



OPERATORS MANUAL PB-265LN Power Blower

WARNING



Burn Hazard

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

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

WARNING



Users of this equipment risk injury to themselves and others if the unit is used improperly and/or safety precautions are not followed. ECHO provides an operator's manual. It must be read and understood for proper and safe operation. Failure to do so could result in serious injury.

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INTRODUCTION

Welcome to the ECHO family. This ECHO product was designed and manufactured to provide long life and on-the-job dependability. Read and understand this manual. You will find it easy to use and full of helpful operating tips and SAFETY messages.

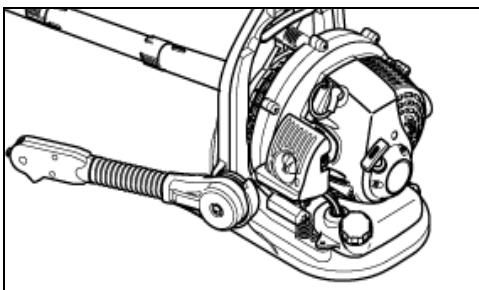
The Operator's Manual

Keep it in a safe place for future reference. Contains specifications and information for safety, operation, maintenance, storage and assembly specific to this product.

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. You can find these numbers on the engine housing. For future reference, write them in the space provided below.



Model No. _____ SN. _____

Additional or Replacement Manuals

Replacement Operator, Safety Manuals, and Parts Catalogs are available from your ECHO dealer or at echo-latinamerica.com .

Warranty Registration

To ensure trouble free warranty coverage it is important that you register your ECHO equipment on-line at echo-latinamerica.com or by filling out the warranty registration card supplied with your unit. Registering your product confirms your warranty coverage and provides a direct link between you and ECHO if we find it necessary to contact you.

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 :

Country	Distributor Name	Address	Phone
Argentina	Munditol S.A.	Avda. Honduras 3757 1180 Buenos Aires, Argentina	11-4821-9999
Belize	Power Plus Ltd.	#1 North Front Street Belize City, Belize	(501) 22-30-690
Bolivia	Termondinamica Ltda.	Avenida Villazon #3671 Cochabamba, Bolivia	(591-4) 471-7730
Brasil	Brudden Equipamentos Ltda.	Av. Industrial 700 - Distrito Industrial CEP 17580-000, Pompeia (SP), Brazil	(55) 14-3405-5000
Chile	DercoMaq S.A.	Av. Américo Vespucio Norte 1838 Quilicura, Santiago Chile	(56) 2 - 560 1500
Colombia	Mecanelectro S.A.	Avenida Caracas No 76 -81	(571) 7430003
Panama	Cortagramas y Repuestos S.A.	Villa Rica, Monte Oscuro/Edif. Coresa. Panamá Rep, de Panamá	507-222-2844 / 4844
Republica Dominicana	Servicios Ferro- Agro, C por A	Calle Peña Battle No 261 casi esq. Ortega y Gasset, Santo Domingo Dominican Republic	(809) 565-9787
Ecuador	Agrota Cía. Ltda.	"Contigo en el Campo" Av. De las Américas y Los Naranjos Cuenca, Ecuador	074-100-010

Country	Distributor Name	Address	Phone
El Salvador	N.R. CONSA S.A. de C.V.	Casa Matriz: Urb. Madreselva c. El Algodón No.8 Por Blvd Constitución. San Salvador, El Salvador	(503) 22742220
Guatemala	Femco S.A.	(i.e. Felix Montes CIA S.A.) Calzada Aguilar Batres 27- 23, Zona 12 Guatemala, 01012	(502) 2442-3277
Honduras	Eyl Comercial S.A.	Ave. Re. de Chile Tegucigalpa M.D.C., Honduras	(504) 232-3389
Mexico D.F.	KARVS PROJARDIN & AGRO S.A. DE C.V.	MARIANO ESCOBEDO NUM 70 LOCAL A COLONIA POPOTLA MEXICO D.F. C.P. 11400 Co.Code:52	(55) 5348-1577
Greater Mexico	Promotores Agricolas SA de CV	Blvd. Paseo Solidaridad 12574 Fracc. Vilas el Dorado cp 36630, Irapuato Guanajuato, México	52 462 626 3443
Nicaragua	Formunica	De la Esquina Norte del Canal 2 de TV 1c. al lago 1 1/2c. Arriba Residencial Bolonía Managua, Nicaragua	(505) 268-7041
Peru	Vidagro S.A.C.	Av. Ingenieros Norte 251 Urb. Villa La Merced, Ate-Vitarte Lima, Peru	(51) 1-348-4726

Country	Distributor Name	Address	Phone
Puerto Rico	Romar Agencies	Camino Romani Int. Carretera 842 Rio Piedras, San Juan Puerto Rico 00926-9678	(787) 720-5959
Us Virgin Islands	EZ Tool Rental and Sales	PO Box 2072 Kingshill, Saint Croix US VIRGIN ISLANDS	(340) 692-2039
Trinidad and Tobago	Trinrac Limited	No. 8 Bolai Trace I.D.C. Estate, Chase Village Trinidad, West Indies	(868) 672-5329
Uruguay	Goldfarb	Rio Negro 1617 Montevideo 11100 Uruguay	(598) 2902 2606
Venezuela	Distribuidora Agrofor C.A.	Calle Bolivar- Edificio Agrofor La Trinidad, Caracas, 1080, Venezuela	(58) 212-945-9960
Jamaica	Central Agricultural Supplies Co. Ltd.	5 ½ Caledonia Road Lot 10-11 James Plaza Mandeville, Manchester, Jamaica	876-962-3084
Paraguay	Agripar S.A.	Avda. San Blás Km. 3 1/2 Ruta Inter. Nro 7 B* Pablo Rojas- Ciudad Del Este - Paraguay	(061) 570 081

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.

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.

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
	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)

Symbol	Description	Symbol	Description
	Choke Control "RUN" Position (Choke Open)		Wear Slip Resistant Footwear
		Beware of thrown objects	
		Keep Bystanders and Helpers Away 15 m (50 ft.).	



LOOK BEFORE YOU PUMP!
Ethanol Percentage

0% - 10%	15% - 30% - 50% - 85%
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USE E10 OR LESS FUEL

Do not use any fuel containing greater than 10 percent ethanol (E10) in this equipment. It may cause damage or failure and is prohibited by Federal Law.
For Details, see the "Fuel" Section of your Operators Manual

Personal Condition and Safety Equipment

! WARNING

Cancer and Reproductive Harm
www.P65Warnings.ca.gov

! 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

WARNING

- ◆ **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 hearing 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.

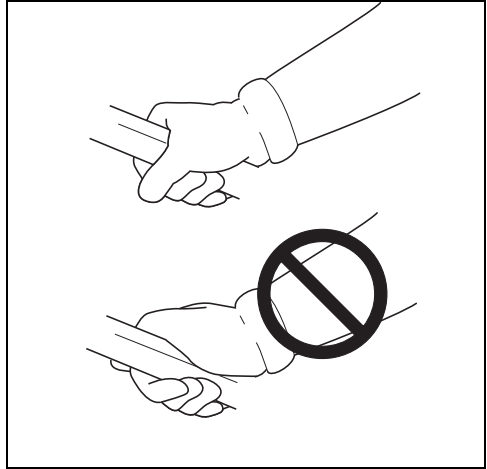
It is believed that a condition called Raynaud's Phenomenon, which affects the fingers of certain individuals, may be brought about by exposure to vibration and cold. Exposure to vibration and cold may cause tingling and burning sensations, followed by loss of color and numbness in the fingers. The following 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 exercise 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 the Operator's Manual 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

- 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 ECHO 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.

- 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 ECHO Service dealer.

WARNING

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

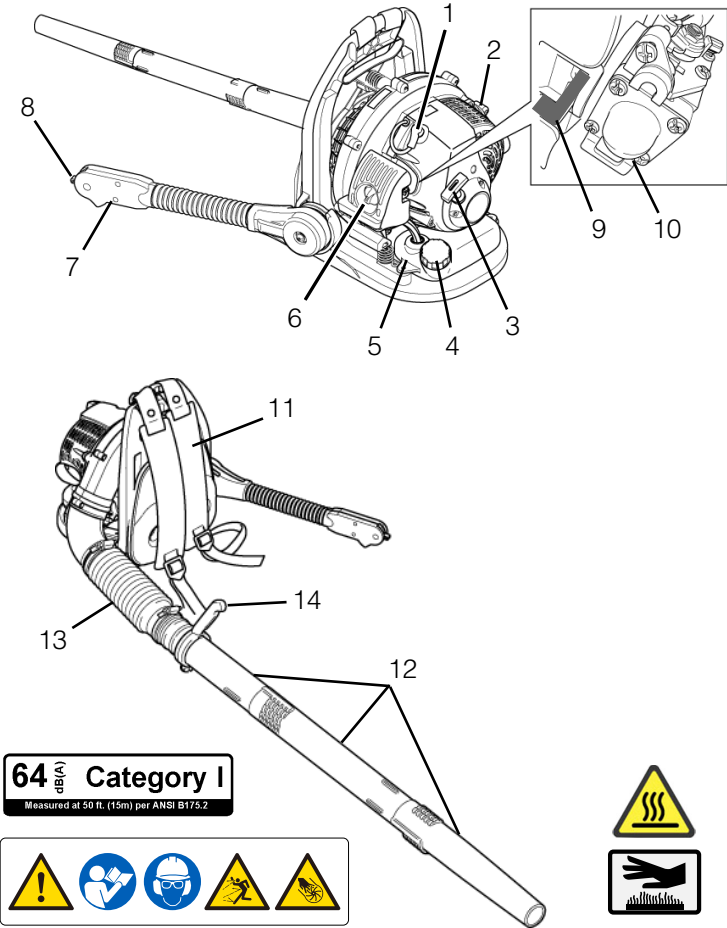
- ◆ ***ALWAYS stop engine, disconnect spark plug, and make sure all moving parts have come to a complete stop before removing obstructions, clearing debris, or servicing unit.***
- ◆ ***DO NOT start or operate unit unless all guards and protective covers are properly assembled to unit.***
- ◆ ***NEVER 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.

DESCRIPTION

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



1. Spark Plug
2. Spark Arrestor Muffler/ Spark Arrestor Muffler with Catalyst
3. Recoil Starter Handle
4. Fuel Tank Cap
5. Fuel Tank
6. Air Cleaner
7. Handle
8. Throttle Position Lever/Stop Switch
9. Choke
10. Purge Bulb
11. Shoulder Harness
12. Blower Pipes
13. Flexible Pipe
14. Stick Handle

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.

- 1 Power Head
- 1 Flex Pipe
- 1 Pipe w/Swivel
- 1 Straight Pipe
- 1 Straight Pipe w/Decal
- 1 Operator's Manual
- 2 Clamps w/Screws
- 1 Stick Handle
- 1 Bolt 6 x 45 mm
- 1 Washer 6 mm
- 1 Wing Nut

ASSEMBLY

WARNING

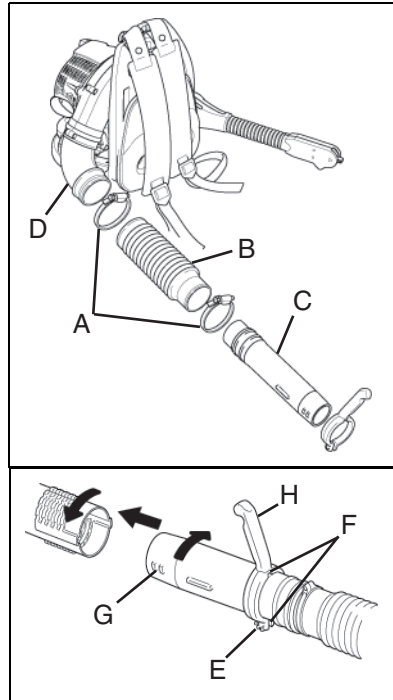
Never perform maintenance or assembly procedures with engine running or serious personal injury may result.

Install Blower Pipes / Stick Handle

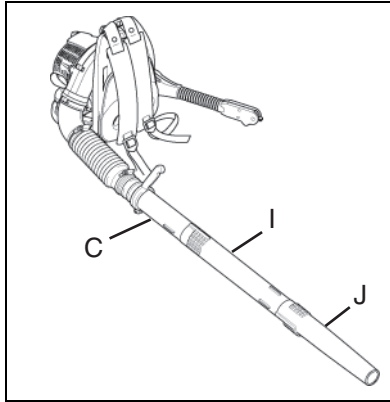
1. Assemble clamps (A) onto both ends of flexible pipe (B).
2. Assemble swivel pipe (C) into flexible pipe (B) and tighten clamp (A).
3. Assemble flexible pipe (B) to elbow (D) on blower and tighten clamp (A).

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

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



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



Note: Blower use will eventually loosen pipe connections. Exclusive positive locking system allows pipes to be tightened. If loosening occurs, remove lower straight pipe, and install according to instructions 8 & 9.

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.

Fuel

NOTICE

Use of unmixed, improperly mixed, or fuel older than 90 days, (stale fuel), may cause hard starting, poor performance, or severe engine damage and void the product warranty. Read and follow instructions in the Storage section of this manual.

WARNING

Fuel containing more than 25% ethanol is NOT approved for use in ECHO 2-stroke gasoline engines. Fuel containing more than 25% ethanol may cause performance problems, loss of power, overheating, fuel vapor lock, and unintended machine operation, including, but not limited to, improper clutch engagement. Fuel containing more than 25% ethanol may also cause premature deterioration of fuel lines, gaskets, carburetors and other engine components.

Fuel Requirements

Gasoline - Use 89 Octane (mid grade or higher) gasoline known to be good quality. Gasoline may contain up to 25% Ethanol. Gasoline containing methanol (wood alcohol) is NOT approved.

Two Stroke Oil - A two-stroke engine oil meeting ISO-L-EGD (ISO/CD 13738) and J.A.S.O. FD Standards must be used. Echo brand 2-Stroke Oil meets 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. FD certified oil will void the two-stroke engine warranty.

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.***

- ◆ **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 3m (10 ft.) from refueling location before starting the engine.**

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 System	
Gas	Oil	Gas	Oil
Gallons	Oz.	Liter	cm ³
1	2.6	5	100
2	5.2	10	200
5	13	25	500

NOTICE

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

After use

- DO NOT store a unit with fuel in its tank. Leaks can occur. Return unused fuel to an approved fuel storage container.

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

NOTICE

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


NOTICE

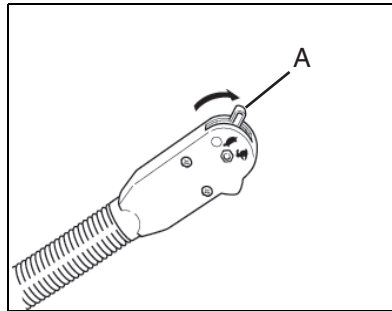
Stored two-stroke fuel may separate. ALWAYS shake fuel container thoroughly before each use.

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.
- Rotate throttle handle downward to a comfortable operating position.

1. Throttle Position Lever

Move throttle position lever (A) to START/IDLE DETENT () position.

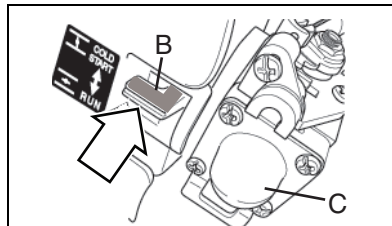


2. Choke

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

3. Purge Bulb


Pump purge bulb (C) until fuel is visible and flows freely in the clear fuel tank return line.



4. *Recoil Starter*

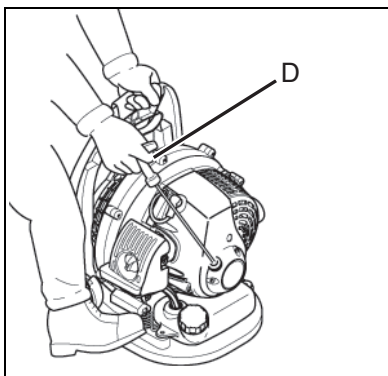
Pull recoil starter handle (D) until engine fires, or maximum 5 pulls.

5. *Choke*

Move choke lever (B) to RUN () position, and if necessary, restart engine.

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


Note: Allow engine to warm up before use.

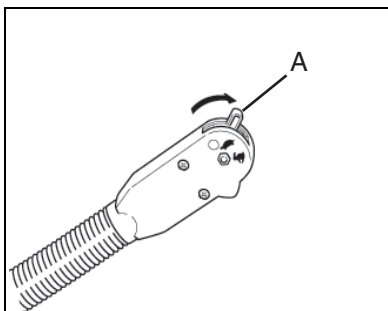


Starting Warm Engine

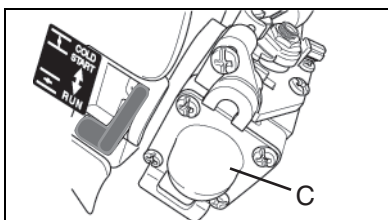
The starting procedure is the same as Cold Start except DO NOT close the choke.

1. *Throttle Position Lever*

Move throttle position lever (A) to START/IDLE DETENT () position.

2. *Purge Bulb*

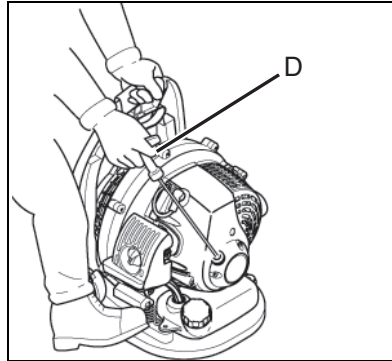
Pump purge bulb (C) until fuel is visible and flows freely in the clear fuel tank return line.



3. *Recoil Starter*

Pull recoil starter handle (D) and engine should start.

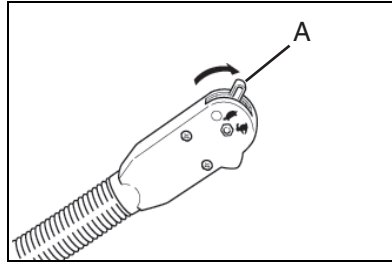
Note: If engine does not start after 5 pulls, use Cold Start Procedure.



Stopping Engine

1. *Throttle Position Lever*

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



2. *Stop Switch*

Move stop switch (A) to STOP (🛑) position.

! WARNING

If engine does not stop when stop switch is moved to STOP position, close choke - COLD START position - to stall engine. Have your ECHO 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

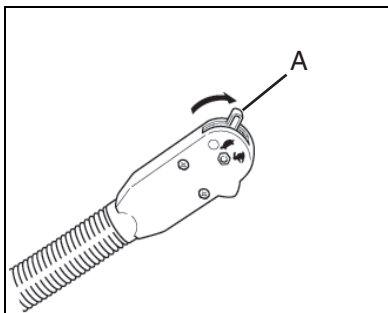
Use reduced speed only when performing light-duty tasks or to comply with local noise regulations. Continuous low speed operation may allow fuel/oil residue to build-up on the piston and cause rapid build-up of carbon on the spark arrestor screen, resulting in overheating and engine damage. To reduce 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.
2. Allow the engine to warm up at a fast idle for a few minutes.
3. Set engine speed with throttle position lever (A).
4. Use lower speed to blow dry grass and leaves from walks, patios and drives.
5. Additional speed may be necessary to clean leaves from a lawn or flower bed.
6. Higher speed may be necessary to move gravel, dirt, snow, bottles or cans from a driveway, street, parking lot or stadium.



Note: Never use a higher speed setting than necessary to perform a task. Remember, the higher the engine speed, the louder the blower noise. Minimize dust by using blower at lower speeds. Keep debris on your property. Be Smart - be a good neighbor.

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.

Your ECHO 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, you may want to take your unit to an ECHO Service Dealer for maintenance. To help you decide whether you want to DO-IT-YOURSELF or have the ECHO Dealer do it, each maintenance task has been graded. If the task is not listed, see your ECHO Dealer for repairs.

Skill Levels

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

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

Maintenance Intervals

COMPONENT/SYSTEM	MAINTENANCE PROCEDURE	REQ'D SKILL LEVEL
Daily or Before Use		
Air Filter	Inspect/Clean*	1
Choke Shutter	Inspect/Clean *	1
Fuel System	Inspect (3)	1
Cooling System	Inspect/Clean	2
Recoil Starter Rope	Inspect/Clean*	1
Screws/Nuts/Bolts	Inspect/Tighten/Replace*	1
Every Refuel		
Fuel System	Inspect (3)	1
3 Months		

COMPONENT/SYSTEM	MAINTENANCE PROCEDURE	REQ'D SKILL LEVEL
Air Filter	Replace*	1
Fuel Filter	Inspect*	1
Fuel Cap Gasket	Inspect*	1
Spark Plug	Inspect/Clean/Replace*	1
Muffler Spark Arrestor	Inspect/Clean/Replace*	2
Cylinder Exhaust Port	Inspect/Clean/Decarbon	2
Drive Shaft (Flex Cable Models)	Grease(1)	2
Gear Housing	Grease(2)	2
Yearly		
Fuel Filter	Inspect/Replace*	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.

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


MAINTENANCE PROCEDURE NOTES:

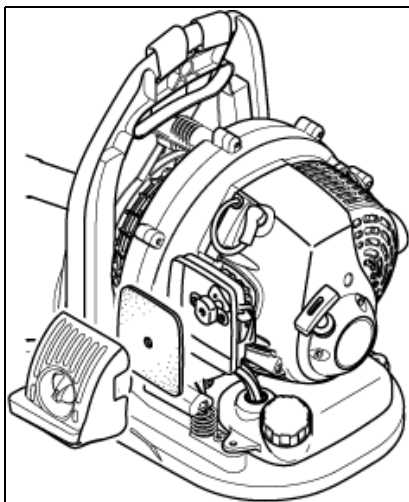
- (1) Apply lithium based grease every 25 hours of use.
- (2) Apply lithium based grease every 50 hours of use.
- (3) Low evaporative fuel tanks DO NOT require regular maintenance to maintain emission integrity.

Air Filter

Level 1.

Parts Required: Tune-Up Kit.

1. CLOSE choke (COLD START [- 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

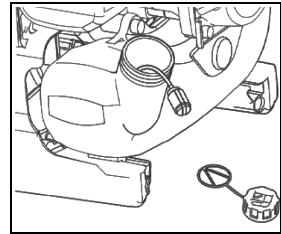
Level 1.

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.



NOTICE

Do not damage fuel line while removing fuel filter from tank or line.

2. Pull the fuel filter from the tank.
3. Do not remove the wire coil clamp to remove the fuel filter. Pinch the fuel filter with the fingers on one hand and the fuel line with the other hand. Pull and twist slightly to separate.
4. Install the new filter with the reverse action.

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

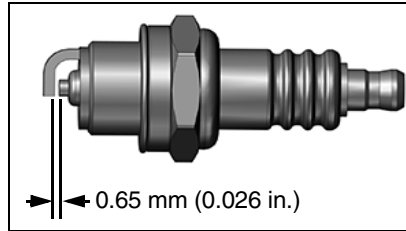
Level 2.

Parts Required: Tune-Up Kit

NOTICE

Use only NGK BPM-8Y spark plug (BPMR-8Y 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

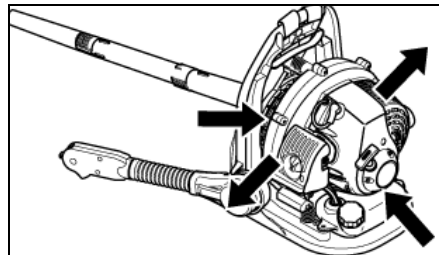
Level 2.

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:

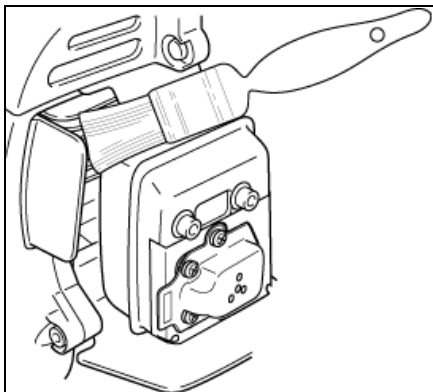
- Air intakes are blocked, preventing cooling air from reaching the cylinder.
- Dust and grass build up on the outside of the cylinder. This build up insulates the engine and prevents the heat from leaving.



Note: 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 and Cylinder Fins

1. Remove accumulated debris from intake grill between backpack frame and blower housing.
2. Disconnect spark plug lead from spark plug.
3. Remove spark plug.
4. Remove engine cover.
5. Loosely install spark plug to keep dirt out of cylinder.
6. Clean cylinder fins to allow cooling air to pass freely.
7. Reassemble parts in reverse order.



Exhaust System

Spark Arrestor Screen

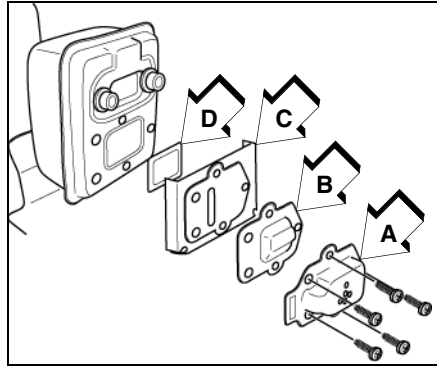
Level 2.

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 lead from spark plug.
2. Remove engine cover.
3. Remove exhaust deflector (A), spark arrestor cover (B), gasket (C), and spark arrestor screen (D) from muffler. Replace screen if plugged with carbon deposits.



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

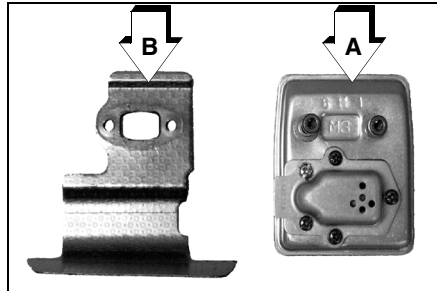
4. Clean carbon deposits from muffler components.
5. Install spark arrestor screen, gasket, and covers.
6. Install engine cover.
7. Attach spark plug lead.

Exhaust Port Cleaning

Level 2.

Parts Required: As needed: Heat Shield

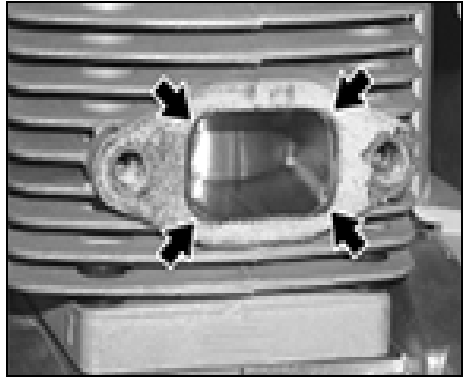
1. Remove spark plug lead from spark plug, and remove engine cover.
2. Place piston at top dead center. Remove muffler (A) and heat shield (B).
3. Use a wood or plastic scraping tool to clean deposits from cylinder exhaust port.



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.

4. Inspect heat shield, and replace if damaged.
5. Install heat shield and muffler.
6. Tighten muffler mounting bolts (or nuts) to 70-80 kgf•cm (60-70 in•lbf).
7. Install engine cover and attach spark plug lead.
8. Start engine, and warm to operating temperature.
9. Stop engine, and re-tighten mounting bolts (or nuts) to specifications.



Carburetor Adjustment

Engine Break-In

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

High Altitude Operation

This engine has been factory adjusted to maintain satisfactory starting and performance up to 1,100 feet above sea level (ASL) (96.0 kPa). To maintain proper engine operation above 1,100 feet ASL the carburetor may need to be adjusted.

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.

Parts Required: None

! WARNING

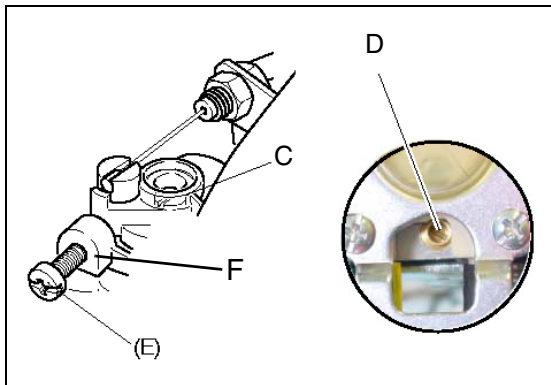
Always operate unit in a clear work area. Keep hands clear of moving parts during adjustment otherwise serious bodily injury may occur.

Before adjustment make sure that:

- Check for correct spark plug (BPM-8Y P/N 15901019830) and gap: .026 in (0.65 mm).
- The air filter element is clean and properly installed.
- The muffler spark arrestor screen and exhaust port are clear of carbon.
- The fuel lines, tank vent, and fuel filter are in good condition and clear of debris.
- The fuel is fresh (> 89 octane : RON+MON/2) and properly mixed at 50 : 1 with "ISO L-EGD" or "JASO-FD" 2-stroke oil.
- Blower pipes are installed.

Start and run engine for 3 minutes. Adjust idle speed screw to 3,000 +/- 200 rpm. If engine does not run correctly after this adjustment, adjust carburetor.

1. Turn Hi mixture needle (D) clockwise (CW) until lightly seated. And then turn Hi mixture needle (D) (CCW) 1 1/8 turns. Turn idle mixture needle (C) (CW) until lightly seated. And then turn idle mixture needle (C) (CCW) 4 3/4 turns.



2. Turn idle adjust screw (E) until the head touches boss (F). Then turn idle adjust screw (E) (CCW) 5 turns.
3. Adjust idle mixture needle (C) to achieve 3000 RPM.
4. Adjust Hi mixture needle (D) and obtain 6950 RPM

5. When final adjustment is completed, the engine should idle, accelerate smoothly, and attain (WOT) per above specification.

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 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	Move ignition away from STOP position.
	Spark at plug		Electrical problem	See your dealer
			Interlock switch	
			Incorrect gap - Covered with carbon - Fouled with fuel - Plug defective	Adjust to 0.65mm (0.026 in.) Clean or replace plug

ENGINE PROBLEM TROUBLESHOOTING CHART				
Problem	Check	Status	Cause	Remedy
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 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 then remove the spark plug and pour 7 cc (1/4 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 (do not connect ignition cable).
11. Remove blower pipe assembly from unit.

SPECIFICATIONS

MODEL	PB-265 LN
Length	305 mm (12.0 in.) (w/o pipes)
Width	410 mm (16.1 in.)
Height	435 mm (17.1 in.)
Weight (dry)	5.2 kg (11.5 lb.)
Engine Type	Air cooled, two-stroke, single cylinder gasoline engine
Bore	34.0 mm (1.34 in.)
Stroke	28.0 mm (1.1 in.)
Displacement	25.4 cc (1.55 cu. in.)
Exhaust	Spark arrestor muffler or spark arrestor muffler with catalyst
Carburetor	Diaphragm w/purge pump
Ignition System	Flywheel magneto, capacitor discharge ignition type
Spark Plug	NGK BPM-8Y (BPMR-8Y 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, or more than 25% ethyl alcohol. 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- ED, two-stroke, air-cooled engine oil.
Fuel Tank Capacity	0.66 lit. (22.3 US fl. oz.)
Starter System	Automatic Recoil Starter
Idle Speed	3,000 RPM
Wide Open Throttle Speed (W.O.T.)	6,950 RPM
Average Air Speed w/pipes (MPH)	58.56 m/sec (131 mph)
Maximum Air Speed w/pipes (MPH)	70.63 m/sec (158 mph)
Air Volume	10.62 m ³ /min. (375 cu. ft./min.)
Sound Level at 50 ft. dB(A) scale per ANSI B175.2	64 dB(A)

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