



OPERATOR'S MANUAL



Utility Vehicle

Snow Blade

39A-109-100

**(Requires 39A-115-100 Plow
Mounting Hitch)**

IMPORTANT: READ SAFETY RULES AND INSTRUCTIONS CAREFULLY

Warning: The off road utility vehicles which use this front blade attachment are equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator. In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester for the muffler is available through your nearest engine authorized service dealer or contact the service department, P.O. Box 361131 Cleveland, Ohio 44136-0019.

CUB CADET LLC P.O. BOX 361131 CLEVELAND, OHIO 44136-0019 [www.cubcadet.com]

PRINTED IN U.S.A.

FORM NO. 769-00588

(11/02)

SECTION 1: IMPORTANT SAFE OPERATION PRACTICES



WARNING: This symbol points out important safety instructions which, if not followed, could endanger the personal safety and/or property of yourself and others. When you see this symbol - heed its warning.

To reduce the potential for any injury, comply with the following safety instructions. Failure to comply with the instructions may result in personal injury.

General Operation

1. Carefully read in their entirety the vehicle's and this equipment's operator's manuals before attempting to assemble or operate the equipment. Keep both manuals in a safe place for future and regular reference and for ordering replacement parts.
2. The vehicle is designed for off-road usage and should not be operated on public highways. Know and comply with all laws and regulations governing the use of off-highway vehicles in your area.
3. The vehicle handles and maneuvers differently than a normal passenger car. Sharp high speed turns and abrupt maneuvers can cause vehicle to roll over or go out of control. Slow down when turning and avoid abrupt maneuvers.
4. Be familiar with all instructions and controls and their proper operation before starting the vehicle.
5. Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction. Only persons well acquainted with these rules of safe operation should be allowed to use the equipment.
6. Watch for traffic when operating near or crossing roadways. This vehicle is not intended for use on any public roadway.
7. No one should operate this equipment while intoxicated or while taking medication which impairs the senses or reactions.
8. Never carry more than one passenger. This vehicle is designed to carry the driver and one passenger only. No riders are allowed in cargo box or anywhere else on vehicle.
9. Keep all body parts (i.e. head, arms, hands, legs, feet) inside vehicle when vehicle is in motion.
10. Always remain seated and keep both hands on the steering wheel when driving the vehicle.
11. Sit on the center of the seat and keep both feet within the foot platform perimeter. The foot platform may become slippery from snow or ice, use extra caution when mounting or dismounting the vehicle.
12. Inspect area around vehicle before moving, especially in reverse. Back up slowly. Always look down and behind before and while backing to avoid a back-over accident. Keep bystanders out of area.
13. Do not mount or leave vehicle while it is in motion or in actual operation.
14. Never leave vehicle unattended with the key in the ignition. Always turn key to the "Stop" position, set the parking brake and remove key.
15. Check overhead clearances carefully before driving under low hanging tree branches, wires, etc., or in any other situation where the operator or passenger may be struck or pulled from the unit. Such negligence could result in serious injury.
16. Engine must be stopped when cleaning, servicing, adjusting, repairing, or installing attachments on utility vehicle.
17. The vehicle and attachment should be stopped and inspected for damage after striking a foreign object. The damage should be repaired before restarting and operating the equipment.
18. Do not start and run vehicle in an inside area, unless it is adequately ventilated. Engine exhaust contains carbon monoxide fumes, which are very poisonous and can be deadly.
19. Always inspect the vehicle each time you use it to make sure it is in safe operating condition.
20. Operate blade only in daylight or in good artificial light. Always use vehicle lights while operating in low light situations.
21. Avoid overturns—Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear steep slopes.
22. No person should be allowed near the working area when the blade is being operated.
23. Do not overload the vehicle capacity by attempting to clear snow at too fast of rate. Take the time to do the job in a safe manner.
24. Be careful to avoid catching the blade on stumps or other immovable objects.
25. Never use the blade to tow another object.
26. Use extreme care when operating close to ditches, fences or on hillsides.
27. Be sure that the blade is fully raised and is in the straight forward position when in transport.
28. When turning close to buildings or passing through narrow areas, be sure to allow sufficient clearance for the blade.
29. If situations occur which are not covered in this manual, use care and good judgement. Contact your local Cub Cadet dealer, or call toll free 1-877-282-8684 for assistance in locating your nearest dealer.

Slope Operation

Slopes are a major factor related to loss of control and rollover accidents, which can result in severe injury or death. If a slope is steeper than a 15° incline, do not operate this unit on that area. Exercise extreme caution while operating on slopes.

DO:

1. Travel straight up and down slopes, not across. Exercise extreme caution when changing direction on slopes.
2. Travel slowly while on a slope. Always keep the forward speed limited when going down slopes to take advantage of the engine braking action.
3. Keep all movement on the slopes slow and gradual. Avoid starting or stopping on a slope.

Do Not:

1. Do not travel near drop-offs, ditches or embankments. The vehicle could suddenly turn over if a wheel is over the edge of a cliff, ditch, or if an edge caves in.
2. Do not stop or start suddenly when going uphill or downhill. Be especially cautious when changing direction on slopes.
3. Do not turn sideways to the hill. The vehicle may roll over. If you must turn, go slow and do so carefully and gradually.



WARNING: Your Responsibility: Restrict the use of the vehicle and equipment to persons who read, understand and follow the warnings and instructions in this manual and on the unit.

Children

1. Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the vehicle. They do not understand the dangers. Never assume that children will remain where you last saw them. Avoid run over accidents.
 - a. Keep children out of the immediate area of the vehicle and in watchful care of a responsible adult other than the operator.
 - b. Be alert and turn the vehicle off if a child enters the area.
 - c. Before and while backing, look behind and down for small children.
 - d. Never carry small children, they may fall off and be seriously injured or interfere with safe vehicle operation.
 - e. Use extreme care while approaching blind corners, doorways, shrubs, trees or other objects that may block your vision of a child who may run into the path of the vehicle.
 - f. Remove key when vehicle is unattended to prevent unauthorized operation.
2. Never allow children under 16 years old to operate this vehicle. Children 16 years old and over should read and understand the operation instructions and safety rules for the vehicle and equipment, and should be trained and supervised by an adult.
3. Do not let children ride in the cargo box, in the driver's or passenger's lap or anywhere other than the passenger seat. Never give small children a ride; not even in the passenger seat. They may fall off.

SECTION 2: INTRODUCTION

The 72-inch Front Blade (w/spring trip feature) is designed for use on Cub Cadet *Big Country* utility vehicles.

Before the blade can be installed, the utility vehicle must be equipped with the Plow Mounting Hitch (Factory Number 39A-115-100).

The blade is designed for clearing snow. It is equipped with a spring trip release feature which protects the

blade, utility vehicle and operator from severe shock loads when the blade comes in contact with heavy or immovable obstacles. The blade also features a reversible scraper blade to extend its service life.

IMPORTANT: Read and observe all WARNING statements. They are included to provide for the protection of the equipment installer and user.

SECTION 3: INSTALLATION AND REMOVAL

Installation

NOTE: The Front Hitch Attachment 39A-115-100 must be installed before you can attach the blade.

1. Select a firm and level surface large enough to accommodate both the utility vehicle and blade; then stand the blade upright in its operating position.
2. Make certain the blade hitch pin extends through the rear hole in the blade mounting frame, and the handle of the pin is in the lower hole at the front of the mounting frame. See Figure 1.



WARNING: Start the utility vehicle engine only from the operator's position in the seat. Stop (or idle) the utility vehicle engine and engage the parking brake before dismounting.

3. Start the utility vehicle. Using the toggle switch installed with the mounting hitch, lower the mounting hitch 'A' frame.
4. Slowly driving the vehicle forward, align the top of the mounting hitch 'A' frame with the side channels of the blade mounting frame. See Figure 1.
5. Using the toggle switch, SLOWLY raise the mounting hitch while making sure the 'A' frame engages the channels of the blade mounting frame. See Figure 1.

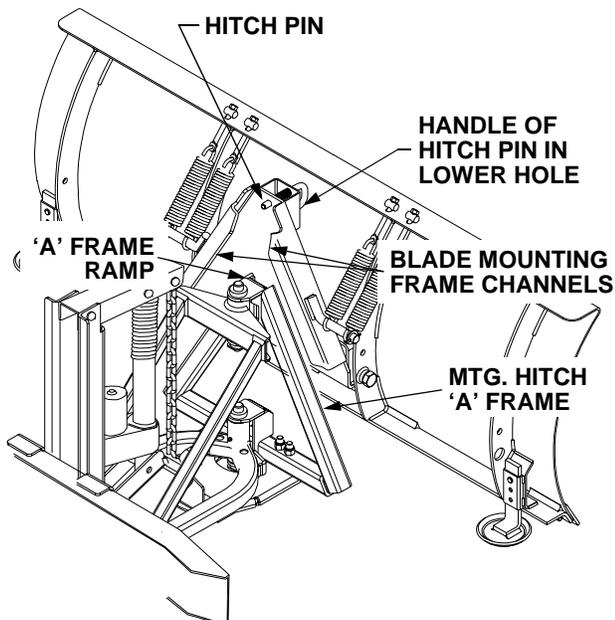


Figure 1

6. As you continue to raise the front hitch, the ramp at the top of the 'A' frame should push the blade hitch pin outward, allowing the 'A' frame to fully engage the blade mounting frame and also aligning the hitch pin with the hole in the front of the 'A' frame. The compression spring on the hitch pin should push the pin through the 'A' frame hole to secure the blade to the mounting hitch. See Figures 1 and 2.
7. Stop the vehicle engine and engage the parking brake.

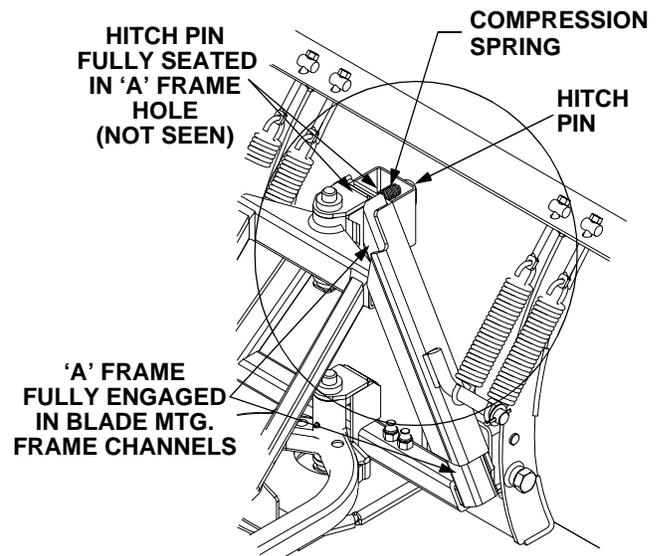


Figure 2

8. Check to verify that the blade hitch pin is fully seated into the front hole of the 'A' frame. If not, push the pin rearward to fully engage the 'A' frame.

Removal

1. The skid shoes should be in their highest position. If necessary, adjust the skid shoes to the upper hole of the index bracket. See ADJUSTMENTS.
2. Start the utility vehicle engine.
3. Select a firm and level surface to store the blade. Using the toggle switch installed with the mounting hitch, lower the blade until just above or just contacting the ground. Stop (or idle) the vehicle engine and engage the parking brake before dismounting.

- Pull the hitch pin forward to withdraw its handle from the lower hole in the front of the blade mounting frame. Rotate the hitch pin handle away from the hole so that it engages the front face of the mounting frame, then release the pin to lock in the disengaged position.

- Start (or throttle up) the vehicle engine and lower the front hitch 'A' frame so that it disengages the blade mounting frame. Carefully back the utility vehicle away from the blade.
- Reposition the hitch pin to engage the holes in the blade mounting frame.

SECTION 4: ADJUSTMENT AND OPERATION



WARNING: Before operating the tractor, familiarize yourself with **SAFE OPERATION PRACTICES FOR RIDING VEHICLES** on page 2.

Skid Shoe Adjustment

The skid shoes can be adjusted into any of three height positions provided by the holes in the index brackets on the back of the blade.

- Upper Hole** — Results in the scraper blade resting on the ground.
- Middle Hole** — Results in the blade being approximately one inch above the ground.
- Lower Hole** — Results in the blade being approximately two inches above the ground.

For most applications the skid shoes will be set in the upper position with the scraper blade on the surface. The middle and lower positions are designed for use on uneven or loose surfaces, such as gravel driveways.

To adjust the skid shoes, remove the internal cotter pins and clevis pins, position the skid shoe holes to align with the desired index holes, and reinstall the clevis pins and internal cotter pins. See Figure 3. *Note: The skid shoes must be positioned in corresponding index holes.*

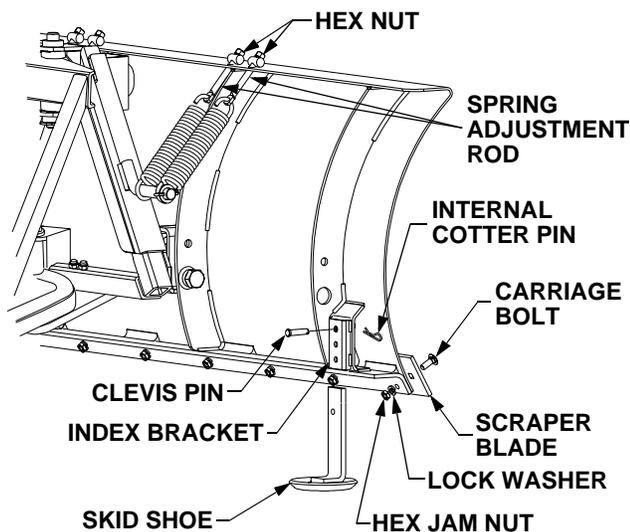


Figure 3

Reversing the Scraper Blade

The scraper blade can be reversed for a longer service life. Remove the eleven hex jam nuts, lock washers, and carriage bolts. Reverse the scraper blade and loosely reinstall the carriage bolts, lock washers, and hex jam nuts. After installing all fasteners, tighten them securely. See Figure 3.

Adjusting Spring Trip Tension

The trip springs were adjusted to the normally recommended tension at the factory. However, there may be times when you desire more, or less, spring tension.

To adjust the spring tension, turn the hex nuts clockwise (tighten) on the spring adjustment rods to increase tension. Turn the hex nuts counterclockwise (loosen) on the adjustment rods to decrease the spring tension. See Figure 3.

Adjusting Blade Height

The toggle switch which activates the electric lift cylinder was installed with the mounting hitch package. If installed correctly, the toggle switch is used to adjust the blade height as follows (Refer to Figure 4):

- Lift and hold the switch to raise the blade to the desired position. Release switch immediately when you hear the cylinder reach its maximum height.
- When the switch is released it will return to the center position and the blade will remain at the set height.
- Press and hold the switch downward to lower the blade. Release switch immediately when you hear the cylinder reach its minimum height.

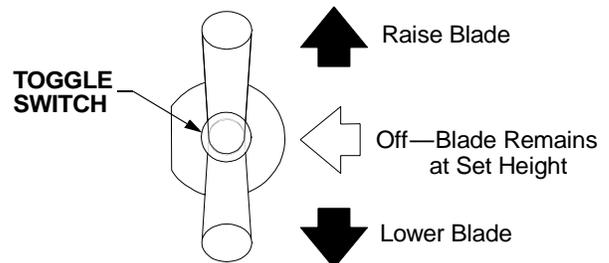
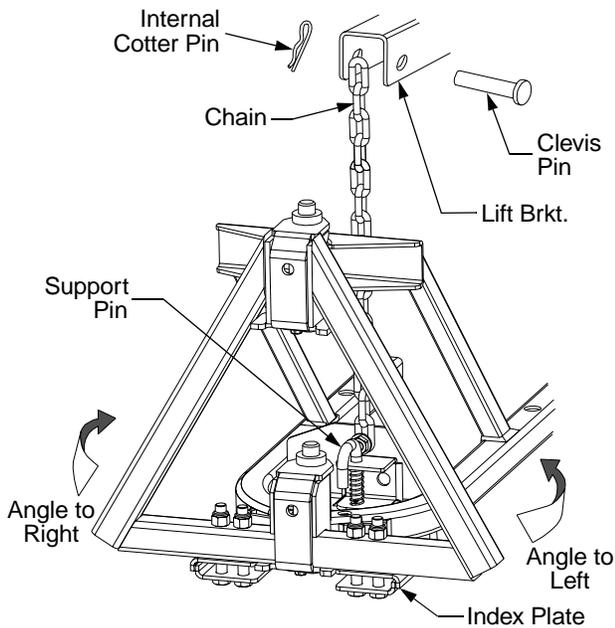


Figure 4

Adjusting the Blade Float

The float of the blade is set with the lift chain. Normally the chain is set to provide approximately 2-3 inches of float. If, because of the terrain, additional or less float is desired, adjust as follows (See Figure 5):

- Use the toggle switch to lower the blade to the surface and set the lift cylinder in its lowest position.
- After noting which chain link is used, remove the internal cotter pin and clevis pin securing the chain to the lift bracket.
- Lower the chain and insert the clevis pin through a higher link to increase the float. **Note:** *Increasing the float will reduce the height of the blade when raised to its highest position.*
- Raise the chain and insert the clevis pin through a lower link to decrease the float. **Note:** *Always leave some slack in the chain.*



Blade Removed for Clarity

Figure 5

Adjusting the Blade Angle

The blade can be adjusted into any of five angle positions - straight, two positions angled to the right, and two angled to the left.

To adjust the blade angle, proceed as follows (Refer to Figure 5):

- Grasp the handle of the support pin and pull upward to disengage the pin from the index plate.
- Pivot the blade slightly in the desired direction and release the support pin while continuing to pivot the blade. The support pin will snap into the first index hole in the direction it is being pivoted.
- Repeat the previous two steps to adjust the blade into any other angle position.

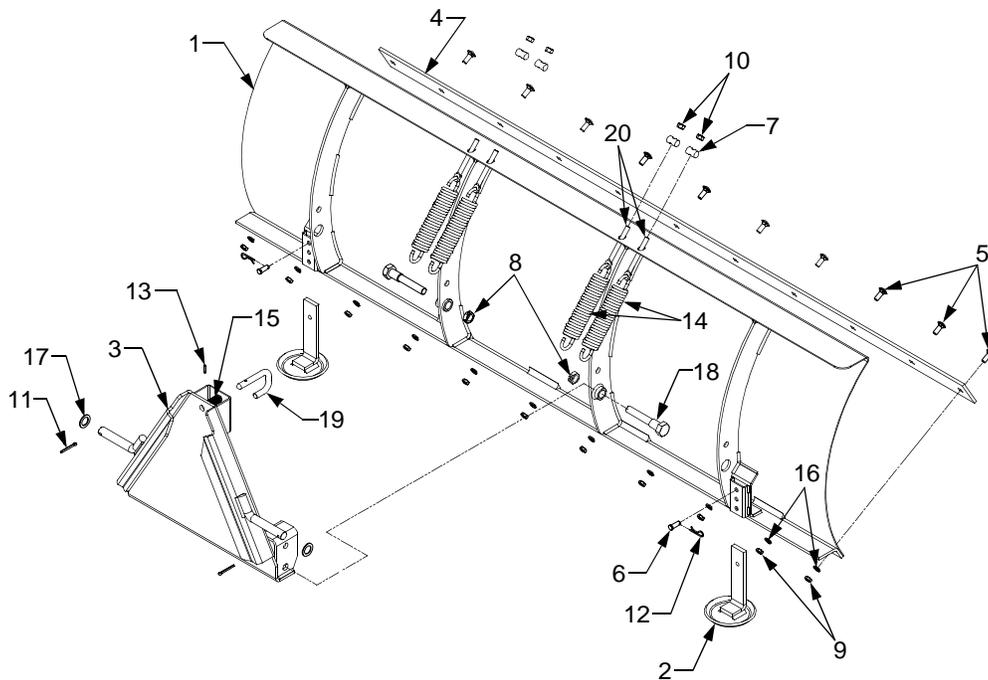
Operation

Adjust the skid shoes for the surface being cleared. Lower the blade to the surface and operate the utility vehicle at a speed consistent with size and condition of the area being cleared.

Lubrication

Periodically lubricate the spring trip pivot bolts with a light oil to help prevent corrosion and wear.

SECTION 5: PARTS LIST



| REF. NO. | PART NUMBER | DESCRIPTION | QTY. |
|----------|-------------|-------------------------------------|------|
| 1 | 603-04053 | Blade Assembly 72inch | 1 |
| 2 | 603-0810 | Shoe, Skid | 2 |
| 3 | 603-0812 | Frame, Blade Mounting | 1 |
| 4 | 703-05130 | Blade, Scraper | 1 |
| 5 | 710-3168 | Screw, Carriage, 3/8-16 x 1.0 | 11 |
| 6 | 711-0173 | Pin, Clevis,.375 x.969 | 2 |
| 7 | 711-3247 | Spring Roller | 4 |
| 8 | 712-0261 | Nut, Jam Lock, 5/8-11 | 2 |
| 9 | 712-3008 | Nut, Jam, 3/8-16 GR5 | 11 |
| 10 | 712-3017 | Nut, Hex, 3/8-16 GR8 | 4 |
| 11 | 714-0142 | Pin, Cotter, 3/16 x 1.5 | 2 |
| 12 | 714-0145 | Pin, Internal Cotter, .092 x 1.64 | 2 |
| 13 | 715-3003 | Pin, Spirol 3/16 x 3/4 | 1 |
| 14 | 732-1031 | Spring, Extension, 1.5 x 8.0 | 4 |
| 15 | 732-3091 | Spring, Compression, .57 x 2.09 | 1 |
| 16 | 736-0169 | Washer, Lock, 3/8 | 11 |
| 17 | 736-0287 | Washer, Flat, .793 x 1.24 x .06 Hdn | 2 |
| 18 | 738-3175 | Screw, Shoulder | 2 |
| 19 | 747-3427 | Pin, Front Hitch | 1 |
| 20 | 747-3463 | Rod, Spring Adjustment | 4 |

MANUFACTURER'S LIMITED WARRANTY FOR:



The limited warranty set forth below is given by Cub Cadet LLC with respect to new merchandise purchased and used in the United States, its possessions and territories.

Cub Cadet LLC warrants this product against defects for a period of two (2) years commencing on the date of original purchase and will, at its option, repair or replace, free of charge, any part found to be defective in materials or workmanship. This limited warranty shall only apply if this product has been operated and maintained in accordance with the Operator's Manual furnished with the product, and has not been subject to misuse, abuse, commercial use, neglect, accident, improper maintenance, alteration, vandalism, theft, fire, water, or damage because of other peril or natural disaster. Damage resulting from the installation or use of any accessory or attachment not approved by Cub Cadet LLC for use with the product(s) covered by this manual will void your warranty as to any resulting damage.

Normal wear parts or components thereof are subject to separate terms as follows: All normal wear parts or component failures will be covered on the product for a period of 90 days regardless of cause. After 90 days, but within the two year period, normal wear part failures will be covered ONLY IF caused by defects in materials or workmanship of OTHER component parts. Normal wear parts and components include, but are not limited to: batteries, belts, blades, blade adapters, grass bags, rider deck wheels, seats, snow thrower skid shoes, shave plates, auger spiral rubber, and tires.

HOW TO OBTAIN SERVICE: Warranty service is available, WITH PROOF OF PURCHASE, through your local authorized service dealer. To locate the dealer in your area, check your Yellow Pages, or contact Cub Cadet LLC at P.O. Box 361131, Cleveland, Ohio 44136-0019, or call 1-877-282-8684, or log on to our Web site at www.cubcadet.com.

This limited warranty does not provide coverage in the following cases:

- a. The engine or component parts thereof. These items carry a separate manufacturer's warranty. Refer to applicable manufacturer's warranty for terms and conditions.
- b. Routine maintenance items such as lubricants, filters, blade sharpening, tune-ups, brake adjustments, clutch adjustments, deck adjustments, and normal deterioration of the exterior finish due to use or exposure.
- c. Cub Cadet LLC does not extend any warranty for products sold or exported outside of the United States,

its possessions and territories, except those sold through Cub Cadet LLC's authorized channels of export distribution.

- d. Parts that are not genuine Cub Cadet parts are not covered by this warranty.
- e. Service completed by someone other than an authorized service dealer is not covered by this warranty.
- f. Transportation charges and service calls are not covered.

No implied warranty, including any implied warranty of merchantability of fitness for a particular purpose, applies after the applicable period of express written warranty above as to the parts as identified. No other express warranty, whether written or oral, except as mentioned above, given by any person or entity, including a dealer or retailer, with respect to any product, shall bind Cub Cadet LLC. During the period of the warranty, the exclusive remedy is repair or replacement of the product as set forth above.

The provisions as set forth in this warranty provide the sole and exclusive remedy arising from the sale. Cub Cadet LLC shall not be liable for incidental or consequential loss or damage including, without limitation, expenses incurred for substitute or replacement lawn care services or for rental expenses to temporarily replace a warranted product.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

In no event shall recovery of any kind be greater than the amount of the purchase price of the product sold. **Alteration of safety features of the product shall void this warranty.** You assume the risk and liability for loss, damage, or injury to you and your property and/or to others and their property arising out of the misuse or inability to use the product.

This limited warranty shall not extend to anyone other than the original purchaser or to the person for whom it was purchased as a gift.

HOW STATE LAW RELATES TO THIS WARRANTY: This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Cub Cadet LLC, P.O. BOX 361131 CLEVELAND, OHIO 44136-0019; Phone: 1-877-282-8684