

This manual contains assembly, operating, maintenance, and adjustment instructions for your ECHO mower. Before you operate your mower, read this manual carefully in its entirety. By following the operating and maintenance instructions, you will prolong the life of your mower and maintain its maximum efficiency.

If additional information is needed or should you require trained mechanic service, contact your authorized ECHO dealer.

All ECHO dealers are kept informed of the latest methods of servicing and are equipped to provide prompt and efficient service. They carry ample stocks of service parts or can secure them promptly for you from their distributor.

All mower parts are thoroughly tested and inspected before leaving the factory, however, some attention is required on your part. The amount of

attention is slight but important if you are to obtain the fullest measure of satisfaction and performance.

When ordering parts, always give the serial number and model of your mower as well as the quantity, part number and description of the parts needed.

The mower serial number plate is located on the engine deck. The engine serial number is located on the right side of the crankcase between the muffler and the fuel tank. We suggest you record these numbers below for ready reference.

Mower serial no	
Engine serial no	

Assembly Instructions for LMC-212 Mowers -

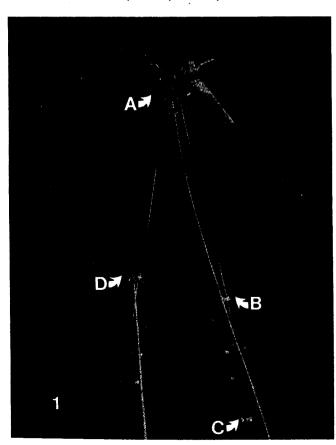
A WARNING

Stop engine and remove spark plug wire from spark plug before servicing or adjusting mower.

- 1. Attach lower handle to the two handle brackets located on the rear of the mower deck.

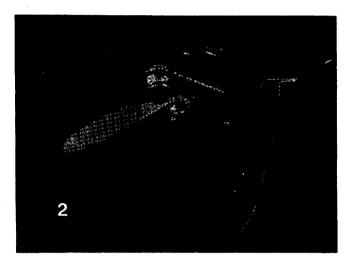
 NOTE: Place the handle on the inside of the handle brackets. Use four 3/8 x 1 HHCS, two 3/8 std. flat washers and four 3/8 Nyloc nuts. Insert bolts through lower handle and handle brackets so the heads of the bolts are on the inside of the handles. Use washers on slots in handle brackets and snug up bolts with 3/8 Nyloc nuts, but do not tighten.
- 2. Attach upper handles to lower handle using four 5/16 x 1-1/2 HHCS and four 5/16 Nyloc nuts. Install bolts so nuts are on the inside of the handle. Snug up bolts but do not tighten.
- 3. Place throttle control between upper handles and tighten securely with a 1/4 x 2-3/4 HHCS and a 1/4 Nyloc nut. Adjust the handle to the desired operating height. Tighten all the mounting hardware for the handle.

Fine tuning of the throttle cable may be necessary (if unit does not fully choke or unchoke when control is placed in choke or run position respectively) if so, proceed as follows: Move throttle control lever to the farthest forward or choke position. See photo 1 point A. Loosen casing clamp screw on engine and adjust cable as far to the left as possible to obtain full choke. Tighten screw securely. Route cable along left handle and attach cable to upper handle with cable clip. See photo 1 point B.



4. Attach the engine brake cable housing to the hole on the under side of the upper left handle using a #12 x 1/2 thread cutting screw. Then attach engine brake cable to control lever using one 5/16 x 1/2 x 1/4 shoulder bolt, one washer/spacer and one 1/4 torque nut. See photo 2.

NOTE: Washer/spacer should be on bottom side of cable eye. Route cable along lower handle and attach cable to the left side of lower handle with cable clip. See photo 1, point C.



5. Attach rope guide to the top side of the right upper handle, facing outside. See photo 1, point D, and photo 3. Use a 1/4 x 2-1/2 HHCS and a 1/4 Nyloc nut to fasten.

NOTE: Place rope between two halves of rope guide and insert bolt from top side and tighten from underneath with nut.



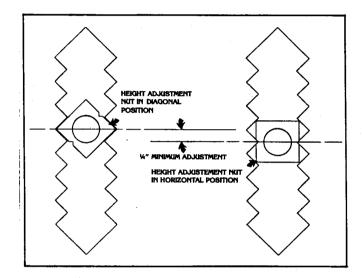
6. Place deflector on deck chute. Use two 5/16 x 3/4 HHCS facing upwards through deck and discharge deflector and tighten securely with two 5/16 whizlock nuts.

A WARNING

Stop engine and remove spark plug wire from spark plug before servicing or adjusting mower.

Adjusting Height of Cut

Adjust cutting height by moving wheels up (to lower cutting height) or by moving wheels down (to raise cutting height). The square height adjusting nut can be placed either horizontally or diagonally in the recessed notches in the cutter deck housing allowing 1/4-inch height adjustments. See illustration A.



Adjusting the Wheels

To adjust the wheels, loosen nuts enough for wheels to move up and down freely. Move front wheels to desired height and tighten.

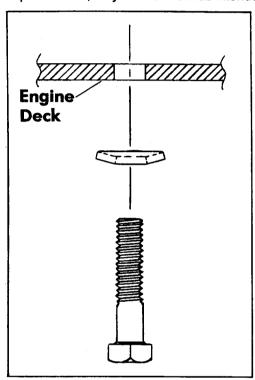
NOTE: Make sure both front wheels are in notches at the same level, then set the rear wheels one notch higher than the front and tighten.

Lubrication and Maintenance

- 1. Engine—See separate engine manual.
- 2. Front and Rear Wheels—Grease every 25 hours under normal conditions, every 8 hours under dirty or dusty conditions. Add grease until grease comes out of wheels. Wipe away all excess grease.

On all 21" mowers, there are 5/16 disc springs located on all engine mounting bolts to help eliminate the possibility of engine mounting hardware vibrating loose.

When removing and replacing engine, the disc springs must be installed on underside of deck with concave side against deck. See illustration B. If they are installed upside down, they will not work as intended.



IMPORTANT:

Familiarize yourself with these warning and instruction labels. They are critical to the safe operation of ECHO mowers.

A WARNING

DO NOT OPERATE MOWER WITHOUT GRASS CATCHER OR GUARD IN PLACE.

DISCONNECT SPARK PLUG WIRE BEFORE SERVICING OR CLEANING.



ALLOW ENGINE TO COOL FOR 2 MINUTES BEFORE REFUELING



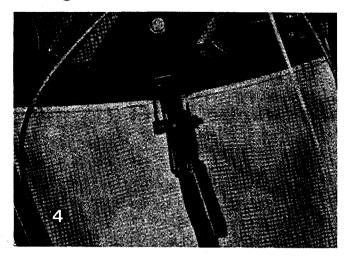
MEETS CPSC BLADE SAFETY REQUIREMENTS

Assembly Instructions for Optional Grass Bag

A WARNING

Stop engine and remove spark plug wire from spark plug before installing or removing grass bag or discharge deflector. Never operate mower without discharge deflector or grass bag properly installed.

- Attach grass catcher bag to frame with J-strips. (A flat screwdriver makes this easier.)
- 2. Assemble backplate to deck discharge chute using two 5/16-18 x 3/4 bolts and two 5/16 whizlock nuts. Bolts should be facing upwards through deck and backplate. Push backplate tightly against back of chute and tighten securely.
- 3. Install grass catcher bag assembly by sliding tube on catcher frame over backplate rod while holding down latch. Slide bag assembly all the way down to backplate to allow latch to hook over front of backplate. See photo 4.



4. To empty, hold down on latch and slide catcher off backplate and empty grass. Never remove catcher bag assembly while engine is running.

Safety Recommendations For All Mower Users

Recommended practices from the American Standard Safety Specifications for power lawn mowers. Please study these basic rules for mowing safety before operating mower.

Training

- 1. Regard the mower as a piece of power equipment and teach this regard to all who operate this unit.
- Never allow children or young teenagers to operate the mower.
- **3.** Be sure you know how to stop the mower and engine at a moment's notice.
- **4.** Keep the area of operation clear of all persons, particularly small children and pets.
- Read the Operator's and Engine Manuals thoroughly. Be familiar with the controls and the proper use of the mower.

Preparation

- Before starting operation, clear the entire area to be mowed of all debris that could catch on or be thrown by the mower.
- 2. Mow only during the daytime unless there is very good artificial light.
- 3. Check the fuel before starting the engine. Do not fill the gasoline tank indoors, when the engine is running or until the engine has been allowed to cool for several minutes after running. Clean off any spilled gasoline before starting the engine.
- **4.** Do not operate the mower when barefoot or wearing open sandals. Always wear substantial footwear.
- **5.** Never attempt to adjust the mowing height when engine is running.
- **6.** Never operate the mower in wet grass. Be sure you always have good footing. Keep a firm hold on the handle and walk; never run.

PARTS BOOKS

To obtain a parts book, complete this order form and enclose a check or money order for \$2.00. Make payable to ECHO, INCORPORATED, and mail to:

ECHO, INCORPORATED P.O. Box 67 Lake Zurich, IL 60047

ATTN: Technical Publications

NAME (please print)	
ADDRESS	
CITY, STATE AND ZIP CODE	
PARTS BOOK NO. 999222-01890 (LMC-212)	

Safety Recommendations For All Mower Users, cont.

Continued from page 4.

Operation

- Do not change the engine governor settings or overspeed the engine.
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge at all times.
- 3. Stop the blade(s) when crossing gravel drives, walks or roads.
- 4. After striking a foreign object, stop the engine (motor), remove the wire from the spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating mower.
- 5. If the equipment should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
- **6.** Stop the engine (motor) whenever you leave the equipment, before cleaning the motor housing, and when making any repairs or inspections.
- 7. When cleaning, repairing or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the plug to prevent accidental starting.
- 8. Do not run the engine (motor) indoors.
- 9. Shut the engine (motor) off and wait until blade comes to a complete stop before removing or attaching grass catcher, discharge chute and/or unclogging discharge chute.
- 10. Mow across the face of slopes; never up and down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes.
- Never operate the mower without proper guards, plates, or other safety protective devices in place.
- **12.** Keep washout ports and other mower-housing service openings closed when mowing.

Maintenance and Storage

- 1. Precisely follow the Engine Manual recommendations for maintenance.
- 2. Never adjust, unclog, or change attachments on the mower until the engine has been turned off and the spark plug wire has been disconnected.
- 3. If carburetor adjustment is necessary, refer to Engine Manual for specific adjustment instructions. Stand to one side and keep feet and hands clear of rotating blade and other moving components while making adjustments.
- 4. Keep engine free from accumulation of grass, leaves, or excessive grease. An accumulation of these combustible materials may result in a fire.
- **5.** Store gasoline in a safe container in a cool, dry place.
- 6. Keep the mower and fuel container in locked storage to prevent children from playing and tampering with them.
- Maximum mowing results and safety can only be achieved if the mower is maintained and operated correctly.
- 8. Gasoline powered equipment or fuel containers should not be stored in basement or any closed area where heat, appliances, or open pilot lights are present, unless completely drained of fuel.
- **9.** Check cutter blade and engine mounting bolts frequently to maintain proper tightness.
- **10.** Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
- 11. Check grass catcher bag frequently for wear or deterioration. Replace worn bags. Check that replacement bags comply with original manufacturer's recommendations or specifications.

FAILURE TO FOLLOW CAUTIOUS
OPERATING PRACTICES CAN RESULT IN
SERIOUS OPERATOR INJURY.



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