISO-L-EGD (ISO/CD 13738) and J.A.S.O. M345- <u>FD</u> , two-stroke, air-cooled engine oil.	
Fuel Tank Capacity	1.83 L (62 US fl. oz.)	
Starter System	Automatic Recoil Starter, centrifugal type	
Idle Speed	2,700 RPM	
Wide Open Throttle Speed (W.O.T.)	6,550 RPM	
Maximum Air Speed w/ pipes	96.4 m/sec (216 mph)	
Air Volume	14.7 m ³ /min. (517 ft. ³ /min.)	
Sound Level at 50 ft. dB(A) scale per ANSI B175.2	70 dB(A)	

PRODUCT REGISTRATION

Thank you for choosing ECHO Power Equipment

Please go to <http://www.echo-usa.com/Warranty/Register-Your-ECHO> to register your new product on-line. It's **FAST** and **EASY**! NOTE: your information will never be sold or misused by ECHO, Inc. Registering your purchase enables us to contact you in the unlikely event of a service update or product recall, and verifies your ownership for warranty consideration.

If you do not have access to the Internet, you can complete the form below and mail to:

ECHO Incorporated, Product Registration, PO Box 1139, Lake Zurich IL 60047.

(H) P44514001001 - P44514999999
P48314001001 - P48314999999

(T) P44614080845 - P44614999999
P48414080845 - P48414999999



ECHO INCORPORATED

400 Oakwood Road
Lake Zurich, IL 60047
www.echo-usa.com

**BACKPACK BLOWER / SOPLADORA DE MOCHILA / SOUFFLANTE DORSALE****PB-265LN / PB-580 H/T / PB-755S H/T / PB-760LN H/T / PB-770 H/T****INTRODUCTION:**

This ECHO Quick Start Guide is designed to provide you with details about safety warning symbols, necessary assembly steps, and operational instructions to use your product without delay.

INTRODUCCIÓN:

Esta guía de inicio rápido de ECHO está diseñada para proporcionarle detalles sobre los símbolos de advertencia de seguridad, los pasos necesarios para el ensamblaje y las instrucciones de operación para usar el producto sin demora.

INTRODUCTION:

Ce Guide de démarrage rapide ECHO est conçu pour vous fournir les détails sur les signaux de sécurité et d'avertissement, les étapes de montage nécessaires et les instructions opérationnelles qui vous permettront d'utiliser votre produit dans les plus brefs délais.



Scan QR Code or visit the web link www.echo-usa.com/manuals or call 1-800-432-ECHO (3246) for the Operators Manual, additional literature including safety manual, a copy of the product warranty, or to register your product. Before calling or accessing the website, know the model and serial number of your unit. Escanee el código QR o visite el enlace al sitio web www.echo-usa.com/manuals o llame al 1-800-432-ECHO (3246) para obtener el Manual del operador, la bibliografía adicional incluido un manual de seguridad, una copia de la garantía del producto, o para registrar el producto. Antes de llamar o acceder al sitio web, conozca el modelo y el número de serie de su unidad. Scannez le code QR ou visitez le lien www.echo-usa.com/manuals ou appelez au 1 800 432-ECHO (3246) pour avoir le Manuel de l'utilisateur, une documentation complémentaire tels que le manuel de sécurité, une copie de la garantie du produit, ou encore pour enregistrer votre produit. Avant d'appeler ou d'accéder au site Web, connaissez le modèle et le numéro de série de votre appareil.

INTERNATIONAL SAFETY SYMBOLS / SÍMBOLOS DE SEGURIDAD INTERNACIONALES / SYMBOLES INTERNATIONAUX DE SÉCURITÉ

<i>Symbols / Símbolos / Symboles</i>	<i>International Symbols</i>	<i>Símbolos internacionales</i>	<i>Symboles internationaux</i>
	Warning, See Operator's Manual	Lea y entienda el manual del operador	Lire et veiller à bien comprendre les instructions du manuel d'utilisation
	Wear Eye, Ear and Head Protection	Protégase los ojos, oídos y cabeza	Porter des protections pour les yeux, les oreilles et la tête
	Wear Hand and Foot Protection	Use protection para pies y manos	Usure protection de main et de pied
	Safety / Alert	Seguridad / alerta	Sécurité / alerte
	DO NOT Allow Flames or Sparks Near Fuel	NO permita que haya llamas o chispas cerca del combustible	le carburant de flammes ou d'étincelles
	DO NOT Smoke Near Fuel	NO fume cerca del combustible	NE PAS fumer près du carburant
	Hot Surface	Superficie caliente	Surface brûlante
	Fuel and Oil Mixture	Mezcla de combustible y aceite	Mélange huile et essence
	Choke Control "RUN" Position (Choke Open)	Control del estrangulador "marcha" posición (estrangulador abierto)	Starter volet de départ position RUN (ouvert)
	Choke Control "COLD START" Position (Choke Closed)	Control del estrangulador "arranque en frío" posición (estrangulador cierre)	Starter volet de départ position START (fermé)
	Finger Sever	Dedo severo	Doigt sévère
	Thrown Objects	Objetos lanzados	Projection d'objets
	Wear Slip Resistant Footwear	Lleve calzado resistente a las resbaladuras.	Porter des chaussures antidérapantes
	Keep Bystanders and Helpers Away 15 m (50 ft.)	No permita a nadie que se acerque más de 15 metros (50 pies) de la máquina	Ne laisser personne approcher à moins de 15 m (50 pi)

MANUAL SAFETY SYMBOLS AND IMPORTANT INFORMATION

Throughout this manual and on the product itself, you will find safety alerts and helpful, informational messages preceded by symbols or key words. The following is an explanation of those symbols and key words and what they mean to you.

DANGER

The safety alert symbol accompanied by the word “DANGER” calls attention to an act or condition which **WILL** lead to serious personal injury or death if not avoided.

WARNING

The safety alert symbol accompanied by the word “WARNING” calls attention to an act or condition which **CAN** lead to serious personal injury or death if not avoided.

NOTICE

The enclosed message provides information necessary for the protection of the unit.

Note: This enclosed message provides tips for use, care and maintenance of the unit.

GENERAL SAFETY REQUIREMENTS

Read and understand all provided literature before use. Failure to do so could result in serious injury. Additional operating instructions are available from your Authorized ECHO Dealer.

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 can result.
- Use only approved attachments. Serious injury can result from the use of a non-approved attachment combination.
- Do not attempt to modify this product. Serious injury can result from the use of any modified product.
- Do not operate this unit when tired, ill, or under the influence of alcohol, drugs, or medication. Serious injury can result from the use of this product in an impaired state.
- 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.
- Eye protection that meets ANSI Z87.1 or CE requirements must be worn whenever you operate the unit.
- Operators who are sensitive to dust or other common airborne allergens may need to wear a dust mask to prevent inhaling these materials while operating unit. Dust masks can provide protection against dust, plant debris, and other plant matter such as pollen. Make sure the mask does not impair your vision, and replace the mask as needed to prevent air restrictions.
- This blower should be used for clearing leaves, grass, and dust in yards, gardens, driveways, and parking lots only.

Use The Correct Personal Protection

WARNING

ALWAYS WEAR	NEVER WEAR
Hearing Protection	Loose Clothing
Eye Protection	Jewelry
Heavy, Long Pants	Short Pants, Short Sleeve Shirt
Boots	Sandals
Gloves	Barefoot
Long-Sleeve Shirt	Long Hair Below Shoulders

Before Each Use Inspect:

- For damaged parts.
- Loose or missing fasteners.
- Guards are installed correctly.
- For fuel leaks from any point of the fuel system (tank to carburetor).

Proper Operating Position

WARNING

- Keep a firm grip on all handles.
- Keep firm footing and balance.
- Adjust the straps according to instructions. Use both straps at all times.
- Do not over-reach.
- Keep all body parts away from hot surfaces.
- Do not operate from ladders, maintaining balance will be difficult and could result in serious injury.
- Read and understand all provided literature before use. Failure to do so could result in serious injury.
- Operate power equipment only at reasonable hours, not early in the morning or late at night when people might be disturbed. Comply with times listed in local ordinances.
- To reduce sound levels, limit the number of pieces of equipment used at any one time.
- Operate blowers at the lowest possible engine speed to do the job.
- Use rakes and brooms to loosen debris before blowing.
- In dusty conditions, slightly dampen surfaces when water is available.
- Conserve water by using blowers instead of hoses for many lawn and garden applications, including areas such as gutters, screens, patios, grills, porches, and gardens.
- Avoid blowing debris towards people, pets, open windows, or cars when using unit.
- Use the full blower nozzle extension when blowing.
- After using blowers and other equipment, **CLEAN UP!** Dispose of debris in trash receptacles.

Exhaust Gases

WARNING

Do not operate this product indoors or in inadequately ventilated areas. Engine exhaust contains poisonous emissions and can cause serious injury or death.

Fuel Handling

DANGER

- Fuel is **VERY** flammable. Use extreme care when mixing, storing or handling, or serious personal injury can result.
- Mix and pour fuel outdoors where there are no sparks and flames.
- Slowly remove the fuel cap only after stopping the engine.
- Do not smoke while fueling or mixing fuel.
- Wipe spilled fuel from the unit.
- Move at least 3 m (10 ft) away from the fueling source and site before starting engine.

Work Area

- Review the area to be cleared. Remove potential hazards such as rocks, broken glass, nails, wire, or metal objects, which can be thrown.
- Clear the area of children, bystanders and pets.
- At a minimum, keep all children, bystanders and pets outside a 15m (50 ft) radius.
- Outside the 15 m (50 ft) zone, there is still a risk of injury from thrown objects.
- Bystanders should be encouraged to wear eye protection.
- Avoid blowing debris towards people, pets, open windows, or vehicles when using unit. If you are approached, stop the engine.

MANUAL DE SÍMBOLOS DE SEGURIDAD E INFORMACIÓN IMPORTANTE

A lo largo de este manual, y en el producto mismo, encontrará alertas de seguridad y mensajes informativos de gran utilidad precedidos por símbolos o palabras clave. A continuación, se enumera una explicación de dichos símbolos y palabras clave y su significado.

DANGER

El símbolo de alerta de seguridad acompañado por la palabra “PELIGRO” destaca un acto o condición que LLEVARÁ a que se produzcan lesiones personales graves o la muerte si no se evita.

WARNING

El símbolo de alerta de seguridad acompañado por la palabra “ADVERTENCIA” destaca un acto o condición que PUEDE llevar a que se produzcan lesiones personales graves o la muerte si no se evita.

NOTICE

El mensaje adjunto proporciona información necesaria para proteger la unidad.

Nota: Este mensaje adjunto proporciona sugerencias para el uso, cuidado y mantenimiento de la unidad.

REQUISITOS DE SEGURIDAD GENERALES

Lea y comprenda toda la bibliografía provista antes del uso. De lo contrario, pueden producirse lesiones graves. Su concesionario de mantenimiento autorizado de ECHO le proporcionará instrucciones de funcionamiento adicionales.

WARNING

- La operación de una unidad en condiciones de mantenimiento deficientes puede ocasionar lesiones graves en el operador o las demás personas presentes. Siempre siga todas las instrucciones de mantenimiento como están escritas; de lo contrario, pueden producirse lesiones personales graves.
- Use solo los accesorios aprobados. Pueden producirse lesiones graves si se usa una combinación no aprobada de accesorios.
- No intente modificar este producto. Pueden producirse lesiones graves si se usa una modificación de este producto.
- No opere esta unidad cuando esté cansado, enfermo, o si está bajo los efectos del alcohol, las drogas o medicamentos. Pueden producirse lesiones graves si se usa este producto en un estado de deterioro.
- Las piezas móviles pueden amputar dedos o causar lesiones graves. Mantenga las manos, la vestimenta y los objetos sueltos alejados de todas las aberturas. Siempre apague el motor, desconecte la bujía y asegúrese de que todas las partes móviles se hayan detenido por completo antes de eliminar obstrucciones, limpiar suciedad o realizar tareas de reparación en la unidad.
- Cada vez que haga funcionar la unidad, debe utilizar protección ocular conforme a los requisitos de ANSI Z87.1 o CE.
- Los operadores que tengan sensibilidad al polvo o a otros alérgenos comunes transportados por el aire pueden necesitar una máscara antipolvo para prevenir la inhalación de estos materiales mientras ponen en funcionamiento la unidad. Las máscaras antipolvo pueden brindar protección contra el polvo, los residuos de las plantas y otros componentes de las plantas, como el polen. Asegúrese de que la máscara no altere su visión y reemplácela según sea necesario para prevenir restricciones de aire.
- Este soplador debe usarse para limpiar hojas, césped y polvo únicamente de patios, jardines, entradas para el automóvil y estacionamientos.

Utilice la protección personal adecuada

WARNING

USE SIEMPRE	NO USE NUNCA
Protección auditiva	Ropa suelta
Protección ocular	Joyas
Pantalones largos y gruesos	Pantalones cortos y camisa de mangas cortas
Botas	Sandalias
Guantes	Descalzo
Camisa de mangas largas	Cabello largo por debajo de los hombros

Antes de cada uso, inspeccione lo siguiente:

- Si hay piezas dañadas.
- Si hay sujetadores sueltos o faltantes.
- Los protectores están instalados correctamente.
- Si hay pérdidas de combustible de algún punto del sistema de combustible (del tanque al carburador).

Recomendaciones de funcionamiento

WARNING

- **Agarre con firmeza todos los mangos.**
- **Mantenga una posición estable y un equilibrio firme.**
- **Ajuste las correas de acuerdo con las instrucciones. Use ambas correas en todo momento.**
- **No se estire.**
- **Mantenga todas las partes del cuerpo alejadas de las superficies calientes.**
- **No opere desde las escaleras, ya que será difícil mantener el equilibrio y podría sufrir lesiones graves.**
- **Lea y comprenda toda la bibliografía provista antes del uso. De lo contrario, pueden producirse lesiones graves.**
- **Ponga en funcionamiento el equipo eléctrico solo a un horario razonable: no lo haga temprano a la mañana ni tarde a la noche cuando podría molestar a las personas. Cumpla con los horarios que figuran en las ordenanzas locales.**
- **Para reducir los niveles de ruido, restrinja el número de piezas del equipo que utiliza al mismo tiempo.**
- **Ponga en funcionamiento los sopladores a la velocidad del motor más baja para realizar el trabajo.**
- **Antes de utilizar el soplador, utilice rastrillos y escobas para que los desechos sean más fáciles de soplar luego.**
- **En condiciones donde haya mucho polvo, humedezca un poco las superficies o use un accesorio atomizador cuando tenga agua disponible.**
- **Ahorre agua usando sopladores en lugar de mangueras para muchas aplicaciones de césped y jardín, incluidas áreas como canaletas, pantallas, patios, parrillas, porches y jardines.**
- **Cuando utilice la unidad, no sople residuos en dirección hacia personas, mascotas, ventanas abiertas o automóviles.**
- **Cuando realice el soplado, utilice toda la extensión de la boquilla del soplador.**
- **Luego de usar los sopladores y otros equipos, ¡LÍMPIELOS! Quite los desechos de los receptáculos de basura.**

Gases del escape

WARNING

No haga funcionar este producto en interiores o en áreas mal ventiladas. El sistema de escape del motor contiene emisiones tóxicas que pueden producir lesiones graves o la muerte.

Manipulación del combustible

 DANGER

- *El combustible es MUY inflamable. Tenga extremo cuidado al mezclar, almacenar o manipular el combustible, o pueden producirse lesiones personales graves.*
- *Mezcle y vierta el combustible en exteriores donde no haya chispas ni llamas.*
- *Retire lentamente la tapa del combustible solo después de detener el motor.*
- *No fume mientras abastece o mezcla el combustible.*
- *Limpie el combustible derramado de la unidad.*
- *Aléjese al menos 3 m (10 ft) de la fuente y del sitio de abastecimiento de combustible antes de arrancar el motor.*

Área de trabajo

- Revise el área que se limpiará. Elimine potenciales peligros, como rocas, vidrio roto, clavos, cables u objetos metálicos, que pueden volar por el aire.
- Despeje el área de niños, otras personas presentes y mascotas.
- Como mínimo, mantenga a todos los niños, otras personas presentes y mascotas fuera de un radio de 15 m (50 ft).
- Fuera de la zona de 15 m (50 ft), aún hay riesgo de sufrir lesiones a causa de los objetos lanzados.
- Se debe alentar a las personas presentes a usar protección ocular.

Cuando utilice la unidad, no sople residuos en dirección hacia personas, mascotas, ventanas abiertas o vehículos. Si alguien se le acerca, detenga el motor.

SYMBÔLES DE SÉCURITÉ MANUELS ET INFORMATIONS IMPORTANTES

Tout au long de ce manuel et sur le produit lui-même, vous trouverez des alertes de sécurité et des messages d'information, précédés par des symboles ou des mots clés. Voici une explication des symboles et des mots clés et ce qu'ils signifient pour vous.

 DANGER

Le symbole d'alerte de sécurité accompagné du mot « DANGER » attire l'attention d'un acte ou condition qui MÈNERA à des blessures graves ou décès, si non évité.

 WARNING

Le symbole d'alerte de sécurité accompagné du mot « AVERTISSEMENT » vise à attirer l'attention sur une action ou situation susceptible D'ENTRAÎNER des blessures graves ou mortelles, si elle n'est pas évitée.

NOTICE

Le message ci-joint fournit les informations nécessaires à la protection de l'unité.

Remarque : Ce message ci-joint fournit des conseils pour l'utilisation, soins et maintenance de l'unité.

EXIGENCES GÉNÉRALES DE SÉCURITÉ

Lire et comprendre toute la documentation à votre disposition avant utilisation. Ne pas le faire pourrait entraîner des blessures graves. Des instructions d'utilisation supplémentaires sont disponibles auprès de votre concessionnaire ECHO agréé.

 WARNING

- *L'utilisation d'un appareil mal entretenu peut causer de graves blessures à l'utilisateur ou aux curieux. Toujours suivre les instructions d'entretien telles que prescrites, sinon de graves blessures peuvent être causées.*
- *N'utiliser que des attaches approuvées. L'utilisation de combinaisons d'accessoires non-approuvés peut causer de graves blessures.*
- *Ne pas essayer de modifier ce produit. L'utilisation d'un produit modifié peut causer de graves blessures.*
- *Ne pas manipuler ce dispositif lorsque fatigué, malade ou sous l'influence de l'alcool, de drogues ou de médicaments. L'utilisation du produit lorsqu'on est en état affaibli ou affecté peut causer de graves blessures.*
- *Les pièces mobiles peuvent amputer les doigts et causer de graves blessures. Garder les mains, les vêtements et les objets libres hors de portée de toute ouverture. Toujours arrêter le moteur, débrancher la bougie, et s'assurer que toutes les pièces mobiles sont complètement arrêtées avant d'enlever les obstructions, faire le nettoyage des débris, ou faire l'entretien de l'unité.*
- *Une protection oculaire qui répond aux exigences ANSI Z87.1 ou CE doit être portée à chaque fois que vous faites fonctionner l'unité.*
- *Operadores sensíveis ao pó e a outros alergênicos aéreos comuns podem precisar de uma máscara anti-pó para prevenir inalação durante o uso da unidade. Máscaras anti-pó podem proteger contra pó, restos de plantas e outros materiais, como o pólen. Certifique-se de que a máscara não prejudique sua visão e a troque conforme necessário para evitar restrições aéreas.*
- *Ce souffleur devrait être utilisé pour enlever les feuilles, l'herbe et la poussière dans les cours, les jardins, les allées et les stationnements uniquement.*

Utiliser la protection personnelle adéquate

WARNING

TOUJOURS PORTER	NE JAMAIS PORTER
Protection auditive	Vêtements amples
Protection oculaire	Bijoux
Pantalons épais et longs	Pantalons courts, chemises à manches courtes
Bottes	Sandales
Gants	Pieds nus
Chemises à manches longues	Cheveux dont la longueur dépasse les épaules

Avant chaque utilisation, inspecter qu'il n'y a pas :

- de pièces endommagées.
- d'attaches manquantes ou mal fixées.
- Les gardes sont installés correctement.
- de fuites de carburant par n'importe quel point du système d'alimentation (du réservoir au carburateur).

Recommandations opérationnelles

WARNING

- **Tenir fermement toutes les poignées.**
- **Bien placer ses pieds et garder l'équilibre.**
- **Ajustez les sangles conformément aux instructions. Utilisez les deux sangles en tout temps.**
- **Ne pas trop se pencher pour atteindre.**
- **Tenir toutes les parties du corps éloignées des surfaces chaudes.**
- **Ne pas travailler à partir d'une échelle, auquel cas le maintien de l'équilibre sera difficile et pourrait entraîner des blessures graves.**
- **Lire et comprendre toute la documentation à votre disposition avant utilisation. Ne pas le faire pourrait entraîner des blessures graves.**
- **Faire fonctionner l'équipement électrique à des heures raisonnables uniquement-- pas tôt le matin ou tard le soir lorsque la tranquillité des gens pourrait être troublée. Respecter les délais indiqués dans la réglementation locale.**
- **Pour réduire les niveaux sonores, limiter le nombre de pièces d'équipement utilisées en même temps.**
- **Faire fonctionner les souffleurs au régime moteur le plus bas pour effectuer une tâche.**
- **Utiliser des râtaux et des balais pour dégager les débris avant de souffler.**
- **Dans des conditions poussiéreuses, humidifier légèrement les surfaces ou utiliser le brumisateurs lorsqu'il y a de l'eau.**
- **Conserver l'eau en utilisant des souffleurs au lieu de tuyaux pour de nombreuses applications dans les pelouses et les jardins, y compris les gouttières, les écrans, les patios, les grilles, les porches et les jardins.**
- **Éviter de souffler des débris vers les personnes, les animaux domestiques, les fenêtres ouvertes ou les voitures pendant l'utilisation de l'appareil.**
- **Utiliser la rallonge de la buse du souffleur pendant l'utilisation de l'appareil.**
- **Après avoir utilisé des souffleurs et d'autres équipements, NETTOYER! Jeter les débris dans les poubelles.**

Les gaz d'échappement

WARNING

Ne pas utiliser ce produit à l'intérieur ou dans des zones mal ventilées. L'échappement du moteur contient des émissions toxiques et pourrait causer des blessures graves ou la mort.

Manutention du carburant

DANGER

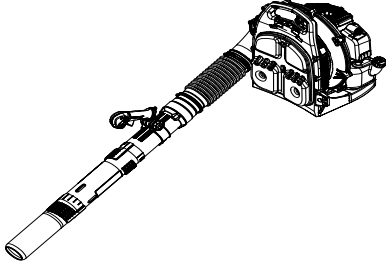
- **Le carburant est TRÈS inflammable. Faire très attention pendant le mélange, la conservation et la manipulation; sinon des blessures graves peuvent survenir.**
- **Mélanger et verser le carburant à l'extérieur, loin des flammes et des étincelles.**
- **Retirer lentement le bouchon de réservoir du carburant uniquement après avoir arrêté le moteur.**
- **Ne pas fumer lorsqu'on ravitaille le moteur ou lorsqu'on mélange le carburant.**
- **Essuyer le carburant déversé sur l'appareil.**
- **Se tenir à une distance d'au moins 3 m (10 pi) de la source et du site de ravitaillement avant de démarrer le moteur.**

Aire de travail

- S'assurer que l'aire de travail est libre. Enlever les objets qui représentent un danger potentiel tels que les roches, le verre brisé, les clous, les fils de fer ou les objets métalliques qui peuvent être jetés dans l'herbe.
- Éviter de travailler en présence des enfants, de curieux et d'animaux domestiques.
- Au mieux, garder les enfants, les curieux et les animaux domestiques en dehors d'un rayon de 15 m (50 pi).
- Il y a encore des risques de blessures en dehors de la zone de 15 m (50 pi) avec les objets rejetés.
- Les curieux doivent porter des lunettes protectrices.
- Éviter de souffler des débris vers les personnes, les animaux domestiques, les fenêtres ouvertes ou les véhicules pendant l'utilisation de l'appareil. À l'approche d'une personne, couper le moteur.

ASSEMBLY / MONTAJE / ASSEMBLAGE

1 T MODEL / T MODELO / T MODÈLE



Note: PB-580T Model shown. Your model may be slightly different.

Nota: Se muestra el modelo PB-580T. Su modelo puede ser ligeramente diferente.

Remarque: le modèle PB-580T est illustré. Votre modèle peut être légèrement différent.

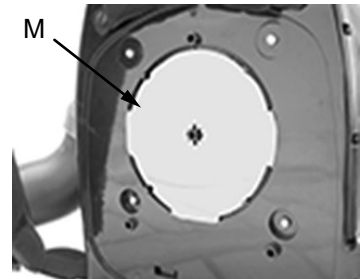
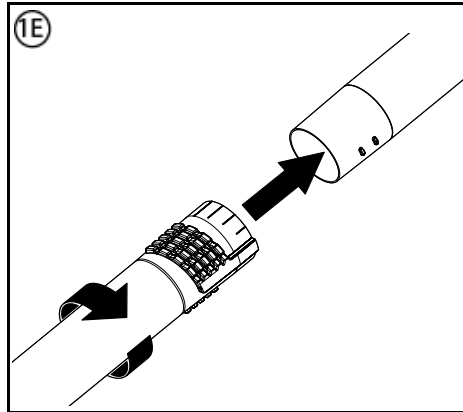
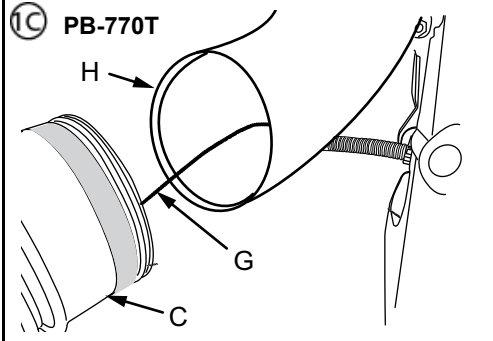
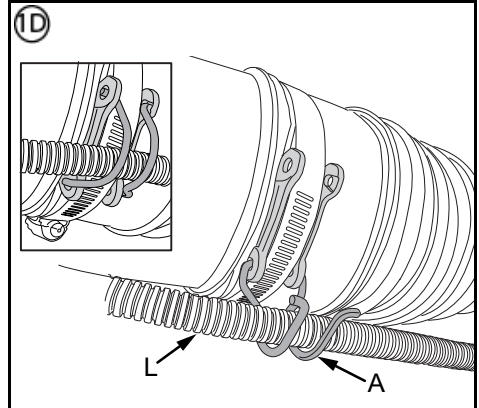
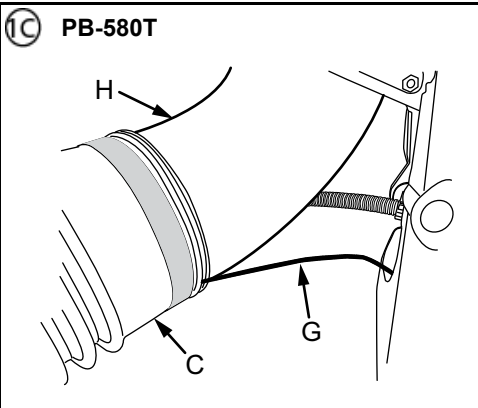
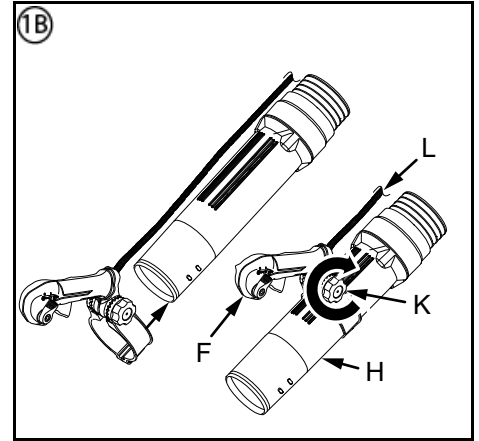
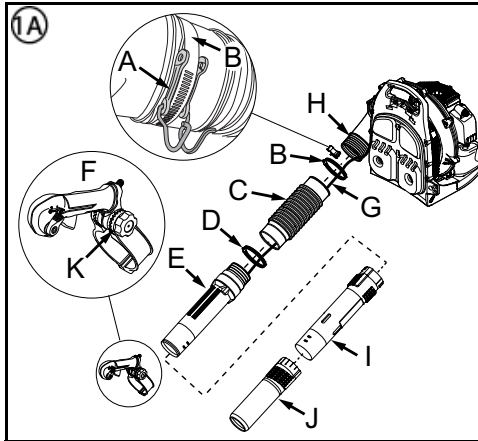


Figure 1 Legend / Figura 1 Leyenda / Figure 1 Légende

A	Cable Clip / Clip de cable / Clip de câble	B	Clamp / Abrazadera / Serrer	C	Flexible Blower Tube / Tubo de soplador flexible / Tube Souffleur Flexible
D	Clamp / Abrazadera / Serrer	E	Swivel Blower Tube / Tubo de soplador giratorio / Tube de ventilateur pivotant	F	Throttle Control / Control del acelerador / Commande d'accélérateur
G	Static Discharge Wire / Cable de descarga estática / Fil de décharge statique	H	Elbow Blower Tube / Tubo soplador de codo / Tube de soufflante coudé	I	Straight Blower Tube / Tubo de soplador recto / Tube de ventilateur droit
J	Nozzle Blower Tube / Boquilla Tubo Soplador / Tube de souffleur de buse	K	Screw Knob / Perilla de tornillo / Bouton à vis	L	Throttle Cable / Cable del acelerador / Câble d'accélérateur
M	Air Intake Cover / Tapa de entrada de aire / Couverture d'admission d'air				

1A. Assemble "T" Model blower tubes:

- (a) Assemble Cable Clip (A) onto Clamp (B).
- (b) Install Clamp Assembly (A+B) onto upper end of Flexible Blower Tube (C).
- (c) Assemble Clamp (D) onto lower end of Flexible Blower Tube (C).

Note: Before installing Throttle Control (F), allow it to hang freely from blower to make sure Throttle Cable (L) is not twisted.

1B. Assemble Throttle Control (F):

- (a) Position Throttle Cable (L) along outside of Elbow Blower Tube (H).
- (b) Loosen Screw Knob (K) and install Throttle Control (F) onto Swivel Blower Tube (E) as shown. Tighten Screw Knob finger tight only.

1C. Assemble Static Discharge Wire (If Equipped):

- (a) Unwrap and fully extend the Static Discharge Wire (G) to insert it through Flexible Blower Tube (C) as shown in Step 1C.

Note: On PB-580 Leave enough slack in Static Discharge Wire to allow for full rotation of Elbow Blower Tube (H). Static Discharge Wire will hang freely inside tubes.

Refer to Figure 1A. again to Assemble "T" Model blower tubes:

Note: A light lubricant can be used to ease the assembly of Flexible Blower Tube (C) to Elbow Blower Tube (H).

- (b) Assemble Flexible Blower Tube (C) to Elbow Blower Tube (H). Position Clamp Assembly (B) with Cable Clip (A) on outside of Flexible Blower Tube (C) and tighten Clamp.
- (c) Assemble Swivel Blower Tube (E) onto lower end of Flexible Blower Tube (C) and tighten Clamp (D).

1D. Secure Throttle Cable:

- (a) Secure Throttle Cable (L) into Cable Clip (A).
- (b) Position Throttle Control (F) to desired position and tighten Screw Knob (K) hand tight.

1E. Assemble straight blower tubes:

- (a) Assemble Straight Blower Tube (I) onto Swivel Blower Tube (E) until light resistance is felt. Hold Swivel Blower Tube and turn Straight Blower Tube clockwise to engage Posi-Loc™ channels, until connection is firm. Do not force connection.
- (b) Assembly Nozzle Blower Tube (J) to Straight Blower Tube (I) as shown in previous step.

Note: Blower tube use can eventually loosen connections. Exclusive Posi-Loc™ tube design allows tubes to be re-tightened. Remove straight tubes and reinstall per instructions.

1F. Install Air Intake Cover (M), if needed for cold weather operation:

- (a) Refer to on-line Operators Manual for installation.

1A. Ensamblar los tubos del soplador del "T" Modelo :

- (a) Coloque el Agarre del cable (A) sobre la Abrazadera (B).
- (b) Instale en Conjunto de la abrazadera (A+B) sobre el extremo superior del Tubo flexible del soplador (C).
- (c) Coloque la Abrazadera (D) sobre el extremo inferior del Tubo flexible del soplador (C).

Nota: Antes de instalar el Control del acelerador (F), permita que cuelgue libremente desde el soplador para asegurarse de que el Cable del acelerador (L) no esté enroscado.

1B. Ensamblar el Control del acelerador (F):

- (a) Coloque el Cable del acelerador (L) a lo largo de la parte externa del Tubo codo del soplador (H).
- (b) Afloje la Perilla con rosca (K) e instale el Control del acelerador (F) sobre el Tubo oscilante del soplador (E) como se muestra. Ajuste solo con los dedos la Perilla con rosca.

1C. Ensamblar el Cable de descarga estática (Si está equipado):

- (a) Desenrolle y extienda completamente el cable de descarga estática (G) para insertarlo a través del tubo flexible del ventilador (C).

Nota: PB-580 Deje suficiente holgura en el Cable de descarga estática para permitir un giro completo del Tubo codo del soplador (H). El Cable de descarga estática colgará libremente dentro de los tubos.

Consulte la Figura 1A. nuevamente para ensamblar los tubos del soplador "T" Modelo:

Nota: Se puede utilizar un lubricante liviano para facilitar el ensamble del Tubo flexible del soplador (C) al Tubo codo del soplador (H).

- (b) Ensamble el Tubo flexible del soplador (C) con el Tubo codo del soplador (H). Coloque el ensamble de la abrazadera (B) con el Agarre del cable (A) en la parte exterior del Tubo flexible del soplador (C) y ajuste la Abrazadera.
- (c) Ensamble el Tubo oscilante del soplador (E) sobre el extremo inferior del Tubo flexible del soplador (C) y ajuste la Abrazadera (D).

1D. Sujetar el Cable del acelerador:

- (a) Sujete el Cable del acelerador (L) dentro del Agarre del cable (A).
- (b) Coloque el Control del acelerador (F) en la posición deseada y ajuste con la mano la Perilla con rosca (K).

1E. Ensamblar los tubos rectos del soplador:

- (a) Ensamble el Tubo recto del soplador (I) sobre el Tubo oscilante del soplador (E) hasta sentir una leve resistencia. Sostenga el Tubo oscilante del soplador y gire el Tubo recto del soplador en sentido horario hasta conectar los canales Posi-Loc™, hasta que la conexión quede firme. No fuerce la conexión.
- (b) Ensamble el Tubo de boquilla del soplador (J) al Tubo recto del soplador (I) como se muestra en el paso anterior.

Nota: El uso del tubo del soplador puede eventualmente aflojar las conexiones. El diseño exclusivo del tubo Posi-Loc™ permite que los tubos se puedan volver a ajustar. Retire los tubos rectos y vuelva a instalar según las instrucciones.

1F. Instalar la Cubierta de admisión de aire (M), si es necesario para el funcionamiento en clima frío:

- (a) Consulte el Manual para operadores en línea para la instalación.

1A. Assemblez les tubes du souffleur en "T" modèle:

- (a) Assemblez l'attache-câble (A) sur la bride de serrage (B).
- (b) Installez l'ensemble de bride de serrage (A+B) sur l'extrémité supérieure du tube flexible (C) du souffleur.
- (c) Assemblez la bride de serrage (D) sur l'extrémité inférieure du tube flexible (C) du souffleur.

Remarque: Avant d'installer la commande d'accélérateur (F), laissez la bride pendre librement du souffleur pour vous assurer que le câble d'accélérateur (L) n'est pas enroulé.

1B. Assemblez la commande d'accélérateur (F):

- (a) Placez le câble d'accélérateur (L) le long de l'extérieur du coude du tube du souffleur (H).
- (b) Desserrez le bouton de serrage (K) et installez la commande d'accélérateur (F) sur le pivot (E) du tube du souffleur comme indiqué. Serrez le bouton de serrage à la main uniquement.

1C. Assemblez le fil de décharge statique (Si équipé):

- (a) Déballez et déployez complètement le fil de décharge statique (G) pour l'insérer dans le tube flexible de soufflante (C).

Remarque: PB-580 Laissez suffisamment de mou dans le fil de décharge statique pour permettre une rotation complète du coude du tube (H) du souffleur. Le fil de décharge statique pend librement à l'intérieur des tubes.

Reportez-vous de nouveau à la Figure 1A. pour assembler les tubes du souffleur en "T" modèle:

Remarque : Un lubrifiant léger peut être utilisé pour faciliter l'assemblage du tube flexible (C) du souffleur sur le coude du tube (H) du souffleur.

(b) Assemblez le tube flexible (C) du souffleur sur le coude du tube (H) du souffleur. Placez l'ensemble bride (B) et l'attache-câble (A) sur la partie externe du tube flexible (C) du souffleur et resserrez la bride.

(c) Assemblez le tube pivotant (E) du souffleur sur l'extrémité inférieure du tube flexible (C) du souffleur et resserrez la bride (D).

1D. Fixez le câble de la commande d'accélérateur:

(a) Fixez le câble d'accélérateur (L) dans l'attache-câble (A).

(b) Placez la commande d'accélérateur (F) dans la position de votre choix et serrez à la main le bouton de serrage (K).

1E. Assemblez les tubes droits du souffleur:

(a) Assemblez le tube droit (I) du souffleur sur le tube pivotant (E) du souffleur jusqu'à ressentir une légère résistance. Maintenez le tube pivotant du souffleur et tournez le tube droit du souffleur dans le sens horaire pour engager les canaux Posi-Loc™, jusqu'à ce que le raccordement soit fixe. Ne forcez pas le raccordement.

(b) Assemblez la buse (J) du tube du souffleur sur le tube droit (I) du souffleur comme indiqué à l'étape précédente.

Remarque: L'utilisation d'un tube de souffleur peut éventuellement desserrer les raccordements. Grâce à la conception exclusive du tube proposée par Posi-Loc™, les tubes peuvent être resserrés. Retirez les tubes droits et réinstallez-les suivant les instructions.

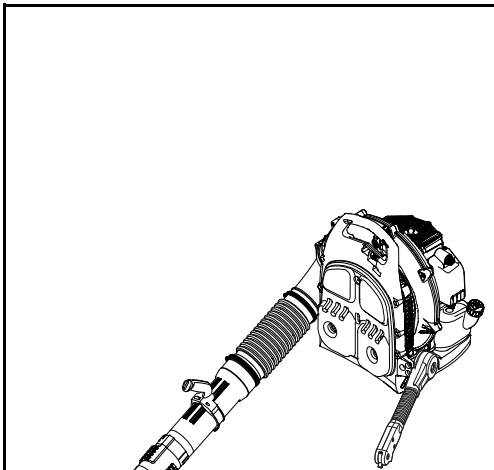
1F. Installez le couvercle d'admission à air (M), si vous en avez besoin pour une utilisation par temps froid:

(a) Reportez-vous au manuel d'utilisation en ligne pour l'installation.

ASSEMBLY / MONTAJE / ASSEMBLAGE

2

H MODEL / H MODELO / H MODÈLE & PB-265LN



Note: PB-580 H Model shown. Your model may be slightly different.

Nota: Se muestra el modelo PB-580. Su modelo puede ser ligeramente diferente.

Remarque: le modèle PB-580 est illustré. Votre modèle peut être légèrement différent.

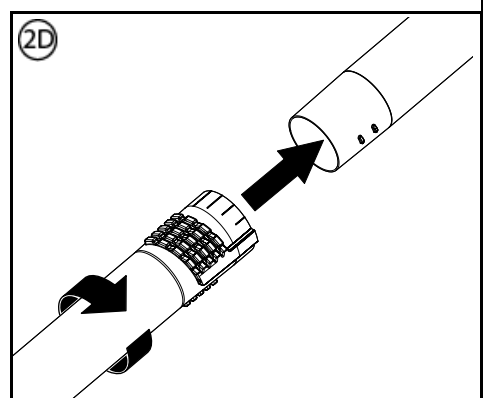
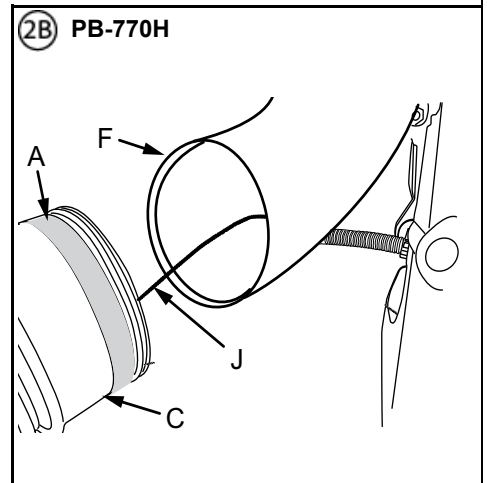
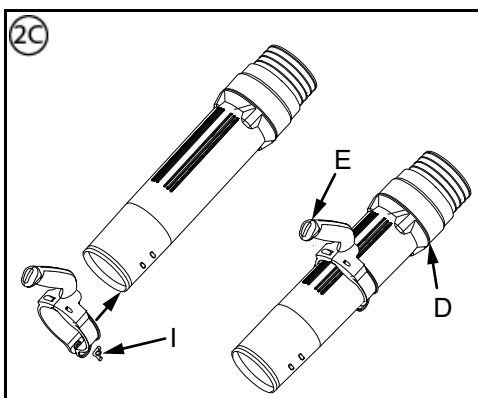
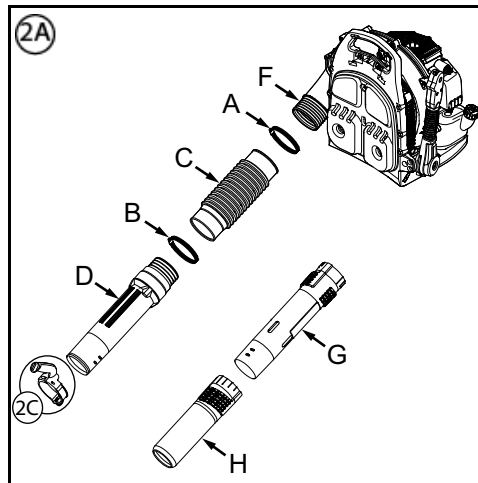


Figure 2 Legend / Figura 2 Leyenda / Figure 2 Légende

A	Clamp / Abrazadera / Serrer	B	Clamp / Abrazadera / Serrer	C	Flexible Blower Tube / Tubo de soplador flexible / Tube Souffleur Flexible
D	Swivel Blower Tube / Tubo de soplador giratorio / Tube de ventilateur pivotant	E	Front Handle Set / Juego de manijas delanteras / Jeu de poignée avant	F	Elbow Blower Tube / Tubo soplador de codo / Tube de soufflante coudé
G	Straight Blower Tube / Tubo de soplador recto / Tube de ventilateur droit	H	Nozzle Blower Tube / Boquilla Tubo Soplador / Tube de souffleur de buse	I	Wing Nut / Tuerca de mariposa / Écrou papillon
J	Static Discharge Wire				

2A. Assemble "H" Model blower tubes:

- (a) Assemble Clamps (A & B) onto both ends of Flexible Blower Tube (C).
- (b) Assemble Swivel Blower Tube (D) onto Flexible Blower Tube (C) and tighten Clamp (B).

2B. Assemble Static Discharge Wire (If Equipped):

- (a) Unwrap and fully extend the Static Discharge Wire (J) to insert it through Flexible Blower Tube (C).
- (b) Assemble Flexible Blower Tube (C) onto Elbow Blower Tube (F) and tighten Clamp (A).

Note: A light lubricant can be used to ease the assembly of Flexible Blower Tube (C) to Elbow Blower Tube (F), and Swivel Blower Tube (D).

2C. Assemble "H" Model Front Handle Set (E):

- (a) Loosen Wing Nut (I) on bottom of Front Handle Set (E) and expand clamp to allow it to slide over Swivel Blower Tube (D). Front Handle Set (E) should be angled slightly away from operator and positioned for comfortable operation. Tighten Wing Nut (I).

Note: (PB-760LN / PB-770 only) The alignment groove in the Front Handle Set (E) must align within the area of metal strips on top of the Swivel Blower Tube (D).

2D. Assemble Straight Tubes:

- (a) Assemble Straight Blower Tube (G) onto Swivel Blower Tube (D) until light resistance is felt. Hold Swivel Blower Tube and turn Straight Blower Tube clockwise to engage Posi-Loc™ channels, until connection is firm. Do not force connection.
- (b) Assemble Nozzle Blower Tube (H) to Straight Blower Tube (G) as shown in previous step.

Note: Blower tube use can eventually loosen connections. Exclusive Posi-Loc™ tube design allows tubes to be re-tightened. Remove straight tubes and reinstall per instructions.

2A. Ensamblar los tubos del soplador "H" Modelo :

- (a) Ensamble las Abrazaderas (A y B) en ambos extremos del Tubo flexible del soplador (C).
- (b) Ensamble el Tubo oscilante del soplador (D) en el Tubo flexible del soplador (C) y ajuste la Abrazadera (B).
- (c) Ensamble el Tubo flexible del soplador (C) sobre el Tubo codo del soplador (F) y ajuste la Abrazadera (A).

Nota: Se puede utilizar un lubricante liviano para facilitar el montaje del Tubo flexible del soplador (C) al Tubo codo del soplador (F) y al Tubo oscilante del soplador (D).

2B. Ensamblar el Cable de descarga estática (Si está equipado):

- (a) Desenrole y extienda completamente el cable de descarga estática (J) para insertarlo a través del tubo flexible del ventilador (C) como se muestra en el paso 2B.
- (b) Ensamble el tubo flexible del ventilador (C) en el tubo del ventilador del codo (F).

2C. Ensamblar el Conjunto de la manija delantera "H" Modelo (E):

- (a) Afloje la Tuerca con alas (I) en la parte inferior del Conjunto del mango delantero (E) y agrande la abrazadera para permitir que se deslice sobre el Tubo oscilante del soplador (D). El Conjunto del mango delantero (E) se debe alejar apenas en ángulo del operador y se debe colocar de manera que se obtenga una operación cómoda. Ajuste la Tuerca con alas (I).

Nota: (Solo para PB-760LN / PB-770) La ranura de alineación en el Conjunto del mango delantero (E) debe estar en línea dentro del área de las tiras metálicas en la parte superior del Tubo oscilante del soplador (D).

2D. Ensamblar los Tubos rectos:

- (a) Ensamble el Tubo recto del soplador (G) en el Tubo oscilante del soplador (D) hasta sentir una leve resistencia. Sostenga el Tubo oscilante del soplador y gire el Tubo recto del soplador en sentido horario hasta conectar los canales Posi-Loc™, hasta que la conexión quede firme. No fuerce la conexión.

- (b) Ensamble el Tubo de boquilla del soplador (H) al Tubo recto del soplador (G) como se muestra en el paso anterior.

Nota: El uso del tubo del soplador puede eventualmente aflojar las conexiones. El diseño exclusivo del tubo Posi-Loc™ permite que los tubos se puedan volver a ajustar. Retire los tubos rectos y vuelva a instalar según las instrucciones.

2A. Assemblez les tubes du souffleur en "H" modèle:

- (a) Assemblez les brides de serrage (A et B) sur les deux extrémités du tube flexible (C) du souffleur.
- (b) Assemblez le tube pivotant (D) du souffleur sur le tube flexible (C) du souffleur et resserrez la bride (B).
- (c) Assemblez le tube flexible (C) du souffleur sur le coude du tube (F) du souffleur et resserrez la bride (A).

Remarque : Un lubrifiant léger peut être utilisé pour faciliter l'assemblage du tube flexible (C) du souffleur sur le coude du tube (F) du souffleur et sur le tube pivotant (D) du souffleur.

2B. Assemblez le fil de décharge statique (Si équipé):

- (a) Déballez et déployez complètement le fil de décharge statique (G) pour l'insérer dans le tube flexible de soufflante (C) comme indiqué à l'étape 2C.
- (b) Assemblez le tube flexible de soufflante (C) au tube de soufflante coudé (F).

2C. Assemblez l'ensemble de poignée avant (E) du en "H" modèle:

- (a) Desserrez l'écrou à oreilles (I) sur la partie inférieure de l'ensemble de poignée avant (E) et élargir la bride de sorte qu'elle puisse glisser sur le tube pivotant (D) du souffleur. L'ensemble de poignée avant (E) doit être légèrement incliné loin de l'utilisateur et placé de manière à permettre une utilisation facile. Resserrez l'écrou à oreilles (I).

Remarque: (PB-760LN/PB-770 uniquement) La rainure d'alignement de l'ensemble de poignée avant (E) doit s'aligner dans l'espace entre les bandes métalliques au-dessus du tube pivotant (D) du souffleur.

2D. Assemblez les tubes droit:

- (a) Assemblez le tube droit (G) du souffleur sur le tube pivotant (D) du souffleur jusqu'à ressentir une légère résistance. Maintenez le tube pivotant du souffleur et tournez le tube droit du souffleur dans le sens horaire pour engager les canaux Posi-Loc™, jusqu'à ce que le raccordement soit fixe. Ne forcez pas le raccordement.
- (b) Assemblez la buse du tube (H) du souffleur sur le tube droit (G) du souffleur comme indiqué à l'étape précédente.

Remarque: L'utilisation d'un tube de souffleur peut éventuellement desserrer les raccordements. Grâce à la conception exclusive du tube proposée par Posi-Loc™, les tubes peuvent être resserrés. Retirez les tubes droits et réinstallez-les suivant les instructions.

FUEL HANDLING / MANIPULACIÓN DEL COMBUSTIBLE / MANIPULATION DU CARBURANT

Use fresh fuel (purchased within the last 30 days from the pump) when fueling your ECHO product. Stored fuel ages. Do not mix more fuel than you expect to use in 30 days. To extend the life of your fuel beyond 90 days, use Red Armor™ Fuel Treatment mixed with ECHO Powerblend® Gold oil. Alternatively, use Red Armor™ Pre-mixed Fuel.

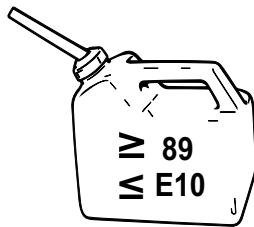
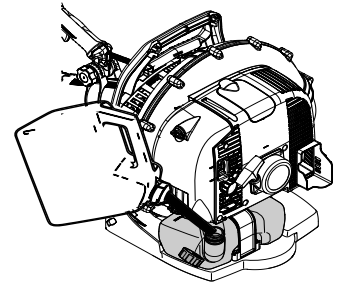
Utilice combustible nuevo (comprado en los últimos 30 días desde el bombeo) cuando recargue combustible al producto ECHO. El combustible almacenado envejece. No mezcle más combustible del que espere utilizar en 30 días. Para prolongar la vida útil del combustible por más de 90 días, utilice Tratamiento para combustible Red Armor™ mezclado con aceite ECHO Powerblend® Gold. De manera alternativa, utilice combustible premezclado Red Armor™.

Lorsque vous faites le plein du réservoir de votre produit ECHO, utilisez du carburant neuf (c'est-à-dire acheté au cours des 30 derniers jours d'une station d'essence). Le carburant entreposé se détériore. Ne mélangez pas plus de carburant que vous prévoyez d'utiliser en 30 jours. Pour prolonger de plus de 90 jours la durée de vie de votre carburant, utilisez Red Armor™ Fuel Treatment mélangé à ECHO Powerblend® Gold oil. Vous pouvez également utiliser Red Armor™ Pre-mixed Fuel.

3



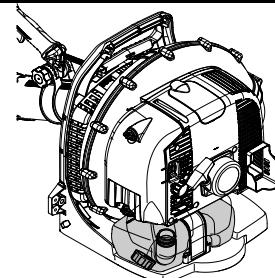
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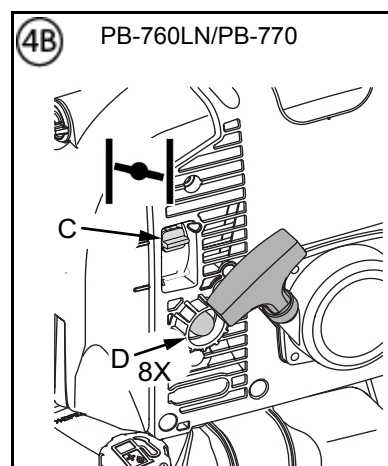
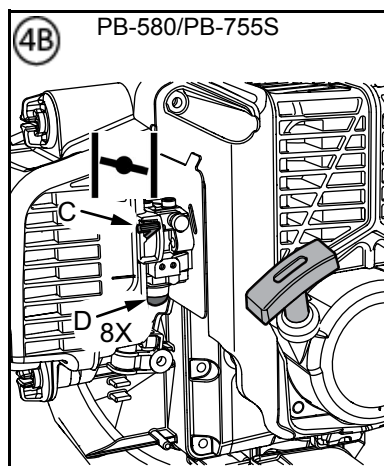
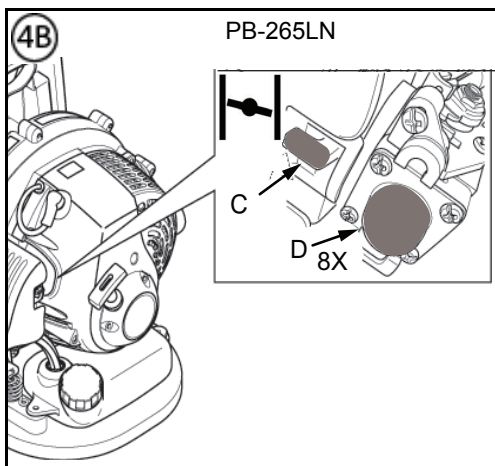
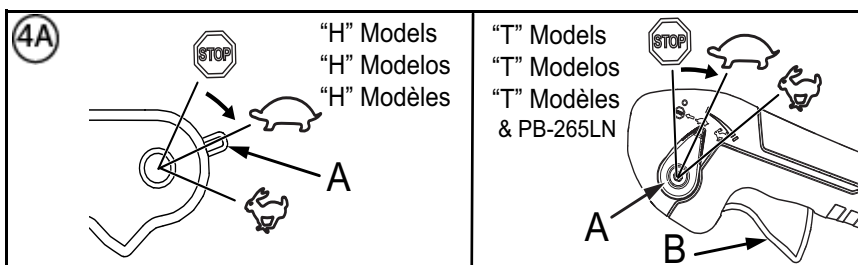
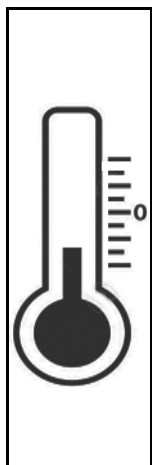
3A

Pre-Mixed
Premezclado
Pré-mélangé
Red Armor™ Fuel



COLD START / ARRANQUE EN FRÍO / DÉMARRAGE À FROID

4



Note: After engine starts, move Choke Lever (C) to RUN [↑] position. Allow engine to warm up with Throttle Position Lever (A) in IDLE [↶] position, for 3 minutes before use.

After engine warm up:

- "H" Model move Throttle Lever (A) to desired speed.
- "T" Model use Throttle Trigger (B) to select a desired variable speed. Alternatively, you can move Throttle Lever (A) to IDLE [↶] or set to a FAST [↷] speed.

Note: If after 5 pulls, the engine does not start, move Choke Lever (C) to COLD START [↵] position, push Purge (D) again, and repeat step 4.

Nota: Luego de arrancar el motor, mueva la Palanca de cebador (C) a la posición RUN [↑]. Permita que el motor se caliente con la Palanca de posición del acelerador (A) en posición IDLE [↶] durante 3 minutos antes de usar.

Luego de calentar el motor:

- "H" Model mueva la Palanca del acelerador (A) a la velocidad deseada.
- "T" Modelo use el Gatillo del acelerador (B) para seleccionar la velocidad variable deseada. De manera alternativa, puede mover la Palanca del acelerador (A) a IDLE [↶] o ajustar a una velocidad FAST [↷].

Nota: Si después de 5 intentos, el motor no arranca, mueva la Palanca de cebador (C) a la posición COLD START [↵], presione Purgar (D) nuevamente y repita el paso 4.

Remarque: Une fois le moteur démarré, placez le levier de l'étrangleur (C) en position [↑] MARCHE. Laissez le moteur se préchauffer avec le levier de position de l'accélérateur (A) en position de RALENTI [↶], pendant 3 minutes avant utilisation.

Après préchauffage du moteur:

- Sur les en "H" modèles, placez le levier d'accélérateur (A) sur la vitesse souhaitée.
- Sur les en "T" modèles, utilisez la gâchette d'accélérateur (B) pour sélectionner la vitesse variable désirée. Sinon, vous pouvez placer le levier d'accélérateur (A) sur RALENTI [↶] ou le régler sur vitesse RAPIDE [↷].

Remarque: Si, après 5 tractions, le moteur ne démarre pas, placez le levier de l'étrangleur (C) en position DÉMARRAGE À FROID [↵], puis poussez la purge (D) à nouveau et répétez l'étape 4.

WARM START / ARRANQUE EN CALIENTE / DÉMARRAGE À CHAUD

5

5A

"H" Models
"H" Modelos
"H" Modèles

"T" Models
"T" Modelos
"T" Modèles
& PB-265LN

5B PB-265LN

5B PB-580 / PB-755S

5B PB-760LN / PB-770

STOP ENGINE / DETENER MOTOR / ARRÊT MOTEUR

6

6A

"H" Models
"H" Modelos
"H" Modèles

6A "T" Models
"T" Modelos
"T" Modèles
& PB-265LN

Note: Move Throttle Lever (A) to IDLE [↩] position and allow engine to return to idle before shutting off engine.
 Nota: Mueva la palanca del acelerador (A) a la posición de reposo [↩] y permita que el motor regrese a ralentí antes de apagar el motor.
 Remarque: Placez le levier de l'accélérateur (A) sur la position de ralenti [↩] et laissez le moteur revenir au ralenti avant de couper le moteur.

MAINTENANCE INTERVALS / INTERVALOS DE MANTENIMIENTO / INTERVALLES D'ENTRETIEN

<i>Daily Or Before Use / Diariamente O Antes De Usar / Quotidienn Ou Avant Utilisation</i>	
Air Filter, Choke Shutter Filtro de aire, Estrangulador Filtre à air, Volet de départ	Inspect-Clean* Inspeccionar-Limpiar* Inspection-Nettoyage*
Recoil Starter Rope Cuerda del motor de arranque Cordon lanceur	Inspect-Clean* Inspeccionar-Limpiar* Inspection-Nettoyage*
Cooling System Sistema de enfriamiento Système de refroidissement	See Dealer for maintenance Consulte al concesionario para el mantenimiento Voir le concessionnaire pour la maintenance
Screws, Nuts, Bolts Tornillos, tuercas, pernos Vis, écrous, boulons	Inspect-Tighten-Replace* Inspeccionar-Apretar-Reemplazar* Inspection-Serrage-Remplacement*
3 Months / 3 Meses / 3 Mois	
Air Filter Filtro de aire Filtre à air	Replace* Reemplazar* Remplacement*
Fuel Filter, Fuel Cap Gasket Filtro de combustible, Empaquetadura de la cubierta del combustible Filtre à carburant, Joint de couverture de carburant	Inspect* Inspeccionar* Inspection*
Spark Plug Bujía Bougie	Inspect-Tighten-Replace* Inspeccionar-Apretar-Reemplazar* Inspection-Serrage-Remplacement*
Muffler Spark Arrestor Apagachispas del silenciador Pare-étincelles	See Dealer for maintenance Consulte al concesionario para el mantenimiento Voir le concessionnaire pour la maintenance
Yearly / Anualmente / Annuellement	
Fuel Filter Filtro de combustible Filtre à carburant	Inspect-Replace* Inspeccionar-Reemplazar* Inspection-Remplacement*
IMPORTANT NOTE - Time intervals shown are maximum. Actual use and your experience will determine the frequency of required maintenance. * Replacement is recommended based on the finding of damage or wear during inspection. NOTA IMPORTANTE - Los intervalos indicados son máximos. El uso real y su experiencia determinarán la frecuencia del mantenimiento requerido. * Todas las recomendaciones de reemplazo se basan en encontrar piezas dañadas o desgastadas durante la inspección. REMARQUE IMPORTANTE - Intervalles de temps sont maximales. Utilisation réelle et votre expérience détermineront la fréquence d'entretien requis. * Toutes les recommandations de remplacement de pièces sont basées sur la découverte de dommages ou d'usure lors de l'inspection.	

MAINTENANCE
Emissions Control Components

NOTICE

- The use of emission control components other than those specifically designed for this unit is a violation of federal law.
- 1. Air Filter: Close choke, remove air filter cover, clean air cleaner area, clean or replace filter (if damaged).
- 2. Spark Plug:
 - (a) PB-256LN / PB-580 / PB-755LN / PB-770
 - Use only NGK BPM8Y (BPMR8Y in Canada) spark plug otherwise severe engine damage may occur. Adjust spark plug gap by bending outer electrode to a 0.65 mm (0.026 in) gap.
 - (b) PB-760LN
 - Use only NGK BPM6Y (BPMR6Y in Canada) spark plug otherwise severe engine damage may occur. Adjust spark plug gap by bending outer electrode to a 0.65 mm (0.026 in) gap.

⚠ DANGER

- Fuel is VERY flammable. Use extreme care when mixing, storing or handling, or serious personal injury may result.
- 1. Fuel Filter replacement: Use a clean rag to remove loose dirt from around fuel cap and empty fuel tank. Pull the fuel filter from the fuel tank. Remove the filter from the line and install the new filter (do not damage fuel line when removing the fuel filter from the tank).

Transportation

⚠ 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.
- Always secure the unit during transportation to prevent turnover, fuel spillage, and damage to the unit.

Short-term Storage

⚠ DANGER

- Store unit in a dry, dust free place, out of the reach of children.
- Do not store in enclosure where fuel fumes may accumulate or reach an open flame or spark.

Long-term Storage (Over 30 Days)

NOTICE

- Place the stop switch in the "OFF" position.
- Clean the exterior of the product.
- Perform all periodic maintenance.
- Tighten all the screws and nuts.
- Drain the fuel and run the unit until it stops.
- Allow engine to cool.
- Store unit in a dry, dust free place, out of the reach of children.

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 (3-way catalyst). The fuel tank/fuel line emission control system is EVAP (evaporative emissions). Evaporative emissions for California models are only applicable to fuel tanks and fuel feed lines.

EMISSION CONTROL INFORMATION
ENGINE FAMILY: #EHXS.0364KC DISPLACEMENT: 35.8 cc
EMISSION COMPLIANCE PERIOD: 300 Hours
THIS ENGINE MEETS * * * * 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. * * * X X X X

- 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).
- 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.

SERVICE

- Service of this product during the warranty period must be performed by an Authorized ECHO Service Dealer. For the name and address of the Authorized ECHO Service Dealer nearest you, ask your retailer or call 1-800-432-ECHO (3246). Dealer information is also available on our Web Site www.echo-usa.com. When presenting your unit for Warranty service/repairs, proof of purchase is required.

WARNING

Cancer and Reproductive Harm.
www.P65Warnings.ca.gov

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

MANTENIMIENTO**Ajuste de la velocidad de ralentí** **NOTICE**

- Cada unidad se pone en marcha en la fábrica y el carburador se ajusta de acuerdo con las reglamentaciones de emisiones. Los ajustes al carburador, distinto a la velocidad de ralentí, debe realizarlos un concesionario de ECHO autorizado.
- Si tiene disponible un tacómetro, el tornillo de ajuste de ralentí (Figura 6A) debe establecerse en 3000 RPM. Gire el tornillo de ralentí en sentido horario para aumentar la velocidad de ralentí, y en sentido anti-horario para disminuirla.

Componentes de control de emisiones **NOTICE**

- El uso de componentes de control de emisiones diferentes de aquellos diseñados específicamente para esta unidad viola la ley federal.
- Filtro de aire: Cierre el estrangulador, retire la cubierta del filtro de aire, limpie el área del limpiador de aire, limpie o reemplace el filtro (si está dañado).

2. Bujía:**(a) PB-256LN, PB-580, PB-755LN, PB-770**

- Use solamente una bujía BPM8Y (BPMR8Y in Canada), pues de lo contrario el motor podría sufrir graves daños. Ajuste la separación de la bujía doblando el electrodo exterior para formar una separación de 0.65 mm (0.026 in).

(b) PB-760LN

- Use solamente una bujía BPM6Y (BPMR6Y in Canada), pues de lo contrario el motor podría sufrir graves daños. Ajuste la separación de la bujía doblando el electrodo exterior para formar una separación de 0.35 mm (0.014 in).

DANGER

- El combustible es MUY inflamable. Tenga extremo cuidado al mezclar, almacenar o manipular el combustible, o pueden producirse graves lesiones personales.
- Reemplazo del filtro de combustible: Use un trapo limpio para eliminar la suciedad suelta alrededor de la tapa del combustible y vacíe el tanque de combustible. Retire el filtro de combustible del tanque de combustible. Retire el filtro de la línea e instale el nuevo filtro (no dañe la línea de combustible cuando retire el filtro de combustible del tanque).

Transporte **WARNING**

- Durante el funcionamiento, el silenciador o el silenciador catalítico y la cubierta circundante pueden calentarse. Durante el transporte o el almacenamiento, siempre mantenga despejada el área del escape de residuos inflamables; de lo contrario, pueden producirse graves lesiones personales o daños a la propiedad.
- Durante el transporte, proteja siempre la unidad para prevenir el vuelco, el derrame de combustible y el daño de la unidad.

Almacenamiento a corto plazo **DANGER**

- Almacene la unidad en un lugar seco y sin polvo, fuera del alcance de los niños.
- No almacene la unidad en recintos donde los gases del combustible se puedan acumular o alcanzar una llama abierta o una chispa.

Almacenamiento a largo plazo (más de 30 días) **NOTICE**

- Coloque el interruptor de parada en la posición "OFF" (APAGADO).
- Limpie el exterior del producto.
- Realice todo el mantenimiento periódico.
- Ajuste todos los tornillos y las tuercas.
- Drene el combustible y ponga en marcha la unidad hasta que se detenga.
- Permita que el motor se enfríe.
- Almacene la unidad en un lugar seco y sin polvo, fuera del alcance de los niños.

CONTROL DE EMISIONES (escape y evaporativas)

- Información sobre el control de emisiones de CARB y EPA.
- El sistema de control de emisiones del motor es EM (modificación del motor) y, si el penúltimo carácter de la familia de motores que aparece en la etiqueta de información sobre el control de emisiones (ejemplo a continuación) es "B", "C", "K" o "T", el sistema de control de emisiones es EM y TWC (catalizador de 3 vías). El sistema de control de emisiones del tanque y tubería de combustible es EVAP (emisiones evaporativas). Las emisiones evaporativas para los modelos de California solo se aplican a tanques de combustible y a líneas de alimentación de combustible.

EMISSION CONTROL INFORMATION

ENGINE FAMILY: #EHXS.0364KC DISPLACEMENT: 35.8 cc
EMISSION COMPLIANCE PERIOD: 300 Hours
THIS ENGINE MEETS * * * * 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. * * * X X X X



- Puede encontrarse una etiqueta de control de emisiones en el motor. (Este es SOLO UN EJEMPLO, la información en la etiqueta varía según la FAMILIA de MOTOR).
- Durabilidad de las emisiones del producto (período de cumplimiento de las emisiones).
- El período de cumplimiento de las emisiones de 50 o 300 horas es el intervalo de tiempo seleccionado por el fabricante por el que se certifica que la salida de emisiones del motor cumple con las reglamentaciones correspondientes, siempre que se sigan los procedimientos de mantenimiento aprobados según lo establecido en la sección Mantenimiento de este manual.

SERVICIO

- Durante el período de garantía, el mantenimiento de este producto lo debe realizar un concesionario de mantenimiento de ECHO autorizado. Para conocer el nombre y el domicilio del concesionario de mantenimiento de ECHO autorizado más cercano, pregúntese a su revendedor o llame al 1-800-432-ECHO (3246). La información sobre el concesionario también está disponible en nuestro sitio web www.echo-usa.com. Cuando presente su unidad para que le realicen mantenimiento o reparaciones bajo la garantía, deberá mostrar comprobante de compra.

WARNING

Cáncer y daño reproductivo.
www.P65Warnings.ca.gov

Nota: Este producto cumple con CAN ICES-2/NMB-2.

ENTRETIEN
Réglage de la vitesse de ralenti
NOTICE

- Chaque dispositif est testé à l'usine et le carburateur est réglé conformément aux règlements sur les émissions. Les réglages du carburateur, autres que le régime au ralenti, doivent être effectués par un concessionnaire ECHO agréé.
- Si l'on dispose d'un tachymètre, il convient de régler la vis de régime de ralenti (Figure 6A) à 3 000 tr/min. Tourner la vis de régime de ralenti dans le sens horaire pour augmenter la vitesse de ralenti, et dans le sens antihoraire pour diminuer la vitesse de ralenti.

Éléments antipollution
NOTICE

- L'utilisation d'éléments antipollution différents de ceux qui ont été spécialement conçus pour ce dispositif constitue une infraction à la loi fédérale.
- 1. Filtre à air: Volet fermé; retirer le capot du filtre à air; nettoyer la zone du filtre à air; nettoyer ou remplacer le filtre (si endommagé).
- 2. Bougie d'allumage:
 - (a) PB-256LN, PB-580, PB-755LN, PB-770
 - Utiliser seulement la bougie d'allumage BPM8Y (BPMR8Y in Canada). Sinon, de graves dommages au moteur pourraient se produire. Régler l'écart de la bougie d'allumage en pliant l'électrode extérieure à un écart de 0,65 mm (0,026 po).

(b) PB-760LN

- Utiliser seulement la bougie d'allumage BPM6Y (BPMR6Y in Canada). Sinon, de graves dommages au moteur pourraient se produire. Régler l'écart de la bougie d'allumage en pliant l'électrode extérieure à un écart de 0,35 mm (0,014 po).

DANGER

- Le carburant est TRÈS inflammable. Demeurer extrêmement prudent lors du mélange, du rangement ou de la manipulation; l'ignorer peut causer des lésions corporelles graves.
- 1. Remplacement du filtre à carburant: Utiliser un linge propre pour retirer la saleté autour du bouchon du réservoir et vider le réservoir de carburant. Retirer le filtre à carburant du réservoir. Retirer le filtre de la conduite et installer un nouveau (ne pas endommager la conduite de carburant en retirant le filtre à carburant du réservoir).

Moyens de transport
WARNING

- En cours d'utilisation, le silencieux ou le silencieux catalytique et le boîtier l'entourant deviennent très chauds. Toujours garder la zone d'échappement à l'abri de débris inflammables durant le transport ou lors de l'entreposage, sinon de graves dommages ou blessures pourraient en résulter.
- Toujours sécuriser l'appareil pendant le transport afin d'éviter tout retournement, tout déversement de carburant et tout dommage à l'appareil.

Rangement à court terme
DANGER

- Ranger le dispositif dans un endroit sec, à l'abri de la poussière et hors de portée des enfants.
- Ne pas ranger dans une enceinte où les émissions de carburant peuvent s'accumuler et atteindre une flamme ou une étincelle.

Rangement à long terme (Plus de 30 jours)
NOTICE

- Placer l'interrupteur d'arrêt en position "OFF".
- Nettoyer l'extérieur du produit.
- Effectuer toutes les procédures de maintenance périodique.
- Resserrer toutes les vis et écrous.
- Drainer le carburant et démarrer le dispositif jusqu'à ce qu'il s'arrête de marcher.
- Laisser le moteur se refroidir.
- Ranger le dispositif dans un endroit sec, à l'abri de la poussière et hors de portée des enfants.

CONTRÔLE DES ÉMISSIONS (Échappement et évaporation)

- Informations sur le contrôle des émissions du CARB et de l'EPA.
- Le système antipollution du moteur est EM (modification du moteur) et, si l'avant-dernier caractère de la famille de moteurs sur l'étiquette d'informations antipollution (échantillon ci-dessous) est "B", "C", "K" ou "T", le système antipollution est EM et TWC (catalyseur à 3 voies). Le système de contrôle des émissions du réservoir de carburant/conduite de carburant est EVAP (émissions par évaporation). Les émissions par évaporation des modèles californiens ne s'appliquent qu'aux réservoirs de carburant et aux conduites d'alimentation en carburant.

EMISSION CONTROL INFORMATION

ENGINE FAMILY: #EHXS.0364KC DISPLACEMENT: 35.8 cc
EMISSION COMPLIANCE PERIOD: 300 Hours
THIS ENGINE MEETS * * * * U.S. EPA EXH/EVP & CALIFORNIA
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YAMABIKO CORP. * * * X X X X



- Une étiquette d'information sur la réduction des émissions est apposée sur le moteur. (Ceci n'est qu'un EXEMPLE SEULEMENT, l'information sur l'étiquette varie par FAMILLE de MOTEUR).
- Durabilité des émissions du produit (période de conformité des émissions).
- La période de conformité de 50 ou 300 heures est la période de temps choisie par le fabricant pour certifier que les émissions du moteur sont conformes aux règlements sur les émissions applicables, à condition que les procédures d'entretien approuvées soient suivies comme indiqué dans la section Entretien du présent manuel.

SERVICE

- L'entretien de ce produit pendant la période de garantie doit être effectué par un distributeur agréé ECHO. Pour obtenir le nom et l'adresse du distributeur agréé ECHO le plus près de chez vous, demandez à votre revendeur ou appelez le 1 800 432-ECHO (3246). Des renseignements sur les concessionnaires sont également disponibles sur notre site Web
- www.echo-usa.com. Lors de la présentation de l'appareil pour réparation/entretien couvert par la garantie, la preuve d'achat est requise.

**WARNING**

Cancer et dommages à la reproduction.
www.P65Warnings.ca.gov

Remarque : Ce produit est conforme à la norme CAN ICES-2/
NMB-2.

NOTES / NOTAS / REMARQUES