



Operator's Manual DSRM-225 Grass Trimmer

WARNING

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

WARNING

Cancer and Reproductive Harm www.P65Warnings.ca.gov

Note: This product complies with CAN ICES-003(B) / NMB-003(B)

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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 code for more information.



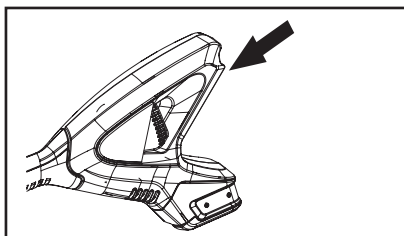
For additional literature, including safety manuals where applicable, or questions regarding terms used in this manual, visit:
<https://www.echo-usa.com/manuals>



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).

SAFETY

For safe use of your product

Read this section before using your product.

- The precautions described in this section contain important safety information. Please observe them carefully.
- You must also read the precautions that appear in the body of the manual itself.

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 and ear protection.
	Do not expose to rain or in damp condition.		Disconnect battery before maintenance.
	Thrown objects can ricochet and result in personal injury or property damage.		Keep all bystanders at least 50'/15m away.
	Do not use blades – line heads only.		

Note: Not all symbols will appear on your unit.

Read Manuals

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

Clear the Work Area

- Always clear the work area of foreign objects such as rocks, broken glass, nails, wire, or string, which can be thrown or become entangled in the cutting attachment, and check for any hidden hazards. Spectators and fellow workers must be warned, and children and animals prevented from coming nearer than 15 m. (50 ft) while the unit is in use.
- Outside the 15 m. (50 ft) zone, there is still a risk of injury from thrown objects.
- Bystanders should be encouraged to wear eye protection.
- If you are approached, stop the unit and cutting attachment.
- When a bladed unit is used, there is the added risk of injury to bystanders being struck with the moving blade in the event of a blade thrust or other unexpected reaction of the blade.

Keep a Firm Grip

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

Keep a Solid Stance

- Maintain footing and balance at all times. Do not stand on slippery, uneven or unstable surfaces. Do not work in odd positions or on ladders. Do not over reach.
- Keep cutting attachment below waist.
- Keep all body parts away from rotating cutting attachment.

Handling the Product

General Safety Warnings and Instructions

This section contains the prescribed general safety warnings and instructions for battery-powered products contained in UL 2595 and for handheld tools, transportable tools and lawn and garden machinery contained in UL 62841-1. Additional important warnings and instructions are provided in subsequent sections of this manual.

Important Safety Instructions

 **WARNING**

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, serious injury and/or property damage.

Save all warnings and instructions for future reference.

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

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, ill, 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 dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*
- **Wear ear protection.** *Adequate protective equipment will reduce the risk of hearing loss.*
- **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the power tool.** *Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.*
- **Disconnect the battery pack from the appliance before making any adjustments, changing accessories, or storing appliance.** *Such preventive safety measures reduce the risk of starting the appliance accidentally.*
- **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 overreach. 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 jewellery. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewellery 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 power tools allow you to become complacent and ignore tool safety principles.** *A careless action can cause severe injury within a fraction of a second.*

Proper Clothing

Wear snug-fitting, durable clothing:

- Pants should have long legs, shirts should have long sleeves.
- DO NOT WEAR SHORTS.
- DO NOT WEAR TIES, SCARVES, JEWELRY, or clothing with loose or hanging items that could become entangled in moving parts or surrounding growth.

- Keep clothing buttoned or zipped, and keep shirt tails tucked in.
- Wear sturdy work shoes with nonskid rubber soles.
- Wear sturdy, no-slip, rubber work gloves to improve your grip on the handles. Gloves also provide protection against cuts and scratches, cold environments, and reduce the transmission of machine vibration to your hands.
- DO NOT WEAR OPEN TOED SHOES.
- DO NOT OPERATE UNIT WITH BARE FEET.

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 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 power 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, accessories and tool bits etc. 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*

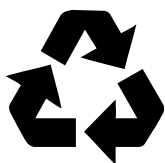
when used with another battery.

- **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 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 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.*
- **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 power tool that is damaged or modified.** *Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.*
- **Do not expose a battery or power tool to fire or excessive temperature.** *Exposure to fire or temperature above 130 °C (265 °F) may cause explosion.*
- **Follow all charging instructions and do not charge the battery or power 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.*

Service

- **Do not modify or attempt to repair the appliance or the battery (as applicable) except as indicated in the instructions for use and care.**
- **Have your power tool serviced by a qualified repair person using only identical replacement parts.** *This will ensure that the safety of the product is maintained.*
- **Never service damaged batteries.** *Service of batteries should only be performed by the manufacturer or authorized service providers.*

Environmentally Safe Battery Disposal



Recycle your ECHO 56V battery system batteries FOR FREE at Rechargeable Battery Recycling Corporation (RBRC) recycling locations. Call 1-800-822-8837 or visit <https://www.call2recycle.org> for details.

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

WARNING

Discard all toxic materials in a specified manner to prevent contamination of the environment. Before discarding a damaged or worn out Lithium-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.

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.

Equipment

 **WARNING**

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

- ♦ Do not attempt to modify this product. Serious injury can result from the use of any modified product.
- ♦ Check unit for loose or missing nuts, bolts, and screws. Tighten or replace as needed.
- ♦ Inspect shield for damage and ensure that shield is properly installed, and that the cut-off knife is securely in place. Replace if either is damaged or missing.
- ♦ Check that the cutting attachment is firmly attached and in safe operating condition.
- ♦ Manufacturer recommended flexible non-metallic line is installed in the trimmer head.
- ♦ Assure that power switch, lock off lever switch, operator presence switch, and enable button all work properly.
- ♦ Check that handle and harness (if included) are installed and adjusted for safe, comfortable operation. See Assembly Section for proper adjustment.
- ♦ Assure all ventilation openings are clear of debris.

 **WARNING**

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

- ♦ ALWAYS stop unit and make sure all moving parts have come to a complete stop before assembling unit, removing obstructions, clearing debris, or servicing unit.
- ♦ DO NOT start or operate unit unless all guards and protective covers are properly assembled to unit.

- ♦ **ALWAYS** remove battery or unplug unit before adjusting guards or handles.
- ♦ **ALWAYS** stop machine, remove battery and inspect if unit strikes a hard object, or if excessive vibration is felt.
- ♦ **NEVER** reach into any opening while the unit is running. Moving parts may not be visible through openings.
- ♦ Position wiring safely to prevent snagging, separation of connectors, or breakage during operation. Gather excess wire, and secure with wiring clamp if provided on equipment.
- ♦ Check wiring and connectors for nicks, cuts, exposed wire, or other damage, and repair or replace as needed. Exposed wire or connectors can cause shocks, sparks, and risk of fire or explosion, resulting in serious injury.
- ♦ Check wire terminals for secure connections.

General Safety Warnings and Instructions for the following ECHO tools: All DSRM and DGT models, and DPAS units configured as trimmers and brush cutters.

This section contains the prescribed general safety warnings and instructions for handheld, motor-operated electric lawn trimmers, lawn edge trimmers, grass trimmers, brush cutters, and brush saws contained in UL 62841-4-4. Additional important warnings and instructions are provided in subsequent sections of this manual.

WARNING

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.

Safety Warnings:

- **Do not use the product in bad weather conditions, especially when there is a risk of lightning. This decreases the risk of being struck by lightning.**
- **Thoroughly inspect the area for wildlife where the product is to be**

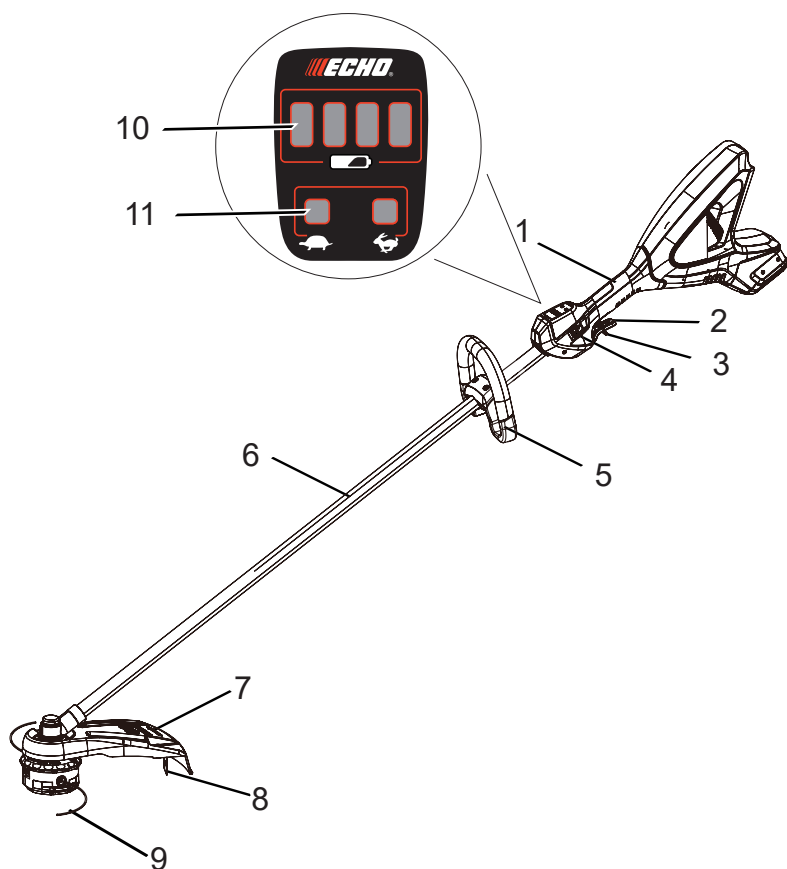
used. Wildlife may be injured by the product during operation.

- **Thoroughly inspect the area where the product is to be used and remove all stones, sticks, wires, bones, and other foreign objects.** *Thrown objects can cause personal injury.*
- **Before using the product, always visually inspect to see that the cutter or blade and the cutter or blade assembly are not damaged.** *Damaged parts increase the risk of injury.*
- **Before use, check the supply cord and any extension cord for signs of damage or aging. Do not use the machine if the cord is damaged or worn. If the cord is damaged or worn during use, switch off the machine and do not touch the cord before disconnecting it from the supply. A damaged supply cord or extension cord may result in electric shock, fire and/or serious injury.**
- **Follow instructions for changing accessories.** *Improperly tightened blade securing nuts or bolts may either damage the blade or result in it becoming detached.*
- **The rated rotational speed of the blade must be at least equal to the maximum rotational speed marked on the product.** *Blades running faster than their rated rotational speed can break and fly apart.*
- **Wear eye, ear, head and hand protection.** *Adequate protective equipment will reduce personal injury by flying debris or accidental contact with the cutting line or blade.*
- **While operating the product, always wear non-slip and protective footwear.** *Do not operate the product when barefoot or wearing open sandals. This reduces the chance of injury to the feet from contact with the moving cutters or lines.*
- **While operating the product, always wear safety footwear. Do not operate the product when barefoot or wearing open sandals.** *This reduces the chance of injury to the feet from contact with a moving cutter, line or blade.*
- **While operating the product, always wear long trousers.** *Exposed skin increases the likelihood of injury from thrown objects.*
- **Keep bystanders away while operating the product.** *Thrown debris can result in serious personal injury.*
- **Always use two hands when operating the product.** *Holding the product with both hands will avoid loss of control.*
- **Hold the product by insulated gripping surfaces only, because the cutting line or blade may contact hidden wiring or its own cord.** *Cutting line or blades contacting a "live" wire may make exposed metal parts of the product "live" and could give the operator an electric shock.*
- **Always keep proper footing and operate the product only when standing on the ground.** *Slippery or unstable surfaces may cause a loss of balance or control of the product.*

- **Do not operate the product on excessively steep slopes.** *This reduces the risk of loss of control, slipping and falling which may result in personal injury.*
- **When working on slopes, always be sure of your footing, always work across the face of slopes, never up or down and exercise extreme caution when changing direction.** *This reduces the risk of loss of control, slipping and falling which may result in personal injury.*
- **Keep the supply cord away from the cutter, line or blade.** *A damaged supply cord may result in electric shock, fire and/or serious injury.*
- **Keep all parts of the body away from the cutter, line or blade when the product is operating. Before you start the product, make sure the cutter, line or blade is not contacting anything.** *A moment of inattention while operating the product may result in injury to yourself or others.*
- **Do not operate the product above waist height.** *This helps prevent unintended cutter or blade contact and enables better control of the product in unexpected situations.*
- **When cutting brush or saplings that are under tension, be alert for spring back.** *When the tension in the wood fibres is released, the brush or sapling may strike the operator and/or throw the product out of control.*
- **Use extreme caution when cutting brush and saplings.** *The slender material may catch the blade and be whipped toward you or pull you off balance.*
- **Maintain control of the product and do not touch cutters, lines or blades and other hazardous moving parts while they are still in motion.** *This reduces the risk of injury from moving parts.*
- **Carry the machine with the machine switched off and away from your body.** *Proper handling of the machine will reduce the likelihood of accidental contact with a moving cutter, line, or blade.*
- **When clearing jammed material or servicing the machine, make sure the switch is off and the battery pack is removed.** *Unexpected starting of the machine while clearing jammed material or servicing may result in serious personal injury.*
- **When transporting or storing the machine, always fit the cover on metal blades.** *Proper handling of the machine will reduce the likelihood of accidental contact with the blade.*
- **Only use replacement cutters, lines, cutting heads and blades specified by the manufacturer.** *Incorrect replacement parts may increase the risk of breakage and injury.*

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. Rear handle
2. Power switch
3. Lock off lever switch
4. Speed switch
5. Support handle
6. Shaft
7. Debris shield
8. Cut-off knife
9. Trimmer head
10. Battery indicator
11. Speed indicator



CONTENTS

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

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

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

NOTICE

For a complete list of compatible batteries for this and all ECHO 56V battery system tools, scan this code or visit <https://www.echo-usa.com/battery-information>



ASSEMBLY

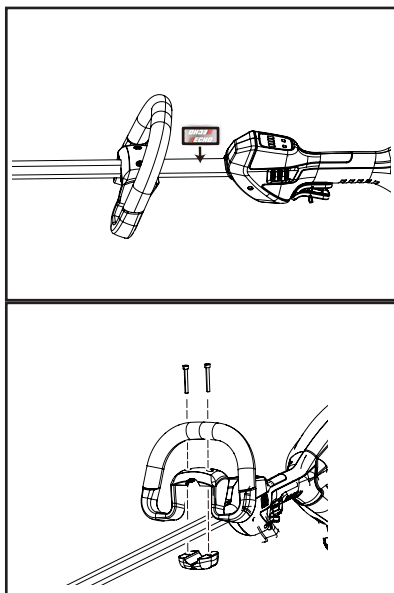
Attach the Support Handle

WARNING

Improper trimmer balance during use can result in loss of control and serious personal injury. Always install support handle in front of spacing label to ensure proper trimmer balance.

Note: Label shows minimum spacing for support handle location.

1. Remove screws from handle and bracket.
2. Position support handle for comfortable operation.
3. Install screws and secure handle.



Recommended Ambient Temperatures:

	Charging		Usage/Discharging		Storage	
	Low	High	Low	High	Low	High
Product ⁽¹⁾	Not Applicable		32°F (0°C)	113°F (45°C)	32°F (0°C)	113°F (45°C)
Battery ⁽²⁾⁽³⁾	39°F (4°C)	104°F (40°C)	32°F (0°C)	113°F (45°C)	32°F (0°C)	113°F (45°C)
Charger	39°F (4°C)	104°F (40°C)	Not Applicable		32°F (0°C)	113°F (45°C)

⁽¹⁾ Assumes the battery is just off the charger or stored at the temperature range noted for Charger Usage 39° F (4°C) - 104°F (40°C).

⁽²⁾ Hot batteries in high ambient temperatures require longer charge times.

⁽³⁾ To maximize battery life of batteries being stored more than 3 months, ECHO recommends batteries being stored at 3 green lights on the battery capacity indicator (BCI) at an ambient temperature of 60°F (16°C) - 80°F (27°C), and not in direct sunlight.

Note: Long term storage of batteries in conditions or charge levels on the battery capacity indicator (BCI) other than noted above could degrade the performance and runtime of the battery.

Battery Charging

NOTICE

See separate operator's manuals packaged with battery and charger.

WARNING

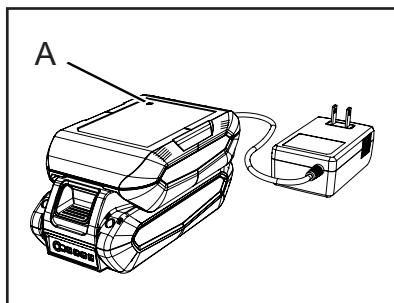
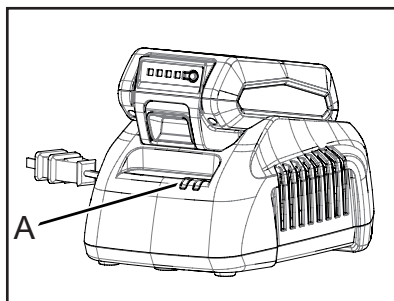
- Use only with ECHO eFORCE® 56V battery and charger series.
- Keep charger and battery away from damp conditions and all liquids.
- Do not operate the charger on an easily combustible surface (e.g. paper, textiles) or in an environment with a high risk of fire.
- Do not cover the charger. Covering the charger will prevent it from cooling.
- Do not operate the charger in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Charger can produce sparks which may ignite the dust or fumes - there is a risk of explosion.
- Connect the charger only to the mains of voltage and frequency specified on the rating plate.
- Connect the charger only to an easily accessible wall outlet.
- Never insert objects in the battery's or charger's cooling slots.
- Do not charge or use a defective, damaged or deformed battery and charger.
- Do not open, damage or drop the battery or the charger.
- Fluid may leak from the battery if it is damaged or not used properly; avoid contact with the skin. In the event of accidental contact, wash the affected areas of the skin with plenty of water and soap. If fluid gets in the eyes, do not rub. Rinse the eyes with plenty of water for at least 15 minutes. Also seek medical assistance.
- Never bridge (short circuit) the battery contacts or the charger's terminals with metallic objects.
- Protect from direct sunlight, heat and open flames and never throw battery into fire; there is a risk of explosion.
- In the event of smoke or fire in the charger, disconnect it from the wall outlet immediately.
- If the connecting cord is damaged, immediately disconnect the plug from the power supply to avoid the risk of electric shock.
- Do not expose battery to microwaves or high pressure.
- To reduce the risk of stumbling, position and mark the connecting cord in such a way that it cannot be damaged or endanger others.

NOTICE

The battery comes partially charged from the factory and needs to be fully charged before first use. Charge the battery when it no longer produces sufficient power to operate the unit or when battery lights indicate that the battery is low.

Note: Your charger might look different from those pictured.

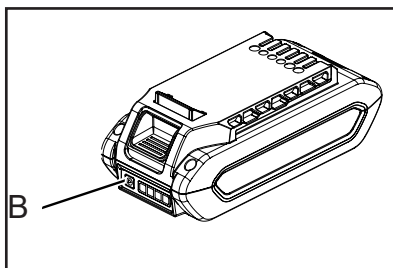
1. Plug charger AC cord in the wall outlet.
2. Align ridges on battery with grooves on charger, and slide battery into charger.
3. During normal charging, the charger LED (A) will blink GREEN.



NOTICE

If charger detects a problem, LED will blink RED. Remove battery from charger, clear obstructions from contacts and reinstall battery into charger. If battery is outside acceptable temperature range (See Recommended Ambient Temperature chart) LED will remain RED.

4. When charging is complete, LED will remain GREEN. See battery manual for charging time.
5. Verify battery is fully charged. Remove battery from charger, press battery charge status button (B), and check LED display.
 - One green light indicates that the battery has 1-24% charge.
 - Two green lights indicate that the battery has 25-54% charge.
 - Three green lights indicate that the battery has 55-79% charge.
 - Four green lights indicate that the battery has 80-100% charge.
6. Unplug charger AC cord from the wall outlet.



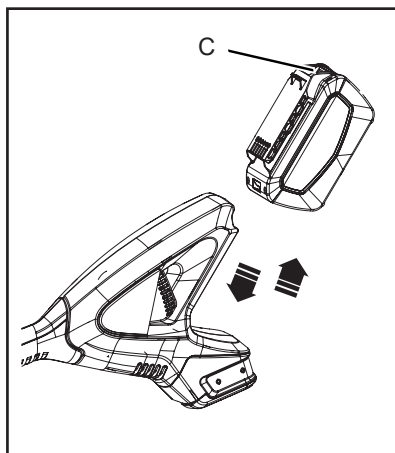
WARNING

The attachment will operate when the battery is installed, and the lock off lever switch and power switch are engaged. Make sure the unit is properly positioned to prevent loss of control and possible serious injury. Keep movable parts of the attachment off the ground and away from objects that could become entangled or thrown.

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

Install Battery

1. Align ridges on battery with grooves in power head.
2. Slide battery into power head.
3. Assure battery latch (C) snaps into place and battery is secure before beginning operation.



NOTICE

Assure battery latch is fully engaged before using unit.

Remove Battery

1. Depress battery latch (C).
2. Slide battery out of power head.

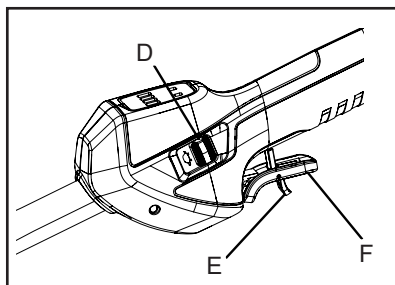
Starting Unit

WARNING

The attachment will operate when the battery is installed, and the lock off lever switch and power switch are engaged. Make sure the unit is properly positioned to prevent loss of control and possible serious injury.

Note: This unit has two operating modes: low and high. Use speed switch to switch between modes.

1. Set speed switch (D) to desired operating mode: tortoise for low, hare for high.
2. Move lock off lever switch (E) forward to free power switch (F).
3. Depress power switch to increase RPM.



Stopping Unit

WARNING

The cutting attachment continues to move for a short period after the unit is switched off and can cause serious personal injury if touched. Keep all body parts away from moving cutting attachment.

1. Release power switch and allow trimmer head to stop.

Applications

Operating Techniques - Nylon Line Head

Nylon line heads may be used for trimming, scything, edging, and scalping of grass and light weeds.

NOTICE

Units with Speed Feed® line heads only. To advance trimmer line, tap trimmer head against the ground while the head is turning at normal operating speed.

Trimming

Feed the spinning line into the material to be cut. Tilt cutting head to the right while cutting to direct cutting debris away from the operator.

Scything

Scything - Swing the cutting head in a level arc, gradually feeding the line into the material being cut. Move forward with each arc to cut a swath. Width of cutting swath depends on arc. Use a larger arc for a wider swath, or a smaller arc for a narrow swath. Keep line head tilted to direct cutting debris forward or away from you.

Edging and Scalping

Both of these are done with the nylon line cutting head tilted at a steep angle. Scalping is removing top growth, leaving the earth bare. Edging is trimming the grass back where it has spread over a pavement or driveway. During both edging and scalping, hold the unit at a steep angle in a position where the debris, and any dislodged dirt and stone, will not come back towards you even if it ricochets off the hard surface.

General

- Debris flows in direction of line head rotation. Change line head position to assure debris flow is directed away from operator.
- Keep cutting line away from wire fences to avoid entanglement.
- Operate trimmer only with cutting head below knee height.

MAINTENANCE

WARNING

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

WARNING

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

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

WARNING

Unit can operate when battery is installed. Unexpected operation can cause serious personal injury. Always remove battery before performing maintenance procedures.

NOTICE

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.

NOTICE

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

Skill Levels

Level 1 = Easy to do. Common tools may be required.
Level 2 = Moderate difficulty. Some specialized tools may be required.
Level 3 = See your dealer.
Click [HERE](#) or go to <http://www.echo-usa.com/products/maintenance-kit>

Maintenance Intervals

COMPONENT OR SYSTEM	MAINTENANCE PROCEDURE	Skill Level
Daily Or Before Use		1
Battery / Battery Compartment	Inspect / Clean / Charge	1
Cut Off Knife	Inspect / Clean	1
Screws / Nuts / Bolts	Inspect / Tighten / Replace	1

NOTICE

If not maintained properly, the product's performance may deteriorate. Time intervals shown are maximum. Actual use and your experience will determine the frequency of required maintenance. When you find anything wrong, ask your ECHO dealer for repair.

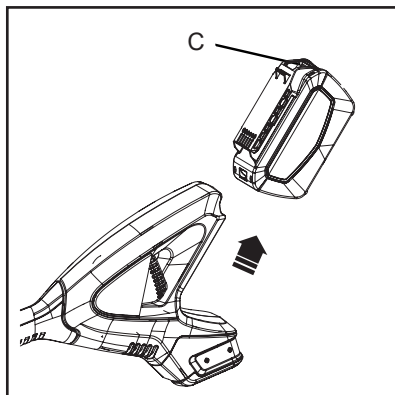
Maintenance and Care

Cleaning battery and battery compartment

WARNING

Risk of electric shock or fire. Do not use conducting materials to clean battery or battery compartment. Otherwise serious personal injury may result.

1. Release power switch and allow trimmer head to stop.
2. Depress battery latch release (C) and slide battery out of power head.
3. Use compressed air or a soft bristle brush to remove debris from battery and battery compartment.

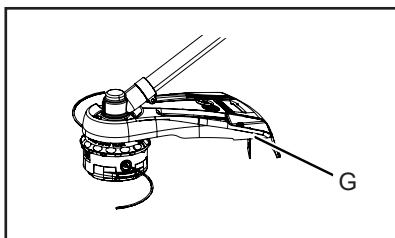


Cut-off knife

CAUTION

Cut-off knife is sharp. Gearcase and surrounding area might be hot. Wear gloves to protect hands against injury.

1. Inspect cut-off knife (G) for damage or wear. Assure that it is properly attached to debris shield.
2. Remove blockages from cutting accessory carefully with screwdriver or similar tool.



Nylon Line Replacement

! WARNING

Wire or wire rope used as cutting line can break off and become a dangerous projectile, and can cause serious personal injury. Use only nylon line of manufacturers specification.

! CAUTION

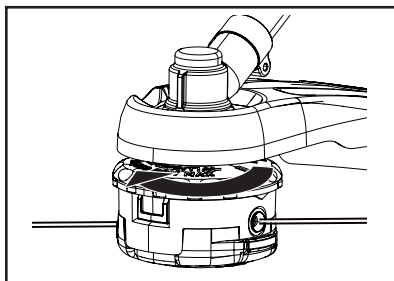
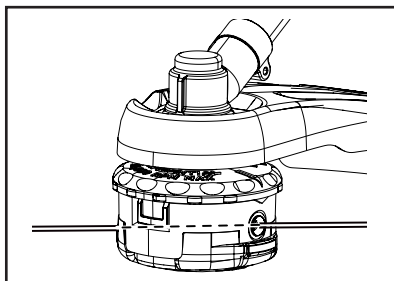
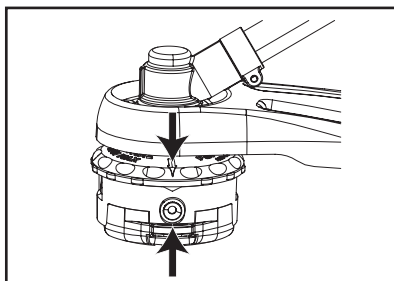
Cut-off knife is sharp. Gearcase and surrounding area might be hot. Wear gloves to protect hands against injury.

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 on top of knob with openings in eyelets.

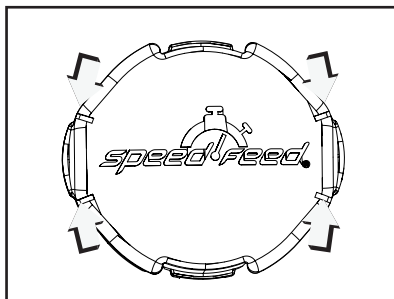
3. Insert one end of trimmer line into an eyelet, and push line equal distance through trimmer head.

4. Hold trimmer head while turning knob clockwise to wind line onto spool until about 13 cm (5 in.) of each line remains exposed.



NOTICE

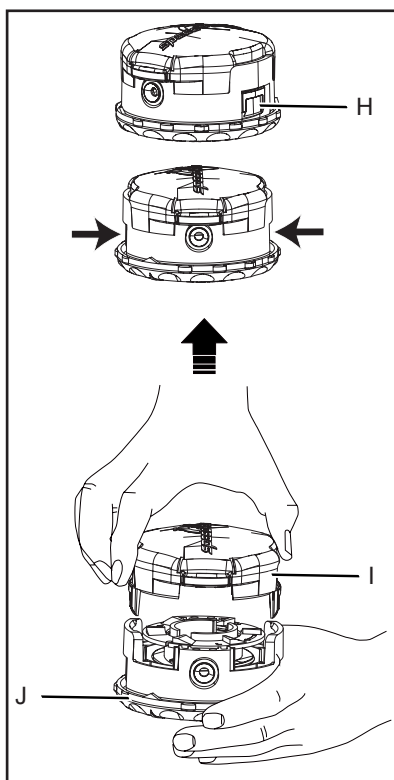
When the wear indicators located at the bottom of the Speed-Feed® head are worn smooth, or if holes appear, replacement of the cover or the entire Speed-Feed® head is required.



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 (H) on both sides of Speed-Feed® head to release cover (I) from eyelet carrier (J).



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

WARNING

Do not store in an enclosure where combustible fumes may accumulate. Fire can result.

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

Unit

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 consistent with recommended ambient temperature chart.
- Charge battery according to ambient temperature chart.

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-225
Length	1682 mm (66.22 in.)
Width	214 mm (8.43 in.)
Height	241mm (9.49 in.)
Weight (without battery)	3.9 kg (8.6 lbs.)
Weight (with battery)	5.7 kg (12.57 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	56 V
No load speed	5900 / 5000 \pm 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	DC 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: Regístrese en la página web y ahorre una estampilla! Le alertarán sobre actualizaciones de 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	
Address : Dirección : Adresse	
City : Ciudad : Ville	State : Estado : Province
Zip Code : Código Postal : Code Postal	
E-Mail Address : Dirección De Correo Electrónico : Courriel 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 : Número del Modelo : No. de modèle	
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 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.

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
Vistió 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) influenciaron 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

X7572720206 02-2012

ECHO INC., 400 Oakwood Rd., Lake Zurich, IL 60047
1,800.432.ECHO WWW.ECHO-USA.COM



WARRANTY

Limited Warranty Statement for ECHO 56 Volt Handheld Products and Walk Behind Mowers 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:

- Units and Bare Tool – 5 Years
- Battery or charger – 2 years

■ If the product is for commercial use:

- Units and Bare Tool – 2 Years
- Battery or charger – 2 years

■ 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 units, battery or charger 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 cover normal deterioration due to the use or exposure, and any repairs made necessary by normal wear, improper maintenance, improper lubrication, improper storage, dirt, abrasives, impact, moisture, water, rain, snow, rust, corrosion, varnish, or other similar conditions.

This warranty does not cover damage to chargers or batteries by improper charging voltage and batteries that have been exposed to temperatures beyond those specified in the Operator's Manual, batteries that have not been properly charged or batteries that have reached their useful life.

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



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ECHO INCORPORATED

400 Oakwood Road

Lake Zurich, IL 60047

www.echo-usa.com