

- 101 - 10/24 x 1/2 P.H.S.S. Machine Screw (6)
- 102 - Stainless Steel Washers (6)
- 103 - Blades (3)
- 104 - Cutter
- 105 - Fins (3)
- 106 - Shaft
- 107 - Sealed Bearing (2)
- 108 - Cutter Cylinder
- 109 - Chute
- 110 - Front Cover
- 113 - Pulley, 8"
- 114 - Set Key
- 115 - Set Screw

Cutter Head Assembly Schematic

1983 to present models

Pressure is applied on handle in proper position but there is no ice flow.

Open door and check to see that ice is in place properly and is not protruding into door opening.

Pressure is applied on handle but there is no ice flow.

Check to see if push bar is riding the door sill.

Handle has been lifted too high. Swing around to proper position.

Pressure is applied on handle but ice flow is slow or erratic.

Reduce pressure on top of ice by loosening pressure plate.

Ice flow is erratic and occasionally spurts out in clumps.

Top side of ice is uneven. Turn ice so that smoothest sides are facing up and down.

Ice comes out in crystals instead of fluffy snow.

Blades need sharpening. Operator is pressing too hard on feeder handle.

Snow flow is minimal.

Nozzle may be clogged with frozen ice. Turn motor off and remove clog with rubber spatula.

Cutter may be clogged with snow. Throw a cup of water into the cutter to dissolve clog. Check cutter assembly to see that fins were not damaged by something being placed in nozzle while machine was operating.

Ice flow slows as pressure is applied on handle. adjustment

Check to see if belt is tight. If not, take out slack by tightening bolt behind motor.

Motor is turned on but does not operate.

Check to see if motor is plugged in. Check receptacle. Check to see if circuit breaker has tripped. If so, check wiring.

it to smoke. Check your electrical line. Ninety-nine percent of all motor problems are the result of faulty wiring. **DO NOT USE EXTENSION CORDS.** We recommend that the electrical line be wired with Romex 12/2 wire with ground. Use of any gauge wire thinner than this may cause the motor to run warmer than usual and overheat.

Motors operated by a generator will be covered under THE MANUFACTURER'S WARRANTY ONLY, and are NOT COVERED UNDER THE SNOWIZARD® 2 YEAR WARRANTY.

ADDITIONAL NOTES .

Grease used in the machine is U.S.D.A. approved food service grease. Use of any other type grease is not recommended.

All hardware used in the machine is Stainless Steel. In the event that you lose any nuts, bolts, or screws, they should be replaced with Stainless Steel only.

MOTOR ROTATION: The rotation of the motor is Counter-Clockwise. ***In the event that you ever change or replace the motor, the rotation must be Counter-Clockwise.***

SPECIFICATIONS:

MOTOR:	1725 RPM, 115V, 1/2 Horsepower, 60HZ, CCW
BELT:	FHP V-BELT 38" Outside Length
LARGE PULLEY:	OD: 8" 5/8" Bore
SMALL PULLEY:	OD: 2-1/2" 5/8" Bore
GREASE:	U.S.D.A. Food service Grease
MACHINE WEIGHT:	100 lbs.
DRIP PAN:	Dimensions - 24" x 36" x 6"

ACCESSORIES INCLUDED:

OPERATOR'S MANUAL
BLADE GAUGE
TUBE U.S.D.A. FOOD SERVICE GREASE
DRIP PAN MOUNTING HARDWARE
ALLEN WRENCH

ETL & UL LISTED

The SnoWizard® SnoBall™ machine is ETL approved for sanitation and UL approved for use in all 50 states and Canada.

TROUBLESHOOTING

PROBLEM:

POSSIBLE CAUSE AND SOLUTION:

nuts for tightness. Wash the interior cabinet with a mild detergent and calcium cleaner to remove any calcium buildup. Remove the blades and six blade screws from cutter. Wash calcium deposits, if any, from cutter and inside cylinder. Allow these parts to dry thoroughly. Place a small dab of grease in each of the blade screw holes. Sharpen blades, grease, and reassemble cutter according to instructions. Grease the threaded rod that controls the pressure plate both inside and out, with the grease provided. Grease the ball joint of the threaded rod where it attaches to the pressure plate.

WARNING - The quality of water will vary in different areas of the country. If your ice leaves a heavy buildup of mineral deposits, the interior of your machine, the cutter and the cylinder may need to be cleaned on a monthly basis with a calcium or lime deposit remover. **If calcium deposits are allowed to build up on the cutter surface where the blades are attached, and the machine is stored for a long period of time, these deposits will grow and expand on the underside of the blades. The pressure of the deposits pushing against the blades will cause them to crack at the screw slots.**

We recommend that you thoroughly clean your entire machine at the end of the season. You should also remove and clean the blades, and coat them with a thin film of grease. Clean the entire cutter assembly and allow to dry. Do not leave the blades in the machine as moisture will be trapped between the blade surface and the cutter surface and may cause your blades to crack.

SERVICE & REPAIR

If your cutter ever requires repair or service, we recommend that the entire cutter assembly be returned to the factory. There is no other way to ensure that the work will be done properly. Charges are very reasonable being based on the cost of the parts plus a labor charge for the time expended on the job. A labor charge of fifteen to thirty minutes is usually sufficient to cover all, but the very extensive overhaul jobs due to neglect. A letter of instructions should be enclosed with the cutter assembly, and shipment must be prepaid. Adherence to these suggestions will prevent loss of time in handling at the factory.

When your cutter arrives for service, it will be carefully inspected, together with your letter of instructions. Next, a quotation covering total cost of the work to be performed will be sent to you. If time is of importance, you should enclose your telephone number and cost of repairs will be telephoned to you. No actual work will be performed before receiving approval of your quotation, unless you specifically authorize us to do so.

ELECTRICAL & TECHNICAL SPECIFICATIONS

The motor is 1/2 horsepower and plugs into a 115 volt outlet. It draws 8.5 amperes on start-up. If you have very old, faulty, or thin wire, the motor may overheat causing

- Blades should be packaged in a box or padded envelope. Postal stamping machines may crack your blades if they are not well protected.
- We cannot be responsible for lost or damaged blades.
- Do not tape blades together.
- Please send blades directly to our plant:

**SnoWizard, Inc.
101 River Road
New Orleans, LA 70121**

 **Remember:**

**Please include your customer number, return address and telephone number.
If there are any special instructions please include them on a note.**

 **NOTE** 

Blades should be sharpened every two to six weeks depending on your volume of business, or no less than every 4000 Lbs. (300-400 blocks) of ice to insure fine, fluffy snow.

Blades are generally sharpened within one day and promptly returned.

ANNUAL MAINTENANCE

The following maintenance should be done at least once every year or at the close of your season if the machine is to be stored for any period of time. Check all screws and

Spread a thin film of grease on the shaft and on the sealed bearing on the inside of the cylinder. Carefully slip the cutter into the cylinder.

This will be a very tight fit so be careful not to force the cutter through the two sets of sealed bearings. If the shaft does not slip through the bearings easily, **do not use a hammer or force**. Check to see if the shaft has been scratched or marred. If it has been, use a 400 grit sandpaper in a shoe-shining motion to polish off the burrs. Spread a thin film of grease on the outer set of sealed bearings. Form a ball with a rag and place on the face of the cutter, at the same time turning the cutter down towards the working surface. This will keep the cutter recessed inside the cylinder. Place the pulley on the end of the shaft and insert the machine key into the slot. Press down on the pulley firmly while tightening the set screw. Assembly is complete.

BLADE SHARPENING

THE PROPER WAY TO SHARPEN YOUR SNOWIZARD® FLAT GROUND BLADES

Blades for the SnoWizard® machine should be sharpened by a skilled blade sharpening shop. The blades must be flat ground on a sharpening machine. **THEY CANNOT BE SHARPENED BY HAND ON A GRINDING WHEEL.** We recommend that you look in the YELLOW PAGES directory in your area under "Blade Sharpening Service" for qualified sharpeners.

Individuals who are skilled in the use of a honing stone may sharpen their own blades. We recommend the use of a clean, relatively fine grit stone. Lay the blade edge on the stone so that only the beveled surface rests on the stone. Draw the blade across the stone, edge first, towards you. Hone the beveled edge several strokes then turn over and hone the flat side flat. Alternate from side to side. The angle of the blade should be kept constant on the beveled side for best results. For the finest possible edge, your stone should be oiled and dipped regularly in your honing solution to float away particles during sharpening. Mineral spirits may be used in place of honing oil. After blades are honed they should be coated with a thin film of grease. After honing a few times, blades should be ground by a reliable blade sharpener. Blades should be ground at the same pitch and evenly from end to end. Grinding blades too much on one end will make it impossible to gauge the blades evenly in the cutter.

- If a qualified blade sharpening service is not available in your area, your blades can be returned to the factory for sharpening. (Remember, sending in more than one set of blades at a time saves on shipping.)

When returning blades to the factory for sharpening, the following guidelines should be followed:

- We suggest that the blades be insured if you will be sending them by mail rather than UPS.

REMOVING BLADES

UNPLUG THE ELECTRICAL CORD TO THE MOTOR. Remove wing nuts and motor guard. Slip belt off large pulley. Remove cutter assembly. Place cutter assembly on table surface with blades downward. Unlock set screw on pulley with allen wrench provided. Remove pulley. If pulley does not slip off easily, push on shaft with thumb at the same time pulling on the pulley. **DO NOT USE A HAMMER.** Remove square key from shaft. Light tapping with a screwdriver may be required. Lift cutter housing and cutter will slip out.

Remove the outer screws from the blade slots of the cutter. A #2 Phillips head screwdriver should be used. Use of a smaller screwdriver may strip the screws. Loosen the remaining four screws. All three blades will now slip out. It is not necessary to remove any other screws.

RESETTING THE BLADES

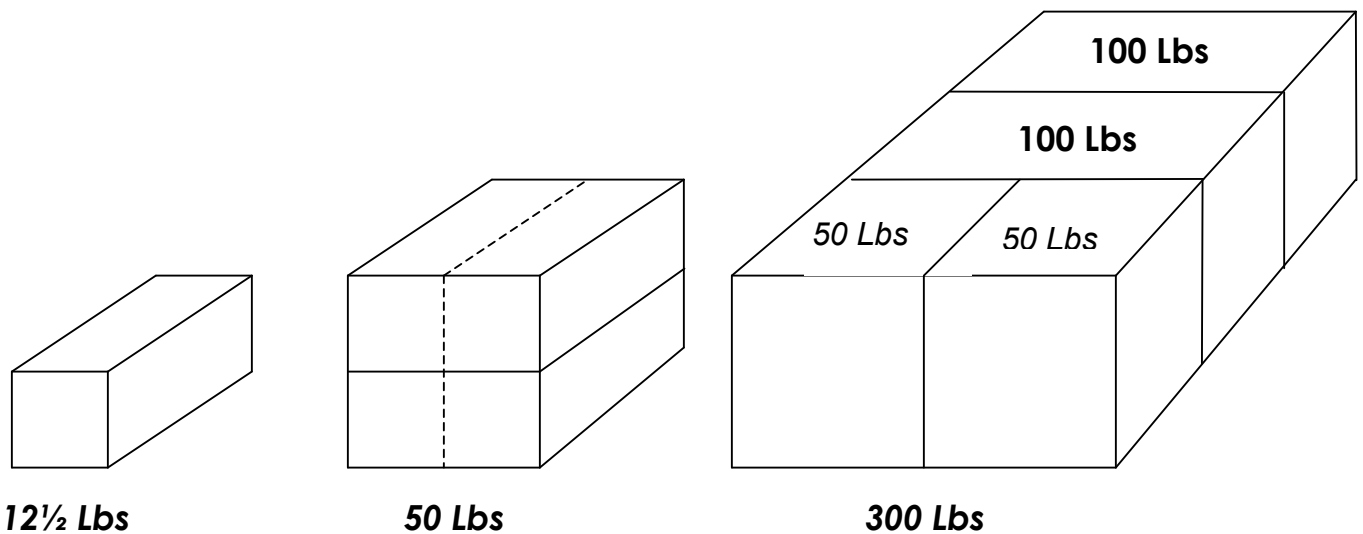
Before setting the blades, spread a thin film of grease (provided) on the cutter surface of each blade slot. This will prevent oxidation between the blades and the cutter. Place the cutter in a vice and position the slot with the two screws in a horizontal position. Spread a thin film of grease on each blade. Insert the blade into the slot and tighten screws firmly. Back screws out just a little to allow for adjustment. Adjustments are made by tapping the blades in or out with the handle of the screwdriver. Place the blade gauge (provided) on the flat side of the cutter under the edge of the blade. Position blades by tapping with the screwdriver. Set blade so that it extends over the gauge just enough for the edge to be felt by stroking your finger over the gauge in an upward movement.

Check the setting for accuracy by stroking below the two screw holes. The finer the feel, the more exact the setting will be. Tighten screws. If the blade remains in position without moving after tightening, revolve the cutter to the next slot and repeat operation. Second and third blades are hooked on inner screws and swung into position. When all blades are set, remove cutter from vice and place on rubber mat or solid surface for final tightening. Turn screws slowly with firm pressure until tight. Be careful not to strip the screw heads. Recheck blade setting with gauge.

If you are unable to adjust your blades to the proper setting after sharpening, check to see if the blades are touching the center. If this occurs you will need to grind down the tips on a bench grinder very lightly. This is normal for the blades as they are designed to always move towards the center of the cutter for extended blade sharpening.

ASSEMBLY OF THE CUTTER

1. With an ice pick, scribe a line, lengthwise, into the ice around three sides. The line should be scribed to a depth of approximately 1/4 to 1/2 inch.
2. Starting at on end of the block, insert the point of the ice pick into the scribe line and press it in approximately 1 inch. The ice will gradually begin to split. Move the ice pick forward about 5 or 6 inches and repeat until you complete the block.
3. Return to the front of the block, and repeat the process, pushing the ice pick further into the ice each time, until the block splits in half.



If you purchase large, commercial blocks of ice from an ice company, you will need to split or cut the ice into the proper size to fit into the SnoWizard® SnoBall machine.

Each piece of ice will be approximately 50 pounds each. Repeat the entire process on each of the 50 pound pieces to yield 4 blocks approximately 12-1/2 pounds each.

If the block splits unevenly, and needs trimming to fit into the SnoWizard® SnoBall machine, use a 6-point ice pick to even the sides of the block.

Some ice companies may charge a nominal fee for cutting your ice, or provide it as a free service. If there is no charge for the service, it is customary to tip the delivery person if he cuts the ice for you at your business. Ice companies may also offer you an ice merchandiser (freezer), for storage of your ice, at no charge, as long as you are purchasing ice from their company.

MAINTENANCE

If you do not have a SnoWizard® block icemaker, ice used for the SnoWizard® should be ordered from your ice supplier in fifty pound blocks. Refer to the next page for proper instructions for cutting the proper size ice block to fit the SnoWizard® SnoBall machine.

Your ice supplier may sell ice in ten to fifteen pound blocks. Some will cut ice to size. Check with your supplier. Ice should be rinsed with water before putting into machine to remove impurities. The maximum size block that will fit into the machine is 6" x 7" x 15".

Before putting ice into the machine, look though the ice for impurities. Icehouse ice is known to contain small impurities. These are usually not harmful to the machine or to your customers. However, we have found, on rare occasion, ice to contain copper filling tubes used in ice houses to fill the ice bins. If you see anything sizable in appearance, immediately chip it out of the ice with an ice pick.

Ice used in the SnoWizard® SnoBall machine should be frozen between 5 and 15 degrees F. Ice from icehouses is usually between these temperature ranges. However, if you store ice in a chest freezer, you may need to adjust the thermostat. Most chest freezers freeze from 0 to 30 degrees F. This temperature is far too cold. Ice frozen below 0 degrees is extremely hard and rough on the blades. It will also create snow which is too fine. When syrup is poured on this, it will dissolve to almost nothing. If after adjusting the thermostat on your freezer to the warmest setting the ice is still too hard, remove ice from freezer and let thaw about 15 minutes before using.

In recent years, a new "Pressed Ice" has been developed by some ice manufacturers. This ice is compressed and contains air. It is not as solid as is block ice. It will also not give as much yield or result in a fine and fluffy texture as does block ice.

On very rare occasion, you may experience the motor stalling when turned on. This is caused by ice sitting in the machine for a long period of time, melting, and sinking into the blades, preventing the cutter from turning. If this occurs, **TURN THE MOTOR OFF AT ONCE**. Release pressure on the pressure plate and pull the ice away from the cutter. Reposition the ice and restart the motor.

Commercial block ice is manufactured by ice companies in large blocks, generally 300 pounds each. The 300 pound blocks are then cut into 100 and 50 pound blocks for easier handling and transporting.

If you purchase your ice from an ice company, you will need to split the ice into the proper size to fit into the SnoWizard® SnoBall machine.

Starting with a 50 pound block:

SNOWIZARD® SNOBALL MACHINE

Open door and raise the feeder handle to the 12 o'clock position. Slide the push bar to the far left of the machine. Turn the hand wheel on top of the machine counter-clockwise until the pressure plate reaches the top. Place block of ice into machine with smoothest sides to the top and bottom. Push the ice towards the cutter and push bar against the ice. Turn the hand wheel clockwise until moderate pressure is applied to the ice. Close door. Machine is ready to make snow.

Turn motor on and hold cup under nozzle. Lift the pusher handle to no more than an 8 o'clock position and apply light pressure. Snow will come out in cup. Once the cup is filled, release pressure on the handle and the ice flow will stop. When the ice has expired, the push bar will stop automatically.

TURN THE MOTOR OFF AND WAIT FOR THE MOTOR TO COME TO A COMPLETE STOP. DO NOT REMOVE ICE WHILE MACHINE IS ON.

To remove ice, raise pressure plate and move the push bar to the left side of the machine. Hands should be clear of all internal parts of the machine. Use a rubber spatula to remove the ice. Replace with a full block of ice and repeat process.


 **Do not place a fresh block of ice in front of the remaining piece. This remaining piece will shatter into small pieces once you restart the machine.**

Additional pressure may be needed on the pressure plate during the cutting of a block of ice if it begins to bounce. If the pusher handle is hard to operate, pressure may need to be decreased. Ice should be fed as to get a steady flow of snow at all times.

If chute freezes with ice during operation, turn machine off. Use a flexible rubber spatula to clean out the chute.

DO NOT USE ICE PICK OR FINGERS. DO NOT PLACE ANYTHING IN THE CHUTE WHILE THE MACHINE IS IN OPERATION. DAMAGE AND/OR INJURY WILL RESULT. PLEASE INSTRUCT YOUR EMPLOYEES.

NOTE

 Depending upon the temperature of the ice used in the machine, clogging of the snow chute may occur. For convenience and ease of removal of ice clogs, we highly recommend the installation of a spray nozzle, the same as used with a household sink, to the right side of the drip pan. The spray nozzle should be connected to a hot water line. If a clog occurs in the snow chute or in the interior of the cutter mechanism, simply spray a short burst of water and the clog will dissolve instantly. The spray nozzle can also be used for dissolving snow which may accumulate in the drip pan as well as for cleaning the interior of the SnoBall™ machine at the close of business.

TIPS ON ICE

ASSEMBLY AND INSTALLATION OF THE SNOWIZARD® SNOBALL MACHINE

Remove the 2 nuts and bolts from the motor brackets located on the top right side of the machine. Place the motor over the brackets and line up the holes. Replace the nuts and bolts and tighten until snug.

Attach the motor belt by placing the belt over the small pulley first, then slip over the large pulley while turning the large pulley until the belt is fully on. Remove the three wing nuts and the single hex nut that hold the cutter assembly in place. Install the belt guard over the belt and pulleys by aligning the holes in the tabs over the threaded studs. Replace the nuts and tighten by hand. Do not use pliers or any tool to tighten wing nuts.

Place the polyethylene drip pan on the table or counter where the machine is to be operated. The SnoWizard® logo should face the front with the drain hole positioned to the rear on the right side of the pan. The table should be large enough to accommodate the entire drip pan. **The machine should be positioned where there is a 15-inch open space to the left of the drip pan for the extension of the ratchet push-bar which extends out of the left side of the SnoWizard® SnoBall machine.** Mark with a pencil through the drain hole in the drip pan where the hole is to be cut for the drain. With a 1-1/2" diameter drill bit, drill through the table. Place the drip pan in position with the drain through the hole in the table.

The drain may be hooked up directly to an existing drain line or a hose may be attached to drain into a bucket. The drain connection is a standard 3/4" garden-hose thread fitting.

Wash the interior of the machine with a mild detergent to remove any impurities which may have entered during shipment. Rinse thoroughly with water. Make certain that the motor switch is in the off position. Plug the power cord into a 115 volt outlet. **This outlet should be on a separate 20 ampere circuit.**

OPERATION OF THE

SAVE THESE INSTRUCTIONS

READ ALL INSTRUCTIONS

The SnoWizard® SnoBall machine is a commercial ice-shaving machine designed and built for commercial or institutional operation. **It is important that you read ALL the instructions before you operate the SnoWizard® machine.** You must understand the principles of operation of this machine if you are to operate it properly. Even if you are familiar with the operation of the SnoWizard® machine, we emphasize that you take a few minutes and read these instructions thoroughly. They contain information you need to know to avoid problems **that you will encounter** if you do not read them.

Employees who are to operate the machine should also read the manual as well be personally instructed on the proper operation of the machine.

THE MACHINE IS A COMMERCIAL FOOD PROCESSOR DESIGNED FOR OPERATION BY COMPETENT AND KNOWLEDGEABLE EMPLOYEES. IMPROPER OPERATION OF THE MACHINE BY PLACING FINGERS OR HANDS IN THE SNOW CHUTE OR IN THE INTERIOR OF THE MACHINE BY THE CUTTING HEAD, WHILE THE MACHINE IS IN OPERATION, WILL RESULT IN INJURY.

CHILDREN SHOULD NEVER BE ALLOWED TO OPERATE THE SNOBALL MACHINE CAUTION SHOULD BE EXERCISED BY SNOBALL SHOPPE OWNERS OR OPERATORS IF THEY ALLOW CHILDREN ACCESS TO THEIR BUSINESS EVEN WHEN CLOSED. AS A SAFETY PRECAUTION, WE RECOMMEND THAT THE SNOBALL MACHINE, AS WELL AS ANY OTHER EQUIPMENT, BE UNPLUGGED WHILE CHILDREN ARE PRESENT.

The SnoWizard® SnoBall machine carries the ETL approval to meet National Sanitation Foundation (NSF) and Underwriters Laboratories (UL) standards for sanitary and safety standards. In order for the machine to be in compliance with these standards, it is necessary for a "machine nut" to be installed on one of the four threaded studs that holds the belt guard in place.

A spare "wing nut" has been enclosed, in the event that you wish to replace the machine nut for easier removal of the cutter assembly when servicing the cutter and changing of the blades. If you chose to substitute the wing nut in place of the machine nut, the SnoWizard® SnoBall machine will no longer be in compliance with the ETL standards.

IMPORTANT SAFETY INSTRUCTIONS

 **WARNING!**

 **WARNING!**

 **WARNING!**

To reduce the risk of fire, electrical shock, injury to persons, or damage when using the SnoBall Machine, follow basic precautions, including the following:

- Read all instructions before using machine.
- Install or locate the machine only in accordance with the provided installation instructions.
- This machine is not for use by children.
- Close supervision is necessary when this machine is used near children.
- Do not leave children alone or unattended in area where the machine is in use. They should never be allowed to sit or stand on any part of the machine.
- Do not operate the machine if it is damaged or not working properly.
- Do not operate with damaged plug or cord or if machine malfunctions.
- Use the machine only for its intended use as described in this manual.
- Do not wear loose or hanging garments when operating the machine as they could get caught in the moving parts.
- To reduce the risk of electrical shock, do not immerse the machine, cord or plug in water or other liquids.
- Never leave the machine running unattended.
- The use of accessory attachments may cause injuries.
- Do not use outdoors in rain or while standing in a damp area.
- Unplug from outlet when not in use. Unplug before cleaning. Unplug before servicing.
- Do not repair or replace any part of the machine unless specifically recommended in this manual. All other servicing should be referred to the manufacturer.
- Do not operate without belt guard properly and securely attached.
- Do not operate with door open.
- Do not insert fingers, body parts or any other objects in ice chute while machine is running.

CAUTION : A short power supply cord is provided to reduce the risk of personal injury resulting from becoming entangled in or tripping over a longer cord. Extension cords are available from local hardware stores and may be used if care is exercised in their use. If an extension is required, special care and caution is necessary. Also, the cord must be (1) marked with an electrical rating of at least 13 A., 125V., 1625 W., and (2) the longer cord should be arranged so that it will not drape over the countertop or tabletop where it can be pulled on by children or tripped over accidentally.

WARRANTY

LIMITED LIFETIME WARRANTY

SnoWizard® warrants that this machine will be free from defects in workmanship and materials, and will repair or replace all defective parts, excluding blades, to include labor and return shipping charges, for the life of the machine to the original retail purchaser. **Blade sharpening service is not covered by warranty.**

This warranty does not cover damages resulting from accident, misuse or abuse, lack of reasonable care and maintenance, the affixing of any attachment not provided with the product, loss of parts, or subjecting the unit to any but the specified voltage. (Read instructions carefully).

This warranty provides for the repair or replacement of defective parts, at our option, free of charge. Unit must be sent prepaid and properly crated to the factory. Proof of purchase required. No service will be performed on machines IN or OUT of warranty if the Serial Number tag has been removed, defaced, or marred in any manner. Warranty will be voided.

SnoWizard® extends the manufacturer's warranty of 1 year to a period of five (5) years on the motor.

This warranty gives you specific legal rights, and you may also have other rights, which may vary from state to state. No other warranties or express warranty is given.

TABLE OF CONTENTS

WARRANTY.....	2
PRECAUTIONS & INSTRUCTIONS.....	3-4
ASSEMBLY & INSTALLATION.....	5
OPERATION OF SNOBALL MACHINE.....	6
TIPS ON ICE.....	7-8
MAINTENANCE.....	9-10
-Removing the blades	
-Resetting the blades	
-Assembly of the Cutter	
BLADE SHARPENING.....	10-11
ANNUAL MAINTENANCE.....	12
SERVICE & REPAIR.....	12
ELECTRICAL & TECHNICAL SPECIFICATIONS.....	13
TROUBLESHOOTING	14
SCHEMATIC OF CUTTER	15



SnoWizard® SnoBall Machine

OPERATING MANUAL

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