

99944200545 Pro-TorqueTM 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

Operator's Manual

WARNING



Read and understand operator's manual (and safety manual if included) before use. Failure to read the manuals could result in serious injury.

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.

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INTRODUCTION

This product was designed and manufactured to provide long life and onthe-job dependability. Read and understand all provided literature. Keep manuals in a safe place for future reference. Literature contains specifications and information for safety, operation, maintenance, storage and assembly specific to this product. Scan QR codes for more information.

For questions regarding terms used in this manual, visit:

https://www.echo-usa.com/Support-Help/Technical-Documents

OR

https://www.shindaiwa-usa.com/Tech-Support/Technical-Documents



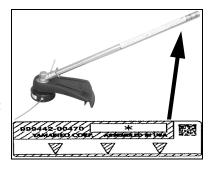


SERVICING INFORMATION

Parts/Serial Number

Genuine ECHO Parts and Assemblies for your ECHO products are available only from an Authorized ECHO Dealer. When you do need to buy parts always have the Model Number and Serial Number of the unit with you. For future reference write them in the space provided below.

Model No.	
Serial No.	



Service

Service of this product during the warranty period must be performed by an Authorized ECHO Service Dealer. For the name and address of the Authorized ECHO Service Dealer nearest you, ask your retailer or call: 1-800-432-ECHO (3246). Dealer information is also available on our Web Site www.echo-usa.com. When presenting your unit for Warranty service/repairs, proof of purchase is required.



SAFETY 99944200545

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 1-800-673-1558 from 8:00 am to 5:00 pm (Central Standard Time) Monday through Friday. Before calling, please know the model and serial number of your unit.

Product Registration

Register your ECHO equipment on-line 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 or Replacement Manuals

Replacement Manuals and Parts Catalogs, are available from your Authorized ECHO Service Dealer, or at www.echo-usa.com, or by contacting ECHO Inc., 400 Oakwood Road, Lake Zurich, IL 60047 (800-673-1558). Always check www.echo-usa.com for updated information.



Safety Videos are available from your Authorized ECHO Service Dealer. A \$5.00 shipping charge is required for each video.

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.

A 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.

MECHO.

A CAUTION

The safety alert symbol accompanied by the word "CAUTION" calls attention to an act or condition which may 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	\triangle	Safety / Alert
	Wear Eye, Ear and Head Protection		Finger Severing
	Wear Hand and Foot Protection		Rotating Cutting Attachment
	Wear Face Shield	بلا	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

SAFETY 99944200545

Symbol	Description	Symbol	Description
DO NOT USE BLADES - Line Head Only			Thrown Objects
Plan retreat path from falling objects.		<u>M</u>	Hot Surface
		Keep Bystan	CICKOUT ders At Least ft.) Away
		Beware Thrown Objects Wear Eye Protection	
1 amilion		Keep Bystanders and Helpers Away 15 m (50 ft.)	

Personal Condition and Safety Equipment

WARNING

Cancer and Reproductive Harm www.P65Warnings.ca.gov

WARNING





The muffler or catalytic muffler and surrounding cover may become extremely hot. Always keep clear of exhaust and muffler area, otherwise serious personal injury may 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

WARNING

- ◆ 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 may 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/Ear Protection

ECHO recommends wearing hearing protection 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.



SAFETY 99944200545

 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 BAREFOOTED.

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 may 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.

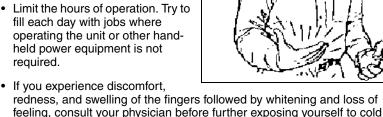
Extended Operation / Extreme Conditions

A CAUTION

Prolonged exposure to cold and/or vibration may result in injury. Read and follow all safety and operation instructions to minimize risk of injury. Failure to follow instructions may 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.

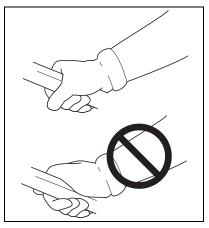
- Keep your body warm, especially the head, neck, feet, ankles, hands, and wrists.
- Maintain good blood circulation by performing vigorous arm exercises during frequent work breaks, and also by not smoking.
- · Limit the hours of operation. Try to fill each day with jobs where operating the unit or other handheld power equipment is not required.



Repetitive Stress Injuries (RSI)

and vibration.

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.

A 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 may result.

▲ DANGER

Do not operate this product 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 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.



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 that shield is securely in place. Replace if shield 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.

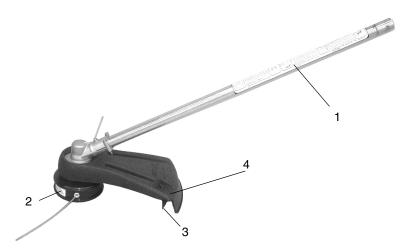
A WARNING

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

- ALWAYS stop engine, disconnect spark plug, 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 engine is running.
 Moving parts may not be visible through openings.

DESCRIPTION

Locate the safety decal(s) on your unit. Make sure the decal(s) is legible and that you understand and follow the instructions on it. If a decal cannot be read, a new one can be ordered from your ECHO dealer.



Shaft Label



- DRIVE SHAFT ASSEMBLY Contains a specially designed liner and the flexible drive shaft.
- 2. **NYLON CUTTING ATTACHMENT** Contains replaceable nylon trimming line that advances when the trimmer head is tapped against the ground while the head is turning at normal operating speed.
- CUT-OFF KNIFE Automatically trims line to the correct length after head is tapped on the ground. If trimmer is operated without a cut-off knife the line will become too long, the engine will overheat, and engine damage may occur.
- DEBRIS SHIELD with CUT-OFF KNIFE Required when unit is equipped with nylon line head. Do not operate unit without shield.

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 Sheet
- ____ 1 Storage Hook Assembly

ASSEMBLY

Power Head Shaft to Lower Shaft Assembly

WARNING

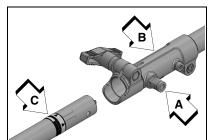
Do not perform maintenance or assembly procedures with engine running.

Parts Required: PAS or SRM-SB Power Head Shaft and Coupling

- 1. Set Power Head/Shaft Assembly on a level surface.
- Pull locater pin (A) out, and turn counter-clockwise ¼ turn to lock-out position.
- 3. Remove vinyl cap from attachment drive shaft.
- 4. Remove cardboard spacer, if necessary.

Note: Your coupler may appear different than coupler shown.

 Carefully fit attachment drive shaft assembly into coupler (B) to decal assembly line (C), making sure that the inner lower drive shaft engages the square upper drive shaft socket.

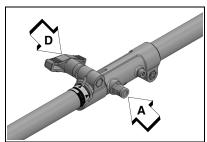




Note: Earlier model power heads may have shorter couplings.

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

- Rotate locater pin (A) ¼ turn clockwise to engage lower shaft hole. Insure locater pin is fully engaged by twisting lower drive shaft. Locater 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 engine, disconnect spark plug, 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 correct engine fueling, starting and stopping instructions.

To Advance Trimmer Line (Automatic Line Head Models)

See Maintenance Section for nylon line replacement.

To advance trimmer line, tap trimmer head against the ground while the head is turning at normal operating speed.

MAINTENANCE

WARNING

Moving parts can amputate fingers or cause severe injuries. Keep hands, clothing and loose objects away from all openings. Always stop engine, disconnect spark plug, 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 may result.

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

Skill Levels

Level 1 = Easy to do. Common tools may be required.

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

Level 3 = See your dealer.

Click HERE or go to http://www.echo-usa.com/products/maintenance-kit or

HERE https://www.shindaiwa-usa.com/you-can.aspx

For information about maintenance kits.

Maintenance Intervals

Component/ System	Maintenance Procedure	Skill Level	Interval
Drive Shaft	Grease		Every 25 hours of use ¹
Gear Housing	Grease	1	Every 50 hours of use ¹
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.

1. Apply lithium based grease.

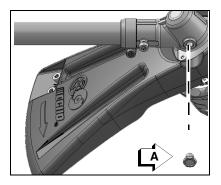
Lubrication

Level 1.

Parts Required: Lithium Based Grease.

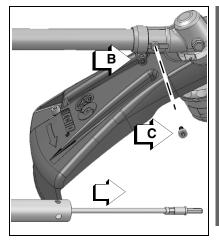
Gear Housing

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



Drive Shaft (Lower)

- Loosen screw (B) and remove locating screw (C). Pull gear case and shield from drive shaft housing.
- Pull flexible cable from the drive shaft housing, wipe clean and re-coat with 15 ml (0.5 oz.) of grease.
- Slide the flexible cable back in the drive housing. DO NOT get dirt on the flex cable.
- 4. Install the gear housing and shield assembly.



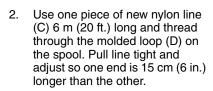
Nylon Line Replacement

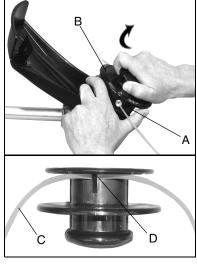
A CAUTION

Wear Gloves or personal injury may result:

- ◆ Cutoff knife is sharp.
- Gearcase and surrounding area may be hot.
- Do not push spool in. Hold drum

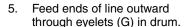
 (A) and turn spool (B) clockwise until peg clicks and disappears from hole. Pull spool out of drum.



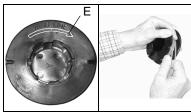


- Hold the spool, opening toward you. Place index finger between the two strands and wind line, tightly and evenly, in direction of arrow (E).
- Place ends of line into notches

 (F) in spool, leaving 6 in.
 protruding.

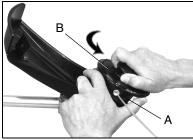


- Align grooves in spool with pegs (I), and push spool (B), into drum.
- 7. Hold spool and drum securely with one hand, and pull each line to disengage from notches.
- 8. Hold drum (A) and turn spool (B) counterclockwise until peg clicks into hole.
- 9. Trim lines to 8 in. length.





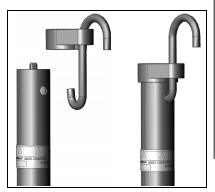




STORAGE

Storage Hook Installation

- 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 (¼") 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.)

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, Inc. 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 Inc., Product Registration, PO Box 1139, Lake Zurich IL 60047.



$/\!\!/\!\!/\!\!/$ Product registration card : Tarjeta de registro : carte d'enregistrement du produit

ONLINE OPTION: Register online and save a stamp! You will be alerted of product updates and/or be sent new ECHO product information and special offers. Simply go to: www.ecflo-usa.com

ahorre una estampilla! Le alertaran sobre actualizaciones del producto y/o se le enviara información sobre los nuevos pro-ductos ECHO y las ofertas especiales. Simplemente visite: Registrese en la pagina web www echo-usa com OPCIÓN POR INTERNET:

OPTION EN LIGNE: Enregistrer en ligne et épargner un finnnel Vous serez, informé sur les nouveaux produits ECHO et les mises à jour de produit ainsi que les offres spéciales. Simplement visitez le: www.echo-usa.com

arré S.V.P.	Confidential: Information provided will not be shared or sold
	Primary use of tool: ☐Professional ☐ Homeowner ☐ Rental Equip. Uso primario de la herramienta:☐Professional ☐ Dueño de casa ☐ Alquiler
	Usage principal : Professionnel Residential Location

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	Uso primario de la herramienta: ☐Profesional ☐ Dueño de casa ☐ Alquiler
	Usage principal : Professionnel Residential Location
	Do you wish to receive periodic ECHO product information and special offers
	by e-mail? ☐ Yes ☐ No
	¿Desea usted recibir información periódica y ofertas especiales por correo elec-
	tronico sobre el producto ECHO? Tyes No
	Souhaitez-vous recevoir périodiquement de l'information sur les produits
Postal	ECHO et les offres spéciales par courrier électronique ? Oui Non
	Did you visit the ECHO website before purchasing your product? ☐ Yes ☐ No
	Visitó usted la pagina web ECHO antes de comprar su producto?
	Avez-vous visité le site d'ECHO avant de procurer votre produit?

Zip Code : Código Postal : Code

State: Estado:

City: Ciudad: Ville

Address : Dirección : Adresse

Province

E-Mail Address : Dirección De Correo Electrónico : Courrier Electronique

	i .	
Date of Purchase : Fecha de la Compra :	What factor(s) most	What factor(s) most influenced your purchase?
Date de l'achat	☐ Performance	□ Price □ [
	☐ Reliability	☐ Prior Experience ☐ (
	☐ Friend/Family	Brand
ado : Lieu d'achat	¿Qué factor(es) inf	s en su com

Phone Number : Número De Teléfono : Téléphone

■ Performance	Price
☐ Reliability	☐ Prior Experie
☐ Friend/Family	Brand
¿Qué factor(es) infl	uenció más en su
☐ Funcionamiento ☐ Precio	☐ Precio
☐ Confiabilidad	Experiencia An
☐ Amigo/Familia	Marca

Where Purchased : Nombre del Almacén donde fue Comprado : Lieu d'achat

☐ Distribuidor ■ Warranty

Calidad

terior

☐ Quality ☐ Dealer

☐ Garantía

blus?			
No. de série Quel facteur (facteurs) vous a influencé le plus?	Prix	■ Expérience	☐ Marque
Quel facteur (facte	□ Performance	☐ Fiabilité	☐ Ami/Famille
No. de série	_		and verifies your

Serie:

Serial Number : Numero de

Model Number: Numero del Modelo: No. de modéle

☐ Marchand ☐ Qualité

Garantie

1,800,432,ECHO Registering your purchase enables us to contact you in the unlikely event of a service update or product resall and verifies you ownership in the event of loss. It registers us compare not permitte event to some it are to the contact or to take the resor to calculate event come it arise the tempt of service of a revocation del productor y verificación de propiedad en caso de rodo o perdida. L'emegatement de viorte actual nous permetra el evous contracted rises le cas imposible de modifications des instructions de aferite de la propiedar el verifications des instructions de aferite de la production de perfete.

X7572270206 ECHO INC., 400 Oakwood Rd., Lake Zurich, IL 60047 WWW ECHO USA COM

02-2012

lease Print : Por Favor Enscriba Con Letra De Molde : En Lettre C Purchaser's Name : Nombre del Comprador : Nom de l'acheteur

NOTES



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