Operator's Manual

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions should always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING THIS APPLIANCE

WARNING—To reduce the risk of fire, electric shock, or injury, follow these safety instructions.

It is essential that you or any other operator of the appliance read and understand the contents of this manual before operating the appliance. Pay particular attention to the safety alert symbol Awhich means CAUTION, WARNING or DANGER—personal safety instruction. Read and understand the instruction because it has to do with safety. Failure to comply with these instructions may result in personal injury, risk of fire, or electrical shock.

Replacement parts—When servicing use only identical replacement parts. Replace or repair damaged cords.

Do not use on graveled surface unless the snowthrower is adjusted for such a surface in accordance with the operator's manual.

Keep children and bystanders away—All visitors should be kept at a distance from the work area.

Dress properly—Do not wear loose clothing or jewelry. They can be caught in moving parts.

Wear rubber boots when operating the snowthrower.

Operation of the snowthrower in the hand-held position is unsafe, except in accordance with the special instructions for such use provided in the operator's manual.

Warning—To prevent electric shock, use only with an extension cord suitable for outdoor use. (Does not apply to battery-operated snowthrowers.)

Extension cords—To prevent disconnection of appliance cord from the extension cord during operation, connect the extension cord to the product as shown on page 4.

Avoid accidental starting—Don't carry the snowthrower with your finger on the switch. Be sure switch is off when plugging in.

If cord is damaged in any manner while plugged in, pull extension cord from wall receptacle.

Don't abuse cord—Never carry snowthrower by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges. (Does not apply to battery-operated snowthrowers.)

Keep hands away from moving parts.

Keep guards in place and in working order.

Don't force snowthrower—It will perform better and safer at the rate for which it was designed.

Do not overreach—Keep proper footing and balance at all times.

If the snowthrower strikes a foreign object, follow these steps:

- Stop the snowthrower.
- Inspect for damage.
- Repair any damage before restarting and operating the snowthrower.

Disconnect snowthrower—Disconnect the snowthrower from the power supply when not in use, before servicing, when changing accessories, and the like.

Store idle snowthrowers indoors—When not in use, snowthrowers should be stored indoors in dry, locked place—out of reach of children.

Maintain snowthrowers with care—Follow instructions for lubricating and changing accessories.

This snowthrower meets or exceeds the B71.3 specifications of the American National Standards Institute in effect at the time of production.

Read and understand the contents of this manual before you start the motor.

AThis is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

Improperly using or maintaining this snowthrower could result in injury or death. To reduce this potential, comply with the following safety instructions.

This snowthrower is capable of amputating hands and feet and of throwing objects. Failure to observe the following safety instructions could result in serious injury.

Training

- Read, understand, and follow all instructions on the machine and in the manual(s) before operating this unit. Be thoroughly familiar with the controls and the proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- Never allow children to operate the equipment. Never allow adults to operate the equipment without proper instruction.
- Keep the area of operation clear of all persons, particularly small children
- Exercise caution to avoid slipping or falling.

Preparation

- Thoroughly inspect the area where the equipment is to be used and remove all doormats, sleds, boards, wires, and other foreign objects.
- Do not operate the equipment without wearing adequate winter garments. Avoid loose fitting clothing that can get caught in moving parts. Wear footwear that will improve footing on slippery surfaces.
- Do not attempt to clear snow from a gravel or crushed rock surface. This product is intended for use only on paved surfaces.

- Never attempt to make any adjustments while the motor is running SAVE THESE INSTRUCTIONS (except when specifically recommended by manufacturer).
- Always wear safety glasses or eye shields during operation or while performing an adjustment or repair to protect eyes from foreign objects that may be thrown from the machine.

Operation

- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Exercise extreme caution when operating on or crossing gravel drives, walks, or roads. Stay alert for hidden hazards or traffic.
- After striking a foreign object, stop the motor, remove the ignition key, thoroughly inspect the snow thrower for any damage, and repair the damage before restarting and operating the snow thrower.
- If the unit should start to vibrate abnormally, stop the motor and check immediately for the cause. Vibration is generally a warning of trouble.
- Stop the motor whenever you leave the operating position, before unclogging the rotor blade housing or discharge chute, and when making any repairs, adjustments or inspections.
- When cleaning, repairing, or inspecting the snow thrower, stop the motor and make certain that the rotor blades and all moving parts have stopped.
- Exercise extreme caution when operating on slopes.
- Never operate the snow thrower without proper guards and other safety protective devices in place and working.
- Never direct the discharge toward people or areas where property damage can occur. Keep children and others away.
- Do not overload the machine capacity by attempting to clear snow at too fast a rate.
- Look behind and use care when backing up with the snow thrower.
- Disengage power to the rotor blades when snow thrower is transported or not in use.
- Never operate the snow thrower without good visibility or light. Always be sure of your footing, and keep a firm hold on the handles. Walk: never run.

Clearing a Clogged Discharge Chute

Hand contact with the rotating rotor blades 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:

- Shut the motor off!
- Wait 10 seconds to be sure the rotor blades have stopped rotating.
- Always use a clean-out tool, not your hands.

Maintenance and Storage

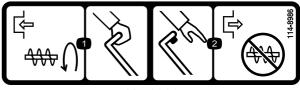
- Check all fasteners at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
- Always refer to the Operator's Manual for important details if the snow thrower is to be stored for an extended period.
- Maintain or replace safety and instruction labels, as necessary.
- Run the machine a few minutes after throwing snow to prevent freeze-up of the rotor blades.

Safety and Instructional Decals



Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or lost.





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- To engage the auger, squeeze the control bar.
- Release the control bar to disengage the auger.



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Setup

Note: Determine the left and right sides of the machine from the normal operating position.

Installing the Upper Handle and Chute Crank

- Stand the snowthrower on its wheels and position the upper handle.
- Inspect the open internal wiring; if it is damaged, do not assemble. Contact an Authorized Service Dealer.



The internal wiring could be damaged during assembly, causing serious personal injury when operating the snowthrower.

- Carefully assemble the snowthrower so that you will not damage the electrical wiring.
- If the wiring is damaged, do not assemble the snowthrower. Contact an Authorized Service Dealer.
- Carefully insert the right side of the upper tubing over the end of the lower right side tubing (Figure 2).

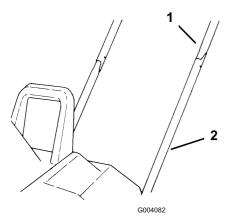


Figure 2

- 1. Upper tubing
- 2. Lower tubing
- 4. Carefully insert the left side of the upper tubing into the end of the lower left side tubing (Figure 2).
- Squeeze the upper tubes together, and wiggle the upper tubes down until the mounting holes in the upper and lower tubing line up (Figure 2).
- 6. Place the mounting plate over the tubes (Figure 3).

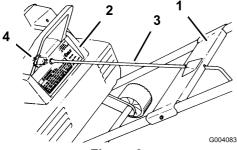


Figure 3

- Mounting plate
- Shroud

- 3. Chute crank
- 4. Gear
- Align the mounting plate holes with the upper and lower tubing holes
- 8. Insert the end of the chute crank through the hole in the shroud.
- Turn the chute crank rod slowly until the flattened end drops into the slot in the gear, then firmly push the chute crank into the gear until it snaps into place (Figure 3 and Figure 4).

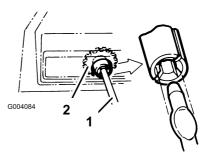


Figure 4

- 1. Chute crank
- 2. Chute crank gear
- 10. Secure the upper and lower tubing and the mounting plate together with 2 machine screws and 2 locknuts.

Note: Position the screw heads on the outside of the mounting plate. Be careful not to damage the internal electrical wiring when you insert the screws. If the wiring blocks the hole, use a blunt 1/8 inch punch to carefully route the electrical wiring away from the aligned holes.

Installing the Discharge Chute

 Position the chute deflector onto the discharge chute and align the mounting holes (Figure 5).

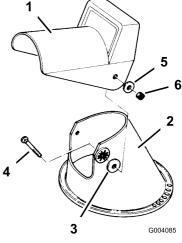


Figure 5

- Chute deflector
- 2. Discharge chute
- 3. Rubber washer (2)
- 4. Carriage bolt (2)
- 5. Metal washer (2)
- 6. Locknut (2)
- Insert a rubber washer between the chute deflector and the discharge chute on each side while maintaining the hole alignment (Figure 5).
- Secure the deflector to the discharge chute with 2 carriage bolts, 2 metal washers, and 2 locknuts.

Note: Ensure that the square shoulders on the carriage bolts align with the inside square on the discharge chute. Position the metal washers to the outside of the chute deflector as shown in Figure 5. Do not overtighten the bolts.

Operation

Product Overview

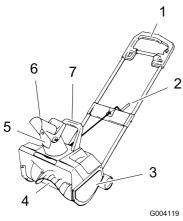


Figure 6

- 1. Control bar
- 2. Chute crank
- 3. Belt cover
- 4. Rotor

- 5. Discharge chute
- Chute deflector
- Secondary handle

Important: This snowthrower is intended for outdoor, residential use only. do not use it indoors or for commercial or industrial purposes.

Connecting to a Power Source

To reduce the risk of electric shock, this appliance has a polarized plug (i.e., one blade is wider than the other). Use only a polarized plug, UL-listed (CSA certified in Canada) extension cord recommended for outdoor use. A polarized plug will fit in a polarized cord only one way. If the plug does not fit fully in the cord, reverse the cord. If it still does not fit, purchase a polarized extension cord. If you have a polarized extension cord and the extension cord plug does not fit fully into the wall receptacle, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the appliance or extension cord plug in any way.

Use only an extension cord recommended for outdoor use.



Contact with water while operating the product could cause electric shock, causing injury or death.

- Don't handle the plug or the appliance with wet hands or while standing in water.
- Use only an extension cord recommended for outdoor cold-weather use.

Extension Cord Length	Minimum Wire Gauge (A.W.G.)
100 feet	14
150 feet	12

Note: Do not use an extension cord over 150 feet.

Important: Check the extension cord frequently during use for holes or cracks in the insulation. Do not use a damaged cord. Do not run the cord through standing water or wet grass.

Note: To prevent the extension cord from disconnecting during operation, tie it to the loop in the upper handle before you connect it to the snowthrower (Figure 7).

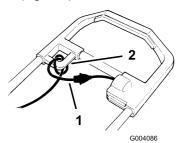


Figure 7

1. Extension cord

2. Loop



The electrical cord can get damaged, causing a shock or fire.

Thoroughly inspect the electrical cord before using the snowthrower. If the cord is damaged, do not operate the snowthrower. Repair or replace the damaged cord immediately. Contact an Authorized Service Dealer for assistance.

Starting and Stopping

1. To start the rotor, squeeze the control bar (Figure 8).

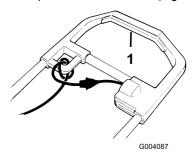


Figure 8

Control bar

2. To stop the rotor, release the control bar.

Operating Tips



If snowthrower hits an object while in operation, the object could be thrown in operator's or bystander's direction. Thrown objects could cause serious personal injury.

Keep the area to be cleared free of all objects which may be picked up and thrown by the rotor blades.

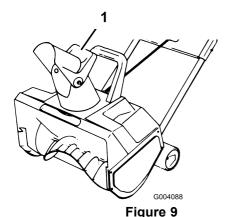
- Check the condition of the snowthrower before operating it to ensure that the rotor turns freely.
- Always keep children and pets away from the area of operation.
- Keep the area to be cleared free of stones, toys, or other objects which the rotor blades can throw. Such items could be covered by snowfall and go unnoticed. If the snowthrower strikes an object

during operation, stop the snowthrower, unplug the extension cord, remove the obstruction, and check the snowthrower for damage.

 To adjust the discharge chute, rotate the chute crank clockwise to move the discharge chute to the left; counterclockwise to move it to the right.

Note: The chute crank makes a noise as you turn the crank. This is normal.

• To adjust the height of the snow stream, raise or lower the chute deflector handle (Figure 9).



1. Chute deflector handle



A gap between the discharge chute and the chute deflector may allow the snowthrower to throw snow and objects in the direction of the operator. Thrown objects could cause serious personal injury.

- Do not force the chute deflector too far forward so that a gap appears between the discharge chute and chute deflector.
- Do not overtighten the locknuts that hold the chute deflector in place.
- Begin removing snow near the electrical outlet and work outward.
 Blow back and forth, not away from and toward the outlet.
- When turning at the end of a swath, step over the cord and turn the snowthrower.
- Always overlap each swath and discharge the snow downwind when possible.
- To shave down large banks of snow, lift the snowthrower by the primary and secondary handles (Figure 10) and place the snowthrower on the bank. Let the weight of the snowthrower shave down the bank in a back-and-forth motion.



Figure 10

- 1. Primary handle
- 2. Secondary handle
- When clearing steps, hold the snowthrower by the primary and secondary handles and use a swinging or sweeping motion.



When using the secondary handle, never direct the snow discharge chute at the operator or bystanders. The snowthrower can throw objects and cause serious personal injury.

When using the secondary handle, always turn the discharge chute in the opposite direction from where you or bystanders are standing.

- Keep the extension cord clear of obstructions, sharp objects, and all moving parts. Do not pull sharply on cord or abuse it in any manner. Frequently inspect the extension cord for damage that may result in an electric shock. If the extension cord becomes damaged, replace it.
- In cold and snowy weather conditions, some controls and moving parts may freeze. Therefore, when any control becomes difficult to operate, stop the motor, disconnect the extension cord, and check for frozen parts. Do not use excessive force when trying to operate frozen controls. Free all the controls and moving parts before operating.
- When operating the snowthrower, keep the wheels 1 inch (2.5 cm) off the pavement by tipping the snowthrower forward. This helps prevent the snow from building up on the wheels.
- After clearing the snow, let the motor run for a few minutes so that moving parts don't freeze. Then shut off the motor, wait for all moving parts to stop, and wipe the ice and snow off the snowthrower. Rotate the chute crank several times to remove the snow.

Maintenance

Important: All electrical repairs should be performed only by an Authorized Service Dealer.

Note: Determine the left and right sides of the machine from the normal operating position.



If the extension cord is plugged into the snowthrower, someone could accidentally operate snowthrower while you are performing maintenance on it, causing serious personal injury.

Disconnect the extension cord before you perform any maintenance.

Lubricating the Snowthrower

You do not need to lubricate the snowthrower; all the bearings were lubricated at the factory for the life of the snowthrower.

Replacing the Scraper

The scraper is located at the bottom of the rotor housing as shown in Figure 11.

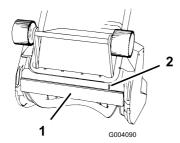


Figure 11

1. Scraper

- 2. Screw (2)
- Remove the 2 screws that secure the scraper to the snowthrower (Figure 11).
- 2. Install the new scraper and fasten it securely with 2 screws.

Replacing the Rotor

1. Remove the 3 screws that secure the right side cover and the skid to the snowthrower frame (Figure 12).

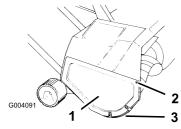


Figure 12

- 1. Right side cover
- 3. Skid

Screw

Use a 5/16 inch Allen wrench to turn the rotor shaft clockwise (left-hand thread) while holding the rotor (Figure 13).

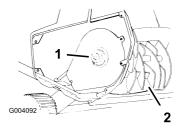


Figure 13

- 1. Rotor shaft
- 2. Rotor

Note: You may need to tap the Allen wrench with a hammer to loosen the rotor shaft. Wedge a stick or a hammer handle in the rotor to prevent it from rotating.

Note: If you cannot remove the rotor shaft by holding the rotor, remove the left side cover and the skid (Figure 14).

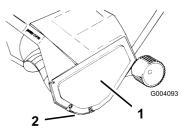


Figure 14

- 1. Left side cover
- 2. Skid
- Hold the hex nut with a 7/8 inch wrench while unscrewing the rotor shaft (Figure 15).

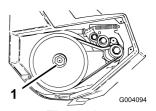


Figure 15

- 1. Hex nut
- Hold the rotor and pull out the rotor shaft.
- Remove the rotor.
- 6. Align the left side of the new rotor with the coupler.

Note: The 3 bosses on the rotor end must align with the slots on the coupler (Figure 16).

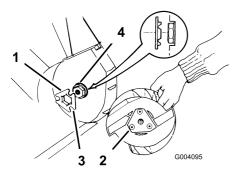


Figure 16

- 1. Coupler
- 2. Boss

- 3. Slot
- 4. Drive hex

Note: When mounting the coupler to the drive hex, align the coupler tabs to the inside.

- 7. Slide the right side of the rotor into the mounting position.
- 8. Insert the rotor shaft through the rotor and ensure that the shaft fits into the bearing on the right side.
- 9. Torque it to at least 10 ft-lb (14 N·m).
- 10. Install the cover and the skid.

Replacing the Large Belt

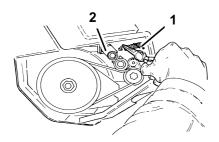
- Remove the 3 screws that secure the left side plate to the snowthrower frame (Figure 14).
- 2. Remove the side plate and the skid.



The idler spring could fly in your face while you remove it, causing personal injury.

Wear safety goggles when working with the idler spring.

3. Remove the idler spring from the idler arm (Figure 17).



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Figure 17

- 1. Idler spring
- 2. Idler arm
- 4. Rotate the rotor with your left hand while sliding the belt off the large pulley with your right hand (Figure 18).

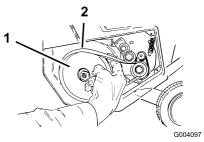
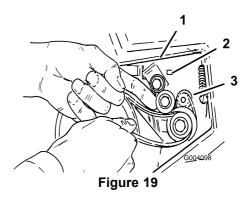


Figure 18

- 1. Large pulley
- Belt
- 5. Slip the new belt over the small pulley (Figure 19).



- 1. Idler arm
- Small pulley
- 2. Idler pulley
- 6. Lift up the idler arm and slip the belt under the idler pulley (Figure 19).
- Rotate the rotor with your left hand while sliding the belt onto the large pulley with your right hand (Figure 20).

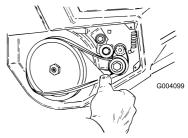


Figure 20

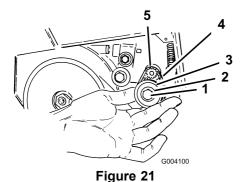
- Assemble the idler spring (Figure 17), ensuring that the idler pulley rides on the belt.
- 9. Install the left side cover and the skid with the 3 screws.

Replacing the Small Belt

- 1. Remove the screws that secure the left side plate and the skid to the snowthrower frame (Figure 14).
- 2. Remove the side plate and the skid.
- Remove the large belt by slowly sliding it off the small pulley (Fig. Figure 18).

Note: Refer to steps 2 and 3 of Replacing the Large Belt.

- Remove the small pulley bolt (left hand thread) by turning the bolt clockwise.
- 5. Remove the 2 washers and the small pulley (Figure 21).



- Bolt (left-hand thread)
- 2. Washers
- 3. Small pulley
- 4. Small belt
- Motor shaft pulley
- 6. Remove and discard the small belt (Figure 21).
- Slide 2 washers onto the bolt and insert the bolt through the small pulley.

Note: The bolt must ride on the bearings in the small pulley.

- 8. Place the new belt on the small pulley.
- 9. Slide the belt over the motor shaft pulley (Figure 21).
- Torque the bolt to 25 to 30 in-lb (2.8 to 3.4 N·m). Do not overtighten the bolt.

Note: The bolt, the bolt head, and the washers must be flush against the small pulley.

11. Slip the large belt over the small pulley (Figure 21). Refer to Replacing the Large Belt.

Service

Toro has designed this product to give you years of trouble free use. Should it need service, bring the product to your Authorized Toro

Service Dealer. Your Toro Dealer is specially trained to repair Toro products and will ensure that your Toro stays "All" Toro.

Double-insulated Appliances

In a double-insulated appliance, two systems of insulation are provided instead of grounding. No grounding means is provided on a double-insulated appliance, nor should a means for grounding be added to the appliance. Servicing a double-insulated appliance requires extreme care and knowledge of the system, and should be done only by the qualified service personnel at your Authorized Toro Service Dealer. Replacement parts for a double-insulated appliance must be identical to the parts they replace. A double-insulated appliance is marked with the words "Double Insulation" or "Double Insulated." The symbol (square within a square) \square may also be marked on the appliance.

Product Information

A model and serial number decal is located on the housing. Always refer to specific numbers o the decal in correspondence or when you need replacement parts.

Storage

- Run the snowthrower for a few minutes to melt away any snow on the snowthrower.
- 2. Disconnect the extension cord from the snowthrower.
- Examine the extension cord thoroughly for signs of wear or damage. Replace it if it is worn or damaged.
- Examine the snowthrower thoroughly for worn, loose, or damaged parts. To repair or replace parts, contact an local Authorized Service Dealer for assistance.
- 5. Store the extension cord with the snowthrower.
- 6. Store the snowthrower in a clean, dry place.

The Toro Promise - Electric Snowthrowers and Brooms

A Two-Year Full Warranty for Residential Use for the United States and Canada

The Toro Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly warrant this product for two years against defects in material or workmanship when used for normal residential purposes.*

- If you have questions or problems, or before returning this product, call toll free: 1-800-808-2963 (US) or 1-800-808-3072 (Canada).
- To receive a replacement or repair, at our option, return the complete unit, postage prepaid, to the seller. Only United States customers
 may return their product, with proof of purchase, to any Authorized Service Dealer, Master Service Dealer, or the Toro Service Center,
 21350 Cedar Avenue S., Lakeville, MN 55044-9090.

This warranty covers product defects only. Neither The Toro Company nor Toro Warranty Company is liable for indirect, incidental or consequential damages in connection with the use of the Toro Products covered by this warranty, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non-use pending completion of repairs under this warranty. Some states do not allow exclusions of incidental or consequential damages, so the above exclusions 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.

Countries Other than the United States and Canada

Customers who have purchased Toro products exported from the United States or Canada should contact their Toro Distributor (Dealer) to obtain guarantee policies for your country, province, or state. If for any reason you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the Toro importer. If all other remedies fail, you may contact us at Toro Warranty Company.

* Residential use means use of the product on the same lot as your home.

Part Number 374-0071 Rev. A