

CHICAGO
Electric Power Tools

Electric Snow Thrower 11 AMP

Model 91924

ASSEMBLY AND OPERATING INSTRUCTIONS



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Visit our Web site at: <http://www.harborfreight.com>

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For technical questions, please call 1-800-444-3353.

PRODUCT SPECIFICATIONS

Construction:	High Impact Plastic Motor Frame with Alloy Steel Handle	Overall Dimensions:	24-1/5"L x 16-1/3"W x 23-4/5"H
Plowing Width:	12"	Plowing Depth:	9-1/2"
Power Cord:	16 AWG x 3 prong, 17" long	Power Switch:	Double Safety Switch
Power Rating:	11 Amps at 800 - 1000 Watts	Motor Speed:	1950 rpm
Electric Requirement:	110 - 120V AC, 60Hz	Net Weight:	22.5 Lbs.

This compact, lightweight Snow Thrower is used for clearing snow from patios, small driveways, or steps. It can clear a path up to 12" wide in snow up to 9-1/2" deep, if used in a manner set forth below. You can choose among three different snow throwing heights and directions. It features a safety lock Trigger for your protection.

SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

GENERAL SAFETY RULES

WARNING!

READ AND UNDERSTAND ALL INSTRUCTIONS
Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury.
SAVE THESE INSTRUCTIONS

WORK AREA

- 1. Keep your work area clean and well lit.** Cluttered work areas and poor lighting invite accidents.
- 2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
- 3. Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control. Protect others in the work area from debris such as snow or ice. Provide barriers or shields as needed.

ELECTRICAL SAFETY

4. **Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
5. **Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system.
6. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
7. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
8. **Do not abuse the Power Cord. Never use the Power Cord to carry the tool or pull the Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately.** Damaged Power Cords increase the risk of electric shock.
9. **When operating a power tool outside, use an outdoor extension cord marked “W-A” or “W”.** These extension cords are rated for outdoor use, and reduce the risk of electric shock.

PERSONAL SAFETY

10. **Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
11. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts. A long-sleeved jacket and jeans are recommended during use.

12. **Avoid accidental starting. Be sure the Trigger is off before plugging in.** Carrying power tools with your finger on the Trigger, or plugging in power tools with the Trigger on, invites accidents.
13. **Remove adjusting keys or wrenches before turning the power tool on.** A wrench or a key that is left attached to a rotating part of the power tool may result in personal injury.
14. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the power tool in unexpected situations.
15. **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

TOOL USE AND CARE

16. **Be sure you are standing firmly and in balance before operating this snow Thrower.** Wear proper shoes for what may be a slippery surface. Brace yourself and grasp the snow Thrower with both hands before operating it.
17. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
18. **Do not use the power tool if the Trigger does not turn it on or off.** Any tool that cannot be controlled with the Trigger is dangerous and must be replaced.
19. **Disconnect the Power Cord Plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
20. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
21. **Maintain tools with care. Keep tools clean and in good condition.** Properly maintained tools function better and are easier to control. Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
22. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.


23. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

SERVICE

24. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
25. **When servicing a tool, use only identical replacement parts. Follow instructions in the “*Inspection, Maintenance, And Cleaning*” section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

SPECIFIC SAFETY RULES

1. **Maintain labels and nameplates on the Snow Thrower.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
2. **Always wear safety impact eye goggles and heavy work gloves when using the Snow Thrower.** Using personal safety devices reduce the risk for injury. Safety impact eye goggles and heavy work gloves are available from Harbor Freight Tools.
3. **Maintain a safe working environment.** Keep the work area well lit. Make sure there is adequate surrounding work space. Always keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use a power tool in areas near flammable chemicals, dusts, and vapors. Do not use this product in a damp or wet location.
4. **When using this power tool, always maintain a firm grip on the tool with both hands to resist starting torque.**
5. **Always keep the extension cord away from moving parts on the tool.**
6. **Avoid unintentional starting.** Make sure you are prepared to begin work before turning on the Snow Thrower.
7. **Do not force the Snow Thrower.** This tool will do the work better and safer at the speed and capacity for which it was designed.

8. **Never lay the Snow Thrower down until the motor has come to a complete stop.** The tool may create unforeseen risk while the motor cycles down.
9. **Never leave the Snow Thrower unattended when it is plugged into an electrical outlet.** Turn off the tool, and unplug it from its electrical outlet before leaving.
10. **Always unplug the Snow Thrower from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.**
11.  **WARNING!** People with pacemakers should consult their physician(s) before using this product. Operation of electrical equipment in close proximity to a heart pacemaker could cause interference to or failure of the pacemaker.

GROUNDING

WARNING!

Improperly connecting the grounding wire can result in the risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

GROUNDING TOOLS: TOOLS WITH THREE PRONG PLUGS

1. Tools marked with “Grounding Required” have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. **(See Figure A.)**
2. The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool’s grounding system and must never be attached to an electrically “live” terminal. **(See Figure A.)**
3. Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration. **(See Figure A.)**

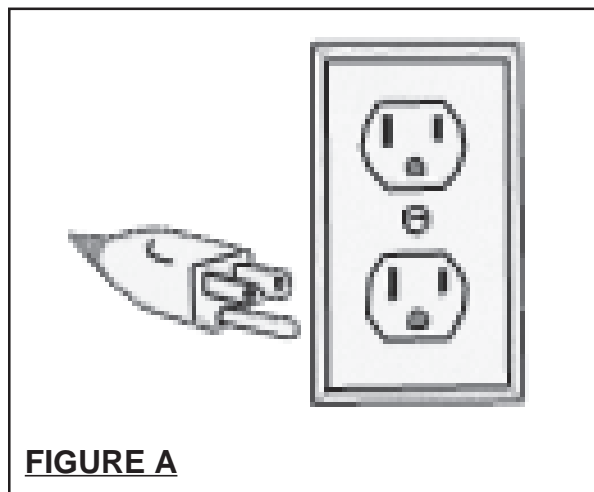
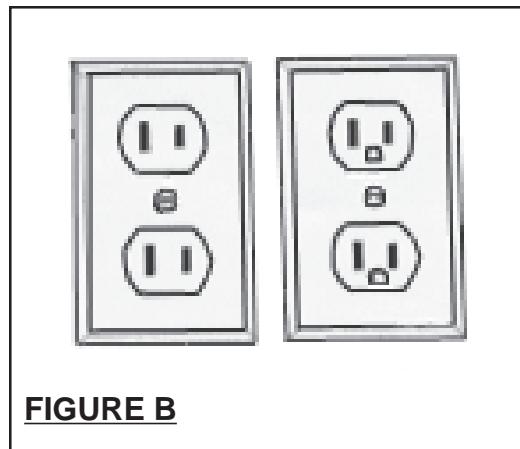


FIGURE A

DOUBLE INSULATED TOOLS: TOOLS WITH TWO PRONG PLUGS

4. Tools marked “Double Insulated” do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code. **(See Figure B.)**
5. Double insulated tools may be used in either of the 120 volt outlets shown in the following illustration. **(See Figure B.)**



EXTENSION CORDS




1. **Grounded** tools require a three wire extension cord. **Double Insulated** tools can use either a two or three wire extension cord.
2. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage. **(See Figure C, next page.)**
3. The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord. **(See Figure C.)**
4. When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required. **(See Figure C.)**
5. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size.

6. If you are using an extension cord outdoors, make sure it is marked with the suffix "W-A" ("W" in Canada) to indicate it is acceptable for outdoor use.
7. Make sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
8. Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.

RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS* (120 VOLT)					
NAMEPLATE AMPERES (At Full Load)	EXTENSION CORD LENGTH				
	25 Feet	50 Feet	75 Feet	100 Feet	150 Feet
0 – 2.0	18	18	18	18	16
2.1 – 3.4	18	18	18	16	14
3.5 – 5.0	18	18	16	14	12
5.1 – 7.0	18	16	14	12	12
7.1 – 12.0	16	14	12	10	-
12.1 – 16.0	14	12	10	-	-
16.1 – 20.0	12	10	-	-	-

FIGURE C * Based on limiting the line voltage drop to five volts at 150% of the rated amperes.

SYMBOLOLOGY

	Double Insulated
	Canadian Standards Association
	Underwriters Laboratories, Inc.
V ~	Volts Alternating Current
A	Amperes
$n_{\text{xxxx}}/\text{min.}$	No Load Revolutions per Minute (RPM)

UNPACKING

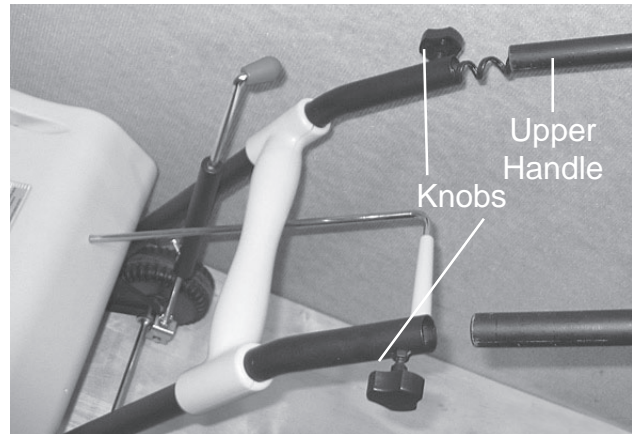
When unpacking, check to make sure that this product is in good condition, and all the following are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

Snow Thrower Main Component Snow Thrower Handle (2) Locking Knobs

ASSEMBLY AND OPERATING INSTRUCTIONS

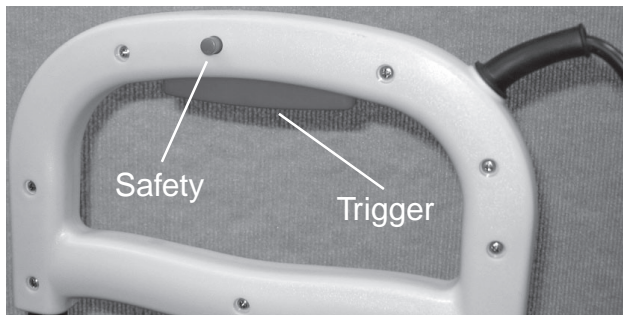
NOTE: For additional information regarding the parts listed in the following pages, refer to the **Assembly Diagram on page 13.**

1. **CAUTION:** Always make sure the Power Cord is unplugged from its electrical outlet *prior* to assembling or making any adjustments to the tool.
2. Before using the Snow Thrower, you must assemble the Handle. Insert the upper part of the Handle into the lower part, as in the photo. There is an insertion mark on the handle. Do not insert beyond the mark. Be careful not to damage the electric cord inside the Handle. Tighten the Knobs.
3. To operate, the Snow Thrower must have 110-120 VAC power. Provide an extension cord (not supplied) of sufficient length, and meeting the requirements discussed in the previous section. **Be careful that the extension cord does not lie in open water or on wet surfaces.** Observe all safety precautions mentioned in this manual.
4. If the Snow Thrower gets locked up with ice or operates slowly or with difficulty, stop using immediately. Unplug the Snow Thrower and move it to a slightly warm garage or other room where any water will be able to drain away from the Thrower without damaging the room. Ensure that all snow and water has completely melted and the Thrower has dried before use.
5. You can adjust the height of the thrown material among three settings, High, Medium, or Low. You do this by raising or lowering the height of the Rear Wheels, which changes the angle of the Snow Thrower.



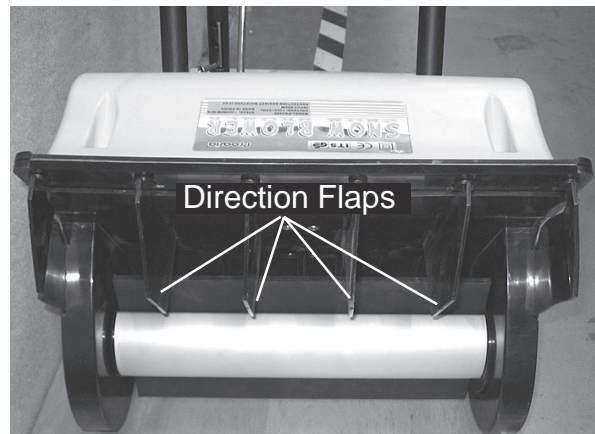
Assembling the Handle

6. To change the angle that the snow is ejected, rotate the Height Control Lever to unlock it. Then press down or pull up on the Handle as needed to move the unit to the desired setting. Rotate the Height Control Lever to lock the unit into its new setting.
7. You can adjust whether the snow is ejected forward, or to the left or right. To change the angle at which snow is ejected, push the Direction Control Lever down slightly, rotate it to the left, right, or center as required, then allow it to come back up. This will change the orientation of the Direction Flaps as desired.
8. To operate the Snow Thrower, grasp the Handle firmly. Press in the Safety and, while holding it in, squeeze the Trigger. The machine will begin to operate immediately.



NOTE: To stop the machine, remove your hand from the handle, releasing the Trigger.


9. Roll the Snow Thrower slowly forward over the snow. Observe the direction that the snow is being thrown. If necessary, stop working and adjust the throwing height or direction.
10. Do not force the Snow Thrower through the snow. Listen to the motor as you work. If the motor slows down excessively, pull the Snow Thrower back to allow the motor to regain speed, and roll the machine forward at a slower rate.
11. When you reach the end of a row, be aware of where the thrown snow will go. You may have to adjust your direction or the throwing height to manage the direction of thrown snow.



12. When you have finished blowing snow, stop the machine. To do this, release your grip on the handle, which will release the Trigger, stopping the machine. Disconnect the extension cords, roll them up and store them for next use. Move the Snow Thrower to a suitable storage location. Brush or wipe off any snow or moisture before storing this tool. Remember that storing this machine wet may cause damage to it.

WARNING: Snow, ice and other materials may be ejected from this Snow Thrower at high speed. Use extreme caution in managing the direction of materials thrown by this Snow Thrower. Never allow the ejected material to be directed at any person or animal. Be careful to direct thrown material away from any property which may be harmed by the force of the ejected material or its accumulation.

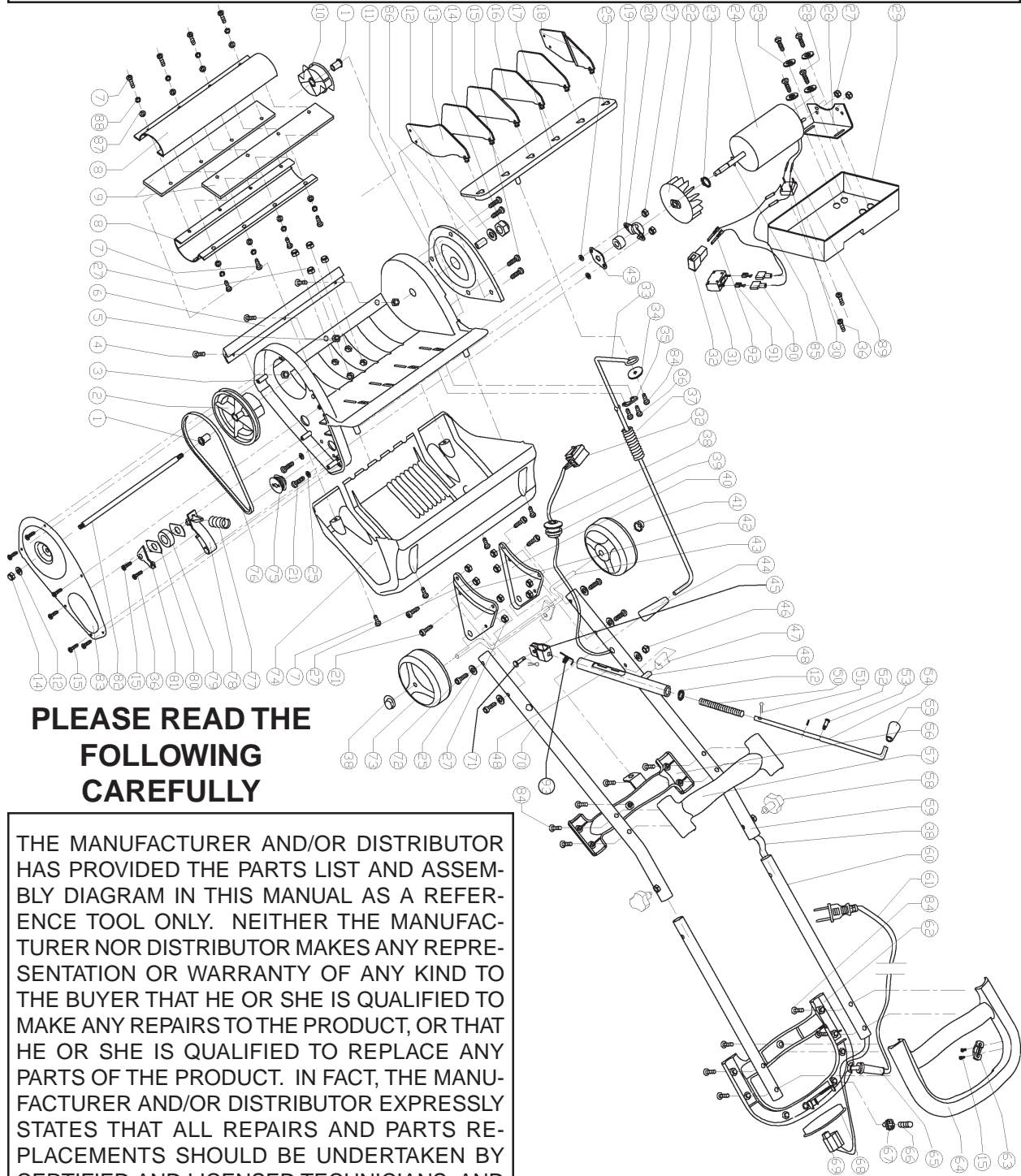
INSPECTION, MAINTENANCE, AND CLEANING

1.  **WARNING!** Make sure the Trigger of the Snow Thrower is in its “OFF” position and that the tool is unplugged from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.
2. **BEFORE EACH USE**, inspect the general condition of the Snow Thrower. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use. **Do not use damaged equipment.**
3. When putting this tool away after each use, be sure to remove any snow or water which may be on it. Water and moist conditions are inherently damaging to any electrical tool. Be sure to store this tool in dry condition in a dry place.
4. Check the Belt for damage, and to be sure it is properly aligned. If it is loose or damaged, have it serviced or replaced by a qualified service technician.
5. Check the Rubber Blades for wear, and to be sure they are properly installed. Each Rubber Blade is held in place with four Screws and Washers. Ensure that they are properly installed and tight.
6. If the Rubber Blades are excessively worn, they may be replaced. To do this, first remove and set aside the four Screws and Washers from each Rubber Blade. The Rubber Blades may be pulled out of the slots in the Drum.
7. Install new Rubber Blades in the Drum, being sure that the shiny side of the new Rubber Blade is up, and the coarse side is down. Tighten each Rubber Blade firmly in place using the Screws and Washers.

PARTS LIST

Part	DESCRIPTION	Qty.	Part	DESCRIPTION	Qty.	Part	DESCRIPTION	Qty.
1	Seal	2	32	Link	1	63	Power Cord Bracket	1
2	Pulley	1	33	Direction Control Lever	1	64	Upper Handle Housing	1
3	Base	1	34	Washer D	1	65	Cable Protector	1
4	Screw	3	35	Shaft Bracket	1	66	Spring C	1
5	Nylon Insert Nut	3	36	Screw	5	67	Safety	1
6	Plate	1	37	Spring A	1	68	Trigger	1
7	Screw	12	38	Lead Wire	1	69	Switch	1
8	Plate	2	39	Wire Holder	1	70	Left Lower Handle	1
9	Rubber Blade	2	40	Right Axle Bracket	1	71	Connection Pin	1
10	Cover	1	41	Cap	2	72	Screw	4
11	Right Base Cover	1	42	Left Axle Bracket	1	73	Wheel	2
12	Washer A	3	43	Axle	1	74	Housing	1
13	Left Direction Flap	1	44	Grip	1	75	Pulley	1
14	Nylon Insert Nut	2	45	Connector	1	76	Belt	1
15	Screw	13	46	Acorn Nut	1	77	Spring B	1
16	Direction Flap	4	47	Adjuster Bracket	1	78	Flange	1
17	Direction Flap Board	1	48	Height Adjuster Body	1	79	Bearing	1
18	Right Direction Flap	1	49	Insulation Board	1	80	Retainer	2
19	Seal	1	50	Spring	1	81	Cover	1
20	Motor Holder	1	51	Pin	2	82	Flap Spindle	1
21	Screw	6	52	Clip	1	83	Pulley Cover	1
22	Fan	1	53	Pin	1	84	Screw	15
23	O-ring	1	54	Height Control Lever	1	85	Clip	1
24	Motor	1	55	Height Control Handle	1	86	Bushing	1
25	Washer E	17	56	Lower Control Holder	1	87	Washer B	8
26	Motor Bottom Mount	1	57	Upper Control Holder	1	88	Lock Washer	8
27	Nylon Insert Nut	15	58	Knob	2	89	Insulator	4
28	Screw	4	59	Right Lower Handle	1	90	Cover	2
29	Cover	1	60	Upper Handle	2	91	Terminal	2
30	Rectifier	1	61	Power Cord	1	92	Terminal	2
31	Overload Protect Device	1	62	Lower Handle Housing	1	93	Spring D	1

ASSEMBLY DIAGRAM



**PLEASE READ THE
FOLLOWING
CAREFULLY**

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.