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Golf Supply Specialists

50G Washer

Junior & Super *Manual*

Junior

Super

Call 1-800-869-1800 or go online at www.wittekgolf.com to order!

WARNING

WARNING: THE MACHINE IS DESIGNED WITH A GFCI (GROUND FAULT CIRCUIT INTERRUPTER) OUTLET FOR ELECTRICAL SAFETY. NON CONFORMITY TO THE ELECTRICAL CONFIGURATION CAN RESULT IN SHOCK OR INJURY.

WARNING: ALWAYS DISCONNECT THE MACHINE FROM POWER SOURCE WHEN WORKING WITH THE ELECTRICAL SYSTEM.

WARNING: INCORRECT WIRING CONNECTIONS CAN CAUSE PERSONAL INJURY OR DAMAGE TO MACHINE.

WARNING: NEVER OPERATE MACHINE WITH LID OPEN OR THE RUBBER LATCHES UNFASTENED.

WARNING: DO NOT RUN GOLF BALLS THROUGH THE MACHINE WITHOUT WATER IN THE TANK. SERIOUS DAMAGE CAN OCCUR BY RUNNING BALLS THROUGH A DRY MACHINE.

WARNING: ALWAYS TURN POWER OFF WHEN WORKING ON MACHINE! NEVER INSERT HAND IN THE BALL FEED BASKET WHEN MACHINE IS ON!

WARNING: USE ONLY A LOW-SUDSING POWDER DETERGENT IN THE MACHINE. DO NOT USE LAUNDRY DETERGENTS, LIQUID CLEANERS, CHEMICAL SOLVENTS, OR ACIDS IN THE MACHINE.USE OF ANYTHING OTHER THAN A LOW-SUDSING POWDER DETERGENT CAN CAUSE PERSONAL INJURY, OR DAMAGE TO GOLF BALLS OR RUBBER LINERS.

CAUTION: HANDLE DRAIN ASSEMBLY CAREFULLY! ONLY SWIVEL THE DRAINPIPE HORIZONTALLY; NEVER APPLY ANY VERTICAL PRESSURE OR TORQUE TO THE DRAINPIPE ASSEMBLY.

NOTE: The machine may be used outdoors; however, DO NOT PLACE THE MACHINE DIRECTLY ON OPEN GROUND. A HARD SURFACE (SUCH AS A PIECE OF 3⁄4" PLYWOOD) MUST BE KEPT BETWEEN THE MACHINE AND OPEN GROUND.

NOTE: When trimming or drilling new liner strips, it is important to keep the new and old pieces together TEXTURED SIDES DOWN, and always drill or cut into a secure wooden surface such as a workbench, or 2" x 4".

NOTE: Resistance in drum rotation can also be a result of binding in bearing assembly. Check by removing motor from the machine and turning drum by hand without balls in the slots. Difficult rotation means bearings are binding and must be replaced.

Unpacking and Inspection

WITTEK Ball washers are shipped in a corrugated shipping crate which is designed to absorb considerable damage and abuse while protecting the machine. As long as the machine is securely banded to the pallet, it should not have sustained any damage.

IMPORTANT

INSPECTION

Inspect the machine immediately after removing the outer portion of the shipping crate. If it is found detached or moved from the pallet, there is possibility of damage. Inspect the machine. If any damage is discovered, immediately notify the shipping carrier and take the appropriate action.

Customer is responsible for filing any damage claims with the carrier.

Make a visual inspection of machine:

1. Make sure the machine is securely banded to the pallet.
2. Check the hopper and upper portion of the machine for any visible damage.
3. Cut or break the steel bands that secure the machine and lift it from the pallet. Make sure the machine is lifted by the frame. Lifting the washer by the plastic tank or wire hopper may result in damage to the drain on the bottom of the tank. The machine is now ready for installation.

Installation and Hook-up

Select a working location with:

1. A hard, stable surface with adequate working space (recommended minimum of 50 square feet).

NOTE: The machine may be used outdoors; however, DO NOT PLACE THE MACHINE DIRECTLY ON OPEN GROUND. A HARD SURFACE (SUCH AS A PIECE OF 3⁄4" PLYWOOD) MUST BE KEPT BETWEEN THE MACHINE AND OPEN GROUND.

2. It is not necessary that the machine be perfectly level. The 50G Washer is designed to drain in the center of the tank, permitting efficient water drainage from off-level positions.

3. A drain extension can be attached to the ball valve. A standing drain pipe or fixture can be connected directly. Many applications use a standard 3⁄4" garden hose as a flexible drain extension. Attachment to a garden hose requires use of a reducer/adapter, which can be obtained from a hardware store or other local source.

4. The machine is shipped with a 1 1⁄4" ball valve (for the 50G) and a 1" ball valve (for the 50G JR) which is placed inside the hopper of machine during shipping. Remove ball valve from hopper, attach to drain pipe, and tighten by hand.

5. Locate the GFCI outlet mounted under the motor tray. Test the GFCI outlet prior to plugging the washer motor and the vibrator motor. Plug the machine into a standard 110V, 3-prong wall receptacle or UL approved extension cord. On the GFCI outlet press the test and then reset button. The reset button will stay in and the green light will stay on with a correct connection. Proceed to plug in both motors. Be careful to keep electrical power source clear of water.

WARNING

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NON CONFORMITY TO THE ELECTRICAL CONFIGURATION CAN RESULT IN SHOCK OR INJURY.

Machine Start-up and Test Cycle

Check Drum Alignment:

1. The machine has been properly tested and inspected in the factory prior to shipment. It is possible, however, that vibration or movement during shipping could cause minor drum misalignment. Check drum alignment prior to starting the machine.
2. Open the lid of the machine and place golf balls in each of the slots between the molded guides, in the lower drum front. Gently rotate the drum by hand, turning the top of the drum toward the front of the machine. The drum should turn smoothly and evenly as the balls travel through the lower tank and appear behind the drum.
3. If the balls bind or jam, or if the drum turns with uneven resistance, it is out of alignment.

Soap and Water Fill:

1. Put one cup of WITTEK Golf Ball Soap, or any other low-sudsing (Borax-type) powder detergent into the empty tank.
2. Fill the tank approximately 2 inches from the top with luke-warm to hot water.

WARNING

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Test Cycle:

1. Make sure the machine is closed and the rubber latches are fastened.
2. With the tank properly filled, place an empty basket or container on the floor in front of the machine below the ball exit chute.

HINT: For the first couple of golf balls, the basket should be held near the exit chute. Golf balls might bounce out if the basket is left on the ground.

WARNING

WARNING: NEVER OPERATE MACHINE WITH LID OPEN OR THE RUBBER LATCHES UNFASTENED.

3. Turn the machine on using the ON/OFF switch located on motor cover. The machine should make a low humming sound: motor, drive shaft, and drum should turn.
4. Make certain that the vibrator motor is running and that the hopper is vibrating. The vibrator motor ON/OFF switch is located on the connecting wire between the vibrator motor and the drive motor.
5. Place a few balls in the hopper. Observe and make sure the balls roll and enter smoothly through the ball entry trough on the left side of the hopper. After approximately 20 seconds, the balls should exit the machine from the ball exit chute (front right of machine) and fall into the basket.
6. Test cycle is complete. The machine is performing properly and is ready for general use.

WARNING

WARNING: DO NOT RUN GOLF BALLS THROUGH THE MACHINE WITHOUT WATER IN THE TANK. SERIOUS DAMAGE CAN OCCUR BY RUNNING BALLS THROUGH A DRY MACHINE.

Operation and Maintenance for Effective Cleaning

WITTEK Ball Washers are designed such that no periodic mechanical maintenance is necessary. All moving parts, such as motors and bearings, are sealed so that no lubrication is required. Metal surfaces are powder coated. The upper and lower tank is constructed of high-impact molded polyethylene.

Most breakdowns or mechanical failures occur as a result of torque overload from accumulation of dirt or debris. Therefore, it is imperative to maintain proper operating practices and to clean the machine after every use in order to insure efficient continuous performance. In any material handling operation, location variables, operator capability, logic, and common sense are the major factors in the creation of a system. Methods of maintaining a steady flow of balls through the machine will vary from operator to operator. However, there are some general rules to follow for obtaining the most effective use of the WITTEK Ball Washer.

1. The use of plastic utility baskets is recommended. Make sure that an adequate supply is on hand to facilitate a workable flow of balls.
2. Always use the proper soap and water solution.
3. Always turn the machine on before feeding hopper.
4. Have an empty basket in place below the ball exit chute.
5. MONITOR THE FLOW OF BALLS IN THE HOPPER for sticks, rocks, chunks of mud, golf tees, broken balls or any other debris, and REMOVE AS DISCOVERED. Foreign matter hinders the machine's cleaning ability, and causes considerable damage.
6. The machine is designed to pass small debris through the drain slot on the bottom of the lower drum. Large objects must be removed by hand.
7. Exceptionally dirty or muddy balls should be presoaked or cycled through the machine twice.
8. Drain water after each use or when exceptionally dirty.
9. DO NOT LEAVE WATER IN THE TANK. Standing water will accelerate deterioration of rubber cleaning surfaces.

Operation and Maintenance for Effective Cleaning

10. Regularly remove the drum from washer to inspect for broken or cut balls, large debris, or other obstructions that may be lodged in the lower drum guides or drainage slot.

The bearings are designed with quick-release pins to facilitate easy drum removal.

To remove the drum:

A. Remove the quick-release pins from each housing.
B. Rotate the drum until the drive coupling is vertically aligned.
C. Pull the drum straight up and out of the lower tank.

11. Hose down the inside of the machine after each use to clear the machine of dirt and debris.
    Do not spray electric components.
12. The typical washer is used for approximately two or three hours per day. This is not a limit. WITTEK Washers are designed for heavy duty, continuous use. Many machines are used for much longer periods of time with excellent results.
13. The machine is equipped with an overload protector. In case of blockage, the machine will automatically shut OFF to prevent serious damage. Removing the drum may be necessary. To reset, turn ON/OFF switch to “OFF”position, clear machine of blockage, wait five minutes, and then turn “ON” again.

Repairs and Assemblies

WARNING

WARNING: ALWAYS TURN POWER OFF WHEN WORKING ON MACHINE!
NEVER INSERT HAND IN THE BALL FEED BASKET WHEN MACHINE IS ON!

Motor / Drive System

All motor / drive components are easily removable and accessible by removing the motor from the motor support platform.

Removing Motor and Coupler

1. Remove motor shroud.
2. Remove hex head motor mounting bolts.
3. Loosen the allen head set screw on the two-piece solid drive coupling.
4. Remove motor away from drum.
5. Remove coupler from shaft.

50G Super

Repairs and Assemblies Continued

Drum Alignment

1. Loosen but DON'T REMOVE the four bearing mounting bolts and motor mounting bolts.
2. Place golf balls in the slots between the ball guides in the front of the drum. Rotate drum toward you, about 1⁄4 of the way. Place golf balls in the slots in back of drum. Rotate the drum away from you so that the balls are between the inner and outer drums.
3. Leave the balls in place and tighten the bearings and motor mounting bolts. The drum is now horizontally aligned. Make sure coupler set is level after tightening bolts.
4. Gently rotate the top of the drum toward the front of the machine. The drum should turn smoothly and evenly as balls travel between the lower guides and appear behind the drum.
5. If the balls bind or jam, or if the drum turns with uneven resistance, there are two probable causes:
   A. *Foreign matter caught between the guides*. Remove the drum. Rinse the lower drum with water. This will eliminate any small debris or foreign bodies lodged in the tracks.
   B. *Vertical drum misalignment.*
   Shim under the bearings with 1/16" washers or sheet metal. Apply one layer of shim at a time, rechecking the drum alignment after each layer, until the drum turns freely. Excessive shim will interfere with proper ball clearance on top of the drum.

NOTE: Resistance in drum rotation can also be a result of binding in bearings. Check by removing motor from the machine and turning drum by hand without balls in the slots. Difficult rotation means bearings are binding and must be replaced.

Repairs and Assemblies Continued

Replacing or Converting to a Nylon Brush Drum

The procedure for replacing or converting an inner drum is similar to the procedure for removing the drum for purposes of inspection and cleaning (Page 7, Step 11).
In addition to these directions, the bearings and coupler must be transferred to the new drum shaft.

1. Remove Quick Release pins from bearings.
2. Vertically align coupler.
3. Remove drum from tank by lifting straight up.
4. Remove coupler and bearings from old drum shaft. Take care to retain keys from keyways in coupler sections.
5. Place the bearings on shaft of the new brush drum.
6. Lower drum/bearing unit into place.
7. Visually align drum in the center of the tank. Tighten set screws on bearings.
8. Make sure that the drive coupler halves are snug to each other and that the key is in place in the keyway.
9. Tighten set screw on coupler.
10. Recheck drum alignment. (page 9 step #1)

Repairs and Assemblies Continued

Relining Black Molded Outer Drum Guides - Bottom Half

The Replacement Kit for the 50G Superwash Outer Drum contains 3 strips of textured rubber (of equal length) that are mounted in the bottom half, and the sheet metal screws necessary for mounting.

The 50G Jr. has 3 similar strips. Note that the new rubber liner strips are shipped oversized and **must be trimmed** to match the length and shape of the old strips, and that new mounting holes must be drilled to match those in the old strips.

NOTE: Do not attempt to remove the black molded plastic guide "shell" itself. These pieces are permanently installed into the drum halves at the factory and are not meant for removal or replacement.

1. Remove inner drum if not already removed.
2. Remove sheet metal screws from each rubber strip.

NOTE: When trimming or drilling new liner strips, it is important to keep the new and old pieces together TEXTURED SIDES DOWN, and always drill or cut into a secure wooden surface such as a workbench, or 2" x 4".

3. Clean off the residue of the old rubber strip.
   A. ONE STRIP AT A TIME, lay each old strip over each corresponding new strip, and cut the ends to duplicate the trim angle of the old strip.
   B. After trimming, drill through the existing holes of the old strip to make new holes in the corresponding new strip.
4. Install the new strips into the existing holes in the tracks. Next, tighten the middle screws. Once the middle screws are secured you can move onto tightening the ends and trimming any excess on the rubber strips.

Relining Black Molded Outer Drum Guides - Top Half

The Replacement Kit for the 50G Superwash Outer Drum contains 3 strips of textured rubber that are mounted in the top half, and the sheet metal screws necessary for mounting. The 50G Jr. has 3 strips.

1. Cut, trim, and drill the top strips in the same manner as the bottom strips.
2. Taper the ends of the new strips that line up to the entry and exit chutes to match the taper of the old ones.
3. Install the new strips into the existing holes of the liners as described above.

Repairs and Assemblies Continued

Electrical System

Replacing Heater Coil

Note: Turn Off Machine First

1. Remove cover plate from starter switch.
2. Remove old heater coil.
   Clean out inside of machine of rust.
3. Insert new heater coil.
4. Replace cover plate over starter switch.

WARNING

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Replacing Heater Coil and Starter Switch Unit

Note: Turn Off Power!

1. Remove cover plate from NEW starter switch.
2. Install NEW heater coil into NEW starter switch.
3. Remove cover plate from old starter switch.
4. Disconnect all wires from terminals.
5. Loosen the wire retainer screw. Remove the lock nut that attaches starter switch box to motor cover.
6. Knock out one of the openings in the NEW starter switch box and mount to the motor with the conduit nipple and lock nut.
7. Reconnect all wires.
8. Install the cover plate.

WARNING

WARNING: INCORRECT WIRING CONNECTIONS CAN CAUSE PERSONAL INJURY OR DAMAGE TO MACHINE.

Replacing Rubber Latches

Rubber latches are made of a durable flexible material designed to withstand abuse. They may, however, eventually require replacement.

1. Remove the machine screws from each top and bottom hinge bracket.
2. Replace latch and re-install screws.

TROUBLE SHOOTING

	PROBABLE CAUSE:	REMEDY:
Motor does not turn	• Power outage • Electrical malfunction in machine • GFCI outlet	• Check external electrical source • Check/replace heater coil • Check/replace starter switch • Check/replace motor • Reset GFCI outlet
Motor shuts off during operation	• Thermal overload • Machine is jammed by foreign matter • GFCI outlet	• Clean machine and reset starter switch • Reset GFCI outlet
Repeated motor shut-off, or repeated jamming (no foreign matter)	• Drum misalignment • Bearings binding • Faulty motor	• Realign drum • Replace pillow block bearings • Replace motor
Sudden jam-up	• Large foreign body lodged in tracks	•Clear machine and reset starter switch
Gradual slow down / Machine stops running	• Drum misalignment • Uneven wear in liners	• Realign drum • Replace liners
Balls are not being cleaned	• Dirty water • Worn liners	• Change water • Replace liners
Drive motor turns but hopper motor does not vibrate	• Faulty connection • Faulty hopper motor	• Check and repair electrical connections in motor • Check/replace hopper motor
Water does not drain	• Clogged drain • Faulty valve	• Clear drain drum • Check/replace ball valve

Replacement Parts

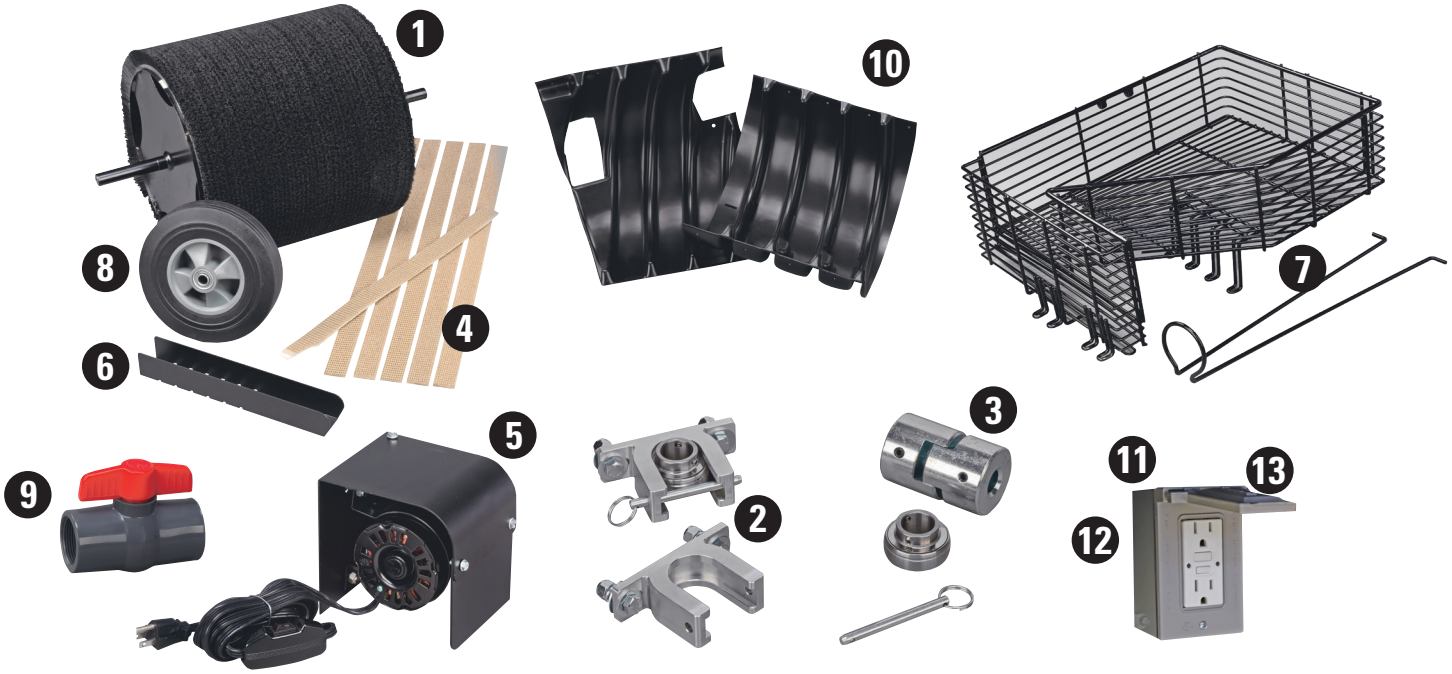
Ordering Replacement Parts

WITTEK Ball Washers are designed for continuous use and are virtually indestructible. However, certain component parts, such as bearings, liners and guides, molded guide liners, are subject to wear and deterioration and may eventually require replacement.

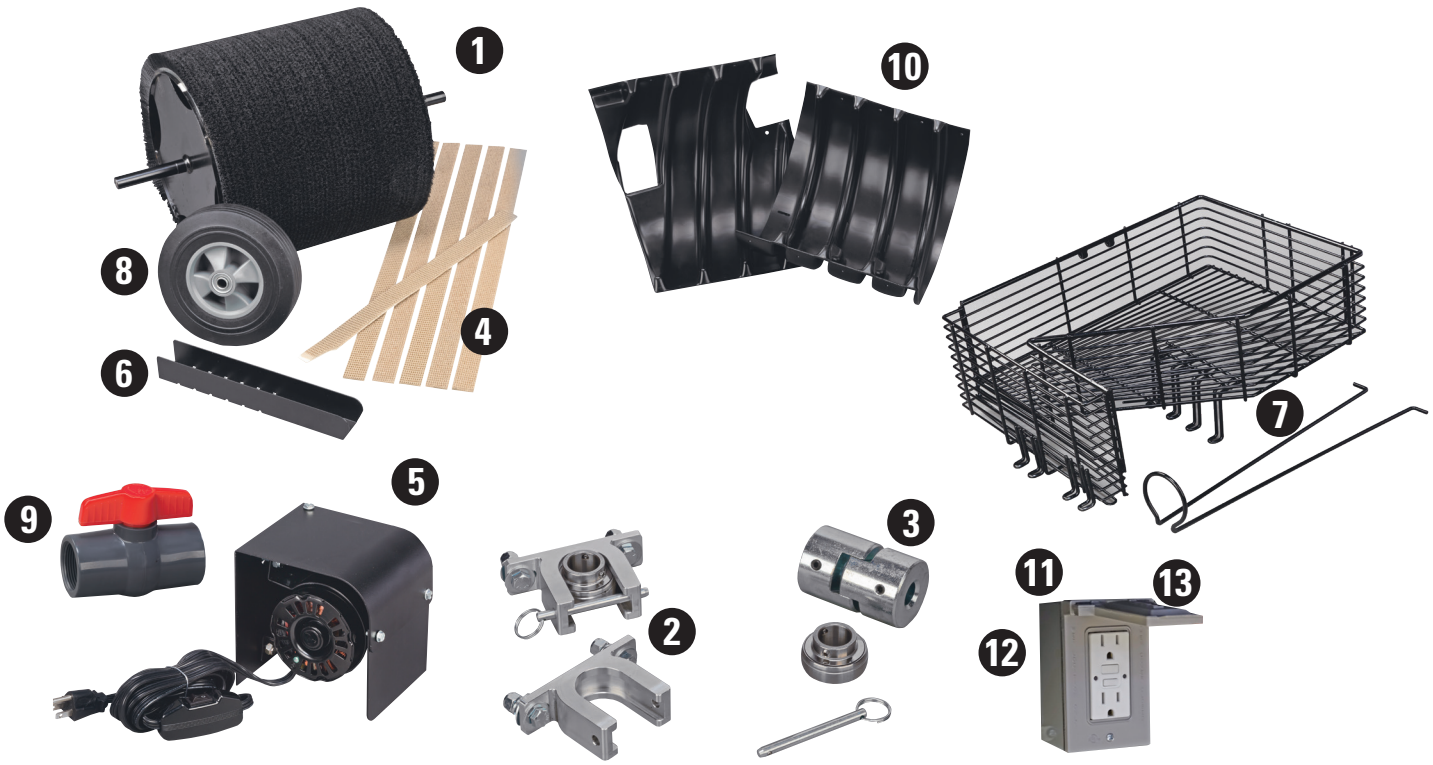
WITTEK Ball Washers' parts (pillow block bearings, motor gears, replacement guide liner sets, etc.), are maintained in stock in the factory for immediate delivery. The WITTEK parts department can ship parts quickly.
In emergency cases, parts can be shipped via next-day delivery.
All assemblies and replacements of WITTEK Ball Washers utilize standard hardware and can be accomplished by reasonably competent maintenance personnel. Be sure to follow all fundamental operation and safety rules when working machinery.

Key #	PART NO.	Item Description / Quantity
1	73611	Replacement Brush Drum
2	73578	Bearings with Housing
3	73186	Drive Coupling
4	73566	Rubber Strip Set (6 Strips)
5	73179	Vibrator Motor with Mounting Bracket
6	73167	Exit Chute
7	73193	Wire Hopper
8	73571	Wheel for Dolly
9	M-73-26	Valve
10	73580	50G Guide Set Assembly (No Strips)
11	74759-80	GCFI Outlet
12	7219K22	GFCI Outlet Box
13	7219K62	GFCI Outlet Box Cover

PART NO.	Item Description / Quantity
73178	Starter Switch with Heater Coil
73373	1/2 H.P. Motor with Switch Coil
73374	1/2 H.P. Motor, No Switch
73577	Washer Bearing Only
73580	Guide Set Only (No Strips)
73581	Quick Release Pin Only
73570	Old Style Rubber Strip Set (8 Strips)
M-73-43	Replacement Rubber Latch
M-73-102	Motor Guard
M-73387-2	Heater Coil Only



Replacement Parts 50G Junior

Key #	PART NO.	Item Description / Quantity
1	73651	Replacement Brush Drum
2	73578	Bearings with Housing
3	73186	Drive Coupling
4	73587	Rubber Strip Set (6 Strips)
5	73179	Vibrator Motor with Mounting Bracket
6	73167	Exit Chute
7	73193	Wire Hopper
8	73571	Wheel for Dolly
9	M-73-59	Valve
10	73655	50G Junior Guide Set Assembly (No Strips)
11	74759-80	GCFI Outlet
12	7219K22	GFCI Outlet Box
13	7219K62	GFCI Outlet Box Cover

PART NO.	Item Description / Quantity
73175	Starter Switch with Heater Coil
73173	1/4 H.P. Motor with Switch Coil
73174	1/4 H.P. Motor, No Switch
73577	Washer Bearing Only
73655	Guide Set Only (No Strips)
73581	Quick Release Pin Only
M-73-56	Replacement Rubber Latc
M-73-30	Motor Guard
M-73-11	Heater Coil Only