



## *Precision Reel Mowers*

# OPERATOR'S MANUAL



## Models RL205H / RL207H



# REEL MOWER OPERATOR'S MANUAL (RL205H/207H)

## Introduction

Read this information carefully to learn how to operate and maintain your product properly and to avoid injury and product damage. You are responsible for operating the product properly and safely.

You may contact Evergreen Turf Equipment directly for product and accessory information, help finding a dealer, or to register your product.

Whenever you need service, genuine California Trimmer parts, or additional information, please contact an Authorized Service Dealer or Customer Service and have the model and serial numbers of your product ready. They are located on the decal next to the engine as shown in this photo...



Write the numbers in the space provided.

Model Number: \_\_\_\_\_

Serial Number: \_\_\_\_\_

You may complete and mail the enclosed product registration forms (California Trimmer and Honda Engine) or you can register on-line at:

<http://caltrimmer.com>

<http://engines.honda.com>

Should you require warranty service, take a copy of your sales receipt and a copy of your product registration card to your servicing dealer.

## Carton Contents

In addition to this manual, the following are included...

- California Trimmer Reel Lawnmower
- California Trimmer Product Registration Card
- Engine Owner's Manual
- Engine Emission System Warranty
- Upper Handle Assembly (including clutch engagement lever and attached cable), roller lift handle & rod, and fasteners to attach it to the lower handle)
- Catcher Assembly (including bail rod, washers & cotter pins for attaching lift rod).

## Assembly & Set-up

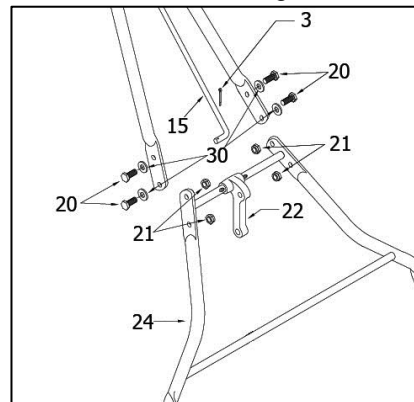
The unit has been carefully assembled with numerous adjustments and quality inspections performed by a team of trained factory technicians who take great pride in their work. To facilitate packaging and shipment, there are components that need to be installed.

**Note: It is recommended that this unit be set up and checked by an Authorized Dealer.**

### Tools Required

- 2 x 1/2" wrenches / 1 x 7/16" wrench
- Phillips head screwdriver - Small pliers

1. Fasten the upper and lower handles together with four 5/16"-24 bolts (#20), flat washers (#30) and lock nuts (#21). Note the washers (#30) are placed on the bolts (#20) before they are installed.



2. Attach the roller lift rod (#15) to the toggle (#22) using the cotter pin (#3).
3. The clutch activation lever and cable have already been fastened and connected. When installing the upper handle as described in section 1 above, ensure that the clutch cable routing is as depicted in the image below.



**Note: The clutch engagement lever may be slightly stiff at first however it will become smoother after some initial use.**



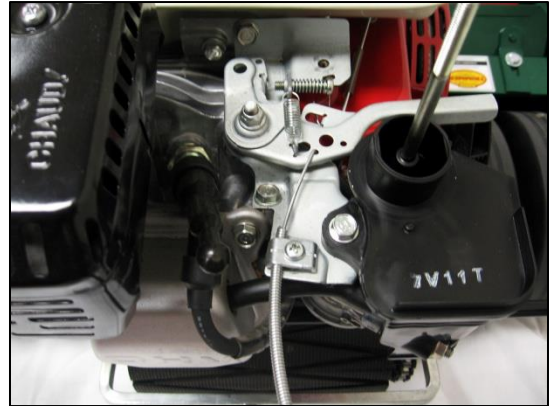
## REEL MOWER OPERATOR'S MANUAL (RL205H/207H)

### Assembly & Set-up (continued)

4. Attach the cable clips to secure the throttle cable to the upper and lower handles. **Note: some units may require 1 or 2 cable clips depending on the cable length.**



Honda GX120 Engine (**Note: the air filter must be removed to gain access to the connection area**)



**NOTE: Before tightening the cable holder, push the cable so the throttle control is in the slow position as indicated on the engine.**

5. Attach the throttle cable wire to the engine's throttle control bracket as shown.

*Briggs & Stratton 550 Engine* (**Note: the air filter must be removed to gain access to the connection area**)

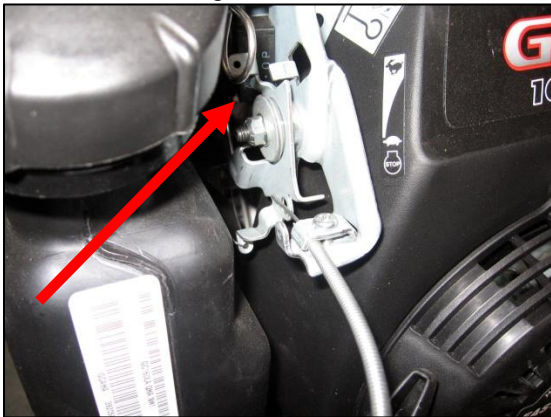


6. Mount the grass catcher bail to the grass catcher. Attach the bail ends to the grass catcher using the flat washers and clevis pins provided

**Note: The bail has slightly different lengths on each side, so align with the engine hook to determine the proper position. The grass catcher bin has three sets of mounting holes for the bail so an adjustment can be made according to the expected load or weight.**



*Honda GC160 Engine*



**NOTE: Before tightening the cable holder, push the cable so that the throttle control activates (pushes in) the stop switch.**

The bottom of the grass catcher has 2 brackets designed to rest on the caster bracket.





# REEL MOWER OPERATOR'S MANUAL (RL205H/207H)

## Key Components

The image below identifies key components of the California Trimmer Mower so take the time to familiarize yourself with them and their function.



## Safety Instructions

The following safety alert symbols are used in these instructions in conjunction with important safety messages related to the operation of the unit and potential hazards. As you familiarize yourself with the various features and functionality of this mower, please take note of the subjects and specific instructions that include these images...

### **⚠ DANGER**

...**WILL** cause serious or fatal injury if the instructions are not followed.

### **⚠ WARNING**

...**CAN** cause serious or fatal injury if the instructions are not followed.

## Safety Labels

On the unit itself, there are additional labels that identify important safety issues. The following one refers to the hazards of the cutting blades.



The following labels identify important instructions related to the operation of the mower:

### **⚠ WARNING**

#### **AVOID SERIOUS INJURY OR DEATH**

- READ THE OPERATOR'S MANUAL.
- GO ACROSS SLOPES, NOT UP AND DOWN.
- DO NOT MOW WHEN CHILDREN OR OTHERS ARE AROUND.
- LOOK DOWN AND BEHIND BEFORE AND WHILE MOVING BACKWARDS.
- REMOVE OBJECTS THAT COULD BE THROWN BY THE BLADES.
- KEEP SAFETY DEVICES (GUARDS, SHIELDS, SWITCHES, ETC.) IN PLACE AND WORKING.

### **⚠ WARNING**

**Catcher must be in place while mower is in operation. Be sure the operating control is in neutral before removing or replacing catcher.**

## Safety Precautions

### **⚠ WARNING**

Understand the operation of all controls and learn how to stop the engine and mower quickly in case of emergency. Make sure the operator receives adequate instruction before operating this unit. When instructions refer to the left or right side of the unit, it means as standing at the normal operation position.

## Training

### **⚠ WARNING**

1. Read all information contained in this manual carefully. Be thoroughly familiar with the controls and proper use of the equipment.
2. Never allow children to operate mower.
3. Never try to mow across steep terrain.
4. Keep area of operation clear of all persons, particularly small children and pets.
5. Never operate the mower without proper guards / shields in place.
6. Thoroughly train anyone using the mower. Make sure all mower operators know the safety, operating and maintenance procedures.
7. Never leave the mower unattended with the engine running, especially while the blade is spinning.



# REEL MOWER OPERATOR'S MANUAL (RL205H/207H)

## Preparation

### **!WARNING**

1. Thoroughly inspect the area where mower is to be used, and remove all stones, sticks, wire, bones and other foreign objects which might be picked up and thrown.
2. Do not operate mower when barefoot or wearing open sandals. Always wear substantial foot wear, and pants or slacks that cover your legs when operating mower.
3. Check fuel before starting engine. Do not fill gasoline tank indoors, or when engine is running. Wait until engine has been allowed to cool for several minutes. Clean off any spilled gasoline before starting engine.
4. Disengage clutch drive before starting engine.
5. Do not use mower unless all guards are properly in place.
6. Mow only in daylight or in good artificial light.
7. Always be sure of your footing. Keep a firm hold on the handle and walk, don't run.
8. Inspect the unit to verify the controls, safety switches and shields are attached and functioning properly. Do not operate unless they are functioning properly.

## Engine Operation

A variety of engines are used on the California Trimmer Reel Mowers and their specific identification is provided as the last part of the overall unit's model number. Example as follows: RL255-GX160 – (GX160 is the engine model no).

**Review the complete operation and safety instructions provided in the owner's manual of the respective engine manufacturer – which is included in the information packet of this unit.**

Any service, warranty or replacement parts issues for the engine should be directed to Authorized Service Dealers of the respective engine manufacturer.

## Operating Controls



### 1. Clutch Lever

This initiates both the roller and reel cutting blade rotation. Squeeze the lever until engagement occurs and release to stop.

### **!WARNING**

**Do not start the engine while squeezing clutch lever.**

### 2. Drive Roller Engagement

The drive roller propels the unit when it is lowered on to the ground. Once the engine is started and the clutch is engaged, the drive roller will be rotating.



### **!WARNING**

**Always move the lift lever into the disengaged position when stopping. Begin pushing the unit forward as the drive roller is lowered to the ground.**

### 3. Engine Stop Switch

### **!DANGER**

**Reduce the engine speed using the throttle lever, lift the drive roller and release the clutch lever before stopping the engine. Never stop the engine while the unit is moving or blades are rotating.**

- Briggs & Stratton model 550

It is located on the right side of the engine



- Honda model GX120

It is located on the front side of the engine.



- Honda model GC160

The stop switch is incorporated into the throttle linkage, so moving the throttle lever completely to the left will stop the engine.

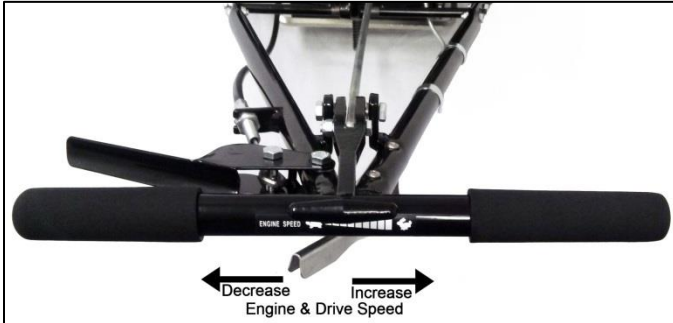


# REEL MOWER OPERATOR'S MANUAL (RL205H/207H)

## Operating Controls

### 4. Throttle Lever

The throttle lever controls the engine speed – as well as the blade and drive roller speed.



Pivot the lever right to increase, to the left to decrease. On some units, the throttle also controls the engine stop switch as indicated previously.

### 5. Cutting Height Adjustment

The cutting height is determined by the position of the adjustment handle and the front caster axle.



The front caster wheel axle comes standard in the middle position. It can be removed and placed in the bottom position to achieve additional settings and lower cutting heights. **NOTE: the top position would be used only for aftermarket caster wheels or front rollers that prevent access to the lower cutting heights in the middle position.**



The height is changed by moving the adjustment handle into the positions of the bracket.



### Cutting Heights\*\*

Handle Position	Caster Axle Position	
	Bottom	Middle
#1	1-7/8"	1-3/8"
#2	1-3/4"	1-1/4"
#3	1-5/8"	1-1/8"
#4	1-1/2"	1"
#5	1-1/4"	3/4"
#6	1"	5/8"
#7	7/8"	3/8"

**\*\*NOTE: Position #8 is not accessible in the unit's present configuration. Actual cutting height is affected by many factors including ground hardness, levelness and grass conditions.**

## Mower Operation

### 1. Clothing and Safety Accessories

Always wear safety glasses and appropriate clothing when operating mower.

### 2. Starting

## ⚠ WARNING

The clutch must be disengaged before starting the engine.

Start the engine carefully and always from behind the mower. Keep hands and feet well away from blade. If mower should start to vibrate abnormally, stop the engine and check for the cause. Vibration is generally a sign of trouble.

### 3. Engaging Clutch

Squeeze the clutch lever to start the reel and roller rotation. **Note: The reel blade has been adjusted at the factory and there is slight contact with bed-knife. Moisture in the grass provides lubrication for the reel blade. Always disengage the clutch (release the lever) to stop the reel blade if not cutting grass for an extended period of time.**

### 4. Mowing

Move the drive roller lift lever forward to lower the roller and make contact with the ground. Use the clutch lever to slow the rotation while lowering the roller provides a smooth take off and helps eliminate any roller marks on grass.

## ⚠ WARNING

Avoid loss of control or tipping on slopes and sharp corners by reducing speed. Stop the blade when crossing gravel drive, walkways or roads.



# REEL MOWER OPERATOR'S MANUAL (RL205H/207H)

## Mower Operation

### 4. Mowing (continued)

## ⚠ WARNING

If striking a foreign object, stop the engine, remove wire from spark plug, thoroughly inspect mower for damage. Repair damage before restarting engine. Watch out for traffic when working near roadways. Stay alert for uneven sidewalks, holes in terrain or other hidden hazards when using mower. Never operate mower unless all guards are in place.

### 5. Turning

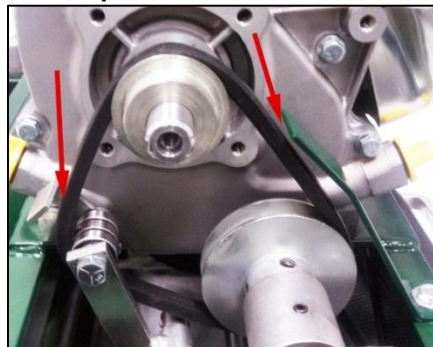
When approaching a sharp turn or repositioning to start a new cutting swath, release the clutch lever and pull the roller lift lever to raise it off the grass, stopping forward motion. Push slightly downward on the handle (relieving weight off front casters) and turn the mower.

### 6. Stopping

## ⚠ WARNING

Release the clutch lever to disengage, lift the roller handle and stop the engine before leaving mower to empty the grass catcher, make repairs, inspections or adjustments, and when transporting. If the reel blade and roller continue to turn when the clutch lever is released, stop the engine immediately and refer to the belt adjustment.

When the clutch lever is engaged, the clutch cable moves the idler arm toward the front of the mower, thus applying tension to the belt. When in this position, the belt engages the engine drive pulley and provides drive to the system. **Note; when the clutch lever is engaged and the belt is in the drive mode, neither the belt guide or belt guard should be in contact with the belt. Contact of these parts on the belt in the drive mode will cause premature wear of the belt.**



When the clutch lever is disengaged, the belt should sit just above the engine drive pulley, and should not spin. The belt guard and belt guide should slightly pinch the belt, ensuring that the belt rises above the influence of the engine drive pulley



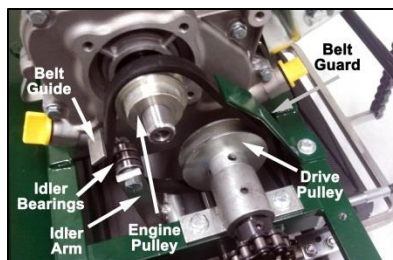
## Mower Maintenance

Inspection and maintenance is recommended after each 8 hours of use. The following topics are general practices that owners can do to keep the mower in good working condition. For service or repair issues beyond these, it is advised that the unit be inspected by an Authorized California Trimmer Dealer.

**IMPORTANT: Avoid damage! Operating in extreme conditions may require more frequent service intervals. Engine components may become dirty or plugged when operating in extreme heat, dust or other severe conditions.**

1. **ENGINE:** Check the oil level and air cleaner per the engine manufacturer's instructions.

2. **CLUTCH DRIVE SYSTEM:** The drive mechanism ("clutch") is belt driven. When activated by squeezing the clutch lever on the handlebar, the belt simultaneously provides drive to both the reel



(blade), and the rear drive roller.

If there are any visible cracks, splits or gouges in the belt, replace it immediately. Also check the idler bearings regularly to ensure they spin freely and smoothly.

- Adjusting:

Proper belt function as described above, is attained with three adjustment points, and may require adjusting as the belt wears:

A. The position of the belt guide. The belt guide rotates on the idler arm and provides the pinch-point that helps the belt rise above the engine drive pulley.

B. The clutch cable. The clutch cable is adjustable at the top of the cable near the clutch lever, and at the point where the cable enters the frame at the bottom.



# REEL MOWER OPERATOR'S MANUAL (RL205H/207H)

## Mower Maintenance

Loosen the top lock nut, and tighten the bottom nut to move the adjuster downward. **NOTE: When a new belt is installed, adjustment in the opposite direction may be needed to ensure the clutch will disengage when the lever is released.**

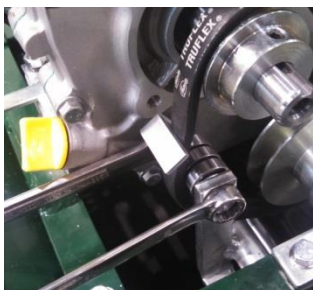


### - Replacing Belt:



Remove cover, loosen belt guard and pivot away from belt. Remove belt from engine pulley, drive pulley and idler.

Remove nut, belt guide, 1 washer and 1 bearing from idler to create space to remove belt. Install new belt, re-assemble idler components and tighten with belt guide in proper position as shown.



Verify belt is routed correctly and properly placed in the engine pulley and drive pulley. Move belt guard back into position and tighten. Squeeze the engagement lever to verify function. Reinstall the cover and tighten.

**NOTE: Before starting, verify the clutch drive disengagement by pulling the recoil starter and if the reel blade and drive roller turn, belt drive adjustment is needed.**

## ⚠ WARNING

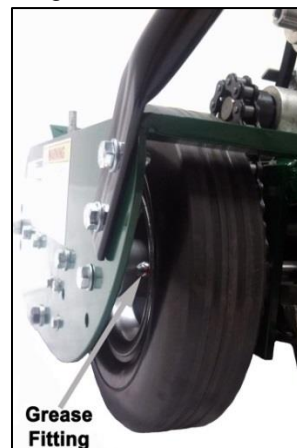
If you are unable to properly adjust the drive system ensuring dis-engagement of the belt, consult your dealer before proceeding. Safe operation requires that the blade reel and drive roller **DO NOT** move when the clutch lever is disengaged!

## 3. WHEELS / SHAFTS / CHAINS

A. Grease the reel blade shaft and caster wheels.



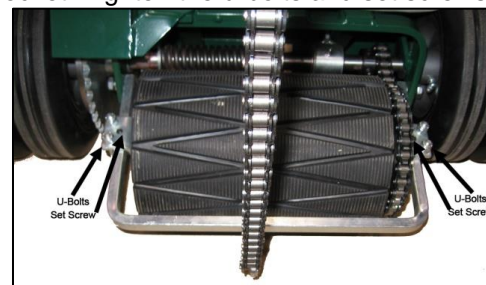
B. Grease the fittings on the rear wheels.



C. Check reel drive chain and lubricate if needed.



D. Check roller chain tension once each week. To tighten roller chain raise the roller aligning the roller shaft parallel to the drive shaft. This puts the roller at the furthest point of movement. Loosen the u-bolts and set screw on each side then move the roller back evenly until there is 1/2" vertical movement of the chain. Make sure the roller spacing is even across the back (with the yoke) and that the chain alignment is straight to the shaft sprocket. Tighten the u-bolts and set screws.





# REEL MOWER OPERATOR'S MANUAL (RL205H/207H)

## Mower Maintenance

### 3. WHEELS / SHAFTS / CHAINS (Continued)

- E. Lubricate all the drive chains with engine oil and momentarily run the machine to spin off excess oil before use.
- F. Check to ensure that all guards are in place and are tight before operating.



### 4. REEL BLADE / BED-KNIFE

## ⚠ WARNING

Reel blades and bed knife edges are sharp. Never stand in front of the unit or attempt any adjustments while the engine is running. If you are unable to properly adjust these, consult your dealer before proceeding.

Reel mowers, unlike rotary mowers, use a scissors action to cut grass. The grass is cut as it passes between the blades of the reel blade and the bed knife located on the bottom of the mower frame



The mower is pre-set at the factory, but based on the type of grass and other factors, further adjustment may be necessary. As the blade reel and bed knife wear, additional adjustment will be required.

The clearance between the reel and the bed knife is controlled by two adjusters on the topside of the mower.



The adjusters raise and lower each side of the bed-knife in relation to the reel, increasing or decreasing the clearance and should be moved as evenly as possible.



Turning the adjuster **clockwise reduces** the clearance between the bed knife and reel blade, while turning it **counter-clockwise increases** the clearance. When properly adjusted, there should be slight contact between the reel blade and the bed knife.

**NOTE:** Excessive contact will cause overheating and damage to the parts. Insufficient contact will not allow for the grass to be cut. Any excessive noise means that the adjustment is too tight. It is not recommended that the reel be engaged for extended periods of time when not cutting grass as the moisture provides a level of lubrication to the cutting surfaces while in use.

Replacement parts are available from Authorized California Trimmer Dealers. Parts manuals, service manuals and videos are available at our website: <http://caltrimmer.com>

**IMPORTANT:** Never use parts or accessories not supplied by California Trimmer as they may cause diminished performance or unforeseen safety hazards.



# REEL MOWER OPERATOR'S MANUAL (RL205H/207H)

## LIMITED WARRANTY STATEMENT

Evergreen Turf Equipment, LLC hereby warrants California Trimmer Mowers manufactured by it to be free from defects in material or workmanship for a period two years after purchase for non-commercial / non-rental consumer use. This warranty applies only to non-engine components and functions. The engine warranty coverage is provided by the respective manufacturer and is subject to their specific requirements and conditions. If the product is used in a commercial application, the warranty period shall be one year, and if the product is used in a rental application, the warranty period shall be 90 days after purchase. Commercial under the terms of warranty is defined as use in conjunction with an income producing business or institutional application. Rental under the terms of warranty is defined as use for income producing rentals of the products by multiple end users in either personal or commercial applications. This warranty is limited to repair or replacement by Evergreen Turf Equipment or at the premises of California Trimmer Authorized Service Dealers, of such parts as appear upon inspection, to be defective in material and/or workmanship.

The above warranties are extended only to the first end user, and no warranty is made nor authorized to be made assignable on resale. Evergreen Turf Equipment makes no warranty with respect to replacement parts not manufactured or sold by it. Such parts are subject to the warranty policy of their respective manufacturers. For the name and address of your nearest Authorized Service Dealer, contact Evergreen Turf Equipment at: 1028 4th Street SW, Building A, Auburn WA 98001, (253) 333-3345 or online at <http://caltrimmer.com>. To obtain performance of any obligation under this warranty for failure during the applicable warranty period, deliver the product, shipping prepaid, to Evergreen Turf Equipment, or to the nearest Authorized Service Dealer. Warranty coverage is conditioned upon the first end user furnishing Evergreen Turf Equipment or its Authorized Service Dealer with adequate written proof of the original purchase date. Evergreen Turf Equipment reserves the right to inspect the claimed defective part(s) to determine if the malfunction is the result of a defect covered by this warranty. This warranty will cover only defects arising under normal usage, and shall not apply, nor will Evergreen Turf Equipment assume any responsibility, if the failure was caused by the following:

1. Operation of product without proper lubrication.
2. Misuse, abuse, or negligence.
3. Accident or physical damage.
4. Repairs made by unauthorized parties and/or with unauthorized parts.
5. Improper unit set up or altered components.
6. Improper adjustments i.e. blades, drive system, levers, cables, etc.
7. Operation of engine at speeds above the manufacturer's recommendations.
8. Failure to operate or maintain the unit in the manner specified by the owner's manual.

Inspection, service and adjustments to normal maintenance items such as grease fittings, blades, drive chains, engagement levers, etc are not considered the responsibility of Evergreen Turf Equipment under this warranty.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES, OBLIGATIONS, OR LIABILITIES. ANY IMPLIED WARRANTIES, OBLIGATIONS, OR LIABILITIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL BE LIMITED IN DURATION TO THE APPLICABLE WARRANTY PERIOD FOR THE FIRST END USER (TWO YEARS FOR NONCOMMERCIAL/ RENTAL USE; 1 YEAR FOR COMMERCIAL USE; 90-DAYS FOR RENTAL USE). ANY ACTION FOR BREACH OF ANY WARRANTY HEREUNDER INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE MUST BE BROUGHT WITHIN A PERIOD OF SIX MONTHS FROM THE END OF THE APPLICABLE WARRANTY PERIOD.

Some states do not allow limitations on how long an implied warranty lasts, so the previously stated limitations may not apply to you. No agent, representative, dealer, or employee of Evergreen Turf Equipment has the authority to increase or alter the obligations of this warranty.

IF THE PRODUCT IS USED PRIMARILY IN A COMMERCIAL OR RENTAL APPLICATION, EVERGREEN TURF EQUIPMENT WILL NOT BE LIABLE FOR GENERAL DAMAGES INCLUDING BODILY INJURIES, EXCEPT AS SET FORTH ABOVE, OR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF USE, LOSS OF PROFITS, LOSS OF PRODUCTION, EXPENSE OF SUBSTITUTE EQUIPMENT OR OTHER COMMERCIAL LOSS OR DAMAGE. THE SAME LIMITATIONS SHALL APPLY TO A PRODUCT USED FOR CONSUMER PURPOSES WITH RESPECT TO ALL NON-PERSONAL INJURY, GENERAL INCIDENTAL AND CONSEQUENTIAL DAMAGES.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.