

Grass Trimmer

Operator's Manual

MODELS

GT-201EZR

Serial Number 02001001 - 02001100



Always keep clear of exhaust and muffler area, otherwise serious personal injury may occur.





The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.





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

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INTRODUCTION

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

WARNING A DANGER



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

THE OPERATOR'S MANUAL

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

THE SAFETY MANUAL

explains possible hazards involved with the use of Grass Trimmers and Brush cutters and what measures you should take to make their use





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Specifications, descriptions and illustrative material in this literature are as accurate as known at the time of publication, but are subject to change without notice. Illustrations may include optional equipment and accessories, and may not include all standard equipment.

Manual Safety Symbols and Important Information

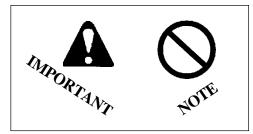
Throughout this manual and on the product itself, you will find safety alerts and helpful, information messages preceded by symbols or key words. The following is an explanation of those symbols and key words and what they mean to you.



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



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



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

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

SAFETY DECALS

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

A.DRIVESHAFT



WARNING A DANGER

•This unit can be dangerous and cause serious injury if improperly used. • Operators, helpers and bystanders can be severely in jured by thrown objects and must wear specified ANSI Z87.1 eye protection. Blindness or loss of eye can occur. Do not rely on cutter head shield to protect eyes. Ricochet can occur. •to avoid accidental contact, keep everyone beyond operating area. •To reduce the risk of injury to operator, helpers & bystanders, read and understand your operator's and safety manuals. For a free copy of the safety Manual, write to ECHO, INCORPORATED, 400 Oakwood Road, Lake Zurich, IL 60047. •Keep shield and other components in place and in good condition. Do not use attachments or other parts not approved by ECHO. GT style (non-blade capable) units must not be converted to blade use except Maxi-Cuts or similar ECHO approved attachments.



B.SPANISHDECAL



ADVERTENCIA A PELIGRO

Esta unidad puede ser peligrosa y producir lesiones personales graves si no se usa en forma adecuada. Para reducir el riesgo de lesionarse, los operadores, los ayudantes y los espectadores deben leer y comprender el Manual Del Operador y los Manuales De Seguridad que se entregan escritos en español.

ENGLISHTRANSLATION



WARNING A DANGER

This unit can be dangerous and cause serious injury if improperly used. To reduce injury risk to operator, helpers and bystanders, read and understand the Operator's and Safety Manuals, which are provided in Spanish.

C.SHIELDDECAL





INTERNATIONAL SYMBOLS

SYMBOL FORM/ SHAPE	SYMBOL DESCRIPTION/APPLICATION	SYMBOL FORM/ SHAPE	SYMBOL DESCRIPTION/APPLICATION
8	Read and understand Operator's Manual.	+	FUEL AND OIL MIXTURE
	WEAR EYES, EARS AND HEAD PROTECTION		FINGER SEVERING
	HOT SURFACE	判	WEAR SLIP RESISTANT FOOT WEAR.
	WEAR HAND AND FOOT PROTECTION		DO NOT SMOKE NEAR FUEL.
A	SAFETY/ALERT		
§ (\$ C)	3 '		DERS AND HELPERS 15 M (50 FT.).

SYMBOL FORM/ SHAPE	SYMBOL DESCRIPTION/APPLICATION	SYMBOL FORM/ SHAPE	SYMBOL DESCRIPTION/APPLICATION
	DO NOT ALLOW FLAMES OR SPARKS NEAR FUEL.	STOP	EMERGENCY STOP
	Engine choke control.	Ignition ON OFF	IGNITION ON/OFF
H■	PRIMER BULB	Η	CARBURETOR ADJUSTMENT - HIGH SPEED MIXTURE
ns 10000/min(rpm)	DO NOT EXCEED 10,000 RPM.	L	CARBURETOR ADJUSTMENT - LOW SPEED MIXTURE
SS	DO NOT OPERATE WITHOUT GUARDS AND SHIELDS IN PLACE.	T	CARBURETOR ADJUSTMENT - IDLE SPEED
TO	DO NOT USE BLADES. STRING LINE ONLY		BEWARE - THROWN, RICOCHET OBJECTS

EQUIPMENT

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

- Check unit for loose/missing nuts, bolts and screws. Tighten and/or replace as needed.
- Inspect fuel lines, tank and area around carburetor for fuel leaks.
 DO NOT operate unit if leaks are found.
- 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.
- Check that front (loop) handle and/or optional shoulder harness are adjusted for safe, comfortable operation. See Assembly for proper adjustment.
- Have repairs done only by an authorized ECHO Service Dealer.
- Do not use any attachment, accessory or replacement part unless it is recommended in the Operator's Manual.







Spark Arrestor - Catalytic Muffler/Muffler

• The muffler or catalytic muffler controls the exhaust noise and emissions. The spark arrestor screen prevents hot, glowing particles of carbon from leaving the muffler. Make sure the spark arrestor screen is in good repair and properly seated in the muffler. Keep exhaust area clear of flammable debris. Avoid contact during and immediately after operation.



FUEL

WARNING A



DANGER

Fuel is **VERY** flammable. Use extreme care when mixing, storing or handling, otherwise serious personal injury may result.

- Use an approved fuel container.
- DO NOT smoke near fuel.
- DO NOT allow flames or sparks near fuel.
- Fuel tanks/cans may be under pressure. Always loosen fuel caps slowly allowing pressure to equalize.
- NEVER refuel a unit when the engine is HOT!
- NEVER refuel a unit with the engine running.
- DO NOT fill fuel tanks indoors. ALWAYS fill fuel tanks outdoors over bare ground.
- Securely tighten fuel cap after refueling.
- Inspect for fuel leakage. If fuel leakage is found, do not start or operate unit until leakage is repaired.

IMPORTANT

Spilled fuel is a leading cause of hydrocarbon emissions. Some states may require the use of automatic fuel shut-off containers to reduce fuel spillage. Contact your ECHO dealer for ordering information.

After Refueling;

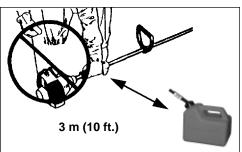
- Wipe any spilled fuel from the unit.
- Move at least 3 m (10 ft.) from refueling location before starting.

After Use;

• DO NOT store a unit with fuel in its tank. Leaks can occur. Return unused fuel to an approved fuel storage container.









PERSONAL CONDITION AND SAFETY EQUIPMENT



Trimmer/Brush Cutter users risk injury to themselves and others if the trimmer/brush cutter is used improperly and or safety precautions are not followed. Proper clothing and safety gear must be worn when operating a trimmer.

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 --

Wear eye protection that meets ANSI Z87.1 or CE requirements whenever you operate the trimmer.

Hand Protection --

Wear no-slip, heavy duty work gloves to improve your grip on the Trimmer/Brush Cutter handles. Gloves also reduce the transmission of machine vibration to your hands.

Hearing Protection --

ECHO recommends wearing hearing protection whenever unit is used.

Proper Clothing --

Wear snug fitting, durable clothing;

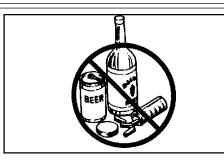
- Pants should have long legs, shirts with long sleeves.
- DONOTWEAR SHORTS,
- DONOTWEARTIES, SCARVES, JEWELRY.

Wear sturdy work shoes with non-skid soles;

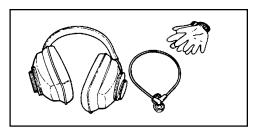
- DONOTWEAR OPEN TOED SHOES,
- DONOTOPERATE UNIT BAREFOOTED.

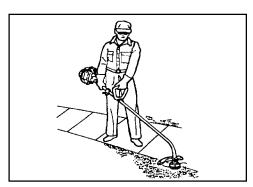
Hot Humid Weather --

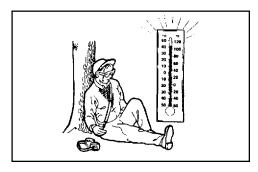
Heavy protective clothing can increase operator fatigue which may lead to heat stroke. Schedule heavy work for early morning or late afternoon hours when temperatures are cooler.











SAFE OPERATION

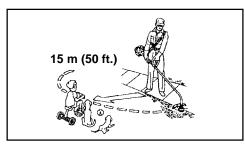
Determine Operation Area

- Provide all operators of this equipment with the Operator's Manual and instructions for safe operation.
- Review the area to be trimmed. Look for hazards that could contribute to unsafe conditions.
- · Spectators and fellow workers must be warned, and children and animals prevented from coming nearer than 15 m (50 ft.) while the trimmer is in use.



Use Proper Clothing & Equipment

• Before starting the unit, equip yourself and any other person working within the 15 m (50 ft.) Safety Zone with the required Protective Equipment and clothing.









Do not operate this product indoors or in inadequately ventilated areas. Engine exhaust contains poisonous emissions and can cause serious injury or death.

Avoid Hot Surfaces

• During operation, the complete unit, especially the exhaust area and the bearing housing may become very hot. Avoid contact during and immediately after operation. Always keep exhaust area clear of flammable debris. Allow the engine and muffler to completely cool before performing any maintenance activity.



Keep A Firm Grip

· Hold the front and rear handles with both hands with thumbs and fingers 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.





EXTENDED OPERATION/EXTREME CONDITIONS

Vibration and Cold --

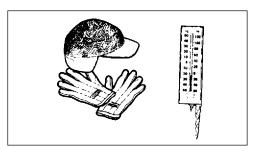
It is believed that a condition called Raynaud's Phenomenon, which affects the fingers of certain individuals may be brought about by exposure to vibration and cold. Exposure to vibration and cold may cause tingling and burning sensations followed by loss of color and numbness in the fingers. The following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

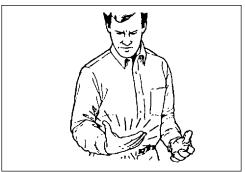
- Keep your body warm, especially the head, neck, feet, ankles, hands and wrists.
- Maintain good blood circulation by performing vigorous arm exercises during frequent work breaks and also by not smoking.
- Limit the hours of operation. Try to fill each day with jobs where operating the trimmer or other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

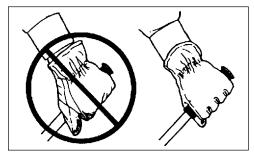
Repetitive Stress Injuries --

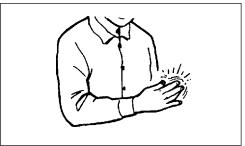
It is believed that overusing the muscles and tendons of the fingers, hands, arms and shoulders may cause soreness, swelling, numbness, weakness and extreme pain in those areas. Certain repetitive hand activities may put you at a high risk for developing a Repetitive Stress Injury (RSI). An extreme RSI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

- Avoid using your wrist in a bent, extended or twisted position.
 Instead try to maintain a straight wrist position. Also, when grasping, use your whole hand, not just the thumb and index finger.
- Take periodic breaks to minimize repetition and rest your hands.
- Reduce the speed and force in 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.









DESCRIPTION

The ECHO product you purchased has been factory pre-assembled for your convenience. Due to packaging restrictions, shield installation and positioning of the front handle are 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.

EMISSION CONTROL

California Tier 2

The emission control system for these engines are EM (Engine Modification).

IMPORTANT ENGINE INFORMATION

ENGINE FAMILY: YEHXS.0214CA

DISPLACEMENT: 21.2 cc

THIS ENGINE MEETS U.S. EPA PH1 AND 2000 AND LATER CALIFORNIA EMISSION REGULATIONS FOR S.O.R.E. REFER TO OWNER'S MANUAL FOR

MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS.



KIORITZ CORP. 1111



An Emission Control Label is located on the engine. (This is an EXAMPLE ONLY, information on label varies by engine FAMILY).

AIR INDEX TAG

The Air Index Tag indicates, for purposes of consumer awareness, how this product's emissions compare to the standards enacted by the California Air Resources Board.





PRODUCT EMISSION DURABILITY

The 300 hour emission durability period is the time span selected by the manufacturer certifying the engine emissions output meets applicable California emissions regulations, provided that approved maintenance procedures are followed as listed in the Maintenance Section of this manual.

CONTENTS

- 1 Trimmer Assembly
- Power Head
- Drive Shaft Assembly
- 1 Plastic Bag (Co-Pack)
 - Operator's Manual
 - Safety Manual
 - Shield Assembly
 - Nvlon Trimmer Head
- 4, Precut .095 Nylon Lines
- Hardware Bag
 - -1, Locking Tool
 - -1, Locknut 3/8-24
 - -1, Flat Washer 10 mm
- Warranty Card & Limited Warranty
- Safety Glasses
- -Oil2Stroke





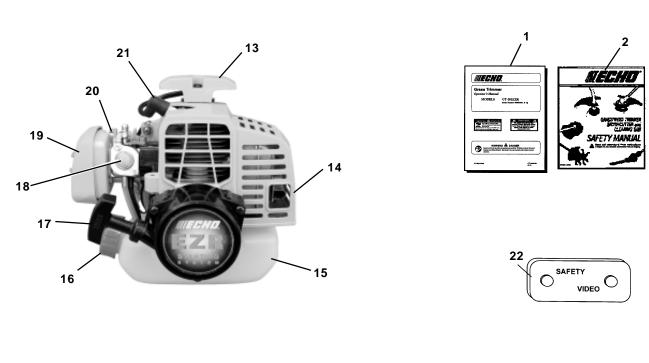


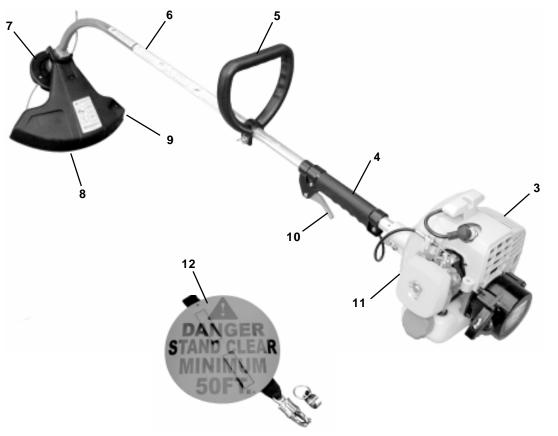






(((EEHI)®





- 1. **OPERATOR'S MANUAL** Included in plastic bag (co-pack). Read before operation and keep in a safe place for future reference, i.e., operation, maintenance, storage and specifications.
- 2. **SAFETY MANUAL** Included in plastic bag (co-pack). Read before operation and keep in a safe place for future reference to learn proper, safe operating techniques.
- 3. **POWER HEAD** Factory Assembled to the Drive Shaft assembly. Includes the Engine, Clutch, Fuel System, Ignition System and Recoil Starter.
- 4. **GRIP** Rear (right hand) handle.
- 5. **FRONT HANDLE** The Front (loop) handle is factory assembled to the Drive Shaft assembly but must be repositioned for proper cutting attitude and operator comfort.
- 6. **Drive Shaft ASSEMBLY** Factory Assembled to the Power Head. Includes the Rear (right hand) Handle Assembly, Bearing Housing Assembly, Throttle Trigger, Front (loop, left hand) Handle Assembly, Flexible Drive Cable and Safety Decals.
- 7. **NYLON CUTTER HEAD** Contains replaceable nylon trimming lines.
- 8. **DEBRIS SHIELD ASSEMBLY** Included in plastic bag (co-pack). **MUST** be installed on unit before use, see Assembly Instructions. Shield assembly includes the Cut-Off Knife and Safety Decal. Mounts on the Bearing Housing Assembly just above the cutting attachment. Helps protect the operator by deflecting debris produced during the trimming operation.
- 9. **CUT-OFF KNIFE** Trims line to the correct length (5"). If trimmer is operated without a cut-off knife the line will become too long more than (5") the operating speed will slow, the engine overheat and performance will suffer.
- 10. **THROTTLE TRIGGER** Spring loaded to return to idle when released. During acceleration, press trigger gradually for best operating technique.
- 11. STOP SWITCH "TOGGLE SWITCH" mounted on the engine. Move switch UP to RUN, DOWN to STOP.
- 12. SHOULDER HARNESS Optional. An adjustable strap that suspends the unit from the operator.
- 13. **ARM REST** Provides arm rest during operation and protects arm from hot engine.
- 14. **SPARKARRESTOR-CATALYTIC MUFFLER/MUFFLER-**The muffler or catalytic muffler controls exhaust noise and emission. The spark arrestor screen prevents hot, glowing particles of carbon from leaving the muffler. Keep exhaust area clear of flammable debris.
- 15. **FUEL TANK** Contains fuel and fuel filter.
- 16. **FUEL TANK CAP** Cover and seals fuel tank opening.
- 17. **RECOIL STARTER HANDLE** Pull recoil starter handle/rope using light pulling force, approximately 2/3 (2 ft). of rope length. Two (2) to six (6) pulls are required to properly tension starter spring prior to automatic engine engagement. DO NOT let handle snap back or damage to unit will occur.
- 18. **PRIMER BULB** Pumping primer bulb before starting engine draws fresh fuel from the fuel tank priming the carburetor for starting. Pump primer bulb until fuel will be visible and flows freely in the clear fuel tank return line. Pump bulb an additional 4 or 5 times.
- 19. **AIR CLEANER** Contains replaceable filter element.
- 20. **CHOKE** Located above the air cleaner housing. Move lever to "Cold Start" to close choke for cold starting. Move lever to "Run" ostion to open choke.
- 21. **SPARK PLUG** Provides spark to ignite fuel mixture.
- 22. **SAFETY VIDEO** (Not included with unit) P/N 99922202540 English version only is available at a cost of \$5.00 from ECHO, INC. or any authorized ECHO dealer. The video overviews safety precautions and proper operating techniques and is supplemental to the Safety Manual. Read and understand the Safety Manual for complete information on safe operation.



SPECIFICATIONS

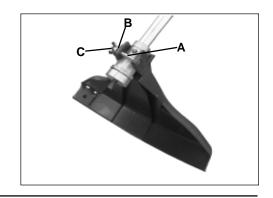
MODEL	GT-201EZR	
Length	1405 mm (55.3 in.)	
Width	315 mm (12.4 in.)	
Height	360 mm (1542 in.)	
Weight (dry) w/Cutter Head	4.6 kg (10.2 lb.)	
Engine Type	Air cooled, two-stroke, single cylinder gasoline engine	
Bore	32.2 mm (1.268 in.)	
Stroke	26.0 mm (1.02 in.)	
Displacement	21.2 cc (1.29 cu. in.)	
Exhaust	Spark Arrestor Muffler w/catalyst	
Carburetor	Zama diaphragm model w/purge	
Ignition System	Flywheel magneto, capacitor discharge	
Spark Plug	NGK BPM-7Y (0.65 mm (0.026 in.)	
Fuel	Mixed (Gasoline and Two-stroke Oil)	
Fuel/Oil Ratio	50:1 ECHO High Performance, two-stroke air cooled engine oil	
Gasoline	89 Octane unleaded. DO NOT use fuel containing methyl alcohol, more than 10% ethyl alcohol or 15% MTBE.	
Oil	50:1 ECHO High Performance, two-stroke air cooled engine oil	
Fuel Tank Capacity	0.45 lit. (15.2 US fl. oz.)	
Recoil Starter System	Semi-automatic Recoil Starter Assist	
Clutch	Centrifugal Type	
Drive Shaft	1/4" Flex Shaft	
Rotating Direction	Clockwise viewed from top	
Cutter Head	Nylon line head (2-Line) with .095 in. line capacity 203 mm (8 in.)	
Front Handle	Left - D-Loop, Right - Grip	
Shoulder Harness	Optional P/N 99944200201	
ldle Speed (RPM)	2600 - 3300	
Wide Open Throttle Speed with Trimmer Head (RPM)	6500 - 7800	

ASSEMBLY

Tools Required: Locking Tool

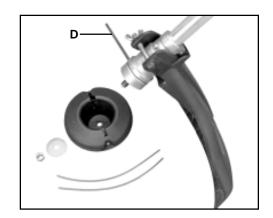
PLASTIC SHIELD

- 1. Snap the shield over the bearing housing.
- 2. Install bolt (A), washer (B) and wing nut (C).



NYLON LINE HEAD

- 1. Align locating hole in upper plate with hole in bearing housing and insert 1/8" dia. locking tool (D).
- 2. Place line head on threaded shaft followed by large metal washer and locknut.
- 3. Tighten locknut securely.



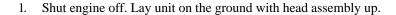
IMPORTANT

Remember to remove the locking tool.

NYLON LINE REPLACEMENT

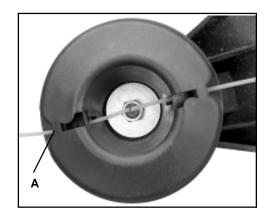
Tools Required: None

Parts Required: Two (2)ECHO 0.095 (2 mm) Nylon Trimmer Line 203 mm (8 in.) long



- 2. Remove old nylon line through center recess of head.
- 3. Thread new lines through outside holes (A) in housing until ends meet in center of recess.





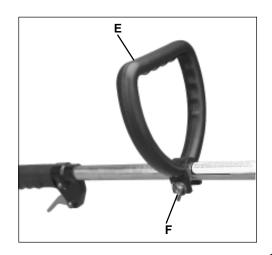


FRONT (LOOP) HANDLE

NOTE

Front handle is pre-installed. Repositioning and tightening is all that is required.

1. Position front handle (E) in comfortable operating position and tighten wing nut (F). The cutting attachment should be 5cm-7.5cm (2 in. -3 in.) above the ground and as level as possible.



PRE - OPERATION

FUEL

Fuel Requirements

Gasoline - Use 89 Octane $\left[\frac{R+M}{2}\right]$ (mid grade or higher) gasoline or gasohol known to be good quality. Gasohol may contain up to 10% Ethyl (grain) alcohol or 15% MTBE (methyl tertiary-butyl ether). Gasohol containing methyl (wood) alcohol is **NOT** approved.

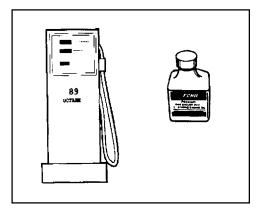
Two Stroke Oil - A two-stroke engine oil meeting ISO-L-EGD (ISO/CD 13738) and JASO FC standards, must be used. Echo brand Premium 50:1 oil meets these standards. Engine problems due to inadequate lubrication caused by failure to use an ISO-L-EGD and JASO FC certified oil, such as Echo Premium 50:1 Two-stroke Oil, will void the two-stroke engine warranty. (Emission related parts only are covered for two years, regardless of two-stroke oil used, per the statement listed in the California Emission Defect Warranty Explanation.)

IMPORTANT

Echo Premium 2-Stroke Oil may be mixed at 50:1 ratio for application in all Echo engines sold in the past regardless of ratio specified in those manuals.

Mixing Instructions

- 1. Fill an approved fuel container with half of the required amount of gasoline.
- 2. Add 2-stroke oil to gasoline.
- 3. Close container and shake to mix oil with gasoline.
- 4. Add remaining gasoline and remix.
- 5. Install fuel container cap and wipe any spilled fuel from container and surrounding area.



Handling Fuel

WARNING A



DANGER

Fuel is **VERY** flammable. Use extreme care when mixing, storing or handling, otherwise serious personal injury may result.

- Use an approved fuel container.
- DO NOT smoke near fuel.
- DO NOT allow flames or sparks near fuel.
- Fuel tanks/cans may be under pressure. Always loosen fuel caps slowly allowing pressure to equalize.
- NEVER refuel a unit when the engine is HOT!
- NEVER refuel a unit with the engine running.
- DO NOT fill fuel tanks indoors. ALWAYS fill fuel tanks outdoors over bare ground.
- Securely tighten fuel cap after refueling.
- Inspect for fuel leakage. If fuel leakage is found, do not start or operate unit until leakage is repaired.



Spilled fuel is a leading cause of hydrocarbon emissions. Some states may require the use of automatic fuel shut-off containers to reduce fuel spillage. Contact your ECHO dealer for ordering information.

After refueling;

- Wipe any spilled fuel from the unit.
- Move at least 3 m (10 ft.) from refueling location before starting the engine.

After use;

• DO NOT store a unit with fuel in its tank. Leaks can occur. Return unused fuel to an approved fuel storage container.

Storage -

Fuel storage laws vary by locality. Contact your local government for the laws affecting your area. As a precaution, store fuel in an approved, air tight container. Store in a well ventilated, unoccupied building, away from sparks and flames. Do not store fuel longer than 30 days.

IMPORTANT

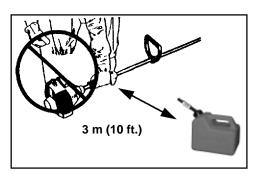
Stored fuel ages. Do not mix more fuel than you expect to use in thirty (30) days, ninety (90) days when a fuel stabilizer is added.

IMPORTANT

Stored two-stroke fuel may separate. ALWAYS shake fuel container thoroughly before each use.





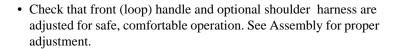


S	M	Т	W	Т	F	S	
1	2	3	4	5	6	7	
8	9	10	11	12	13	14	
15	16	17	18	19	20	21	
			25	26	27	28	
29	\mathfrak{G}	31					

EQUIPMENT CHECK

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

- Check unit for loose/missing nuts, bolts and screws. Tighten and/or replace as needed.
- Inspect fuel lines, tank and area around carburetor for fuel leaks. DO NOT operate unit if leaks are found.
- 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.



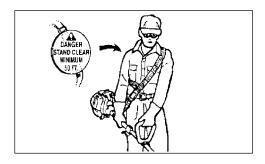
- · Have repairs done only by an authorized ECHO Service Dealer.
- Do not use any attachment, accessory or replacement part unless it is recommended in the Operator's Manual.

Spark Arrestor - Catalytic Muffler/Muffler

 The muffler or catalytic muffler controls the exhaust noise and emissions. The spark arrestor screen prevents hot, glowing particles of carbon from leaving the muffler. Make sure the spark arrestor screen is in good repair and properly seated in the muffler. Keep exhaust area clear of flammable debris. Avoid contact during and immediately after operation.



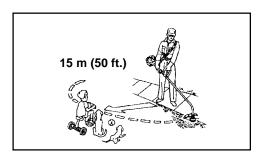






DETERMINE OPERATION AREA

- Review the area to be trimmed. Look for hazards that could contribute to unsafe conditions.
- Spectators and fellow workers must be warned, and children and animals prevented from coming nearer than 15 m (50 ft.) while the trimmer is in use.



OPERATION

- Provide all operators of this equipment with the Operator's Manual and Instructions for safe use.
- · Before starting the unit, equip yourself and any other person working within the 15 m (50 ft.) Safety Zone with the required Protective Equipment and clothing.
- During operation, the complete unit, especially the exhaust area and the bearing housing may become very hot, too hot to touch. Avoid contact during and immediately after operation. Always keep exhaust area clear of flammable debris.





STARTING COLD ENGINE

WARNING A



DANGER

Never attempt to disassemble this recoil starter otherwise serious personal injury may result. See your Echo Dealer if the starter handle will not operate using light pulling force.

- Stop Switch Start/Run. Move stop switch button (A) away from the STOP position.
- Choke Lever Cold Start. Move choke (B) to "Cold Start" Position.
- Primer-Pump Bulb Pump primer bulb (C) until fuel will be visible and flows freely in the clear fuel tank return line. Pump bulb an additional 4 or 5 times.

WARNING **A**



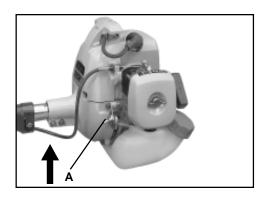
DANGER

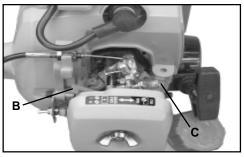
Inspect starting area for hazards such as rocks, glass, debris etc. which could be thrown by the cutting attachment when starting. Keep helpers and bystanders at least 15 m (50 feet) from starting area, otherwise serious personal injury may result.

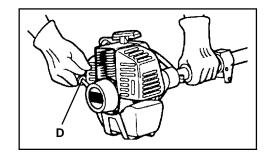
NOTE

Energy is stored in the starter spring each time the handle/rope is pulled. Generally two to six pulls, using light pulling forces, will store enough energy to engage the starter and spin the engine. Do not pull the rope out to end stop.

Lay the trimmer on a flat clear area. Firmly grasp throttle grip with left hand and fully depress throttle trigger to wide open position. Pull starter handle/rope (D) until engine fires or 2 to 3 engine engagements.





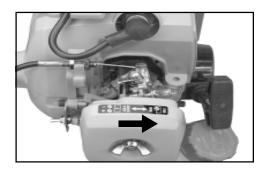


After engine fires or 2 to 3 engine engagements, move choke lever to "Run" position. Hold throttle trigger fully depressed and pull starter handle/rope until engine starts and runs. Release throttle trigger and allow unit to warm up at idle for several minutes.

NOTE

If engine does not start with choke in "Run" position after 5 engine engagements, repeat instructions.

After engine warm up, gradually depress throttle trigger to increase engine RPM to operating speed.



STARTING WARM ENGINE

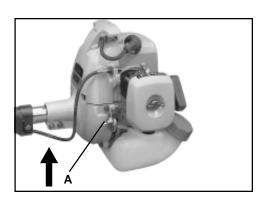
WARNING **A**



DANGER

The cutting attachment should not rotate at idle. If attachment rotates, readjust carburetor according to "Carburetor Adjustment" instructions in this manual or see your ECHO Dealer, otherwise serious personal injury may result.

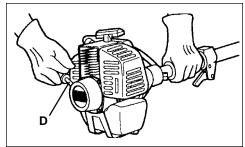
Stop Switch - Start/Run. Move stop switch button (A) away from the STOP position.



Start - Pull Rope. Lay the trimmer on a flat clear area and pull the starter handle/rope (D) until engine fires.

NOTE

If engine does not start after 5 engine engagements, use Cold Start Procedure.



STOPPING ENGINE

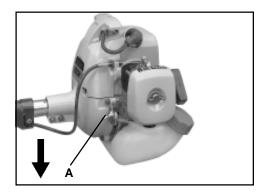
- 1. Release Throttle. Allow engine to idle for a minute.
- Stop Switch Stop. Move stop switch button (A) to STOP position.

WARNING A



DANGER

If engine does not stop when stop switch is moved to STOP position, close choke - COLD START position - to stall engine. Have your ECHO dealer repair stop switch before using trimmer again.



NOTE

Refer to the Grass Trimmer / Brush Cutter Safety Manual for proper and safe trimming techniques.

MAINTENANCE

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

SKILL LEVEL

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

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

Level 3 = Experience required. Specialized tools are required. ECHO recommends

that the unit be returned to your ECHO dealer for servicing.

ECHO offers **REPOWER**TM Maintenance Kits and Parts to make your maintenance job easier. Just below each task heading are listed the various part numbers required for that task. See your ECHO dealer for these parts.



MAINTENANCE INTERVALS

Component/System	Maintenance Procedure	Daily or Before Use	Every Refuel	3 Months or 90 Hours	6 Months or 270 Hours	Yearly
Air Filter	Clean / Replace	I/C		R *		
Fuel Strainer	Clean / Replace			I		R
Fuel Line	Inspect	I	I			
Carburetor	Inspect / Rebuild / Replace				I/C	R (1)
Choke System	Inspect / Clean / Replace	I/C				
Cooling System	Inspect / Clean	I/C				
Muffler Spark Arrestor	Inspect / Clean			I/C		
Cylinder Exhaust Port	Inspect / Clean / Decarbon			I/C		
Drive Shaft (Flex Cable Models)	Grease			I (2)		
Gear Housing	Grease			I		
Starter Rope	Inspect / Clean	I				
Fuel Leaks	Inspect / Replace	I	I			
Spark Plug	Clean / Replace			I/C	R *	
Screws/Nuts/Bolts	Inspect /Tighten / Replace	I				

I = Inspect / R = Replace / C = Clean IMPORTANT

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

⁽¹⁾ Replacement will be required for commercial use yearly. For Consumer use, cleaning every 6 months is required. Cleaning includes Rebuild Kits.

^{*} All recommendations to replace are based on the finding of damage or wear during inspection.

⁽²⁾ Apply ECHO_® LUBETM every 25 hours of use.

AIR FILTER

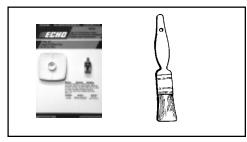
Level 1.

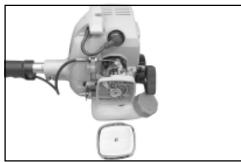
Tools required: Cleaning brush, 25 or 50 mm (1 or 2 in.) medium bristle

paint brush.

90008REPOWER™AIR&FUELFILTERKIT. Parts required:

- 1. Close choke (Cold Start Position). This prevents dirt from entering the carburetor throat when the air filter is removed. Brush accumulated dirt from the air cleaner area.
- 2. Remove the air cleaner cover. Clean and inspect the element for damage. If element is fuel soaked and very dirty, replace.





- 3. If element can be cleaned and reused, be certain it:
 - -still fits the cavity in the air cleaner cover.
 - -is installed with the original side out.

NOTE

Carburetor adjustment may be needed after air filter cleaning/ replacement. See Carburetor Adjustment Section.



FUEL FILTER

Level 1.

Tools required: Fuel line hook, 203-254 mm (8-10 in.) length of wire with one end bent into a hook. Clean rag, funnel, and an approved fuel container.

Parts required: 90008 REPOWER™ AIR & FUEL FILTER KIT



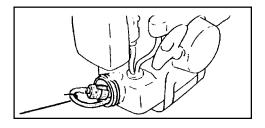
WARNING A



DANGER

Fuel is **VERY** flammable. Use extreme care when mixing, storing or handling.

- 1. Use a clean rag to remove loose dirt from around fuel cap and empty fuel tank.
- Use the "fuel line hook" to pull the fuel line and filter from the tank.
- Remove the filter from the line and install the new filter.



WARNING



DANGER

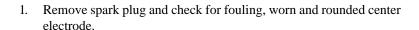
Catalytic mufflers operate at extremely high temperatures. Muffler area must be kept clean. Do not perform maintenance on the muffler until engine and muffler are completely cool, otherwise serious personal injury may occur.

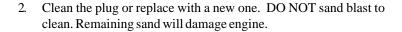
SPARK PLUG

Level 2.

Tools Required: Spark Plug socket wrench and screw driver, Feeler gauge. Preferably a wire gauge.

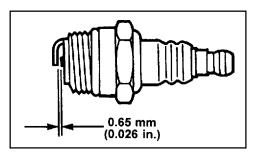
Parts Required: 90064 REPOWER™ Tune-Up Kit





- 3. Adjust spark plug gap by bending outer electrode.
- 4. Tighten spark plug to 145-155 kg/cm (125-135 in. lb.).





COOLING SYSTEMS CLEANING

Level 2.

Tools required: Cross Head Screwdriver, 3 mm Hex Wrench, Cleaning Brush, 25-50 mm (1-2 in.) medium bristle paint brush.

Parts Required: None.

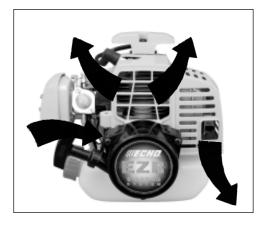
IMPORTANT

To maintain proper engine operating temperatures, cooling air must pass freely through the cylinder fin area. This flow of air carries combustion heat away from the engine.

Overheating and engine seizure can occur when:

- Air intakes are blocked, preventing cooling air from reaching the cylinder.
- Dust and grass build up on the outside of the cylinder. This build up insulates the engine and prevents the heat from leaving.

Removal of cooling passage blockages or cleaning of cooling fins is considered "Normal Maintenance". Any failure attributed to lack of maintenance is not warranted.



- Remove spark plug lead and throttle linkage end from the carburetor swivel.
- 2. Remove the four screws that retain the cover. Two at the top of the Recoil Starter, two on either side of the front. Lift the cover from the engine and lay to the front of the trimmer.

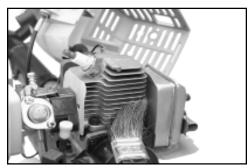
NOTE

The throttle linkage remains assembled to the cover and the spark plug lead and grommet remain installed.

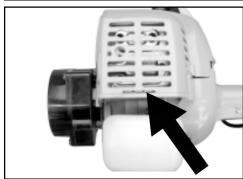
IMPORTANT

DO NOT use a metal scraper to remove dirt from the cylinder fins.

- 3. Use the brush to remove dirt from the cylinder fins.
- Remove grass and leaves from the grid between the starter and fuel tank.
- 5. When installing the cover, be certain the tab of the metal deflector shield is in the slot of the cover.







EXHAUST SYSTEM

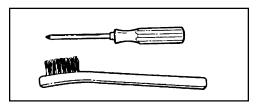
Spark Arrestor Screen

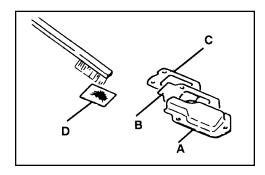
Level 2.

Tools Required: Cross Head Screwdriver. Soft metal brush.

Parts Required: Screen P/N 14586240630, Gasket Lid P/N 14586642031

- 1. Remove engine cover, see "Cooling System Cleaning" pages 21 and 22 for step by step instructions.
- 2. Remove screen cover (A), holder (B) and gasket (C) from muffler body.
- 3. Clean carbon deposits from screen (D) and muffler components.
- 4. Replace screen if it is cracked, plugged or has holes burned through.
- 5. Assemble components in reverse order.





CARBURETOR ADJUSTMENT

Engine Break-In

New engines must be operated a minimum duration of two tanks of fuel break-in before carburetor adjustments can be made. During the break-in period your engine performance will increase and exhaust emissions will stabilize. Idle speed can be adjusted as required.

High Altitude Adjustment

High altitude adjustment is not required for proper operation of this engine.

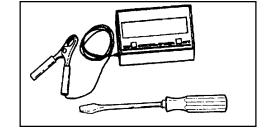
Level 2

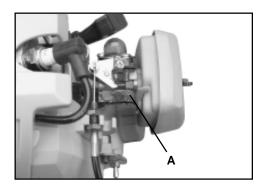
Tools required: Screwdriver, Tachometer (ECHO P/N 99051130017). *Parts required:* None.

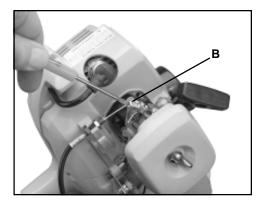
NOTE

Every unit is run at the factory and the carburetor is set in compliance with California Emission Regulations. In addition, the carburetor is equipped with a HI needle adjustment limiter that prevents settings outside acceptable limits.

- 1. Before adjusting the carburetor, clean or replace the air filter and spark arrester screen.
- 2. Trimmer line must be extended to the cut-off knife.
- Start engine and run for several minutes to reach operating temperature.
- 4. Stop engine. Turn HI speed needle (A) CCW (counter clockwise) to stop.
- 5. Idle Speed Adjustment.
 - Start engine and turn "idle" speed adjustment screw (B) CW until the blades begin to turn, then turn the screw CCW until blades stop turning. Turn screw CCW an additional 1/4 turn.
- 6. Accelerate to full throttle for 2-3 seconds to clear excess fuel from engine then return to idle. Accelerate to full throttle to check for smooth transition from idle to full throttle. If engine stops or stalls after full warm up return the unit to your authorized ECHO dealer for repair.
- Check HI speed RPM at W.O.T. (Wide Open Throttle). HI speed RPM should be set to specifications found on page 12 "Specifications" of this manual.
- 8. Check idle speed and reset if necessary. If a tachometer is available, idle speed should be set to the specification found on page 12 "Specifications" of this manual.







WARNING



DANGER

When carburetor adjustment is completed, the cutting attachment should not turn at idle, otherwise serious personal injury may result.

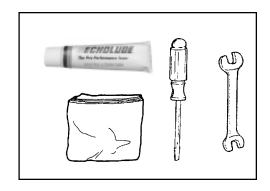
LUBRICATION

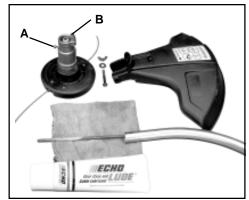
Level 1.

Tools Required: 8 mm Open End Wrench, Screwdriver, Clean Rag.

 $\textit{Parts Required: } ECHO_{\tiny{\textcircled{\tiny \$}}} LUBE^{\tiny{TM}} 8 \, oz. \, (P/N \, 91014) \, or \, Lithium \, Base \, Grease.$

- 1. Remove plastic shield.
- 2. Loosen bearing housing locating screw (A), at the top of the housing, loosen mounting screw (B).
- 3. Pull the flexible drive shaft (C) from the housing, wipe clean and recoat with a thin coating [1/2 oz. (15 ml)] of grease.
- 4. Slide the flexible drive shaft back in the drive housing being careful not to get dirt on the flexible drive shaft.
- 5. Install the bearing housing and shield.







TROUBLESHOOTING

Problem				
Engine sta	arts hard			
Engine do	oes not start		Cause	Remedy
Engine Cranks	Fuel at carburetor	No fuel at carburetor	Fuel strainer clogged Fuel line clogged Carburetor	Clean Clean See your ECHO dealer
	Fuel at cylinder	No fuel at cylinder	Carburetor	See your ECHO dealer
		Muffler wet with fuel	Fuel Mixture is too rich	Open choke Clean/replace air filter Adjust carburetor See your ECHO dealer
	Spark at end of plug wire	No spark at end of plug wire	Stop switch off Electrical problem	Turn switch on See your ECHO dealer
	Spark at plug	No spark at plug	Spark gap incorrect Covered with carbon Fouled with fuel Spark plug defective	Adjust 0.65mm (0.026in.) Clean or replace Clean or replace Replace plug
Engine does not crank			Internal engine problem	See your ECHO dealer
Engine runs			Air filter dirty Fuel filter dirty Fuel vent plugged Spark plug Carburetor Cooling system plugged Spark arrestor screen plugged	Clean or replace Replace Replace Clean and adjust/replace Adjust Clean Clean



Fuel vapors are **extremely** flammable and may cause fire and/or explosion. **Never** test for ignition spark near an open spark plug opening, otherwise serious personal injury may result.

STORAGE

Long Term Storage (over 30 days)

WARNING A



DANGER

During operation the muffler or catalytic muffler and surrounding cover become hot. Always keep exhaust area clear of flammable debris during transportation or when storing, otherwise serious property damage or personal injury may result.

Do not store your unit for a prolonged period of time (30 days or longer) without performing protective storage maintenance which includes the following:

Store unit in a dry, dust free place, out of the reach of children with drive shaft housing in an upright or horizontal position to prevent grease leakage.

WARNING A DANGER

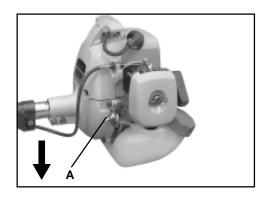


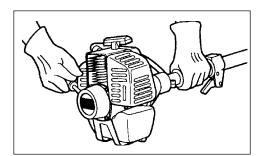
Do not store in enclosure where fuel fumes may accumulate or reach an open flame or spark, otherwise serious injury may result.

- Place the stop switch (A) in the "OFF" position.
- Remove accumulation of grease, oil, dirt and debris from exterior of unit.
- Perform all periodic lubrication and services that are required.
- Tighten all the screws and nuts.
- **Drain** the fuel tank **completely** and pull the recoil starter handle several times to remove fuel from the carburetor.
- Remove the spark plug and pour 7 cc (1/4 oz.; 1/2 tablespoon) of fresh, clean, two-stroke engine oil into the cylinder through the spark plug hole.
 - A. Place a clean cloth over the spark plug hole.
 - B. Pull the recoil starter handle 2-3 times to distribute the oil inside the engine.
- Install the spark plug (do not connect ignition cable).

IMPORTANT

Do not store the unit with tension remaining on the starter spring.





SERVICING INFORMATION

PARTS

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

Model No. _____ SN. ____

SERVICE

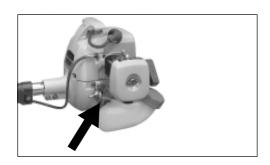
Service of this product during the warranty period must be performed by an Authorized ECHO Service Dealer. For the name and address of the Authorized ECHO Service Dealer nearest you, ask your retailer or call: 1-800-432-ECHO (3246). Dealer information is also available on our Web Site. When presenting 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 you may 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 to help your Consumer Product Support Representative.

WARRANTY REGISTRATION

You may register your Echo equipment using the warranty registration card or register on-line at www.echo-usa.com. Registering provides a direct link between you and ECHO if we find it necessary to contact you.



DEALER?
Call
1-800-432-ECHO
or
www.echo-usa.com

CONSUMER PRODUCT SUPPORT 1-800-673-1558 8-5 Mon - Fri C.S.T.



ADDITIONAL OR REPLACEMENT MANUALS

<u>Safety Manuals</u> in English/Spanish or English/French are available, free of charge, from your ECHO dealer or at www.echo-usa.com.

Operator's and Parts Manuals are available by:

- Downloading free from www.echo-usa.com
- Purchasing from your Echo Dealer.
- Sending a check or money order for \$2.00 per Parts Catalog or \$1.50 per Operator's Manual made payable to ECHO, INCORPORATED. State on a sheet of paper the model number and serial number of the ECHO unit you have, part number of the manual (if known), your name and address and mail to address below.

<u>Safety Videos</u> are available from your Echo dealer. A \$5.00 shipping charge will be required for each video.

Available Parts Catalog

GT-201EZR Serial Number 02001001

Part Number 99922203366



www.echo-usa.com



DESCRIPTION Page 9

CON	TEN	TS
-----	-----	----

1 - Trimmer Assembly - Power Head - Drive Shaft Assembly 1 - Plastic Bag (Co-Pack) - Rapid Loader 2-line Head - Operator's Manual	- Safety Manual - Shield Assembly - Hardware Bag -Line Head Mount -1,3/8-24 Locknut -1, Small Washer	-1, Large Washer -12, 8 in. X .080 Pre-cut Nylon Line - Locking Tool - Warranty Card & Limited Warranty - Safety Glasses - Oil 2 Stroke
---	--	---

EMISSION CONTROL

IMPORTANT ENGINE INFORMATION

ENGINE FAMILY: YEHXS.0214CA DISPLACEMENT: 21.2 cc **EMISSION COMPLIANCE PERIOD: 300 HOURS** THIS ENGINE MEETS U.S. EPA PH 2 AND 2000 AND LATER CALIFORNIA EMISSION REGULATIONS FOR S.O.R.E. REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS.



PRODUCT EMISSION DURABILITY

SUPPLEMENT TO OPERATOR'S MANUAL

PART NUMBER X7702274000 (X770000380) FOR MODEL: GT-201EZR S/N 02001101 & UP

Please use this Operator Manual Supplement when

assembling and maintaining your GT-201EZR.

The 300 hour emission durability compliance period is the time span selected by the manufacturer certifying the engine emissions output meets applicable emissions regulations, provided that approved maintenance procedures are followed as listed in the Maintenance Section of this manual.

Assembly - Page 13 PLASTIC SHIELD

Tools Required: None

- Remove wing nut (C), washer (B), and bolt (A).
- Snap the shield over the bearing housing.
- Install bolt (A), washer (B) and wing nut (C).

NYLON LINE HEAD

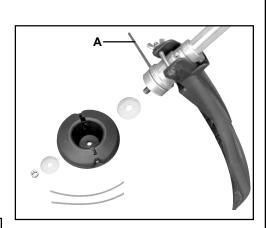
Tools Required: Head Locking Tool, 9/16 in. Socket

Parts Required: Rapid LoaderTM Head.

- Remove plastic threaded shaft sleeve from PTO shaft.
- Align locating hole in upper plate with hole in bearing housing and insert 1/8 in. diameter locking tool (A).
- Place large washer then line head on threaded shaft followed by small metal washer and locknut.
- Tighten locknut securely.

IMPORTANT

Remember to remove the locking tool.



99922203539 01/02

SUP22203539



The correct emissions information for your unit is:

EPA Phase 2/California Tier II

EMISSION CONTROL

An Emission Control Label is located on the engine. The emission control system for these engines is EM/TWC (Engine Modification with Catalyst).

IMPORTANT ENGINE INFORMATION

ENGINE FAMILY: 2EHXS.0214CA DISPLACEMENT: 21.2 cc

THIS ENGINE MEETS U.S. EPA PH2 AND 2000 AND LATER CALIFORNIA EMISSION REGULATIONS FOR S.O.R.F. REFER TO OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS.



KIORITZ CORP. III

 $(This \, is \, an \, EXAMPLE \, ONLY, information \, on \, label \,$ varies by engine family).

SUPPLEMENT TO OPERATOR'S MANUAL PART NUMBER X7702274000 (X770000380) FOR MODEL: GT-201EZR

SUPLEMENTO DEL MANUAL DEL OPERADOR **NUMERO DE PIEZA X7702274000 (X770000380)**

PARA LOS MODELO: GT-201EZR

CALIFORNIA TIER II AIR INDEX TAG

The Air Index Tag indicates, for purposes of consumer awareness, how this product's emissions compare to the standards enacted by the California Air Resources Board.





CALIFORNIA TIER II PRODUCT EMISSION DURABILITY STATEMENT

The 300 hour emission durability compliance period is the time span selected by the manufacturer certifying the engine emissions output meets applicable California and/or U.S. EPA emissions regulations, provided that approved maintenance procedures are followed as listed in the Maintenance Section of this manual.

La información correcta de las emisiones para su unidad es:

CONTROL DE EMISIONES

EPA Phase 2/California Tier II

Hay una etiqueta de control de emisiones ubicada en el motor. El sistema de control de emisiones para estos motores es EM/TWC (modificación del motor catalítico).

INFORMACIÓN IMPORTANTE SOBRE EL MOTOR FAMILIA DE MOTORES: 2FHXS 0214CA CILINDRADA: ESTE MOTOR CUMPLE CON LAS NORMAS DE LA FASE 2 DE LA EPA DE EE.UU. Y REGULACIONES DE EMISIONES DE CALIFORNIA POSTERIORES PARA S O R E CONSULTE EN EL MANUAL DEL PROPIETARIO LAS ESPECIFICACIONES Y AJUSTES DE MANTENI-MIENTO. KIORITZ CORP. IIII

(Éste es un EJEMPLO SOLAMENTE, la información de la etiqueta varía por FAMILIA de motores).

CALIFORNIATIERIIETIOUETADEÍNDICEDEAIREL

La etiqueta del índice de aire indica, para informar al consumidor, las emisiones de este producto en comparación con las normas promulgadas por la Junta de Recursos de Aire de California.





CALIFORNIA TIER II DURABILIDAD DE LA SEMISIONES DEL PRODUCTO

El período de la conformidad de durabilidad de emisiones de 300 horas es el tiempo seleccionado por el fabricante certificando que las emisiones de salida del motor cumplen con las regulaciones de emisiones aplicables de California, y EPA de EE.UU, siempre que se sigan los procedimientos de mantenimiento aprobados según se indican en la sección de mantenimiento de este manual.

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