

# MagPro™



## **MagPro™ Bill Acceptor Operation and Service Manual**





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# SECTION 1: GENERAL INFORMATION

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## INTRODUCTION

This manual contains information on installing, operating and maintaining Coinco's MAG Pro Series bill acceptors. This manual is intended for owners, route operators and shop-level technicians as a primary source of information. Taking time to read this manual and becoming familiar with this information will help you obtain the best performance from your Coinco bill acceptor.

## MODELS

MAG Series bill acceptors are self-contained units designed to work with existing vending machine interfaces, plus MDB vendors. Listed below are some of the models available:

<b><u>MAG50B</u></b>	<u>MAG Pro</u> bill acceptor, 500 capacity stacker, 110V AC, <u>Bottler</u> interface and mask
<b><u>MAG52BX</u></b>	<u>MAG Pro</u> bill acceptor, 500 capacity stacker, 24V DC, <u>Bottler</u> mask, MDB interface only
<b><u>MAG50SA</u></b>	<u>MAG Pro</u> bill acceptor, 500 capacity stacker, 110V AC, <u>Snack</u> interface and mask, <u>Additional length</u> harness

MAG50B bill acceptors are primarily used in cold drink vendors which use either the electromechanical, electronic, or MDB interface. This bill acceptor uses the "bottler" interface, which communicates to the vendor through either HIGH LEVEL or MDB communication.

MAG52BX supports MDB communication only.

MAG50SA and MAG52SA bill acceptors are primarily used in either electronic or MDB snack, coffee or food machines. These bill acceptors use the "snack" interface and communicate to the vendor through either PULSE, SERIAL, PARALLEL or MDB communication.

## FOR YOUR RECORDS

A label indicating the model number and serial number is affixed to the back of the bill acceptor. Refer to the model and serial number whenever you call upon your Coinco Service Center for information or service. The first four digits of the serial number contain the manufacturing date code which indicates the beginning of the warranty period.

**EXAMPLE:** *Serial number 269900135. First and second digits indicate the week of manufacture. The third and fourth digits indicate the year (the 26th week of 1999).*

## FEATURES

- Modular design
- Illuminated Inlet
- Impact resistant
- Exceptional acceptance rate
- Anti-jam software
- Bill Hold Feature.
- Center drive belt.
- Scalloped bill path for wet bill acceptance.
- State-of-the-art electronic logic system
- Switch selectable acceptance of the following bills: \$1, \$2, \$5, \$10 and \$20.
- Options bill box.
- Vandal resistant design protects against: saltwater, bill pullback, counterfeit bills.
- Utilizes standard mounting and electrical interfaces.
- 110 and 24 VAC and 24 VDC Multi-Drop Bus interfaces available.
- High impact, non-corrosive plastic construction.
- Easily accessible bill path.
- Self-diagnostics communicated via status light.
- Standard/High Level security switch.
- Switch selectable acceptance of bills face up, in one or both directions.
- Optional hasp for locking bill box.
- Manufactured and supported by Coinco.
- Made in the U.S.A.

## AFTER UNPACKING

After unpacking the unit, inspect it for any possible shipping damage. If the unit is damaged, notify the shipping company immediately. Only the co-signee (the person or company receiving the unit) can file a claim against the carrier for shipping damage. We recommend that you retain the original carton and packing materials to reuse if you need to transport or ship your acceptor in the future.

If the bill acceptor is being stored or used as a spare, always keep it in its shipping carton when not in use. This will keep it clean and offer the best protection for the unit.

## MAIN LOGIC BOARD ASSEMBLY

The main logic board contains the microprocessor which controls all the functions of the bill acceptor based on information from the vending machine, coin mechanism and various bill acceptor sensors.

Also contained on the main logic board is the power supply which receives its primary voltage from the vending machine. For 117VAC units, the primary AC voltage is routed to the transformer in the bill acceptor where it is reduced to 24VAC. This 24VAC is then routed back to the main logic board where it is rectified and filtered for logic board operation. For 24VAC and 24 VDC (MDB) units, no transformer is needed. The primary voltage is rectified and filtered on the main logic board.

## SPECIFICATIONS

### Power Requirements

**MAG50B, MAG50SA — 117V AC**

95 to 130 VAC, 60 Hz

0.2 Amp max standby

0.75 Amp max operating

**MAG52B, MAG52SA — 24V AC**

20 to 32 VAC, 60 Hz

0.2 Amp average standby

2.5 Amp average operating

**MAG52BX--24V DC**

22 to 45 VDC

0.2 Amp average standby

2.5 Amp average operating

### Operating Temperature

0°F to 150°F

-18°C to 65°C

### Storage Temperature

-22°F to 165°F

-30°C to 74°C

### Relative Humidity

5% to 95% non-condensing

### Physical Weight in Shipping Carton

5.7 pounds - 117VAC

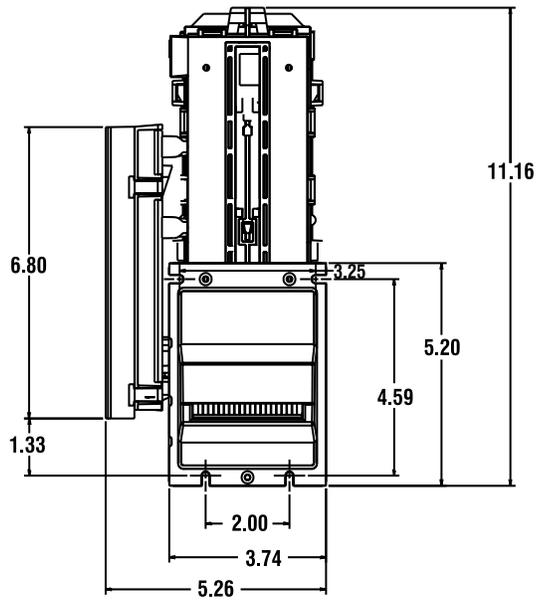
4 pounds - 24VAC

### Physical Dimensions

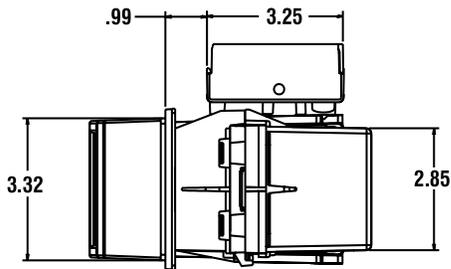
	<u>MAG30B</u>	<u>MAG50B</u>	<u>MAG70B</u>
<u>Height</u>	11.16 inches	11.16 inches	11.16 inches
<i>from top of bill box to bottom of mounting plate</i>			
<u>Width</u>	5.26 inches	5.26 inches	5.26 inches
<i>from logic board cover to mounting plate</i>			
<u>Depth</u>	4.29 inches	4.92 inches	6.17 inches
<i>from mounting plate to back of stacker</i>			

# SECTION 1: GENERAL INFORMATION

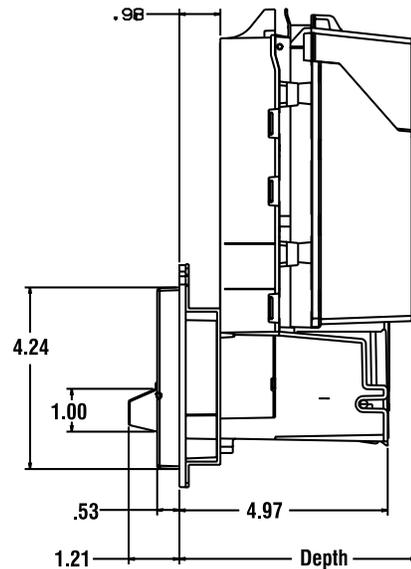
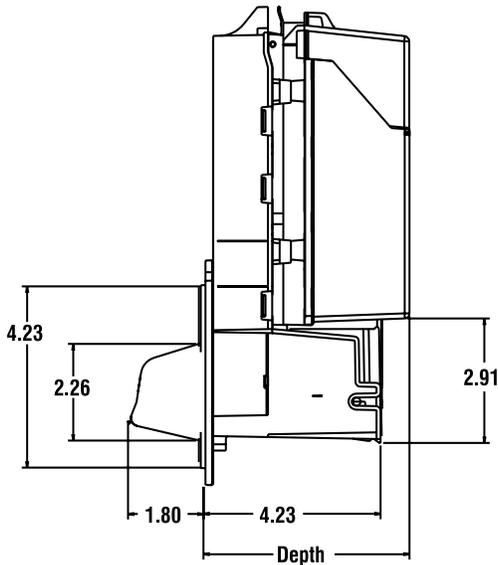
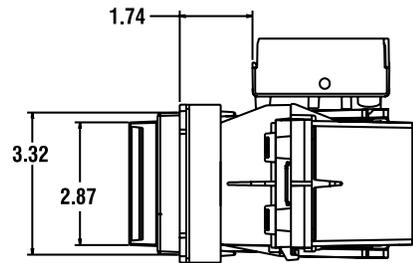
## Dimensions



**MAGxxB**



**MAGxxSA**



### Depth

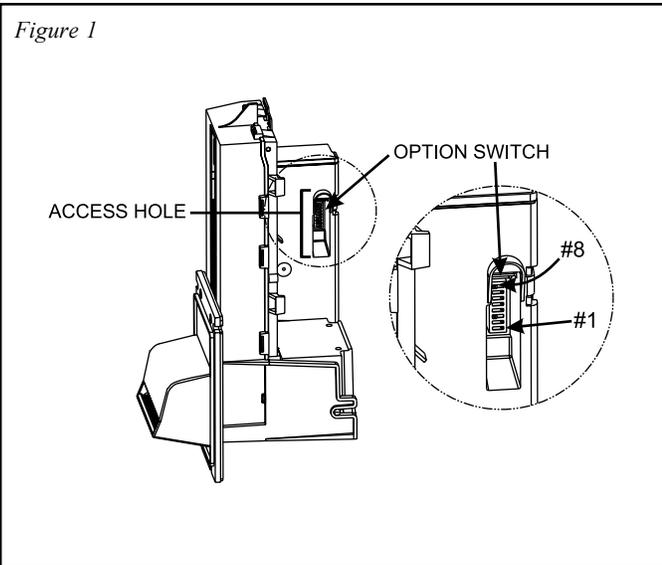
	B models	SA models
MAG30	4.29	5.03
MAG50	4.92	5.66
MAG70	6.17	6.91
MAG90	8.67*	9.41*

**OPTION SWITCH SETTINGS**

MAG Pro bill acceptors contain an option switch bank on the main logic board which allows the unit to be customized to the requirements of the individual account. This switch bank is factory set with switch 3 and 8 in the ON position and 1, 2, 4, 5, 6, and 7 in the OFF position.

**Setting Option Switches (see Figure 1)**

Remove power from the bill acceptor. Remove the bill box. Located on the side of the logic board cover is the option switch access hole. Insert a small screwdriver through the access hole to set the option switches as desired (see Figure 2). Reinstall the bill box. Apply power and test for proper operation.

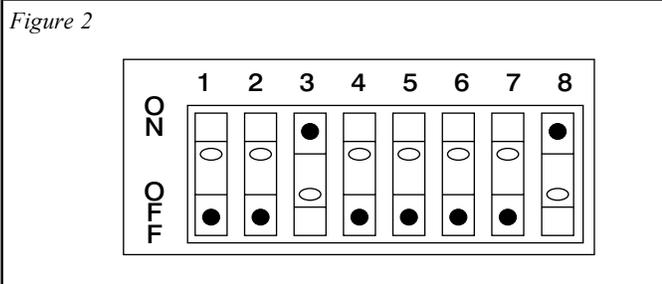


**MAG\*\*B Option Switch Settings (see Figure 2)**

SWITCH	ON	OFF
1	High Security	Standard Acceptance
2	Accepts bills in one directions only (face up, green seal first)	Accepts bills in both directions (face up)
3	Standard credit pulse 150ms on 150ms off	Short credit pulse 50 ms on 50 ms off
4	\$20 Accept	\$20 Reject
5	\$10 Accept	\$10 Reject
6	\$5 Accept	\$5 Reject
7	\$2 Accept	\$2 Reject
8	\$1 Accept	\$1 Reject (see note)

**MAG\*\*SA Option Switch Settings (see Figure 2)**

SWITCH	ON	OFF
1	High Security	Standard Acceptance
2	Accepts bills in one directions only (face up, green seal first)	Accepts bills in both directions (face up)
3	Serial or Parallel Interface	Pulse Interface
4	\$20 Accept	\$20 Reject
5	\$10 Accept	\$10 Reject
6	\$5 Accept	\$5 Reject
7	\$2 Accept	\$2 Reject
8	\$1 Accept	\$1 Reject



**INSTALLING THE BILL ACCEPTOR**

1. Remove power from the vending machine.
2. Set the bill acceptor option switches as desired.
3. Connect the bill acceptor harness to the mating harness in the vending machine.
4. Mount the bill acceptor according to the instructions found in the vending machine manual or appropriate kit literature.

**NOTE: Ensure bill acceptor is free of all obstructions**

5. Load the vending machine with product and fill the coin changer with change.
6. Apply power to the vending machine.
7. Test for proper operation.

## SECTION 3: OPERATION

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### **BILL RECOGNITION**

When a bill is inserted into the bill acceptor and it blocks the left and right alignment sensors as well as the center optic sensor, the transport motor begins to run.

### **BILL VALIDATION**

From the time the transport motor begins to run until the trailing edge of the bill leaves the alignment sensors, optical and magnetic sensors send information to the microprocessor to determine the validity of the bill.

### **BILL STACKING AND CREDIT**

If the bill is determined to be authentic, it is transported to the stack position. Once the sensors of the lower housing's anti-pullback lever signals the microprocessor that the bill is in the stacking position, the stacker motor runs and credit is given.

### **BILL REJECTION**

If the bill is determined to be invalid, the wrong denomination or the anti-pullback levers are active when the bill is determined to be in the stack position, the transport motor will reverse returning the bill to the customer.

### **COMPONENT EXPLANATION (see Figure 3)**

#### **Bill Transport and Stacking**

The bill transport system is composed of a motor and gearcase assembly and two sets of pulleys and belts. When the transport motor is energized, it pulls the bill in by sandwiching it between the lower housing rollers and the chassis belts. During the validation process, the bill is transferred from the lower housing rollers and chassis belts to the intermediate frame and chassis belts.

The bill stacker is composed of a motor and gearcase assembly and a pusher plate assembly. When the bill is transported past the anti-pullback levers into the stacking position, the stacker motor energizes driving the pusher plate, which in turn, pushes the bill into the bill box.

#### **Left and Right Alignment Sensors**

The left and right alignment sensors send information to the microprocessor to insure that the bill is the right width and that it is being fed in correctly.

#### **Center Optic Sensor**

The center optic sensor informs the microprocessor that the bill is ready to be transported if the information from the alignment sensors is correct.

#### **Left and Right Optic Sensors**

The left and right optic sensors and associated circuitry perform various optical checks on the bill and send that information to the microprocessor for bill validation.

#### **Magnetic Sensor**

The magnetic sensor and its associated circuitry performs checks on the magnetic properties of the bill and sends that information to the microprocessor for bill validation.

#### **Anti-Pullback Lever**

The lower anti-pullback lever is optically monitored to tell the microprocessor when the bill has entered the stack position or if an attempt to defraud the unit is taking place.

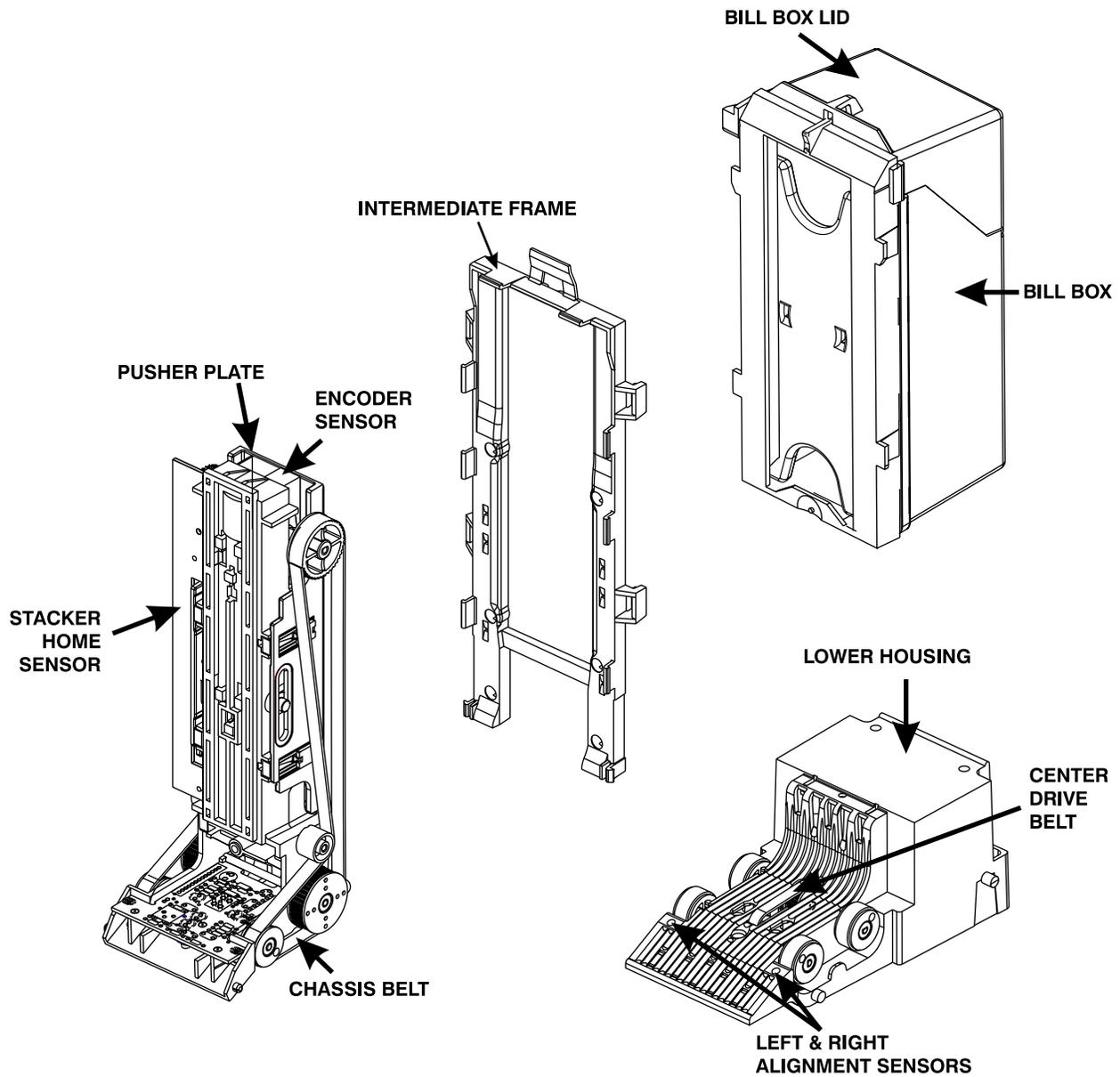
#### **Stacker Home Sensor**

The stacker home sensor is an optical sensor that informs the microprocessor of the position of the stacker pusher plate.

#### **Encoder Sensor**

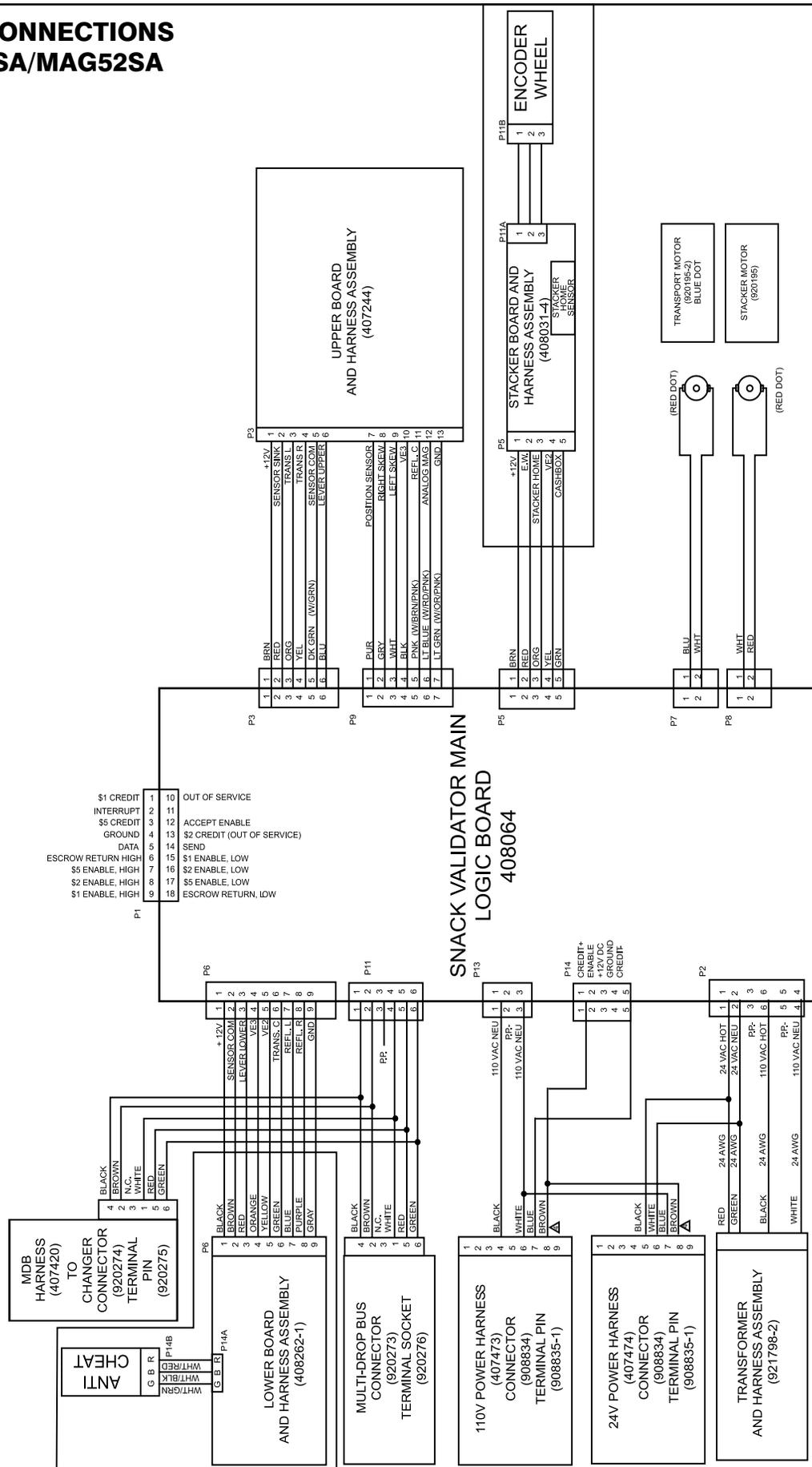
Connected to the transport motor is an encoder wheel which is optically monitored to determine the speed of the transport motor and to determine the position of the bill in the bill path.

Figure 3  
Component Explanation





**INTERCONNECTIONS  
MAG50SA/MAG52SA**



## SECTION 4: MAINTENANCE

### DISASSEMBLING THE MAG

#### Removing the Bill Box (see Figure 4)

Push the bill box tab forward while sliding the bill box up.

#### Removing the Main Logic Board (see Figure 5)

Using a small screwdriver, release the three tabs that secure the logic box to the main frame. Separate the logic box from the lid by releasing the four tabs with a small screwdriver. (Some units also have a tab that snaps between the two harness headers.)

Unplug the harnessing from the logic board and place the logic board in a static-free area.

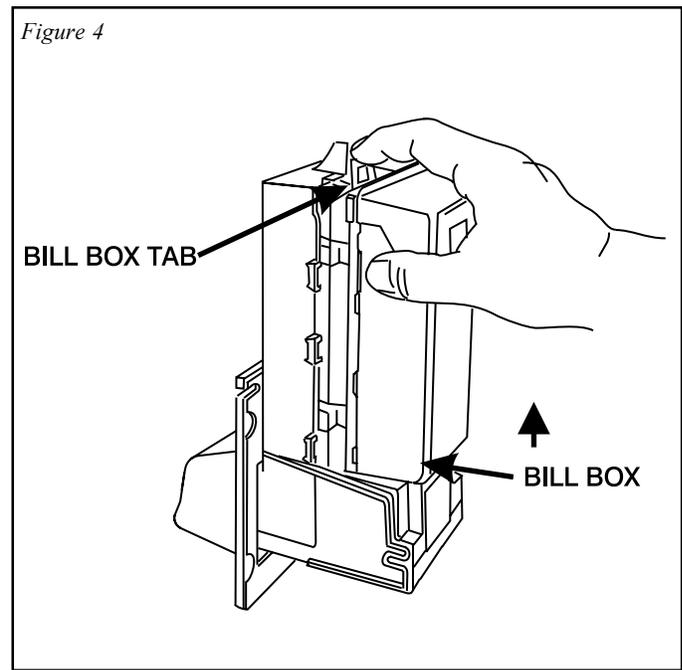
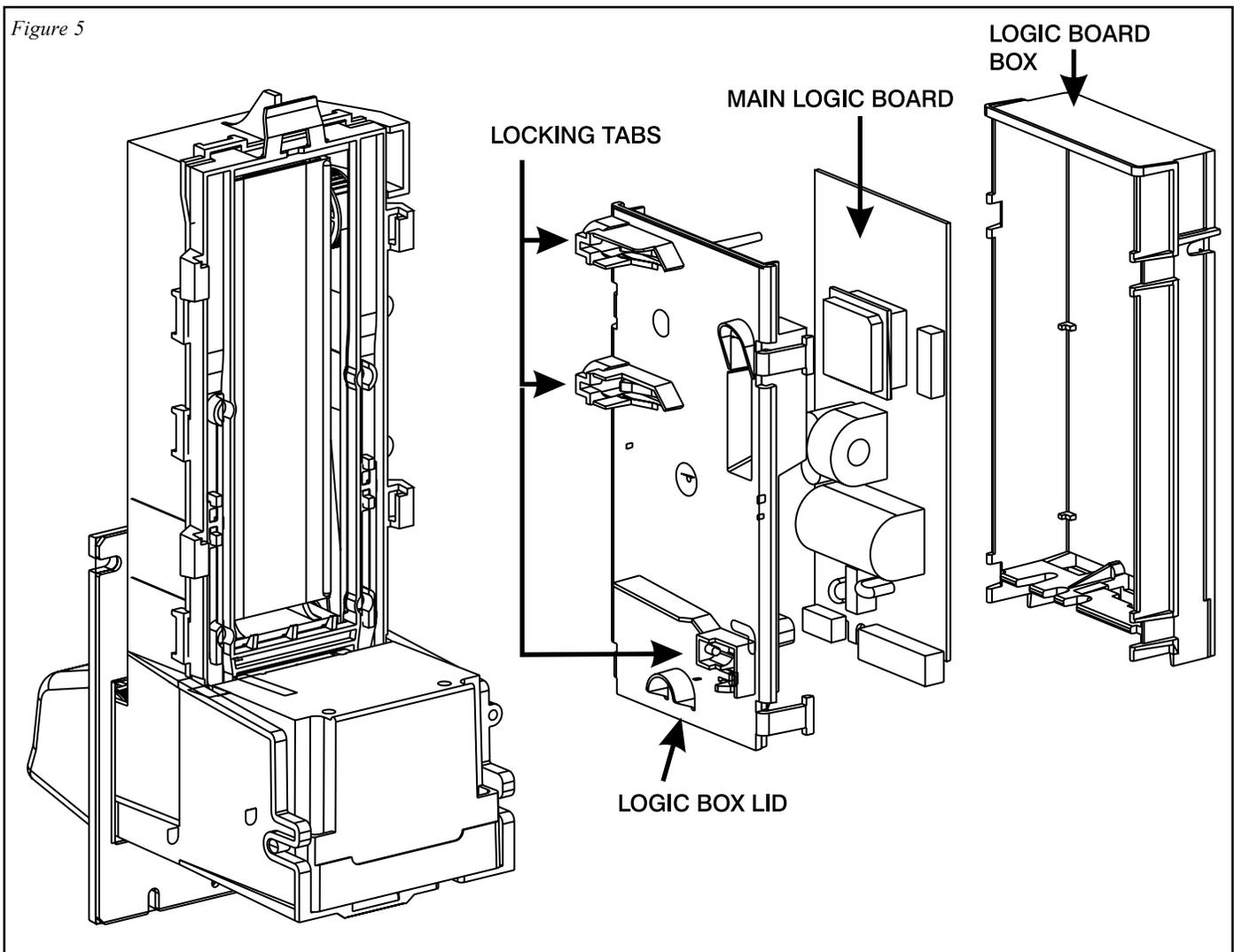
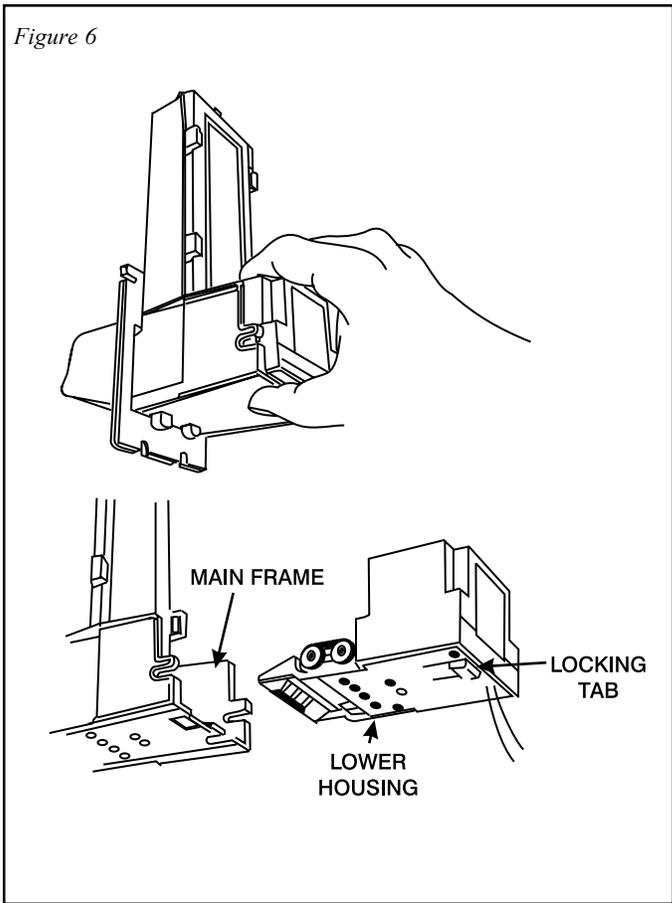


Figure 5



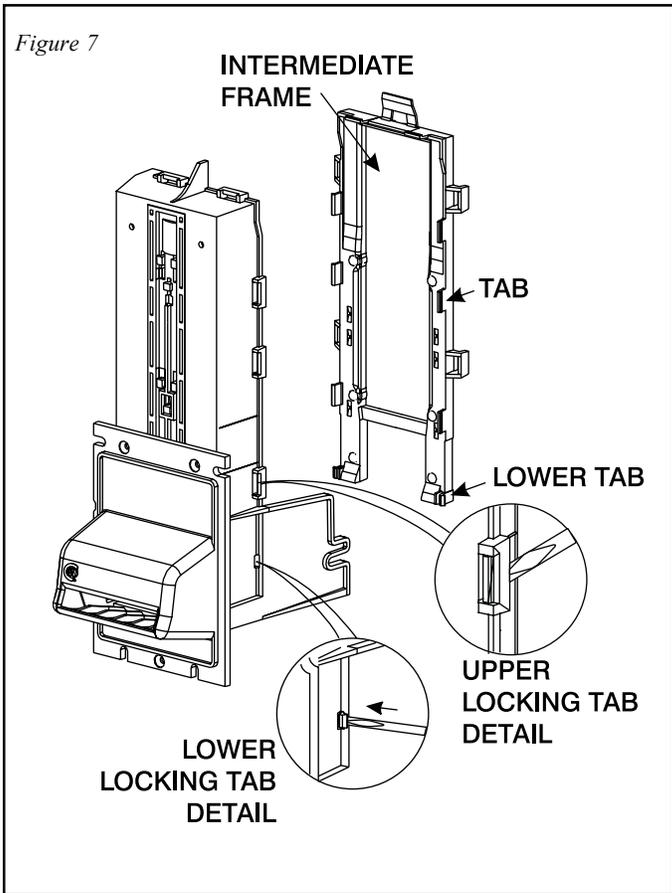
**Removing the Lower Housing  
(see Figure 6)**

To remove the lower housing, push the locking tab on the bottom of the bill acceptor and pull the lower housing to the rear.



**Removing the Intermediate Frame  
(see Figure 7)**

Using a small straight tip screwdriver, free the ten locking tabs which secure the intermediate frame to the main frame and remove the intermediate frame.



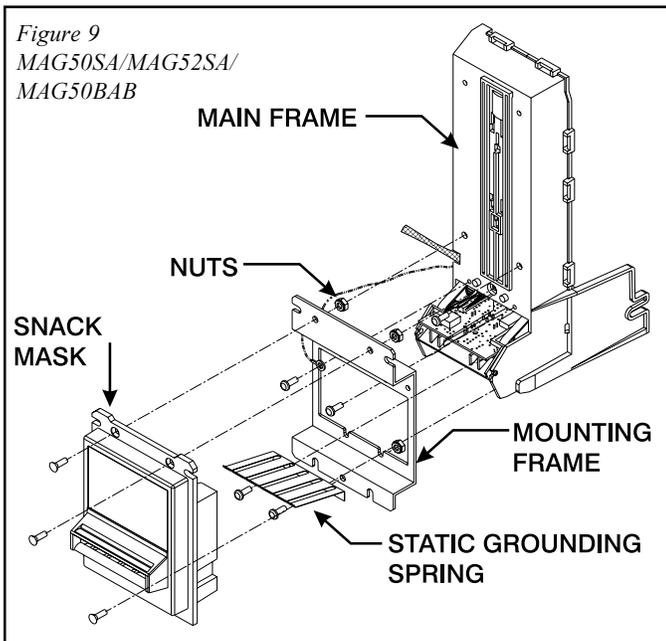
## SECTION 4: MAINTENANCE

### Removing the Inlet Mask (see Figure 8 or 9)

Using a Phillips screwdriver, remove the three screws that secure the mask to the mounting frame.

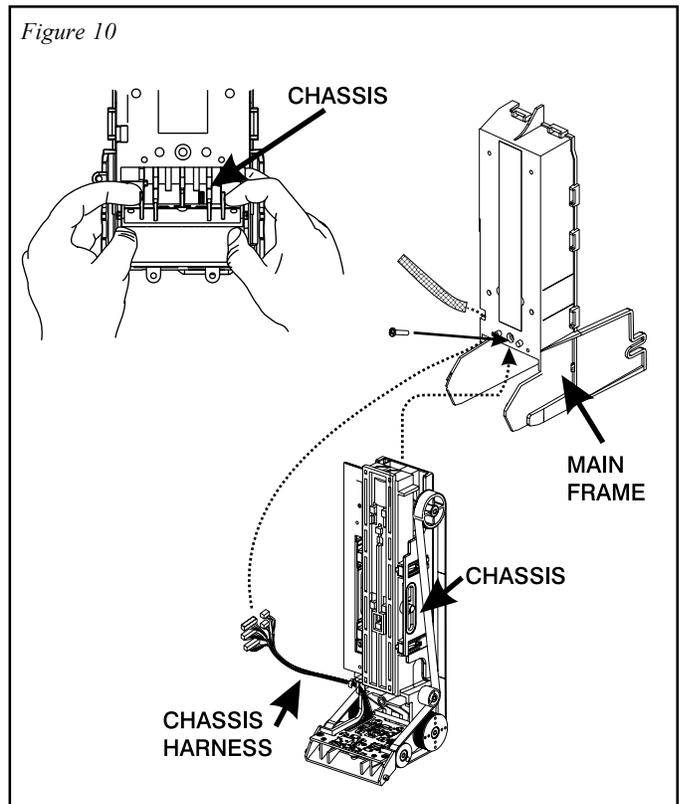
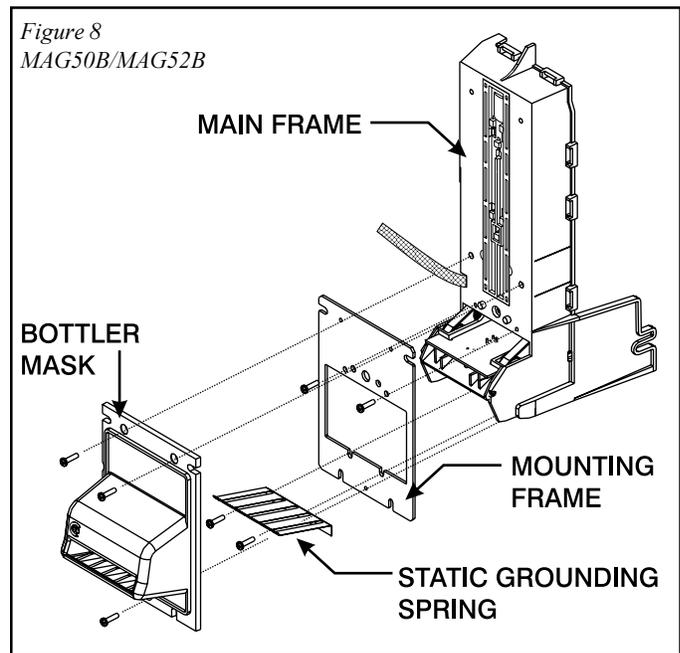
### Removing the Mounting Frame and Static Grounding Spring (see Figure 8 or 9)

Using a Phillips screwdriver, remove the screws that attach the mounting plate and grounding spring to the main frame.



### Removing the Chassis from the Main-frame (see Figure 10)

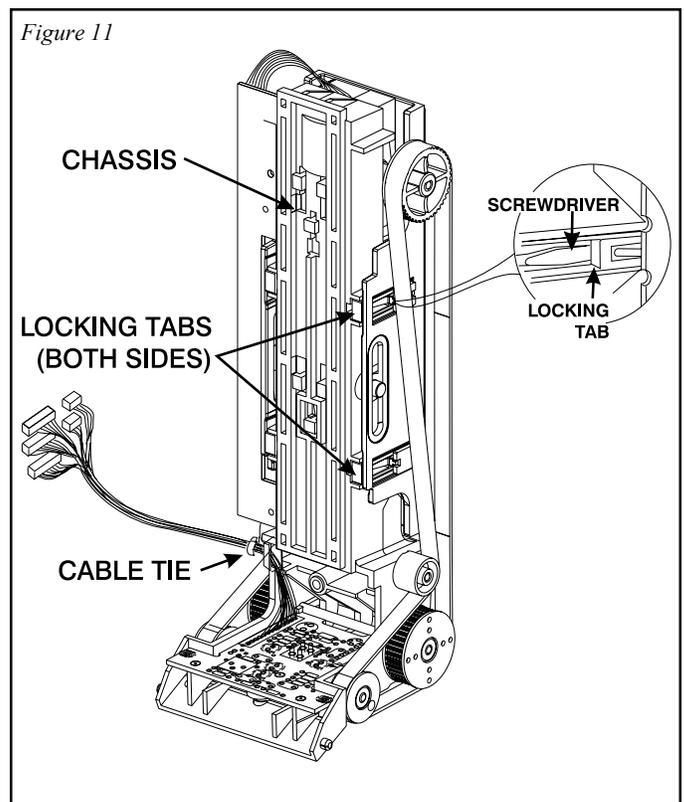
Remove the phillips screw securing the chassis to the main frame. Remove the web wrap from the chassis harness. Spread the main frame apart to release the two locating pins of the chassis from the main frame then pull down on the chassis. Carefully feed the chassis harness through the opening in the main frame. Pull the chassis out through the lower main frame opening.



**DISASSEMBLING THE CHASSIS**

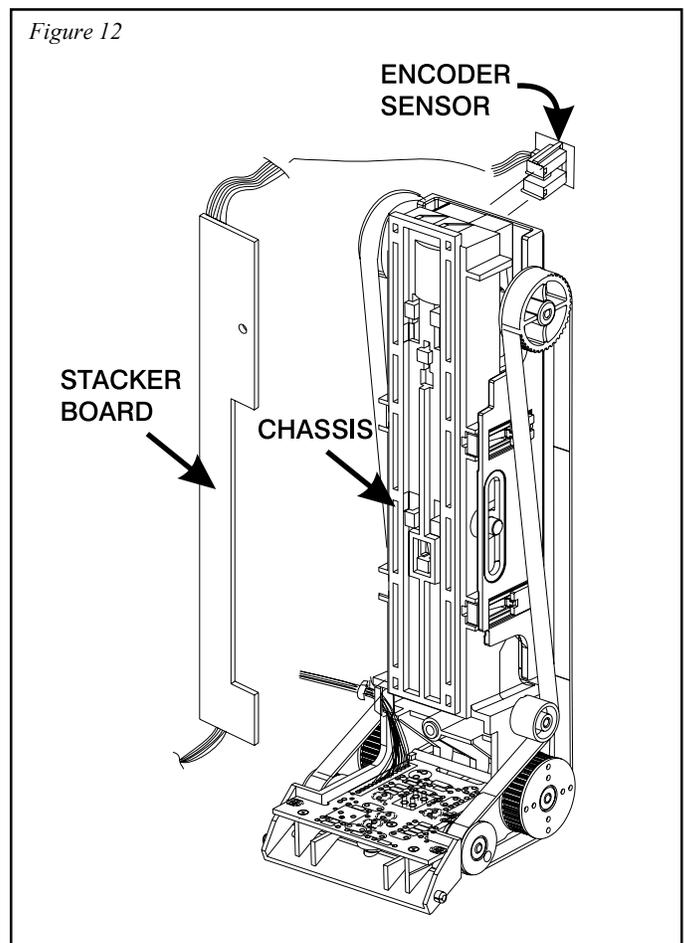
**Removing the Pusher Plate from the Chassis (see Figure 11)**

Cut the cable tie that secures the chassis harnessing. Remove the pusher plate from the stacker gear box assembly by slightly spreading the pusher plate until it clears the stacker motor cam assembly. Pull the pusher plate straight out until the locking tabs of the stacker slides catch the chassis. Using a small screwdriver, release the four tabs and remove the pusher plate.



**Removing the Encoder Sensor and Stacker Board (see Figure 12)**

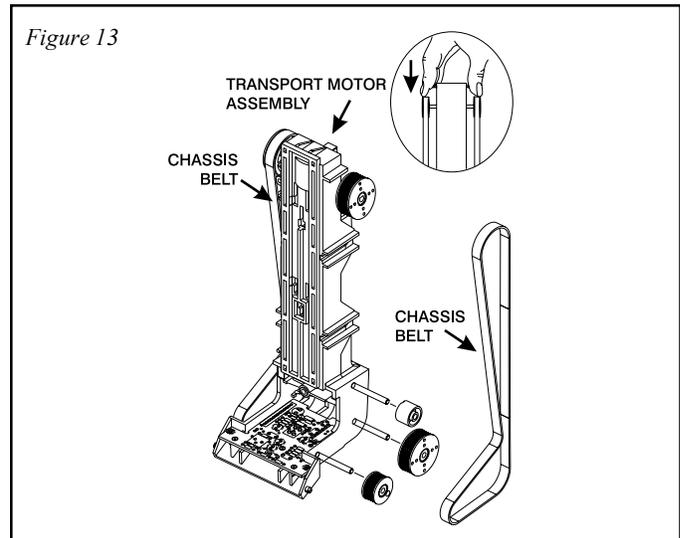
Remove the encoder wheel dust cover from the transport gearcase and motor assembly. Free the encoder sensor from the top of the transport motor gear case assembly. Remove the Phillips screw that secures the stacker board to the chassis and remove the stacker board.



## SECTION 4: MAINTENANCE

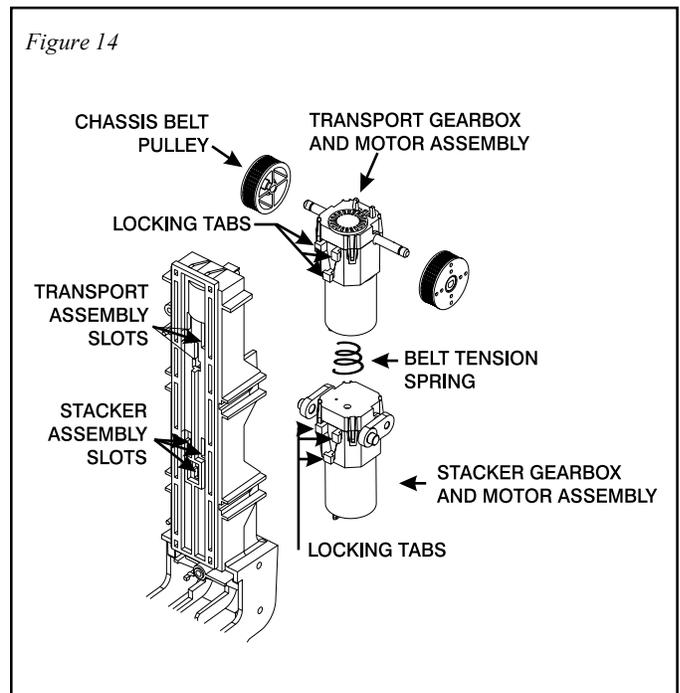
### Removing the Chassis Belts and Pulleys (see Figure 13)

Compress the belt tensioning spring by pressing down on the transport motor and gear case assembly and remove the belts. Slide the pulleys off the lower shafts to prevent them from falling off.



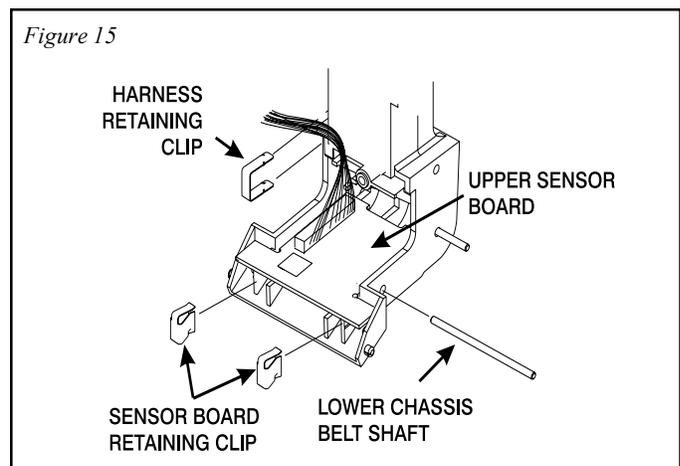
### Removing the Transport and Stacker Motor Assemblies (see Figure 14)

Compress the belt tensioning spring by pushing up on the stacker motor and gear case assembly until the three locking tabs of the gear case can be freed from their mating slots in the chassis. Remove the stacker motor and gear case assembly along with the tensioning spring. Slide the transport motor and gear case assembly down until its three locking tabs are freed from their mating slots on the chassis.



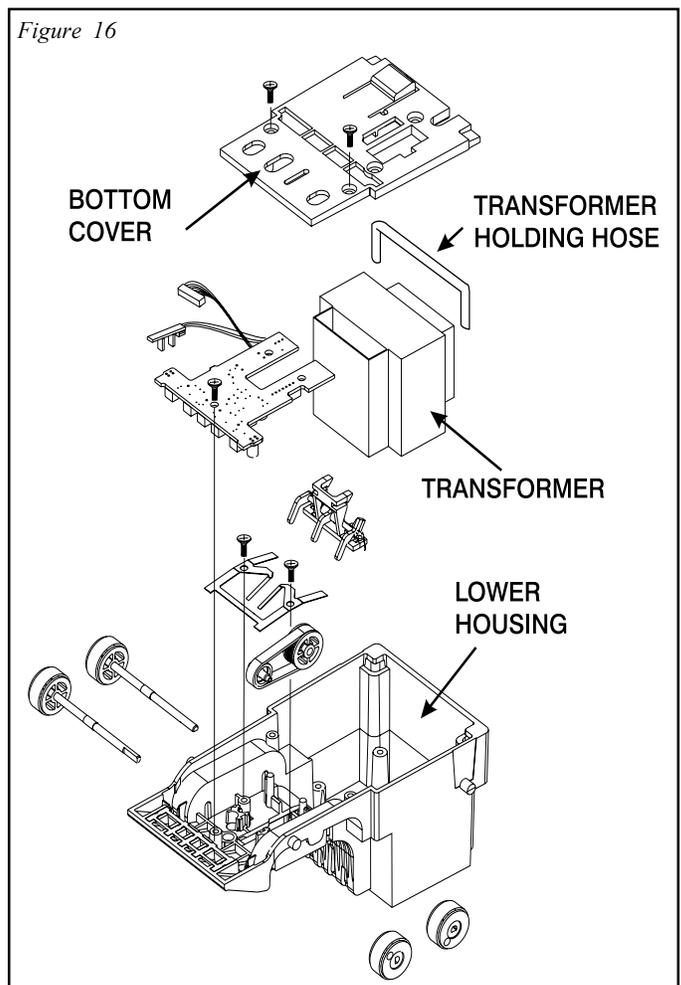
### Removing the Upper Sensor Board from the Chassis (see Figure 15)

Remove the lower chassis belt shaft. Using a small screwdriver, remove the two metal sensor board retaining clips and the harness retaining clip. Lift the front of the sensor board and pull forward.



**DISASSEMBLING THE LOWER HOUSING****Removing the Transformer  
(see Figure 16)**

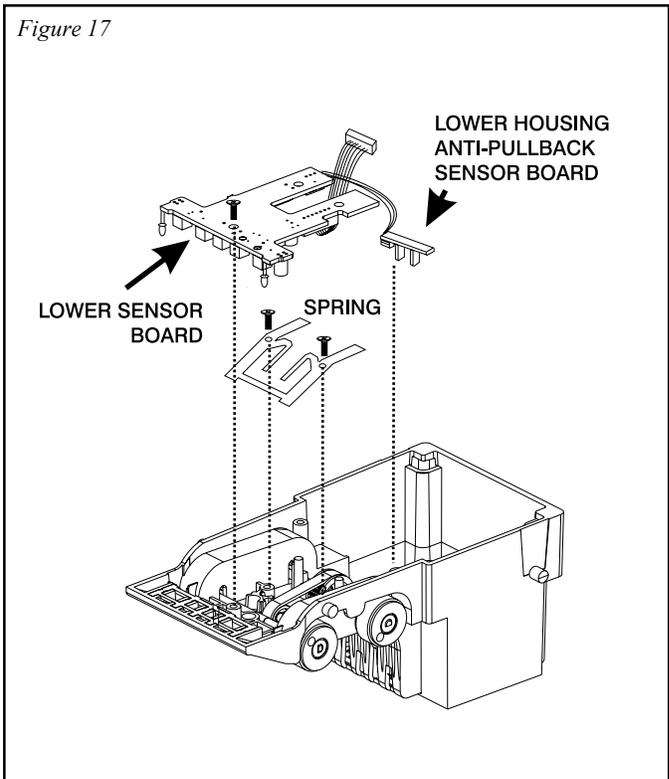
Remove the two Phillips screws from the bottom of the lower housing that secure the bottom cover. Remove the bottom cover. Cut the cable tie and separate the harness. Remove the hose that holds the transformer in place. Remove the transformer.



## SECTION 4: MAINTENANCE

### Removing the Lower Sensor Board (see Figure 17)

Remove the Phillips screw that secures the sensor board to the lower housing, unsnap the lower housing anti-pullback sensor board and remove the lower sensor board.

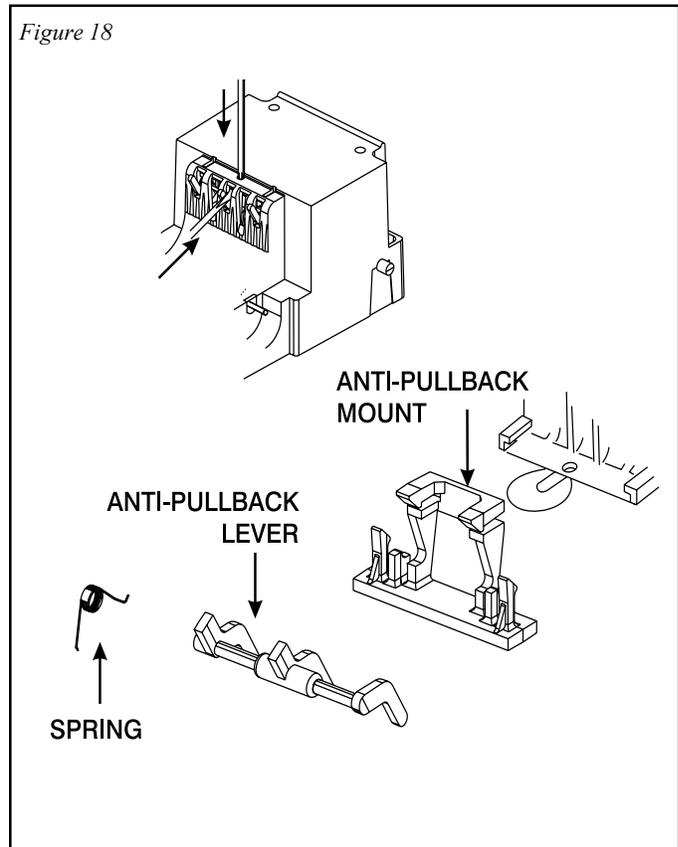


### Removing the Mag Roller and Spring (see Figure 18)

Remove the two Phillips screws that secure the roller spring and remove the spring.

### Removing the Lower Housing Anti-Pullback Lever and Spring (see Figure 18)

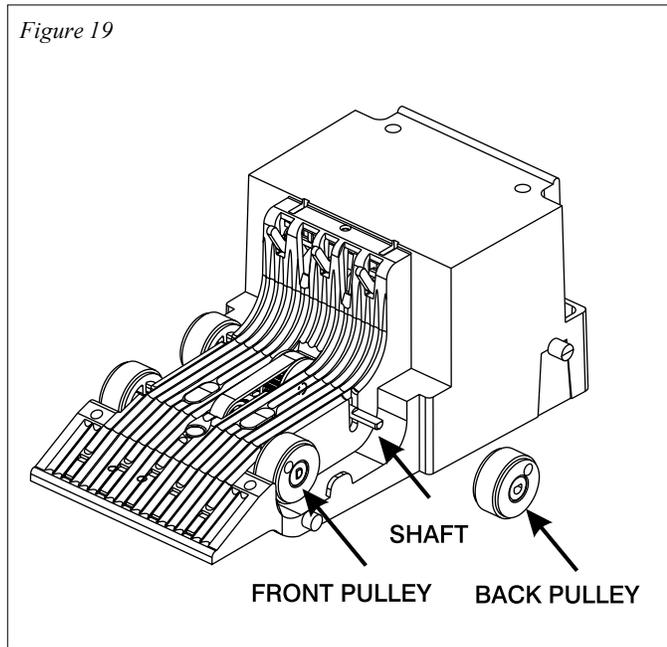
Using a small drift or Phillips screwdriver, depress the locking tab in the small hole in top of the lower housing. At the same time, insert a small standard blade screwdriver into the center slot and push the anti-pullback assembly back out of the retaining tabs. Remove the anti-pullback lever from its mount by releasing the locking tabs. Pay close attention to the placement of the spring to assure its correct position on reassembly.



**Removing the Lower Housing Rollers and Pulleys (see Figure 19)**

Slide the front pulleys off the shaft.

To remove the center belt, slide the back pulleys off the shaft. Gently tap the back shaft with a small hammer until the shaft splines are free from the center pulley.



**MAG50 CLEANING MAINTENANCE PROCEDURE**

*NOTE: Petroleum-based cleaners and freon-based propellants can damage plastic and some electronic components. Scouring pads and stiff brushes may harm the protective coating on the circuit boards and can mar the plastic. These items should never be used when cleaning the MAG bill acceptor.*

The MAG50 should be cleaned every 20,000 bills or every two years (or as needed, depending on the environmental conditions of the location). Dust can be removed with a soft brush or cloth or it can be blown out using compressed air.

**Procedure**

1. Disconnect power from the bill acceptor.
2. Remove the bill box and use a soft cloth to wipe any dust from around the intermediate frame and stacker plate.
3. Remove the lower housing.
4. Using compressed air or a soft brush, blow or brush the dust off of the optic sensors.
5. Remove dust from around the rollers on the lower housing and the sensors on the upper sensor board. The upper sensors are located directly above the lower housing sensors when the lower housing is installed.
6. The bill path can be further cleaned of any dirt or oil by using a soft cloth moistened with a mild soap and water solution.
7. Clean the magnetic head with a cotton swab and isopropyl alcohol.
8. Remove dust from the transport belt areas and any other places of build up.
9. Once the lower housing is dry, place it back into the mainframe making sure the tab on the bottom locks into place.
10. Remount the bill box.
11. Apply power and insert bills to verify the unit is functioning properly.

## SECTION 4: MAINTENANCE

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### MAG50 CLEANING PROCEDURE FOR SALT WATER POLLUTED UNITS

*NOTE: Petroleum-based cleaners and freon-based propellants can damage plastic and some electronic components. Scouring pads and stiff brushes may harm the protective coating on the circuit boards and can mar the plastic. These items should never be used when cleaning the MAG bill acceptor.*

#### Procedure

1. Remove power from the bill acceptor.
2. Remove the bill acceptor from the vending machine.
3. Open the bill box lid and verify that the stacker plate is in the standby/home position. If it is not in the home position, apply power and observe that the stacker plate returns home.
4. Remove the bill box.

*WARNING: If moisture is present, allow the unit to dry thoroughly before applying power to avoid possible shock hazard. If the stacker plate does not return to the home position, remove power and carefully remove the bill box to avoid damaging the bill box and/or stacker plate.*

5. Remove the lower housing.
6. Remove the bottom cover from the lower housing.
7. Run hot water (110°-140°F) over the lower housing from the top and bottom. Using a soft brush, gently clean any salt residue. Use a soft, absorbent cloth to clean residue off the lower housing. If the transformer gets wet, allow the unit to dry for 24 hours before applying power.
8. Remove the front mask. Using hot water and a soft brush, clean the front mask, upper sensor board and main frame anti-pullback levers.

*CAUTION: The motors are not protected from water, therefore the unit must be held in a manner that prevents water from running over them.*

9. Verify the anti-pullback levers move freely and that the spring returns them to their extended position.
10. Allow the unit to dry thoroughly.
11. Clean the magnetic head using a swab and isopropyl alcohol.
12. Replace the front mask.
13. Replace the lower housing cover.
14. Place the lower housing into the main frame.
15. Remount the bill box.
16. Apply power and insert bills to verify the unit is functioning properly.

## INTRODUCTION

The Troubleshooting Guide on the following pages is intended to help locate problems within the bill acceptor. If a bill acceptor cannot be repaired by following this guide, return the unit to the nearest Coinco Service Center for repair along with a complete description of the problem you are having with the bill acceptor.

Logic troubleshooting minimizes the time spent in removing and replacing parts that are not defective. Some failures are caused by minor problems such as dirt or loose/faulty connections. Please check the following before replacing any parts:

- Clean any dirt or dust from the bill path.
- Coin changer inventory tubes are filled to their correct levels.
- Connectors are inserted correctly.
- Connector pins are not bent or broken.
- All wires are properly secured.

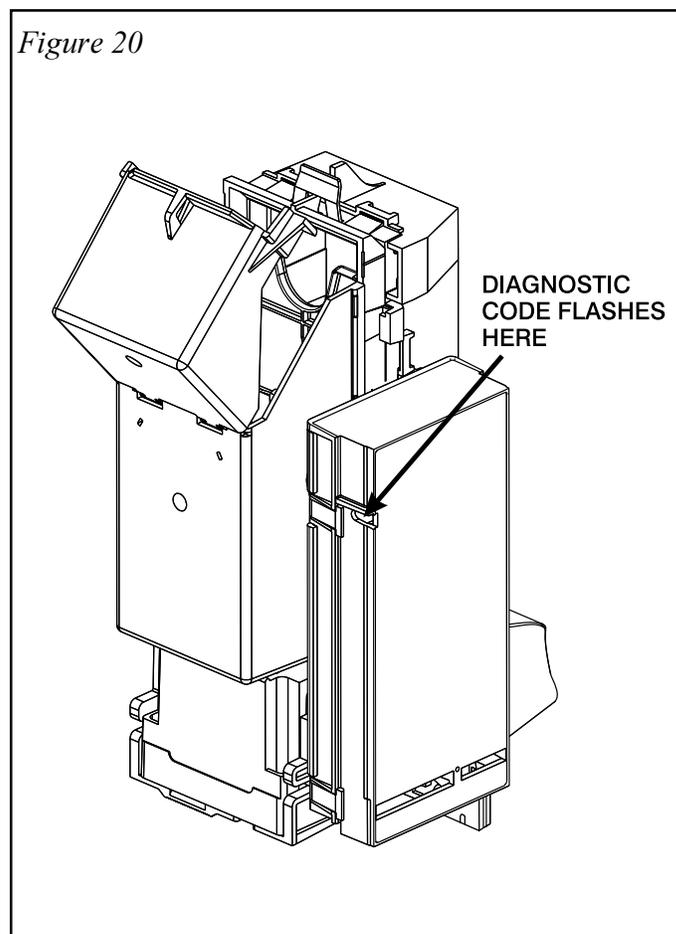
## MAG50 DIAGNOSTIC CODES

Troubleshooting can be done by reading the number of flashes or blinks of light from the LED located inside the logic board cover. These flashes can be seen on the side of the logic box.

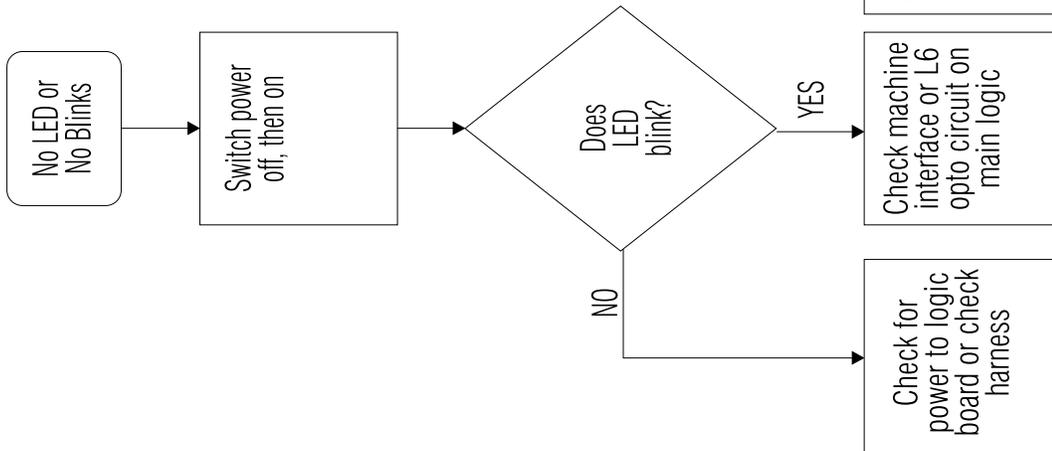
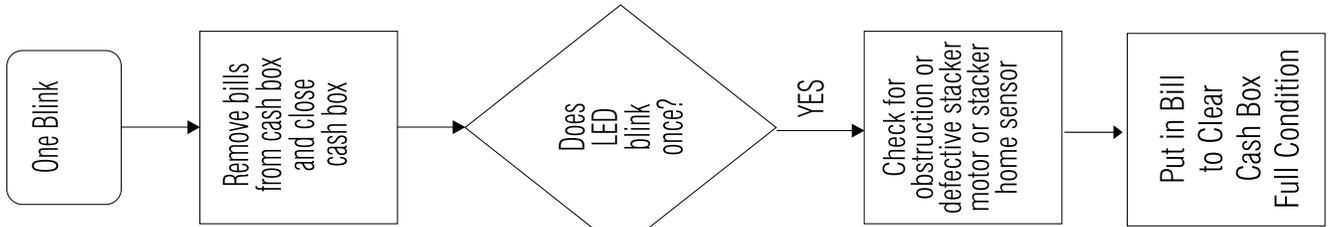
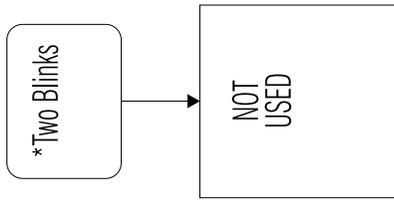
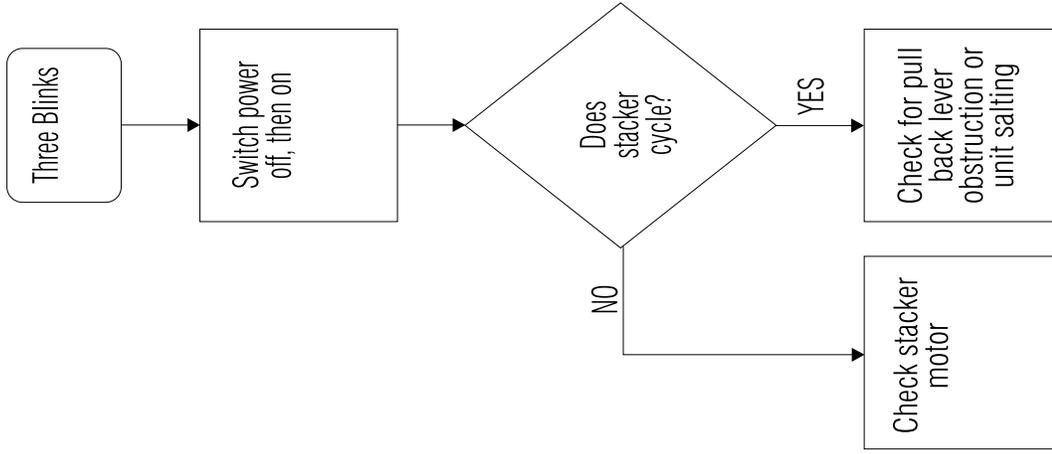
Diagnostic codes 2, 8, 14, and 18 are not used. Codes 1, 3, 4, 5, 15, 16 may appear during normal servicing of the MAG50. If the MAG is flashing a #5 code, turn off power to the MAG for 10 seconds. Reapply power to the MAG50 and diagnostic codes 6, 7, 9, 10, 11, 12, 13, and 17 will appear for approximately 30 seconds. After 30 seconds these codes will revert back to the #5 code. If more than one error exists, the lower number code will appear until its condition is corrected. The left and right sensors referenced in the next column are given viewing the MAG50 from the front.

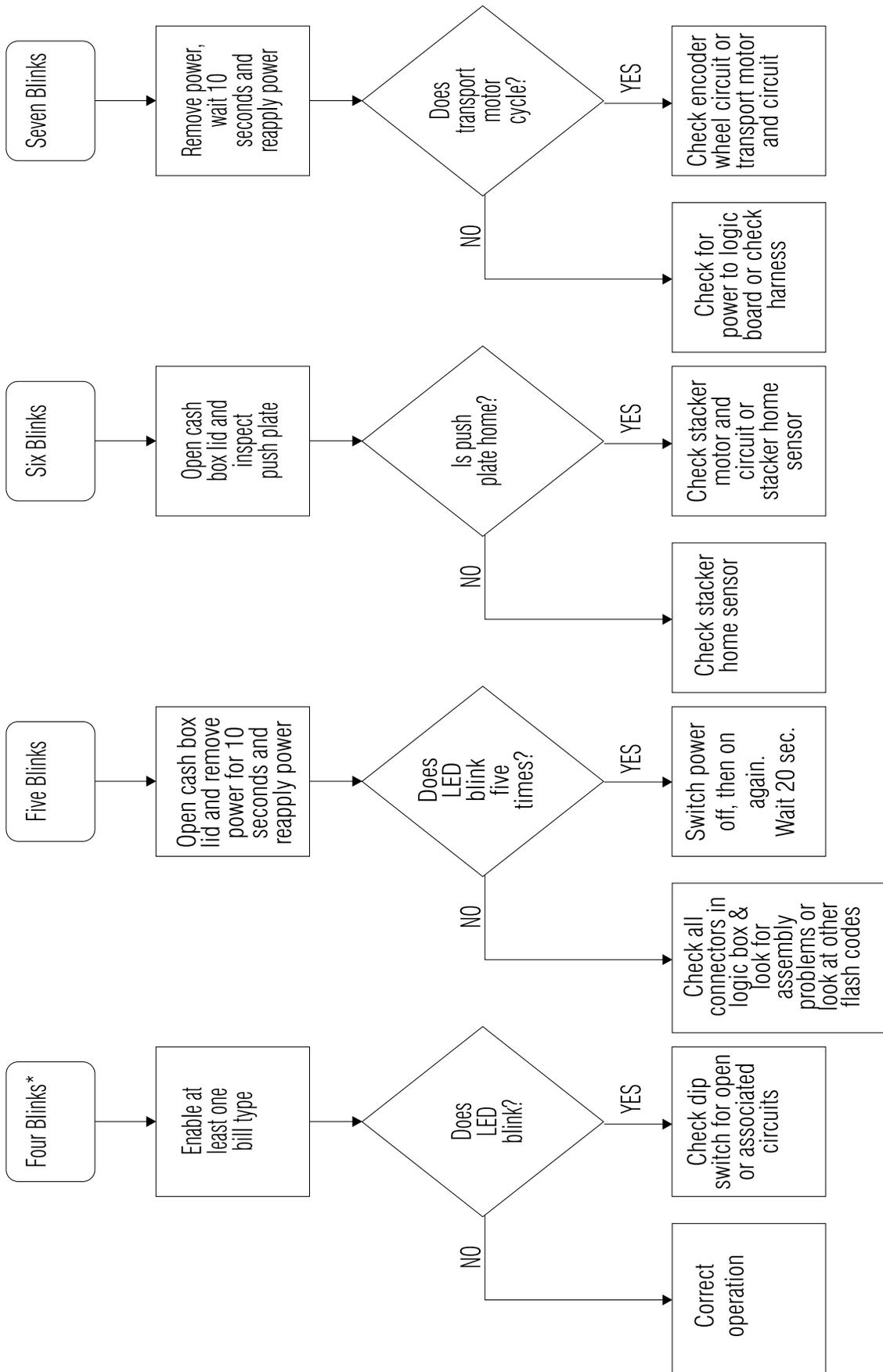
# Of Flashes	Description of Diagnostic Codes
1	Bill Box Full
2	----
3	Check Bill Path
4	All Bill Accept Switches Are Off
5	Check Optical Sensors
6	Stacker Motor/Home Sensor
7	Transport Motor/Encoder Sensor
8	----
9	EEPROM Check Sum Error
10	RAM or ROM Check Sum Error
11	Center Optic Sensor
12	Right Optic Sensor
13	Left Optic Sensor
14	----
15	Right position Sensor
16	Left Position Sensor
17	Lower Board Anti-Pullback Lever Sensor
18	----

Figure 20



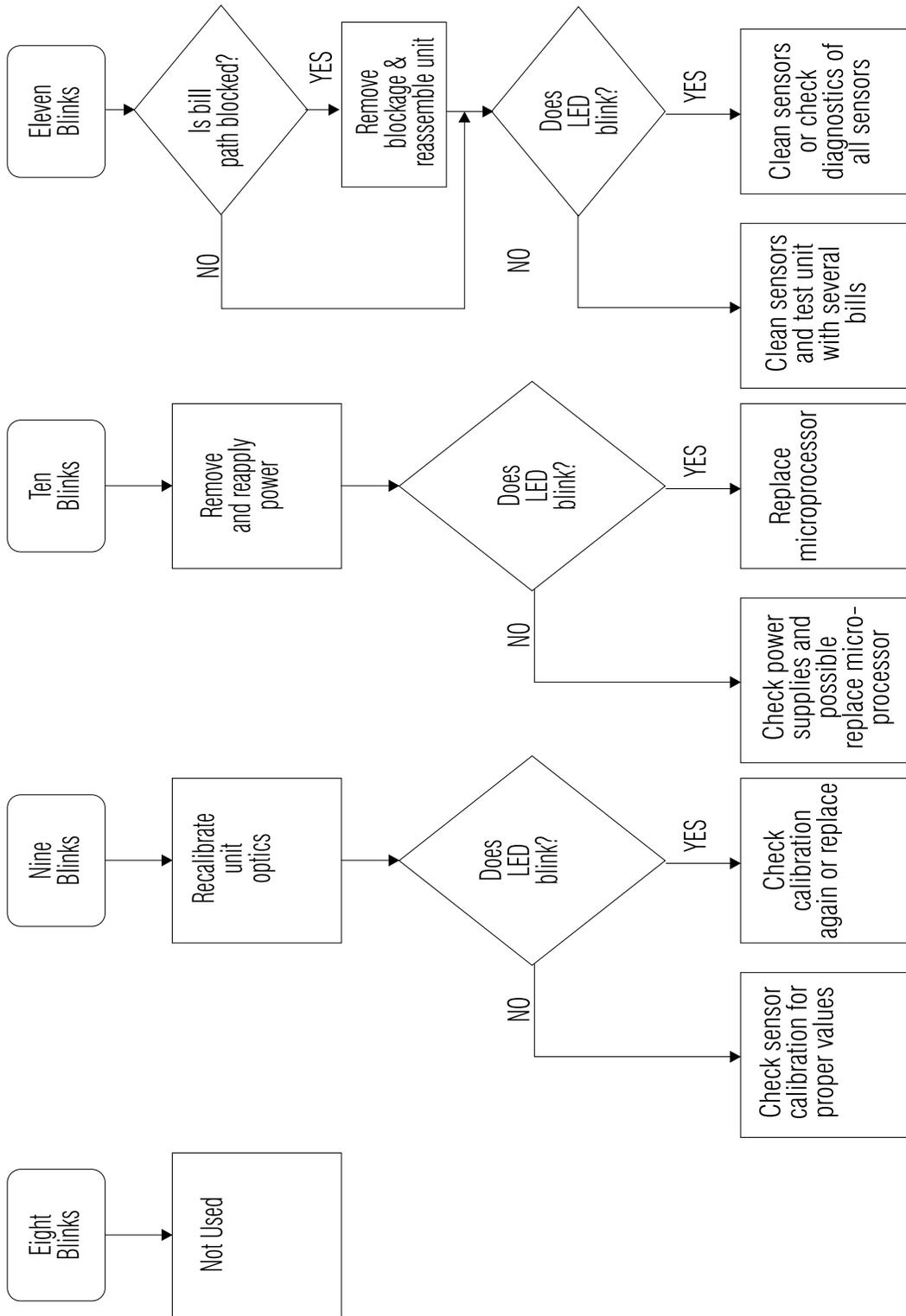
# SECTION 5: TROUBLESHOOTING

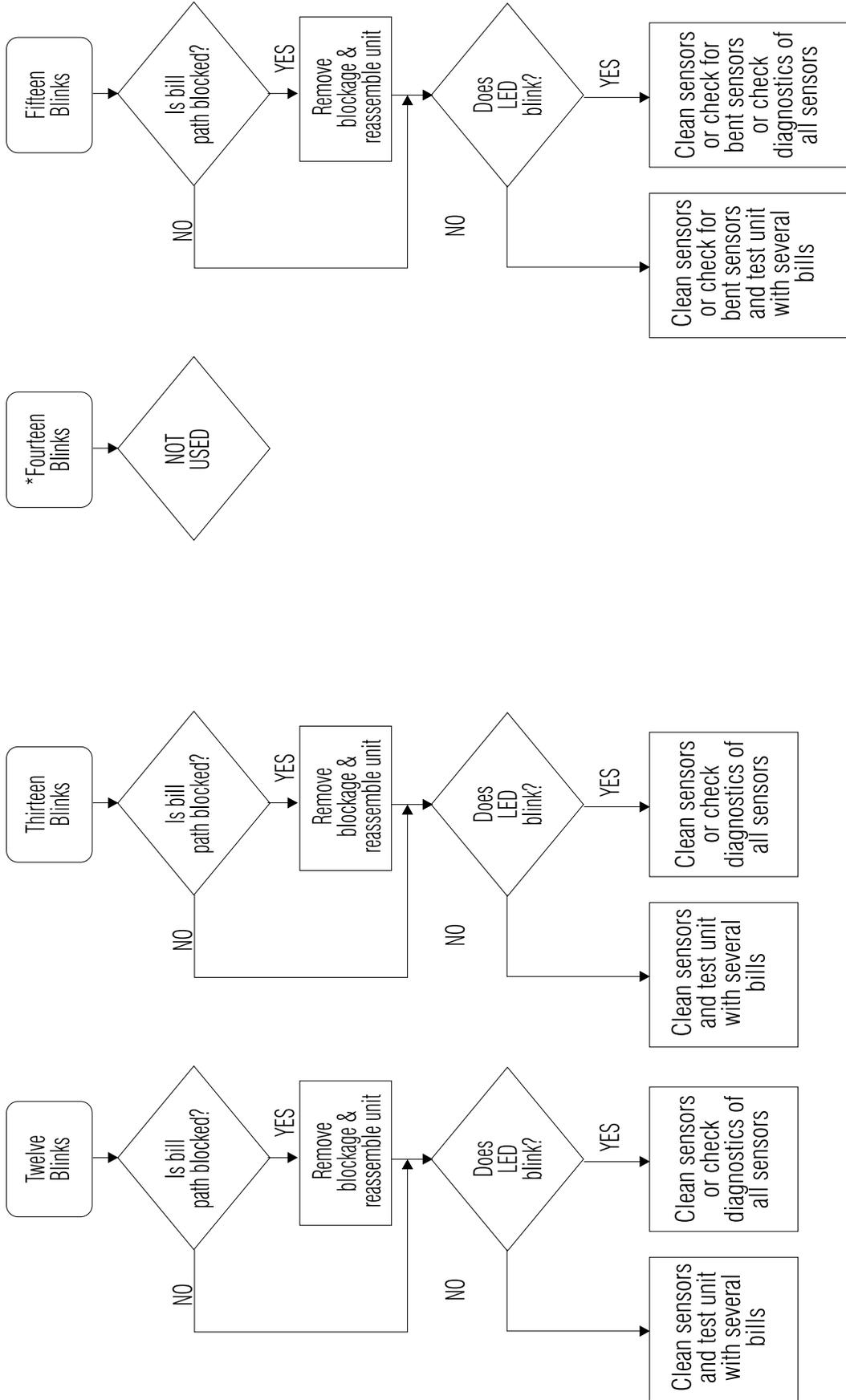




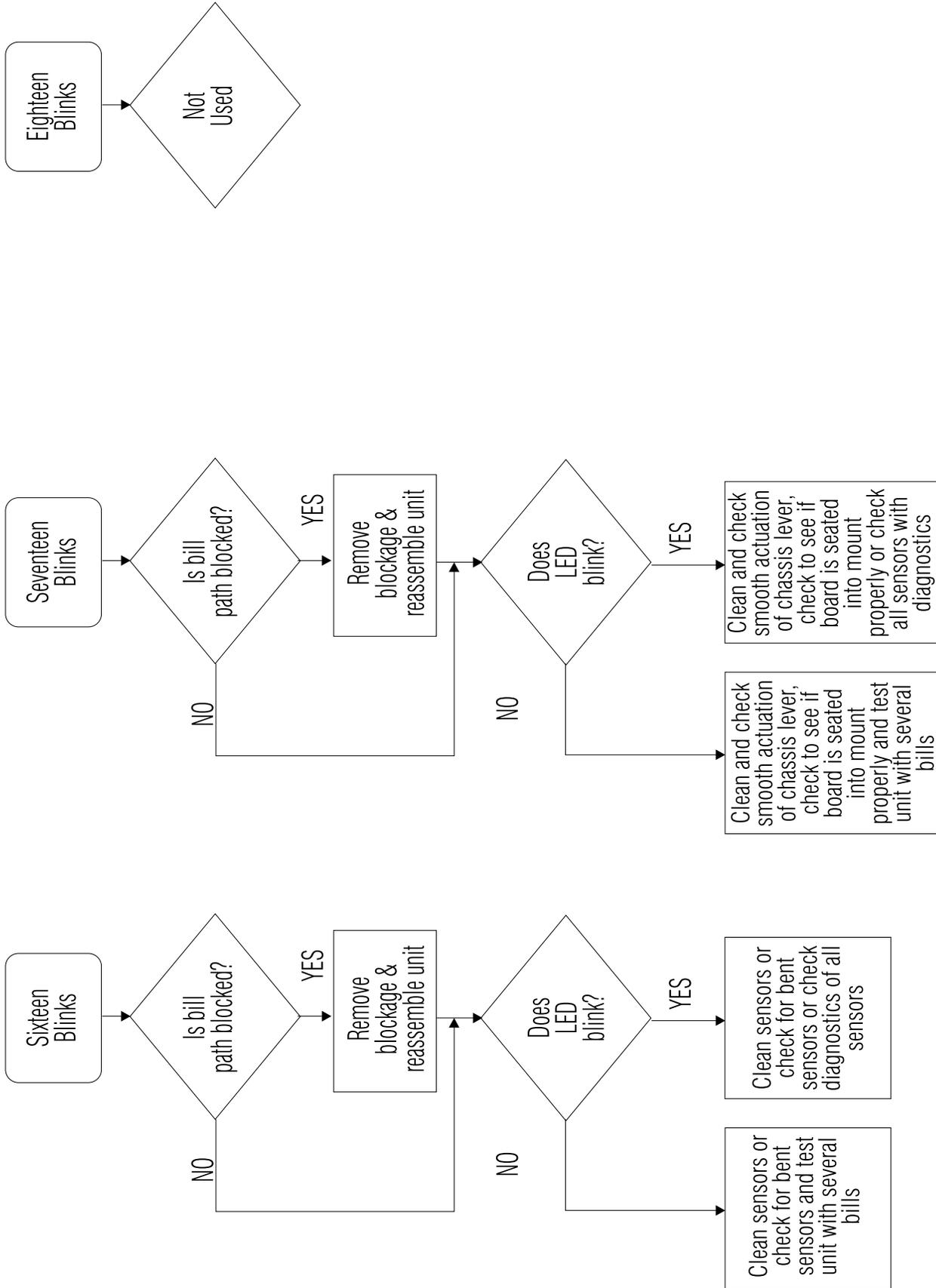
\*Does not apply to software 67090, 67126-1, and 67126-2

# SECTION 5: TROUBLESHOOTING

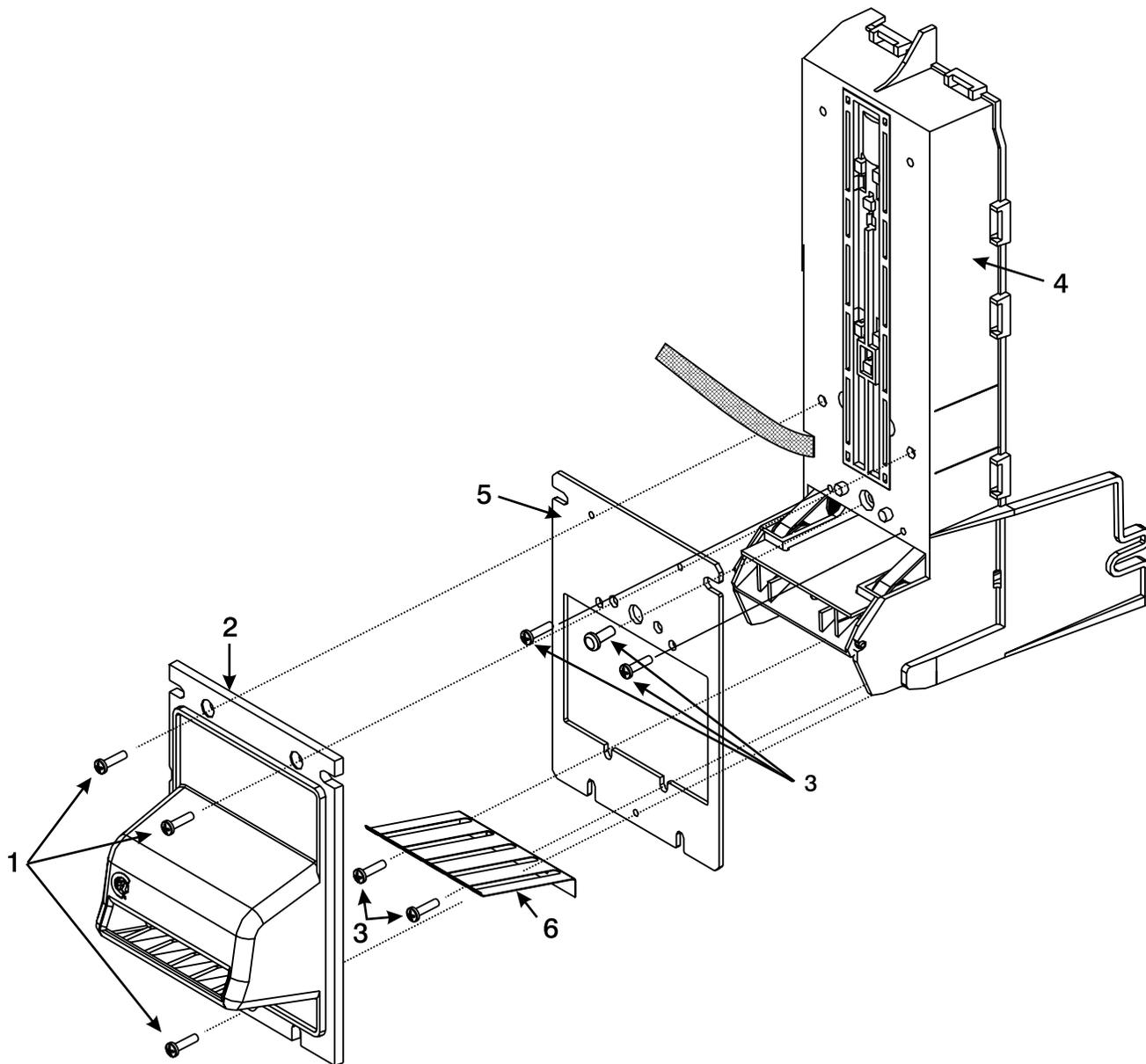




# SECTION 5: TROUBLESHOOTING



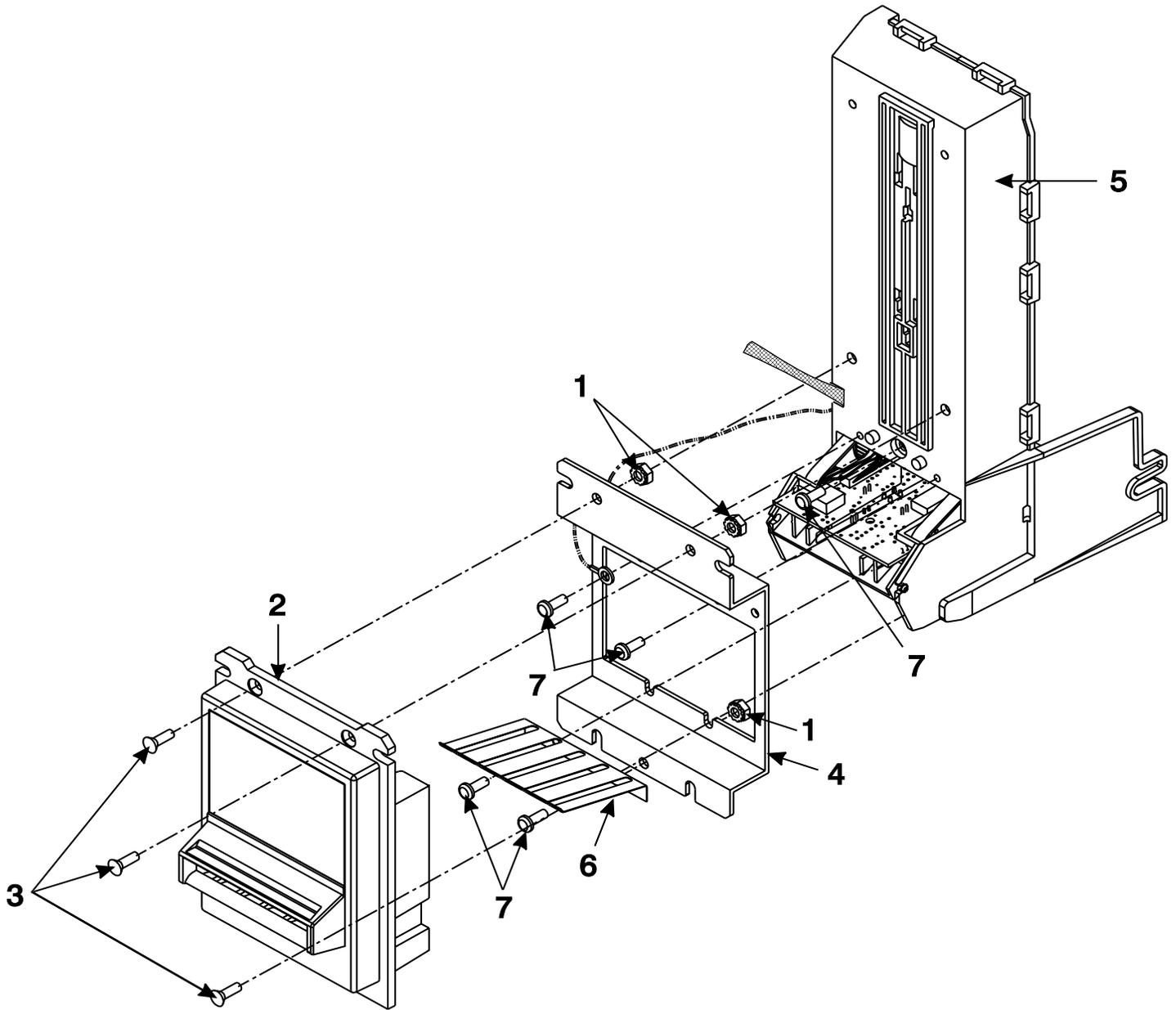
**MAIN FRAME**  
MAG50B/MAG52B/MAG52BX



ITEM NO.	PART NO.	DESCRIPTION	QTY.	NOTES
1	921401	Screw	3	Heat Transfer, no decal required
2	925076	Bottler Mask	1	
3	345-6R6	Screw	5	
4	920807-4	Main Frame	1	
5	920065-2	Mounting Frame	1	
6	921357	Grounding Spring	1	

# SECTION 6: PARTS LIST

## MAIN FRAME MAG50SA/MAG52SA



ITEM NO.	PART NO.	DESCRIPTION	QUANTITY	NOTES
1	438-6	Nut & Lockwasher	3	#6-32
2	925223	Snack Mask	1	Heat Transfer, no decal required
3	921401	Screw	3	
4	921492	Mounting Frame	1	
5	920807-2	Main Frame	1	
6	921357	Grounding Spring	1	
7	345-6R6	Screw	5	

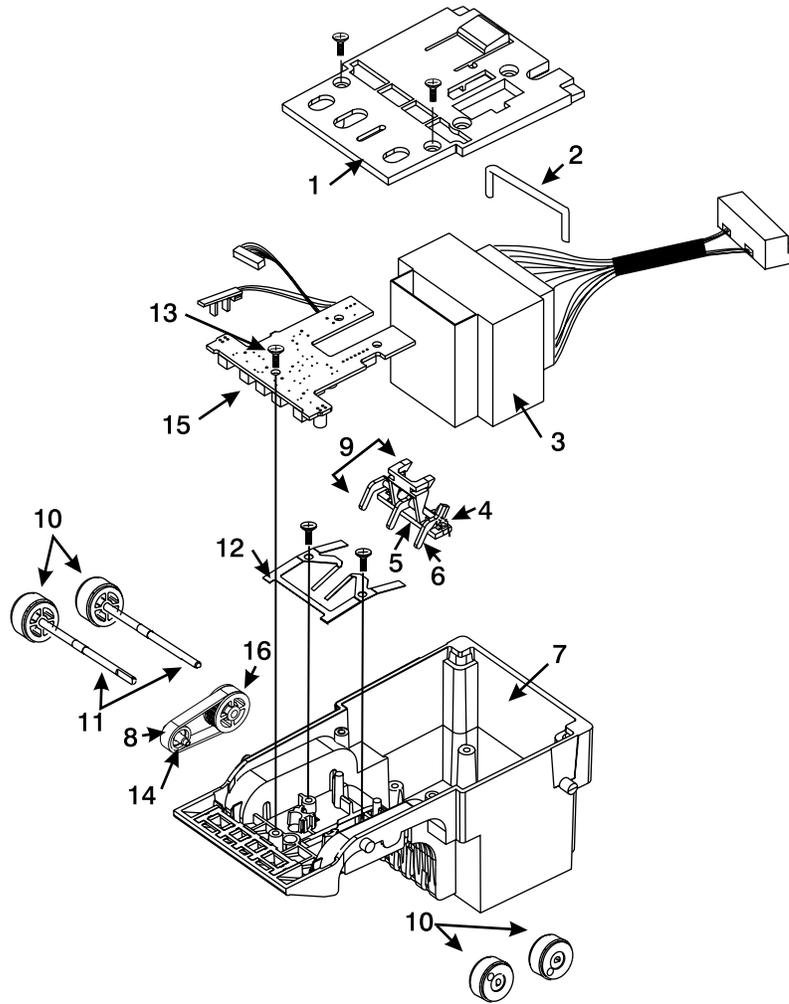
**LOWER HOUSING ASSEMBLY**

**MAG50B  
408308**

**MAG52BX  
408311**

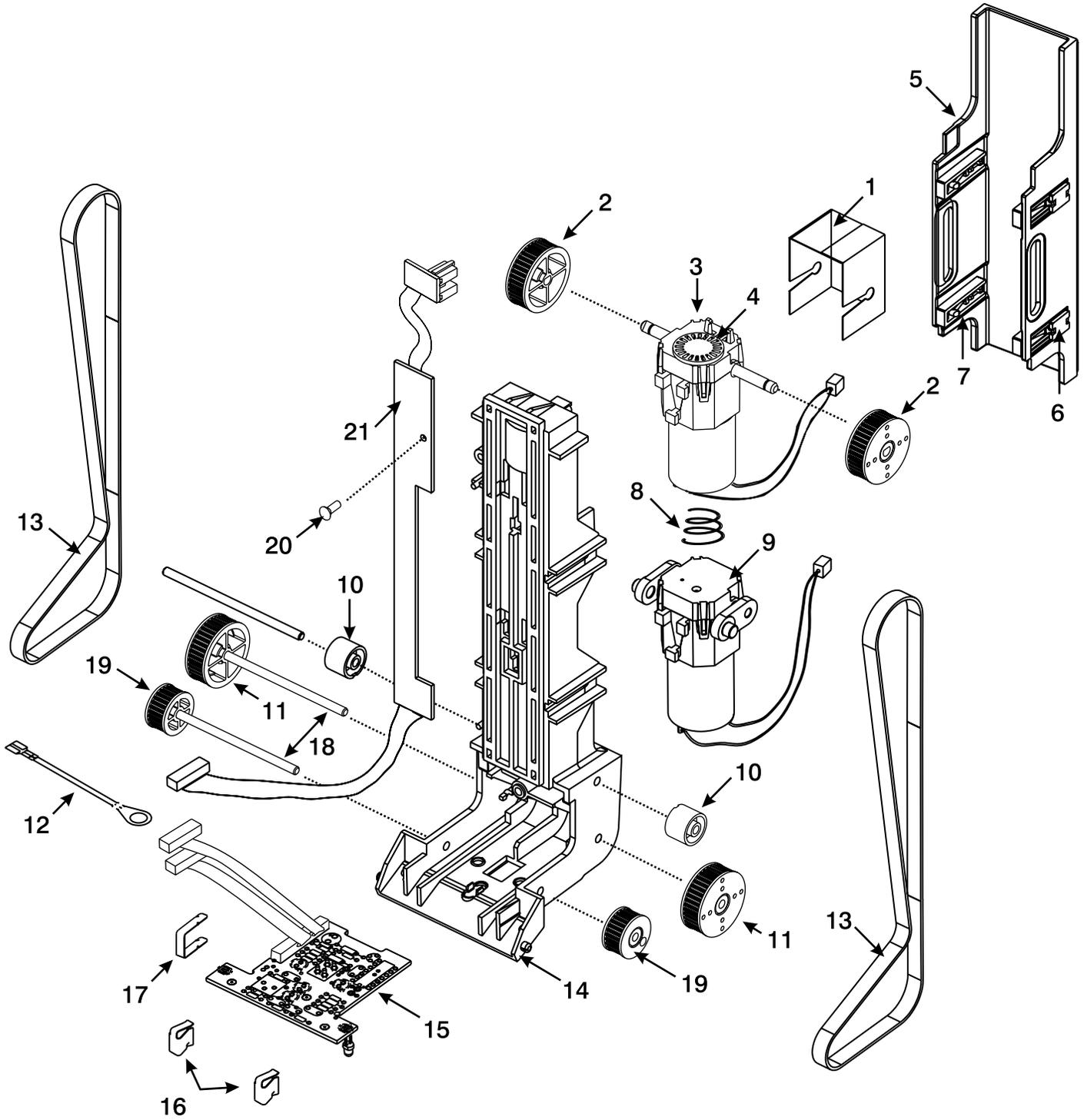
**MAG50SA  
408308-1**

**MAG52SA  
408312**



ITEM NO.	PART NO.	DESCRIPTION	QTY.	NOTES
1	921704	Bottom Cover	1	
2	921613	Transformer Holding Hose	1	For 110VAC units only
3	921798-1	MAG50B Transformer & Shield	1	For 110VAC units only
	921798-2	MAG50SA Transformer & Shield	1	For 110VAC units only
4	920889	Anti-Pullback Lever Spring	1	
5	920819-1	Anti-Pullback Lever Mount	1	
6	920818	Anti-Pullback Lever	1	
7	408310	Lower Housing Assy. with lens & decal	1	Includes 920806-4 with Lenses
8	923403	Center Belt	1	
9	407936	Anti-Pullback Lever & Mount Assy.	1	Includes #5 & #6
10	407164-1	Pulley and Tire Assembly	4	
11	923080	Drive Shaft	2	
12	923102	MAG Spring	1	
13	345-4R4	Screw, #4 x 1/4 PH Plastite	5	
14	923101	Idler Roller	1	
15	408262	Lower Sensor Board	1	Used on MAG50B/MAG52B/MAG52BX
	408262-1	Lower Sensor Bd.	1	Used on MAG50SA/MAG52SA
16	408056	Pulley and Hub Assy.	1	
17	906303	Cable Tie	1	6" Not shown

**CHASSIS ASSEMBLY**

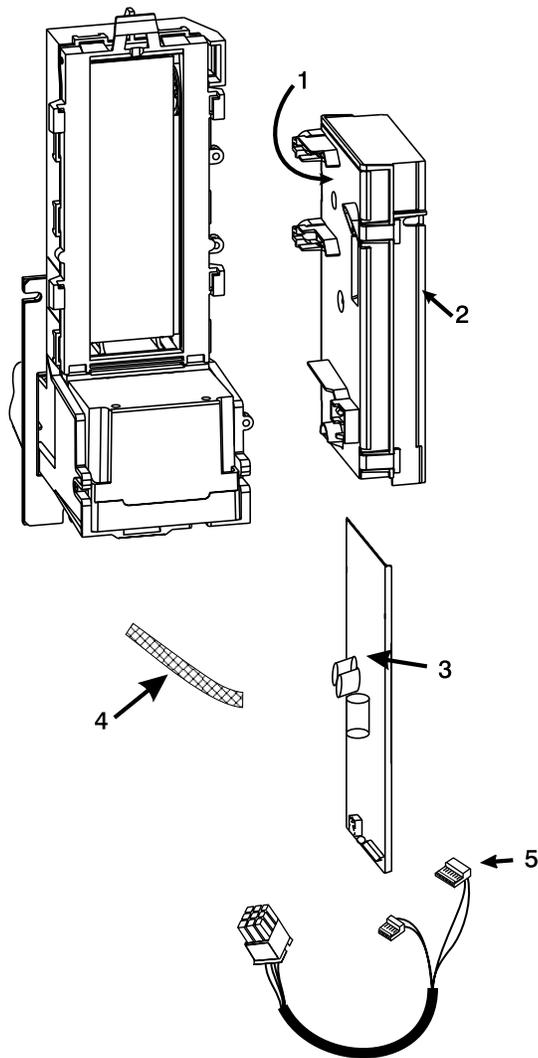


## SECTION 6: PARTS LIST

ITEM NO.	PART NO.	DESCRIPTION	QTY.	NOTES
1	923770	Dust Cover	1	
2	408054	Upper Transport Pulley & Hub Assy.	2	
3	407254-1	Transport Motor Gearbox Assy	1	For MAG50B, MAG52B, MAG52BX, includes #4
	407254-2	Transport Motor Gearbox Assy.	1	For MAG50SA, MAG52SA, includes #4
4	920000-3	Encoder Wheel	1	
5	407952	Plastic Stacker Pushplate Assy.	1	Includes #6 & #7
6	920836	Stacker Cap	4	
7	920833-1	Stacker Slide	4	
8	925202	Belt Tension Spring	1	
9	407253-4	Stacker Motor Gearbox Assy.	1	
10	920829-1	Idler Pulley	2	
11	408055	Lower Transport Pulley & Hub Assy.	2	
12	407454	Ground Wire	1	For MAG50B/MAG52B, MAG52BX
	407454-1	Ground Wire	1	For MAG50SA, MAG52SA
13	921403	Chassis Belt	2	Black
14	407974	Chassis & Lens Assy.	1	Includes 920821-4 with lenses
	920821-4	Upper Housing Chassis	1	Without lenses
15	407244-10	Upper Sensor Board	1	For MAG50B, MAG52B, MAG52BX
	407244-15	Upper Sensor Board	1	For MAG50SA, MAG52SA
16	920827	Upper Board Clip	2	
17	921128	Wire Clip	1	
18	920040	Pulley Shaft	3	
19	408057	Wheel Shaft	2	
20	345-4R4	Screw	1	#4 x 1/4 PH Plastite
21	408031	Stacker Board	1	For MAG50B, MAG52B, MAG52BX
	408031-4	Stacker Board	1	For MAG50SA/MAG52SA
22	901358	4" Cable Tie	2	Not shown
23	407796	Lens Kit	1	Contains 100 sets of lenses--not shown

# SECTION 6: PARTS LIST

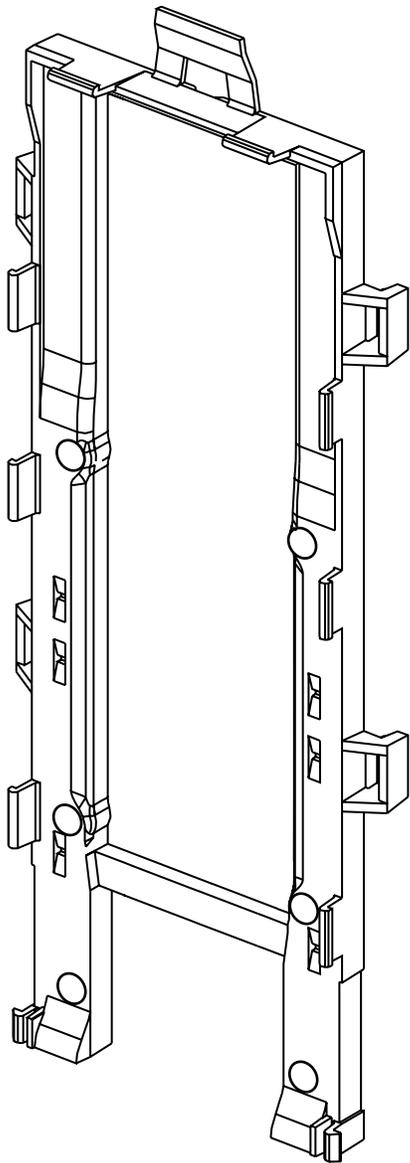
## LOGIC BOARD AND CASE ASSEMBLY



ITEM NO.	PART NO.	DESCRIPTION	QTY.	NOTES
1	922804	Logic Box Lid	1	
2	408313	Logic Box Assembly	1	
	922694	Logic Box	1	
3	407982	MAG50B Logic Board	1	Replace with 408049
	407982-1	MAG52BX Logic Board	1	Replace with 408049-1
	408064	MAG50SA/52SA Logic Board	1	67126 Software
	408049	MAG50B Logic Board	1	
	408049-1	MAG52BX Logic Board	1	
	408049-2	MAG52B Logic Board	1	
4	921707	1/2" Expandable Sleeveing	~	Order quantity in feet
5	407473	MAG50SA Power Harness	1	
	407474	MAG52SA Power Harness	1	
6	906303	6" Cable Tie	3	

**INTERMEDIATE FRAME ASSEMBLY**

(408261)

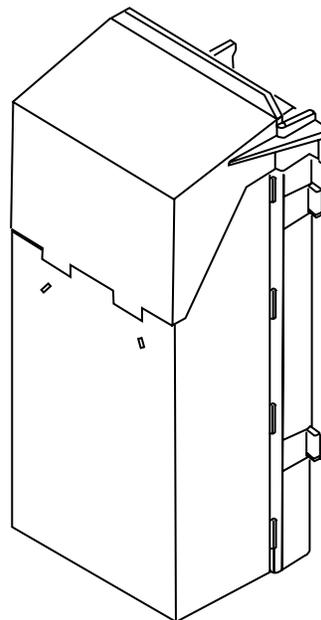
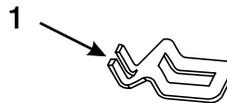


**CASHBOX ASSEMBLY**

(408301, 300 Capacity)

(408300, 450 Capacity)

(408300-1, 650 Capacity)

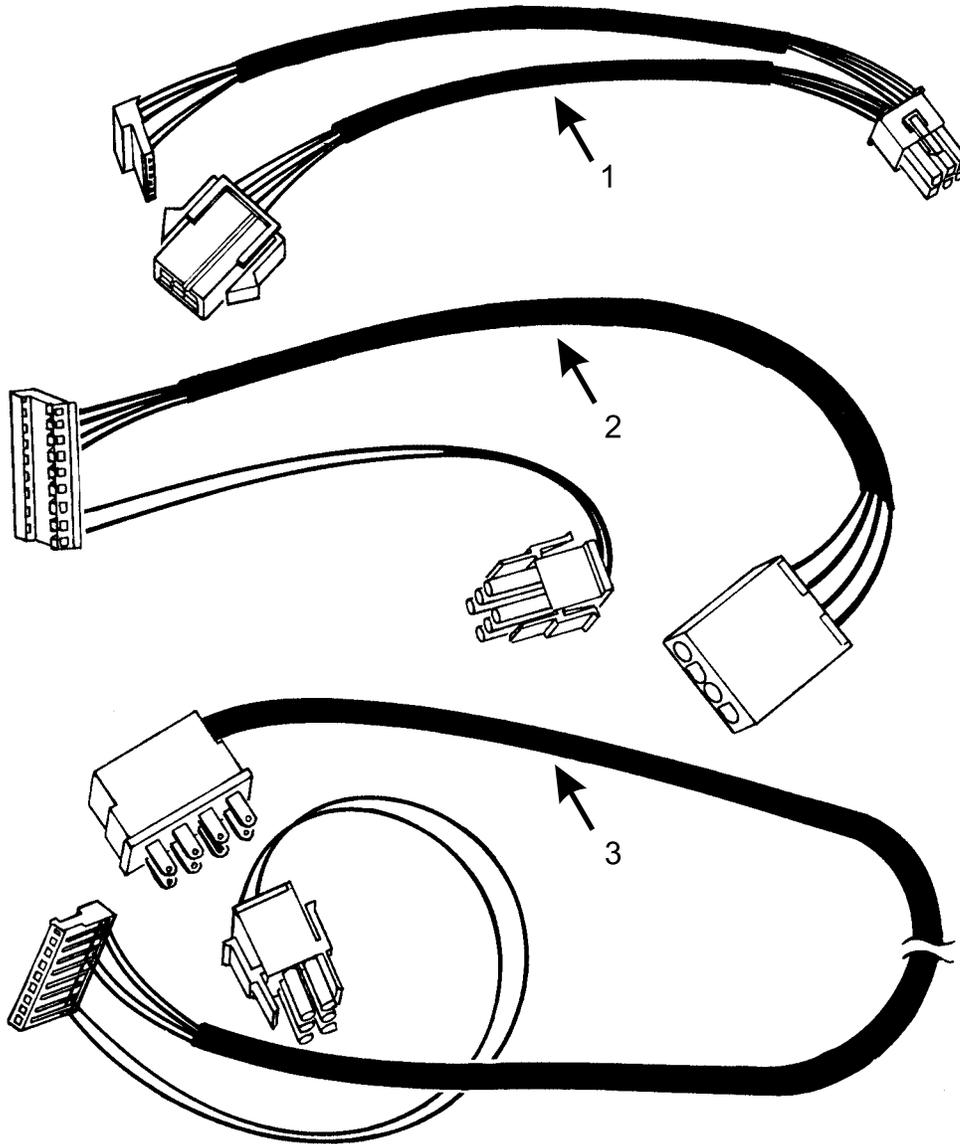


ITEM NO.	PART NO.	DESCRIPTION	QUANTITY	NOTES
1	922405	Lock Bracket	1	Option

*Note: The 300 note box can be used in all vendors that were produced with a bill acceptor opening. The 450 note box can be used in all can drink vendors with the inner door knock out removed and in most snack vendors.*

# SECTION 6: PARTS LIST

## HARNESSES



ITEM NO.	PART NO.	DESCRIPTION	QUANTITY	NOTES
1	407420	MDB Harness	1	
2	407419-1	Electronic Harness	1	For MAG50B Only
3	407052-1	Single Price Harness	1	For MAG50B Only

**Interface Harnesses**

## Bill Acceptor-to-Vendor Harnesses

- 406958 Connects a MAG30B to a Royal Merlin II Version 2, mates to 407419-1
- 407179-1 Connects a MAG30B to a Royal Merlin II, Version 5 and non-MDB GII, replaced by 407604, mates to 407419-1
- 407379 Connects a MAG30B to a Dixie Narco MPC (4 ft. long), mates to 407419-1
- 407380 Connects a MAG30B to a Vendo Electronic vendor, replaced by 407603, mates to 407419-1
- 407420-1 Connects a MAG30B to MDB (Multi-Drop Bus) vending machines (15" long)
- 407518 Connects a MAG30B to a Dixie Narco SII vendor
- 407518-1 Connects a MAG30B to a Dixie Narco SII-D vendor
- 407518-2 Connects a MAG30SA to a Dixie Narco SII-D vendor, replaced by 407518-3
- 407518-3 Connects a MAG30SA to a Dixie Narco S2-D vendor, allows \$5.00 acceptance
- 407529 Interface harness--Connects a MAG30SA to a Rowe 548 and 550 vendor, used with 407530
- 407529-1 Connects a MAG32R to a Rowe 650 vendor, used with 407903
- 407530 Power harness--Connects a MAG30SA to a Rowe 548 & 550 vendor, used with 407529 or 407535
- 407535 Interface harness--Connects a MAG30SA to a Rowe 5900 vendor, used with 407530
- 407561 Connects a MAG30SA to an A.P. 110 Series vendor
- 407562 Connects a MAG32SA to an A.P. LCM Series vendor, replaced by 407993
- 407563 Connects a MAG32SA to an A.P. 110 Series vendor and 203 and 213 Hot Drink vendors
- 407569 Connects a MAG30SA or BA32SA to an A.P./RMI 211 Hot Drink vendor
- 407573 Connects a MAG30SA to an A.P. 6000 and 7000 vendor
- 407581-1 Connects a MAG30SA to a National Vendors Hot Drink Center (3 ft. long)
- 407581-2 Connects a MAG30SA to a National Vendors Snack/Refreshment Center (5 ft. long)
- 407597 Connects a MAG32SA to a Polyvend 700 Series snack vendor
- 407597-1 Connects a MAG32SA to a Polyvend 705 snack vendor
- 407598 Connects a MAG30SA to a Polyvend can drink vendor (14" long)
- 407598-1 Connects a MAG30SA to a R-O International can drink vendor (40" long)
- 407603 Connects a MAG30B to a Vendo Univendor and Sales Manager drink vendor (26" long)
- 407603-1 Connects a MAG30B to a R-O International can drink vendor (40" long)
- 407604 Connects a MAG30B to a Royal Merlin II, Version 5 vendor
- 407633 Interface harness--Connects a MAG30SA to a Snackmart 3 vendor, used with 407634
- 407634 Power harness--Connects a MAG30SA to a Snackmart 3 vendor, used with 407633
- 407700 Connects a MAG30SA to a Royal Merlin II, Version 5 and a Merlin III vendor
- 407827 Connects a MAG32B to the 4-pin and 6-pin connectors (24V) used in Lance vendors
- 407903 Power harness--Connects a MAG32R to a Rowe 650 vendor, used with 407529-1
- 407919 Connects a MAG32R to a Ticket vendor
- 407945 Connects a MAG30 to a Wurlitzer jukebox (12" long)
- 407993 Connect a MAG32SA to an AP LCM vendor, allows \$5.00, \$10.00, \$20.00 acceptance

## Bill Acceptor-to Coin Changer Harnesses

- 406818-1 Connects a 9340-L to a MAG30B (15' long)
- 406878 Connects a 9342-L to a MAG30BE (4 1/2' long)
- 406890 Connects a 9360-S or 9370-S or 3341-S to a MAG30SA

## Bill Acceptor Miscellaneous Harnesses

- 406865 13' extension harness for MAG30BE
- 407566 Enable Plug for MAG30SA, MAG32SA, and MAG32R (18-pin plug, ties pins 4 and 12 together)
- 407567 Inverts the polarity of the credit lines for a MAG30SA and MAG32SA
- 407648 BAFP to bill acceptor harness
- 407948 RS232 interface board to MAG30 MDB (flat 6 pin) connector (3 ft. long)
- 407948-1 RS232 interface board to MAG30 MDB (flat 6 pin) connector (5 ft. long)



COIN ACCEPTORS, INC.  
300 Hunter Avenue  
St. Louis, MO 63124-2013  
(314) 725-0100 or (800) 325-2646

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