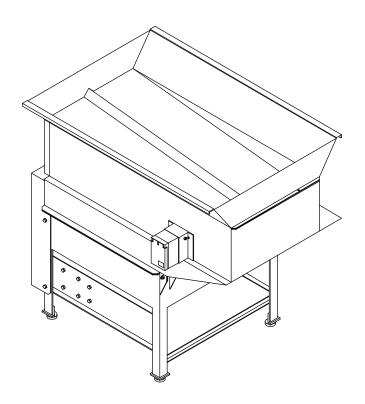


# **Easy Picker Golf Products, Inc.**

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# INSTALLATION and OPERATION BALL WASHER, HIGH CAPACITY MODEL NO: BW-022AN



KEEP THIS DOCUMENT WITH MACHINE FOR FUTURE REFERENCE

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#### Introduction

Welcome to the Easy Picker family. We know you'll find our equipment to be of the highest quality so you will enjoy many seasons of reliable use. Easy Picker's high capacity ball washer is designed for low-maintenance and is manufactured at our own facility to ensure the utmost quality.

The Easy Picker high capacity ball washer is constructed of heavy duty steel. All exterior panels are treated to resist rust and corrosion, then sealed with an epoxy coating to ensure long life. Our ball washer's interior ball cleaning system has a motor driven feed design. All interior ball washing and delivery components are made of stainless steel and aluminum.

This manual contains instructions for operation, maintenance and troubleshooting for the heavy duty ball washer, designed and manufactured by Easy Picker Golf Products, Inc., 415 Leonard Blvd. N., Lehigh Acres, FL 33971

#### **Specifications**

Easy Picker offers two sizes of ball washers and will build custom orders to meet almost any customer situation. In addition, Easy Picker can design, with you or for you, custom ball handling systems for connections to Easy Picker ball washers, elevating/conveying systems and ball dispensers.

Cleaning Rate: 45,000 Golf Balls Per Hour

Hopper Capacity: 1,350 Golf Balls

Weight: 66.67 kg

Std. Dimensions: 1.8 m H X 1.3 m L X .76 m D

Power Requirement: 220 VAC, 50 Hz, 6.9 FLA

## Warranty

Easy Picker Golf Products, Inc., warrants this product against defects in materials and workmanship for a period of ONE YEAR from the date of purchase. This warranty EXCLUDES any malfunction or damage due to customization and/or abnormal use of the product or product operation not in compliance with the OPERATING INSTRUCTIONS section of this manual.

#### **Inspection**

<u>Within one (1) business day</u> of delivery, remove outer protective packaging from ball washer and inspect for any damage which may have occurred during transit. If damage has occurred, <u>DO NOT</u> remove ball washer from shipping pallet or discard any packaging materials removed during inspection. Notify the freight carrier immediately to arrange a claim and inspection. Also, notify Easy Picker Golf Products, Inc. of damage. Failure to perform any of the above procedures in a timely fashion may compromise any warranty coverage by either the freight carrier and/or Easy Picker Golf Products, Inc.

#### **Installation**

- Install leveling feet on each tank leg using two hex nuts and washers provided on each foot.
- Place ball washer on a sheltered, level concrete surface or equivalent. Be sure to allow adequate access clearance on all sides and overhead for loading balls into hopper.
- Level ball washer, if required, by adjusting mounting feet using 9/16" open-end box wrench until cabinet is level, both side-to-side and front-to-back. Allow adequate side clearance for range ball pails.
- Connect facility power to ball washer via input power cord.

#### **Operating Instructions**

- Open tower/hopper assembly to expose tank assembly.
- Close tank drain valve.
- Fill tank with water until fill line is reached.
- Connect water hose to top wash inlet, if needed.
- Turn on water to top wash to desired spray, depending on ball dirt condition.
- Close tower/hopper assembly to tank assembly and install fasteners.
- Turn on ball washer by actuating toggle switch to the "ON" position.
- Fill hopper with golf balls.
- Place a ball storage bin next to the ball washer outlet for clean balls.
- Observe balls exiting ball washer for proper cleaning and flow rate. If ball flow is too slow, then the ball washer will need to be tipped slightly towards the brush pulley end of the machine. If no balls are exiting from the outlet, then open tower door to observe if balls are jamming in feeder track. If this is the case, then the ball washer will need to be tipped slightly towards the pivot end of the machine. Balls should flow at a smooth, steady pace for normal operation.
- Turn off ball washer when all balls have exited the machine by actuating toggle switch to the "OFF" position.

#### **Periodic Inspection and Maintenance**

Periodic inspection and maintenance of the ball washer is necessary to discover any indications of malfunction or failure and to prevent breakdown of the equipment.

These procedures must be performed regularly and thoroughly. Through proper inspection and maintenance, equipment that is not in continuous use is kept ready for operation when necessary and the ball washer is maintained for peak performance and maximum service life of the machine.

Inspection and maintenance for the various components of the ball washer are listed in the following table. This table gives the inspection interval, inspection point, inspection procedure and service for remedy of defects revealed during inspection. All defects revealed during inspection should be corrected before further operation of the ball washer is attempted.

**WARNING** 

ENSURE ELECTRICAL POWER HAS BEEN DISCONNECTED BEFORE PERFORMING ANY REPAIR PROCEDURES OR CONTINUITY CHECKS TO AVOID PERSONAL INJURY. USE CARE WHEN PERFORMING VOLTAGE MEASUREMENTS TO AVOID PHYSICAL CONTACT WITH PARTS OR SURROUNDING CIRCUITS.

**TABLE 1: INSPECTION GUIDE** 

Inspection Interval	Inspection Point	Inspection Procedure and Service
Daily	Machine Exterior	Check exterior for evidence of physical damage, loose hardware or input power connection. Tighten and/or repair as necessary.
	Machine Interior	Check electrical wiring for frays, obstructions or deterioration. Replace as necessary.  Open tower door and inspect for any foreign debris. Remove.
		Check tank water level. Fill, if required.
Monthly	Cabinet Interior and Exterior.	Inspect for scratched paint areas. Apply touch-up paint as necessary.
		Inspect tower/hopper assembly and tank assembly for loose or missing fasteners. Tighten or replace as necessary.
	Brush Spiral Cages	Inspect brushes for wear. Replace, if required.
		Inspect spiral cages for wear . Replace, if required.
	Tank	Drain tank by opening drain valve.
		Clean tank bottom of all debris and wipe clean.
		Close drain valve.
	Top Wash	With water running, inspect delivery tube slots for clogging. Remove clogs using knife, if required.
	Drive Belt	Remove pulley cover and inspect drive belt for fraying. Belt tension should be ½" deflection. Belt tension adjustment is accomplished by loosening drive motor mounting bolts. Tighten motor mounting bolts after adjustment.

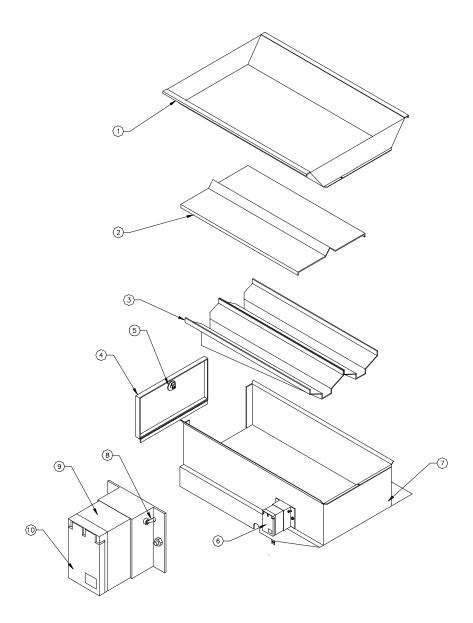
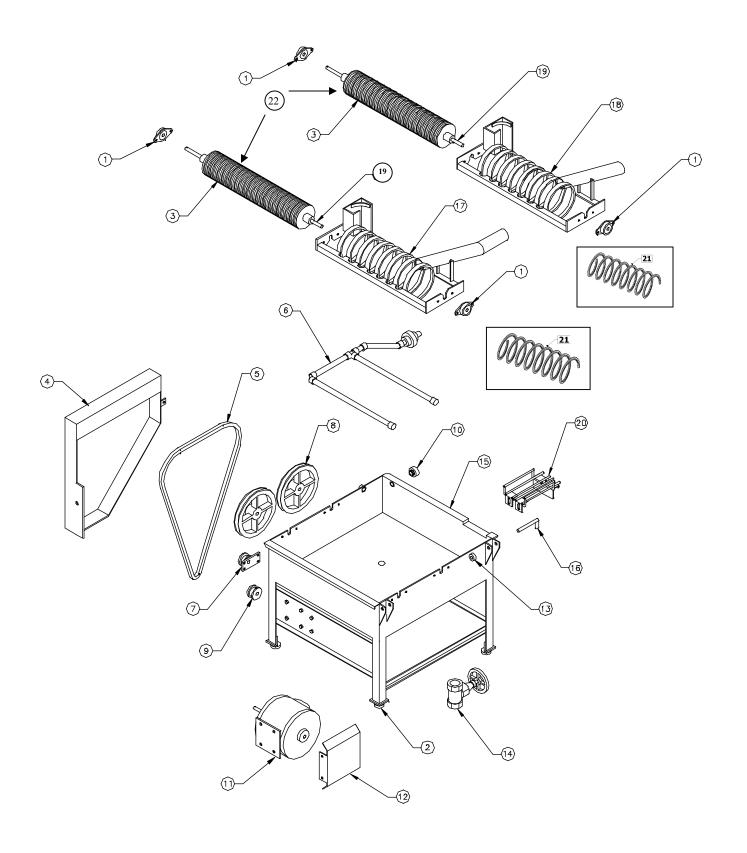


FIGURE 1: TOWER / HOPPER ASSEMBLY

Item	Qty	Part No.	Description
1	1	BW-039	Hopper
2	1	BW-044	Floor
3	1	BW-041	Feeder Track
4	1	BW-047	Door, Tower w/ Hinge
5	1	BD-058	Lock, NO Key
7	1	BW-040	Tower
8	1	BW-029	Starter, switch (4/2001 To Present.)
6, 9, 10			See Figure 3 on page 12



**FIGURE 2: TANK ASSEMBLY** 

#### TANK ASSEMBLY PARTS LIST

Item	Qty	Part No.	Description	
1	4	BW-008	Bearing, Shaft	
2	4	HA-43	Foot, Adjustable	
3	2	BW-003	Brush w/ J-Bolt and Nut	
4	1	BW-045	Cover, Pulley	
5	1	HA-73	Belt, Drive	
6	1	BW-046	Top Wash Assembly	
7	1	HA-24/HA-22	Pulley, Idler/Shaft, Idler	
8	2	BW-004	Pulley, Brush (8")	
9	1	BW-080	Pulley, Motor (2")	
10	1	BW-032	Connector, Hose, 3/4"	
11	1	BW-024	Motor, Drive	
13	2	HA-145	Collar, Shaft	
14	1	HA-144	Valve, Ball Pvc. 1¼"	
15	1	BW-043P	Tank Assembly	
16	2	CALL	Shaft, Pivot	
17	1	BW-010XLN	Spiral Assembly, Long Exit Pipe	
18	1	BW-010XSN	Spiral Assembly, Short Exit Pipe	
19	2	BW-009	Shaft, Stainless Steel for Inner Brush	
20	1	BW-049	Rack, Exit	
21	2	BW-003A	Brush, Coil, Black	
22		BW-036	Brush w/Shaft (includes Items 3 & 19)	

#### **Troubleshooting**

Any evidence of malfunction, however minor in character, should be investigated and corrected before it develops into a major fault which may disable the Ball Washer for lengthy and costly repairs. Troubles most likely to be encountered, their probable cause and remedy are listed in the following Table.

#### **WARNING**

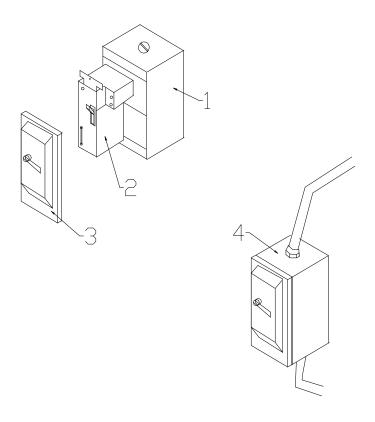
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# **TABLE 2: TROUBLESHOOTING GUIDE**

Trouble	Probable Cause	Remedy
Ball Washer will not run when toggle switch is in the "ON" position.	Power Cord	Verify facility power is turned on.
		Verify Power Cord is plugged into facility power.
	Toggle Switch	If power is present, remove gray cover and reset toggle by pressing down on the toggle switch.
		If power is present, then check for power on each terminal on toggle switch, with toggle switch in the "ON" position. If power is not present on both terminals, then toggle switch is defective and must be replaced.
		If toggle switch is not defective, then check motor wiring and/or perform continuity check on motor. Replace as required.
No Balls Exiting From Washer	Feeder Track Blocked Spiral Assembly Blocked	Open tower door and inspect for debris and/or broken golf ball(s).
	Machine Not Leveled Properly	See Installation Procedure.
Balls Exiting at a Slow Rate	Machine Not Leveled Properly	See Installation Procedure.
Balls Not Cleaning Properly	No Top Wash	Connect Water Supply and/or Adjust.
	Low Tank Water Level and/or Dirty Water	Fill Tank with Clean Water.
	Worn Brush Assembly.	Replace. See Brush Assembly Replacement Procedure.

## **Brush Assembly Replacement Procedure**

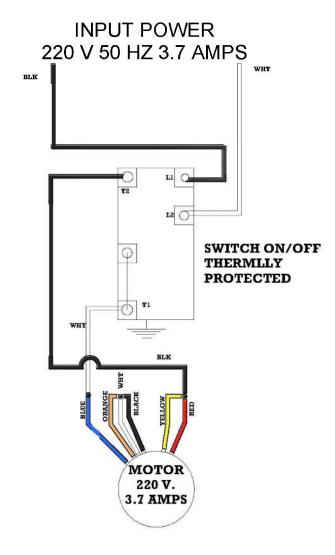
- Open tower/hopper assembly, to expose tank assembly, by removing fasteners on pulley end of tower.
- Remove belt cover to expose 8" pulleys.
- Remove belt and pulleys.
- Remove shaft bearings from each end of spiral cage and remove spiral cage from tank assembly.
- Pull out brush and shaft assembly from end of spiral cage.
- Install replacement brush/shaft assembly. If replacing brush only, then remove J-bolt from brush
  end and remove brush from shaft. Install new brush onto shaft and install new J-bolt, supplied
  with brush.
- Reinstall brush into spiral cage and position spiral cage back onto tank assembly, using fasteners.
- Replace 8" pulleys and drive belt.
- Replace shaft bearing on each end of spiral cage



**Figure 3: STARTER SWITCH 220 Volts** 

ITEM	QTY	PART#	DESCRIPTION
1	1	HA-67	Box, weather proof 4" x 2"
2	1	BW-029	Switch, starter 2 pole
3	1	Call	Cover, switch w/red toggle
4	1	BW-037IN	Starter, switch assembly.

# WIRING SCHAMATIC FOR 22K B/WASHER INTERNATIONAL 4/2001 TO PRESENT



#### **FIGURE 4: WIRING SCHEMATIC 2001 TO PRESENT**