



# Operator's Manual 99944200545 Pro-Torque™ Trimmer Attachment

FOR MODELS: SRM-2100SB, 2400SB, 210SB, 211SB, 225SB, 260SB,  
261SB

PAS-2100, 2400, 2601, 210, 211, 225, 225VP, 225VPB, 230, 231, 260, 261,  
265, 266, 280

DPAS-2100/SB, 2600/SB

## **WARNING**



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

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## INTRODUCTION

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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>



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## SERVICING INFORMATION

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### 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](http://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](http://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

### Manual Safety Symbols and Important Information

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

#### **DANGER**

*The safety alert symbol accompanied by the word “DANGER” calls attention to an act or condition which WILL lead to serious personal injury or death if not avoided.*

#### **WARNING**

*The safety alert symbol accompanied by the word “WARNING” calls attention to an act or condition which CAN lead to serious personal injury or death if not avoided.*

#### **CAUTION**

*The safety alert symbol accompanied by the word “CAUTION” calls attention to an act or condition which might lead to minor or moderate personal injury if not avoided.*

#### **NOTICE**

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

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



#### **CIRCLE AND SLASH SYMBOL**

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

**International Symbols**

Symbol	Description	Symbol	Description
	Warning, see Operator's Manual.		Safety / Alert
	Wear eye, ear and head protection.	 	Finger severing.
	Wear hand and foot protection.		Rotating cutting attachment.
	Wear face shield.		Wear slip-resistant footwear.
	Keep feet away from blade.	 15 M - 50 FT	Do not operate closer than 15 m (50 ft.) from electrical hazards. Keep bystanders at least 15 m (50 ft.) away.
	DO NOT USE BLADES - line head only.	 	Beware of thrown objects.
	Hot surface		Plan retreat path from falling objects.

Symbol	Description	Symbol	Description
	DO NOT USE LINE HEAD - blades only.		Do not cut branches overhead.
		Keep bystanders and helpers away 15 m (50 ft.).	
		Beware thrown objects. Wear eye protection.	
		Keep bystanders and helpers away 15 m (50 ft.).	

**Personal Condition and Safety Equipment**

**⚠ WARNING**

*Cancer and Reproductive Harm*  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

**⚠ WARNING**



*The muffler or catalytic muffler and surrounding cover may become extremely hot. If unit is equipped with muffler, always keep clear of exhaust and muffler area, otherwise serious personal injury might occur.*

**⚠ WARNING**

*Users of this product risk injury to themselves and others if the unit is used improperly and/or safety precautions are not followed. Proper clothing and safety gear must be worn when operating unit.*

## Physical Condition

Your judgment and physical dexterity may not be good:

- If you are 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 that meets ANSI Z87.1 or CE requirements must be worn whenever you operate the unit.**
- ◆ **For additional safety, a full-face shield can be worn over safety glasses or goggles to provide protection from sharp branches or flying debris.**

## Hand Protection

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.

## Hearing and Ear Protection

ECHO recommends wearing personal protective equipment whenever unit is used.

## Breathing Protection

Operators who are sensitive to dust or other common airborne allergens may need to wear a dust mask to prevent inhaling these materials while operating unit. Dust masks can provide protection against dust, plant debris, and other plant matter such as pollen. Make sure the mask does not impair your vision, and replace the mask as needed to prevent air restrictions.

## 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.
- DO NOT WEAR OPEN TOED SHOES.
- DO NOT OPERATE UNIT WITH BARE FEET.

Keep long hair away from engine and air intake. Retain hair with cap or net.

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.

## WARNING

***The components of this machine generate an electromagnetic field during operation, which can interfere with some pacemakers. To reduce the risk of serious or fatal injury, persons with pacemakers should consult with their physician and the pacemaker manufacturer before operating this machine. In the absence of such information, ECHO does not recommend the use of this machine by anyone who has a pacemaker.***

### Extended Operation and Extreme Conditions

## CAUTION

***Prolonged exposure to cold and/or vibration can result in injury. Read and follow all safety and operation instructions to minimize risk of injury. Failure to follow instructions can result in painful wrist/hand/arm injuries.***

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.

- Maintain 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 unit 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 (RSI)

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 and force with which you do the repetitive movement.
- Do exercises to strengthen the hand and arm muscles.
- Immediately stop using all power equipment and consult a doctor if you feel tingling, numbness, 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.



 **DANGER**

***All over head electrical conductors and communications wires can have electricity flow with high voltages. This unit is not insulated against electrical current. Never touch wires directly or indirectly, otherwise serious injury or death can result.***

 **DANGER**

***Do not operate gas-powered products indoors or in inadequately ventilated areas. Engine exhaust contains poisonous emissions and can cause serious injury or death.***

### **Read the Manuals**

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

### **Clear The Work Area**

- Always clear the work area of foreign objects such as rocks, broken glass, nails, wire, or string,, and check for any hidden hazards. Spectators and fellow workers must be warned, and children and animals prevented from coming nearer than 50 ft. (15 m) while the unit is in use.
- Outside the 15 m (50 ft) zone, there is still a risk of injury from thrown objects.
- Bystanders should be encouraged to wear eye protection.
- If you are approached, stop the engine and cutting attachment.

### **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 overreach.
- Keep cutting attachment below waist.
- Keep all body parts away from rotating cutting attachment.

## Avoid Hot Surfaces

- During operation, the drive shaft housing and attachment bearing housing may become very hot, too hot to touch. Avoid contact during and immediately after operation.



## Equipment

### **WARNING**

***Use this attachment with ECHO approved models only. Serious injury may result from the use of this attachment combined with a non approved ECHO product.***

- ◆ Check unit for loose/missing nuts, bolts, and screws. Tighten and/or replace as needed.
- ◆ Inspect shield for damage and ensure that the cut-off knife is securely in place. Replace if either is damaged or missing.
- ◆ Check that the cutting attachment is firmly attached and in safe operating condition.

Note: ECHO, INC. will not be responsible for the failure of cutting devices, attachments or accessories which have not been tested and approved by ECHO.

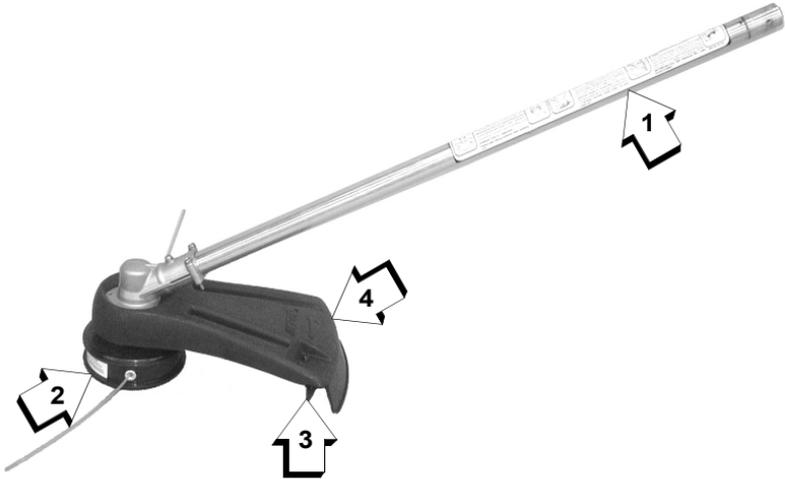
### **WARNING**

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

- ◆ ***ALWAYS stop unit, disconnect spark plug or remove battery, 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.***

# DESCRIPTION

Locate the 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



<b>⚠ WARNING</b> To reduce the risk of injury, user must read operator's manual	<b>⚠ ADVERTENCIA</b> Para reducir el riesgo de lesiones, el usuario debe leer el manual del operador	<b>⚠ AVERTISSEMENT</b> Pour réduire le risque de blessure, l'utilisateur doit lire le manuel d'utilisation
 <small>X505011920</small>		

1. Drive shaft assembly
2. Nylon cutting attachment
3. Cut-off knife
4. Debris shield with cut-off knife

## 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 PAS Trimmer Attachment
- 1 Operator's Manual
- 1 Warranty Statement
- 1 Storage Hook Assembly

## ASSEMBLY

### Power Head Shaft to Lower Shaft Assembly

#### **WARNING**

***Do not perform maintenance or assembly procedures with unit running.***

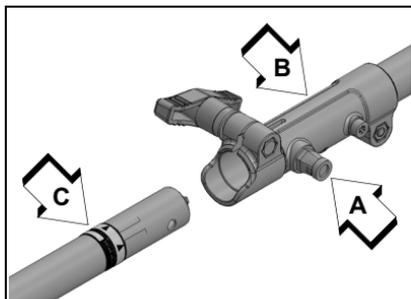
1. Set Power Head/Shaft Assembly on a level surface.
2. Pull locator pin (A) out, and turn counterclockwise one-quarter turn to lock-out position.
3. Remove storage hook and cap from attachment drive shaft.

Note: Your coupler may appear different than coupler shown. Earlier model power heads may have shorter couplers.

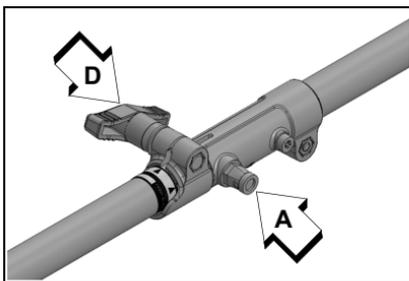
4. Carefully fit attachment drive shaft assembly into coupler (B). Rotate the shaft (C) to make sure the inner lower drive shaft engages the square upper drive shaft socket.

Note: Lower bearing housing and head assembly must be in line with the engine.

Note: Some models have an assembly line decal to assist in assembly.



- Rotate locator pin (A) one-quarter turn clockwise to engage lower shaft hole. Make sure locator pin is fully engaged by rotating the lower drive shaft. Locator pin should snap flush in coupler. Full engagement will prevent further shaft rotation.
- Secure lower shaft assembly to coupler by tightening clamping knob (D).



## OPERATION

### **! WARNING**

***Moving parts can amputate fingers or cause severe injuries. Keep hands, clothing and loose objects away from all openings. Always stop unit, disconnect spark plug or remove battery, and make sure all moving parts have come to a complete stop before removing obstructions, clearing debris, or servicing unit.***

Note: Refer to your PAS power source Operator's Manuals for starting and stopping instructions.

### Applications

### **! WARNING**

***Always hold throttle handle with right hand and support handle with left hand, placing unit on right side of body.***

### Operating Techniques - Nylon Line Head

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

### **NOTICE**

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

## Trimming

Tilt the cutting head down on the right side while cutting to direct cutting debris away from operator. Feed the line gradually into the material you wish to cut, avoiding contact with fences or other barriers.

## Scything

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

## Edging and Scalping

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

## General

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

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**MAINTENANCE**

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 **WARNING**

***Moving parts can amputate fingers or cause severe injuries. Keep hands, clothing and loose objects away from all openings. Always stop unit, disconnect spark plug or remove battery, and make sure all moving parts have come to a complete stop before removing obstructions, clearing debris, or servicing unit. Allow the unit to cool before performing maintenance or adjustments. 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.

**NOTICE**

***The use of emission control components other than those specifically designed for this unit is a violation of federal law.***

**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>

or

[HERE https://www.shindaiwa-usa.com/you-can.aspx](https://www.shindaiwa-usa.com/you-can.aspx)

**Maintenance Intervals**

Component/ System	Maintenance Procedure	Skill Level	Interval
Drive Shaft	Grease <sup>1</sup>	1	Every 25 hours of use
Gear Housing			Every 50 hours of use
Screws/Nuts/ Bolts	Inspect/Tighten/ Replace		Before Each Use

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

**MAINTENANCE PROCEDURE NOTES:**

1 Apply lithium based grease.

**Lubrication**

**Level 1.**

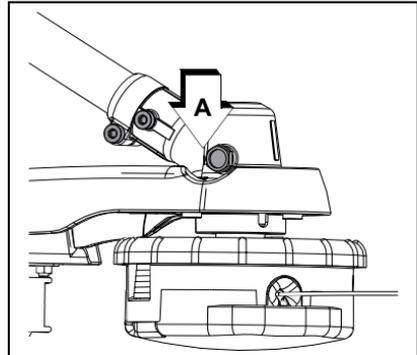
Parts Required: Lithium-based Grease.

**Gear Case**

**NOTICE**

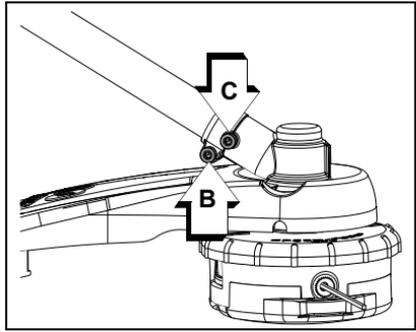
*Gear cases without grease plug (A) do not require lubrication.*

1. Clean all loose debris from gear case.
2. Remove plug (A) and check level of grease.
3. Add grease if necessary. DO NOT over-fill.

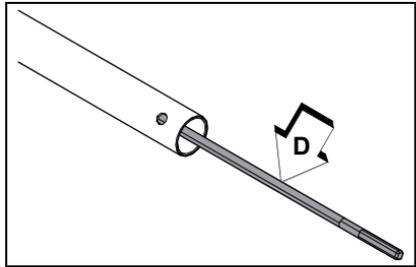


Drive Shaft (Lower)

1. Loosen screw (B) and remove locating screw (C). Pull gear case and shield from drive shaft housing.
2. Pull flexible cable (D) from the drive shaft housing, wipe clean and re-coat with 15 ml (0.5 oz.) of grease.



3. Slide the flexible cable (D) back in the drive housing. DO NOT get dirt on the flex cable.
4. Install the gear housing and shield assembly.



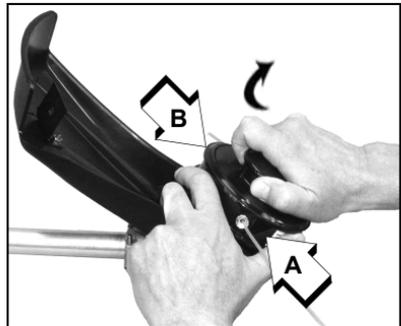
Nylon Line Replacement

**! CAUTION**

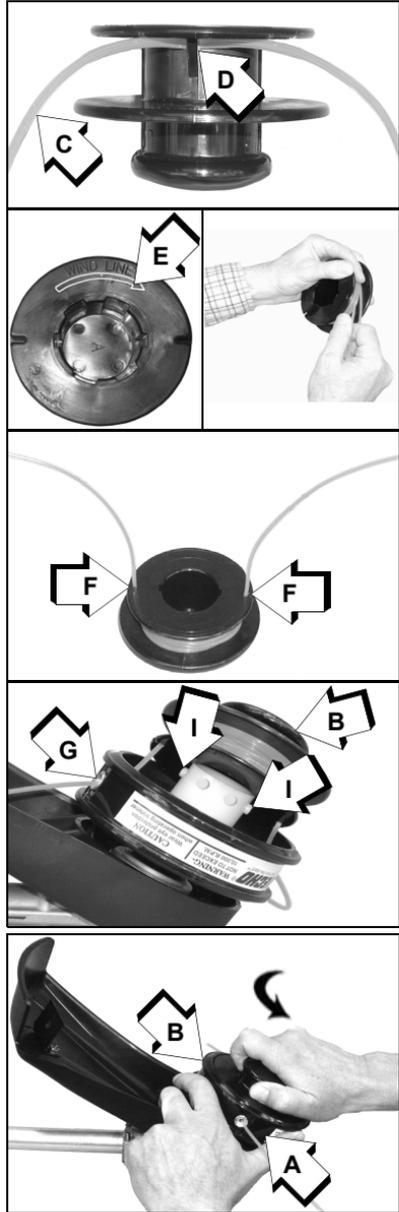
*Wear Gloves or personal injury may result:*

- ◆ *Cutoff knife is sharp.*
- ◆ *Gearcase and surrounding area may be hot.*

1. Do not push spool in. Hold drum (A) and turn spool (B) clockwise until peg clicks and disappears from hole. Pull spool out of drum.



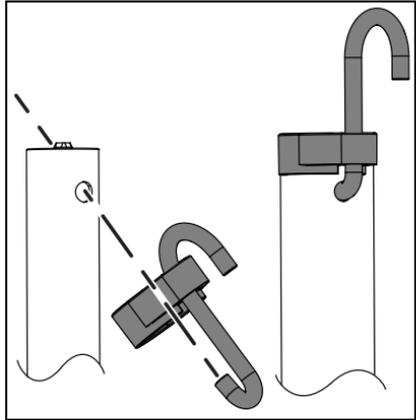
2. Use one piece of new nylon line (C) 6 m (20 ft.) long and thread through the molded loop (D) on the spool. Pull line tight and adjust so one end is 15 cm (6 in.) longer than the other.
3. Hold the spool, opening toward you. Place index finger between the two strands and wind line, tightly and evenly, in direction of arrow (E).
4. Place ends of line into notches (F) in spool, leaving 6 in. protruding.
5. Feed ends of line outward through eyelets (G) in drum.
6. Align grooves in spool with pegs (I), and push spool (B), into drum.
7. Hold spool and drum securely with one hand, and pull each line to disengage from notches.
8. Hold drum (A) and turn spool (B) counterclockwise until peg clicks into hole.
9. Trim lines to 8 in. length.



# STORAGE

## Storage Hook Installation

1. Insert small end of hook into locating hole on attachment shaft.
2. Slide plastic cap onto end of attachment shaft.



## SPECIFICATIONS

MODEL	99944200545
Shaft Length	838 mm (32.99 in.)
Attachment Width	177 mm (6.97 in.)
Attachment Height	241 mm (9.49 in.)
Weight (dry) w/line head	1.18 kg (2.6 lb.)
Drive Shaft	6.35 mm (1/4") Flex Shaft
Direction of Rotation	Counterclockwise viewed from the top
Gear Case Ratio	2.07:1
Cutter Head	Nylon line head with 095 in. line
Line Capacity	6 m (20 ft.)

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## PRODUCT REGISTRATION

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### 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**

400 Oakwood Road  
Lake Zurich, IL 60047

[www.echo-usa.com](http://www.echo-usa.com)