

LAWN-BOY®

320

Snowthrower

Model Nos. 28220 and 28222—20000001 and Up

Operator's Manual

Pour obtenir gratuitement une version en français de ce manuel, écrivez à l'adresse ci-dessous. N'oubliez pas d'indiquer les numéros de modèle et de série de votre produit.

Lawn-Boy Inc., Attn.: Parts Dept., 8111 Lyndale Ave S, Bloomington, MN 55420-1196.

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! **WARNING** !

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Introduction

Thank you for choosing a Lawn-Boy product. We want you to be completely satisfied with your new purchase.

Read this manual carefully to learn how to operate and maintain your product properly. The information in this manual can help you and others avoid injury and product damage. Although Lawn-Boy designs and produces safe products, you are responsible for operating the product properly and safely.

Whenever you contact your Authorized Service Dealer or the factory for help with service, genuine Lawn-Boy parts, or additional information, have the model number and the serial number of your product handy. You will find the model number and serial number decal on the product as illustrated in Figure 1.

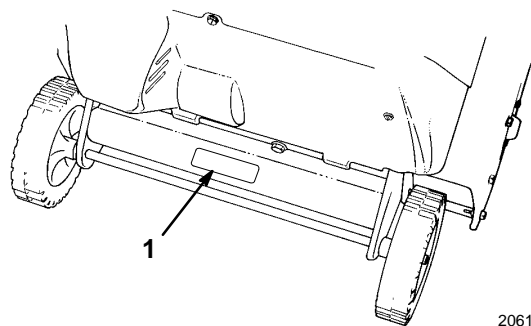


Figure 1

1. Model number and serial number decal

Write the product model number and serial number in the space below:

Model No. _____

Serial No. _____

This manual identifies potential hazards and has special safety messages that help you and others avoid personal injury and even death. **DANGER**, **WARNING**, and **CAUTION** are words used to identify the level of hazard.


DANGER signals an extreme hazard that will cause serious injury or death if you do not follow the recommended precautions.

WARNING signals a hazard that may cause serious injury or death if you do not follow the recommended precautions.

CAUTION signals a hazard that may cause minor or moderate injury if you do not follow the recommended precautions.

This manual uses two other words to highlight information. **Important** calls attention to special mechanical information and **Note** emphasizes general information worthy of special attention.

Safety

To ensure maximum safety, best performance, and to gain knowledge of the product, it is essential that you and any other operator of the snowthrower read and understand the contents of this manual before the motor is ever started. Pay particular attention to the safety alert symbol  which means CAUTION, WARNING, OR DANGER — “personal safety instruction.” Read and understand the instruction because it has to do with safety. Failure to comply with instruction may result in personal injury.

The snowthrower is designed and tested to offer reasonably safe service; however, **failure to comply with the following instructions may result in personal injury.**

General Snowthrower Safety

The following instructions have been adapted from the ANSI/OPEI standard B71.3—1995 and ISO standard 8437:1989. Information or terminology specific to Lawn-Boy snowthrowers is enclosed in parenthesis.

Training

- Read the operator’s manual carefully. 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 and pets.
- Exercise caution to avoid slipping or falling, especially when operating in reverse.

Preparation

- Thoroughly inspect the area where the equipment is to be used and remove all doormats, sleds, boards, wires, and other foreign objects.
- Disengage all clutches and shift into neutral before starting the engine.

- Do not operate the equipment without wearing adequate winter garments. Wear footwear which will improve footing on slippery surfaces.
- Handle fuel with care; it is highly flammable.
 - Use an approved fuel container.
 - Never add fuel to a running or hot engine.
 - Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
 - Replace gasoline caps securely and wipe up spilled fuel.
- Use only the power cord supplied with the snowthrower and a receptacle appropriate for use with the cord for electric starting motors.
- Adjust the collector (auger) housing height to clear gravel or crushed rock surface. (This is not necessary on single-stage snowthrowers.)
- Never attempt to make any adjustments while the engine is running, except where specifically recommended by manufacturer (Lawn-Boy).
- Let engine and machine adjust to outdoor temperatures before starting to clear snow.
- The operation of any powered machine can result in foreign objects being thrown into the eyes. Always wear safety glasses or eye shields during operation or while performing an adjustment or repair.

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 engine, remove the wire from the spark plug, thoroughly inspect the snowthrower for any damage, and repair the damage before restarting and operating the snowthrower.
- If the unit should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
- Stop the engine whenever you leave the operating position, before unclogging the collector (auger)/impeller housing or discharge guide (chute), and when making any repairs, adjustments, or inspections.
- When cleaning, repairing, or inspecting, make certain the collector/impeller (auger/impeller or rotor blades) 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 engine. Disconnect the cable on electric motors.

- Do not run the engine indoors, except when starting it and for moving the snowthrower in or out of the building. Open the outside doors; exhaust fumes are dangerous.
- Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear steep slopes.
- Never operate the snowthrower without proper guards, plates or other safety protective devices in place.
- Never operate the snowthrower near glass enclosures, automobiles, window wells, drop-offs, etc. without proper adjustment of the snow discharge angle. Keep children and pets away.
- Do not overload the machine capacity by attempting to clear snow at too fast a rate.
- Never operate the machine at high transport speeds on slippery surfaces. Look behind and use care when moving in reverse.
- Never direct discharge at bystanders or allow anyone in front of the unit.
- Disengage power to the collector/impeller (auger/impeller or rotor blades) when snowthrower is transported or not in use.
- Use only attachments and accessories approved by the manufacturer of snowthrower (Lawn-Boy), such as wheel weights, counterweights, cabs, etc. (Refer to your Authorized Service Dealer for accessories available for your snowthrower.)
- Never operate the snowthrower without good visibility or light. Always be sure of your footing, and keep a firm hold on the handles. Walk; never run.

Maintenance and storage

- Check all fasteners at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
- Never store the machine with fuel in the fuel tank inside a building where ignition sources are present such as hot water and space heaters, clothes dryers, etc. Allow the engine to cool before storing in any enclosure.
- Always refer to this operator's manual for important details if the snowthrower 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 collector (auger)/impeller. (With the engine running, pull the recoil starter handle several times.)

Lawn-Boy Snowthrower Safety

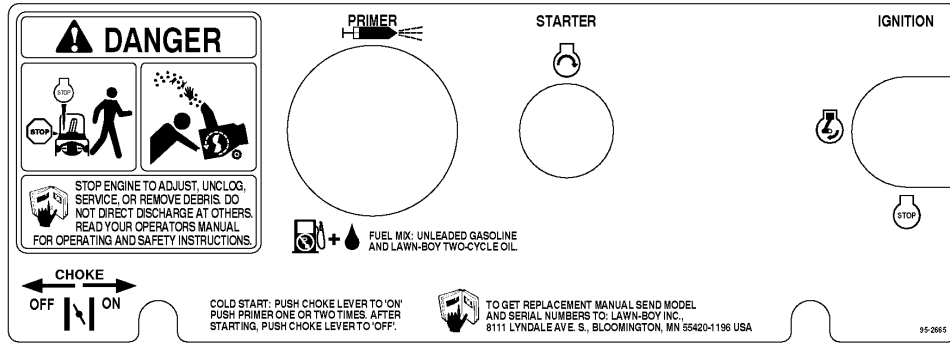
The following list contains safety information specific to Lawn-Boy products or other safety information that you must know that is not included in the ANSI or ISO standards.

- **The rotating impeller/auger or rotor blades can cut off or injure fingers or hands.** Stay behind the handles and away from the discharge opening while operating the snowthrower. **Keep your face hands, feet, and any other part of your body or clothing away from concealed, moving, or rotating parts.**
- Before adjusting, cleaning, repairing, and inspecting the snowthrower, and before unclogging the discharge chute, **stop the engine, remove the key, and wait for all moving parts to stop.** Also, pull the wire off of the spark plug and keep it away from the plug to prevent someone from accidentally starting the engine.
- Use a stick, **not your hands** to remove obstructions from the discharge chute.
- **Before** leaving the operator's position, behind the handles, stop the engine, remove the key, and wait for all moving parts to stop.
- Do not wear loose fitting clothing that could possibly get caught in moving parts.
- If a shield, safety device, or decal is damaged, illegible, or lost, repair or replace it before beginning operation. Also, tighten any loose fasteners.
- **Do not** smoke while handling gasoline.
- For two-stage snowthrowers, use the lower gear when operating on slopes.
- **Do not** use the snowthrower on a roof.
- Do not touch the engine while it is running or soon after it is stopped because the engine will be hot enough to cause a burn. Do not add oil or check the oil level in the crankcase when the engine is running.
- Perform only those maintenance instructions described in this manual. Before performing any maintenance, service, or adjustment, stop the engine, remove the key and pull the wire from the spark plug, keeping it away from the plug to prevent someone from accidentally starting the engine. If major repairs are ever needed, contact your Authorized Lawn-Boy Service Dealer.
- Do not over speed the engine by changing the governor settings.
- When storing the snowthrower for more than 30 days, drain the gasoline from the fuel tank to prevent a potential hazard. Store gasoline in a safety approved, red container. Remove the key from the ignition switch before storing the snowthrower.

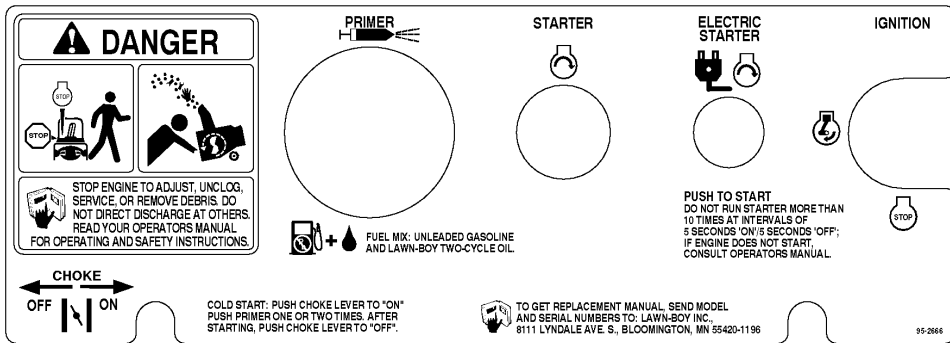
- To ensure the best performance and safety, purchase only genuine Lawn-Boy replacement parts and accessories to keep the Lawn-Boy all Lawn-Boy. **Do not use “Will Fit” replacement parts and accessories as they could cause a safety hazard.**

Safety and Instruction Decals

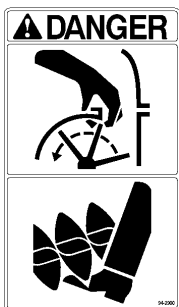
Safety decals and instructions are easily visible to the operator and are located near any area of potential danger. Replace any decal that is damaged or lost.



**On Control Panel (Model 28220)
(Part No. 95-2665)**



**On Control Panel (Model 28222)
(Part No. 95-2666)**



**On Discharge Chute
(Part No. 94-2900)**



**On Handle
(Part No. 66-6870)**



**On Muffler Guard
(Part No. 95-1904)**

Assembly

Note: Determine left and right sides of snowthrower by standing in the normal operating position.

Loose Parts

| Part | Qty | Use |
|--------------------|-----|---|
| Wheels | 2 | Installing the wheels |
| Spacers | 2 | |
| Pushnuts | 2 | |
| Discharge chute | 1 | Installing the discharge chute and chute handle |
| Chute handle | 1 | |
| Carriage bolts | 3 | |
| Washers | 3 | |
| Locknuts | 3 | |
| Handle | 1 | Installing the handle |
| Eyebolt and spacer | 1 | |
| Machine screws | 3 | |
| Control cable | 1 | Installing the control cable |
| Spring | 1 | |
| Cable adjuster | 1 | |

Installing the Wheels

1. Place a wood block under the wheel axle for support (Fig. 2).
2. Slide a spacer and wheel onto the axle. Ensure that the side of the wheel with six spokes faces the center of the axle. Slide a pushnut onto the end of the axle (Fig. 2).
3. Using a hammer, strike the pushnut to seat it firmly in place. Repeat steps 2 and 3 for the other wheel.

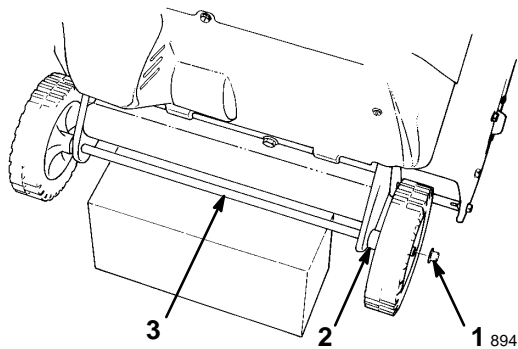


Figure 2

1. Pushnut
2. Spacer
3. Axle

Installing the Discharge Chute and Chute Handle

1. Place the chute handle over the chute ring (Fig. 3).

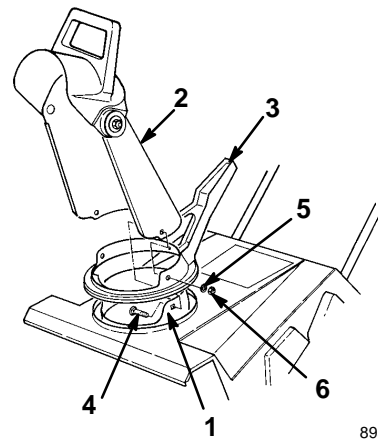


Figure 3

1. Chute ring
2. Discharge chute
3. Chute handle
4. Carriage bolt
5. Washer
6. Locknut

2. Insert the discharge chute between the chute ring and the chute handle and align the holes (Fig. 3).

- Secure the back of the chute and the handle to the center hole in the chute ring with a carriage bolt, a washer, and a locknut. Position the washer and the locknut on the outside of the chute (Fig. 3).

Note: Rotate the chute ring to make the discharge chute assembly easier.

- Secure the chute and the handle to the chute ring with the remaining carriage bolts, washers, and locknuts. Tighten all locknuts securely.

Installing the Handle

- Remove the tie that secures the control cable to the lower handle (Fig. 4).

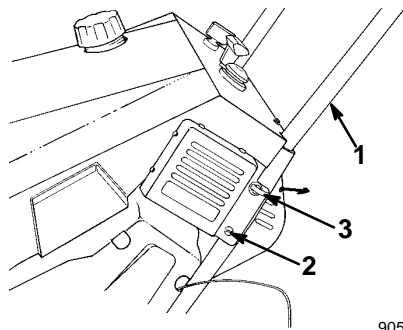


Figure 4

- | | |
|------------------|-----------------------|
| 1. Handle | 3. Eyebolt and spacer |
| 2. Machine screw | |

- Slide the handle ends through the openings in the shroud and onto the lower handles inside the shroud.
- Secure the right side of the handle with two machine screws.
- Secure the left side of the handle with a machine screw, an eyebolt, and a spacer as shown in Figure 4.

Note: Insert the eyebolt through the spacer before using it to secure the handle to the snowthrower frame.

- Position the eyebolt perpendicular to the upper hole in the left handle and tighten.

Installing the Control Cable

- Route the control cable through the eyebolt on the left side of the snowthrower (Fig. 4).
- Hook the spring into the round hole at end of the cable adjuster (Fig. 5).
- Route the cable through the elongated hole in the cable adjuster. Insert the Z fitting on the end of the cable into the third hole from the cable end of the cable adjuster (Fig. 5).

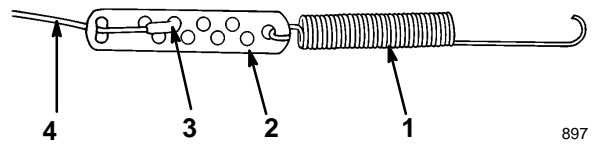


Figure 5

- | | |
|-------------------|--------------|
| 1. Spring | 3. Z fitting |
| 2. Cable adjuster | 4. Cable |

- Slide the spring cover over the spring and the cable adjuster. Push the spring end through the hole at the end of the spring cover.
- Hook the spring into the top hole of the control bar bracket (Fig. 6).

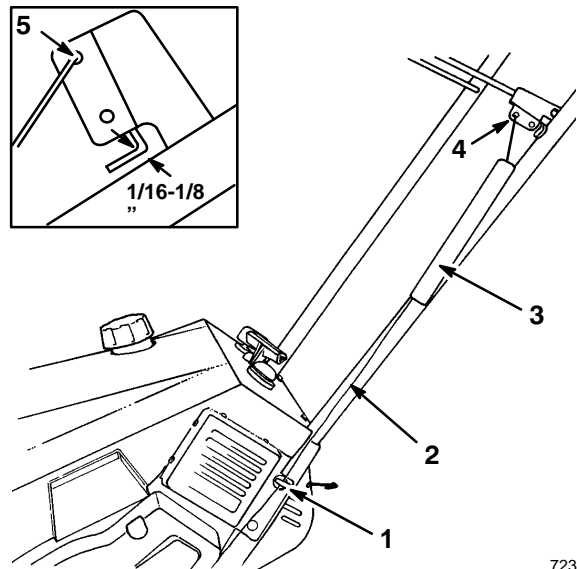


Figure 6

- | | |
|-----------------------|------------------------|
| 1. Eyebolt and spacer | 4. Control bar bracket |
| 2. Control cable | 5. Top hole |
| 3. Spring cover | |

- Move control bar back toward the handle until there is no slack in the cable. The gap between the control bar bracket and the handle should be approximately 1/16 to 1/8 in. (0.16 to 0.32 cm). See inset in Figure 6. To adjust this gap, refer to *Adjusting the Control Cable* on page 11.

Note: The control cable must always contain slack when it is in the disengaged position.

Before Starting

Engines which are certified to comply with California and U.S. EPA emission regulations for ULGE engines:

Are certified to operate on regular unleaded gasoline/oil mix. Include the following emission control system(s): EM, TWC (if so equipped); Do not include any user adjustable features— therefore no other adjustments are needed.

Mixing Gasoline and Oil

Use only clean, fresh, lead-free gasoline (including oxygenated or reformulated gasoline) with an octane rating of 87 or higher. To ensure freshness, purchase only the quantity of gasoline you expect to use in 30 days. Using unleaded gasoline results in fewer combustion chamber deposits and longer spark plug life.

IMPORTANT: Do not use methanol, gasoline containing methanol, gasohol containing more than 10% ethanol, premium gasoline, or white gas. Using these fuels can damage the engine's fuel system.

IMPORTANT: Do not use automotive oil (i.e., SAE 30, 10W30, etc.), a two-cycle oil that is not NMMA- or TCW-certified, or a fuel mixed at the wrong gasoline/oil ratio. This can cause engine damage not covered under the Lawn-Boy warranty.



DANGER



POTENTIAL HAZARD

- In certain conditions gasoline is extremely flammable and highly explosive.

WHAT CAN HAPPEN

- A fire or explosion from gasoline can burn you, others, and cause property damage.

HOW TO AVOID THE HAZARD

- Use a funnel and fill the fuel tank outdoors, in an open area, when the engine is cold. Wipe up any gasoline that spills.
- Do not fill the fuel tank completely full. Add gasoline to the fuel tank until the level is 1/4" to 1/2" (6 mm to 13 mm) below the bottom of the filler neck. This empty space in the tank allows gasoline to expand.
- Never smoke when handling gasoline, and stay away from an open flame or where gasoline fumes may be ignited by a spark.
- Store gasoline in an approved container and keep it out of the reach of children.
- Never buy more than a 30-day supply of gasoline.



DANGER



POTENTIAL HAZARD

- When fueling, under certain circumstances, a static charge can develop, igniting the gasoline.

WHAT CAN HAPPEN

- A fire or explosion from gasoline can burn you and others and cause property damage.

HOW TO AVOID THE HAZARD

- Always place gasoline containers on the ground away from your vehicle before filling.
- Do not fill gasoline containers inside a vehicle or on a truck or trailer bed because interior carpets or plastic truck bed liners may insulate the container and slow the loss of any static charge.
- When practical, remove gas-powered equipment from the truck or trailer and refuel the equipment with its wheels on the ground.
- If this is not possible, then refuel such equipment on a truck or trailer from a portable container, rather than from a gasoline dispenser nozzle.
- If a gasoline dispenser nozzle must be used, keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete.

1. Pour a half gallon of gasoline into an approved gasoline container.

Note: Do not mix gasoline and oil in the fuel tank. Oil at room temperature mixes easier and more thoroughly than cold oil. Oil below 32°F (0°C) requires additional mixing.

2. Add the proper amount of high-grade, NMMA- or TCW-certified two-cycle oil to achieve a 32:1 gasoline-to-oil mixture ratio. Refer to the following table:

| 32:1 Gasoline-to-Oil Mixture Ratio | |
|------------------------------------|-------------------|
| Oil | Gasoline |
| 4 oz. (0.118L) can | 1 gallon (3.75L) |
| 8 oz. (0.236L) can | 2 gallons (3.75L) |
| 20 oz. (0.590L) bottle | 5 gallons (3.75L) |

For best results, use *Lawn-Boy 2-Cycle Generation II Ashless Oil*.

3. Install the cap on the gasoline container and shake the container to mix oil and gas thoroughly.
4. Remove the cap and add the remaining gasoline.

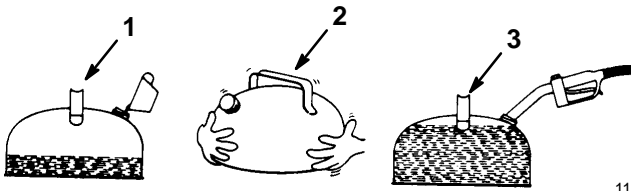


Figure 7

1. Add oil to a small amount of gasoline
2. Install the cap and shake the can to mix
3. Add the remaining amount of gasoline

We recommend using a stabilizer/conditioner (such as *Lawn-Boy 2+4® Fuel Conditioner*) for all Lawn-Boy gasoline-powered products during operation and storage. A fuel stabilizer/conditioner cleans the engine during operation and prevents gum-like deposits from forming in the engine during storage. A fuel stabilizer/conditioner works best when you mix it with fresh gasoline.

IMPORTANT: Do not use fuel additives except a fuel stabilizer during storage. Do not use fuel stabilizers with an alcohol base such as ethanol, methanol, or isopropanol.

Operation

Operating Controls

The snowthrower control panel contains a key switch, a primer, an electric start button (electric start models only), and a recoil starter. The choke lever is just below the lower left corner of the control panel (Fig. 8).

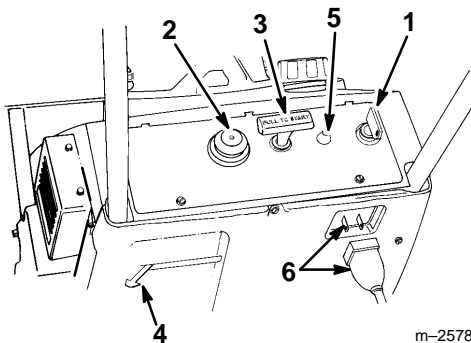


Figure 8

1. Key switch
2. Primer
3. Recoil start
4. Choke
5. Electric start button (electric start models only)
6. Cord connection (electric start models only)

Starting the Engine

1. Turn key to the On position and move the choke lever to the On (far right) position.
2. Cover the hole in the center of the primer with the thumb and slowly push in the primer twice, pausing for two seconds between each push. For temperatures below 0°F (-18°C), repeat this step as necessary.

Note: Do not use the choke and the primer when starting a warm engine.

3. **For a recoil starter:** Hold snowthrower with one hand and pull recoil starter vigorously with other hand.

For an electric starter:

- A. Connect an extension cord to the snowthrower and a standard household power outlet.
- B. Push starter button.

Run the electric starter no more than ten times at intervals of five seconds on, then five seconds off. If the engine does not start after this attempt, wait at least 40 minutes to allow the starter to cool before attempting to start it again.

IMPORTANT: Running the electric starter extensively can overheat and damage the starter.

- C. When the engine starts, disconnect the extension cord from the snowthrower and the outlet.
- D. With the engine running, move the choke lever to the middle position after a few seconds of running time. After the engine is warm, move the choke lever to the Off (far left) position.

Stopping the Engine

Turn the key to the Off position, and wait for all moving parts to stop before leaving the operating position.

Starting the Rotor Blades

To start the rotor blades, squeeze the control bar and the handle together.

Stopping the Rotor Blades

Release the control bar to stop the rotor blades.

Note: When you release the control bar handle, the rotor blades stop, but the engine continues to run.

Adjusting the Discharge Chute

Move the chute handle left and right to adjust the direction of the snow stream. The chute deflector handle on top of the discharge chute controls the height of the snow stream. **Do not overtighten the chute deflector mounting locknuts.**

Operating Tips

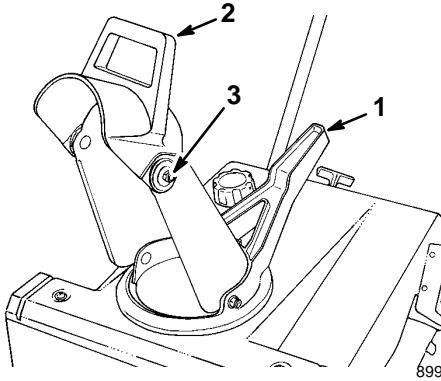


Figure 9

1. Chute handle
2. Chute deflector handle
3. Deflector mounting nuts

IMPORTANT: Do not use chute handle to lift the snowthrower. This can damage the chute handle.

Throwing Snow

! **WARNING** !

POTENTIAL HAZARD

- Stones, toys and other foreign objects may be picked up and thrown by the rotor blades.

WHAT CAN HAPPEN

- Thrown objects can cause serious personal injury to operator or bystanders.

HOW TO AVOID THE HAZARD

- Keep the area to be cleared free of all objects that could be picked up and thrown by rotor blades.
- Keep all children and pets away from area of operation.

- The snowthrower clears down to the ground and propels itself forward when you raise the handle. The snowthrower tilts **slightly** forward so that the rotor blades strike the ground. The wheels do not need to touch the ground to self-propel. The more you tilt the handle forward, the faster the snowthrower self-propels.
- Always overlap each swath and discharge the snow downwind whenever possible.
- To clear snow from crushed rock or gravel, push down on the handle to raise the rotor blades clear of the loose material and push the snowthrower forward.
- In snowy and cold conditions, some controls and moving parts may freeze solid. **Do not use excessive force when trying to operate frozen controls.** If you have difficulty operating any control or part, start the engine and let it run for a few minutes.
- After clearing the snow, let the engine run for a few minutes to prevent the moving parts from freezing. Shut off the engine and remove all ice and snow from the snowthrower.

Maintenance

Recommended Maintenance Schedule

| Service Item | Service Operation | Initial | Annually | Comments |
|-------------------|---|---------|----------|------------------------------|
| Control cable | Check the control cable. Adjust if necessary. | X | X | Check and adjust as needed. |
| Fuel tank | Drain the fuel and run the engine until the fuel tank and the carburetor are dry. | | X | |
| Scraper | Check the scraper. Replace if necessary. | | X | |
| Drive belt | Inspect the drive belt. Replace if necessary. | | X | |
| Spark plug | Clean, inspect, and gap. Replace if necessary. | | X | |
| Rotor blades | Inspect the rotor blades. Replace if necessary. | | X | |
| Tighten fasteners | Check and for loose fasteners and tighten them if necessary. | X | X | Tighten fasteners as needed. |

CAUTION

POTENTIAL HAZARD

- If you leave the wire on the spark plug, someone could start the engine.

WHAT CAN HAPPEN

- Accidental starting of engine could seriously injure you or other bystanders.

HOW TO AVOID THE HAZARD

- Pull the wire off of the spark plug before you do any maintenance. Also, push it aside so it does not accidentally contact the spark plug.

Adjusting the Control Cable

Periodically check the control cable for proper adjustment.

1. Stop the engine and wait for all moving parts to stop.
2. Move the control bar back toward the handle to remove the slack in the cable.
3. Ensure that a 1/16 to 1/8 in. (0.16 to 0.32 cm) gap exists between the control bar bracket and the handle (Refer to the inset in Fig. 6). To adjust the cable, go to step 4.

Note: The control cable must have slack in the disengaged position.

4. Adjust the cable as follows:
 - A. Unhook the spring end from the top hole in the control bar bracket.
 - B. Slide the spring cover off the cable to expose the cable adjuster.

- C. Unhook the Z fitting from the cable adjuster (Fig. 5) and position the Z fitting in a higher or lower hole on the adjuster to obtain a proper gap of 1/16 to 1/8 in. (0.16 to 0.32 cm).
- D. Install the spring cover over the cable adjuster and the spring.
- E. Hook the spring into the top hole of the control bar bracket (Fig. 6).

Emptying the Fuel Tank

1. Stop the engine, wait for all moving parts to stop, and remove the key from the switch.
2. Remove the cap from the fuel tank and use a pump-type syphon to drain the fuel into a clean, approved gasoline container.
3. After draining the fuel, start the engine and allow it to run until it consumes all the fuel in the fuel tank and stops running. Repeat this step two more times to ensure that the fuel tank is empty.

Replacing the Scraper

Before each season, inspect the scraper for wear. If the thickness of the scraper bottom is less than 1/16" (0.16 cm), replace the scraper (Fig. 10).

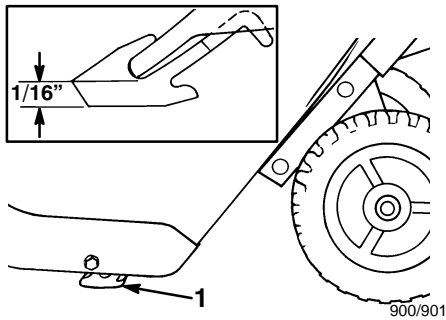


Figure 10

1. Scraper

Note: The running time and the roughness of the driveway or the sidewalk determines the scraper wear rate.

1. Stop the engine and wait for all moving parts to stop.
2. Drain gasoline from fuel tank; refer to *Emptying the Fuel Tank* on page 11.
3. Tip snowthrower forward onto its front housing.
4. Remove three carriage bolts and three flange nuts that hold the scraper in place (Fig. 11).

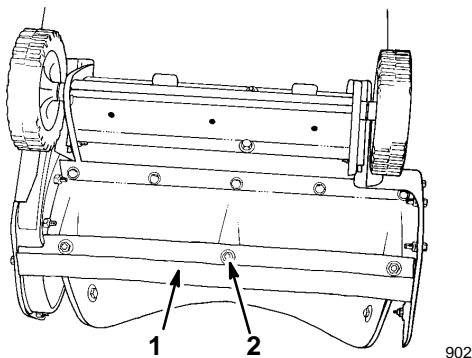


Figure 11

1. Scraper
2. Carriage bolt and flange nut

5. Remove the scraper (Fig. 11).
6. Secure the new scraper to the housing with carriage bolts and flange nuts. Position the bolt heads on the inside of the housing (Fig. 11).

Replacing the Drive Belt

Inspect the drive belt before each season, and replace it if it is worn or damaged. After extended use, the drive belt may wear and require replacement. If, after adjusting the control bar, the drive belt continues to slip under a heavy load or the rotor does not turn, check to see if the belt is severely worn.

1. Stop the engine and wait for all moving parts to stop.
2. Drain gasoline from fuel tank. Refer to *Emptying the Fuel Tank* on page 11.
3. Tip the snowthrower on its right side.
4. Remove three self tapping screws, three capscrews, a washer, and three nuts that secure the left side cover to the snowthrower frame (Fig. 12).

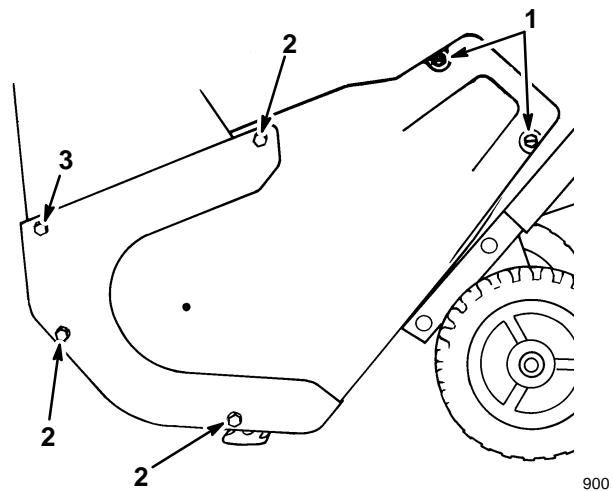


Figure 12

1. Self-tapping screws
2. Capscrew and nut
3. Capscrew, nut, and washer

5. Lift off the left side cover and allow it to hang from the cable.
6. Slip the belt off the idler pulley (Fig. 13).
7. Move the idler pulley and slip the belt from the rotor pulley, the idler pulley, and the engine pulley.
8. Loop the belt around the rotor pulley and the engine pulley first without slipping the belt between the rotor pulley and the brake.
9. Move the idler pulley and slide the belt between the rotor pulley and the brake arm (Fig. 13).
10. Release the idler pulley, and slip the belt under the idler pulley (Fig. 13)

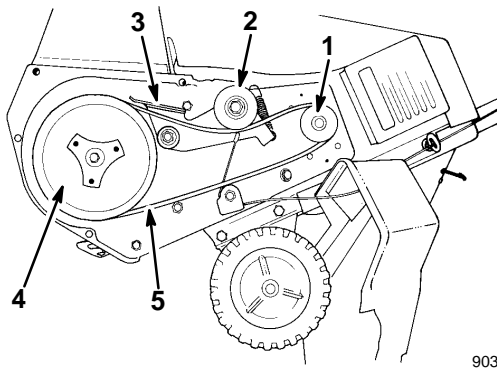


Figure 13

- | | |
|------------------|-----------------|
| 1. Engine pulley | 4. Rotor pulley |
| 2. Idler pulley | 5. Belt |
| 3. Brake arm | |

11. Have someone squeeze the control bar up against the handle (rotor engaged position) and hold it in that position.
12. Install the left side of the cover while holding the control bar against the handle.
13. Tighten fasteners securely, **but do not overtighten**.

Replacing the Spark Plug

Before each season, check the spark plug. If the electrodes in center of the spark plug are dark or have deteriorated, install a new Champion RCJ8Y spark plug or equivalent.

1. Remove the two screws that secure the control panel to the housing (Fig. 14).

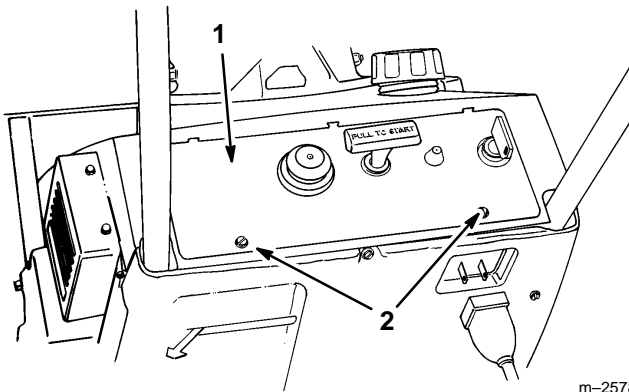


Figure 14

- | | |
|------------------|--------------|
| 1. Control panel | 2. Capscrews |
|------------------|--------------|

2. Remove the ignition key and lift off the panel, allowing it to hang on the recoil rope.

3. Pull the wire off the spark plug and remove the spark plug (Fig. 15).

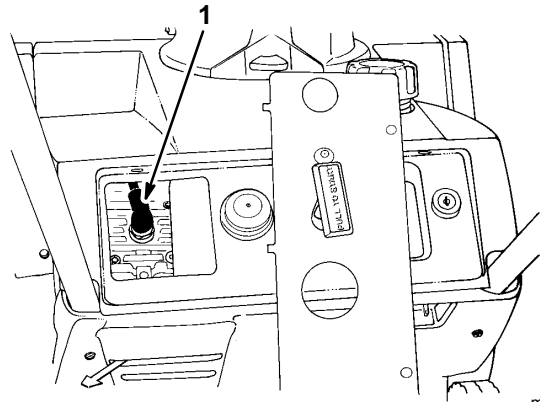


Figure 15

1. Spark plug wire

4. Examine the plug and replace it if it is cracked, fouled, or dirty.

IMPORTANT: Do not sandblast, scrape, or clean the spark plug. Dirt may fall into the cylinder and cause engine damage.

5. Set the air gap (Fig. 16) between the electrodes at .030 in. (.76 mm).

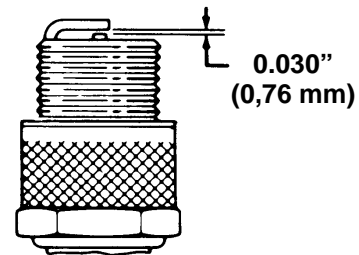


Figure 16

6. Install the plug and torque it to 15 ft-lb (20.4 N·m). If you do not have a torque wrench, tighten the spark plug firmly, but do not overtighten.
7. Push the wire onto the spark plug.
8. Install the control panel.

Replacing the Rotor Blades

Before each season, inspect the rotor blades for wear. When a rotor blade edge has worn to the wear indicator hole (Fig. 17), replace both **rotor** blades to ensure proper performance and to prevent damage to the underside of the snowthrower.

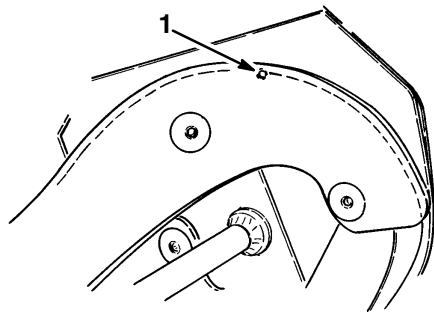


Figure 17

1. Wear indicator hole

Note: Replace the scraper whenever you replace the rotor blades. This ensures proper snowthrower operation and performance.

Removing the Old Blade

Note: You will need a No. 27 torx driver to complete this procedure.

1. Remove the four torx screws and four locknuts that secure the outer edges of the rotor blade to the rotor shaft assembly (Fig. 18).
2. Remove the two hex-head capscrews, spacers, and locknuts that secure the center of the blade to the steel plates (Fig. 18).
3. Loosen the hex-head screw that secures the rotor halves to the auger shaft assembly (Fig. 18).
4. Slide the blade out from between the rotor halves (Fig. 18).

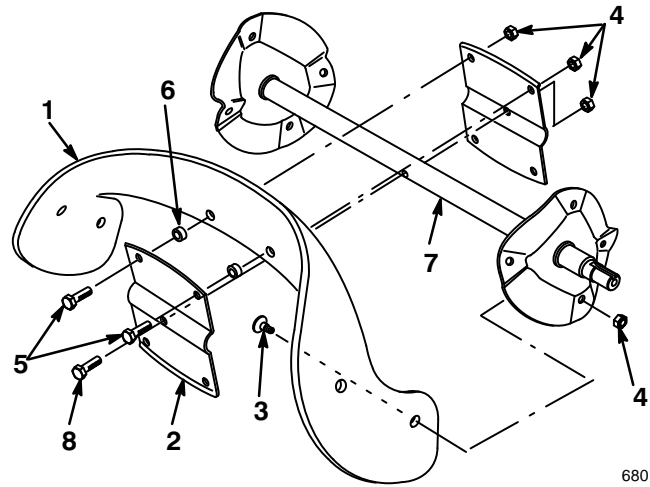


Figure 18

- | | |
|----------------|-------------------------|
| 1. Rotor blade | 5. Hex-head capscrew |
| 2. Rotor half | 6. Spacer |
| 3. Torx screw | 7. Auger shaft assembly |
| 4. Locknut | 8. Hex-head screw |

Installing the New Blade

1. Examine the rotor blade edge for the difference in layer thickness (Fig. 19). Some rotor blades have a part number on the thick side of the blade.

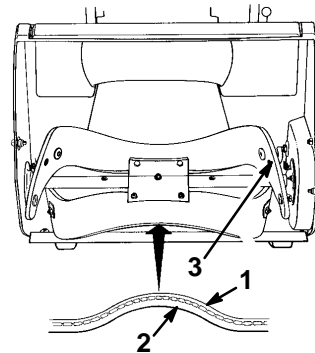


Figure 19

- | | |
|---------------|------------------------|
| 1. Thin side | 3. Wear indicator hole |
| 2. Thick side | |

Install both blades with the thick layer on the **inside** of the curve. If you install one blade with the thick layer on the outside of the curve and the other blade with the thick layer on the inside of the curve, the blades will be unbalanced and cause the snowthrower to “hop” or “bounce.”

2. Insert the new blade between the rotor halves.
3. Secure the blade to the rotor halves with two hex-head capscrews, two spacers, and two locknuts, positioning the bolt heads on the thick side of the blade (Fig. 18).

4. Curve the rotor blade, and secure it with the remaining four torx screws and locknuts, positioning the screw heads on the thick side of the blade (Figs. 18 and 19).
5. Tighten all the screws and locknuts securely.

Storage

Preparing the Fuel System

1. Add a fuel stabilizer/conditioner (such as *Lawn-Boy 2+4[®] Fuel Conditioner*) to the gasoline in the fuel tank as directed.

Note: A fuel stabilizer/conditioner works best when you mix it with fresh gasoline.

2. Run the engine for five minutes to distribute the conditioned fuel through the fuel system.
3. Stop the engine, allow it to cool, and drain the fuel tank.
4. Start the engine again and run it until it stops.
5. Prime the engine, start it a third time, and run it until it will not restart.
6. Recycle the fuel according to local codes.

Preparing the Engine

This procedure allows you to close both the intake and the exhaust ports of the engine, preventing cylinder bore corrosion.

1. Slowly pull the recoil starter until you feel resistance due to compression pressure, then stop.
2. Release the starter tension slowly to prevent the engine from reversing due to compression pressure.



Tightening the Fasteners and Cleaning the Snowthrower

1. Tighten all loose screws, bolts, and locknuts. Repair or replace damaged parts.
2. Clean the snowthrower thoroughly.

Covering and Storing the Snowthrower

Cover the snowthrower and store it in a clean, dry place out of the reach of children.

IMPORTANT: Store the snowthrower in its operating position and on its wheels. Storing the snowthrower on its front housing may cause hard starting.

| | | |
|---|----------------|---|
|  | WARNING |  |
| POTENTIAL HAZARD | | |
| <ul style="list-style-type: none">• Gasoline is highly flammable, explosive, and dangerous if inhaled. | | |
| WHAT CAN HAPPEN | | |
| <ul style="list-style-type: none">• If gasoline contacts a flame or is inhaled, serious personal injury can occur. | | |
| HOW TO AVOID THE HAZARD | | |
| <ul style="list-style-type: none">• Never store the snowthrower in a house (living area) or a basement where ignition sources may be present, such as hot water and space heaters, clothes dryers.• Allow the engine to cool before storing the snowthrower in an enclosure. | | |

A TWO-YEAR FULL WARRANTY

What Is Covered By This Express Warranty?

Lawn-Boy Inc. promises to repair any Lawn-Boy snowthrower used for residential purposes if defective in materials or workmanship for a period of two years from the date of purchase. Products used for commercial, rental or institutional use are warranted for a period of 45 days from the date of purchase. The cost of parts and labor are included. Transportation within a 15 mile radius of the servicing dealer is covered for two-stage snowthrowers. Single stage snowthrowers are excluded from the transportation coverage provided by this warranty.

How Do You Get Warranty Service?

Should you feel your Lawn-Boy product contains a defect in materials or workmanship, contact the dealer who sold you the product or any Authorized Lawn-Boy Service Dealer. The Yellow Pages of your telephone directory is a good reference source. The dealer will either arrange service at his/her dealership or recommend another Authorized Service Dealer who may be more convenient. You may need proof of purchase (copy of registration card, sales receipt, etc.) for warranty validation.

If for any reason you are dissatisfied with the Service Dealer's analysis of the defect in materials or workmanship or if you need a referral to a Lawn-Boy Service Dealer, please feel free to contact us at the following address:

Lawn-Boy Customer Service Department
8111 Lyndale Avenue South
Bloomington, MN 55420-1196
612-888-8801
800-526-6937

What Must You Do To Keep The Warranty In Effect?

You must maintain your Lawn-Boy Product by following the maintenance procedures described in the operator's manual. Such routine maintenance, whether performed by a dealer or by you, is at your expense.

What Does This Warranty Not Cover? and How Does Your State Law Relate To This Warranty?

There is no other express warranty except for special emission system coverage on some products. This express warranty does not cover:

- Cost of regular maintenance service or parts, such as filters, fuel, lubricants, and tune-up parts.
- Any product or part which has been altered or misused or required replacement or repair due to normal wear, accidents, or lack of proper maintenance.
- Repairs necessary due to improper fuel, contaminants in the fuel system, or failure to properly prepare the fuel system prior to any period of non-use over three months.

All repairs covered by this warranty must be performed by an Authorized Lawn-Boy Service Dealer using Lawn-Boy approved replacement parts.

Lawn-Boy is not liable for indirect, incidental or consequential damages relating to a breach of 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 exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

COUNTRIES OTHER THAN THE UNITED STATES OR CANADA

Customers who have purchased LAWN-BOY products exported from the United States or Canada should contact their LAWN-BOY 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 LAWN-BOY importer. If all other remedies fail, you may contact us at Lawn-Boy Inc.