

# Operator's Manual DHCS-2800 / 3400 Hedge 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)

X7508280301

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or Articulating Hedge Trimmer, or DPAS unit configured as a Hedge	,
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### INTRODUCTION

Specifications, descriptions, and illustrative material in this literature are as accurate as possible. Specifications are subject to change without notice. Illustrations might include optional equipment and accessories, and might not include all standard equipment. Your equipment might appear slightly different than pictured equipment.



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



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

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



OR

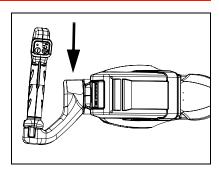
https://www.shindaiwa-usa.com/manuals



### SERVICING INFORMATION

### Parts and 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	
-----------------	--

### 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 a.m. to 5:00 p.m. (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).

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### SAFETY

### For safe use of your product

Be careful to 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.

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.

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

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



CIRCLE AND SLASH SYMBOL

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

# **International Symbols**

Symbol	Description	Symbol	Description
	Read and understand Owners Manual.		Direct Current
	Wear eye, ear and head protection.		Finger Severing
	Do not expose to rain / water		Hot Surface
	Wear hand and foot protection. Use two-handed		Disconnect battery before maintenance
<b>A</b>	Safety/Alert		Blade Movement
	Grease Fitting		

Note: Not all symbols will appear on your unit.

### Read the Manuals

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

### Clear the Work Area

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

### Keep a Firm Grip

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

### Keep a Solid Stance

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

### 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) power tool or 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 the 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 ground fault circuit interrupter (GFCI) protected supply. Use of a GFCI 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.

- Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery, 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.
- · 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 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.

### **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 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 batteries only with ECHO eFORCE<sup>®</sup> 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<sup>®</sup> 56V battery series. Use of any other battery 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 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 130°C (265°F) 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.

### Service

- · Do not modify or attempt to repair the appliance or the battery pack (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 power tool is maintained.
- · Never service damaged battery packs. Service of battery packs should only be performed manufacturer or authorized service providers.

# **Environmentally Safe Battery Disposal**





Recycle your ECHO ECHO eFORCE® 56V battery 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-lon, 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 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.

- Check unit for loose or missing nuts, bolts, and screws. Tighten and/or replace as needed.
- Check that the cutting attachment is firmly attached and in safe operating condition. Dull, loose or damaged blades should not be used.

# 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.
- ◆ DO NOT start or operate unit unless all guards and protective covers are properly assembled to unit.
- ◆ NEVER reach into any opening while the unit is running. Moving parts may not be visible through openings.

**General Safety Warnings and Instructions for the** following ECHO tools: Hedge Trimmer, Mid-Reach Hedge Trimmer, Shafted Hedge Trimmer, or Articulating Hedge Trimmer, or DPAS unit configured as a Hedge Trimmer, Mid-Reach Hedge Trimmer, Shafted Hedge Trimmer, or Articulating Hedge Trimmer.

This section contains the prescribed general safety warnings and instructions for handheld, motor-operated electric hedge trimmers contained in UL 62841-4-2. 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.

### **Hedge Trimmer Safety Warnings:**

- Keep all parts of the body away from the blade. Do not remove cut material or hold material to be cut when blades are moving. Blades continue to move after the switch is turned off. A moment of inattention while operating the hedge trimmer may result in serious personal injury.
- Carry the hedge trimmer by the handle with the blade stopped and taking care not to operate any power switch. Proper carrying of the hedge trimmer will decrease the risk of inadvertent starting and resultant personal injury from the blades.
- 3. When transporting or storing the hedge trimmer, always fit the blade cover. Proper handling of the hedge trimmer will decrease the risk of personal injury from the blades.
- 4. When clearing jammed material or servicing the unit, make sure all power switches are off and the power cord is disconnected. Unexpected actuation of the hedge trimmer while clearing jammed material or servicing may result in serious personal injury.
- 5. Hold the hedge trimmer by insulated gripping surfaces only, because the blade may contact hidden wiring or its own cord.

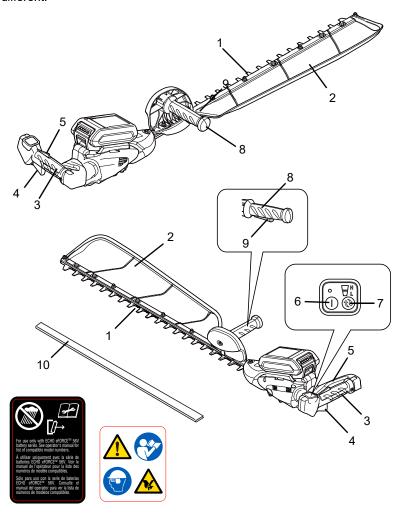
  Blades contacting a "live" wire may make exposed metal parts of the hedge trimmer "live" and could give the operator an electric shock
- Keep all power cords and cables away from cutting area. Power cords or cables may be hidden in hedges or bushes and can be accidentally cut by the blade.
- Do not use the hedge trimmer in bad weather conditions, especially when there is a risk of lightning. This decreases the risk of being struck by lightning.

### **Extended-Reach Hedge Trimmer Safety Warnings:**

- To reduce the risk of electrocution, never use the extended-reach hedge trimmer near any electrical power lines. Contact with or use near power lines may cause serious injury or electric shock resulting in death.
- Always use two hands when operating the extended reach hedge trimmer. Hold the extended-reach hedge trimmer with both hands to avoid loss of control.
- Always use head protection when operating the extended-reach hedge trimmer overhead. Falling debris can result in serious personal injury.

### **DESCRIPTION**

Locate these safety decal(s) or etching(s) on your unit. Make sure they are legible, and that you understand and follow the instructions. If any cannot be read, replacements can be ordered from your ECHO dealer. Images shown below are for example only. Those on your unit might appear slightly different.



- 1. Blades
- 2. Blade Guard
- 3 Throttle Handle
- 4. Power Switch
- 5. Throttle Handle Operator Presence Switch
- 6... **Enable Button**
- 7. Speed Button
- Support Handle 8.
- 9. Support Handle Operator Presence Switch
- 10. Scabbard

### 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 **Hedge Trimmer Assembly**
- 1 Operator's Manual
- Blade Cover 1
- 1 Batterv\*
- 1 Battery Charger\*

# NOTICE

For a complete list of compatible batteries for this and all eFORCE® tools, scan this code or visit https://www.echo-usa.com/battery-information



<sup>\*</sup>Not all units include battery and charger.

### **ASSEMBLY**

This model is factory assembled.

### **Temperature Information**

Recommended Ambient Temperatures:

	Char	ging	Usage/D	ischarge	Sto	rage
	Low	High	Low	High	Low	High
Product (1)	Not Ap	plicable	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 Ap	plicable	32°F (0°C)	113°F (45°C)

<sup>(1)</sup> 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)).

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 series batteries and chargers.
- Keep charger and battery away from damp conditions and all liquids.

<sup>(2)</sup> Hot batteries in high ambient temperatures require longer charge times.

<sup>(3)</sup> To maximize life of batteries being stored more than 3 months, ECHO recommends batteries being stored at 3 green lights on the battery capacity indicator (BCI) and at room temperature.

- 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
- 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.

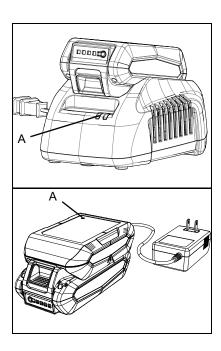
# **NOTICE**

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.

- Plug charger AC cord in the 1. 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 GRFFN.

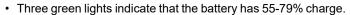
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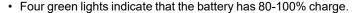


# NOTICE

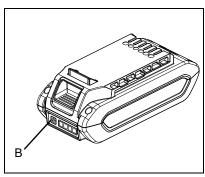
If charger detects a problem, LED will blink RED. Remove battery from charger, clear obstructions from contacts and reinstall battery into charger. If battery is outside acceptable temperature range (See Recommended Ambient Temperature chart) LED will remain RED.

- 4. When charging is complete, LED will remain GREEN. See battery manual for charging
- 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.





6. Unplug charger AC cord from the wall outlet.

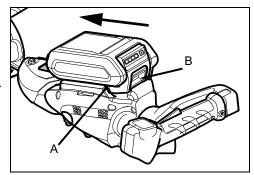


# WARNING

The attachment will operate when the battery is installed, the power indicator LED is lit, and the operator presence switches, 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.

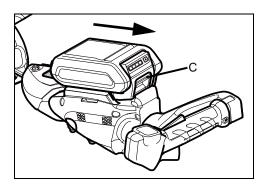
- 1. Make sure power to unit is turned off.
- 2. Align ridges (A) on battery with grooves in power head. Slide battery into power head.
- Assure the battery latch (B) snaps into place and battery is secure before beginning operation.



Assure battery latch is fully engaged before using unit.

### **Battery Removal**

To remove battery, depress battery latch release (C) slide battery out of power head.



### **OPERATION**

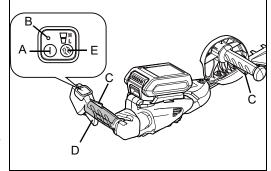
### Starting Unit

# **WARNING**

The attachment will operate when the battery is installed, the power indicator LED is lit, and the operator presence switches, and power switch are engaged. Make sure the unit is properly positioned to prevent loss of control and possible serious injury.

Note: This model has two operating modes: low and high. Use speed button (E) to move between low mode (L) and high mode (H). Use power switch to increase RPM speed within each mode.

- Keep movable parts of the attachment away from objects that could become entangled or thrown, and surfaces that could cause loss of control.
- Push enable button (A) once to turn on power to unit. Power indicator LED (B) illuminates when power to unit is turned on.



Hold down operator presence switches (C). Then depress power switch 3. (D) to increase speed.

# **NOTICE**

When power to unit is turned on:

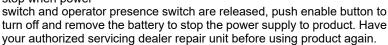
- After 90 seconds of inactivity, unit will power itself off.
- · If power indicator LED remains lit, operation is normal.
- If power indicator LED flashes once per second, the battery needs to be charged.
- If power indicator LED flashes four times per second, there is a fault within the product. Turn power off to unit. Remove battery. Clear debris from around line head. Install battery. Turn power on to unit. If flashing continues, have your authorized servicing dealer repair the product.

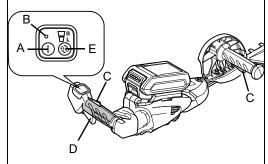
### Stopping Unit

# WARNING

The attachment continues to run for a short period after the unit is switched off.

- Release power switch and allow unit to stop.
- Push enable button (A) to turn off power to unit.
- Power indicator I FD (B) turns off when power to unit is turned off
- If the unit does not stop when power



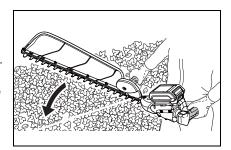


# **Hedge Trimming**

# WARNING

Hedge trimmer blades are very sharp. Touching them may lead to severe personal injury. Avoid touching blades whenever possible, and always wear gloves to protect hands.

- 1. Always grip support and throttle handles.
- Hold trimmer firmly and squeeze power switch to trim.
- Tilt trimmer so cutting teeth are angled slightly toward the hedge or shrub and proceed to cut.



# **WARNING**

Never remove hands from unit when blades are moving.

# **WARNING**

Power to unit remains on even when the blades have stopped due to an obstruction. If this occurs, stop the unit, remove battery, and remove the obstruction.

### **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.

### 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/SYSTEM	MAINTENANCE PROCEDURE	REQUIRED SKILL LEVEL
Daily or Before Use		
Battery / Battery Compartment	Inspect / Clean / Charge	1
Screws/Nuts/Bolts	Inspect/Tighten/Replace *	1
Gear Housing	Grease <sup>1</sup>	2
Blades	Inspect/Clean/Sharpen <sup>2</sup>	2

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

### **MAINTENANCE PROCEDURE NOTES:**

- <sup>1</sup> Apply lithium based grease every 15-20 hours of use.
- <sup>2</sup> Inspect blade, and clean and sharpen as needed. Lubricate blades periodically during use.
- \* Replacement is recommended based on the finding of damage or wear during inspection.

# WARNING

If not maintained properly, the product may pose a serious risk to physical health.

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

# WARNING

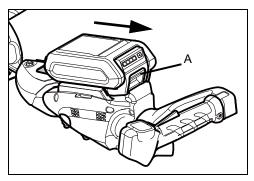
Remove battery before performing maintenance procedures.

### 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.

- Release power switch and operator presence switch, and allow unit to stop.
- 2. Make sure power indicator LED is not illuminated.
- 3. Depress battery latch release (A) and slide battery out of power head.
- 4. Use compressed air or a soft bristle brush to remove debris from battery and battery compartment.

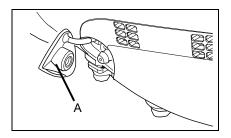


### **Gear Case** Lubrication

### Level 1.

Parts required: Lithium-based Grease.

- 1. Remove grease fitting cap (A).
- 2. clean dirt from grease fitting.
- Add grease through grease 3 fitting. Apply 2-3 pumps of grease every 15-20 hours of
- 4. Replace grease fitting cap.



### Blades

# WARNING

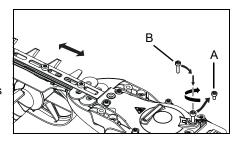
Hedge trimmer blades are very sharp, touching them may lead to severe personal injury. Use long hex wrenches and sockets with extensions when tightening blade bolts and blade lock nuts to keep hands at a safe distance from sharp blades.

Blades should only be removed and reinstalled by an authorized servicing dealer, otherwise premature wear or internal damage may occur.

### Accessing Blade Edges

For blade maintenance procedures or inspection, blades can be manually moved to separate top and bottom blade teeth.

- 1. Remove plug bolt (A).
- 2. Insert M4 bolt (B), at least 15mm long (not included) into bolt hole.
- Rotate bolt to manually 3. move blade teeth for access to cutting edges.

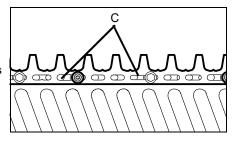


### Lubrication

### Level 1

Parts required: ECHO Red Armor™ Blade Cleaner & Lubricant, or 20W Engine Oil (for blade lubrication), 50-50 mixture of kerosene and 20W oil (for blade cleaning).

- Brush loose debris from blade and coat both sides of blade with the 50 50 cleaning mixture
- 2. Allow cleaning mixture to soften remaining gummy residue, then wipe blade clean.
- Apply clean oil to bolt slots 3.
- 4. Wipe excess oil from blade.



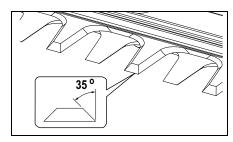
### **Sharpening**

### Level 2.

# NOTICE

If a power grinder is used DO NOT allow blade to over heat.

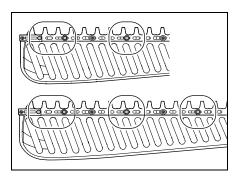
- 1. Move blades to allow file clearance. Do not pry against cutting edges.
- File each edge carefully. 2. Blade edge should be filed to a 35-degree angle.
- 3. Lubricate blades (see "Lubrication").



### **Adjustment**

### Level 2.

- · DHCS-2800: The two blade bolts nearest blade tip, and fourth bolt from the tip are adjustable.
- · DHCS-3400: The two blade bolts nearest blade tip, as well as the fourth and sixth bolts from the tip are adjustable.

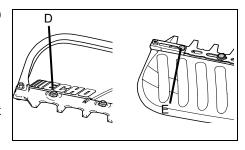


# NOTICE

ONLY blade bolts indicated should be adjusted. All other bolts should be tightened snugly.

- Loosen blade locknuts (D) 1. 1/2 turn.
- Tighten blade bolts (E) 2. until snug.
- Loosen blade bolts 1/2 3. turn.

Note: When bolt adjustment is correct, there should be a gap of 0.25 -0.50 mm



between the cutter blades and the flat washers, and the flat washer beneath each bolt head should turn freely.

### TROUBLESHOOTING

TRO	OUBLESHOOTING CH	ART
Problem	Cause	Remedy
	Plug not connected to power outlet.	Plug in charger.
Red Charger light	Battery pack not installed properly.	Check the battery installation.
flashes or does not light up	Obstructed connection.	Reinstall battery after removing obstructions.
	Fault in the charger.	Consult your dealer.
	Fault in the battery pack.	Consult your dealer.
Unit will not turn on	Battery pack not installed properly.	Check battery installation.
Unit does not run when	Battery pack discharged.	Charge battery .
turned on	Battery pack outside acceptable temperature range.	Remove the battery and allow to cool.
	Battery pack outside acceptable temperature range.	Remove battery and allow to cool.
Running time is too short	Unit electronics too hot.	Turn unit off and allow to cool.
	Battery pack discharged.	Charge the battery.

### STORAGE

# WARNING

Hedge Trimmer blades are very sharp. Touching them may lead to severe personal injury. Avoid touching blades whenever possible, and always wear gloves to protect hands.

# WARNING

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

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

# NOTICE

Always store and transport hedge trimmers in a stable, horizontal position. Support gear case and cutting blades to prevent excessive flexing, which may cause damage to these components. Always install blade cover when transporting or storing unit.

### Unit

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

- 1. Turn power to unit off.
- 2. Remove battery.
- 3. Remove accumulation of dirt and debris from exterior of unit.
- 4. Tighten all screws and nuts.
- 5. Cover battery compartment, battery and charger.
- 6. Store unit in a dry, dust-free place out of the reach of children.
- 7. Perform all periodic lubrication and services that are required.
- 8. Apply clean oil to the entire length of the blade. Be certain the blade bolts are lubricated.
- 9. Install blade cover on blades.

### **Battery**

- 1. Remove battery.
- 2. Store in a dry, dust-free place, out of the reach of children.

- 3. Store in temperatures consistent with recommended ambient temperature chart.
- 4. Charge battery according to ambient temperature chart.

### Charger

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

# **SPECIFICATIONS**

MODEL	DHCS-2800	DHCS-3400
Length	1153 mm (45.4 in)	1305 mm (48.5 in)
Width	264 mm (10.4 in)	268 mm (10.6 in)
Height	144mm (5	.7 in)
Weight (without battery)	2.9 kg (6.4 lb)	3.1 kg (6.8 lb)
Battery	ECHO eFORCE® 56V	series batteries
Туре	Li-lor	1
Battery voltage	56 (rated	50.4)
Capacity	See Battery	
Charger type	ECHO eFORCE® 56V	series charger
Charger input voltage	120V AC	60Hz
Charging time	See Battery	Manual
Gear case ratio	6.86	
Lubrication	Lithium based grease	(NLGI Grade 2)
Cutter	Dual action, single	sided blades
Length	714 mm (28.1 in)	866 mm (34.1 in)
Pitch	38 mm (1	.5 in)
Height	22 mm (0	.9 in)
Motor Type	DC / Brus	hless
Speed control	Variable, 2 spe	ed modes
Maximum speed by operation mode	11000 (low) 15	800 (high)

MODEL	DHCS-2800	DHCS-3400
Chargar Lighta	Green blinking - batt	tery is charging
Charger Lights  O OFF Green blinking	Green - battery is	fully charged
OFF Green blinking OFF Green Red OFF	Red - Ba Remove for approxima cool do	•
Fed OFF blinking	Red blir battery. Remove and batter	

### WARRANTY

### 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 nvlon 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, exnense 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).

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### 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.

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# **MECHLU** 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 undares androir be sent new ECHO product information and special offers. Simply go to: www.echo-usa.com.	save a stamp! You will be sent new ECHO fers. Simply go to:	OPCION POR INTERNET: (Plegistrese en la pagina web y ahore una estampilla. Le alertradi sobre actualizaciones del producto, y/o se le mivara información sobre los nuevos productos ECHO y las ofertas especiales. Simplemente visite: www.echo-usa.com	en la pagina web y actualizaciones del bre los nuevos pro- simplemente visite:	OPTION RU LICKE: Exception and proper un innibel Vous serez informe sur jes nouveaux produits ECHO et less mises à jour de produit ainsi que les offres spéciales. Simplement visitez le . www.echo-usa.com	st épargner un produits ECHO ffres spéciales. sa.com
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# **NOTES**

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