

Hedge Clipper

Operator's Manual

MODEL DHC-3000

Serial Number 001001 & Up



Read rules for safe operation and instructions carefully. ECHO provides an Operator's Manual and Safety Manual. Both must be read and understood for proper and safe operation.

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INTRODUCTION

Welcome to the ECHO family. This ECHO product was designed and manufactured to provide long life and on-the-jobdependability. Read and understand this manual and the SAFETY MANUAL you found in the same package. You will find both easy to use and full of helpful operations tips and SAFETY INFORMATION. Save these instructions.

Read rules for safe operation and instructions carefully. ECHO provides an Operator's Manual and a Safety Manual. Both must be read and understood for proper and safe operation.

THE OPERATOR'S MANUAL -

contains specifications and information for operation, starting, stopping, maintenance, assembly and storage specific to the product.

THE SAFETY MANUAL ----

explains possible hazards involved with the use of Hedge Clippers and what measures you should take to make their use safer.



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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.

SAFETY INSTRUCTIONS FOR ELECTRIC BATTERY HEDGE CLIPPER

When using electric hedge clippers, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury.

Read all of these instructions before attempting to operate this hedge clipper.

SAFETY SYMBOLS

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



This symbol accompanied by the words WARNING and DANGER calls attention to an act or condition that can lead to serious personal injury to operator and bystanders.



This symbol accompanied by the word CAUTION call attention to a potentially hazardous situation, which if not avoided, may result in minor or moderate injury. CAUTION may be used to alert against unsafe practices associated with events that could lead to personal injury.



The circle with the slash symbol means whatever is shown within the circle is prohibited.



IMPORTANT: 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.

DECALS, WARNING/INFORMATIONAL

Locate these safety decals on your unit. The complete unit illustration found in the "DESCRIPTION" section, will help you locate them. Make sure the decals are legible and that you understand and follow the instructions on them. If a decal cannot be read, a new one can be ordered from your ECHO dealer. See PARTS ORDERING instructions for specific information.



CHARGER





BATTERY



EQUIPMENT - MAINTAIN HEDGE TRIMMER WITH CARE

Before operation a complete check of the unit must be performed:

- Check unit for loose/missing nuts, bolts and screws. Tighten and/or replace as needed.
- Check for alignment of moving parts, binding of moving parts. breakage of parts, mounting and any other condition that may affect the units operation.
- Keep cutting edge sharp and clean for best performance and to reduce the risk of injury.
- Follow instructions for lubricating blades on page 14. · Inspect hedge trimmer battery cord periodically, and if damaged, have it repaired by an authorized ECHO service dealer.
- · Keep handles dry, clean, and free from oil and grease.
- Follow all maintenance procedures carefully.

PARTS' - CHECK DAMAGED PARTS

- Do not use the Hedge Clipper if any part is damaged or missing.
- · Before further use of the hedge trimmer, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function.
- · A guard or other part that is damaged should be properly repaired
- or replaced by an authorized ECHO service dealer. Use only the ECHO 12V 17AH Battery Pack P/N 16000120060 and Charger P/N 16130020060 supplied with this unit.
- Do not use any attachment or accessory other than those recommended in this Operator's Manual: avoid the risk of serious personal injury.

DEALER? Call 1-800-432-ECHO 1-800-432-(3246) 101012

PERSONAL CONDITION AND SAFETY EQUIPMENT

Physical Condition —

Your judgment and physical dexterity may not be good:

- if you are over tired or sick.
- · if you are taking medication,
- · if you have taken alcohol or drugs.

Operate unit only if you are physically and mentally well.



Eye Protection -

Eye protection goggles that meet ANSI Z87.1 requirements must be worn whenever you operate the hedge clipper.

Dust Protection —

Wear face or dust mask if operation is dusty.





Hand Protection —

Wear no-slip, heavy duty work gloves to improve your grip on the Hedge Clipper handles. Gloves also help reduce the transmission of machine vibration to your hands. Special vibration reducing gloves such as ECHO's Pro-Comfort are designed to provide additional comfort.

Hearing Protection —

Wear hearing protection. OSHA requires the use of hearing protection if this unit is used 2 hours per day or more. ECHO recommends wearing hearing protection whenever unit is used.

Proper Clothing -

Wear snug fitting, durable clothing;

- · Pants with long legs, shirts with long sleeves.
- · Wear protective hair covering to contain long hair.
- DO NOT WEAR LOOSE CLOTHING, BECAUSE IT CAN GET CAUGHT IN HEDGE CLIPPER MOVING PARTS.
- DO NOT WEAR SHORTS.
- DO NOT WEAR TIES, SCARFS, JEWELRY.

Wear sturdy work shoes with nonskid soles;

- DO NOT WEAR OPEN TOED SHOES.
- DO NOT OPERATE UNIT BAREFOOTED.

Hot Humid Weather ----

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









OPERATION SAFETY

DETERMINE OPERATION AREA

- Review the area to be trimmed. Look for hazards that could contribute to unsafe conditions. DO NOT operate unit if any wires (power, telephone, cable, etc.) are closer than 10 feet (3 meters) to any part of the operator or unit.
- Spectators and fellow workers must be warned, and children and animals prevented from coming nearer than 15 ft. (4.6 meters) while the Hedge Clipper is in use.

Danger- Risk of Cut - Keep Hands Away From Blades

Hold the front end and rear handles with both hands, with thumbs and all fingers tightly encircling the handles. Keep both hands on handles when power is on.

Do not attempt to remove cut material nor hold material to be cut when blades are moving. Make sure trimmer switch is off when clearing jammed material from blades. Do not grasp the exposed cutting blades or cutting edges when picking up or holding the hedge trimmer.

CAUTION: Blades coast after turn off.

Use Hedge Clipper Properly -

Do not force the Hedge Clipper. Use the Hedge Clipper only to trim the type of shrub, growth it is designed to cut. Do not cut materials over 1/4" (6 mm) in diameter or material that is unusually hard. Forcing or misusing the Hedge Clipper can damage the unit or cause personal injury.

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 overreach.

Keep Away from Blade

Hold the blade away from your body, do not turn the blade toward yourself. Disconnect battery pack before servicing, cleaning or removing jammed materials from blades.

Avoid Unintentional Starting

Don't carry plugged-in hedge clipper with finger on switch. Be sure switch is off when plugging in.

Store Hedge Clipper Indoors

When not in use, hedge clipper should be stored indoors in dry, and high or locked-up place - out of reach of children.







ELECTRICAL SYSTEM

WARNING 🛕 DANGER

When using electric hedge clippers, basic safety precautions should always be followed to reduce risk of fire, electric shock, and personal injury.

The motor is kept cool by the air vents (A). Make sure motor housing and air vents are kept clean and free of dirt and any obstruction.

Do not abuse electrical cords. Do not carry Hedge Clipper by the cord or yank cord when disconnecting unit from battery pack. Keep cord (B) away from heat, oil, grease and sharp edges.

Never throw battery into a fire, it could explode. Keep battery away from spark or flame. Do not clean battery with any flammable substance. Do not take battery apart. Do not remove battery cover or strike it. Do not pull battery cord. Do not open or mutilate the battery(ies). Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed. If battery acid gets on skin or clothing, rinse immediately with clean water and baking soda. If acid enters eye, rinse with clean water and baking soda and seek immediate help from a physican.

- Exercise care when handling the battery in order not to short the battery with conducting materials such as rings, bracelets, tools and keys. The battery or conductor may overheat and cause burns.
- If the battery will not accept a charge or is depleted requiring disposal, contact your local government authority for proper disposal codes and/or regulations.

Do not place unit in damp or wet places, which could impair the unit's electrical insulation.



Always use the battery and charger supplied with the unit or replacements approved by ECHO, INCORPORATED. Using the wrong charger, especially an auto battery charger, can result in battery damage or serious personal injury.









Do not charge Hedge Clipper in rain or in wet locations.

Do not use the Hedge Clipper in the rain or in damp or wet conditions, which increase the danger of electrical shock and cause slippery footing.



WARNING A DANGER

Do not recharge battery in a confined or unvented area. Do not smoke, strike a match or cause a spark in the vicinity of the battery during charging. Operator injury may result.

Electrical motors and switches give off sparks when turned on and off. Never use the Hedge Clipper or charger near any flammable substances such as lacquer, paint, benzine, paint thinner, gasoline or adhesives, etc.

Avoid unintentional starting of the Hedge Clipper. Do not carry the Hedge Clipper connected to the battery with the switch on. Before plugging in Hedge Clipper, make sure switch is off. When moving the point of operation or taking a break, always stop the unit, disconnect the unit from the battery pack and cover the blade.

Always disconnect the Hedge Clipper from the battery whenever it is not in use and when performing any type of maintenance such as cleaning the blade.





EXTENDED OPERATION/EXTREME CONDITIONS

Vibration and Cold -

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

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

Repetitive Stress Injuries -

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

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

SAVE THESE INSTRUCTIONS













DESCRIPTION

The ECHO product you purchased has been factory pre-assembled for your convenience.

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. SAFETY MANUAL The Safety Manual contains specifications and information for operation, starting, stopping, maintenance, storage and safe operation of this product. Read and understand this manual before operation. Keep manual in a safe location for future reference.
- 2. OPERATORS MANUAL The Operator's Manual contains specifications and information for operation, starting, stopping, maintenance, storage and assembly specific to this product. Read and understand this manual before operation. Keep manual in a safe location for future reference, i.e., operation, maintenance, storage and specifications.
- 3. MOTOR AND GEAR BOX HOUSING -
- 4. REAR HANDLE Contains the Trigger Switch, Trigger Switch Lockout and Circuit Breaker.
- 5. FRONT HANDLE WITH GUARD Comfortable, textured finish provides anti-slip grip for front hand. Guard protects hand from the blades.
- 6. THROTTLE TRIGGER LOCKOUT This must be depressed before Throttle Trigger can be activated.
- 7. THROTTLE TRIGGER Spring loaded to return to STOP when released. Trigger Lockout must be depressed fully before Throttle Trigger will move. When trigger is depressed blades will move at full cutting speed.
- CIRCUIT BREAKER Automatically stops unit when blade stops because of an excessive load. Safely remove cause of problem and reset circuit breaker by pushing button.
- 9. BLADES Double reciprocating blades mounted to a blade support bar. Model DHC-3000 has single sided blades, meaning they are capable of cutting on one side of the blade.
- 10. BATTERY AND KNAPSACK Sealed, 12 V -- battery, in canvas knapsack.
- 11. BATTERY CONNECTOR AND CORD -
- 12. HARNESS -
- 13. CHARGER -

SPECIFICATIONS MODEL **DHC-3000** Length 40.5 in. (103 cm) Width 9.4 in. (24 cm) Height 6.3 in. (16 cm) Weight, dry (w/o battery) 7.05 lb. (3.2 kg) Electrical Motor Type D.C. Motor Battery Type Compact, sealed lead rechargable Battery Weight 12.8 lb. (5.8 kg) **Battery Voltage** 12 V Battery Capacity 17 AH Gear Bóx Туре Lubricant Shell Alvania AP-2 or equivalent **Deceleration** Ratio 1: 5.88 Blade Туре oscillating, single edged Length 29.5 in. (75 cm) Speed 1850 cycles /minute

ASSEMBLY/PRE-OPERATION

NOTE: The battery is preassembled in the knapsack for your convenience. Follow instructions under "Pre-Operation" for charing the battery before use.

PRE-OPERATION

Charging

WARNING



Always use the battery and charger supplied with the unit or replacements approved by ECHO, INCORPORATED. Using the wrong charger, especially an auto battery charger, can result in battery damage or serious personal injury.

IMPORTANT: Charge the battery before and after use. Do not charge Hedge Clipper in rain or wet locations. Avoid charging battery when temperature or humidity is high. Do not charge battery for more than 24 hours. It will reduce the life of the battery. After extended, heavy use or after 4 to 5 years of average use, battery will have to be recharged more and more often and will need to be replaced.





WARNING A DANGER

Do not recharge battery in a confined or unvented area. Do not smoke, strike a match or cause a spark in the vicinity of the battery during charging. Operator injury may result.

NOTE: It is normal for the battery and charger to be warm during charging.

Before charging battery, check fuse and replace if burned out.

- 1. Carefully connect Battery Cord Connector to Charger: the plugs connect only one way.
- 2. Plug Charger into 120 V AC electrical outlet.

NOTE: Charge Indicator Lamp shows that charging has started.

 When Charge Indicator Lamp goes out or blinks, charging is complete. Disconnect charger from outlet and from battery. "Complete" charging depends on amount of use (5 - 12 hours).

Putting On Battery Pack

- 1. Place battery pack harness over shoulders.
- Pass cord through cord ring (A) on shoulder strap and along left side of body.

IMPORTANT: If cord is in the way of operation, attach cord to cord grip (B) on rear handle.





Connecting Hedge Clipper to Battery

IMPORTANT: The battery cord has a special connector that plugs into the unit. It plugs in "One-way" only - do not force.

 Align ridge on connector (A) with slot in receptacle (B) of unit and push connector into place. Tighten by turning connector to the right (clockwise). Disconnect by turning connector to the left (counterclockwise) and pulling connector out.



OPERATION

Read and understand all safety information under SAFETY INSTRUCTIONS before operating the Hedge Clipper.

DETERMINE OPERATION AREA

- Review the area to be trimmed. Look for hazards that could contribute to unsafe conditions. DO NOT operate unit if any wires (power, telephone, cable, etc.) are closer than 10 feet (3 meters) to any part of the operator or unit.
- Spectators and fellow workers must be warned, and children and animals prevented from coming nearer than 15 ft. (4.6 meters) while the Hedge Clipper is in use.

STARTING

- 1. Press Lock Out Switch (A) to release.
- 2. Squeeze Trigger Switch (B): Motor will turn and blade will immediately start moving at full speed.

STOPPING

1. Release Trigger Switch (B): Motor and blade will stop.

TRIMMING

IMPORTANT: DO NOT cut branches over approximately 1/4" (6 mm), watch for dangerous foreign objects such as wire or metal.

Face material to be trimmed, such as tree leaves or bushes, hold trimmer at a slight angle, squeeze Trigger Switch and begin trimming.

NOTE: If something gets caught in the blade, the circuit breaker (A) will pop out. Disconnect battery cord from unit, remove cause of problem and push circuit breaker back in. (If circuit breaker pops out immediately, wait 30 seconds and push in again). If breaker pops out during no load operation, stop unit and contact your ECHO Dealer.









MAINTENANCE

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

SKILL LEVELS

Level 1 = Easy to do. Most required tools come with unit.

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

Level 3 = Experience required. Specialized tools are required,

MAINTENANCE INTERVALS

MAINTENANCE					
System/Component	Procedure	interval	Date Maintenance Performed		
Cutting/Blade	Clean and oil	Daily			
	Sharpen	As Required			
Electrical/Battery	Clean	As Required			
Drive/Gear Box	Grease	10 hours			
Air Vents	Clean	Daily			

BLADE CLEANING AND LUBRICATION

Level 1.

Tools required: Clean rag, metal brush, oil can.

Parts required: 30W Engine Oil (lubrication), 50-50 mixture of kerosene and 30W oil (cleaning).

NOTE: Hedge Clipper Blades are very sharp. Wear gloves to protect hands.

- 1. Brush loose debris from blade and coat both side with 50-50 cleaning mixture.
- 2. Allow cleaning mixture to soften gummy residue, then wipe blade.
- 3. Apply clean oil to entire blade including blade bolts.
- 4. Wipe excess oil from blade.





CLEANING BATTERY

Level 1. Parts required: Clean, damp cloth.



Never throw battery into a fire, it could explode. Keep battery away from spark or flame. Do not clean battery with any flammable substance. Do not take battery apart. Do not remove battery cover or strike it. Do not pull battery cord. If battery acid gets on skin or clothing, rinse immediately with clean water and baking soda. If acid enters eye, rinse with clean water and baking soda and seek immediate help from a physician.

1. Clean battery with a clean, damp cloth.

GREASING GEAR BOX

Level 2.

Tools Required: Grease Gun, Clean Rag.

Parts Required: Lithium Base Grease.

IMPORTANT: Gear Box should be replenished with grease after 10 hours of operation, otherwise premature gear wear will result.

- I. Clean dirt from grease fitting (A).
- 2. Carefully pump grease into fitting (A) until grease comes out overflow hole at end of gear box.

SHARPENING BLADES

Level 3.

Return unit to your ECHO Authorized Dealer for proper blade sharpening.

STORAGE Long Term Storage (over 30 days)

IMPORTANT: Always perform the following protective maintenance when-ever storing unit for 30 days or longer.

- 1. Remove any grease, oil, dirt or debris from unit.
- 2. Perform any periodic maintenance required, including tightening screws and nuts.
- 3. Place thin layer of oil on blade to prevent rust.
- 4. Store unit in dry, dust free place, out of reach of children and away from any flammable substance.
- Disconnect battery from unit. Charge battery until indicator light goes out or blinks (5-12 hours). Do not charge battery for more than 24 hours. Place in upright position.







SERVICING INFORMATION

PARTS

Genuine ECHO Parts and ECHO Re Power Parts and Assemblies for your ECHO products are available only from an Authorized ECHO Dealer. When you do need to buy parts always have the Model Number and Serial Number of the unit with you. You can find both numbers on the motor/gear box housing. For future reference, write them in the space provided below.

Model No._____ SN.____

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. When presenting your unit for Warranty service/ repairs, proof of purchase is required.

WARRANTY CARD

This card is our means of registering all original owners of ECHO equipment. The card plus proof of purchase provides you the assurance that authorized warranty work will be done. It also provides a direct link between you and ECHO if we find it necessary to contact you.

ADDITIONAL OR REPLACEMENT MANUALS

Safety Manuals are available, free of charge, from your ECHO dealer or by contacting Echo Incorporated, 400 Oakwood Road, Lake Zurich, IL 60047

Operators and Parts Manuals are available for purchase from your ECHO dealer or directly from ECHO. [See ordering instructions at the end of this manual.]

ORDERING INSTRUCTIONS

To obtain a Parts Catalog or Operator's Manual send a check or money order for \$2.00 per Parts Catalog or \$1.50 per Operator's Manual made payable to ECHO, INCORPORATED. State on a sheet of paper model number and serial number of the ECHO unit you have, part number of the manual (if known), your name and address and mail to address above.

Available Parts Lists

DHC-3000 Serial Number 001001 & Up



LAKE ZURICH, IL 60047



400 Oakwood Road Lake Zurich, IL 60047

Attn: Technical Publications Orders

Part Number 99922202707