



Operator's Manual DPB-2500 Blower

WARNING

This product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. Cancer and Reproductive Harm www.P65Warnings.ca.gov

WARNING



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

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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.



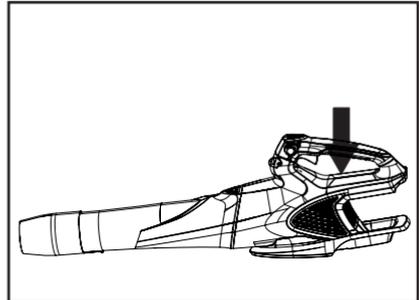
For additional literature, including safety manuals where applicable, or questions regarding terms used in this manual, visit: <https://www.echo-usa.com/manuals>



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 online 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 Incorporated, 400 Oakwood Road, Lake Zurich, IL 60047, 1-800-432-ECHO (3246).

PACKING LIST

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 Blower
- 1 Tube
- 1 Operator's Manual
- 1 Concentrator nozzle

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 might 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

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

Symbol	Description	Symbol	Description
	<p>WARNING!</p> <p>Read and follow all safety precautions in the operator's manual.</p> <p>Failure to follow instructions could result in serious personal injury.</p>		<p>Failure to keep loose clothing from being drawn into air intake could result in personal injury.</p>
	<p>Safety / Alert</p>		<p>Failure to keep long hair away from the air inlet could result in personal injury.</p>
	<p>Wear ear protection when operating this equipment.</p>		<p>Rotating impeller blades can cause severe injury.</p>
	<p>Always wear eye protection with side shields marked to comply with ANSI Z87.1 when operating this equipment.</p>		<p>Keep all bystanders at least 15 m (50') away.</p>
	<p>Do not expose the product to rain or moist conditions.</p>		<p>Environmentally safe battery disposal.</p>
	<p>Do not touch the fan when you operate this machine.</p>		<p>Direct current</p>

General Power Tool Safety Warnings



Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term “power tool” in the warnings refers to your battery operated (cordless) power tool.

Work Area Safety

- **Keep work area clean and well lit.** *Cluttered or dark areas invite accidents.*
- **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** *Power tools create sparks which may ignite the dust or fumes.*
- **Keep children and bystanders away while operating a power tool.** *Distractions can cause you to lose control.*

Electrical Safety

- **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** *Unmodified plugs and matching outlets will reduce risk of electric shock.*
- **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** *There is an increased risk of electric shock if your body is earthed or grounded.*
- **Do not expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*
- **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*
- **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** *Use of a cord suitable for outdoor use reduces the risk of electric shock.*

- **If operating a power tool in a damp location is unavoidable, use a RESIDUAL CURRENT DEVICE (RCD) protected supply.** *Use of an RCD reduces the risk of electric shock.*

Personal Safety

- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** *A moment of inattention while operating power tools may result in serious personal injury.*
- **Use personal protective equipment. Always wear eye protection.** *Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used appropriately will reduce personal injuries.*
- **Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or battery and when picking up or carrying the tool.** *Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.*
- **Remove any adjusting key or wrench before turning the power tool on.** *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*
- **Do not over-reach. Keep proper footing and balance at all times.** *This enables better control of the power tool in unexpected situations.*
- **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewelry or long hair can be caught in moving parts.*
- **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of dust collection can reduce dust related hazards.*
- **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** *A careless action can cause severe injury within a fraction of a second.*

Power Tool Use and Care

- **Do not force the power tool. Use the correct power tool for your application.** *The correct power tool will do the job better and safer at the rate for which it was designed.*
- **Do not use the power tool if the switch does not turn it on and off.** *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*
- **Disconnect the plug from the power source and/or remove the battery, from the power tool before making any adjustments, changing accessories, or storing power tools.** *Such preventive safety measures reduce the risk of starting the power tool accidentally.*

- **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** *Power tools are dangerous in the hands of untrained users.*
- **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** *Many accidents are caused by poorly maintained power tools.*
- **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
- **Use the power tool and accessories in accordance with these instructions, taking into account the working conditions and the work to be performed.** *Use of the power tool for operations different from those intended could result in a hazardous situation.*
- **Keep handles and grasping surfaces dry, clean and free from oil and grease.** *Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.*

Battery Tool Use and Care

- **Recharge only with ECHO eFORCE™ 56V battery series chargers.** *A charger that is suitable for one type of battery may create a risk of fire when used with another battery.*
- **Use only with ECHO eFORCE™ 56V battery series.** *Use of any other batteries may create a risk of injury and fire.*
- **When battery is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another.** *Shorting the battery terminals together may cause burns or fire.*
- **Do not open or destroy the battery.** *Electrolytes contained within the battery are corrosive and may cause damage to eyes or skin if released. It may be toxic if swallowed.*
- **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** *Liquid ejected from the battery may cause irritation or burns.*
- **Exercise care in handling batteries to avoid shorting the battery with conducting materials such as rings, bracelets, keys, etc.** *The battery or conductor may overheat and cause burns if contact with said materials is made.*

- **Do not use a battery or tool that is damaged or modified.** *Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.*
- **Do not expose a battery or tool to fire or excessive temperature.** *Exposure to fire or temperature above 266 °F(130 °C) may cause explosion.*
- **Follow all charging instructions and do not charge the battery or tool outside the temperature range specified in the instructions.** *Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.*

Child Safety

Tragic accidents can occur if the operator is not aware of the presence of children.

- Keep children out of the working area and under the watchful care of a responsible adult.
- Do not allow children under the age of 14 to operate this machine. Children who are 14 years of age and older must read and understand the operating instructions and safety rules in this manual and must be trained and supervised by a parent.
- Stay alert, and turn the machine off if a child or any other person enters the working area.
- Use extreme care when approaching blind corners, doorways, shrubs, trees, or other objects that may obscure your view of a child who may run into the path of the machine.

Service

- **Have your power tool serviced by a an authorized ECHO dealer using only identical replacement parts.** *This will ensure that the safety of the power tool is maintained.*
- **Never service damaged batteries.** *Service of batteries should only be performed by the manufacturer or authorized service providers.*

Blower Safety Warnings

- Operate the appliance only in daylight or in good artificial light.
- Keep all cooling air inlets clear of debris.
- Never blow debris in the direction of bystanders.
- Before starting the machine, make certain that the tube inlet is empty.
- Keep your face and body away from the air intake opening.

- Do not allow hands or any other part of the body or clothing inside the tube inlet, discharge chute, or near any moving part.
- Inspect unit to ensure no foreign material/ debris is in the machine prior to operation.
- Never operate the machine with defective guards or shields, or without safety devices or if the cord is damaged or worn.
- Do not overreach. Keep balance at all times, and always be sure of the footing on slopes. Walk, never run.
- Stop the machine and remove the battery. Make sure that all moving parts have come to a complete stop,
 - whenever the machine is left by the user
 - before clearing a blockage
 - before checking, cleaning or working on the machine
 - after striking a foreign object to inspect the machine for damage
- If the machine starts to vibrate abnormally,
 - inspect for damage
 - replace or repair any damaged parts
 - check for and tighten any loose parts
- Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
- Use extra care when cleaning on stairs.

Recommended Ambient Temperature Range

Item	Temperature
Blower storage temperature range	32 °F (0 °C) ~ 113 °F (45 °C)
Blower operation temperature range	32 °F (0 °C) ~ 113 °F (45 °C)
Battery charging temperature	39 °F (4 °C) ~ 104 °F (40 °C)
Charger operation temperature range	39 °F (4 °C) ~ 104 °F (40 °C)
Battery storage temperature range	32 °F (0 °C) ~ 113 °F (45 °C)
Battery discharging temperature range	32 °F (0 °C) ~ 113 °F (45 °C)

Environmentally Safe Battery Disposal



The toxic and corrosive materials below are in the batteries used in this machine: Lithium-Ion, a toxic material.

Discard all toxic materials in a specified manner to prevent contamination of the environment. Before discarding damaged or worn out Li-ion battery, contact your local waste disposal agency, or the local Environmental Protection Agency for information and specific instructions. Take the batteries to a local recycling and/or disposal center, certified for lithium-ion disposal.

If the battery cracks or breaks, with or without leaks, do not recharge it and do not use. Discard it and replace with a new battery. DO NOT TRY TO REPAIR IT! To prevent injury and risk of fire, explosion, or electric shock, and to avoid damage to the environment:

Cover the terminals of the battery with heavy-duty adhesive tape. DO NOT try to remove or destroy any of the battery components. DO NOT try to open the battery.

If a leak develops, the released electrolytes are corrosive and toxic. DO NOT get the solution in the eyes or on skin, and do not swallow it.

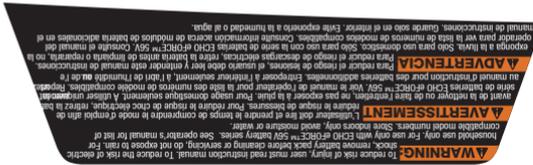
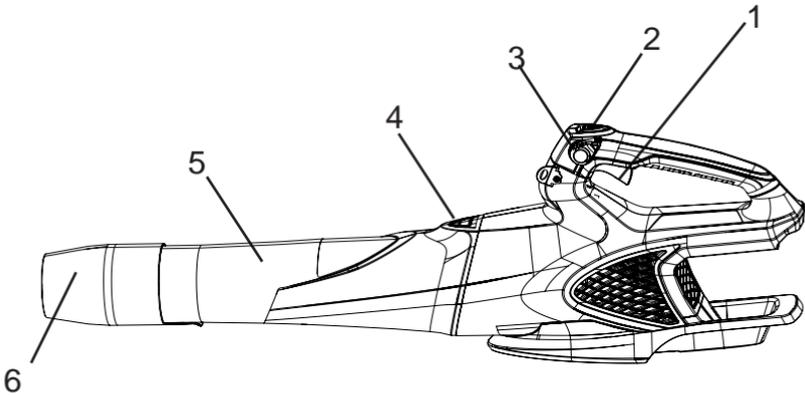
DO NOT put these batteries in your regular household trash. DO NOT incinerate.

DO NOT put them where they will become part of any waste landfill or municipal solid waste stream.

Take them to a certified recycling or disposal center.

DESCRIPTION

Locate the safety label(s) on your unit. Make sure the label(s) is legible and that you understand and follow the instructions on it. If a label 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. Trigger switch
2. Turbo button
3. Cruise control
4. Tube release button
5. Tube
6. Concentrator nozzle

Preparation For Use

WARNING

1. While operating the power tool always wear substantial footwear and long trousers. Do not operate the power tool when barefoot or wearing open sandals. Avoid wearing clothing that is loose fitting or that has hanging cords or ties.
2. Thoroughly inspect the area where the power tool is to be used and remove all objects which can be thrown by the power tool.
3. Before using, always visually inspect to see, that fasteners are secure, the housing is undamaged and that guards are in place.
4. Never operate the machine while people, especially children, or pets are nearby.
5. Obtain ear protection and safety glasses. Wear them at all times while operating the machine.

Installing and Removing the Battery

WARNING

The blower will operate when the battery is installed. Make sure the blower is properly positioned to prevent loss of control and possible serious injury.

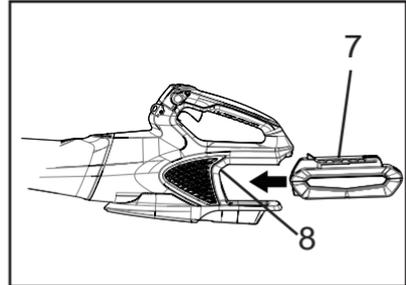
NOTICE

See separate Operator's Manual Packaged with the Battery.

The battery comes partially charged from the factory and needs to be fully charged before first use.

Installing the Battery

1. Align ridges on the sides of the battery (7) with the grooves in the battery compartment (8).
2. Push the battery (7) into the battery compartment (8) until the battery (7) locks into place.
3. When you hear a click, the battery (7) is installed.



WARNING

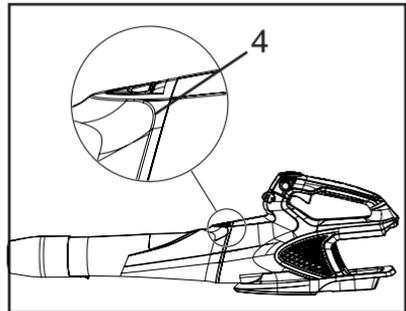
- If the battery or charger is damaged, replace the battery or the charger.
- Stop the machine and wait until the motor stops before you install or remove the battery.
- Read and understand the instructions in the battery and charger manual.

Remove the Battery

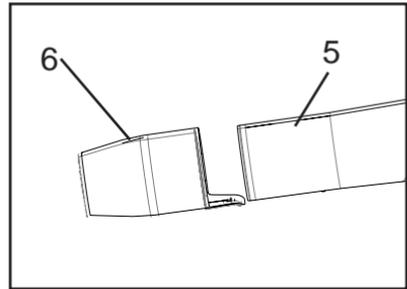
1. Push and hold the battery release button.
2. Remove the battery from the machine.

Installing the Blower Tube

1. Move the tube until the tube release button (4) engages into the slot.



2. Connect the concentrator nozzle (6) to the tube (5) until the tube locks into the concentrator nozzle (6)



NOTICE

You can use the nozzle to increase airflow in tight areas.

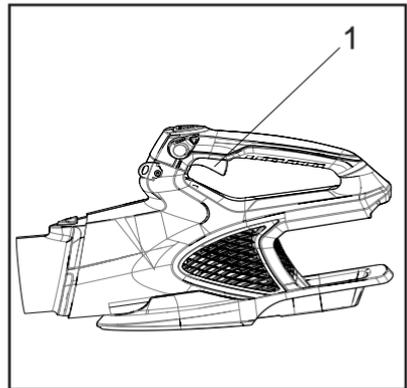
Operation

⚠ WARNING

Make sure the blower tube is in position before operation.

Starting the Unit

1. Pull the trigger switch (1) to start the machine.
2. Pull the trigger switch fully to increase the speed.
3. Release the trigger switch to decrease the speed



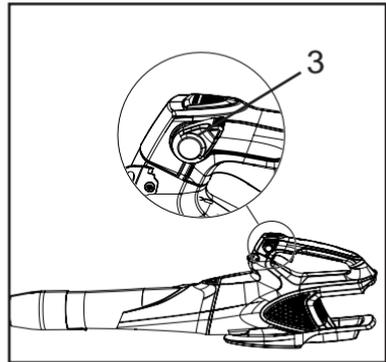
Stopping the Unit

1. Release the trigger switch to stop the machine. Wait until the motor stops after you stop the machine.

NOTICE

Cruise Control

1. Pull the cruise control (3) clockwise to increase the speed. This will lock the speed at the desired setting.
2. Push the cruise control (3) counter clockwise to decrease the speed.
3. To restore the original speed, you need to manually rotate the cruise control (3)

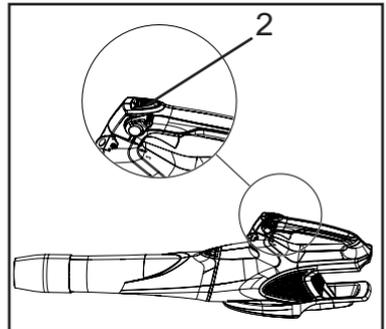


NOTICE

If you decrease the speed all the way, the unit will stop and it is necessary to start the machine again.

Turbo Button

1. Push the turbo button (2), the machine is at the highest speed.
2. Release the turbo button (2), the machine is at the normal speed.



NOTICE

Using the turbo button drains the battery the fastest. Only use the turbo button when needed.

Operation Tips

1. Blow around the outer edge of the unwanted materials to prevent the unwanted materials from scattering.
2. Use rakes and brooms to clear the unwanted material before you blow.
3. Make the surfaces wet before you clear the unwanted material in dusty conditions.
4. Look out for children, pets, open windows, and cleaned cars during operation.
5. Clean the machine.
6. Discard the unwanted material when you complete work

! CAUTION

Do not let brake fluids, gasoline, petroleum-based materials touch the plastic parts. Chemicals can cause damage to the plastic, and make the plastic unserviceable.

! CAUTION

Do not use strong solvents or detergents on the plastic housing or components.

! WARNING

Remove the battery from the machine before maintenance.

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 ECHO 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.

Skill Levels

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

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

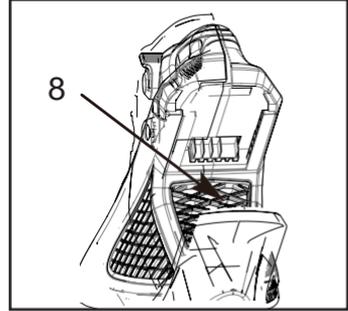
Level 3 = See your dealer.

Maintenance Intervals

COMPONENT / SYSTEM	COMPONENT / SYSTEM	SKILL LEVEL	INTERVAL
Screws/Nuts/Bolts	Inspect/Tighten/Replace	1	Before Each Use
Battery and Battery Compartment	Inspect / Clean	1	Before Each Use

Cleaning Battery and Battery Compartment

1. Clear the unwanted material out of the air vent with a vacuum cleaner.
2. Do not spray the air vent or put the air vent in solvents.
3. Clean the battery compartment (8) and the plastic components with a moist and soft cloth.



TROUBLESHOOTING

Problem	Cause	Solution
The motor does not start when you pull the trigger switch.	The battery is not installed tightly.	Make sure that you tightly install the battery in the machine.
	The battery is out of power.	Charge the battery.
	The trigger switch is defective.	Replace the defective parts, call an Authorized ECHO Dealer
	The motor is defective.	
The air does not flow through the tube when you start the machine.	The air inlet or tube outlet has a blockage.	Remove the blockage.

STORAGE

Storage After Use

When storing the product for long periods of time, ensure that the following preparations for storage are carried out.

Blower

Do not store your unit without performing protective storage maintenance which includes the following:

1. Clean the unit before storage.
2. Remove battery from blower.
3. Remove accumulation of dirt and debris from exterior of unit.
4. Tighten all screws and nuts.
5. Replace the damaged parts.
6. Cover battery compartment of blower.
7. Store unit in a dry, dust-free place, out of the reach of children.

Battery

1. Remove battery from blower.
2. Store in a dry, dust-free place, out of the reach of children.
3. Store in temperatures between -4 °F (-20 °C) ~ 140 °F (60 °C).
4. If battery is stored for longer than six months, charge it to 100% capacity.

Charger

1. Remove battery from charger.
2. Disconnect charger from power supply.
3. Store in a dry, dust-free place, out of the reach of children.

SPECIFICATIONS

MODEL	DPB-2500
Voltage	56 V
Length (without blower pipes)	506 mm (19.92")
Width (without blower pipes)	302 mm (11.89")
Height (without blower pipes)	160 mm (6.3")
Air volume	580 CFM
Air speed	150 MPH
Weight (without battery)	6.66 lbs (3.02 kg)
Battery:	
Model	ECHO eFORCE™ 56V battery series batteries
Type	Li-Ion
Voltage	56 (rated 50.4)
Charger type	CC-CV
Charger input voltage	120V AC 60Hz
Charger model	ECHO eFORCE™ 56V battery series charger
Charge Time	See Battery Operator's Manual

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, Incorporated.

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.



PRODUCT REGISTRATION CARD : TARJETA DE REGISTRO : CARTE D'ENREGISTREMENT DU PRODUIT

ONLINE OPTION: Register online and save a stamp! You will be alerted of product updates and/or be sent new ECHO product information and special offers. Simply go to: www.echo-usa.com

OPCIÓN POR INTERNET: Regístrate en la página web y ahorra un sello! Serás alertado de actualizaciones de productos ECHO y las ofertas especiales. Simplemente visite: www.echo-usa.com

OPTION EN LIGNE: Enregistrer en ligne et épargner un timbre! Vous serez informé sur les nouveaux produits ECHO et les offres spéciales. Simplemente visitez le: www.echo-usa.com

Confidential: Information provided will not be shared or sold

Please Print : Por Favor Escribe Con Letra De Moldé : En Lettre Carré S.V.P.

Purchaser's Name : Nombre del Comprador : Nom de l'acheteur	
Address : Dirección : Adresse	
City : Ciudad : Ville	State : Estado : Zip Code : Código Postal : Code Postal Province
E-Mail Address : Dirección De Correo Electrónico : Courrier Electronique	
Phone Number : Número De Teléfono : Téléphone	Date of Purchase : Fecha de la Compra : Date de l'achat
Where Purchased : Nombre del Almacén donde fue Comprado : Lieu d'achat	
Model Number : Número del Modelo : No. de modelo	Serial Number : Número de Serie : No. de série

Primary use of tool: Professional Homeowner Rental Equip.
 Uso primario de la herramienta: Profesional Dueño de casa Alquiler
 Usage principal : Professionnel Résidentiel Location
 Do you wish to receive periodic ECHO product information and special offers by e-mail? Yes No
 ¿Desea usted recibir información periódica y ofertas especiales por correo electrónico sobre el producto ECHO? Yes No
 Souhaitez-vous recevoir périodiquement de l'information sur les produits ECHO et les offres spéciales par courrier électronique ? Oui Non
 Did you visit the ECHO website before purchasing your product? Yes No
 Visité usted la página web ECHO antes de comprar su producto? Si No
 Avez-vous visité le site d'ECHO avant de procurer votre produit? Oui Non
 What factor(s) most influenced your purchase?
 Performance Price Dealer
 Reliability Prior Experience Quality
 Friend/Family Brand Warranty
 ¿Qué factor(es) influyó más en su compra?
 Funcionamiento Precio Distribuidor
 Confiablez Experiencia Anterior Calidad
 Amigo/Familia Marca Garantía
 Quel facteur (facteurs) vous a influencé le plus?
 Performance Prix Marchand
 Fiabilité Expérience Qualité
 Ami/Famille Marque Garantie

ECHO INC., 400 Oakwood Rd., Lake Zurich, IL 60047
 1.800.432.ECHO WWW.ECHO-USA.COM

X7572720206 02-2012



Limited Warranty Statement for ECHO 56 Volt Products sold in USA and Canada

ECHO Incorporated warrants to the original retail purchaser that this ECHO brand 56 Volt outdoor product is free from defects in material and workmanship and agrees to repair or replace, at ECHO Incorporated's discretion, any defective product free of charge within these time periods from the date of purchase:

- If the product is for homeowner use:
 - Unit – 5 Years
 - Battery or charger – 2 years
- If the product is for commercial use:
 - Chainsaw – 1 year
 - All other units – 2 years
 - Battery or charger – 1 year
- If the product is for rental use: 90 days for all units, batteries, and chargers.
- Cutting attachments such as, but not limited to, bars, chains, sprockets, blades, tines, belts, PowerBroom™ and nylon trimmer heads for homeowner or non-income producing use will be covered for failures due to defects in material or workmanship for a period of 60 days from original product purchase date and 30 days for commercial / rental use. Any misuse from contact with concrete, rocks, or other structures is not covered by this warranty.

This warranty extends to the original retail purchaser only and commences on the date of the original retail purchase.

Any part of this product found in the reasonable judgment of ECHO Incorporated, to be defective in material or workmanship will be repaired or replaced without charge for parts and labor by an authorized ECHO dealer. Units, repair parts and accessories replaced under this warranty are warranted only for the balance of the original warranty period.

The product, including any defective part, must be returned to an authorized ECHO dealer within the warranty period. The expense of delivering the product to the service center for warranty work and the expense of returning it back to the owner after repair or replacement will be paid by the owner. ECHO Incorporated's, responsibility in respect to claims is limited to making the required repairs or replacements and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any ECHO brand 56 Volt outdoor product. Proof of purchase will be required by the dealer to substantiate any warranty claim. All warranty work must be performed by an authorized ECHO dealer.

This warranty does not cover any product that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in the Operator's Manual.

This warranty does not apply to any damage to the product that is the result of improper maintenance or to any product that has been altered or modified. The warranty does not extend to repairs made necessary by normal wear or by the use of parts or accessories which are either incompatible with the ECHO brand 56 Volt outdoor product or adversely affect its operation, performance, or durability. In addition, this warranty does not cover wear to normal items such as, but not limited to:

Wear items – Bump Knobs, Outer Spools, Cutting Lines, Inner Reels, Felt Washers, Hitch Pins, Mulching Blades, Blower Fans, Blower and Vacuum Tubes, Vacuum Bag and Straps, Guide Bars, Saw Chains, Grass Catch Bag, Hedge Trimmer Blades, and Wheels

ECHO Incorporated, reserves the right to change or improve the design of this product without assuming any obligation to modify any product previously manufactured.

All implied warranties are limited in duration to the stated warranty period. Accordingly, any such implied warranties including merchantability, fitness for a particular purpose, or otherwise, are disclaimed in their entirety after the expiration of the appropriate five-year, two-year, one-year, 90-day, 60-day, or 30-day warranty period. ECHO Incorporated's obligation under this warranty is strictly and exclusively limited to the repair or replacement of defective parts. ECHO Incorporated, does not assume or authorize anyone to assume for them any other obligation. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. ECHO Incorporated, assumes no responsibility for incidental, consequential, or other damages including, but not limited to, expense of returning the product to an authorized dealer for ECHO brand 56 Volt outdoor products and expense of delivering it back to the owner, mechanic's travel time, telephone charges, rental of a like product during the time warranty service is being performed, travel, loss or damage to personal property, loss of revenue, loss of use of the product, loss of time, or inconvenience. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty applies to all ECHO brand 56 Volt outdoor products manufactured by or for ECHO Incorporated, and sold in the United States and Canada.

To locate your nearest authorized ECHO dealer, visit www.ECHO-usa.com or dial 1-800-432-ECHO (3246).

NOTES





409BPH000001 - 409BPH999999
402BPH000001 - 402BPH999999



ECHO INCORPORATED

400 Oakwood Road

Lake Zurich, IL 60047

www.echo-usa.com



Operator's Manual DSRM-2100 Grass Trimmer

WARNING

This product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. Cancer and Reproductive Harm www.P65Warnings.ca.gov

WARNING



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

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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:

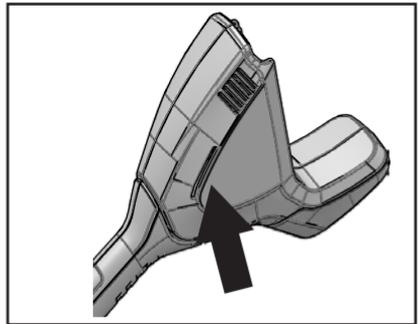
<https://www.echo-usa.com/manuals>



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 online 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 Incorporated, 400 Oakwood Road, Lake Zurich, IL 60047, 1-800-432-ECHO (3246).

PACKING LIST

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 Grass Trimmer Bare Tool
- 1 Support Handle Assembly
- 1 Wrench
- 1 Operator's Manual

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 might 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

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

Symbol	Description	Symbol	Description
	Direct current		Safety / Alert
	Read and follow all safety precautions in the operator's manual. Failure to follow instructions could result in serious personal injury.		Wear eye protection.
	Wear safety footwear.		Wear protective gloves.
	Wear head protection.		Do not expose to rain or in damp condition.
	Thrown objects can ricochet and result in personal injury or property damage.		Keep all bystanders at least 50'/15m away.

Note: Not all symbols will appear on your unit.

General Power Tool Safety Warnings

READ ALL INSTRUCTIONS BEFORE USING (THIS POWER TOOL)

WARNING

Read all safety warnings, instructions, illustrations and specifications provided with this power tool. *Failure to follow the warnings and instructions may result in electric shock fire and/or serious injury.*

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your BATTERY-operated (cordless) power tool.

Work Area Safety

- **Keep work area clean and well lit.** *Cluttered or dark areas invite accidents.*
- **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** *Power tools create sparks which may ignite the dust or fumes.*
- **Keep children and bystanders away while operating a power tool.** *Distractions can cause you to lose control.*

Electrical Safety

- **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** *Unmodified plugs and matching outlets will reduce risk of electric shock.*
- **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** *There is an increased risk of electric shock if your body is earthed or grounded.*
- **Do not expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*
- **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*
- **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** *Use of a cord suitable for outdoor use reduces the risk of electric shock.*
- **If operating a power tool in a damp location is unavoidable, use a RESIDUAL CURRENT DEVICE (RCD) protected supply.** *Use of an RCD reduces the risk of electric shock.*

Personal Safety

- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** *A moment of inattention while operating power tools may result in serious personal injury.*
- **Use personal protective equipment. Always wear eye protection.** *Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used appropriately will reduce personal injuries.*
- **Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or battery and when picking up or carrying the tool.** *Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.*
- **Remove any adjusting key or wrench before turning the power tool on.** *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*
- **Do not over-reach. Keep proper footing and balance at all times.** *This enables better control of the power tool in unexpected situations.*
- **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewelry or long hair can be caught in moving parts.*
- **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of dust collection can reduce dust related hazards.*
- **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** *A careless action can cause severe injury within a fraction of a second.*

Power Tool Use and Care

- **Do not force the power tool. Use the correct power tool for your application.** *The correct power tool will do the job better and safer at the rate for which it was designed.*
- **Do not use the power tool if the switch does not turn it on and off.** *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*
- **Disconnect the plug from the power source and/or remove the battery, from the power tool before making any adjustments, changing accessories, or storing power tools.** *Such preventive safety measures reduce the risk of starting the power tool accidentally.*
- **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** *Power tools are dangerous in the hands of untrained users.*
- **Maintain power tools and accessories. Check for misalignment or**

binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.

- **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- **Use the power tool and accessories in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
- **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

Battery Tool Use and Care

- **Recharge only with ECHO eFORCE™ 56V battery series chargers.** A charger that is suitable for one type of battery may create a risk of fire when used with another battery.
- **Use only with ECHO eFORCE™ 56V battery series.** Use of any other batteries may create a risk of injury and fire.
- **When battery is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or fire.
- **Do not open or destroy the battery.** Electrolytes contained within the battery are corrosive and may cause damage to eyes or skin if released. It may be toxic if swallowed.
- **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.
- **Exercise care in handling batteries to avoid shorting the battery with conducting materials such as rings, bracelets, keys, etc.** The battery or conductor may overheat and cause burns if contact with said materials is made.
- **Do not use a battery or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- **Do not expose a battery or tool to fire or excessive temperature.** Exposure to fire or temperature above 266 °F (130 °C) may cause explosion.
- **Follow all charging instructions and do not charge the battery or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

Child Safety

Tragic accidents can occur if the operator is not aware of the presence of children.

- Keep children out of the working area and under the watchful care of a responsible adult.
- Do not allow children to operate this machine.
- Stay alert, and turn the machine off if a child or any other person enters the working area.
- Use extreme care when approaching blind corners, doorways, shrubs, trees, or other objects that may obscure your view of a child who may run into the path of the machine.

Service

- **Have your power tool serviced by an authorized ECHO dealer using only identical replacement parts.** *This will ensure that the safety of the power tool is maintained.*
- **Never service damaged batteries.** *Service of batteries should only be performed by the manufacturer or authorized service providers.*

Grass Trimmer Safety Warnings

- Use only identical manufacturer's replacement parts and accessories. Use of any other parts may create a hazard or cause product damage.
- Always wear safety glasses with side shields marked to comply with ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are NOT safety glasses. Following this rule will reduce the risk of eye injury. Use face mask if operating in dusty work spaces.
- Avoid dangerous environment – Don't expose power tools to damp or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Don't use in rain.
- Keep all bystanders, children, and pets at least 50 ft./15 m. away.
- Dress properly – Do not wear loose clothing or jewelry. They can be caught in moving parts. Use of rubber gloves and substantial footwear is recommended when working outdoors. Wear protective hair covering to contain long hair.
- Use the right machine. Do not use the machine for any job except that for which it is intended.
- Avoid unintentional starting – Don't carry the machine with finger on switch. Be sure switch is off when battery is plugged in.
- Don't force the machine – It will do the job better and with less likelihood of a risk of injury at the rate for which it was designed.
- Don't overreach – Keep proper footing and balance at all times.

- Stay alert – Watch what you are doing. Use common sense. Do not operate this unit when you are tired, ill or under the influence of alcohol, drugs or medication.
- Always store idle power tools indoors – When not in use, power tools should be stored indoors in a dry and high or locked-up place, out of reach of children.
- Maintain the machine with care – Replace string head if cracked, chipped, or damaged in any way. Be sure the string head is properly installed and securely fastened. Keep cutting edge sharp and clean for best performance and to reduce the risk of injury. Follow instructions for lubricating and changing accessories. Inspect cord periodically, and if damaged, have it repaired by an authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease. Failure to do so can cause serious injury.
- Check damaged parts before using the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, damaged mountings, and any other condition that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless indicated elsewhere in this manual.
- Remove or disconnect battery before servicing, cleaning or removing material from the gardening machine.
- Do not modify or attempt to repair the machine or the battery (as applicable) except as indicated in the instructions for use and care. Use machines only with ECHO eFORCE™ 56V battery series. Use of any other batteries may create a risk of injury and fire.
- Recharge only with ECHO eFORCE™ 56V battery series chargers. A charger that is suitable for one type of battery may create a risk of fire when used with another battery.
- When battery is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause a fire.
- Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- Do not use a battery or machine that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- Do not expose a battery or machine to fire or excessive temperature. Exposure to fire or temperature above 265 °F (130 °C) may cause an explosion.

- Do not dispose of the batteries in a fire. The cells may explode. Check with local codes for possible special disposal instructions.
- Do not open or mutilate the batteries. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
- Exercise care in handling batteries in order not to short the battery with conducting materials such as rings, bracelets, and keys. The battery or conductor may overheat and cause burns.
- Follow all charging instructions and do not charge the battery or machine outside of the temperature range specified in the instructions. Charging improperly or at temperatures outside of the specified range may damage the battery and increase the risk of fire.
- Have servicing performed by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.
- Keep guards in place and in working order.
- Keep hands and feet away from cutting area.
- Disconnect the battery from the machine before making any adjustments, changing accessories, or storing machine. Such preventive safety measures reduce the risk of starting the machine accidentally.
- Use only with the nylon cutting line of 0.095" (2.4 mm) diameter and smaller. Do not use heavier lines than recommended by the manufacturer and line materials of other types – for example, metal wire, rope, and the like.

SAVE THESE INSTRUCTIONS

Environmentally Safe Battery Disposal



The toxic and corrosive materials below are in the batteries used in this machine: Lithium-Ion, a toxic material.

Discard all toxic materials in a specified manner to prevent contamination of the environment. Before discarding damaged or worn out Li-ion battery, contact your local waste disposal agency, or the local Environmental Protection Agency for information and specific instructions. Take the batteries to a local recycling and/or disposal center, certified for lithium-ion disposal.

If the battery cracks or breaks, with or without leaks, do not recharge it and do not use. Discard it and replace with a new battery. DO NOT TRY TO REPAIR IT!

To prevent injury and risk of fire, explosion, or electric shock, and to avoid damage to the environment:

Cover the terminals of the battery with heavy-duty adhesive tape.

DO NOT try to remove or destroy any of the battery components.

DO NOT try to open the battery.

If a leak develops, the released electrolytes are corrosive and toxic. DO NOT get the solution in the eyes or on skin, and do not swallow it.

DO NOT put these batteries in your regular household trash.

DO NOT incinerate.

DO NOT put them where they will become part of any waste landfill or municipal solid waste stream.

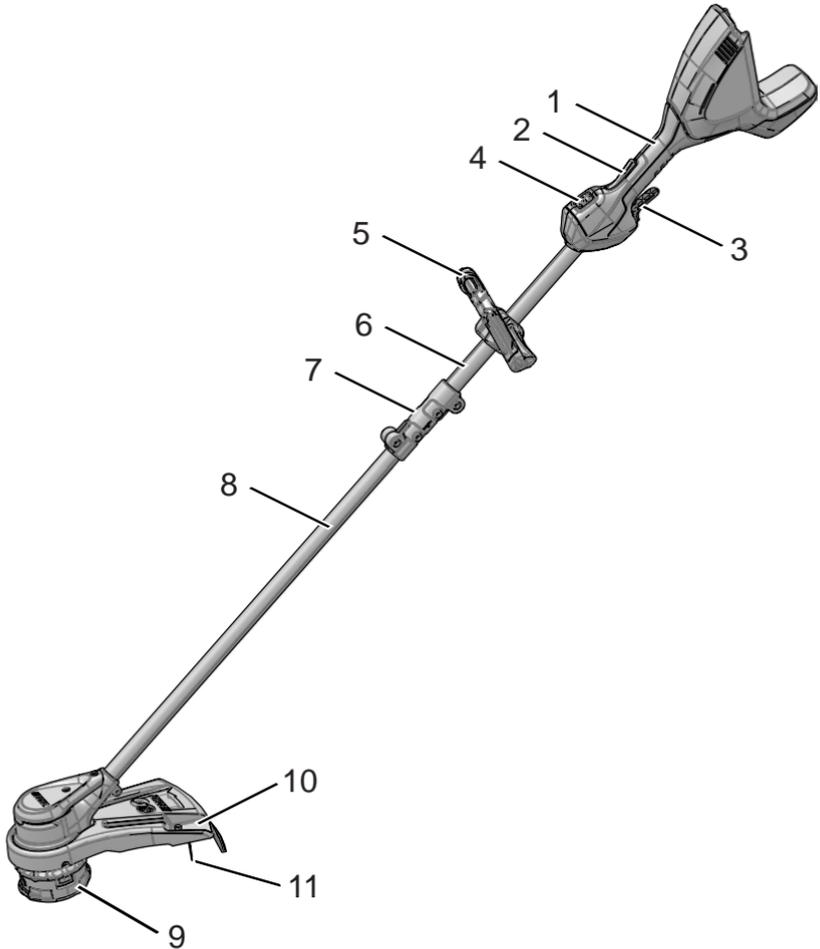
Take them to a certified recycling or disposal center.

The recommended ambient temperature range:

ITEM	TEMPERATURE
Power tool storage temperature range	32°F (0°C) - 113°F (45°C)
Power tool operation temperature range	32°F (0°C) - 113°F (45°C)
Battery charging temperature range	39°F (4°C) - 104°F (40°C)
Charger operation temperature range	39°F (4°C) - 104°F (40°C)
Battery storage temperature range	32°F (0°C) - 113°F (45°C)
Battery discharging temperature range	32°F (0°C) - 113°F (45°C)

DESCRIPTION

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



ASSEMBLY

WARNING

Remove the battery from the machine before installation.

WARNING

Do not use accessories that are not recommended for this machine.

Unpack the Machine

WARNING

Make sure that you correctly assemble the machine before use.

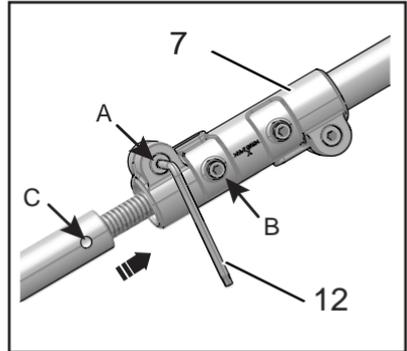
WARNING

- *If the parts are damaged, do not use the machine.*
- *If you do not have all the parts, do not operate the machine.*
- *If the parts are damaged or missing, speak to the service center.*

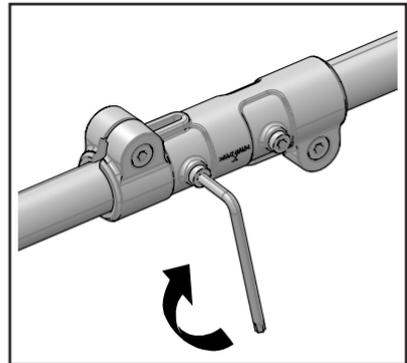
1. Open the package.
2. Read the documentation in the box.
3. Remove all the unassembled parts from the box.
4. Remove the machine from the box.
5. Discard the box and package in compliance with local regulations.

Assemble the Shaft

1. Loosen the screws (A,B) on the coupler (7) with the wrench (12).
2. Align the positioning hole (C) on the lower shaft with the screw (B) and slide the two shafts together.

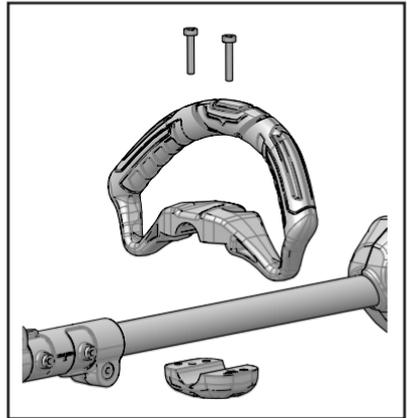


3. Turn the lower shaft until the screw (B) locks into the positioning hole.
4. Tighten the screws (B,A).

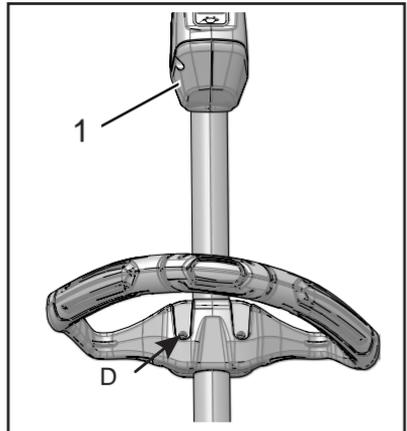


Attach the Support Handle

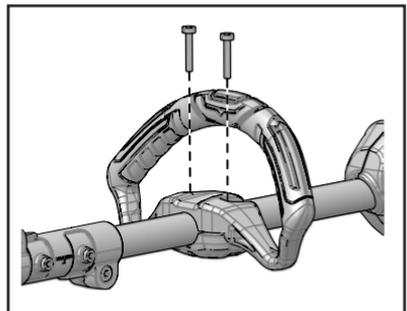
1. Remove the screws from the handle.



2. Attach the support handle and lower clamp on the shaft.
3. Put screw holes (D) on the support handle towards the rear handle (1).
4. Set the support handle in the most comfortable in use position.



5. Tighten the screws.

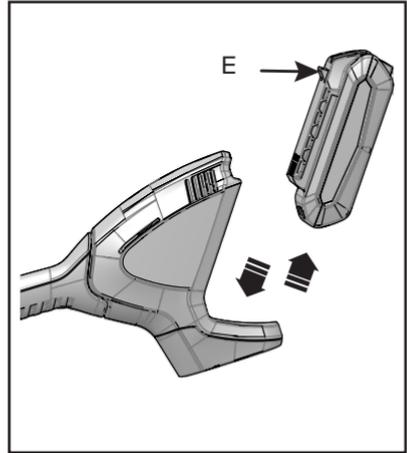


Install the Battery

WARNING

- *If the battery or charger is damaged, replace the battery or the charger.*
- *Stop the machine and wait until the motor stops before you install or remove the battery.*
- *Read and understand the instructions in the battery and charger manual.*

1. Align the lift ribs on the battery with the grooves in the battery compartment.
2. Push the battery into the battery compartment until the battery locks into place.
3. When you hear a click, the battery is installed.



Remove the Battery

1. Push and hold the battery release button (E).
2. Remove the battery from the machine.

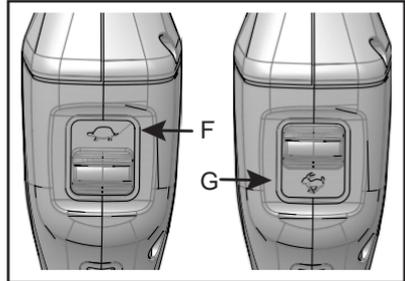
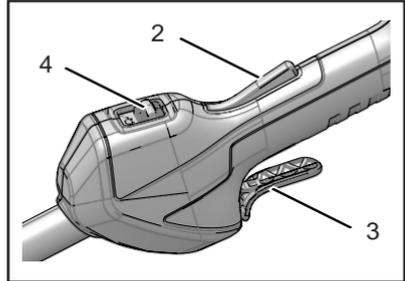
OPERATION

! WARNING

Before you operate the machine, read and understand the safety regulations and the operation instructions.

Start the Machine

1. Push the lock-out lever (2) and pull the trigger switch(3).
2. Push the speed switch (4) to the desired operating speed.
3. Push the speed switch to position (F, tortoise) for low speed or position (G, rabbit) for high speed.

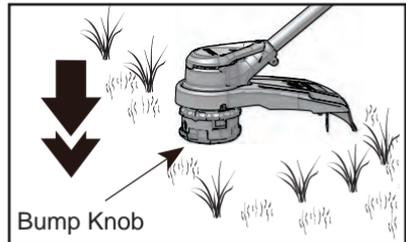
**Stop the Machine**

1. Release the trigger switch to stop the machine.

Adjust the Length Of the Cutting Line

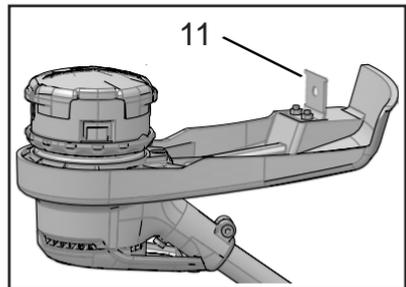
While you operate the machine, the cutting line will wear and shorten. You can adjust the length of the cutting line.

1. Hit the trimmer head against the ground while you operate the machine.
2. Line is automatically released and the cut-off knife cuts the excess length.



Line Cut-off Knife

This trimmer is equipped with a line cut-off knife (11) on the debris shield. The line cut-off knife continuously trims the line to ensure a consistent and efficient cut diameter. Advance line whenever you hear the motor running faster than normal, or when trimming efficiency diminishes. This will maintain best performance and keep line long enough to advance properly.

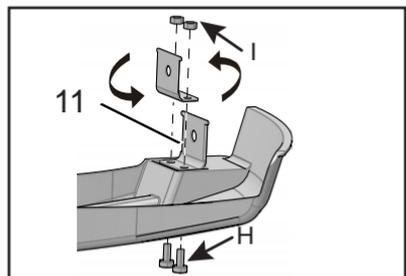


Adjust the Cutting Diameter

NOTICE

The machine is set at a 16 in. (40.6 cm) cutting diameter. You can adjust to a 14 in. (35.6 cm) cutting diameter. Set the cutting diameter to 14 in. (35.6 cm) for greater runtime and 16 in. (40.6 cm) for a larger cutting area.

1. Remove the battery.
2. Remove the knife screws (H) and nuts (I) from the cut-off knife (11).
3. Turn the cut-off knife 180°.
4. Tighten the knife screws and nuts.



Operation Tips

WARNING

Keep clearance between the body and the machine.

WARNING

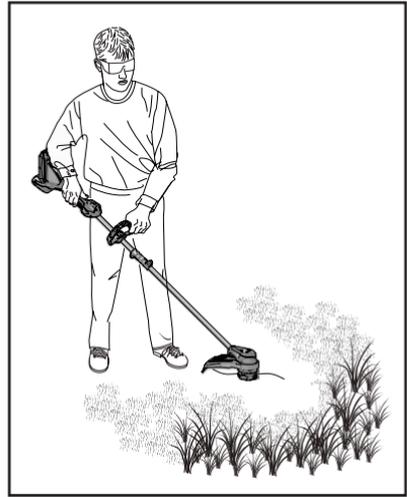
Do not operate the machine without debris shield in place.

Do these tips when you use the machine:

- Keep a firm hold with the two hands on the machine while you operate the machine.
- Cut tall grass from the top down.

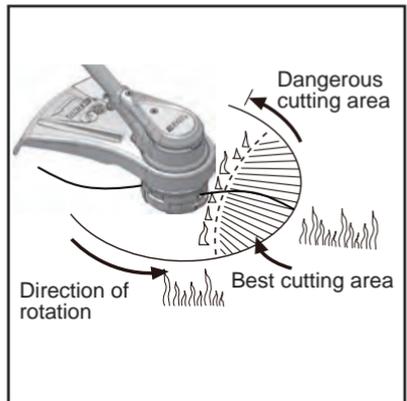
If grass winds around the trimmer head:

- Remove the battery.
- Remove the grass.



Cutting Tips

- Tilt the machine toward the area to be cut. Use the tip of the cutting line to cut grass.
- Move the machine from right to left to prevent thrown debris from hitting the operator.
- Do not cut in the danger area.
- Do not force the trimmer head into uncut grass.
- Wire and picket fences cause cutting line wear and breakage. Stone and brick walls, curbs, and wood can wear the cutting line quickly.



MAINTENANCE

WARNING

Read and understand the safety regulations and the maintenance instructions before you clean, repair or do the maintenance work on the machine.

WARNING

Make sure that all nuts, bolts and screws are tight. Examine regularly that you install the handles tightly.

WARNING

Use only the replacement parts and accessories of the initial manufacturer.

General Information

WARNING

Only your dealer or approved service center can do the maintenance that is not given in this manual.

Before the maintenance operations:

- Stop the machine.
- Remove the battery.
- Cool the motor.
- Store the machine in cool and dry place.
- Use correct clothing, protective gloves and safety glasses.

Clean the Machine

- Clean the machine after use with a moist cloth dipped in neutral detergent.
- Do not use aggressive detergents or solvents to clean the plastic parts or handles.
- Keep the trimmer head free of grass, leaves, or excessive grease.
- Keep the air vents clean and free of debris to avoid overheating and damage to the motor or the battery.
- Do not spray water onto the motor and electrical components.

Nylon Line Replacement

⚠ WARNING

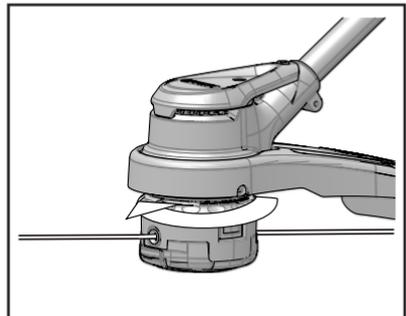
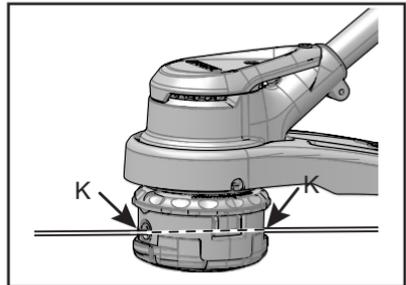
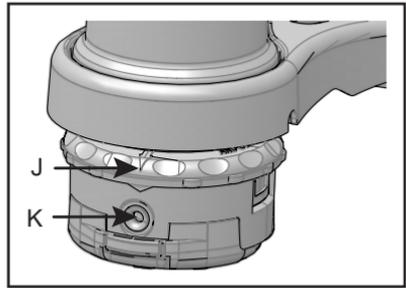
Wear gloves or personal injury may result:

- *Cut-off knife is sharp.*

⚠ WARNING

Never use wire or wire-ropes that can break off and become a dangerous “projectile”. Serious injury can occur.

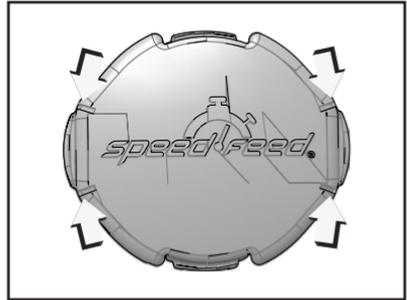
1. Cut one piece of line to recommended length.
2.0 mm (0.080 in.) diameter 6 m (20 ft.).
2.4 mm (0.095 in.) diameter 6 m (20 ft.).
2. Align arrows (J) on top of knob with openings in eyelets (K).
3. Insert one end of trimmer line into an eyelet (K), and push line equal distance through trimmer head.
4. Hold trimmer head while turning knob clockwise to wind line onto spool until about 13 cm (5 in.) of each line remains exposed.



Trimmer head is now fully loaded and ready for operation.

NOTICE

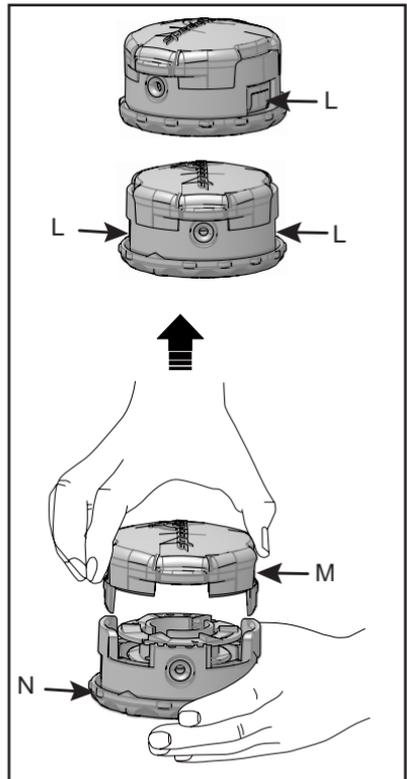
When the wear indicators located at the bottom of the Speed-Feed® head are worn smooth, or if holes appear, replacement of the cover or the entire Speed-Feed® head is required.



Nylon Line Head Disassembly Instructions

Note: For normal use, Speed-Feed® head disassembly is not necessary. However, if circumstances require disassembly, follow these instructions.

1. Press top of locking tabs (L) on both sides of Speed-Feed® head to release cover (M) from eyelet carrier (N).



2. Remove cover from eyelet carrier.

TROUBLE SHOOTING

Problem	Possible Cause	Solution
The machine does not start when you push the trigger switch.	No electrical contact between the machine and the battery.	1. Remove battery. 2. Check contact and install the battery again.
	The battery is depleted.	Charge the battery.
	The lock-out lever and trigger switch are not pushed at the same time.	1. Push the lock-out lever and hold it. 2. Pull the trigger switch to start the machine.
The machine stops when you cut.	The debris shield is not attached to the machine.	Remove the battery and attach the debris shield to the machine.
	Heavy cutting line is used.	Use only with the nylon cutting line of 0.095" diameter line or smaller.
	The grass winds around the motor shaft or the trimmer head.	1. Stop the machine. 2. Remove the battery. 3. Remove the grass from the motor shaft and trimmer head.
	The motor is overloaded.	1. Remove the trimmer head from the grass. 2. The motor will recover to work as soon as the load is removed. 3. When you cut, move the trimmer head in and out of the grass to be cut and remove no more than 8" in pass.
	The battery or machine is too hot.	1. Cool the battery until its function returns to normal. 2. Cool the machine for approximately 10 minutes.
	The battery is disconnected from the tool.	Install the battery again.
	The battery is depleted.	Charge the battery.

Problem	Possible Cause	Solution
The line does not advance.	Lines are welded to themselves.	Lubricate with silicone spray.
	Not enough line on spool.	Install more line.
	Lines are worn too short.	Advance the cutting line.
	Lines are tangled on spool.	1. Remove the lines from the spool. 2. Wind the lines.
The line keeps breaking.	The machine is used incorrectly.	1. Cut with the tip of the line, avoid stones, walls and other hard objects. 2. Advance the cutting line regularly to keep full cutting width.
Grass winds around the trimmer head and motor housing.	Cut tall grass at ground level.	1. Cut tall grass from the top down. 2. Remove no more than 8" in each pass to prevent wrapping.
The line does not cut well.	The cut-off knife becomes dull.	Sharpen the cut-off knife with a file or replace it.
Heavy vibration.	The length of line on one side is longer than the other side.	Make sure that the line on both sides is equal in length. Advance the line.

STORAGE

Storage After Use

When storing the product for long periods of time, ensure that the following preparations for storage are carried out.

Grass Trimmer

Do not store your unit without performing protective storage maintenance which includes the following:

- Turn power to unit off.
- Remove battery from grass trimmer.
- Remove accumulation of dirt and debris from exterior of unit.
- Tighten all screws and nuts.
- Cover battery compartment of grass trimmer.
- Store unit in a dry, dust-free place, out of the reach of children.

Battery

- Remove battery from grass trimmer.
- Store in a dry, dust-free place, out of the reach of children.
- Store in temperatures between 32 °F (0 °C) and 113 °F (45 °C).
- If battery is stored for longer than one year, charge it to 100% capacity.

Charger

- Remove battery from charger.
- Disconnect charger from power supply.
- Store in a dry, dust-free place, out of the reach of children.

SPECIFICATIONS

MODEL	DSRM-2100
Length	1700 mm (66.93 in.)
Width	295 mm (11.61 in.)
Height	230 mm (9.06 in.)
Weight (without battery)	3.4 kg (7.5 lbs.)
Weight (with battery)	4.42 kg (9.75 lbs.)
Operating Rod	25.0 mm aluminum Tube
Rotating Direction	Counterclockwise; viewed from top
Cutter Head	Speed-Feed® Nylon line head
Handle	Front - loop, Rear handle
Type	Cordless, battery powered
Motor	56V
No load speed	6000/5000 ±10% RPM
Cutting line diameter	2.4 mm (0.095 in.)
Cutting path diameter	406 mm (16 in.) / 356 mm (14 in.)
Feed Type	Bump Feed
Battery model	ECHO eFORCE™ 56V battery series batteries
Type	Li-Ion
Voltage	56 (rated 50.4)
Charger type	CCCV
Charger input voltage	AC 120
Charger model	ECHO eFORCE™ 56V battery series charger
Charger time	See Battery Operator's Manual

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 online. It's FAST and EASY! NOTE: your information will never be sold or misused by ECHO Incorporated.

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.



PRODUCT REGISTRATION CARD : TARJETA DE REGISTRO : CARTE D'ENREGISTREMENT DU PRODUIT

ONLINE OPTION: Register online and save a stamp! You will be alerted of product updates and/or be sent new ECHO product information and special offers. Simply go to: www.echo-usa.com

OPCION POR INTERNET: Regístrate en la página web y ahorre una estampilla. Le alertarán sobre actualizaciones del producto y/o se le enviara información sobre los nuevos productos ECHO y las ofertas especiales. Simplemente visite: www.echo-usa.com

OPTION EN LIGNE: Enregistrer en ligne et épargner un timbre! Vous serez informé sur les nouveaux produits ECHO et les mises à jour de produit ainsi que les offres spéciales. Simplement visitez le: www.echo-usa.com

Please Print : Por Favor Escribe Con Letra De Molde : En Lettre Carré S.V.P.

Confidential: Information provided will not be shared or sold

Purchaser's Name : Nombre del Comprador : Nom de l'acheteur

Primary use of tool: Professional Homeowner Rental Equip.
 Uso primario de la herramienta: Profesional Dueño de casa Alquiler
 Usage principal: Profesional Residential Location

Address : Dirección : Adresse

Do you wish to receive periodic ECHO product information and special offers by e-mail? Yes No

¿Desea usted recibir información periódica y ofertas especiales por correo electrónico sobre el producto ECHO? Yes No

City : Ciudad : Ville State : Estado : Zip Code : Código Postal : Code Postal

Souhaitez-vous recevoir périodiquement de l'information sur les produits ECHO et les offres spéciales par courrier électronique ? Oui Non

E-Mail Address : Dirección De Correo Electrónico : Courrier Electronique

Did you visit the ECHO website before purchasing your product? Yes No

Visitéz usted la página web ECHO antes de comprar su producto? Si No

Avez-vous visité le site d'ECHO avant de procurer votre produit? Oui Non

Phone Number : Número De Teléfono : Téléphone Date of Purchase : Fecha de la Compra : Date de l'achat

What factor(s) most influenced your purchase? Price Dealer Performance Reliability Friend/Family Prior Experience Brand Warranty

Where Purchased : Nombre del Almacén donde fue Comprado : Lieu d'achat

¿Qué factor(es) influenció más en su compra? Funcionamiento Precio Confiabilidad Amigo/Familia Experiencia Anterior Calidad Garantía

Model Number : Número del Modelo : No. de modèle Serial Number : Número de Serie : No. de série

Quel facteur (facteurs) vous a influencé le plus? Performance Prix Fiabilité Amis/Famille Expérience Qualité Marchand Garantie

Registering your purchase enables us to contact you in the unlikely event of a service update or product recall and verifies your ownership in the event of loss. El registrar su compra nos permite estar en contacto con usted en caso de cualquier evento como el aviso de tiempo de servicio o la revocación del producto y verificación de propiedad en caso de robo o pérdida. L'enregistrement de votre achat nous permettra de vous contacter dans le cas improbable de modifications des instructions d'utilisation ou de rappel du produit et vérifier que vous êtes le propriétaire en cas de vol ou de perte.

ECHO INC., 400 Oakwood Rd., Lake Zurich, IL 60047
 1.800.432.ECHO WWW.ECHO-USA.COM

X7572270206 02-2012



WARRANTY

Limited Warranty Statement for ECHO 56 Volt

Products sold in USA and Canada

ECHO Incorporated warrants to the original retail purchaser that this ECHO brand 56 Volt outdoor product is free from defects in material and workmanship and agrees to repair or replace, at ECHO Incorporated's discretion, any defective product free of charge within these time periods from the date of purchase:

■ If the product is for homeowner use:

- Unit – 5 Years
- Battery or charger – 2 years

■ If the product is for commercial use:

- Chainsaw – 1 year
- All other units – 2 years
- Battery or charger – 1 year

■ If the product is for rental use: 90 days for all units, batteries, and chargers.

■ Cutting attachments such as, but not limited to, bars, chains, sprockets, blades, tines, belts, PowerBroom™ and nylon trimmer heads for homeowner or non-income producing use will be covered for failures due to defects in material or workmanship for a period of 60 days from original product purchase date and 30 days for commercial / rental use. Any misuse from contact with concrete, rocks, or other structures is not covered by this warranty.

This warranty extends to the original retail purchaser only and commences on the date of the original retail purchase.

Any part of this product found in the reasonable judgment of ECHO Incorporated, to be defective in material or workmanship will be repaired or replaced without charge for parts and labor by an authorized ECHO dealer.

Units, repair parts and accessories replaced under this warranty are warranted only for the balance of the original warranty period.

The product, including any defective part, must be returned to an authorized ECHO dealer within the warranty period. The expense of delivering the product to the service center for warranty work and the expense of returning it back to the owner after repair or replacement will be paid by the owner. ECHO Incorporated's, responsibility in respect to claims is limited to making the required repairs or replacements and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any ECHO brand

56 Volt outdoor product. Proof of purchase will be required by the dealer to substantiate any warranty claim. All warranty work must be performed by an authorized ECHO dealer.

This warranty does not cover any product that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in the Operator's Manual.

This warranty does not apply to any damage to the product that is the result of improper maintenance or to any product that has been altered or modified.

The warranty does not extend to repairs made necessary by normal wear or by the use of parts or accessories which are either incompatible with the ECHO brand 56 Volt outdoor product or adversely affect its operation, performance, or durability. In addition, this warranty does not cover wear to normal items such as, but not limited to:

Wear items – Bump Knobs, Outer Spools, Cutting Lines, Inner Reels, Felt Washers, Hitch Pins, Mulching Blades, Blower Fans, Blower and Vacuum Tubes, Vacuum Bag and Straps, Guide Bars, Saw Chains, Grass Catch Bag, Hedge Trimmer Blades, and Wheels

ECHO Incorporated, reserves the right to change or improve the design of this product without assuming any obligation to modify any product previously manufactured.

All implied warranties are limited in duration to the stated warranty period. Accordingly, any such implied warranties including merchantability, fitness for a particular purpose, or otherwise, are disclaimed in their entirety after the expiration of the appropriate five-year, two-year, one-year, 90-day, 60-day, or 30-day warranty period. ECHO Incorporated's obligation under this warranty is strictly and exclusively limited to the repair or replacement of defective parts.

ECHO Incorporated, does not assume or authorize anyone to assume for them any other obligation. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

ECHO Incorporated, assumes no responsibility for incidental, consequential, or other damages including, but not limited to, expense of returning the product to an authorized dealer for ECHO brand 56 Volt outdoor products and expense of delivering it back to the owner, mechanic's travel time, telephone charges, rental of a like product during the time warranty service is being performed, travel, loss or damage to personal property, loss of revenue, loss of use of the product, loss of time, or inconvenience. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty applies to all ECHO brand 56 Volt outdoor products manufactured by or for ECHO Incorporated, and sold in the United States and Canada.

To locate your nearest authorized ECHO dealer, visit www.ECHO-usa.com or dial 1-800-432-ECHO (3246).

NOTES



400SRM000001 - 400SRM999999



ECHO INCORPORATED

400 Oakwood Road

Lake Zurich, IL 60047

www.echo-usa.com



Refer to the operator's manual provided with product. Always mention the appropriate item number when communicating with us regarding your battery.

⚠ WARNING

This product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Cancer and Reproductive Harm www.P65Warnings.ca.gov

Personal Safety

- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.**
- **Use personal protective equipment. Always wear eye protection. Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used appropriately will reduce personal injuries.**
- **Prevent unintentional starting. Ensure the switch is in the off position before connecting to power source and/or battery and when picking up or carrying the tool. Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.**
- **Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.**
- **Do not over-reach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.**
- **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.**
- **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust related hazards.**
- **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.**

Battery Tool Use and Care

- **Recharge only with ECHO eFORCE™ 56V battery series chargers. A charger that is suitable for one type of battery may create a risk of fire when used with another battery.**
- **Use only with ECHO eFORCE™ 56V battery series. Use of any other batteries may create a risk of injury and fire.**

⚠ WARNING

If the battery fluid gets in your eyes, flush immediately with clean water for at least 15 minutes. Get immediate medical attention. Do not charge the battery in rain or in wet conditions. Do not immerse the tool, battery, or charger in water or other liquid.

- **When battery is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or fire.**
- **Do not open or destroy the battery.** Electrolytes contained within the battery are corrosive and may cause damage to eyes or skin if released. It may be toxic if swallowed.
- **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.**
- **Exercise care in handling batteries to avoid shorting the battery with conducting materials such as rings, bracelets, keys, etc. The battery or conductor may overheat and cause burns if contact with said materials is made.**
- **Do not use a battery or tool that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.**
- **Do not expose a battery or tool to fire or excessive temperature. Exposure to fire or temperature above 266 °F (130 °C) may cause explosion.**
- **Follow all charging instructions and do not charge the battery or tool outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.**

Note: See www.echo-usa.com for a list of compatible chargers.

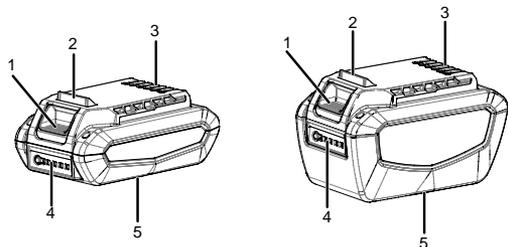
Service

- **Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.**
- **Never service damaged batteries. Service of batteries should only be performed by the manufacturer or authorized service providers.**

The Recommended Ambient Temperature Range:

Item	Temperature	
Battery Charging Temperature Range	32 °F (0 °C) ~ 113 °F (45 °C)	
Charger operation temperature	14 °F (-10 °C) ~ 113 °F (45 °C)	
Charger storage temperature range	-4 °F (-20 °C) ~ 185 °F (85 °C)	
Battery storage Temperature range	less than 1 month	-4 °F (-20 °C) ~ 140 °F (60 °C)
	less than 3 months	-4 °F (-20 °C) ~ 113 °F (45 °C)
	more than 3 months	-4 °F (-20 °C) ~ 77 °F (25 °C)
Battery Discharging temperature Range	-4 °F (-20 °C) ~ 140 °F (60 °C)	

DESCRIPTION



Battery Terms

- Latch** - Battery release button.
- Engagement Tab** - Battery lock button.
- Battery Terminals** - Electrical connection between battery and charger
- Charge Indication Panel** - Battery capacity indication panel.
- Location of Model and Serial Number**

OPERATION

Check Battery Capacity

Press the battery capacity indicator (BCI) button (1). The lights (2) will illuminate according to the batteries capacity level. See chart below:



Lights	Capacity
4 Green Lights	The battery is at 80-100%capacity.
3 Green Lights	The battery is at 55-79% capacity.
2 Green Lights	The battery is at 24-54% capacity.
1 Green Light	The battery is at 1-24% capacity.
Lights go out	The battery is under 1% capacity and requires charging immediately.

Battery Protection Features

This lithium-ion battery is designed with features that protect the lithium-ion cells and maximize battery life. If the tool stops during use, release the trigger to reset and resume operation. If the tool still does not work, the battery needs to be recharged.

Cold Weather Operation

The lithium-ion battery can be used in temperatures down to -14°C (6.8°F). Put the battery on a tool and use the tool in a light duty application. After about a minute, the battery will warm up and begin operating normally.

MAINTENANCE

Storage Tips:

- Make sure the battery is fully charged and that the charger is disconnected before storing.
- Do not store the battery in sunlight, in an excessively warm place, or near a furnace. The battery life will be shortened.
- If the battery will not be used for 3 months or more, please store the battery in a room temperature environment. Please fully charge before storage.

Environmentally Safe Battery Disposal



The toxic and corrosive materials below are in the batteries used in this machine: Lithium-Ion, a toxic material. Discard all toxic materials in a specified manner to prevent contamination of the environment. Before discarding damaged or worn out Li-ion battery, contact your local waste disposal agency, or the local Environmental Protection Agency for information and specific instructions. Take the batteries to a local recycling and/or disposal center, certified for lithium-ion disposal.

⚠ WARNING

If the battery cracks or breaks, with or without leaks, do not recharge it and do not use. Discard it and replace with a new battery. DO NOT TRY TO REPAIR IT! To prevent injury and risk of fire, explosion, or electric shock, and to avoid damage to the environment:

- ***Cover the terminals of the battery with heavy-duty adhesive tape.***
- ***DO NOT try to remove or destroy any of the battery components.***
- ***DO NOT try to open the battery.***
- ***If a leak develops, the released electrolytes are corrosive and toxic. DO NOT get the solution in the eyes or on skin, and do not swallow it.***
- ***DO NOT put these batteries in your regular household trash.***
- ***DO NOT incinerate.***
- ***DO NOT put them where they will become part of any waste landfill or municipal solid waste stream.***
- ***Take them to a certified recycling or disposal center.***

WARRANTY

Limited Warranty Statement for ECHO 56 Volt Products sold in USA and Canada

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- If the product is for homeowner use:
 - Unit – 5 Years
 - Battery or charger – 2 years
- If the product is for commercial use:
 - Chainsaw – 1 year
 - All other units – 2 years
 - Battery or charger – 1 year
- If the product is for rental use: 90 days for all units, batteries, and chargers.
- Cutting attachments such as, but not limited to, bars, chains, sprockets, blades, tines, belts, PowerBroom™ and nylon trimmer heads for homeowner or non-income producing use will be covered for failures due to defects in material or workmanship for a period of 60 days from original product purchase date and 30 days for commercial / rental use. Any misuse from contact with concrete, rocks, or other structures is not covered by this warranty.

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Any part of this product found in the reasonable judgment of ECHO Incorporated, to be defective in material or workmanship will be repaired or replaced without charge

for parts and labor by an authorized ECHO dealer. Units, repair parts and accessories replaced under this warranty are warranted only for the balance of the original warranty period.

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Wear items – Bump Knobs, Outer Spools, Cutting Lines, Inner Reels, Felt Washers, Hitch Pins, Mulching Blades, Blower Fans, Blower and Vacuum Tubes, Vacuum Bag and Straps, Guide Bars, Saw Chains, Grass Catch Bag, Hedge Trimmer Blades, and Wheels

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All implied warranties are limited in duration to the stated warranty period. Accordingly, any such implied warranties including merchantability, fitness for a particular purpose, or otherwise, are disclaimed in their entirety after the expiration of the appropriate five-year, two-year, one-year, 90-day, 60-day, or 30-day warranty period. ECHO Incorporated's obligation under this warranty is strictly and exclusively limited to the repair or replacement of defective parts. ECHO Incorporated, does not assume or authorize anyone to assume for them any other obligation. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. ECHO Incorporated, assumes no responsibility for incidental, consequential, or other damages including, but not limited to, expense of returning the product to an authorized dealer for ECHO brand 56 Volt outdoor products and expense of delivering it back to the owner, mechanic's travel time, telephone charges, rental of a like product during the time warranty service is being performed, travel, loss or damage to personal property, loss of revenue, loss of use of the product, loss of time, or inconvenience. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty applies to all ECHO brand 56 Volt outdoor products manufactured by or for ECHO Incorporated, and sold in the United States and Canada.

To locate your nearest authorized ECHO dealer, visit www.ECHO-usa.com or dial 1-800-432-ECHO (3246).

For additional literature, including safety manuals where applicable, or questions regarding terms used in this manual, visit: <https://www.echo-usa.com/manuals> OR 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.

PRODUCT REGISTRATION



PRODUCT REGISTRATION CARD : TARJETA DE REGISTRO : CARTE D'ENREGISTREMENT DU PRODUIT

<p>ONLINE OPTION: Register online and save a stamp! You will be alerted of product updates and/or be sent new ECHO product information and special offers. Simply go to: www.echo-usa.com</p>	<p>OPCIÓN POR INTERNET: Regístrese en la página web y ahorre una estampilla! Le alertarán sobre actualizaciones del producto y/o se le enviara información sobre los nuevos productos ECHO y las ofertas especiales. Simplemente visite: www.echo-usa.com</p>	<p>OPTION EN LIGNE : Enregistrer en ligne et épargner un timbre! Vous serez informé sur les nouveaux produits ECHO et les mises à jour de produit ainsi que les offres spéciales. Simplement visitez le: www.echo-usa.com</p>
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Please Print : Por Favor Escriba Con Letra De Moldé : En Lettre Carré S.V.P.

Confidential: Information provided will not be shared or sold

Purchaser's Name : Nombre del Comprador : Nom de l'acheteur		
Address : Dirección : Adresse		
City : Ciudad : Ville	State : Estado : Province	Zip Code : Código Postal : Code Postal
E-Mail Address : Dirección De Correo Electrónico : Courrier Électronique		
Phone Number : Número De Teléfono : Téléphone	Date of Purchase : Fecha de la Compra : Date de l'achat	
Where Purchased : Nombre del Almacén donde fue Comprado : Lieu d'achat		
Model Number : Numero del Modelo : No. de modéle	Serial Number : Numero de Serie : No. de série	

Primary use of tool: Professional Homeowner Rental Equip.
 Uso primario de la herramienta: Profesional Dueño de casa Alquiler
 Usage principal: Professionnel Residential Location

Do you wish to receive periodic ECHO product information and special offers by e-mail? Yes No

¿Desea usted recibir información periódica y ofertas especiales por correo electrónico sobre el producto ECHO? Yes No

Souhaitez-vous recevoir périodiquement de l'information sur les produits ECHO et les offres spéciales par courrier électronique ? Oui Non

Did you visit the ECHO website before purchasing your product? Yes No

Visitó usted la página web ECHO antes de comprar su producto? Si No

Avez-vous visité le site d'ECHO avant de procurer votre produit? Oui Non

What factor(s) most influenced your purchase?

Performance Price Dealer
 Reliability Prior Experience Quality
 Friend/Family Brand Warranty

¿Qué factor(es) influenció más en su compra?

Funcionamiento Precio Distribuidor
 Confiabilidad Experiencia Anterior Calidad
 Amigo/Familia Marca Garantía

Quel facteur (facteurs) vous a influencé le plus?

Performance Prix Marchand
 Fiabilité Expérience Qualité
 Ami/Famille Marque Garantie

Registering your purchase enables us to contact you in the unlikely event of a service update or product recall and verifies your ownership in the event of loss. : El registrar su compra nos permite estar en contacto con usted en caso de cualquier evento como el aviso de tiempo de servicio o la revocación del producto y verificación de propiedad en caso de robo o pérdida. : L'enregistrement de votre achat nous permettra de vous contacter dans le cas improbable de modifications des instructions d'entretien ou de rappel du produit et vérifier que vous êtes le propriétaire en cas de vol ou de perte.

ECHO INC., 400 Oakwood Rd., Lake Zurich, IL 60047
 1.800.432.ECHO WWW.ECHO-USA.COM

X7572270206 02-2012

SAVE THESE INSTRUCTIONS





Operator's Manual LC-56V2A CHARGER

WARNING

This product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. Cancer and Reproductive Harm www.P65Warnings.ca.gov

WARNING



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

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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:

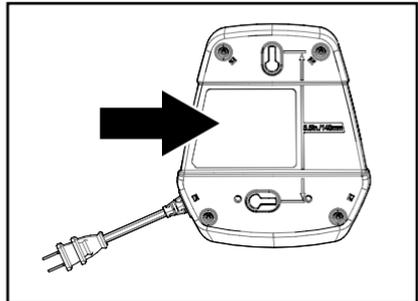
<https://www.echo-usa.com/manuals>



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 online 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 Incorporated, 400 Oakwood Road, Lake Zurich, IL 60047, 1-800-432-ECHO (3246).

PACKING LIST

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 Charger
- 1 Operator's Manual

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 might 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

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

Symbol	Description	Symbol	Description
	Class II		Before charging, read the instructions
	For indoor use only		Fuse

Important Safety Warnings

WARNING

1. SAVE THESE INSTRUCTIONS - DANGER: TO REDUCE RISK OF FIRE OR ELECTRICAL SHOCK CAREFULLY OBEY THESE INSTRUCTIONS.
2. Confirm the voltage available at each country location before using the charger. Connect the charger only to the voltage and frequency of 120V AC and 60Hz.
 - If the above specifications are not available, a voltage converter must be used. Refer to your local country requirements before purchasing a voltage converter.
 - Any damage caused by charging with other than 120V AC and 60Hz will void the warranty.
 - Even when using the correct specified current noted above, this charger is equipped with an A-type plug. If a different type plug is required for connection to an electrical outlet, it is the owner's responsibility to select the appropriate plug adapter; otherwise the warranty may be voided.
3. Do not operate charger in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
4. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
5. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
6. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.

Unmodified plugs and matching outlets will reduce risk of electric shock.

7. Do not connect the charger to a portable generator. Portable generators can have spikes in voltage which can result in fire or explosion of the charger and/or the battery.
8. DO NOT probe the charger with conductive materials.
9. DO NOT allow liquid inside the charger.
10. DO NOT try to use the charger for any other purpose than what is presented in this manual.
11. Unplug the charger before cleaning and when there is no battery in the charger.
12. Do not try to connect two chargers together.
13. Do not use the charger in the circumstances that the output polarity does not match the load polarity.
14. For indoor use only.
15. Keep away from children.
16. The cover may under no circumstances be opened. If the cover is damaged, then the charger may no longer be used.
17. Do not recharge non-rechargeable batteries.
18. Before using battery charger, read all instructions and cautionary markings on battery charger, battery, and product using battery.
19. CAUTION – To reduce risk of injury, charge only with ECHO eFORCE™ 56V battery series. Other types of batteries may burst causing personal injury and damage.

The Recommended Ambient Temperature Range:

Item	Temperature	
Battery Charging Temperature Range	32 °F (0 °C) ~ 113 °F (45 °C)	
Charger operation temperature	14 °F (-10 °C) ~ 113 °F (45 °C)	
Charger storage temperature range	-4 °F (-20 °C) ~ 185 °F (85 °C)	
Battery storage Temperature range	less than 1 month	-4 °F (-20 °C) ~ 140 °F (60 °C)
	less than 3 month	-4 °F (-20 °C) ~ 113 °F (45 °C)
	more than 3 month	-4 °F (-20 °C) ~ 77 °F (25 °C)
Battery Discharging temperature Range	-4 °F (-20 °C) ~ 140 °F (60 °C)	

FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTICE

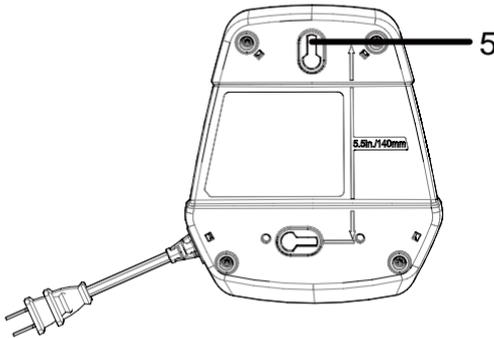
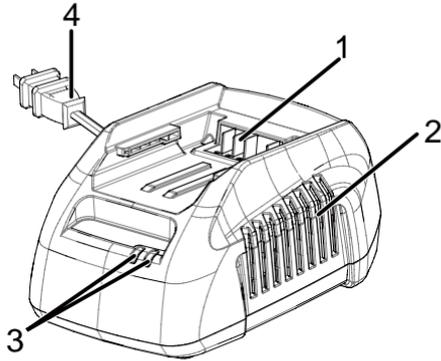
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. The reception can be determined by turning the equipment off and on. The user is encouraged to try to correct the interference by one or more of the following measures:

- *Reorient or relocate the receiving antenna.*
- *Increase the separation between the equipment and the receiver.*
- *Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.*
- *Consult the dealer or an experienced radio/TV technician for help.*

DESCRIPTION

Locate the safety label(s) on your unit. Make sure the label(s) is legible and that you understand and follow the instructions on it. If a label 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. Battery Terminal Grooves
2. Ventilation Grills
3. Charging Indication Panel
4. Electrical Cord
5. Charger mounting hole

CHARGER TERMS

- **BATTERY TERMINALS GROOVES** - Electrical connection between battery and charger.
- **VENTILATION GRILLS** - Cool down the charger.
- **CHARGE INDICATION PANEL** - Charging status.

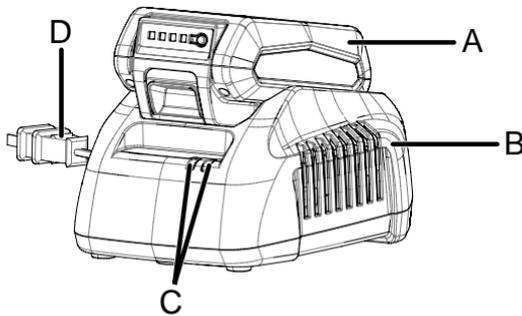
OPERATION

NOTICE

Before use charge the battery fully to make sure that the battery can get the maximum run time. This battery does not have battery memory and does not need periodic full discharge cycles to prolong life.

Charging Procedure

1. Plug the charger into an AC power outlet with the electrical cord (D).
2. Insert the battery (A) into the charger (B).



This is a diagnostic charger. The Charger LED Light (C) will illuminate in specific order to communicate the current battery status. They are as follows:

CHARGING PROCEDURE (LED INDICATOR)	LED 1	LED 2
BATTERY IS CHARGING:	○ OFF	⚡ ● ⚡ GREEN BLINKING
FULLY CHARGED:	○ OFF	● GREEN
BATTERY IS TOO WARM: (REMOVE FOR APPROX. 30 MINUTES TO ALLOW TO COOL)	● RED	○ OFF
DEFECTIVE BATTERY: (REMOVE AND REPLACE WITH NEW BATTERY IF THIS OCCURS)	⚡ ● ⚡ RED BLINKING	○ OFF

Incorrect Defect Note:

1. Put the battery into the charger.
 - If the status LED1 flashes red, remove the battery from the charger for 1 minute.
2. Put the battery into the charger again.
 - If the status LEDs show correct, the battery is good.
 - If the status LED1 stays blinking red, remove the battery and disconnect the charger.
3. Wait for 1 minute and put the battery into the charger again.
 - If the status LEDs show correct, the battery is good.
 - If the status LED1 stays blinking red, the battery is defective and it is necessary to replace the battery.

Examine The Charger

If the battery does not charge correctly:

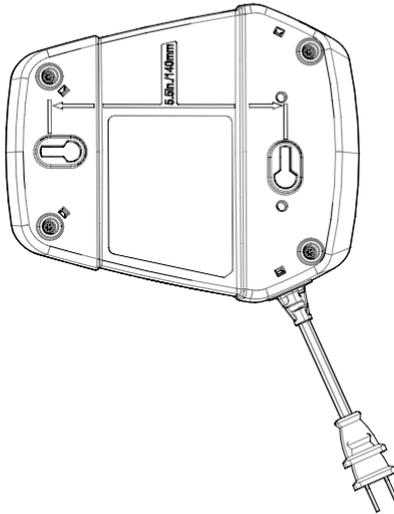
1. Examine the current of the power outlet with different machines. Make sure that the outlet works.
2. Assure that the charger contacts are not short-circuited.
3. If the charger is not under usual room temperature, move the charger and battery to a location where the temperature is between 6 °C (42.8 °F) and 40 °C (104 °F).

 **WARNING**

If you put the battery into the charger in warm or hot environment, the charger LED light is red. Pull out the battery and let the battery cool for approximately 30 minutes.

Mount the Charger

1. Determine the charger mounting location.
2. Use 2 wood screws to attach the charger on the wood studs.
3. Drill two holes 5.5 in. (140mm) apart on center ensuring they are level.
4. Use wall anchors and screws to attach the charger to the drywall.



NOTICE

If you do not use the battery and charger, remove the battery from the charger and pull out the AC power plug.

MAINTENANCE

Clean the Charger

NOTICE

Keep the ventilation grill free of blockage, saw dust, and wood dust. Do not spray, wash, or put the air vent in water.

- Clear the unwanted material out of the air vent with a vacuum.
- Clean housing and the plastic components with a dry and soft cloth.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Charger doesn't work. Charger shows defective mode. (LED flashes Red)	Battery or charger is defective or there is a bad connection between the battery and charger.	Remove and reinsert the battery in the charger.
		Try charging a different battery.
		Unplug the charger and wait until the red LED goes out, then reconnect the plug to the power supply.
Charger doesn't work. Charger shows evaluation mode (LED indicates Red solid ON).	Battery is either too hot, or too cold.	Allow the battery to reach normal temperature. Charging will begin when the battery returns to 0 °C - 45 °C (32°F - 113°F).

STORAGE

Storage After Use

1. Remove battery from charger.
2. Disconnect charger from power supply.
3. Store in a dry, dust-free place, out of the reach of children.

SPECIFICATIONS

MODEL	LC-56V2A
Voltage	56 V
Input	120V ~ 50/60Hz, 3A Max
Output	56V DC 2A

Note: See www.echo-usa.com for a list of compatible batteries.

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 online. It's FAST and EASY! NOTE: your information will never be sold or misused by ECHO, Incorporated.

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.***



PRODUCT REGISTRATION CARD : TARJETA DE REGISTRO : CARTE D'ENREGISTREMENT DU PRODUIT

ONLINE OPTION: Register online and save a stamp! You will be alerted of product updates and/or be sent new ECHO product information and special offers. Simply go to: www.echo-usa.com

OPCIÓN POR INTERNET: Regístrese en la página web y ahorre un sello. Usted será avisado de las actualizaciones de productos ECHO y las ofertas especiales. Simplemente visite: www.echo-usa.com

OPTION EN LIGNE: Enregistrer en ligne et épargner un timbre! Vous serez informé sur les nouveaux produits ECHO et les offres spéciales. Simplemente visitez: www.echo-usa.com

Please Print : Por Favor Escribe Con Letra De Moldé : En Lettre Carré S.V.P.

Confidential: Information provided will not be shared or sold

Purchaser's Name : Nombre del Comprador : Nom de l'acheteur	
Address : Dirección : Adresse	
City : Ciudad : Ville	State : Estado : Province
Zip Code : Código Postal : Code Postal	
E-Mail Address : Dirección De Correo Electrónico : Courrier Electronique	
Phone Number : Número De Teléfono : Téléphone	Date of Purchase : Fecha de la Compra : Date de l'achat
Where Purchased : Nombre del Almacén donde fue Comprado : Lieu d'achat	
Model Number : Número del Modelo: No. de modelo	Serial Number : Número de Serie : No. de série

Registering your purchase enables us to contact you in the unlikely event of a service update or product recall and verifies your ownership in the event of loss. El registrar su compra nos permite estar en contacto con usted en caso de cualquier evento de actualización de servicio o de llamado de atención de un producto. El registro de su compra también verifica su propiedad. L'enregistrement de votre achat nous permet de vous contacter dans le cas improbable de modifications des instructions d'entretien ou de rappel du produit et vérifier que vous êtes le propriétaire en cas de vol ou de perte.

Primary use of tool: Professional Homeowner Rental Equip.
 Uso primario de la herramienta: Profesional Dueño de casa Alquiler
 Usage principal : Professionnel Résidentiel Location
 Do you wish to receive periodic ECHO product information and special offers by e-mail? Yes No
 ¿Desea usted recibir información periódica y ofertas especiales por correo electrónico sobre el producto ECHO? Yes No
 Souhaitez-vous recevoir périodiquement de l'information sur les produits ECHO et les offres spéciales par courrier électronique ? Oui Non
 Did you visit the ECHO website before purchasing your product? Yes No
 Visité usted la página web ECHO antes de comprar su producto? Si No
 Avez-vous visité le site d'ECHO avant de procurer votre produit? Oui Non

What factor(s) most influenced your purchase?
 Performance Price Dealer
 Reliability Prior Experience Quality
 Friend/Family Brand Warranty
 ¿Qué factor(es) influyó más en su compra?
 Funcionamiento Precio Distribuidor
 Confiablez Experiencia Anterior Calidad
 Amigo/Familia Marca Garantía
 Quel facteur (facteurs) vous a influencé le plus?
 Performance Prix Marchand
 Fiabilité Expérience Qualité
 Ami/Famille Marque Garantie

ECHO INC., 400 Oakwood Rd., Lake Zurich, IL 60047
 1.800.432.ECHO WWW.ECHO-USA.COM

X7572720206 02-2012



WARRANTY

Limited Warranty Statement for ECHO 56 Volt Products sold in USA and Canada

ECHO Incorporated warrants to the original retail purchaser that this ECHO brand 56 Volt outdoor product is free from defects in material and workmanship and agrees to repair or replace, at ECHO Incorporated's discretion, any defective product free of charge within these time periods from the date of purchase:

- If the product is for homeowner use:
 - Unit – 5 Years
 - Battery or charger – 2 years
- If the product is for commercial use:
 - Chainsaw – 1 year
 - All other units – 2 years
 - Battery or charger – 1 year
- If the product is for rental use: 90 days for all units, batteries, and chargers.
- Cutting attachments such as, but not limited to, bars, chains, sprockets, blades, tines, belts, PowerBroom™ and nylon trimmer heads for homeowner or non-income producing use will be covered for failures due to defects in material or workmanship for a period of 60 days from original product purchase date and 30 days for commercial / rental use. Any misuse from contact with concrete, rocks, or other structures is not covered by this warranty.

This warranty extends to the original retail purchaser only and commences on the date of the original retail purchase.

Any part of this product found in the reasonable judgment of ECHO Incorporated, to be defective in material or workmanship will be repaired or replaced without charge for parts and labor by an authorized ECHO dealer. Units, repair parts and accessories replaced under this warranty are warranted only for the balance of the original warranty period.

The product, including any defective part, must be returned to an authorized ECHO dealer within the warranty period. The expense of delivering the product to the service center for warranty work and the expense of returning it back to the owner after repair or replacement will be paid by the owner. ECHO Incorporated's, responsibility in respect to claims is limited to making the required repairs or replacements and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any ECHO brand 56 Volt outdoor product. Proof of purchase will be required by the dealer to substantiate any warranty claim. All warranty work must be performed by an authorized ECHO dealer.

This warranty does not cover any product that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in the Operator's Manual.

This warranty does not apply to any damage to the product that is the result of improper maintenance or to any product that has been altered or modified. The warranty does not extend to repairs made necessary by normal wear or by the use of parts or accessories which are either incompatible with the ECHO brand 56 Volt outdoor product or adversely affect its operation, performance, or durability. In addition, this warranty does not cover wear to normal items such as, but not limited to:

Wear items – Bump Knobs, Outer Spools, Cutting Lines, Inner Reels, Felt Washers, Hitch Pins, Mulching Blades, Blower Fans, Blower and Vacuum Tubes, Vacuum Bag and Straps, Guide Bars, Saw Chains, Grass Catch Bag, Hedge Trimmer Blades, and Wheels

ECHO Incorporated, reserves the right to change or improve the design of this product without assuming any obligation to modify any product previously manufactured.

All implied warranties are limited in duration to the stated warranty period. Accordingly, any such implied warranties including merchantability, fitness for a particular purpose, or otherwise, are disclaimed in their entirety after the expiration of the appropriate five-year, two-year, one-year, 90-day, 60-day, or 30-day warranty period. ECHO Incorporated's obligation under this warranty is strictly and exclusively limited to the repair or replacement of defective parts. ECHO Incorporated, does not assume or authorize anyone to assume for them any other obligation. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. ECHO Incorporated, assumes no responsibility for incidental, consequential, or other damages including, but not limited to, expense of returning the product to an authorized dealer for ECHO brand 56 Volt outdoor products and expense of delivering it back to the owner, mechanic's travel time, telephone charges, rental of a like product during the time warranty service is being performed, travel, loss or damage to personal property, loss of revenue, loss of use of the product, loss of time, or inconvenience. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty applies to all ECHO brand 56 Volt outdoor products manufactured by or for ECHO Incorporated, and sold in the United States and Canada.

To locate your nearest authorized ECHO dealer, visit www.ECHO-usa.com or dial 1-800-432-ECHO (3246).

NOTES



408CA0000001 - 408CA9999999



ECHO INCORPORATED

400 Oakwood Road

Lake Zurich, IL 60047

www.echo-usa.com