

Three-Stage Snow Thrower Attachment — 19A40024100

A WARNING

READ AND FOLLOW ALL SAFETY RULES AND INSTRUCTIONS IN THIS MANUAL
BEFORE ATTEMPTING TO OPERATE THIS MACHINE.
FAILURE TO COMPLY WITH THESE INSTRUCTIONS MAY RESULT IN PERSONAL INJURY.

CUB CADET LLC, P.O. BOX 361131 CLEVELAND, OHIO 44136-0019

To The Owner 1

Thank You

Thank you for purchasing a snow thrower attachment manufactured by Cub Cadet LLC. It was carefully engineered to provide excellent performance when properly operated and maintained.

Please read this entire manual prior to operating the equipment. It instructs you how to safely and easily set up, operate and maintain your machine. Please be sure that you, and any other persons who will operate the machine, carefully follow the recommended safety practices at all times. Failure to do so could result in personal injury or property damage.

All information in this manual is relative to the most recent product information available at the time of printing. Review this manual frequently to familiarize yourself with the machine, its features and operation. Please be aware that this Operator's Manual may cover a range of product specifications for various models. Characteristics and features discussed and/or illustrated in this manual may not be applicable to all models. Cub Cadet LLC reserves the right to change product specifications, designs

and equipment without notice and without incurring obligation.

This product has met the rigid safety standards of the Outdoor Power Equipment Institute and an independent testing laboratory. If you have any problems or questions concerning the machine, phone your local Cub Cadet dealer or contact us directly. Cub Cadet's Customer Support telephone numbers, website address and mailing address can be found on this page. We want to ensure your complete satisfaction at all times.

Throughout this manual, all references to *right* and *left* side of the machine are observed from the operating position

The engine manufacturer is responsible for all engine-related issues with regards to performance, power-rating, specifications, warranty and service. Please refer to the engine manufacturer's Owner's/Operator's Manual, packed separately with your machine, for more information.

Table of ContentsSafe Operation Practices3Assembly & Set-Up6Controls16	Operation17 Maintenance19 Illustrated Parts List
Record Product Information	Model Number
Before setting up and operating your new equipment, please locate the model plate on the equipment and record the information in the provided area to the right. You can locate the model plate by standing at the operator's position and looking down at the rear	
of the auger housing. This information will be necessary, should you seek technical support via our web site, Customer Support	SERIAL NUMBER
Department, or with a local authorized service dealer.	

Customer Support

If you have difficulty assembling this product or have any questions regarding the controls, operation, or maintenance of this machine, you can seek help from the experts. Choose from the options below:

- ♦ Visit us on the web at www.cubcadet.com
- ♦ Call a Customer Support Representative at (800) 965-4CUB
- ♦ Locate your nearest Cub Cadet Dealer at (877) 282-8684
- ♦ Write us at Cub Cadet LLC P.O. Box 361131 Cleveland, OH 44136-0019



WARNING! This symbol points out important safety instructions which, if not followed, could endanger the personal safety and/or property of yourself and others. Read and follow all instructions in this manual before attempting to operate this machine. Failure to comply with these instructions may result in personal injury. When you see this symbol. **HEED ITS WARNING!**

CALIFORNIA PROPOSITION 65



WARNING! Engine Exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to State of California to cause cancer and birth defects or other reproductive harm.



DANGER: This machine was built to be operated according to the safe operation practices in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in serious injury. This machine is capable of amputating fingers, hands, toes and feet and throwing foreign objects. Failure to observe the following safety instructions could result in serious injury or death.

Training

- Read, understand, and follow all instructions on the machine and in the manual(s) before attempting to assemble and operate. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
- Be familiar with all controls and their proper operation.
 Know how to stop the machine and disengage them quickly.
- Never allow children under 14 years old to operate this machine. Children 14 years old and over should read and understand the operation instructions and safety rules in this manual and should be trained and supervised by a parent.
- Never allow adults to operate this machine without proper instruction.
- Thrown objects can cause serious personal injury. Plan your snow throwing pattern to avoid discharge of material toward roads, bystanders and the like.
- Keep bystanders, pets and children at least 75 feet from the machine while it is in operation. Stop machine if anyone enters the area.
- Exercise caution while operating tractor with this attachment, especially when traveling in reverse.

Preparation

- Thoroughly inspect the area where the equipment is to be used. Remove all door mats, newspapers, sleds, boards, wires and other foreign objects which could be thrown by the auger/impeller.
- Always wear safety glasses or eye shields during operation and while performing an adjustment or repair to protect your eyes. Thrown objects which ricochet can cause serious injury to the eyes.
- Do not operate without wearing adequate winter outer garments. Do not wear jewelry, long scarves or other loose clothing which could become entangled in moving parts. Wear footwear which will improve footing on slippery surfaces.
- Adjust collector housing height to clear gravel or crushed rock surfaces.
- Disengage all clutches and shift into neutral before starting the engine.
- Never attempt to make any adjustments while engine is running, except where specifically recommended in the operator's manual(s).
- Let tractor engine and attachment adjust to outdoor temperature before starting to clear snow.

- 8. To avoid personal injury or property damage use extreme care in handling gasoline. Gasoline is extremely flammable and the vapors are explosive. Serious personal injury can occur when gasoline is spilled on yourself or your clothes which can ignite. Wash your skin and change clothes immediately.
 - Use only an approved gasoline container.
 - Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground, away from your vehicle, before filling.
 - c. When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
 - d. Keep the nozzle in contact with the rim of the fuel tank or container opening at all times, until refueling is complete. Do not use a nozzle lock-open device.
 - e. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
 - f. Never fuel machine indoors.
 - Never remove gas cap or add fuel while the engine is hot or running.
 - Allow engine to cool at least two minutes before refueling.
 - Never over fill fuel tank. Fill tank to no more than ½ inch below bottom of filler neck to provide space for fuel expansion.
 - j. Replace gasoline cap and tighten securely.
 - If gasoline is spilled, wipe it off the engine and equipment. Move machine to another area. Wait 5 minutes before starting the engine.
 - Never store the machine or fuel container inside where there is an open flame, spark or pilot light (e.g. furnace, water heater, space heater, clothes dryer etc.).
 - m. Allow machine to cool at least 5 minutes before storing.

Operation

- Do not put hands or feet near rotating parts, in the auger/ impeller housing or discharge chute. Contact with the rotating parts can amputate hands and feet.
- Never operate with a missing or damaged discharge chute.
 Keep all safety devices in place and working.
- 3. When cleaning, repairing or inspecting the snow thrower, make certain the collector/impeller and all moving parts have stopped. Disconnect the spark plug wire and keep the wire away from the plug to prevent someone from accidentally starting the machine. Do not run the engine indoors, except when starting the engine and for transporting the snow thrower in or out of the building. Open the outside doors; exhaust fumes are dangerous.

- Do not operate machine while under the influence of alcohol or drugs.
- Muffler and engine become hot and can cause a burn. Do not touch.
- Exercise extreme caution when operating on or crossing gravel surfaces. Stay alert for hidden hazards or traffic. Do not carry passengers.
- Exercise caution when changing direction and while operating on slopes.
- 8. Do not clear snow across the face of slopes; go up and down. Exercise extreme caution when operating on slopes. Do not attempt to clear steep slopes.
- Plan your snow throwing pattern to avoid discharge towards windows, walls, cars etc. To avoid property damage or personal injury caused by a ricochet.
- Never direct discharge at children, bystanders and pets or allow anyone in front of the machine.
- 11. Do not overload machine capacity by attempting to clear snow at too fast of a rate.
- 12. Never operate this machine without good visibility or light.
- 13. Disengage power to the auger/impeller when transporting or not in use.
- Never operate machine at high transport speeds on slippery surfaces. Look down and behind and use care when in reverse.
- 15. If the machine should start to vibrate abnormally, stop the engine, disengage the power take-off, lower the attachment and set the parking brake. Inspect thoroughly for damage. Repair any damage before starting and operating.
- 16. After striking a foreign object, stop the engine (motor), remove the wire from the spark plug, thoroughly inspect the snow thrower for any damage, and repair the damage before restarting and operating the snow thrower.
- 17. Disengage the power take-off, lower attachment, set the parking brake and stop engine before you leave the operating position. Wait until the auger/impeller comes to a complete stop before unclogging the discharge chute, making any adjustments, or inspections.
- 18. Do not carry passengers.
- 19. Use only attachments and accessories approved by the manufacturer (e.g. wheel weights, tire chains, cabs etc.).
- If situations occur which are not covered in this manual, use care and good judgment. Contact your dealer or telephone 1-800-800-7310 for assistance and the name of your nearest servicing dealer.

Clearing A Clogged Discharge Chute

Hand contact with the rotating impeller inside the discharge chute is the most common cause of injury associated with snow throwers. Never use your hand to clean out the discharge chute.

To clear the chute:

- 1. SHUT THE ENGINE OFF!
- Wait 10 seconds to be sure the impeller blades have stopped rotating.
- 3. Always use a clean-out tool, not your hands

Maintenance And Storage

- Never tamper with safety devices. Check their proper operation regularly.
- Disengage power take-off, lower the attachment, set the parking brake, stop engine and remove key to prevent unintended starting. Wait until the auger/impeller comes to a complete stop before cleaning, repairing, or inspecting.
- Check bolts, and screws for proper tightness at frequent intervals to keep the machine in safe working condition. Also, visually inspect machine for any damage.
- Do not change the engine governor setting or over-speed the engine. The governor controls the maximum safe operating speed of the engine.

- 5. Snow thrower shave plates and skid shoes are subject to wear and damage. For your safety protection, frequently check all components and replace with original equipment manufacturer's (O.E.M.) parts only. "Use of parts which do not meet the original equipment specifications may lead to improper performance and compromise safety!"
- Check clutch controls periodically to verify they engage and disengage properly and adjust, if necessary. Refer to the PTO and safety interlock system in your tractor's operator's manual for instructions.
- 7. Maintain or replace safety and instruction labels, as necessary.
- 8. Observe proper disposal laws and regulations for gas, oil, etc. to protect the environment.
- Prior to storing, run machine a few minutes to clear snow from machine and prevent freeze up of auger/impeller.
- 10. Never store the machine or fuel container inside where there is an open flame, spark or pilot light such as a water heater, furnace, clothes dryer etc.
- 11. Always refer to the operator's manual for proper instructions on off-season storage.

Safety Symbols

The safety symbols below may appear on this product. Read, understand, and follow all instructions on the machine before attempting to assemble and operate.

Symbol	Description	
	WARNING— ROTATING BLADES Keep hands out of inlet and discharge openings while machine is running. There are rotating blades inside	
72/	WARNING— ROTATING AUGER Do not put hands or feet near rotating parts, in the auger/impeller housing or chute assembly. Contact with the rotating parts can amputate hands and feet.	



WARNING! Your Responsibility—Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine.

SAVE THESE INSTRUCTIONS!

3

Model 19A40024100 three-stage snowthrower attachment is designed for use with select lawn tractors and garden tractors. Refer to your tractor's Operator's Manual to assure compatibility.

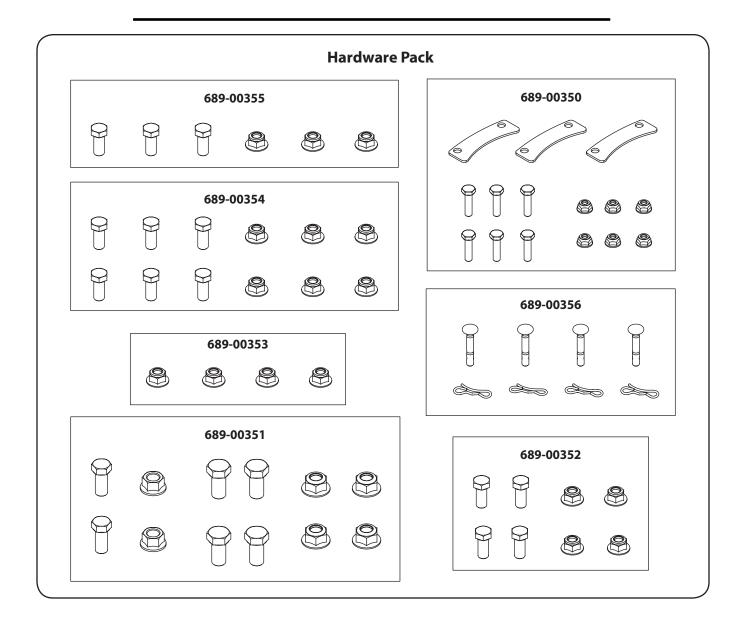
Carton Contents

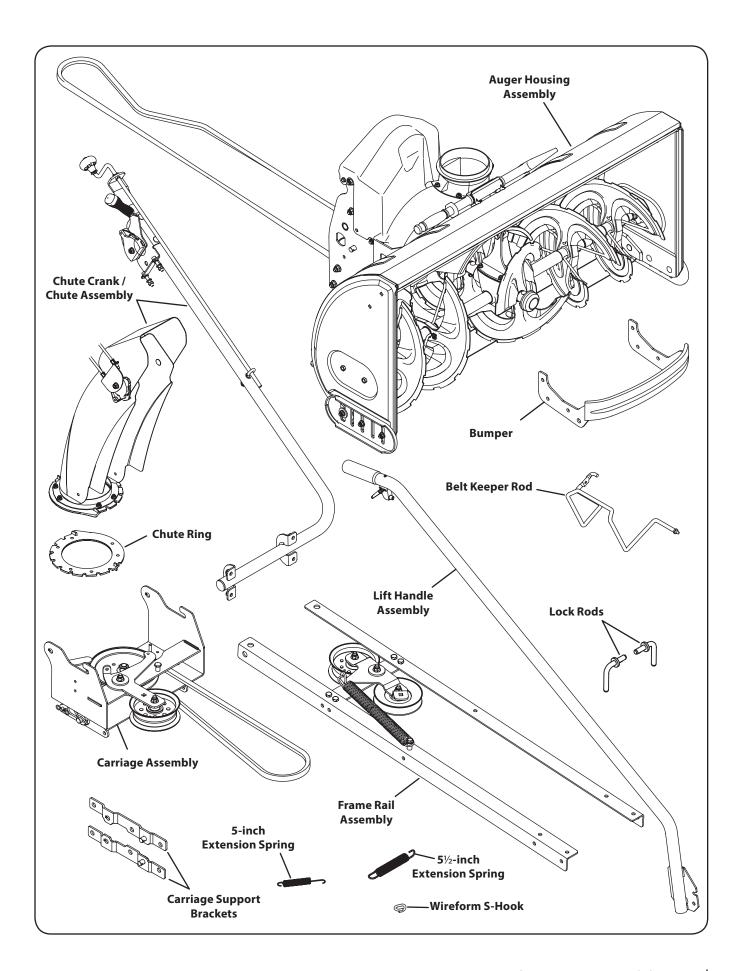
Before beginning installation, remove all parts from the carton to make sure everything is present. Carton contents are listed below and shown on page 6 and 7. The hardware pack contains seven individual bags of hardware. Do *NOT* open the individual bags until you reach the point in the assembly steps where the hardware is required.

- One Operator's Manual
- One Lift Handle Assembly
- One Hardware Pack
- One Chute Crank / Chute Assembly

Assembly & Set-Up

- One 5½-inch Extension Spring
- One Auger Housing Assembly
- One Carriage Assembly
- One Belt Keeper Rod
- One Chute Ring
- One 5-inch Extension Spring
- One Frame Rail Assembly
- One Bumper
- Two Carriage Support Brackets
- Two Lock Rods







WARNING! Before installing the attachment, place tractor on a firm and level surface. Place the PTO in the disengaged (OFF) position, set the parking brake, shut engine off and remove key to prevent unintended starting.

NOTE: References to LEFT and RIGHT indicate the left and right sides of the tractor when facing forward in the operator's position. Reference to the FRONT indicates the grille end; to the REAR the drawbar end.

Several components on your tractor must be removed prior to mounting the snow thrower attachment. Refer to Deck Removal in your tractor's Operator's Manual for detailed instructions. If your tractor is equipped with any front-end accessory (i.e. front bumper kit), it must also be removed.

Having a second person assist with assembly is not necessary, but *will* aid in completing some of the steps.

Assembly

NOTE: If you engage your tractor's cutting deck by using your right hand to pivot a lever forward, your tractor has a **Manual PTO**. If you engage your tractor's cutting deck by pulling outward on a small knob located on the tractor's dash, your tractor has an **Electric PTO**. Follow applicable instructions throughout the assembly

Mounting The Bumper

Use Hardware Bag 689-00354 to mount the bumper.

1. Using two %6" wrenches, secure the bumper to the tractor frame with six hex screws and flange lock nuts.

See Figure 3-1.

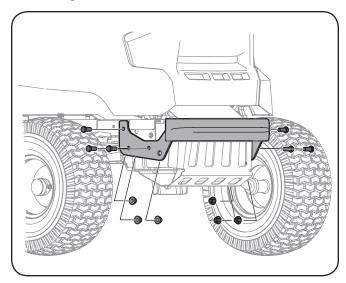


Figure 3-1

Attaching the Carriage Support Brackets

Use Hardware Bag **689-00351** to attach the carriage support brackets.

1. Place the deck height lever into the lowest mowing position.

. Secure the right carriage support bracket marked with an "R" to the outside of the tractor's frame with three hex screws and flange lock nuts as shown in Figure 3-2.

IMPORTANT: The hex screws must be installed from the OUTSIDE of the frame and secured on the INSIDE with the flange lock Nuts. There are two different sized bolts in 689-00351. Use two ¾-inch wrenches to secure the two larger bolts in the outer holes of the bracket. Use a ¾-inch wrench (and an ¼6-inch wrench to hold the nut) to secure the smaller bolt in the inner hole of the bracket.

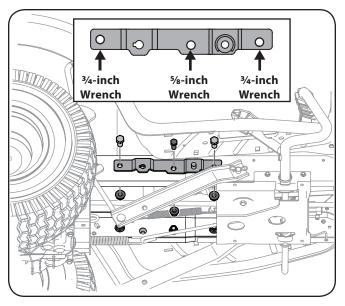


Figure 3-2

NOTE: The carriage support brackets can remain attached to the frame when the mowing deck is remounted to tractor.

 Then secure the left carriage support bracket following the instructions above.

Mounting the Carriage Assembly

1. Remove the clevis pins and hairpin clips from the carriage assembly. Retain the clips and pins, as they will be used to attach components in later steps. See Figure 3-3.

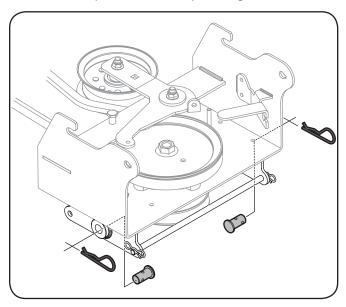


Figure 3-3

2. Remove the rod from the rear of the carriage assembly. Retain the clips and rod, as they will be reattached in later steps. See Figure 3-4.

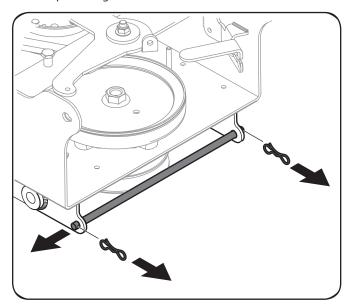


Figure 3-4

3. If your tractor is equipped with a **Manual PTO**, attach the 5-inch extension spring to the carriage idler bracket as show in Figure 3-5.

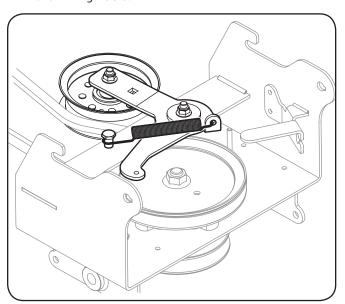


Figure 3-5

4. If your tractor is equipped with a **Electric PTO**, attach the 5½-inch extension spring to the wireform S-hook and then to the carriage idler bracket as show in Figure 3-6.

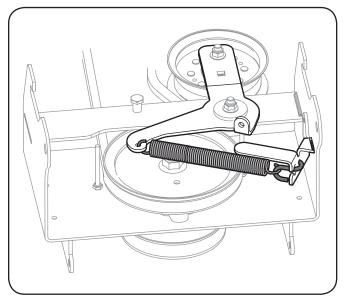


Figure 3-6

- 5. Place the deck lift lever in the notch marked 3.
- 6. Position the carriage beneath the tractor.
- 7. Carefully raise the carriage up and position the slots on the front of the carriage over the pins on the support brackets. See Figure 3-7.

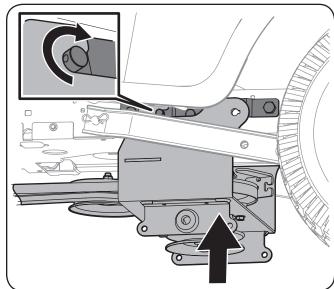


Figure 3-7

8. Secure the carriage in place with the two lock rods. See Figure 3-8.

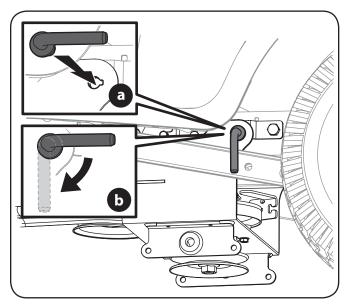


Figure 3-8

9. If your tractor is equipped with a **Manual PTO**, and the belt keeper rod wasn't removed from the tractor when the deck was taken off, remove it before proceding to the next step. See Figure 3-9.

NOTE: Retain the screw used to secure the belt keeper rod to the tractor's frame. Also, retain the belt keeper rod for use when the mowing deck is remounted to tractor.

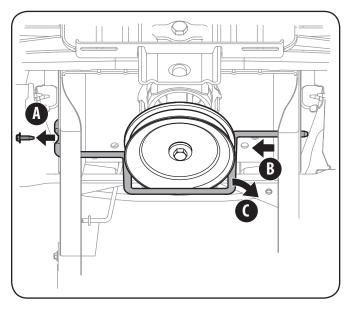


Figure 3-9

 Route the carriage assembly's belt around the engine pulley (or electric PTO clutch, on models with an **Electric PTO**) as shown in Figure 3-10.

NOTE: To relieve tension on the idler pulley, insert a ratchet with a ¾-inch drive into the square hole on the idler bracket

and pivot the pulley outward.

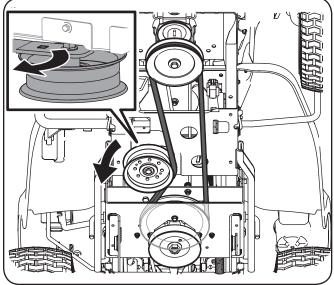


Figure 3-10

 On models with a **Manual PTO**, install the new belt keeper rod and secure it with the hex screw retained when the old keeper rod was removed. See Figure 3-11.

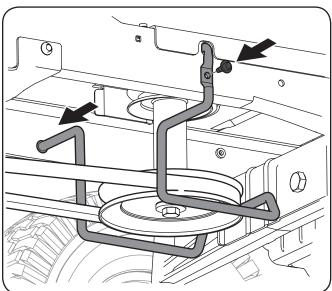


Figure 3-11

12. On models with a **Manual PTO**, attach the PTO cable to the 3. idler bracket as show in Figure 3-12.

NOTE: Secure the cable in place with the same pin that secured the cable to the mowing deck.

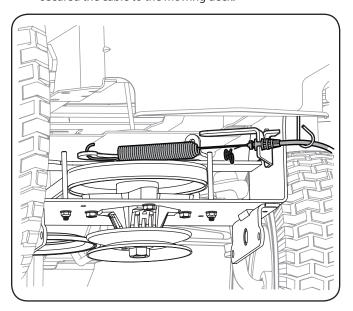


Figure 3-12

Attaching the Rail Assembly

Use Hardware Bag 689-00352 to attach the rail assembly.

NOTE: Having an assistant support and position the rail assembly will aid in completing the following step.

- Carefully pivot the auger housing up and forward until the top front face of the housing is resting on the ground. Refer to Figure 3-12 and Figure 3-13
- 2. Using two 9/16" wrenches, secure the rail assembly to the auger housing assembly with four hex screws and flange lock nuts. See Figure 3-13.

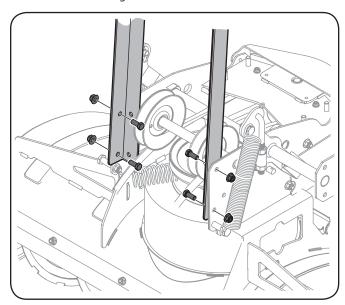


Figure 3-13

3. Route the auger assembly's belt around the rail assembly's idler pulleys as shown in Figure 3-14.

Important: Make certain that the flat side of the belt is positioned on the *flat pulley*, and the V side of the belt is positioned on the *V-Pulleys*.

NOTE: To relieve tension on the idler pulleys, insert a ratchet with a %-inch drive into the square hole on the idler bracket and pivot it outward.

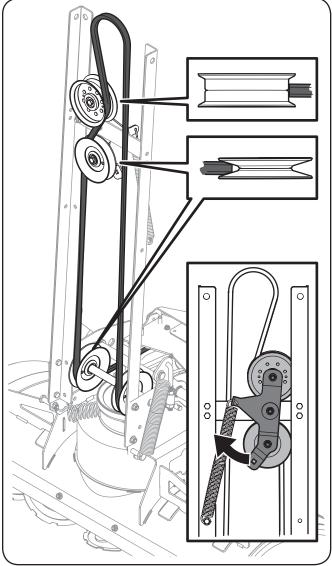


Figure 3-14

Attaching the Chute Crank Assembly

Use Hardware Bag 689-00353 to attach the chute crank assembly.

NOTE: Having an assistant support and position the chute crank assembly will aid in completing the following step.

 Using a %" wrench, secure the chute crank assembly to the auger housing assembly with four flange lock nuts.
 See Figure 3-15.

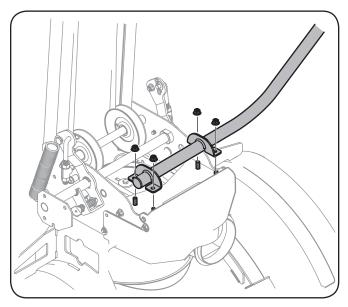


Figure 3-15

Attaching the Chute Assembly

Use Hardware Bag **689-00350** to attach the chute assembly.

NOTE: Having an assistant will aid in completing the following step.

1. While supporting the rail assembly, carefully pivot the auger assembly downward and position it in front of the tractor.

2. Position the chute ring on top of the auger housing's chute adapter as show in Figure 3-16.

NOTE: Make sure the groove found in the chute ring is facing *forward*.

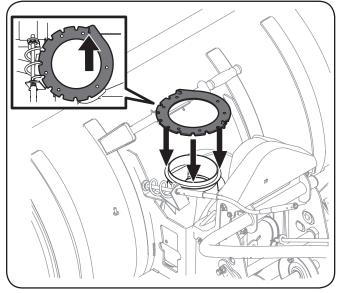


Figure 3-16

3. Position the chute assembly (facing forward) on the chute ring. See Figure 3-17.

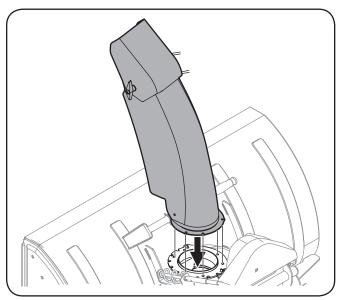


Figure 3-17

4. Using two %" wrenches, secure the chute assembly to the chute ring with three flange keepers, six hex screws and flange nuts as show in Figure 3-18.

Important: Do *not* over-tighten the flange keeper hardware. Doing so may result in the chute binding during rotation.

NOTE: After installing the first flange keeper, rotate the chute to more easily access the chute ring holes and install the next flange keeper.

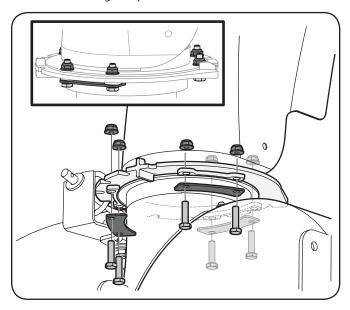


Figure 3-18

 Secure the flex shaft to the upper chute crank with the hair pin clip.
 See Figure 3-19.

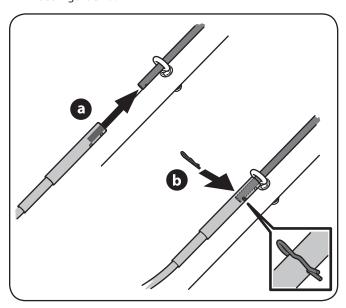


Figure 3-19

Attaching the Lift Handle Assembly

Use Hardware Bag 689-00355 to attach the lift handle assembly.

NOTE: Having an assistant support and position the lift handle assembly will aid in completing the following step.

 Using two %6" wrenches, secure the lift handle to the auger housing assembly with three hex screws and flange lock nuts. See Figure 3-20.

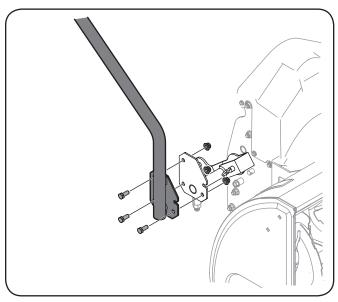


Figure 3-20

 Position the cable housing in the notch on the lift handle. Attach the Z-fitting end of the lift cable to the lock rod found on the lift shaft assembly. See Figure 3-21.

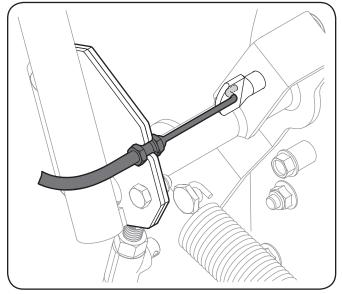


Figure 3-21

 Pull the cable outward to take up slack, and tighten the jam nuts to secure the cable housing to the lift handle. See Figure 3-22.

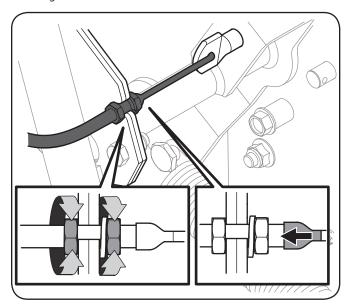


Figure 3-22

Mounting the Assembled Components to the Tractor

 Roll the tractor into position over the frame rail assembly, aligning the frame rails with the carriage assembly. See Figure 3-23.

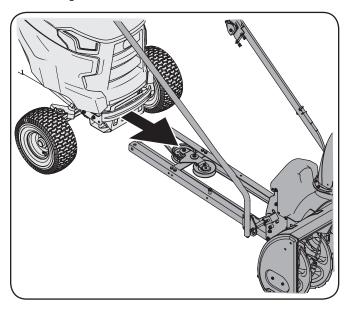


Figure 3-23

NOTE: Supporting the end of rail assembly with a 4x4 block of wood (beneath both rails) will aid in completing the following step.

2. Pivot the rear of the frame rail assembly upward and secure it to the inside of the carriage assembly with the clevis pins and hairpin clips removed earlier. See Figure 3-24.

NOTE: Pushing up on the lift handle will assist in pivoting the rear frame rail assembly into position.

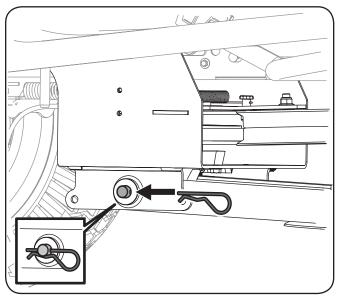


Figure 3-24

- 3. Squeeze the trigger found near the grip on the lift handle assembly and lift the handle up to align lift link ferrule and the hole in the bumper.
- 4. Remove the hair pin clip from the lift link ferrule. Insert the lift link ferrule into the hole found on the front right area of the bumper and secure it with the hairpin clip just removed. See Figure 3-25.

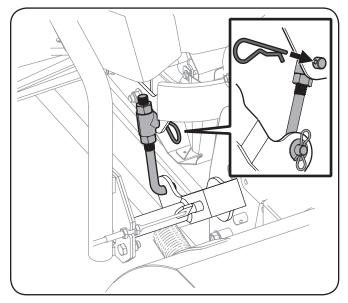


Figure 3-25

- Repeat the previous step on the left side of the auger housing.
- 6. Route the auger assembly's belt around the carriage spindle pulley as shown in Figure 3-26.

NOTE: To relieve tension on the idler pulleys, insert a ratchet with a 1/4-inch drive into the square hole on the idler bracket and pivot it outward.

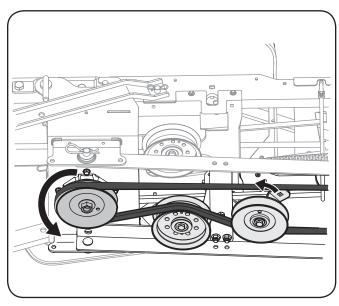


Figure 3-26

 Reinsert the rod into the rear of the carriage assembly and secure it in place with the two hair pin clips removed earlier. See Figure 3-27.

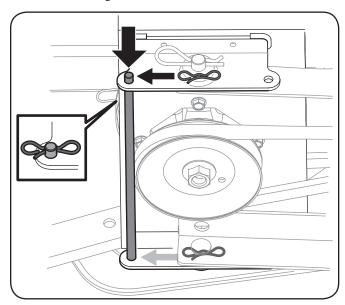


Figure 3-27

Attaching Reflectors

Peel off the backing from each of the reflectors to expose the adhesive surface. Adhere the reflectors to the rear of the tractor's fender (one on the left and one on the right) so that the reflectors simulate taillights.

Set-Up

Shear Pins

Two pairs of replacement auger shear pins and bow tie cotter pins are included with your snow thrower in Hardware Bag **689-00356**. Store them in a safe place until needed.

Skid Shoe Adjustment



WARNING! Never attempt to make any adjustments while the engine is running, except where specified in the Operator's Manual. Place tractor on a firm and level surface. Place the PTO in the disengaged (OFF) position, set the parking brake, shut engine off, and remove key to prevent unintended starting.

The snow thrower skid shoes are adjusted at the factory for shipping purposes. Adjust them downward, if desired, prior to operating the snow thrower.



CAUTION: It is not recommended that you operate this snow thrower on gravel as it can easily pick up and throw loose gravel, causing personal injury or damage to the snow thrower and surrounding property.

- For close snow removal on a smooth surface, raise skid shoes higher on the auger housing.
- Use a middle or lower position when the area to be cleared is uneven, such as a gravel driveway

NOTE: If you choose to operate the snow thrower on a gravel surface, keep the skid shoes in position for maximum clearance between the ground and the shave plate.

To adjust the skid shoes:

- Using a ½" wrench, loosen the hex nuts. Move skid shoes to desired position. See Figure 3-28.
- Make certain the entire bottom surface of skid shoe is against the ground to avoid uneven wear on the skid shoes.
- 3. Retighten nuts and bolts securely.
- Repeat the previous steps on the other side of the auger housing, making sure that both skid shoes are adjusted to the same height.

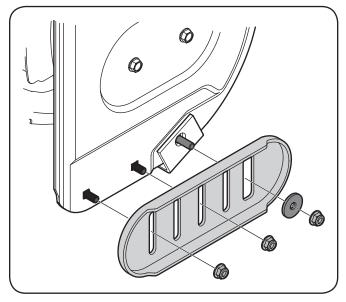
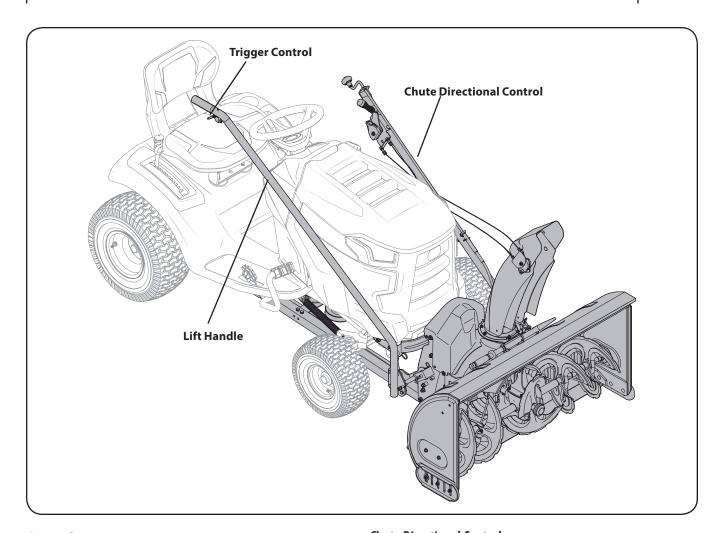


Figure 3-28
Section 3 — Assembly & Set-Up



Controls



WARNING! Be familiar with all controls and their proper operation. Know how to stop the machine and disengage them quickly.

Lift Handle

The lift handle is located on the right side of the tractor and is used to raise and lower the snow thrower attachment.

- To raise the snow thrower attachment off of the ground, pull rearward and down on the lift handle until you feel the lift latch on the right side of the snow thrower engage, locking the snow thrower in a raised position.
- To lower the snow thrower, push downward on the lift handle until there is enough slack in the lift cable so that you may squeeze the trigger control. With the trigger control squeezed, gently allow the snow thrower to lower until it reaches the ground.

Chute Directional Control

The chute directional control assembly is found on the left side of the tractor and includes both the chute tilt lever as well as the chute crank. Both affect the direction that the discharged snow is thrown.

To pivot the upper section of discharge chute, affecting the distance and angle which the snow is thrown, move the chute tilt lever forward or rearward into a desired position.

The direction which snow is thrown can be changed by rotating the discharge chute with the chute crank. Turn the chute crank clockwise to rotate the chute and discharge snow to the left. Crank it counterclockwise to rotate the chute and discharge snow to the right.

Operation 5

Operation



WARNING! Read, understand, and follow all instructions and warnings on the tractor, the attachment, and in the operator's manuals before operating. Your snow thrower attachment is capable of displacing snow and clearing a path a width of 42 inches.

Observe the following operating instructions for efficient snow removal:

- Become familiar with and comfortable using all of your tractor's controls as instructed in your tractor's Operator's Manual before operating it with the snow thrower attachment.
- Make certain the correct weight (and volume) of motor oil is in your tractor's engine as instructed in the engine Owners Guide packed with the tractor's Operator Manual.
- 3. Always operate the snow thrower with the tractor's engine at maximum RPM (full throttle).
- NEVER override any safety features on either your tractor or the snow thrower attachment.
- Make certain that all nuts, bolts, and hardware are fastened securely and tight on both the tractor and the snow thrower attachment prior to use.
- Make certain the snow thrower attachment is assembled properly and mounted to the tractor as instructed in this manual.
- Test all the controls (tractor PTO, snow thrower lift handle, chute tilt lever & chute crank) for smooth operation prior to operating the snow thrower.
- Make all adjustments (i.e. skid shoes) before operating your snow thrower attachment. Follow the instructions in the Assembly and Setup section of this manual when doing so.
- 9. Engage the tractor's PTO to activate power to the augers and impeller BEFORE driving the tractor forward and into snow.
- 10. Keep your tractor's ground-speed slow. The slower your tractor is traveling, the more effectively the snow thrower attachment can displace snow.
- Adjust ground speed for snow conditions and become familiar with different snow applications. Your snow thrower attachment will operate differently in wet heavy snow than it will in light, fluffy snow.
- 12. Overlap a previously cleared path when necessary (deep snow) so as not to overload the auger housing with snow.

- 13. NEVER drive the tractor into a snow bank. The snow thrower attachment is not a dozer plow. The lift linkage and/or the snow thrower drive system can be damaged as a result of "plowing" with the snow thrower attachment.
- 14. If the augers become jammed with a chunk of ice or a foreign object, move the PTO into the disengaged (OFF) position immediately and turn off the tractor's engine and remove the ignition key. Examine the auger area thoroughly for damage and do NOT operate the snow thrower attachment until any damage is repaired.

IMPORTANT: The augers are secured to the spiral shafts with six shear pins and cotter pins. If you hit a hard foreign object or an ice jam, the snow thrower is designed so that the pins may shear. Four replacement shear pins and cotter pins are provided for your convenience. Store in a safe place until needed. NEVER replace the auger shear pins with standard hex bolts. Any damage to the auger gearbox or other components as a result of doing so will NOT be covered by your snow thrower's warranty.

- 15. Whenever possible, discharge snow downwind.
- Do NOT attempt to remove ice or hard-packed frozen snow.
- 17. When the tractor (with the snow thrower attachment mounted) is not in service, use the lift lever to lower the auger housing assembly to the ground to relieve strain on the tractor's front end between uses.
- 18. Always use tire chains and a rear weight kit on your tractor where extra traction is needed. Refer to the table in this section to determine which kits will fit your tractor.
- Use drift cutters to aid in displacing snow through deep, drifted areas.

Engaging the Augers and Impeller

Power to the snow thrower attachment is activated by engaging the tractor's PTO.

- Place the tractor's throttle control in the FAST (rabbit) position and allow it to remain there for efficient snow removal.
- 2. Move the PTO into the "ON" position to engage the augers and impeller.
- Move the PTO into the "OFF" position to disengage the augers and impeller.

NOTE: Refer to your tractor's Operator's Manual for more information regarding your tractor's PTO and safety interlock system.

Replacing Shear Pins

The augers are secured to the spiral shafts with six shear pins and cotter pins. If the auger should strike a foreign object or ice jam, the snow thrower is designed so that the pins may shear. If the augers will not turn, check to see if the pins have sheared. See Figure 5-1.

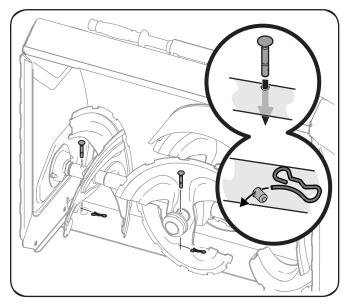


Figure 5-1



CAUTION: NEVER replace the auger shear pins with anything other than OEM Part No.738-04124A replacement shear pins. Any damage to the auger gearbox or other components as a result of failing to do so will NOT be covered by your snow thrower's warranty.



WARNING! Always turn off the snow thrower's engine and remove the key prior to replacing shear pins.

Tire Chain Kits

•	20" x 8.00" tires	490-241-0023
•	20" x 10.00" & 20" x 9.00 tires	490-241-0024
•	22" x 9.50" & 23" x 9.50" tires	490-241-0025
•	23" x 10.50" tires	490-241-0026

Rear Weights

Suitcase Weight Kit 490-900-M060

Drift Cutters

Drift Cutter Kit OEM-390-679

NOTE: None of the kits in the table are included as standard equipment with snow thrower attachment19A40024100. Contact the retailer or dealer where you purchased this equipment, or refer to the contact information on page 2 of this manual for availability and information regarding these kits.

Maintenance 6



WARNING: Before lubricating, repairing, or inspecting, place tractor on a firm and level surface. Place the PTO in the disengaged (OFF) position, set the parking brake, shut engine off, and remove key to prevent unintended starting.

Lubricating the Chute Directional Control

The spiral on the end of the chute crank flex shaft and the base of the discharge chute itself should be lubed with multi-purpose automotive grease once a season. See Figure 6-1.

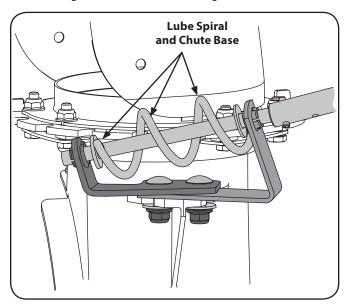


Figure 6-1

Adjusting Chute Directional Control Support Bracket

If the spiral at the base of the chute crank flex shaft isn't fully engaging with the notches in the lower chute assembly, the support bracket can be adjusted inward or outward as follows:

- Loosen, but do not remove the two flange nuts which secure the support bracket to the snow thrower housing. See Figure 6-1.
- 2. Adjust the support bracket inward or outward so that the spiral is fully engaged in the notches on the chute before retightening the hex nuts.

Lubricating the Auger Shaft

At least once a season, remove the shear bolts from the auger shafts. Oil or spray lubricant inside and on the plastic bearings and spacers on the shafts and near the holes where the shear bolts were removed before reattaching them. See Figure 6-2.

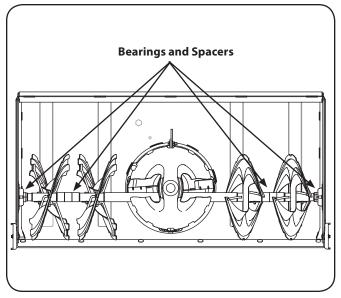


Figure 6-2

Off-season Storage

To remove the snow thrower attachment from the tractor, refer to the images found in the Set-up and Assembly section of this manual and follow the steps below:

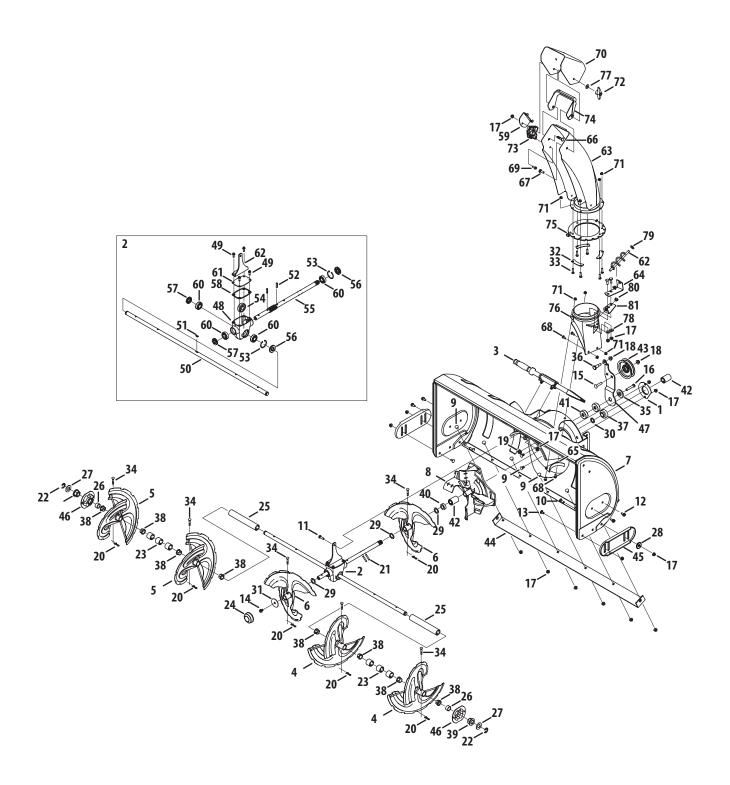


WARNING: Before removing the snow attachment, place the tractor on a firm and level surface. Place the PTO in the disengaged (off) position, set the parking brake, shut engine off and remove key to prevent unintended starting.

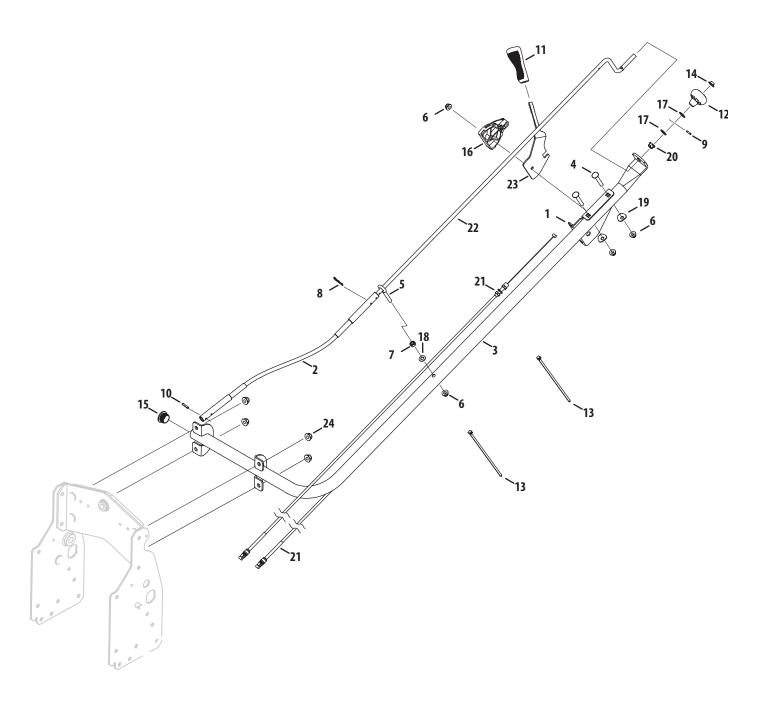
Important: Store all hardware (e.g. clevis pins, hair pin clips, etc.) in a safe place during the off-season.

- Use the lift handle to lower the snow attachment so that the auger housing is resting on the ground.
- Remove the auger housing assembly from the bumper by removing the pins from the lift link ferrules that secure it.
 - **Note:** The bumper installed on the tractor for use with the snow attachment can remain assembled to the tractor.
- 3. Remove the rod from the rear of the carriage assembly by removing the two hair pin clips that secure it in place.
- Remove the belt from the lower pulley on the carriage.
 Insert a %-inch drive into the idler bracket and pivot it outward to relieve the tension.
- Position a 4x4 block of wood under the rear of the rail assembly (beneath both rails).
- 6. Position the deck lift lever into the highest cutting position.
- Remove the rail assembly from the carriage by removing the pins that secure it and carefully lower the rail assembly onto the 4x4 wood block.
- On models with a **Manual PTO**, remove the belt keeper from around the engine pulley.
 - **Note:** Retain the screw that secured the belt keeper; it is needed to secure the original belt keeper rod when remounting the cutting deck.
- 9. Remove the belt from the engine pulley (or electric PTO clutch). Insert a 3/8-inch drive ratchet into the idler bracket and pivot it outward to relieve tension from the belt.
- On models with a Manual PTO, remove the bow tie clip securing the PTO cable to the carriage and remove the PTO cable from the carriage assembly.
- Rotate the lock pins towards the rear of the tractor and remove from both the right side and the left side of the carriage.
- 12. Slide the carriage forward and pivot it downward to remove it from the support brackets.
 - **Note:** The carriage support brackets secured to the frame rails of the tractor can remain assembled to the tractor.
- Disengaged the tractor's parking brake and roll the tractor rearward to expose the under carriage and rail assembly of the snow attachment.
- 14. Store the snow thrower attachment with the auger housing resting on the ground, in its operating position. Position a 4x4 block of wood to support the rear of the rail assembly.

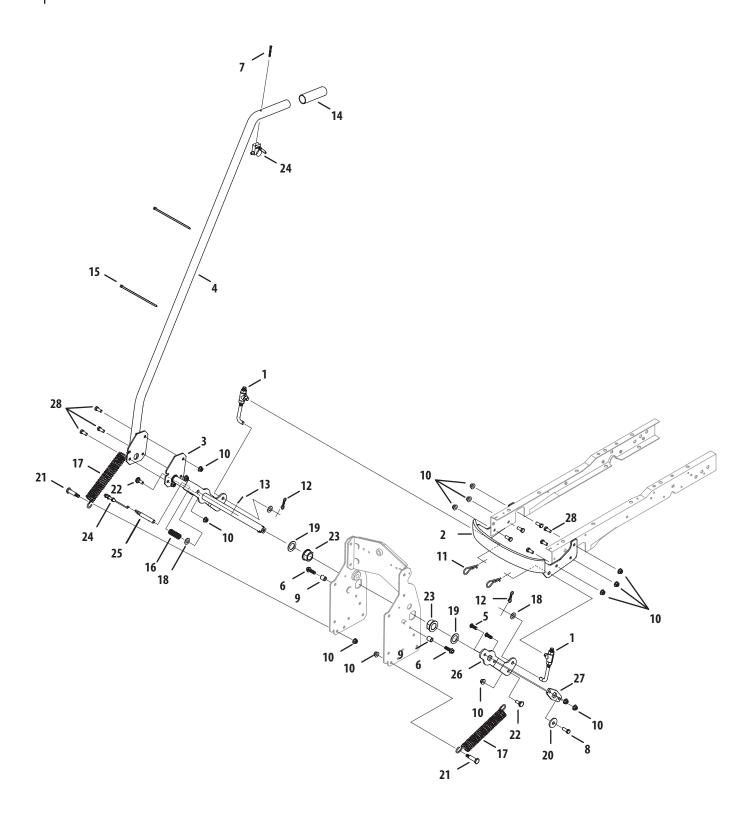
Notes	7



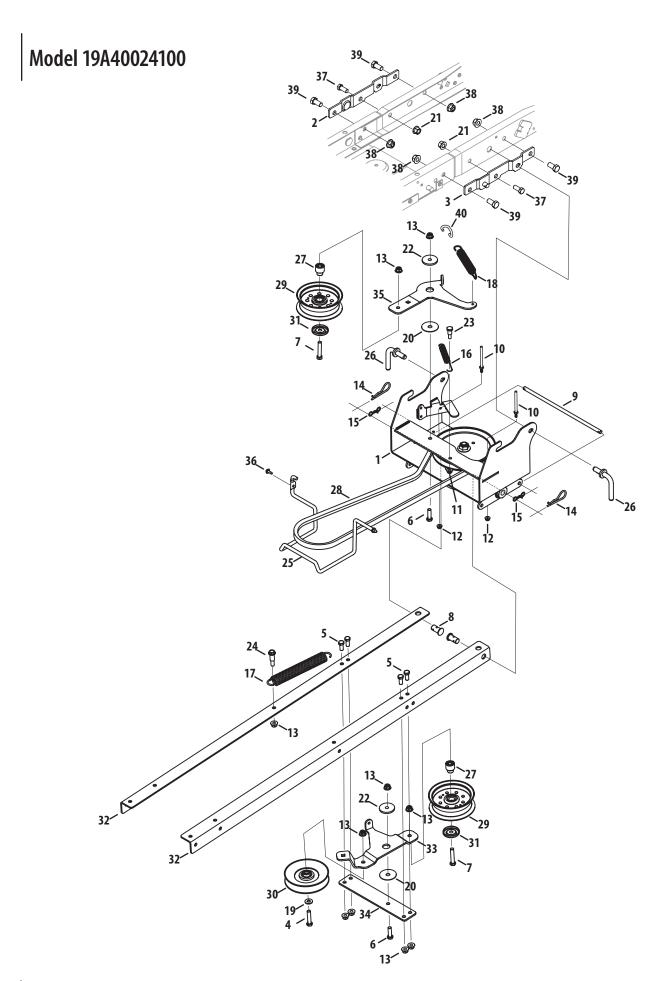
Ref No.	Part Number	Description	Ref No.	Part Number	Description
1	05931A	Housing, Bearing, 1.85 ID	41	750-06184	Spacer, .385ld x 1.75 OD x .585
2	618-07032	Gearbox Assembly, Auger, 42"	42	750-06261	Spacer, .76Id x 1.25 OD x 1.81 Lg
3	731-2635	Cleanout Tool Mount	43	756-0627D	Pulley, Idler, 3.50 Dia.
3	931-2643	Cleanout Tool	44	784-0396C	Bracket, Skid Plate, 42″
4	684-04163	Spiral Assembly, LH	45	784-5038B-0637	Slide Shoe
5	684-04164	Sipral Assembly, RH	46	790-00534	Housing, Bearing, 1.1605" Hex
6	684-05015A	Accelerator Assembly	47	790-00636	Bracket, Idler, Pivot
7	684-05067	Housing, Auger, 42" w/ Baffle	48	919-05029	Housing, Auger, 500
8	684-05075	Impeller Assembly, 12" Dia	49	710-0642	Screw, Self-tapping, 1/4-20, 0.75
9	710-0260A	Bolt, Carriage, 5/16-18, .62, Gr5	50	711-06278	Axle, Auger, .75 OD x 41.62 Lg
10	710-0276	Screw, Carriage, 5/16-18, 1.00	51	914-0161	Key, Hi-Pro 3/16 x 5/8
11	710-0376	Hex Screw, 5/16-18, 1.00, Gr5, Std	52	715-04034	Pin, Roll, .25 x 1.00
12	710-04484	Screw, Self-tapping, 5/16-18, .750	53	716-05001	Ring, Retaining
13	710-0451	Bolt, Carriage, 5/16-18, .750	54	917-04861	Gear, Worm, 20T
14	710-0607	Screw, Self-tapping, 5/16-18, .500	55	717-05236	Shaft, Worm .75 OD
15	710-0560	Screw, Carriage, 3/8-16, 1.75, Gr5	56	721-04612	Seal, .75 x 40Mm x .25
16	710-3144	Hex Screw, 3/8-16, 2.00, Gr5, Std	57	721-04613	Seal, .75 x 1.375 x .25
17	712-04063	Nut, Flange Lock, 5/16-18, Nylon	58	921-04614	Gskt, Cover, Gearbox
18	712-04065	Nut, Flange Lock, 3/8-16, Grf, Nylon	59	790-00565	Bracket, Cable
19	712-04217	Nut, Flange Lock, 3/8-16, Grf	60	941-05042	Bearing, Ball, .750X40x12
20	714-04040	Pin, Cotter, bow-Tie	61	783-08281	Cover, Gearbox, 500
21	915-0114	Spring, Pin, .250 Dia x 1.50 Spiral	62	790-00603	Bracket, Support, Gearbox
22	916-0231	Ring, E Type, .750	63	684-05072	Chute Assembly, Steel 5.0"
23	731-04870	Spacer, 1.25Od x .75ld x 1.00 Lg	64	703-2735A	Bracket, Chute, Crank
24	731-08637A	Cap, Shaft	65	705-5226	Reinforcment, Chute, 5.0
25	731-09558	Spacer, 1.25 OD x .75 ID x 7.805 Lg	66	710-0262	Bolt, Carriage, 5/16-18, 1.50, Gr2
26	731-10404	Sleeve, .758 X 1.00 x .555	67	710-0276	Screw, Carriage, Spl, 5/16-18, 1.00
27	736-0188	Washer, Flat, .76 x 1.49 x .06, Ht	68	710-0703	Screw, Carriage, 1/4-20, .75, Gr5
28	936-0231	Washer, Flat, .344 x 1.125 x .12	69	710-0895	Screw, 1/4-15, 0.750, Hxindwsh
29	936-0287	Washer, Flat, .793 x 1.24 x .06, Ht	70	790-00529	Chute, Upper
30	736-04624	Washer, Flat, .75 x 1.13 x .10	71	712-04064	Nut, Flange Lock, 1/4-20, Grf, Nylon
31	736-3040	Washer, Flat, .406 x 1.92 x .060	72	920-0284	Knob Assembly, Wing Nut 5/16-18
32	790-00659	Chute, Flange Keeper	73	731-09535	Guide, Cable, Chute Tilt 1.05"
33	710-0597	Hex Screw, 1/4-20, 1.00,	74	731-09539A	Adapter, Chute, Upper
34	738-04124A	Pin, Shear, .25X1.50, Gr2	75	731-10348	Ring, Chute, 5"
35	738-04162C	Spacer, Shoulder, .8840 x .190	76	731-10348 731-1379D	Chute, Adapter 5" Dia
36	738-04518	Screw, Shoulder, .5 x .875 x 3/18-16	77	936-0159	Washer, Flat, .349X.879X.063
37	941-0309	Bearing, Ball, .75 ID x 1.85 OD	78	736-0242	Washer, Bell, .340 x .872 x .060
38	741-0493A	Bush, Flange, .800 ID x .910 OD	79	936-0300	Washer, Flat, .406 x .875 x .059
39	741-05041	Bearing, Hex Flange x .75 ID			
40	750-05218	Spacer, .766 ID x 1.25 OD x .415	80	941-0475 784-5647-0637	Bearing, Flange, Snap .385 ID Bracket, Chute Crank



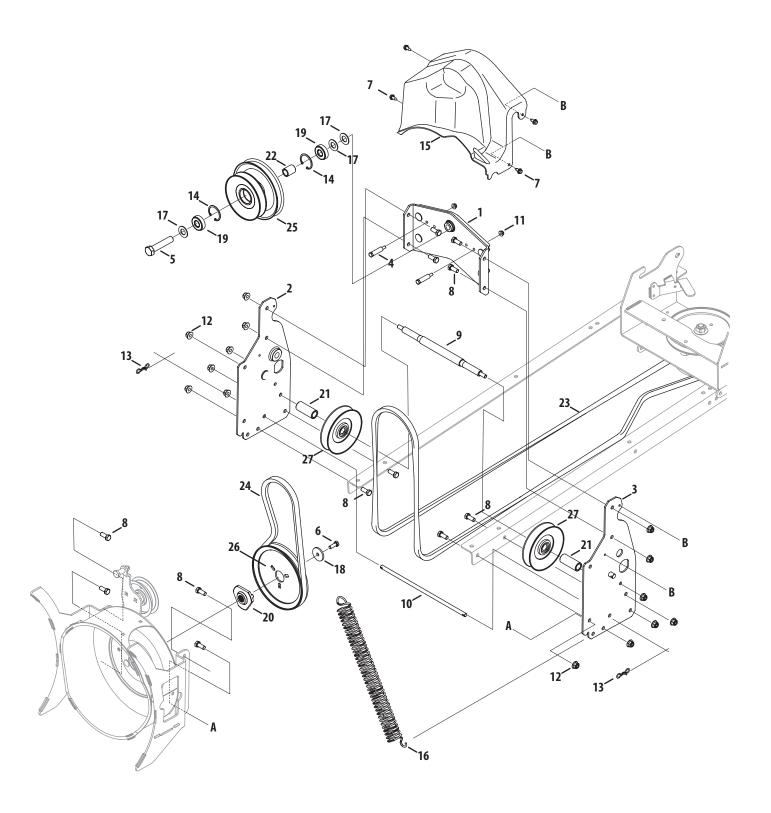
Ref No.	Part Number	Description
1	603-0302A	Assembly, Chute Tilt Bracket
2	611-05064	Control Assembly
3	684-05094	Bracket Assembly
4	710-0487	Screw, Carriage, 5/16-18, 2.00, Gr5
5	710-05050	Bolt, Eye, 5/16-18 x 3.25
6	712-04063	Nut, Flange Lock, 5/16-18, Grf, Nylon
7	912-3010	Nut, Hex, 5/16-18, Gr5
8	914-0101	Pin, Cotter, Int .08 x 1.42
9	915-0138	Pin, Roll, 1/8 OD, .63
10	715-04095	Pin, Spg, .156 Dia x .875 Lg
11	720-04049A	Grip, Handle, 3/8
12	720-04102	Knob, .390 ID
13	725-0157	Cable, Tie, 3/16 x .05 x 7.4
14	926-0100	Cap, Push, 3/8 Rod
15	731-07580	Plug, But, 1.250 Thin Wall
16	731-1313C	Guide, Cable, Chute Tilt
17	936-0185	Washer, Flat, .375 x .738 x .063
18	936-0275	Washer, Flat, .344 x .688 x .065
19	936-0451	Washer, Saddle, .320 x .930 x .060
20	941-0475	Bearing, Flange, Snap .385 ID
21	746-04332A	Cable, 74.5 Lg
22	747-06436	Crank, Chute, .375 Dia x 34.63
23	790-00650	Handle, Bracket, Chute Tilt
24	712-04065	Nut, Flange Lock, 3/8-16, Grf, Nylon



Ref No.	Part Number	Description
1	618-07034	Link Assembly, Lift
_	711-06143A	Ferrule, .510 x .496
_	712-05046	Hex Nut, 1/2-13
_	747-06384	Lift Link
2	683-05156	Bumper Assembly
3	684-05084	Shft Assembly, Lift
4	684-05085	Handle Assembly, Lift
5	710-04095	Hex Screw, 3/8-16, 1.00, Gr5
6	710-1315	Screw, Self-tapping, 3/8-16, 1.25
7	710-1625	Screw, Oval, #10-24 x 1.75
8	710-3118	Hex Screw, 3/8-16, 1.00, Gr5, Lock
9	711-0396	Spacer, .385 x .623 x .750 Lg
10	712-04065	Nut, Flange Lock, 3/8-16, Grf, Nylon
11	714-0117	Pin, Cotter, Int, .148 x 3.00
12	714-05005	Pin, Bow, 7/16"-1/2"
13	714-3004	Pin, Cotter, 3/32 x 1.25
14	720-04083	Grip, 1.188 ID x 4.562 Lg.
15	725-0157	Cable, Tie, 3/16 x .05 x 7.4
16	732-05216	Spring, Comp, .772 OD x 1.95 Lg
17	732-05231	Spring Extension, 1.45 OD x 6.00
18	936-0272	Washer, Flat, .510 x 1.00 x .060
19	736-0277	Washer, Flat, 1.031 X1.620 x.095
20	736-3082A	Washer, Flat, .45 x 1.5 x .172, Ht
21	738-0213	Screw, Shoulder, .498 Dia. x 1.445
22	938-0380	Bolt, Shoulder, .500 x .270, 3/8-16
23	941-0170	Bearing, Flange w/ Flats
24	746-05201	Cable, Snowblower Lift
25	747-06383	Rod, Lock, Lift w/ Trigger
26	790-00649	Bracket, Lift
27	790-00657	Adapter, Lift, Link
28	710-3010	Hex Screw, 3/8-16, .880



Ref No.	Part Number	Description
1	618-07029	Spindle Assembly, Pulley, 7.25 Dia
_	918-07070	Spindle Housing
_	684-05082-0637	Spindle Hanger Bracket
_	710-1260A	Hex Washer Screw, 5/16-18 x .750
2	684-05077	Bracket Assembly, Hanger, Right
3	684-05078	Bracket Assembly, Hanger, Left
4	710-0347	Hex Screw, 3/8-16, 1.75, Gr5, Std
5	710-3001	Hex Screw, 3/8-16, .880, Gr5, Std
6	710-3005	Hex Screw, 3/8-16, 1.25, Gr5, Std
7	710-3144	Hex Screw, 3/8-16, 2.00, Gr5, Std
8	711-0309A	Pin, Clevis, .62 Dia.
9	711-06303	Shaft, .375Od x 12.3450 Lg
10	911-1000	Keeper, Belt, .25 Dia x 3.0
11	712-04063	Nut, Flange Lock, 5/16-18, Grf, Nylon
12	712-04064	Nut, Flange Lock, 1/4-20, Grf, Nylon
13	712-04065	Nut, Flange Lock, 3/8-16, Grf, Nylon
14	714-0117	Pin, Cotter, Int, .148 x 3.00
15	714-04043	Pin, Cotter, Bow-Tie 91
16	732-0470A	Spring, Extension, .53 Dia x 4.75 Lg
17	732-04927	Spring, Extension, 1.25 OD x 8.5 Lg.
18	732-05312	Spring, Extension, 5.30 Lg
19	736-0262	Washer, Flat, .385 x .870 x .092
20	736-0518	Washer, Thrust, .445 x 1.92 x .060
21	712-04150	Nut, Flange Lock, 1/2-13, Grf, Nylon
22	738-04162C	Spacer, Shoulder, .8840 x .190
23	738-0754	Screw, Shoulder, .437 Dia. x .54
24	738-0966A	Bolt, Shoulder, .50 x .925, 3/8-16
25	747-06399	Rod, Keeper, Engine Pulley
26	747-06429	Rod, Lock, .500
27	748-05037	Spacer, Shoulder, Idler Pivot
28	754-05061	Belt, V-type, Bsec, 68.2
29	756-05034	Pulley, Idler, 4.50" Dia
30	956-3045A	Pulley, Idler, 5.06 Dia
31	783-08389	Cap, Pulley, Hd
32	790-00617	Bracket, Link
33	790-00629	Bracket, Idler, Pivot
34	790-00630	Bracket
35	790-00634	Bracket, Idler, Pivot
36	710-06133	Screw, M6-1 x .625"
37	710-0505	Hex Screw, 7/16-14, 1.00, Gr5, Std
38	712-04337	Nut, Flange Lock, 7/16-14
39	710-3131	Hex Screw, 1/2-13, 1.00, Gr5, Std
40	747-06513	Hook, Rod, Spring



Ref No.	Part Number	Description
1	603-05172	Bracket Assembly, Supt, Spndl
2	684-05080	Bracket Assembly, Frm, RH
3	684-05081	Bracket Assembly, Frm, LH
4	710-05023	Bolt, Shoulder, Hex Hd
5	710-0923	Hex Screw, 5/8-18, 3.00, Gr5, Std
6	710-1245B	Hex Screw, 5/16-24, .875, Gr8, Lock
7	710-1652	Screw, Self-tapping, 1/4-20 x .625
8	710-3001	Hex Screw, 3/8-16, .880, Gr5, Std
9	711-06298	Shaft, Supt, Mule Idler
10	711-06303	Shaft, .375Od x 12.3450 Lg
11	712-04064	Nut, Flange Lock, 1/4-20, Grf, Nylon
12	712-04065	Nut, Flange Lock, 3/8-16, Grf, Nylon
13	714-04043	Pin, Cotter, Bow-Tie 91
14	916-3020	Ring, Ret, Int
15	731-10414	Cover, Belt
16	732-05205	Spring, Extension, 1.6 OD x 7.584 Lg
17	736-0237	Washer, Flat, .65 x 1.25 x .075
18	736-0505	Washer, Flat, .34 x 1.50 x .150
19	941-0524A	Bearing, Ball, .625 x 40 x 12
20	748-04067A	Pulley, Adapter, .75 Dia w/ Pins
21	750-06246	Spacer, .65 ID x .96 OD x 2.31
22	750-06251	Spacer, .88 OD x .635 ID x 1.105
23	754-05062	Belt, V-type, Bsec, 138.4
24	754-05063	Belt, V-type, Bsec x 39.988
25	756-05079	Pulley, Double, 6.663/5.205 Dia
26	756-05082	Pulley, V-Type, 7.25 Dia
27	756-05084	Pulley, Idler, 5.06 Dia

CUB CADET LLC MANUFACTURER'S LIMITED WARRANTY FOR SEPARATELY SOLD ATTACHMENTS AND ACCESSORIES

IMPORTANT: To obtain warranty coverage owner may be required to present an original proof of purchase and applicable maintenance records to the servicing dealer. Please see the operator's manual for information on required maintenance and service intervals.

The limited warranty set forth below is given by Cub Cadet LLC with respect to new merchandise purchased or leased and used in the United States and/or its territories and possessions, and by MTD Products Limited with respect to new merchandise purchased or leased and used in Canada and/or its territories and possessions (either entity respectively, "Cub Cadet").

Cub Cadet warrants this product (excluding its *Normal Wear Parts*, as described below) against defects in material and workmanship for a period of two (2) years commencing on the date of original retail purchase or lease and will, at its option, repair or replace, free of charge, any part found to be defective in materials or workmanship.

Normal Wear Parts are warranted to be free from defects in material and workmanship for a period of thirty (30) days from the date of original purchase or lease. Normal wear parts include, but are not limited to items such as: belts, blades, blade adapters, grass bags, rider deck wheels, seats, and tires.

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, 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 part, accessory or attachment not approved by Cub Cadet for use with the product(s) covered by this manual will void your warranty as to any resulting damage. In addition, Cub Cadet may deny warranty coverage if the hour meter, or any part thereof, is altered, modified, disconnected or otherwise tampered with.

HOW TO OBTAIN SERVICE: Warranty service is available, WITH PROOF OF PURCHASE AND APPLICABLE MAINTENANCE RECORDS, through your local authorized service dealer. To locate the dealer in your area:

In the U.S.A.

Check your Yellow Pages, or contact Cub Cadet LLC at P.O. Box 361131, Cleveland, Ohio 44136-0019, call 1-877-282-8684 or log on to our website at www.cubcadet.com.

In Canada

Contact MTD Products Limited, Kitchener, ON N2G 4J1, call 1-800-668-1238 or log on to our website at www.mtdcanada.com.

Without limiting the foregoing, this limited warranty does not provide coverage in the following cases:

- a. 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.
- Service completed by someone other than an authorized service dealer.
- c. Cub Cadet does not extend any warranty for products sold or exported outside of the United States and/or Canada, and their respective possessions and territories, except those sold through Cub Cadet's authorized channels of export distribution.
- d. Replacement parts and\or accessories that are not genuine Cub Cadet parts.
- e. Transportation charges and service calls.
- f. Commercial or Institutional Use.

There are no implied warranties, including without limitation any implied warranty of merchantability or fitness for a particular purpose. No warranties shall apply after the applicable period of express written warranty above. No other express warranties beyond those mentioned above, given by any person or entity, including a dealer or retailer, with respect to any product, shall bind Cub Cadet. The exclusive remedy is repair or replacement of the product as set forth above.

The terms of this warranty provide the sole and exclusive remedy arising from the sale and/or lease of the products covered hereby. Cub Cadet shall not be liable for any 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 jurisdictions 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 LOCAL LAWS RELATE TO THIS WARRANTY: This limited warranty gives you specific legal rights, and you may also have other rights that vary in different jurisdictions.