



Operator's Manual DPPF-2100 Power Pruner®

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 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

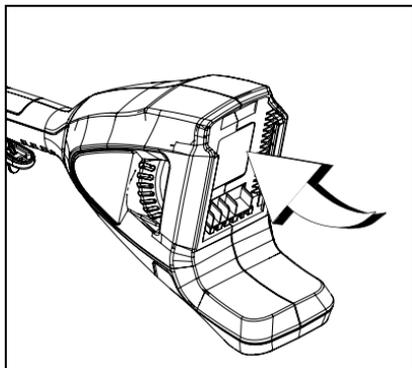
<https://www.shindaiwa-usa.com/manuals>



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 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 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).

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.

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

| Symbol | Description | Symbol | Description |
|--|---------------------------------------|---|--|
|  | Warning, See Operator's Manual |  | Direct Current |
|  | Wear Eye, Ear and Head Protection |  | Do not expose to rain / water |
|  | Wear Hand and Foot Protection |  | Do not operate closer than 15 m (50 ft.) from electrical hazard. |
|  | Safety/Alert |  | Chain Lubrication |
|  | Disconnect battery before maintenance |  | Correct chain installation direction |

Note: Not all symbols will appear on your unit.

Read the Manuals

- Provide all users of this equipment with the Operator's Manual and Safety 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

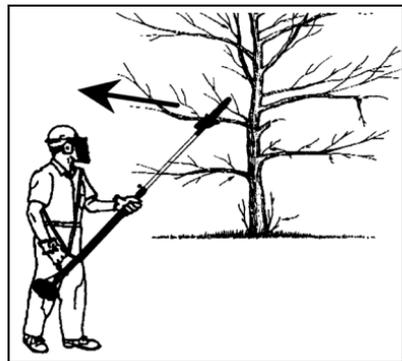
- Maintain footing and balance at all times. Do not stand on slippery, uneven or unstable surfaces. Do not work in odd positions or on ladders. Do not over reach.
- Operate the Power Pruner® only from the ground or out of an approved bucket lift.
- Always evaluate the branches to be pruned for hazards such as loose dead branches which may fall and strike the operator or helpers. Remove hazards before pruning.
- Plan retreat path from falling objects.
- Cut branches bounce when striking ground.
- Check that shoulder harness is adjusted for safe, comfortable operation.
- Turn the Power Pruner off when moving from tree to tree.

Kickback

WARNING

Kickback can lead to dangerous loss of control of the Power Pruner® and result in serious injury to the operator or any one standing close by. Hold the Power Pruner firmly with both hands with thumbs and fingers encircling the front and rear handles. Be aware of the down and outward path the pruner will take after the cut is made.

Kickback may occur when the moving saw chain at the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut. In some cases this may cause a lightning-fast reverse action, kicking the guide bar and saw chain up and back or down and back towards the operator. Either of these reactions may cause the operator to lose control of the Power Pruner which could result in serious personal injury.



With a basic understanding of kickback, you can reduce or eliminate the element of surprise which contributes to accidents.

Avoid contact of the guide bar tip with any object while the saw chain is moving.

Cut only wood. Avoid striking concrete, metal, wire, or other obstructions which could cause kickback or damage to the saw chain.

If the saw chain does strike a foreign object, immediately stop the engine, inspect and repair the Power Pruner if necessary.

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® 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 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-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 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 ECHO 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. Read and comply with all safety instructions listed in this manual and safety manual.

- ◆ **Check unit for loose and missing nuts, bolts, and screws. Tighten or replace as needed.**

Guide Bar and Saw Chain

- Check that the cutting attachment, guide bar, and saw chain is firmly attached and in safe operating condition.

- Use only one ECHO extension on the pruner.
- Do not hit rocks, stones, tree stumps, and other foreign objects with the saw chain.
- Do not cut into the ground with the saw chain.
- If cutting attachment end strikes an obstruction, stop unit immediately and inspect saw chain for damage.
- Do not operate with a dull, fractured, or discolored saw chain.
- Remove all foreign objects from work area.

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

General Safety Warnings and Instructions for the following ECHO tools: Curved Shaft Edger, Straight Shaft Edger, Tiller Cultivator, or Pole Pruner, or DPAS unit configured as a Curved Shaft Edger, Straight Shaft Edger, Tiller Cultivator, or Pole Pruner.

This section contains the prescribed general safety warnings and instructions for handheld, motor-operated electric trimmers, lawn edgers, cultivators, and pole pruners contained in UL 82. Additional important warnings and instructions are provided in subsequent sections of this manual.

IMPORTANT SAFETY INSTRUCTIONS **WARNING**

When using electric trimmers, lawn edgers, cultivators, and pole pruners basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury, including the following:

READ ALL INSTRUCTIONS.

1. Avoid Dangerous Environment - Don't use appliances in damp or wet locations.
2. Don't Use in Rain.
3. Keep Children Away - All visitors should be kept at a distance from work area.
4. Dress Properly - Do not wear loose clothing or jewelry. They can be caught in moving parts. Use of rubber gloves and substantial footwear is recommended when working outdoors. Wear protective hair covering to contain long hair.
5. Use Safety Glasses - Always use face or dust mask if operation is dusty.
6. Use Right Tool - Do not use tool for any job except that for which it is intended.
7. Avoid Unintentional Starting - Don't carry tool with finger on switch. Be sure switch is off when plugging in.
8. Don't grasp exposed cutting blades or cutting edges when picking up or holding the tool.
9. Don't Force Tool - It will do the job better and with less likelihood of a risk of injury at the rate for which it was designed.
10. Don't Overreach - Keep proper footing and balance at all times.
11. Stay Alert - Watch what you are doing. Use common sense. Do not operate appliance when you are tired.
12. Store Idle Tools Indoors - When not in use, tools should be stored indoors in dry, locked place out of reach of children with the battery removed.
13. Maintain Tool with Care - Keep cutting edge sharp and clean for best performance and to reduce the risk of injury. Follow instructions for lubricating and changing accessories. Keep handles dry, clean, and free from oil and grease.

14. Check Damaged Parts - Before further use of the appliance, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other condition that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless indicated elsewhere in this manual.
15. Edger
 - Keep guards in place and in working order.
 - Keep metal blades sharp.
 - Keep hands and feet away from cutting area
16. Cultivator
 - Keep hands away from blades.
17. Pole Pruner
 - Keep all parts of the body away from the saw chain. Do not remove cut material or hold material to be cut when blades are moving. Make sure the switch is off when clearing jammed material. Saw chain continues to move after the switch is turned off. A moment of inattention while operating the extended-reach pruner may result in serious personal injury.
 - Carry the extended-reach pruner by the handle with the saw chain stopped. When transporting or storing the extended-reach pruner, always fit the saw chain device cover. Proper handling of the extended-reach pruner will reduce possible personal injury from the saw chain.
 - Hold the extended-reach pruner by insulated gripping surfaces only, because the saw chain may contact hidden wiring. A saw chain contacting a "live" wire may make exposed metal parts of the extended-reach pruner "live" and could give the operator an electric shock.
 - Do not use the extended-reach pruner in bad weather conditions, especially when there is a risk of lightning. This decreases the risk of being struck by lightning.
 - To reduce the risk of electrocution, never use 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 pruner. Hold the extended-reach pruner with both hands to avoid loss of control.
 - Always use head protection when operating the extended-reach pruner overhead. Falling debris can result in serious personal injury.

1. POWER HEAD
2. THROTTLE HANDLE - FOR RIGHT HAND
3. SPEED SWITCH
4. LOCK OFF LEVER SWITCH
5. POWER SWITCH
6. STRAP HOOK
7. SUPPORT HANDLE - FOR LEFT HAND
8. CUTTING ATTACHMENT
9. AUTOMATIC OILER ASSEMBLY
10. GUIDE BAR
11. SAW CHAIN
12. CUTTING SHOE
13. SHOULDER HARNESS
14. GUIDE BAR COVER

CONTENTS

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

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

- 1 Power Head and Drive Shaft Assembly
- 1 Cutting Attachment with Guide Bar and Saw Chain
- 1 Operator's Manual
- 1 Shoulder Harness
- 1 Guide Bar Cover
- 1 Battery*
- 1 Battery Charger*

*Not all units include battery and 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>



ASSEMBLY

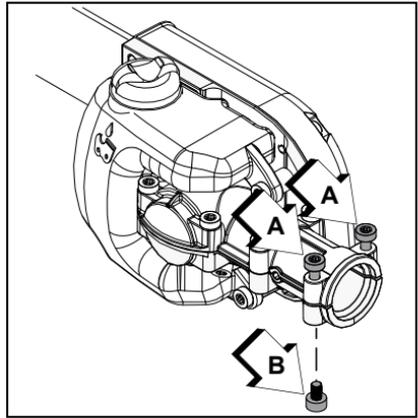
Cutting Attachment to Drive Shaft Installation

Parts required: Drive Shaft Assembly, Cutting Attachment.

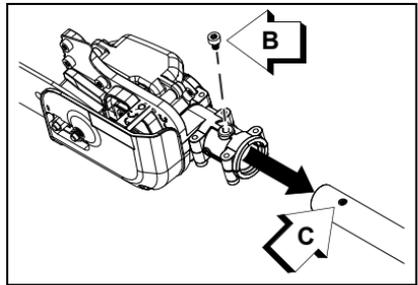
WARNING

Saw Chain is sharp! Always wear gloves when handling assembly, otherwise serious personal injury may result.

1. Loosen screws (A) and remove locator screw (B) on cutting attachment.
2. Remove the vinyl cap from the drive shaft.



3. Slide the cutting attachment onto the shaft housing until the hole in the neck of the cutting attachment is aligned with the hole (C) in the housing (it may be necessary to rotate the saw chain slightly to align the internal pinion and drive shaft).
4. Insert locator screw (B) into hole (C) and tighten to snug.
5. Tighten bolts (A), clamping the cutting attachment onto the housing.



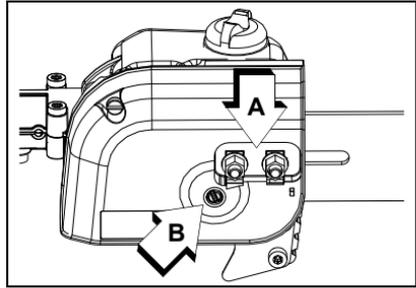
Saw Chain Adjustment

WARNING

Always remove battery before servicing cutting attachment. Wear gloves when handling saw chain, otherwise serious personal injury may result.

Saw Chain Adjustment

1. Release power switch to stop unit.
2. Remove battery.
3. Loosen two guide bar nuts (A) until finger tight.



NOTICE

Always loosen guide bar nuts before turning the chain tension adjuster, otherwise the sprocket guard and tensioner will be damaged.

4. Hold the bar nose up, and turn the adjuster screw (B) clockwise until the chain fits snugly against the underside of the bar, as shown. Cold Chain Only - turn adjuster screw CW an additional 1/8 - 1/4 turn. Tighten both guide bar nuts with nose held up. Tighten rear nut first.
5. Pull the chain around the guide bar by hand. Reduce the chain tension if you feel tight spots.
6. When chain is properly tensioned, tighten guide bar nuts securely.

NOTICE

Tighten guide bar nuts to 8 - 9 N•m (71 - 80 in. lbs.). DO NOT over-tighten nuts or damage may result.

7. Keep chain properly tensioned at all times.

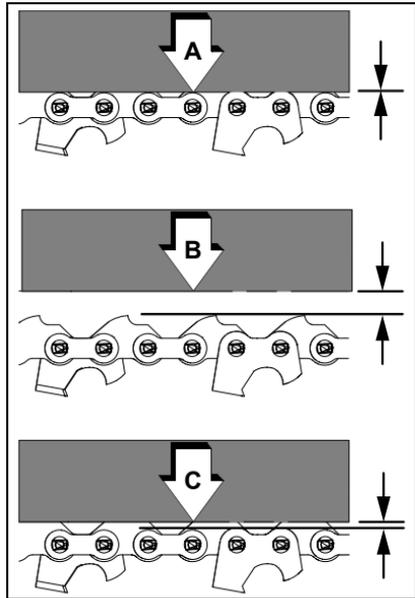
(A) - Correct cold tension. The side link contacts the guide bar.

(B) - Chain needs tensioning.

(C) - Correct warm tension. A distance of 1/8 in. (3 mm) between side link and guide bar at bottom

Note: All chains require frequent adjustment.

8. Install battery.



Temperature Information

Recommended Ambient Temperatures:

| | Charging | | Usage/Discharge | | 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 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.

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.
- ◆ 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.

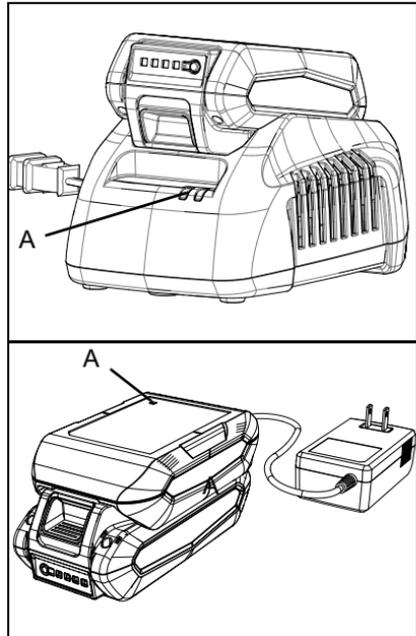
- ◆ To reduce the risk of stumbling, position and mark the connecting cord in such a way that it cannot be damaged or endanger others.

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.

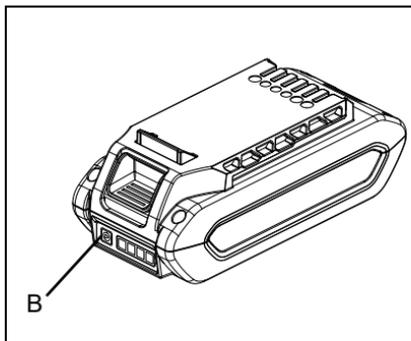
1. Plug charger AC cord in the wall outlet.
2. Align ridges on battery with grooves on charger, and slide battery into charger.
3. During normal charging, the charger LED (A) will blink GREEN.



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.

- When charging is complete, LED will remain GREEN. See battery manual for charging time.
- 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.
- Unplug charger AC cord from the wall outlet.



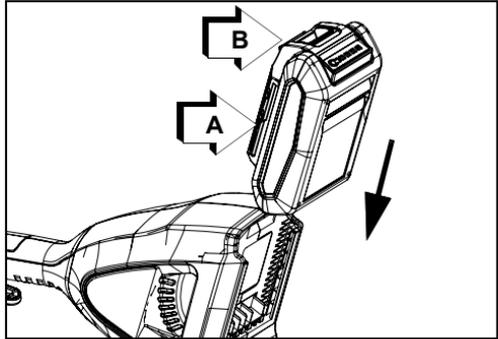
Battery Installation

WARNING

The attachment will operate when the battery is installed, and the lock off lever switch (if applicable), 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. Align ridges (A) on battery with grooves in power head. Slide battery into power head.
2. Assure the battery latch (B) snaps into place and battery is secure before beginning operation.

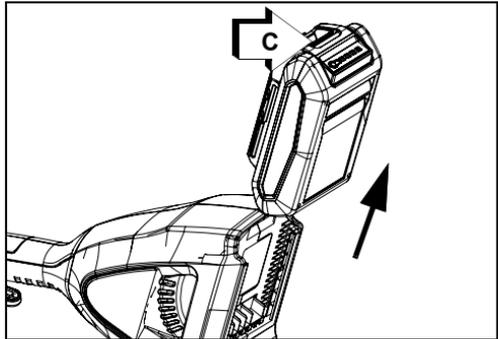


NOTICE

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.

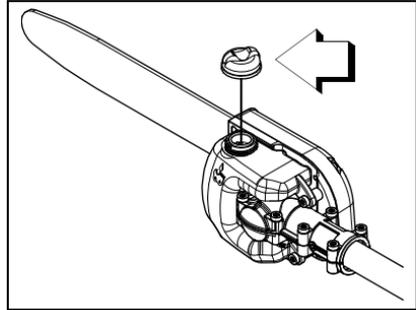


OPERATION

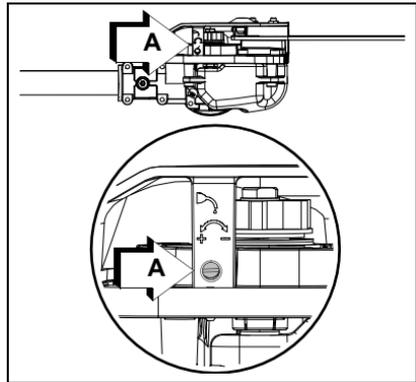
Lubricating the Guide Bar and Saw Chain**Automatic Oiling System****NOTICE**

To prevent plastic deterioration, do not use synthetic or silicone based oil.

1. Wipe debris from around oil fill cap.
2. Remove oil fill cap and fill reservoir with a quality, low viscosity guide bar and saw chain oil.

**Adjusting Automatic Oiler**

1. From bottom of gear case, turn adjustment screw (A) clockwise to decrease oil volume, or counterclockwise to increase oil volume.



Note: The automatic oiler is preset to deliver a sufficient oil discharge volume during normal operating conditions. During heavy or dry cutting conditions, the oil discharge volume may be increased to assure adequate lubrication. If oil is leaking from the bar cover area, reduce the oil discharge volume. Refill the oil reservoir with each tank of fuel.

Note: Very little visible oil on the saw chain will provide sufficient lubrication.

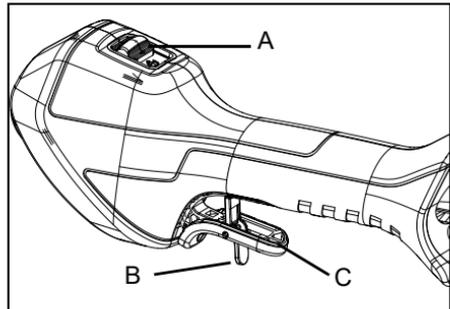
Starting Unit

WARNING

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

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

1. Keep movable parts of the attachment away from objects that could become entangled or thrown, and surfaces that could cause loss of control.
2. Set speed switch (A) to desired mode. Move lock off lever switch (B) forward to free power switch (C), and then depress power switch to increase RPM.

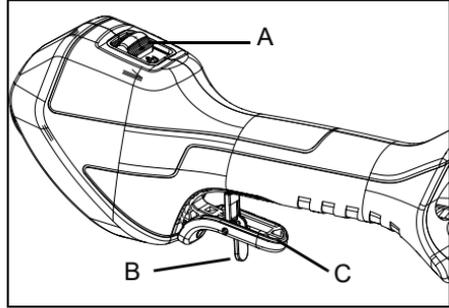


Stopping Unit

WARNING

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

1. Release power switch (C) and allow cutting attachment to stop.
2. If unit does not stop when power switch is released, remove the battery to stop the power supply to product. Have your authorized servicing dealer repair unit before using product again.

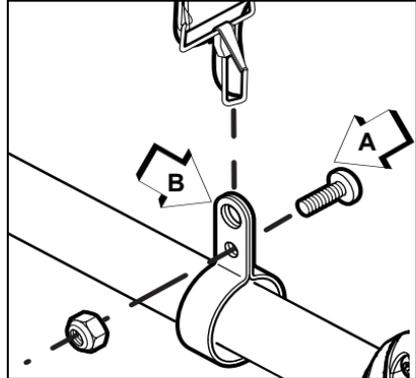


Pruning Techniques

Shoulder Harness (if included)

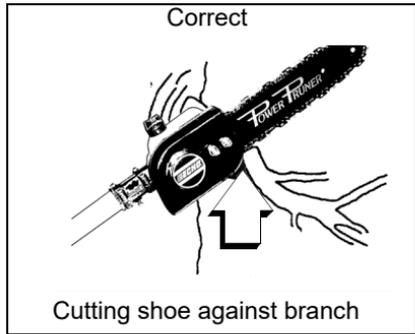
1. Loosen the harness clamp bolt (A).
2. Put the harness on and attach it to the clamp ring (B).
3. Adjust harness for comfortable operation.
4. Tighten harness clamp bolt (A).

The pole pruner attachment is designed for light to medium trimming of limbs and branches up to 203 mm (8 in.) diameter. Follow these tips for successful operation.

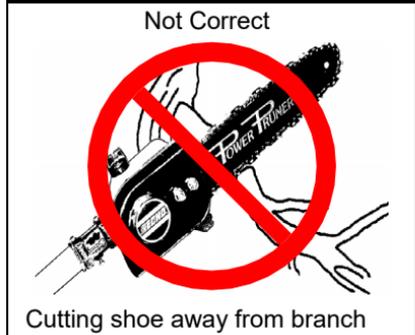


- Plan cut carefully. Check direction branch will fall.
- Plan retreat path from falling branch. Cut branches bounce when striking ground.
- Long branches should be removed in several pieces.
- Do not stand directly beneath branch being cut.

- When ready to cut, hold the cutting shoe against the branch. This will prevent whipping of the branch. DO NOT use back and forth sawing action.

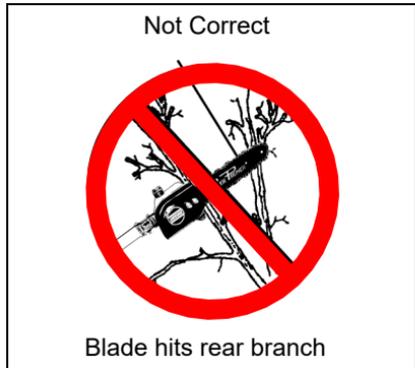


- Look out for branches immediately behind the branch being cut. If saw chain hits a rear branch damage to the saw chain and guide bar may occur.



- Accelerate to full speed.

- Ease cutting pressure when nearing end of cut to maintain control.



- When pruning a limb 102 mm (4 in.) diameter or larger cut as follows:
 1. Under cut 1/4 limb diameter near tree trunk.
 2. Finish top cut slightly farther out on limb.
 3. Flush cut stub at trunk.
- DO NOT use for felling or bucking.

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](http://www.echo-usa.com/products/maintenance-kit) or go to <http://www.echo-usa.com/products/maintenance-kit>

Maintenance Intervals

| COMPONENT/SYSTEM | MAINTENANCE PROCEDURE | SKILL LEVEL |
|---------------------------------|----------------------------------|-------------|
| Daily or Before Use | | |
| Battery / Battery Compartment | Inspect / Clean / Charge | 1 |
| Screws/Nuts/Bolts | Inspect/Tighten/Replace* | 1 |
| Guide Bar/Sprocket Nose | Inspect/Clean/Lubricate* | 2 |
| Saw Chain | Inspect/Sharpen/Replace/Tension* | 2 |
| Drive Shaft (Flex Cable Models) | Grease ¹ | 2 |

MAINTENANCE PROCEDURE NOTES:

¹ Apply lithium based grease every 25 hours of 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.

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

WARNING

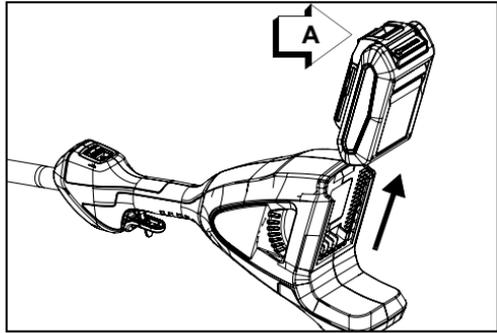
Remove battery before performing maintenance procedures.

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.

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



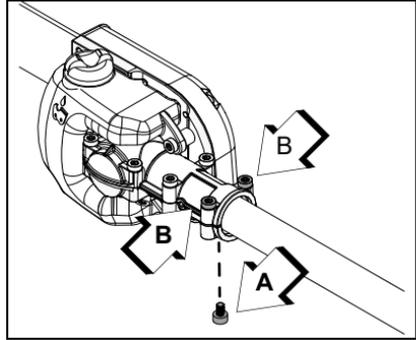
Lubrication

Drive Shaft

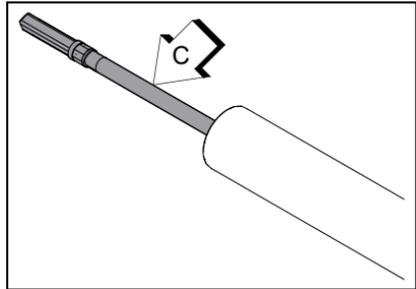
Level 1.

Parts required: Lithium Based Grease.

1. Remove cutting attachment locater screw (A).
2. Loosen two bolts (B).
3. Remove cutting attachment assembly.



4. Remove flex cable (C), wipe clean and apply 15 ml (0.5 oz.) of lithium based grease.
5. Slide the flexible cable back in the drive housing. DO NOT get dirt on the flex cable.
6. Install and secure cutting attachment assembly.



Guide Bar and Saw Chain Replacement

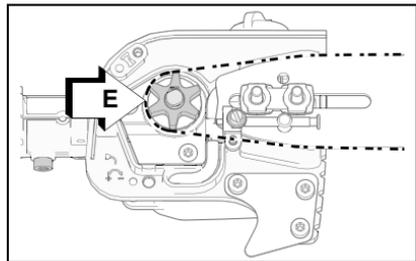
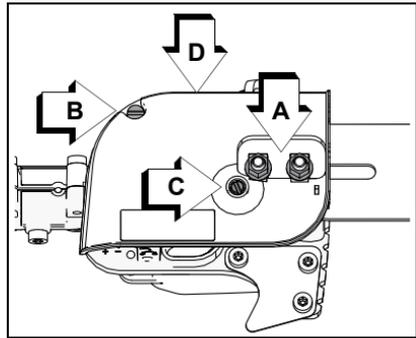
! WARNING

Always remove battery before servicing guide bar and saw chain. This saw chain is VERY sharp, wear heavy gloves to protect your hands when handling it. Wear eye protection meeting CE or ANSI specification Z87.1.

Guide Bar Replacement

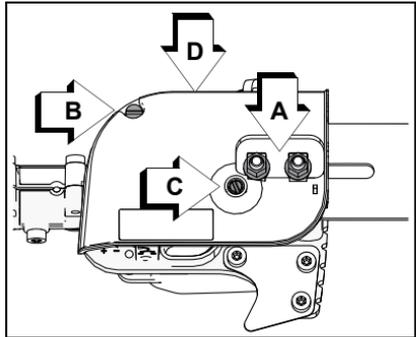
Level 2.

1. Remove two guide bar nuts (A) and guide bar cover screw (B), turn saw chain tension adjustment screw (C) counterclockwise to release tension.
2. Remove guide bar cover (D).
3. Remove guide bar and saw chain from gear case and sprocket.
4. Remove chain from guide bar and check guide bar for damage and excessive or uneven wear. Replace guide bar if necessary
5. Install chain on guide bar with cutters on top of bar facing toward bar tip.
6. Install guide bar and chain on gear case, engaging chain with drive sprocket (E).
7. Turn tension adjustment screw (C) clockwise to take up slack in saw chain.
8. Install guide bar cover (D), and tighten guide bar nuts finger tight and install guide bar cover screw (B).
9. Adjust chain tension.

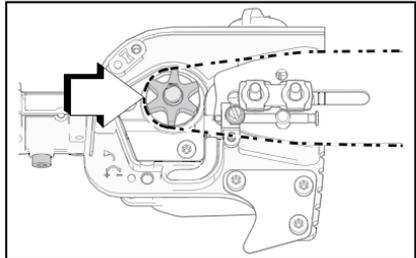


Guide Bar Cover Cleaning

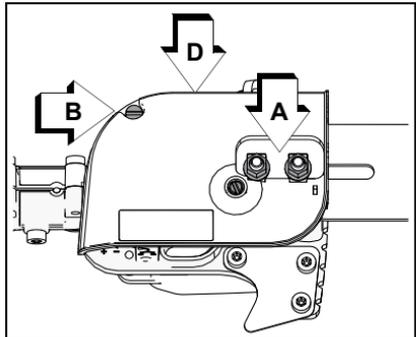
1. Remove two guide bar nuts (A) and guide bar cover screw (B).
2. Remove guide bar cover (D).



3. Gently brush debris from inside guide bar cover and from around sprocket.



4. Hold the bar nose up. Install guide bar cover (D). Install the guide bar nuts (A). Tighten the rear nut first, then tighten the front nut. Install and tighten the guide bar cover screw (B)



Filing Standard Saw Chain

Level 2

| Power Pruner® Bar and Chain Combinations | | | | | |
|--|-----------|------------|-------|-----------|-----------|
| BAR P/N | CHAIN P/N | CHAIN TYPE | LINKS | PITCH | GAUGE |
| 254 mm (10 in.) narrow bar P/N 10A4CD3246 | 80TXL46CQ | 80 | 46 | 0.325 in. | 0.043 in. |

NOTICE

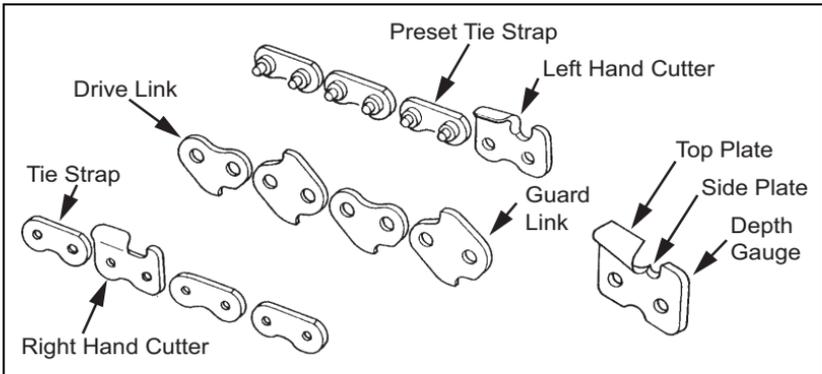
Check bar part number on your Power Pruner. Chain and guide bar gauge size must be identical. Use bar and chain combinations shown in table above.

NOTICE

Dull or damaged cutters will result in poor cutting performance, increased vibration, and premature saw chain failure.

WARNING

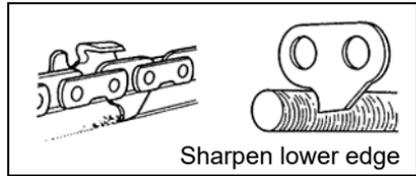
Always stop unit and remove battery before servicing guide bar and saw chain. Always wear gloves when filing saw chain, otherwise serious personal injury may result.



Important points for proper maintenance of saw chain:

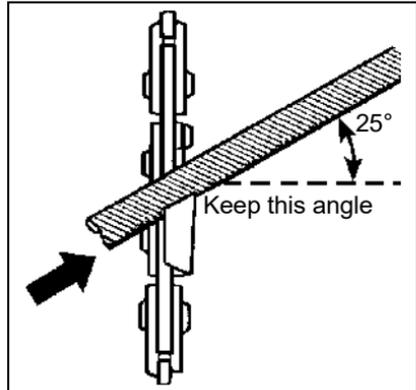
- Keep the cutters sharp at all times.
- Keep the left and the right cutters properly aligned.

- Drive link serves to remove sawdust from the groove of the guide bar. Keep the lower edge of the drive link sharp where indicated.

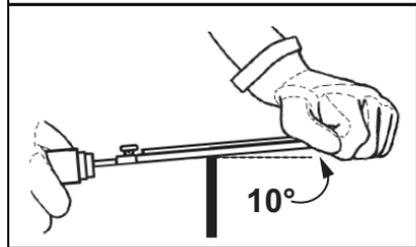


Setting the Saw Chain

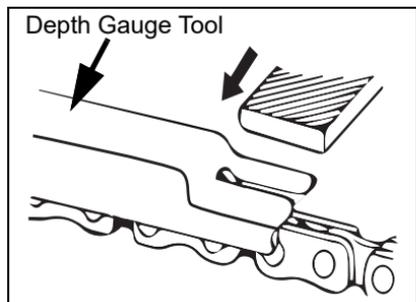
- For setting saw chain, round file (5/32 in. diameter) and flat file are used.
- Push file as shown.
- To keep correct position and correct angle, use a file holder.



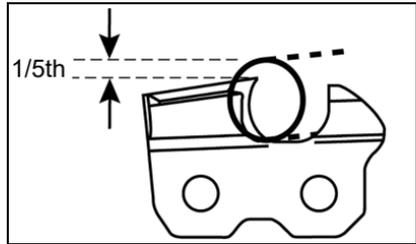
- Hold the file at a 10° angle as shown..



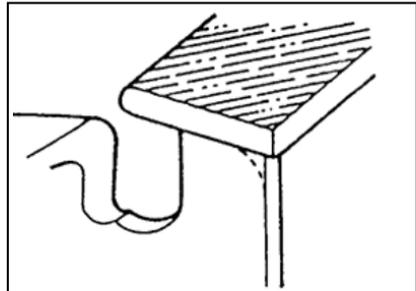
- Place depth gauge tool firmly on guide bar so that depth gauge protrudes. Then file top of depth gauge with the flat file until flat with top of the depth gauge tool.



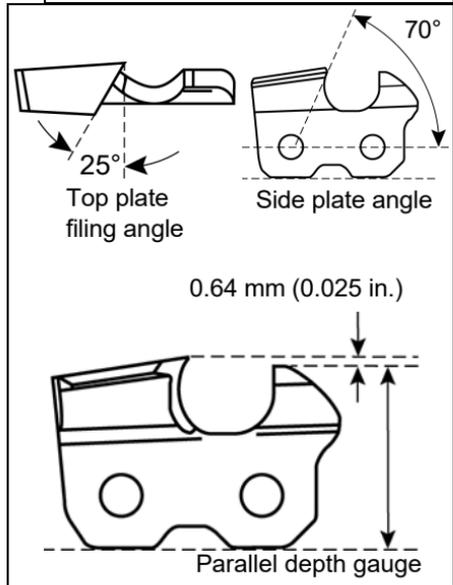
- Be sure 1/5th of the file diameter remains above cutter edge.



- Be sure to round off the front edge of the depth gauge.



- Properly filed cutters are shown in illustration.
- When setting of the chain is finished, soak it in oil and wash away filings completely before using.
- When chain has been filed on the bar, supply sufficient oil to it, move the chain slowly to wash away the filings before using again.
- If the chain saw is operated with filings clogged in the groove, the saw chain and the guide bar will be damaged prematurely.
- If the saw chain becomes soiled with resin, for instance, clean it with kerosene and soak in it oil.



NOTICE

To sharpen other chains, follow chain manufacturer's instructions.

TROUBLESHOOTING

| Trouble | Cause | Solution |
|--|--|---|
| Red Charger LED flashes or does not light up | Plug not connected to power outlet | Plug in the charger |
| | Battery not installed properly | Check the battery installation |
| | Obstructed connection | Reinstall battery again after remove obstructions from connection |
| | Fault in the charger | Consult your dealer |
| | Fault in the battery | Consult your dealer |
| Unit will not turn on | Battery not installed properly | Check the battery installation |
| Unit does not run when turned on | Battery discharged | Charge the battery |
| | Battery outside acceptable temperature range | Remove the battery and allow to cool |
| Running time is too short | Battery outside acceptable temperature range | Remove the battery and allow to cool |
| | Unit electronics too hot | Turn unit off and allow to cool |
| | Battery discharged | Charge the battery |

Checking and maintenance requires specialist knowledge. If you are unable to check and maintain the product or deal with a fault yourself, consult your dealer. Do not attempt to dismantle the product. Consult your dealer in the event of a problem that is not covered in the table above, or other such concerns. For spare parts and consumables, please use only genuine parts and designated products and components. Using parts from other manufacturers or non-designated components may result in a malfunction.

STORAGE

Storage



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.

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.

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

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

Disposal



Major plastic parts making up the product have codes showing their materials. The codes refer to the following materials; dispose of those plastic parts in accordance with local regulations.

Materials

| Mark | Material |
|----------|-----------------------------|
| >PA6-GF< | Nylon 6 - Glass fiber |
| >PP-GF< | Polypropylene - Glass fiber |
| >PE-HD< | Polyethylene |
| >PP< | Polypropylene |

- Battery contains lithium. Dispose of only at a designated collection point.
- Lithium-ion batteries must be disposed of properly.
- Please contact your dealer in case you do not know how to dispose of or recycle waste plastic parts.

SPECIFICATIONS

| MODEL | DPPF-2100 |
|--|--|
| Length | 2163 mm (85 in.) |
| Width | 104 mm (4 in.) |
| Height | 219 mm (9 in.) |
| Weight (without battery) | 5.3 kg (12 lb.) |
| | |
| Battery | ECHO eFORCE® 56V series batteries |
| Type | Li-Ion |
| Battery voltage | 56 (rated 50.4) |
| Capacity | See Battery Manual |
| Charger type | ECHO eFORCE® 56V series charger |
| Charger input voltage | 120V AC 60Hz |
| Charging time | See Battery Manual |
| | |
| Operating Rod | 25.4mm (1 in.) steel tube |
| Drive Shaft | 6.15 mm (0.25 in.) flexible shaft |
| Guide Bar | 0.043" Gauge, sprocket nose, 10" |
| Saw Chain | 80-TXL (.325" pitch, low profile) |
| Motor Type | DC / Brushless |
| Speed | 9400 -9800 RPM |
| Speed control | Variable, 2 speed modes |
| Gear Case Ratio | 1.53 |
| Lubrication | Lithium based grease |
| Charger Lights ○ OFF ◐ Green blinking ○ OFF ● Green ● Red ○ OFF ◐ Red blinking ○ OFF | Green blinking - battery is charging |
| | Green - battery is fully charged |
| | Red - Battery is too warm. Remove for approximately 30 minutes to cool down |
| | Red blinking - Defective battery. Remove and replace with new battery |

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 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).

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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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ECHO INCORPORATED

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www.echo-usa.com