Easy Picker Golf Products, Inc.

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INSTALLATION and OPERATION

BALL DISPENSER

MODEL NOS: BD-001 THRU BD-004, BD-010, BD-011

KEEP THIS DOCUMENT WITH MACHINE
FOR FUTURE REFERENCE

Table of Contents

List of Figures

List of Tables

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, and 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 fifty (25-50) golf balls per token, credit card or bills and electric models are fully field adjustable.

Each ball dispenser model has an internal hopper of 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 an actuator motor 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 three 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**	
	Manual	Electric	Manual	Electric	Manual	Electric
Std ball storage:	6,500	6,500	12,000	12,000	13,000	13,000
Std. ball delivery:	35	35	35	35	35	35
Std. Dimensions:	57"- 58" H x 36" W x 40" D		58" H x 36" W x 60"		71"- 73" H x 36" W x 40" D	
Weight, empty:	385 pounds		484 pounds		442 pounds	
Power required: (2012-Present)	110 VAC, 1 PH, 60 Hz, 5 FLA		110 VAC, 1 PH, 60 Hz, 5 FLA		110 VAC, 1 PH, 60 Hz, 5 F	

Warranty

Easy Picker Golf Products, Inc., warrants this product against defects in material and workmanship for a period of ONE YEAR from the date of purchase. This warranty EXCLUDES any malfunction or damage due to 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 ball into hopper. Keys for ball dispenser are located on front of dispenser.

Level ball dispenser, if required, by adjust mounting feet using ¾" open-end wrench until cabinet is level, both side-to-side and front-to-back. Allow adequate front clearance for range ball pails.

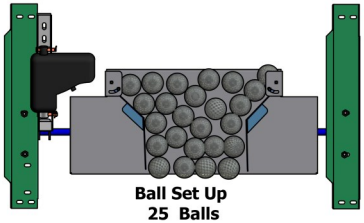
Install token slide mechanism, if ordered, and attach wiring.

On electric models, connect facility power to ball dispenser via input power cord, located on the inside of the cabinet, open dispenser door to gain access to power cord.

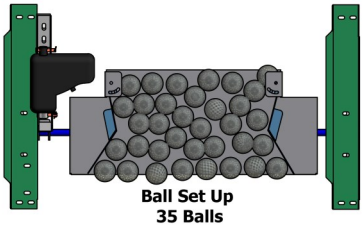
Fill ball dispenser hopper with clean Easy Picker range balls.

Dispenser ball count adjustment
25 To 50 Balls
Dispenser built 2010 to Present

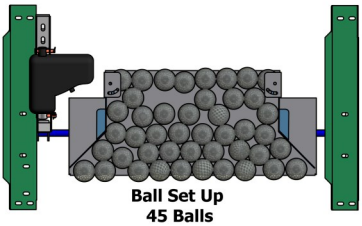
- Quantity can be adjusted anywhere between 25 to 50 balls
- Using a 3/8" socket or wrench loosen top nuts and adjust to desire amount, then tighten nuts



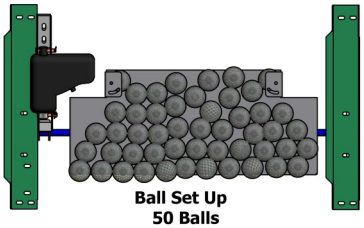
Ball Set Up
25 Balls



Ball Set Up
35 Balls



Ball Set Up
45 Balls



Ball Set Up
50 Balls
Brackets Removed

Operating Instructions

Place range ball pail under ball dispenser delivery and test ball dispenser by inserting token, coin, credit card or pin numbers if using Range Express 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 PERFORMING ANY REPAIR 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	Open hopper door and inspect for any foreign debris. Remove. Fill hopper as required. Empty coin box and replace. Check electrical wiring for frays, obstructions or deterioration. Replace as necessary. Cycle token slide or range express card or pin# and observe ball drop mechanism for easy movement. Inspect drop mechanism for any foreign debris, coins or loose fasteners. Remove or tighten as necessary. Inspect door hardware for loose or missing fasteners. Tighten or replace as necessary.
Monthly	Cabinet Interior and Exterior.	Inspect for scratched paint areas. Apply touch-up paint as necessary.
	Ground Fault Interrupt	Open GFI housing cover and depress test button. Verify electrical power shutdown by cycling token slide or coin drop. Reset GFI by depressing reset button and verify electrical power has been restored by cycling token slide or coin drop. If GFI will not reset, inspect electrical wiring for shorts or component failure (see Troubleshooting).

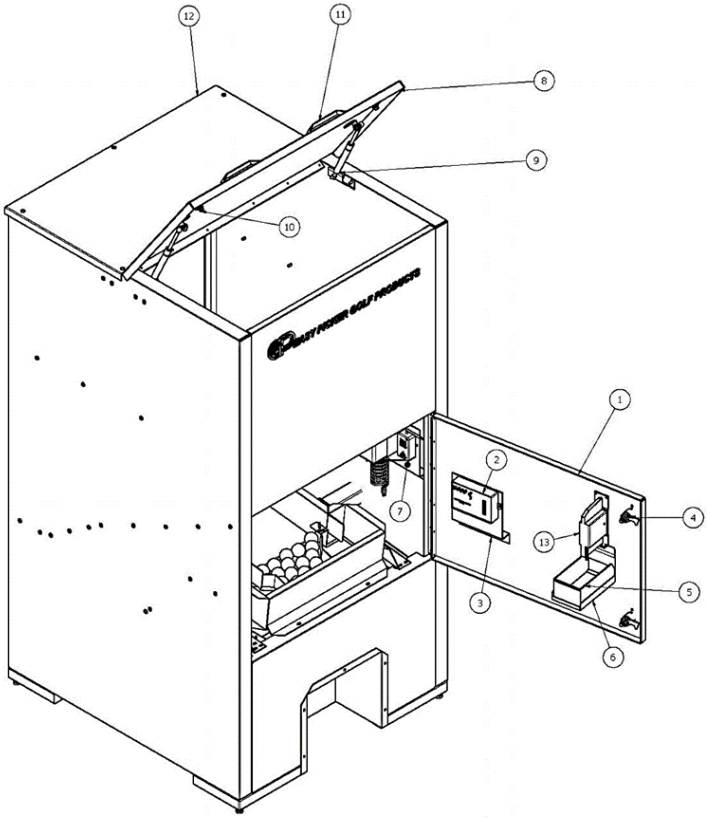


FIGURE 4: BALL DISPENSER ASSEMBLY

2010 TO PRESENT

Item	Qty	Part No.	Description
1	1	BD-T154	Door, electronic mechanism
2	1	BD-092	Control board, actuator
3	1	BD-363	Bracket, control board
4	2	BD-374	Lock-lock assembly
5	1	BD-375	Coin box, plastic
6	1	BD-377	Bracket, plastic coin box
7	1	BD-360	Panel, electrical assembly
8	1	BD-T112	Lid, front
9	2	BD-053	Pneumatic spring
10	2	BD-058	Lock, top lid #J0006
11	2	BD-111	Handle , top lid
12	1	BD-T111	Lid, top rear
13	1	BD-112	Coin mechanism, electronic

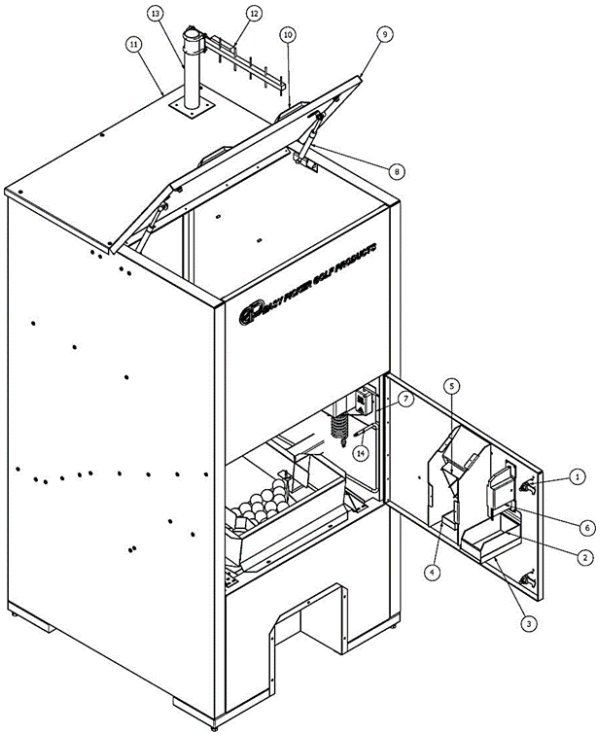


FIGURE 5: BALL DISPENSER ASSEMBLY RANGE EXPRESS

2010 TO PRESENT

Item	Qty	Part No.	Description
1	2	BD-374	Lock T-lock assy
2	1	BD-375	Coin box
3	1	BD-377	Bracket, coin box
4	1	RE-123	Card, reader itech
5	1	RE-126	Transmitter with keypad assembly
6	1	BD-112	Coin mechanism electronic 12v.
7	1	BD-360	Panel, electrical assembly, see fig 6
8	2	BD-053	Pneumatic spring
9	1	BD-T112	Lid, front
10	1	BD-T111	Lid, rear
11	2	BD-111	Handle , top lid
12	1	RE-207	Bracket, antenna Yagi
13	1	RE-106	Antenna, Yagi
14	1	RE-109	Cable, antenna 20 FT for Yagi

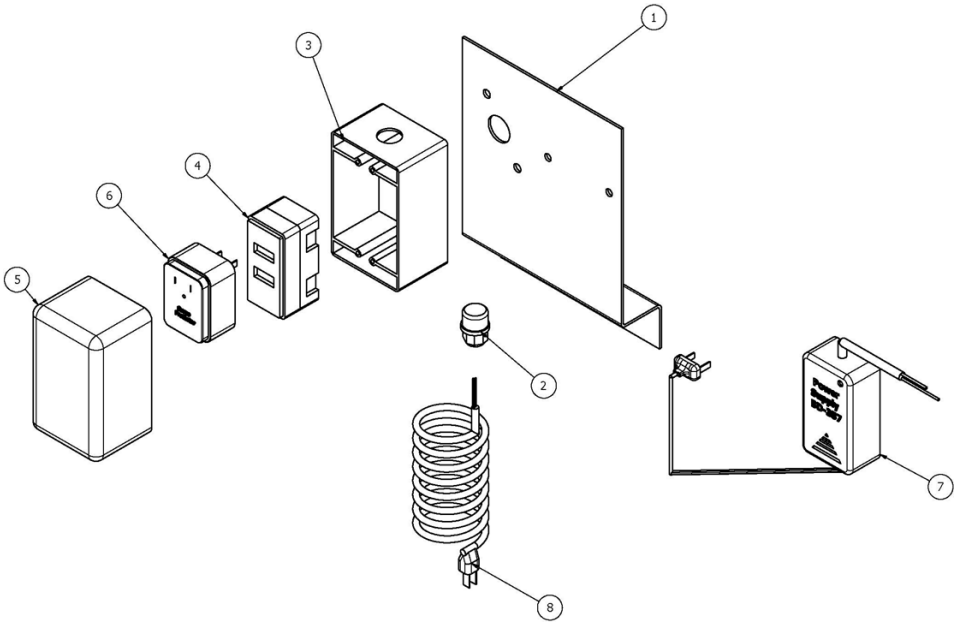
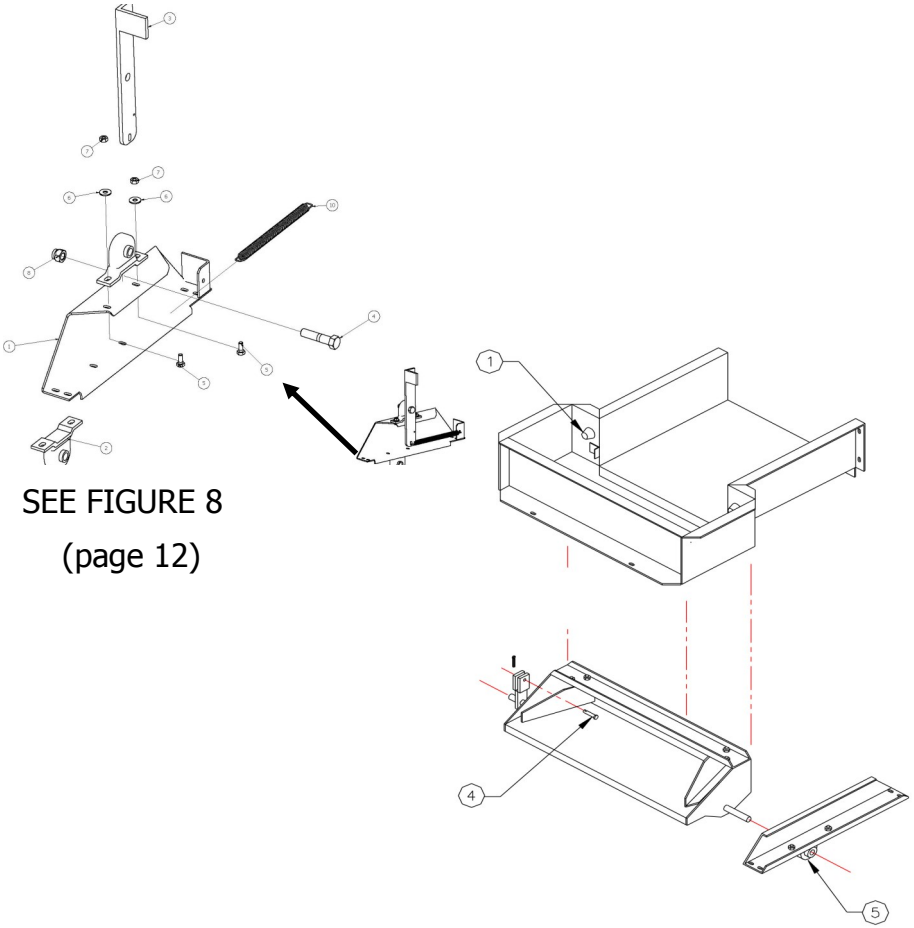


FIGURE 6: ELECTRICAL PANEL ASSEMBLY 2010 TO PRESENT

Item	Qty	Part No.	Description
1	1	BD-358	Bracket, GFI, power supply
2	1	CALL	Fitting, heyco ½"
3	1	HA-67	Box, electrical junction 2x4
4	1	HA-48	Switch, GFI
5	1	BD-300	Cover, GFI weatherproof
6	1	BD-282	Surge, protector 120v
7	2	BD-357	Power, Supply 12v
8	1	HA-69	Cord, 8ft male



SEE FIGURE 8
(page 12)

FIGURE 7: 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

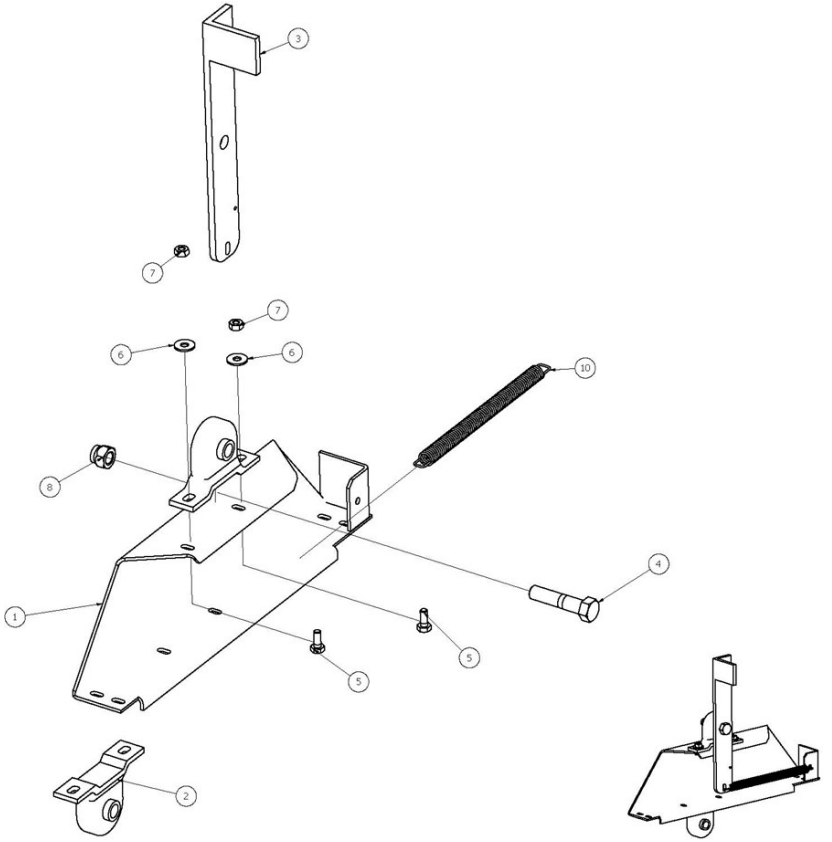


FIGURE 8: BALL DROP LEVER ASSEMBLY

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 ½"-20 x 2 ¼"
5	2	CALL	Bolt ¼"-20 x 5/8"
6	2	CALL	Flat washer ¼"
7	2	CALL	Nut ¼"20
8	1	CALL	Nut ½"-20
9	1	CALL	Manual assembly complete
10	1	BD-067	Spring. shuttle return

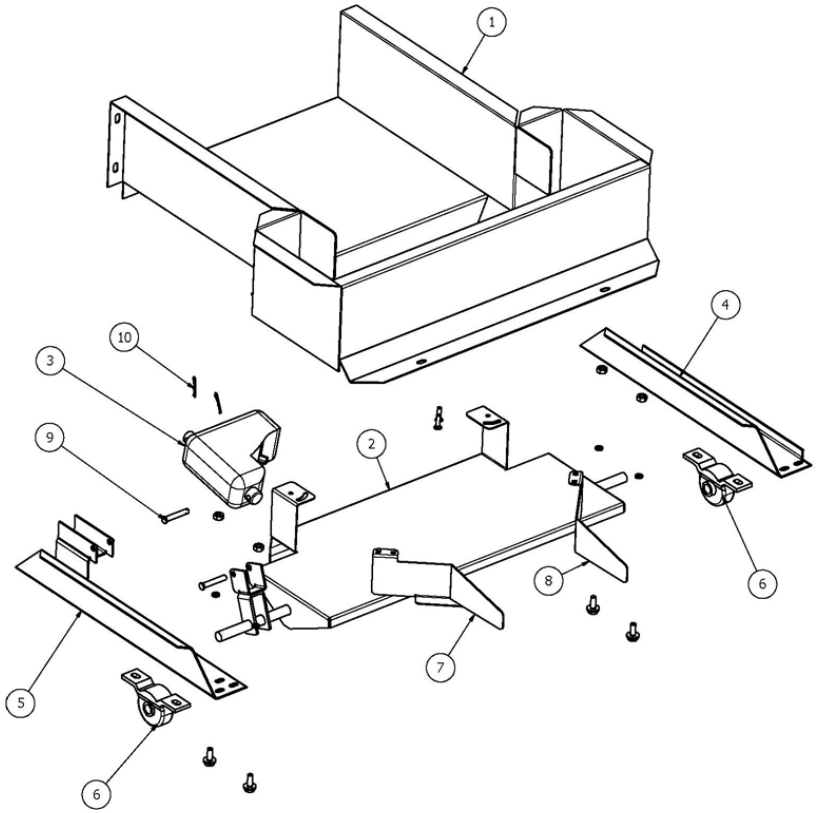


FIGURE 9: BALL DROP MECHANISM ASSEMBLY 2010 TO PRESENT

Item	Qty	Part No.	Description	
1	1	BD-386	Tray, dump frame 25-50 ball	
2	1	BD-T200	Tray, dump 25-50 ball	
3	1	BD-089	Actuator, Motor 12 volt	
4	1	BD-T101	Bracket, bearing right	
5	1	BD-364	Bracket, bearing, actuator	
6	2	BD-084	Bearing, shaft	
7	1	BD-032L	Bracket, ball adjuster left	
8	1	BD-032R	Bracket, ball adjuster right	
9	1	CALL	Pin, clevis ¼" x 1 ½"	
10	1	CALL	Pin, clip #3	

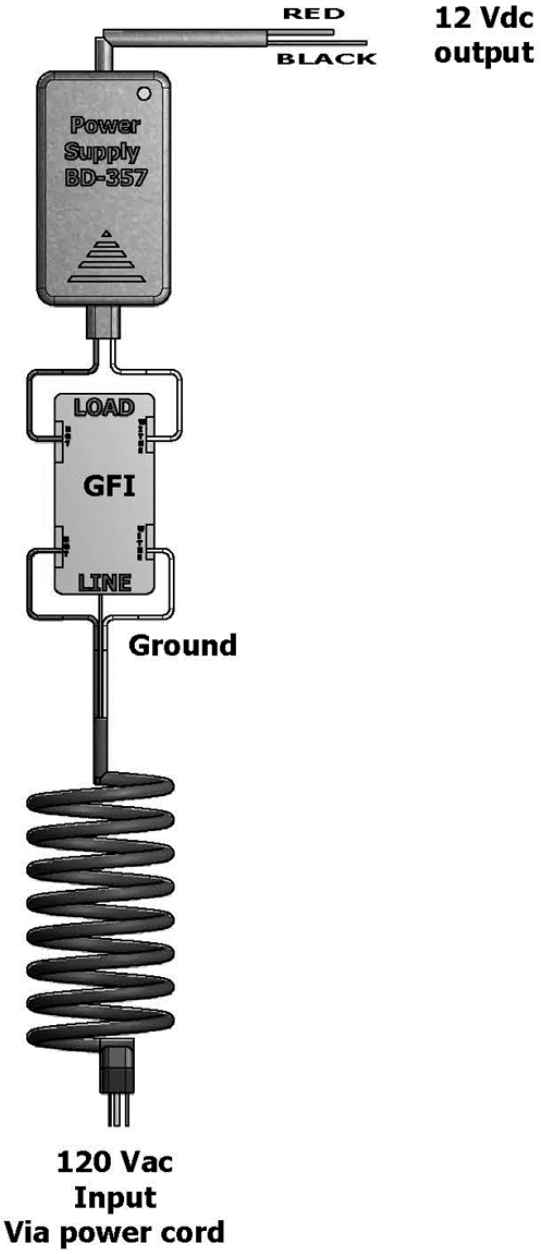


FIGURE 10: WIRING 120 VAC TO 12 VDC (2010 TO PRESENT)

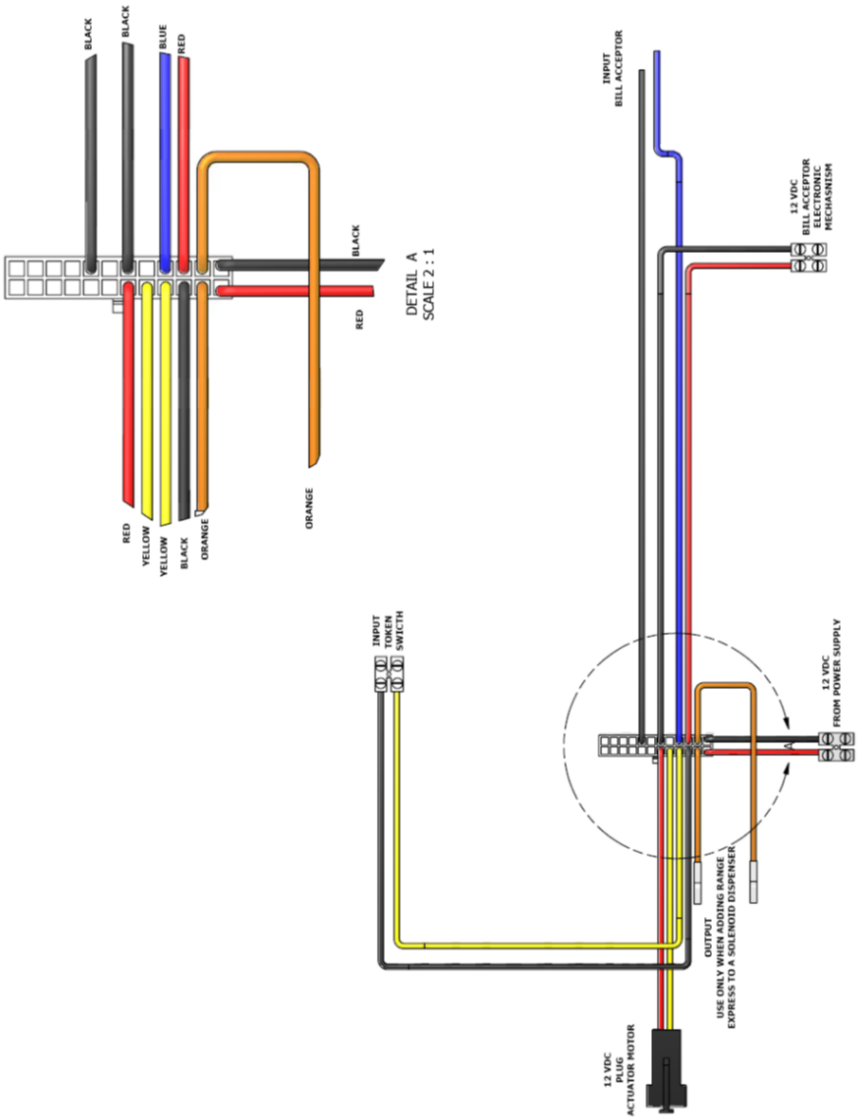


FIGURE 11: WIRING HARNESS (2010 TO PRESENT)

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 PERFORMING ANY REPAIR OR CONTINUITY CHECKS TO AVOID PERSONNEL INJURY. USE CARE WHEN PERFORMING VOLTAGE MEASUREMENTS TO AVOID PHYSICAL CONTACT WITH PARTS OR SURROUNDING CIRCUITS.

Troubleshooting Guide (Dispensers Built 2012-Present

Trouble	Probable Cause	Remedy
Token slide will not engage.	Jammed token or coin.	Remove.
Correct token goes to coin return instead of coin box. (electronic mechanism Only).	Token Slide Mechanism defective.	Replace.
	Facility power not turned on.	Connect facility power
	Electronic mechanism not programmed.	See electronic programming Page 27.
Range balls will not dispense.	No power to ball dispenser.	Turn power on and check for a green LED at GFI
	GFI tripped.	Depress GFI reset button LED on GFI On top right corner.
		If GFI will not reset, inspect wiring for possible shorting or electrical component failure. Replace wiring or component.

Troubleshooting continued

Trouble	Probable Cause	Remedy
There is a green LED on GFI switch but there is no power at power supply 12vdc	Power supply disconnected from GFI.	Reconnect power supply.
	Defective power supply.	Replace power supply.
	Obstruction in hopper preventing range balls from entering drop mechanism.	Remove obstruction.
	Obstruction holding drop mechanism in open position.	Remove obstruction.

Troubleshooting continued

Trouble	Probable Cause	Remedy
Actuator motor not working	There is no power present at black connector located on the actuator motor.	Check for power at the actuator, it should read 12vdc at the connector at all times. Depress GFI reset button LED on GFI On top right corner should be green if power is present.
	Defective actuator motor	Replaced actuator
	NO power at the control board	Check for power in from power supply.12vdc
	Defective control board	Replaced control board
There is an LED on the control board but actuator doesn't work	Plug is disconnected from actuator	Reconnect plug

Control Board Programming
10-2010 to February 2013

Located on page #8 figure #4 item #2

Bill Acceptor Instructions

Place basket in opening

First insert bill(s) in acceptor

Then Press selection button ball

Display default view:

First line: Number of tokens that have been processed

Second line: Dollar amount of currency that has been processed

Note that these counts are NOT resettable

Control board is factory set for:

SM=$1.00, MED=$2.00, LG=$3.00, XLG=$4.00

To check for pricing:

Press and release the button you want to check

To set pricing:

Press and hold the button you wish to set for 5 seconds then release

Using the SM button to decrease and the MED button to increase select the dollar amount

Press the XLG button to save

Control Board Programming

Display default view:

First line: Number of tokens that have been processed

Second line: Dollar amount of currency that has been processed

Note that these counts are NOT resettable

Control board is factory set for:

Selection 1-4 not used, if no bill acceptor was installed

To check for pricing:

Press and release the button you want to check

Example: If selection SM is pressed it will show (price 1 is 1)

To set pricing and dumps:

Press and hold the button you wish to set for 5 seconds then release

Using the SM button to decrease and the MED button to increase select the dollar amount

Press the XLG button to save, and then select the number of dumps for that selection then press XLG to save.

Electronic Mechanism Coin Programming

Xeptors

COIN LEARN PROCEDURE

1. Slide the front cover up and identify the three controls to be used in this procedure:

   a.)The "test" push button near center bottom. (used to input the number of credit pulses)

   b.)16 position rotary switch to the right of the push-button. (#0 is normal RUN position, #1-#6 are for learning each of 6 possible coin types that can be accepted)

   c.)LED indicator half way up on the right side. (Green in RUN mode, red in LEARN mode)
2. Turn the rotary switch to one of the LEARN positions #1-#6 (for example, pick #3 for learning the 3rd coin type) and observe the LED turns red to indicate it is now ready to learn.
3. Push the test button once for each credit pulse you wish to have issued for this coin.
4. Slide the cover back on the unit to make sure outside light is does not interfere with the sensors.
5. Show the unit 6 samples of the coin by depositing them into the acceptor as usual. It is best to use 6 different coins since there are typically slight variations from coin-to-coin.
6 After the 6th sample coin is deposited, the LED will flash red-green a few times to indicate the LEARN procedure is complete and the coin parameters are stored in memory.
7. Slide the front cover open again and turn the rotary switch back to position #0 and observe the LED turning green. Check that you have not accidentally turned it too far to position #15 which is a field test function position, in which it will not accept coins.
8. Slide the front cover back down and you should now be able to accept the new coin.

COIN UN-LEARN PROCEDURE

1. Slide the front cover up and turn the rotary switch to the coin # position you wish to UN-LEARN.
2. Push the test button once to initiate the LEARN sequence.
3. Turn the rotary switch back to position #0 without depositing any coins to signal the unit that you wish it to erase the parameters for this coin. The LED will flash red-green to indicate completion.
4. Slide the front cover back down.

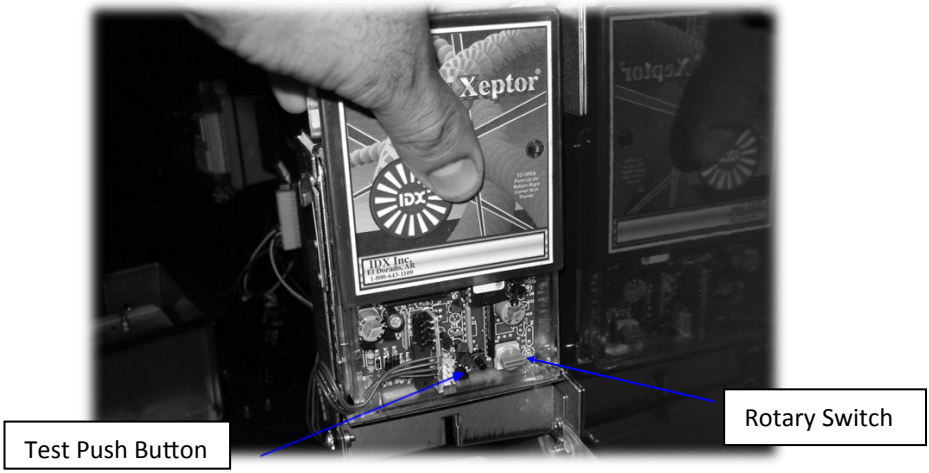


FIGURE 16: TROUBLESHOOTING

1. If LED is flashing RED to GREEN in the "O" position turn off power for 2 minutes.

Then turn back on. This should reboot the acceptor. Check to make sure the 2 half of the acceptor are closed together, open the acceptor and let the spring slam it shut.

Also, check to see if the white ribbon cable located on the back side of the acceptor is plunged in just under the 2 red wires. If it does not correct your problems call your distributor.

2. If coin returns and No coin pulse to the timer check to see if the LED is blank, Green, Red, or flashing.

If blank check for voltage between the Yellow and black common wires. If power is present call your distributor to get the acceptor repaired. If red or Green check to see if Gray rotary switch is in the "O" Position, if not in the "O" position it will not accept coins.

3. If coin goes into the coin box and there is a green LED on the side of electronic mech, but there is NO coin pulse.

Check relay opening by lifting the side cover of mechanism using your thump see picture above Press the test push button and listen for relay opening .If relay seem to get stuck call you distributor to get the mechanism repaired or replaced.

NOTES:

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