



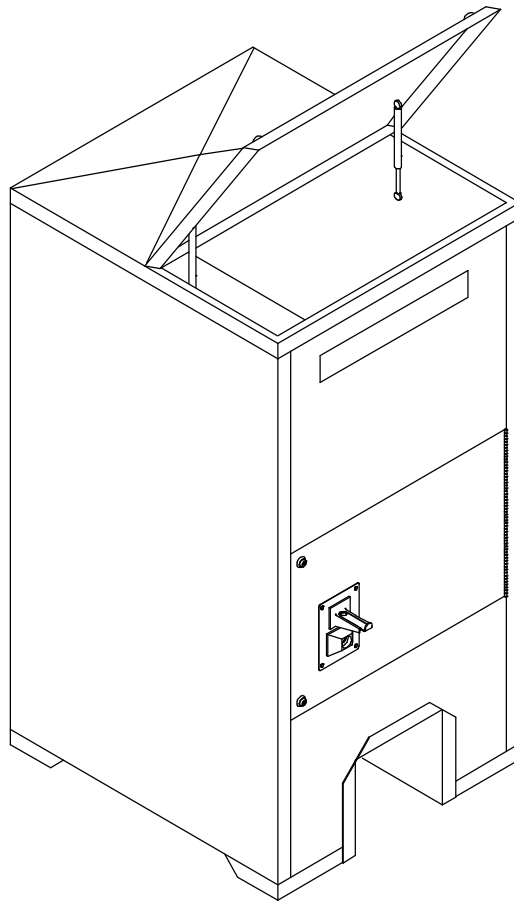
Easy Picker Golf Products, Inc.

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INSTALLATION and OPERATION

BALL DISPENSER

MODEL NOS: BD-001AN, -002, -003AN, -004, -010AN, -011



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. We are sure you will enjoy many seasons of reliable use. Easy Picker's ball dispenser is designed to be low maintenance and is manufactured at our own facility to ensure utmost quality.

The Easy Picker ball dispenser is constructed of heavy-duty steel. All exterior panels are treated to resist rust and corrosion, then sealed with an epoxy coating to insure long life. Our ball dispenser's interior ball delivery system is of a gravity-fed design, requiring no motors or vibrators to repair or replace. All ball delivery components are made of stainless steel.

Two basic ball delivery systems are available: electric or manual. Each system is factory set to dispense twenty-five to forty (25-40) golf balls per token or debit and electric models are fully field adjustable.

Each ball dispenser model has an internal hopper, either 6,500, 12,000 or 13,000 golf ball capacity, depending on model ordered. Filling the hopper is accomplished by unlocking and opening hopper cover, which is held open by gas actuated shocks. Electric models dispense range balls by actuating a solenoid operated drop mechanism driven by an integral timer.

This manual contains instructions for operation, maintenance and troubleshooting for electric and manual ball dispensers, 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 dispenser and will build custom orders to meet almost any customer situation. In addition, Easy Picker can design, for or with you, custom ball handling systems for connections between Easy Picker ball washers, elevator/conveyor systems and ball dispensers.

	Small Capacity		Mid Capacity		Large Capacity	
	<u>Manual</u>	<u>Electric</u>	<u>Manual</u>	<u>Electric</u>	<u>Manual</u>	<u>Electric</u>
Std ball storage:	6,500	6,500	12,000	12,000	13,000	13,000
Std. ball delivery:	35	35	35	35	35	35
Height:	1.45 – 1.47 m		1.43 m		1.80 – 1.85 m	
Width:	.9144 m		.9144 m		.9144 m	
Depth:	1.02 m		1.524 m		1.02 m	
Weight, empty:	174.63 kg		219.54 kg		220 kg	
Power requirements:	220 VAC, 1 PH, 6.5 FLA		220 VAC, 1 PH, 6.5 FLA		220 VAC, 1 PH, 6.5 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

Within one (1) business day of delivery, remove outer protective packaging from ball dispenser and inspect for any damage which may have occurred during transit . If damage has occurred, **DO NOT** remove ball dispenser 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

- Place ball dispenser on a sheltered, level concrete surface or equivalent. Be sure to allow adequate clearance on all sides, and overhead for loading balls into hopper.
- Level ball dispenser, if required, by adjust mounting feet using $\frac{3}{4}$ " open-end wrench until cabinet is level, both side-to-side and front-to-back. Allow adequate front clearance for range ball pails.
- Install token slide mechanism, if ordered, and attach wiring.
- On electric models, connect facility power to ball dispenser via input power source, located inside the door by the electrical panel.
- Fill ball dispenser hopper with clean Easy Picker range balls.

Operating Instructions

- Place range ball pail under ball dispenser delivery and test ball dispenser by inserting token, coin, E-key or debit card as applicable.
- Wait until all range balls are delivered and remove range ball pail.
- Verify ball dispenser's ball-dump tray has refilled.
- Manual dispenser: Insert token into coin slide then hold slide in for 5 seconds to allow balls to drop.

Periodic Inspection and Maintenance

Periodic inspection and maintenance of the ball dispenser 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 operating when necessary and the ball dispenser is maintained for peak performance for the maximum service life of the unit.

The periodic inspection and maintenance for the various components of the ball dispenser 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 shall be corrected before further operation of ball dispenser is attempted.

WARNING

ENSURE ELECTRICAL POWER HAS BEEN DISCONNECTED BEFORE REFORMING ANY REPAIR PROCEDURES OR CONTINUITY CHECKS TO AVOID PERSONNEL 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	Cabinet Exterior	Check exterior for evidence of physical damage, loose hardware or input power connection. Tighten and/or repair as necessary.
	Cabinet Interior	<p>Open hopper door and inspect for any foreign debris. Remove.</p> <p>Fill hopper as required.</p> <p>Empty coin box and replace.</p> <p>Check electrical wiring for frays, obstructions or deterioration. Replace as necessary.</p> <p>Cycle token slide or debit reader and observe ball drop mechanism for easy movement. Inspect drop mechanism for any foreign debris, coins or loose fasteners. Remove or tighten as necessary.</p> <p>Inspect door hardware for loose or missing fasteners. Tighten or replace as necessary.</p>
Monthly	Cabinet Interior and Exterior.	Inspect for scratched paint areas. Apply touch-up paint as necessary.

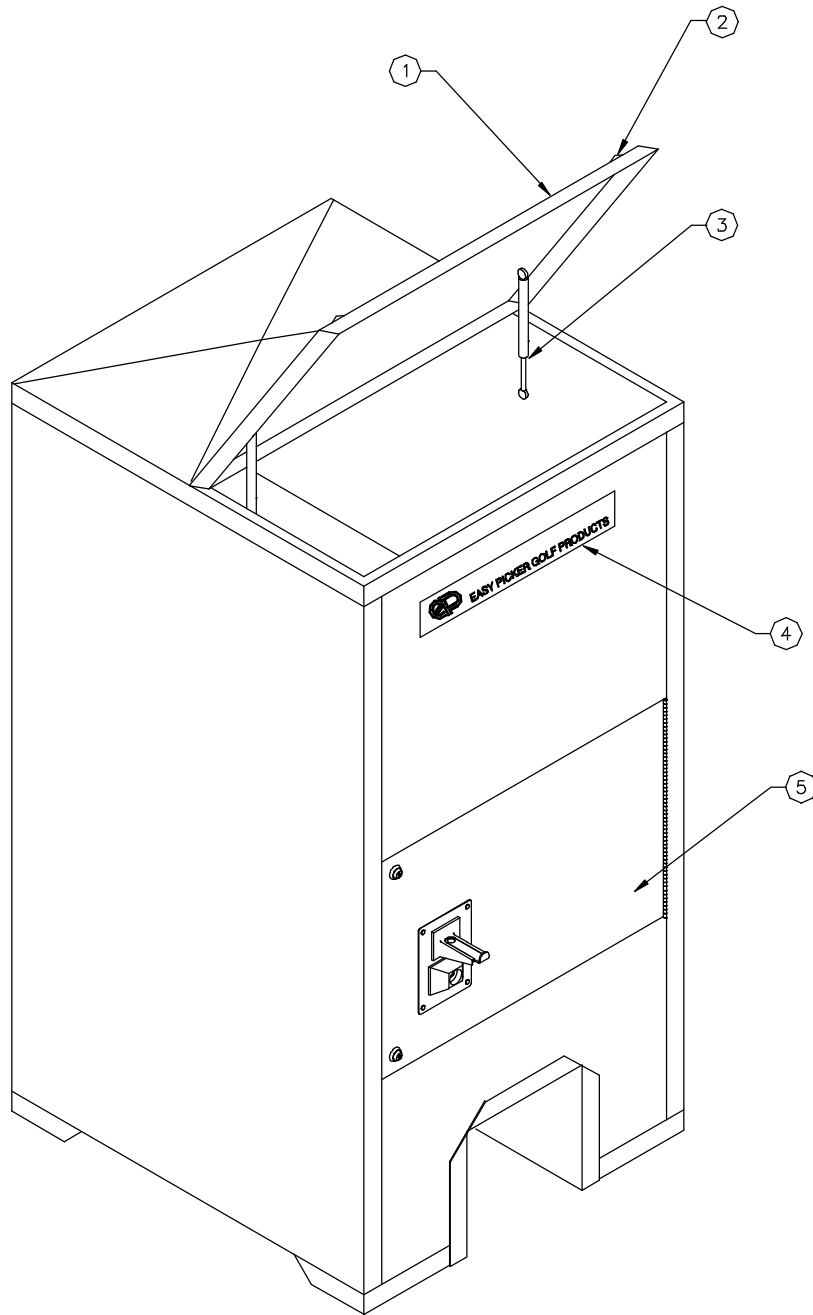


FIGURE 1: BALL DISPENSER ASSEMBLY

Item	Qty	Part No.	Description
1	1	Call	Hopper cover w/hinge, no hardware
2	2	BD-058	Lock w/ key (J0006), cam and collar
3	2	BD-053	Pneumatic spring
4	1	Call	Decal, Easy Picker logo
5	1	See figure 2	Front door assembly

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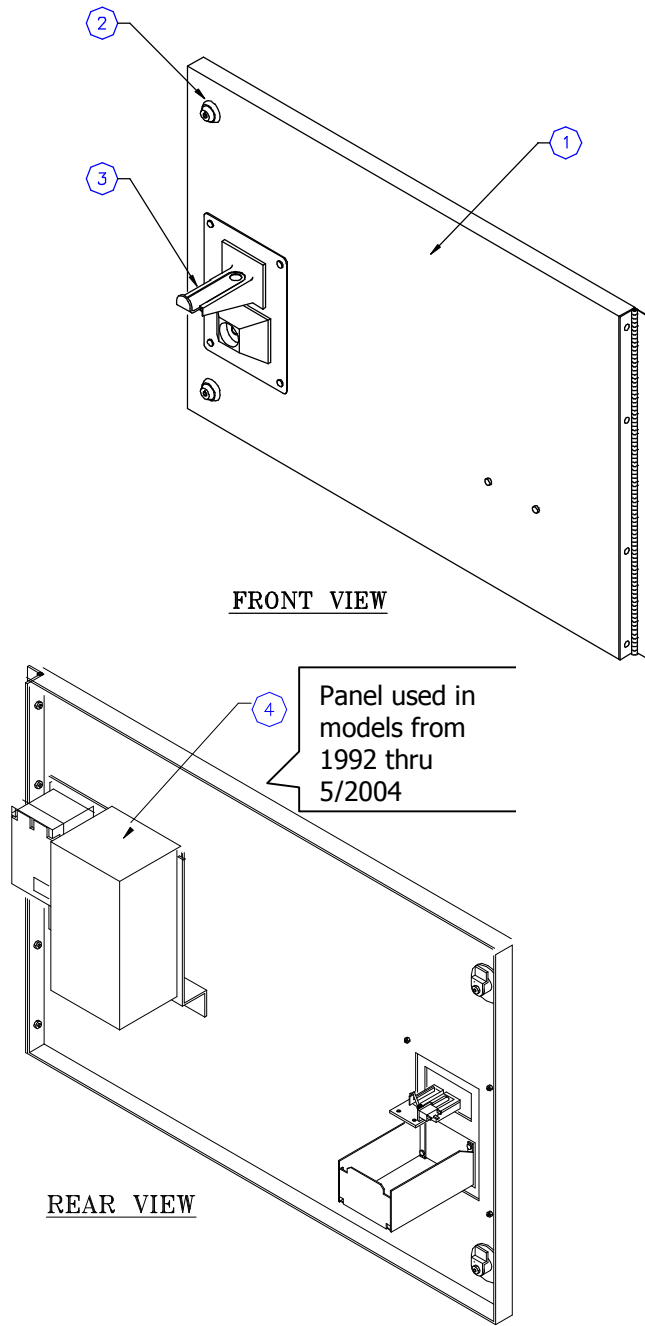


FIGURE 2: FRONT DOOR ASSEMBLY

Item	Qty	Part No.	Description
1	1	Call	Front door w/hinge, no hardware
2	2	BD-938	Door lock w/ key (#938), cam and collar
3	1	Call	Token slide mechanism
4	1	See figure 3	Electrical panel assembly (models 1992-2004)

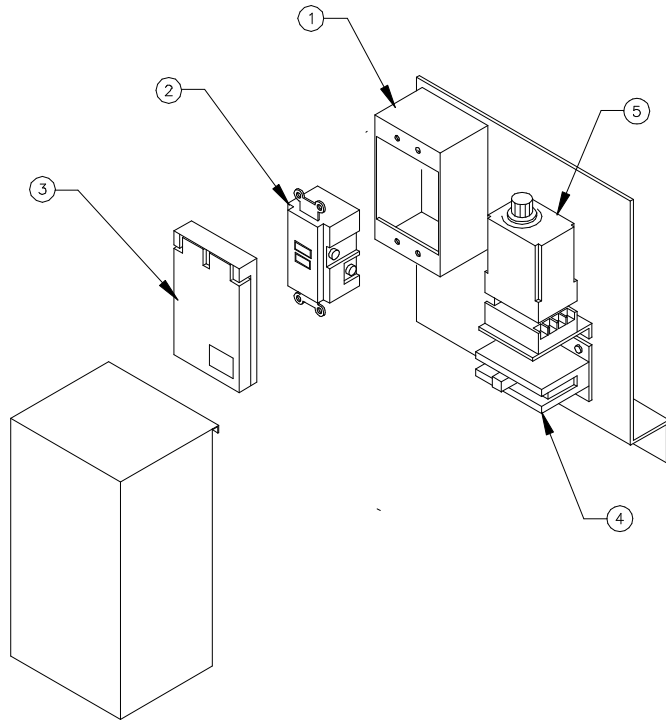


FIGURE 3: ELECTRICAL PANEL ASSEMBLY

Item	Qty	Part No.	Description
1	1	HA-67	Housing, GFI
2	1	BW-029	Switch, starter, 2 pole
3	1	Call	Cover
4	1	BD-118	Contactor, 220 V (1992 – 5/2004)
5	1	BD-116	Timer, orange 220 V (1992 – 5/2004)

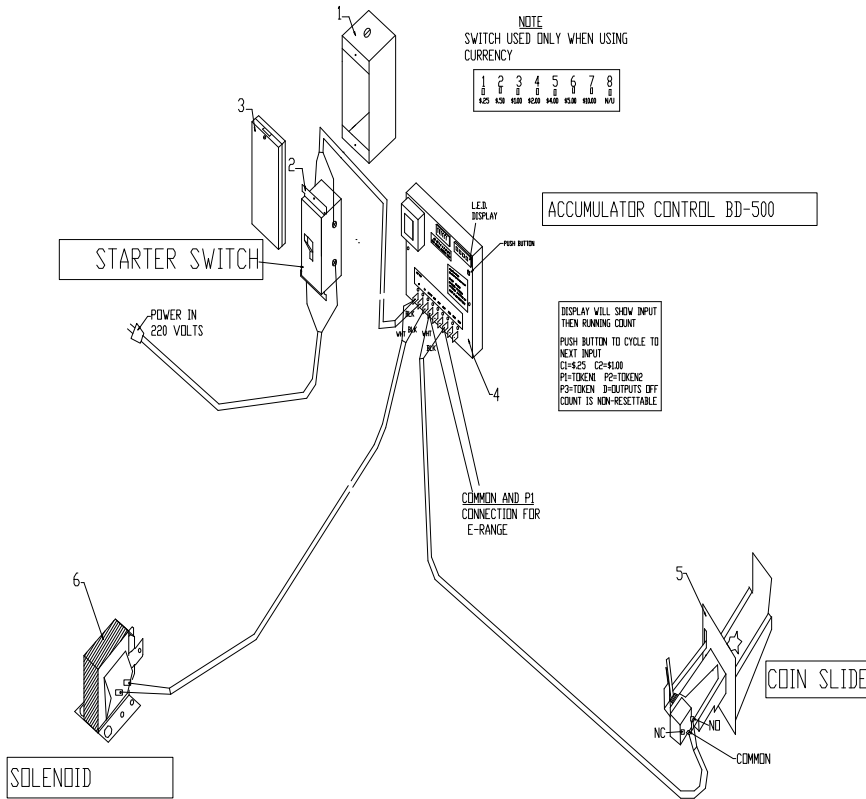


FIGURE 4: WIRING DIAGRAM 2004 TO PRESENT

Item	Qty	Part #	Description
1	1	HA-67	Box, weatherproof
2	1	BW-039	Switch, starter
4	1	BD-500	Control, accumulator 220 volts
5	1	Call	Slide, token
6	1	BD-119	Solenoid 220 volts

* Return Spring is compatible for use on manual models.

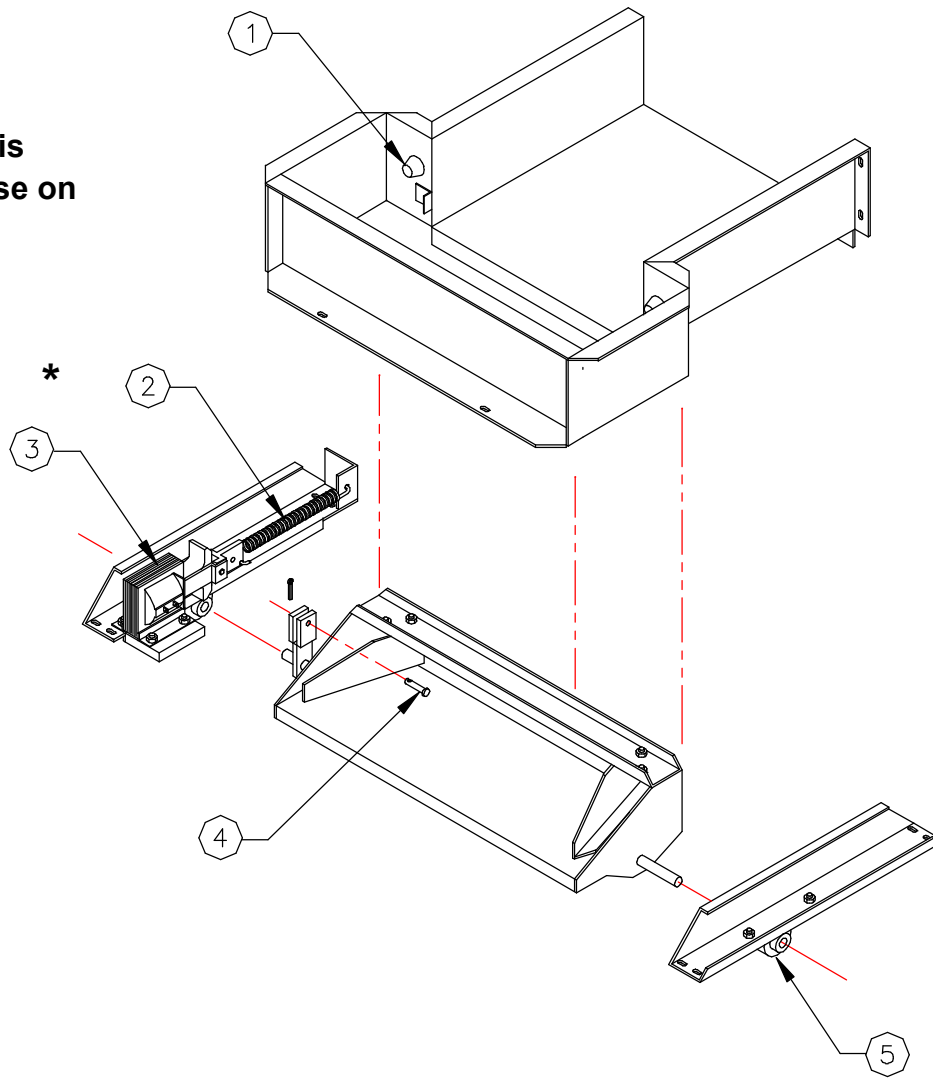
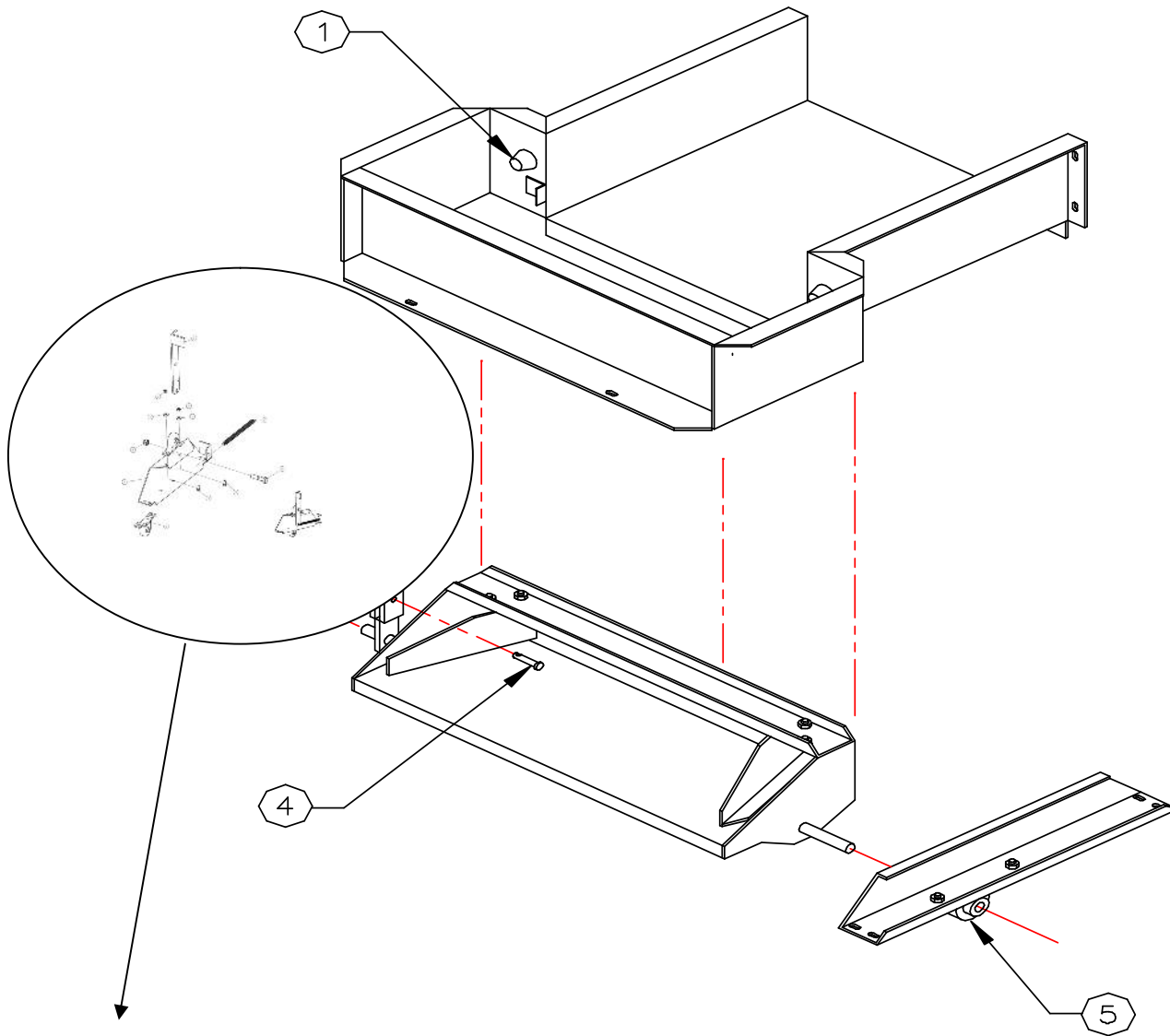


FIGURE 5: BALL DROP MECHANISM ASSEMBLY - ELECTRIC

Item	Qty	Part No.	Description
1	2	BD-035	Bumper pad, shuttle
2	1	BD-067	Return spring, shuttle
3	1	BD-119	Solenoid, 220 volts
4	1	Call	Lever pin w/ cotter pin
5	2	BD-084	Bearing, shaft



SEE FIGURE 7

FIGURE 6: BALL DROP MECHANISM - MANUAL

Item	Qty	Part No.	Description
1	2	BD-035	Bumper pad, shuttle
4	1	Call	Lever pin w/ cotter pin
5	2	BD-084	Bearing, shaft

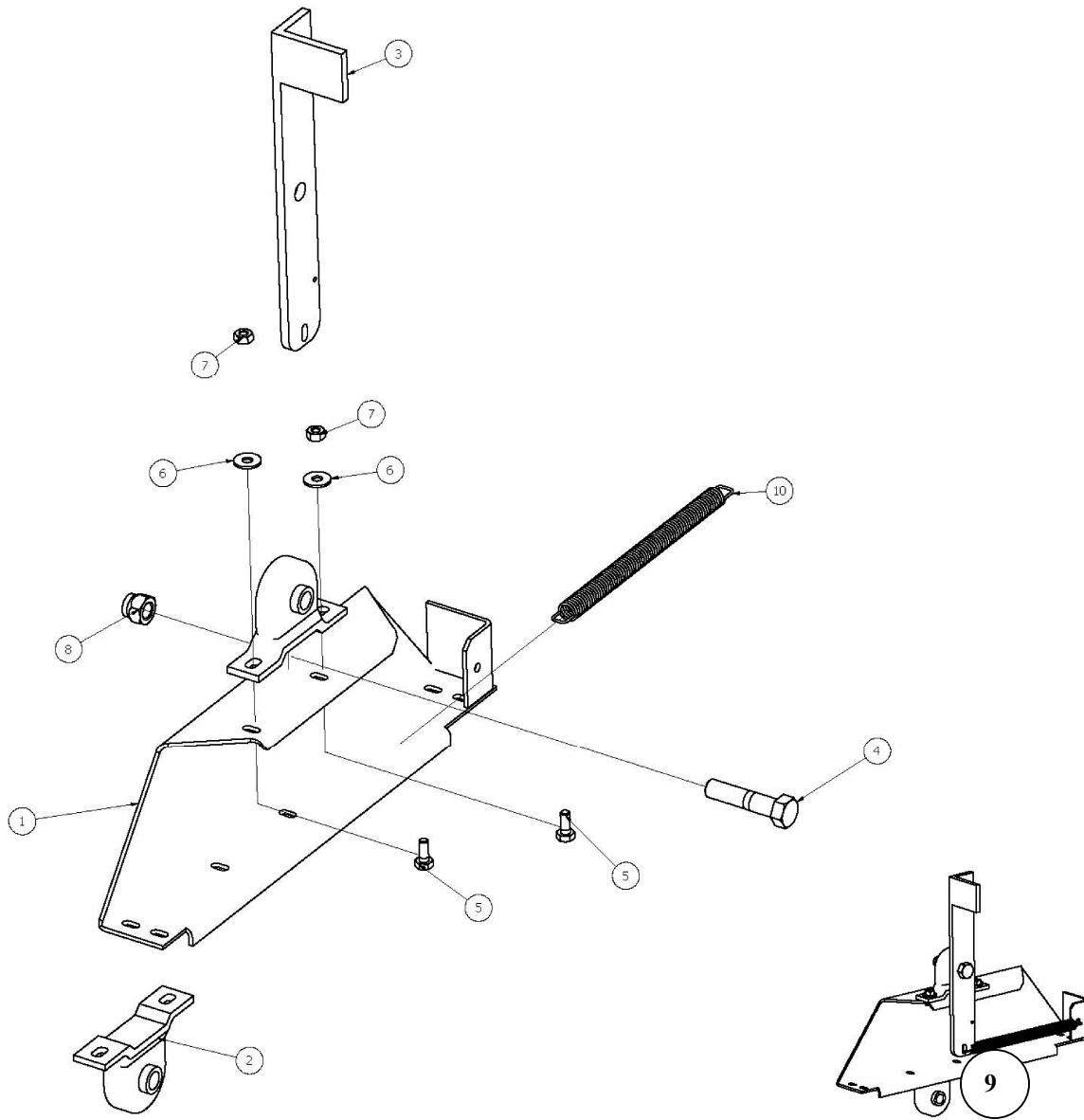


FIGURE 7: MECHANISM ASSEMBLY MANUAL

Item	Qty	Part No.	Description
1	1	BD-149	Bracket, left dump tray
2	2	BD-O84	Bearing, shaft
3	1	BD-105	Lever, manual dispenser
4	1	CALL	Bolt 1/2"-20 x 2 1/4"
5	2	CALL	Bolt 1/4"-20 x 5/8"
6	2	CALL	Flat washer 1/4"
7	2	CALL	Nut 1/4"20
8	1	CALL	Nut 1/2"-20
9	1	CALL	Manual assembly complete
10	1	BD-067	Spring. shuttle return

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 Dispenser for lengthy and costly repairs. Troubles most likely to be encountered, their probable cause and remedy are listed in the following Table:

WARNING

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

Table 2: Troubleshooting Guide

Trouble	Probable Cause	Remedy
Token Slide will not engage	Jammed token or coin.	Remove.
	Token Slide Mechanism defective.	Replace.
Range Balls will not dispense.	Obstruction in hopper preventing range balls entering drop mechanism.	Remove obstruction.
	Obstruction holding drop mechanism in open position.	Remove obstruction. .
	Facility power not turned on.	Turn on power.
	Power to Ball Dispenser not connected.	Connect facility power

Troubleshooting Guide (cont.)

Trouble	Probable Cause	Remedy
<p>NOTE: Dispensers built in years 2001 to present Will have a different timer control.</p> <p>BD-500 Accumulator timer control 220 volt international (year 2004 to present).</p> <p>BD-500LED Accumulator timer Control 120 volt (year 2001 to present)</p>	Timer set to zero. years 92-2003	Reset timer knob to proper ball delivery setting. 2.5 seconds
	Timer has been reset.92-3003	Verify timer is securely plugged in to socket.
	No power to timer.92-2003	Verify power is present at timer terminals 1 and 7. If no power is present, check GFI Verify power is present at timer terminals 5 and 6. If no power is present, and power is present at terminals 1 and 7, then timer is defective. Replace.
	Token mechanism switch defective.	Perform continuity check on switch in both "ON" (0 ohms) and "OFF" (infinite ohms) positions. If specifications are not met, replace.
	Contactors defective.92-2003	Verify power is present at contactor terminals A1 and A2 when timer is energized. If no power is present, and power is present at terminals 1 and 2, then timer is defective. Replace.
	Accumulator controller Shorted out	Using a jumper wire from common to input being used, if light doesn't come on at input. Accumulator control is defective
	Solenoid defective	Apply power to solenoid. If no actuation, then replace.

INPUT POWER
220/240 VOLT 50/60 HZ 7 FLA

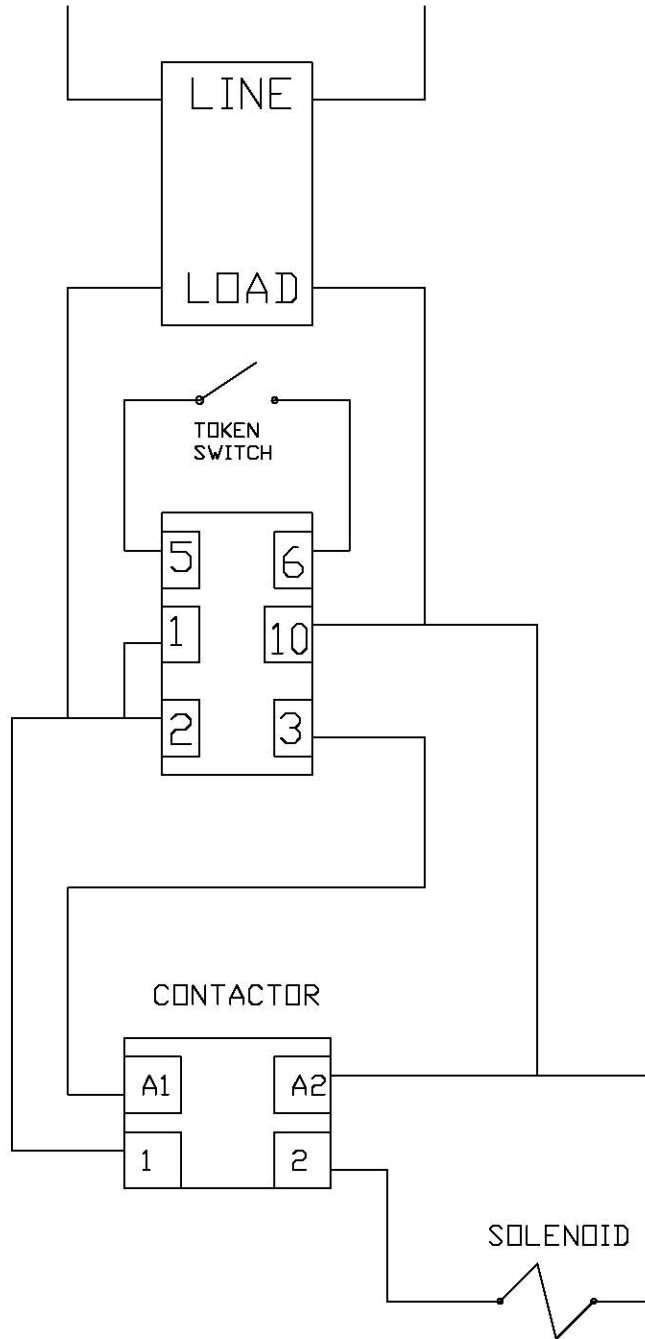


FIGURE 8: WIRING SCHEMATIC 220 VOLT 1992 - 2003

WIRING DIAGRAM DISPENSERS
 BUILT YEARS 4/2001 TO PRESENT.

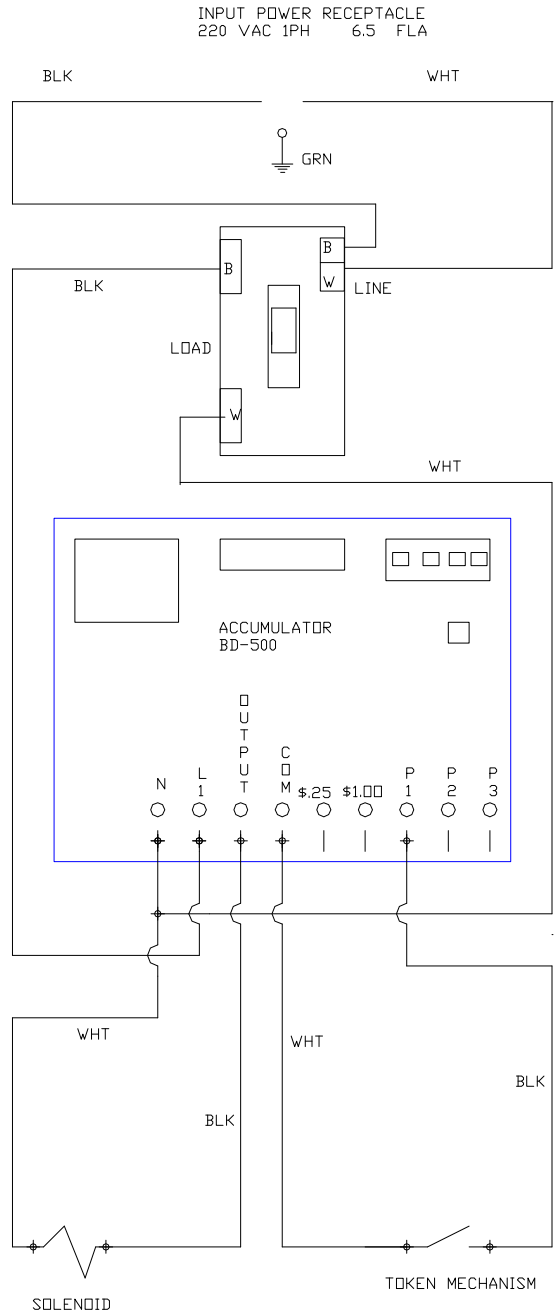


FIGURE 9: WIRING SCHEMATIC 2004 TO PRESENT