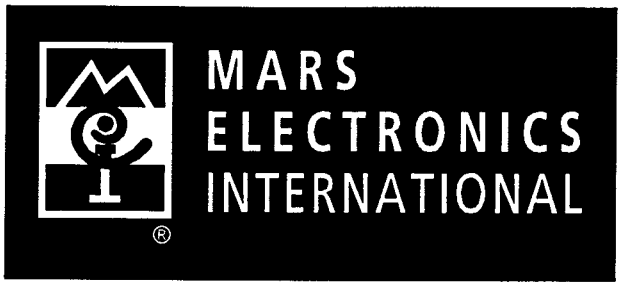


OPERATION AND SERVICE GUIDE

AL Series Bill Acceptors

GENERAL INFORMATION

OVERVIEW

The AL2/4 Bill Acceptor has been designed for Amusement and Lottery applications while offering high acceptance rates and high level of security.

To obtain the best performance from your Mars Electronics Bill Acceptor, read this manual and the Installation Guide before installing and using the Bill Acceptor.

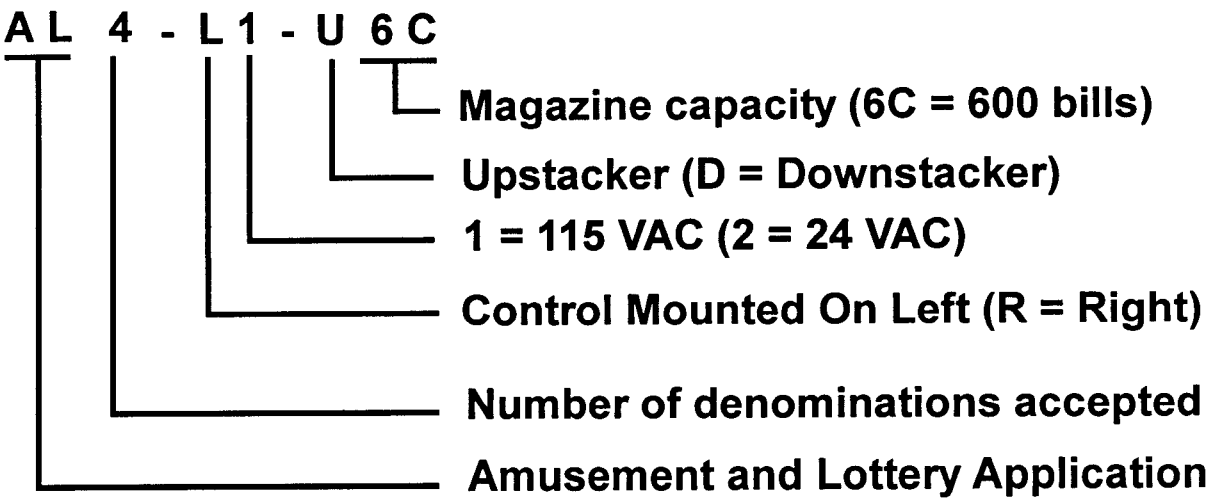
Product Features

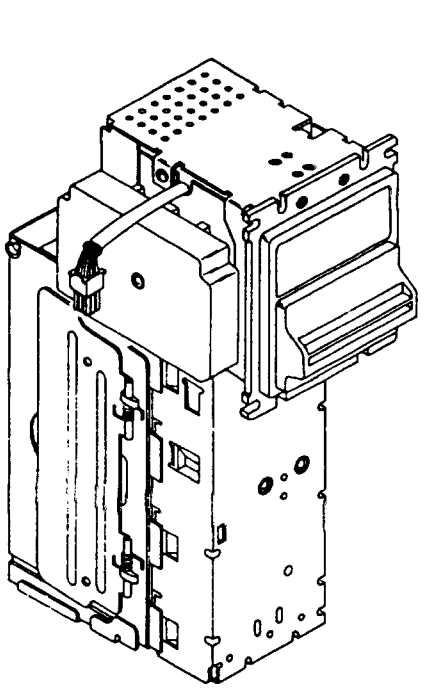
- The AL2 is capable of accepting US $1 and $5 notes. The AL4 accepts US $1,$5,$10, and $20 bills. Each denomination may be inhibited via DIP switch selection of the use of the electronic interface.
- The AL2/4 offers acceptance of bills in 2 directions (face up).
- The AL2/4 bill acceptors are available in stackerless, upstacker, and downstacker configurations.
- The AL2/4 supports either 24V AC or 115V AC operation
- Magazine capacity is 200, 400, 600 or 1000 bills.
- The AL2/4 will support either pulse of serial (NISR) interface.
- Pulse patterns and other operating features are DIP switch selectable. Refer to the DIP switch illustration for an explanation of each DIP switch function.
- A credit pulse counter (MEI # 91-16-279-4) is available.

GENERAL INFORMATION

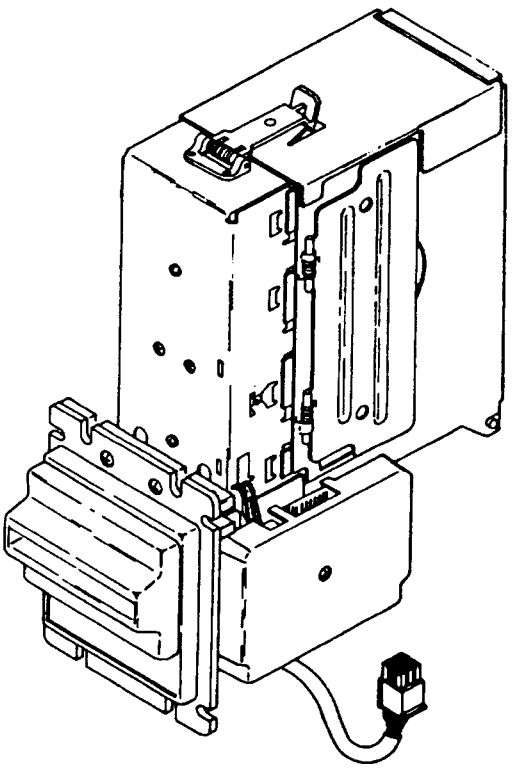
CONFIGURATION

- Explanation of Model Numbers

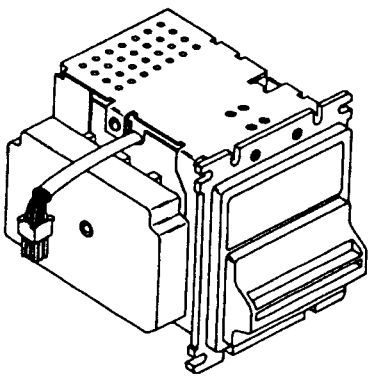




AL4-L1-D6C



AL4-R1-U6C



AL4-L1

Figure 1. Typical Configuration

GENERAL INFORMATION

SPECIFICATIONS

- **Power Requirements**

  - 95 - 135 Volts AC, 60 Hz. (115 Volt Models)

  - OR -

  - 23.4 - 30.1 Volts AC, 60 Hz. (24 Volt Models)

  - Maximum power required is 65 Watts.

- **UL Listing**

  - The AL Bill Acceptors are UL listed under File Number E 57869 (N).

- **Physical Characteristics** (typical). Dimensions and weight vary with model.

  - Height 11 1/2 inches
  - Width 4 7/16 inches
  - Depth 7 5/16 inches
  - Weight 6 lbs 1 oz

UNPACKING THE BILL ACCEPTOR

Unpack the Bill Acceptor and immediately inspect it for any damages. If the unit is damaged, return it to its original carton, along with packing materials.

Notify the delivering carrier within 72 hours from the time of delivery. Send a copy of the letter to the shipper.

Only the consignee (the person or company receiving the Bill Acceptor) can file a claim against the carrier for concealed damages.

Retain the original carton and packing materials for future use in shipping of transporting the Bill Acceptor.

GENERAL INFORMATION

WARRANTY

Once the unit has been inspected, record the serial and model number from the label on the side of the bill Acceptor. Refer to these numbers when you call Mars Electronics for service or information.

The first three digits of the serial number contain the manufacturing date code. This code indicates the beginning of the warranty period. The first two digits indicate the week of manufacture; the third digit indicates the year if manufacture. For example: a Bill Acceptor with serial number 37910850553 was manufactured in the 37th week of 1989 (September 1989).

A module of a Bill Acceptor has the same warranty as the total unit. When a module is returned for service, the original serial number must be noted on the module and the packing slip.

FUNCTIONAL OVERVIEW

The acceptance of a bill in a Mars Electronics Bill Acceptor proceeds through the following steps:

- bill detection
- transport
- recognition
- validation
- credit
- storage

As a bill is inserted, the acceptor senses its presence and the drive motor is energized. Drive belts transport the bill past electronic sensors that evaluate features of the bill for authenticity.

When it has been determined that the bill is authentic, the bill is held in an escrow position until the conditions of the transaction are determined. Conditions of the transaction include:

- option selection
- lock-out enabled/disabled
- control systems ready

GENERAL INFORMATION

FUNCTIONAL OVERVIEW CONT.

When the conditions of the transaction are met, credit for the bill is transferred and the bill is stored.

If the Bill Acceptor is configured with a stacker / magazine assembly, the bill is transported to the end of the stacker where the actuator plate moves the bill into the magazine. If the Bill Acceptor is configured without a stacker, the bill is discharged to fall under gravity into a cash box or other collection device.

INTERFACE

The interface of a Bill Acceptor refer to the transfer of electronic data to and from the Bill Acceptor and the controlling device. The controlling device in a amusement application if the associated electronic controller of the machine. The signals transferred include input signals to the Bill Acceptor such as:

- the control system is ready to accept money
- the denomination of bills to accept
- whether or not bills should be returned from escrow

Output from the Bill Acceptor to the control device includes signals that the bill has been accepted and the value of the credit issued.

The AL Bill Acceptor is capable of operating with one of five interfaces.

GENERAL INFORMATION

MOUNTING KITS

Two mounting kits are available for the AL Bill Acceptor:

- Mars Electronics Kit, Part Number 91-16-159-4 provides for full bezel protrusion and is used for installation in metal cabinets of doors. Labels may be placed on the bezel.

- Mars Electronics Kit, Part Number 111632001 provides for mounting Bill Acceptor in a 3/4 inch wooded cabinet. When this kit is used, the slot area of the Bill Acceptor bezel protrudes through the mounting plate. Labels may be placed on the mounting plate.

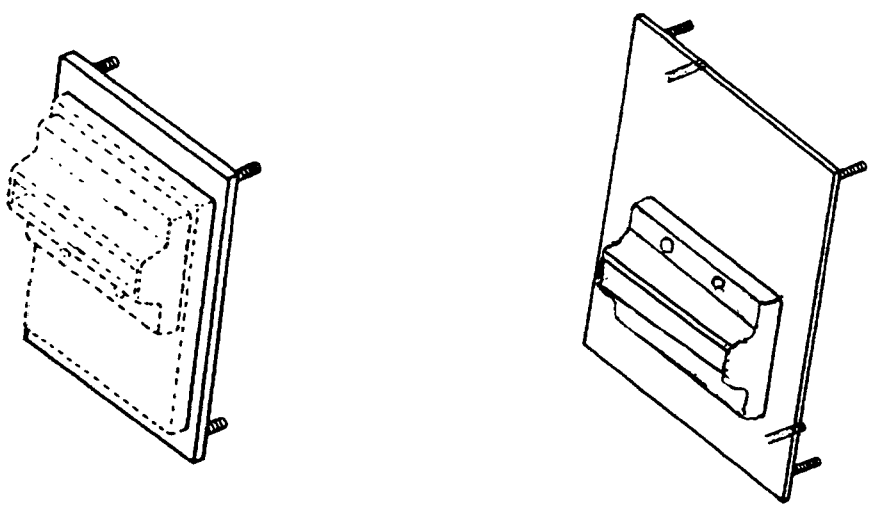


Figure 2. Mounting Kits

PULSE COUNTER

A non-settable pulse counter is available for the AL Bill Acceptor. Refer to Figure 3.

The Pulse Meter Accessory Kit, Mars Electronics Part Number 91-16-279-4 provides a way to record and display the total number of pulses transmitted from the Bill Acceptor. A connector is provided on the AL control board and is accessible through the control board cover.

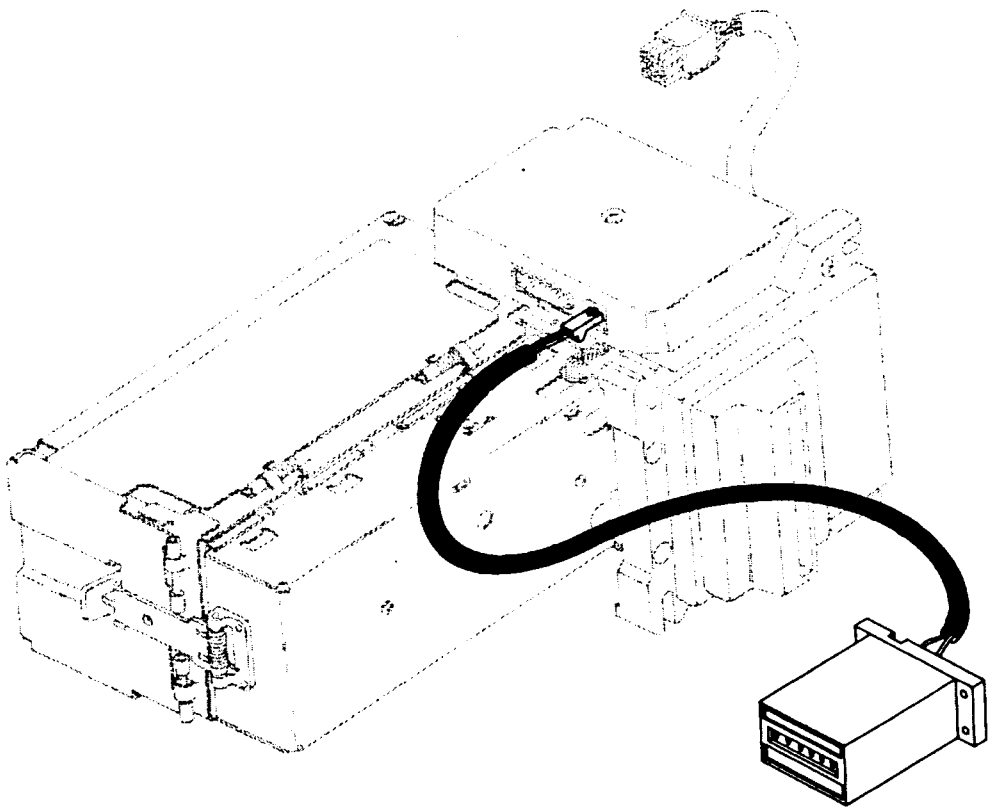


Figure 3. Pulse Counter

INSTALLATION

To install a AL Bill Acceptor in a amusement and lottery machines, follow the step by step instructions provided below. Installation in some machines requires a special mounting kit. For more detailed instructions, refer to the Installation Guide shipped with the Bill Acceptor or Mounting Kit.

DISENGAGE CONTROL BOARD / COVER ASSEMBLY

The Bill Acceptor option switches allow the unit to be customized to the installation.

Locate the option switches by loosening the captive screw in the center of the black cover and disengage the Control Board / Cover Assembly.

BILL ACCEPTOR OPTION SWITCHES

NOTE: Do not use a graphite pencil point.

AL4 BILL ACCEPTORS ONLY!

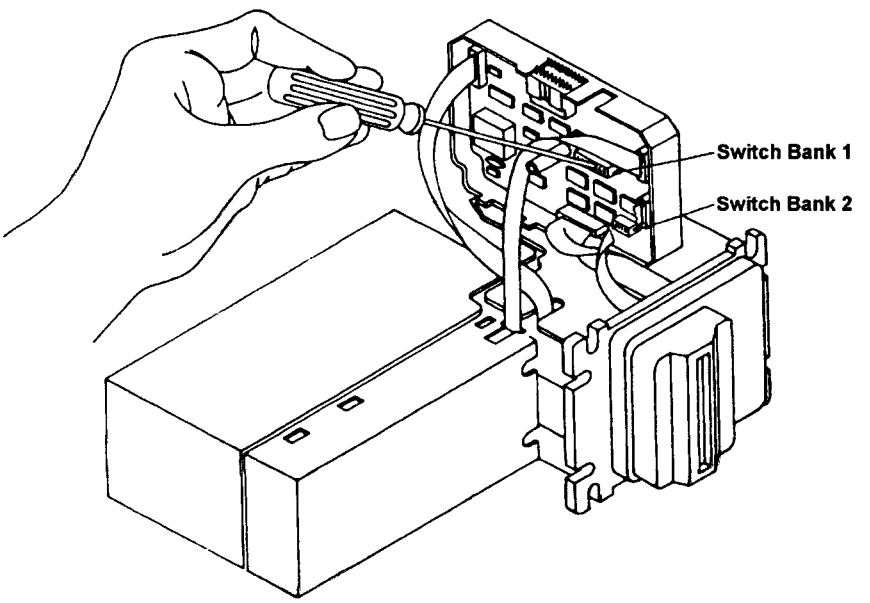
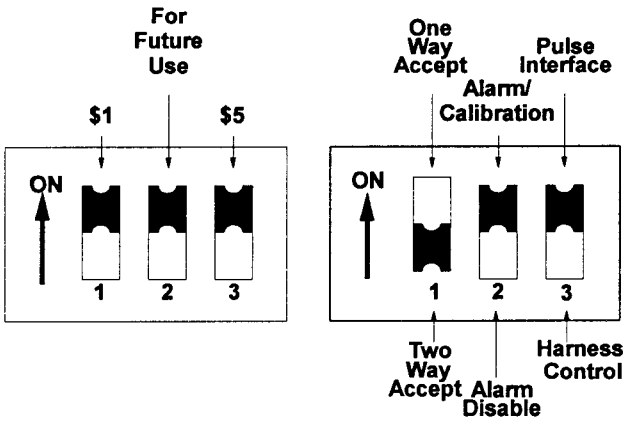


Figure 4. Setting The Bill Acceptor Option Switches

The Bill Acceptor option switches are shown in Figure 5.

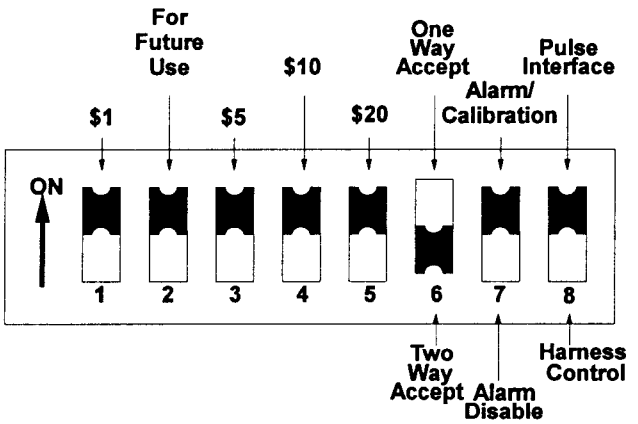
AL2 MODEL ONLY!

Switch Bank 1 and 2



AL4 MODEL ONLY!

Switch Bank 1



INSTALLATION

AL2 Switch Bank 3
AL4 Switch Bank 2

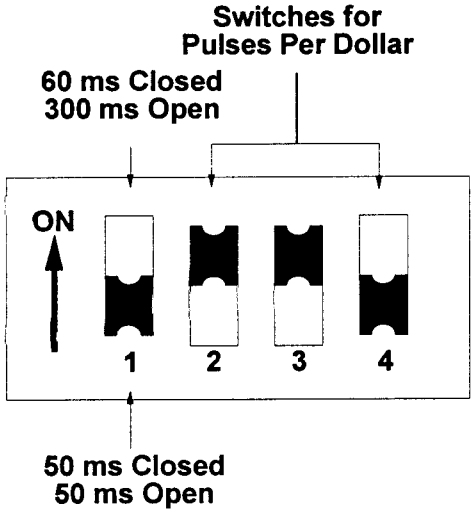


Figure 5. AL Option Switch Functions

Credit pulses and BDS interfaces are selected by the setting of switches 2, 3, and 4 on Switch Bank 2 **(AL4)** and Switch Bank 3 **(AL2)**. Refer to Table 1 below:

INTERFACE	SWITCH #2	SWITCH #3	SWITCH #4
1 Pulse Per Dollar	OFF	OFF	OFF
2 Pulses Per Dollar	ON	OFF	OFF
3 Pulses Per Dollar	OFF	ON	OFF
4 Pulses Per Dollar	ON	ON	OFF
6 Pulses Per Dollar	OFF	OFF	ON
8 Pulses Per Dollar	ON	OFF	ON
*1 Pulse Per Dollar	OFF	ON	ON
*4 Pulses Per Dollar	ON	ON	ON

Table 1.

INSTALLATION

HARNESSES

Mounting Kit, Mars Electronics Part Number 111632001, includes an AC power cord with a 9 pin connector. Leads (yellow wire) for the "lock out" option available on some machines are also provided. An 18 pin connector with jumpers for pulse mode operation is included.

Specific machine application will require unique harnessing to the 9 pin and 18 pin connectors on the Bill Acceptor. Refer to instructions provided by the machine manufacturer for installation procedures.

BILL ACCEPTOR OPERATION

GENERAL

US currency is validated in the Mars Electronics AL2/4 Bill Acceptor by analyzing the optical and magnetic characteristics of the bill. Sensors determine that a bill has been inserted into the Bill Acceptor. The drive motor turns on and transports the bill past additional sensors.

Data from the sensors are sent to the microprocessor on the control board of the Bill Acceptor. The microprocessor determines if the bill is valid or invalid. If the bill is valid, a credit signal is sent to the control board.

If the additional criteria for operation of the amusement or lottery device are met, the bill will be moved through the stacker mechanism and placed in the magazine. If the bill is determined to be invalid it is rejected by reversing the drive motor.

BILL DETECTION

As a bill is inserted into the Bill Acceptor, it breaks the light path between transmissive sensors and sends a signal to the microprocessor. The microprocessor then turns on the drive motor to pull the bill into the validator portion of the Bill Acceptor.

BILL TRANSPORT

The motor assembly turns the drive belts. The sensor assembly guide wheels rotate as the drive belts turn. The bill is drawn into the validator between the guide wheels and drive belts.

BILL RECOGNITION

As the bill is transported, sensors scan it optically and magnetically. The data is transmitted to the microprocessor for analysis.

BILL ACCEPTOR OPERATION

BILL VALIDATION

Once the optical and magnetic characteristics are transmitted to the microprocessor, the bill is held in escrow. The data is then analyzed and compared to the criteria for valid currency.

CREDIT OR RETURN

If the bill is not valid, the drive motor reverses and returns the bill to the customer. If the bill is valid, credit is established allowing the customer to either request play or request escrow return. Not all systems permit return of escrow. Escrow is dependent on features controlled by the amusement or lottery machine.

BILL STORAGE

If the bill is accepted, credit is established, a play is requested and the bill is transported to the stacker assembly.

Under the control of the stacker circuit board the stacker motor rotates and drives the actuator plate forward. The bill, which is adjacent to the actuator plate, is moved into the bill storage magazine. If the magazine is full, the stacker is prevented from completing its cycle. When the microprocessor detects this condition, an out of service signal is sent to the controlling device. When the magazine is emptied and the actuator plate is allowed to cycle, the stacker completes its cycle and is reset.

BILL ACCEPTOR INTERFACE

GENERAL

Several distinct electronic interfaces have been provided to meet the needs of specific applications. Interfaces provided include: Isolated Pulse (IP), Non-Isolated Pulse (NIP), Non-Isolated Serial (NISR), Bi-Directional Serial (BDS).

INTERFACE FEATURES

Features included in the interfaces are Escrow, Lockout, Credit Pulse Accumulation and Out of Service Indication.

ESCROW

- The escrow feature is available using the NISR and BDS.
- The escrow feature allows the machine control system to decide whether or not the last valid bill inserted will be credited or returned.
- Normally, a valid bill will be accepted and held in mid-transport. At this point, the Bill Acceptor will transmit the credit value of the bill. The control system will make the decision whether to keep or return the bill. If the bill was kept, the Bill Acceptor re-transmits the value for confirmation.

LOCKOUT

- The lockout feature allows the control system the option of disabling the Bill Acceptor. This function is controlled by the "Accept Enable" interface line.
- When this function is "low" electronically, the Bill Acceptor will accept bills. When the function is "high" electronically, the Bill Acceptor will not accept bills.

BILL ACCEPTOR INTERFACE

CREDIT PULSE ACCUMULATION

- The credit pulse accumulation feature is designed for control systems that cannot hold or process multiple credit pulses. (Certain games do not allow accumulation of credit while a game is in play.)

- For example, the Bill Acceptor accepts a $5 bill and starts sending credit pulses. After the first credit pulse, the control system halts the transmission of additional pulses. The control system then performs its assigned task and upon completion, allows a new credit pulse to be transmitted. The sequence is repeated until all the credit pulses have been sent.

- This feature is available using the NIP and BDS interfaces. For the NIP interface, the Bill Acceptor must be set in the long pulse output of 60ms On/300 ms Off.

INTERFACE DESCRIPTIONS

ISOLATED PULSE (IP)

- The isolated pulse interface provides one or more credit pulses for each dollar value accepted.

- The credit pulses are transmitted to the control system via relay contacts. Two pulse patterns are available: 60 ms On/300 ms Off and 50 ms On/50 ms Off. This pattern can be set via the Bill Acceptor option switches. The number of pulses per dollar value is also set by the option switches.

- This interface does not provide for the control system of the machine to alter the operation of the Bill Acceptor. The Bill Acceptor has the capability to accept a bill and send credit pulses at will, to the control system.

- Only the 9 pin power connector is needed to operate the Bill Acceptor in the IP mode.

BILL ACCEPTOR INTERFACE

INTERFACE DESCRIPTIONS

ISOLATED PULSE (IP) CONT.

- Relay contacts are the only means of transferring credit information in the isolated pulse interface. A relay closure yields a pulse that translates to the On time of the pulse pattern. The open time of the relay translates to the Off time of the pattern.

NON-ISOLATED PULSE (NIP)

- The non-isolated pulse interface is similar to the isolated pulse, but allows the control system to alter operation of the Bill Acceptor by the use of electronic control lines. Credit pulses are transmitted via the same relay contacts as the IP interface and are also sent on the Credit Pulse Line.

- The pulse pattern and number of pulses per dollar value can be set by the option switches.

- The non-isolated interface permits use of lockout, credit pulse accumulation and external enable of bill denominations.

- The NIP interface requires that a ground be connected between pin 4 of the 18 pin connector on the Bill Acceptor and the ground of the control system. Option switch 8 on Switch Bank 1 **(AL4 Only)** must be in the **OFF** position. Option switch 3 of Switch Bank 2 **(AL2 Only)** must be in the **OFF** position.

- External control lines allow any combination of bills to be accepted as determined by the control system of the amusement or lottery machine. These lines must be "set" before inserting bills. Option switches 1 through 5 on Switch Bank 1 **(AL4 Only)** or 1 through 3 **(AL2 Only)** must be **OFF** on the Bill Acceptor to use the external enable lines.

BILL ACCEPTOR INTERFACE

NON-ISOLATED SERIAL (NISR)

- The non-isolated serial interface provides one way serial communications with handshaking. It permits communication of all bill types accepted by the Bill Acceptor, as well as messages pertaining to the status of the bill that has been inserted.

- The Bill Acceptor is always passive and only responds with a request to send a message to the control system upon the occurrence of some activity within the Bill Acceptor (i.e.,bill recognized, accept, returned or stacker full.)

- Typically, two messages appear per bill. For example, the first message will be the denomination and the second will be an accept confirmation (or return confirmation) depending on the action of the control system.

- Three messages are sent when there is a failure or a full magazine. If a bill is recognized and accepted, then the two normal message are generated. However, if the inserted bill is unable to be stacked, a "Stacker Full" message will be sent in addition to the first two messages.

- A special case appears in a stackerless Bill Acceptor. If a jam occurs while trying to return a bill, a "Failure" message is generated. However, if a jam occurs while trying to accept a bill, a "Stacker Full" message is generated.

BI-DIRECTIONAL SERIAL (BDS)

- The bi-directional serial interface provides for two way communication between the Bill Acceptor and machine control system. The format for each transmitted message is as follows:

  | STX | LENGTH | MSG/ACK # | DATA | ETX | CHECKSUM |

- In messages sent by the controller, the message number (Msg #) is used to identify the message. As message are sent to the Bill Acceptor, the number alternates between 00 and 01. If the Bill Acceptor receives two consecutive messages with the same number, the second message is treated as the re-transmission of the first.

BILL ACCEPTOR INTERFACE

BI-DIRECTIONAL SERIAL (BDS) CONT.

- In messages sent by the Bill Acceptor, the acknowledge number (Ack #) is set to the Msg # of the controller when the Bill Acceptor receives the controller message correctly.

- The controller using this interface is the master. For each message sent by the controller, the Bill Acceptor responds with a message containing both data and a protocol link response. Messages sent by the Bill Acceptor contain 18 information bits (3 bytes) plus two additional bytes of information.

PINOUT INFORMATION

Notes: Bold **Type** indicates those connections required for Pulse Interface to operate.

PINOUT OF AL2/4 18 PIN CONNECTOR

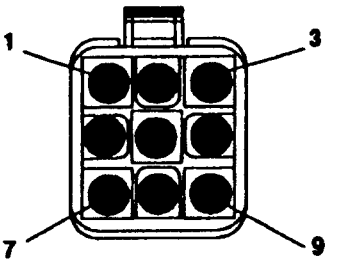
Interface Connector (18 pin)			
Pin	**Function**	**Pin**	**Function**
1	Credit Pulse	10	Out-of-Service
2	Interrupt	11	Debug Data Output
3	**Serial/Pulse Select**	**12**	**Accept Enable**
4	**Ground**	13	Out-of-Service LED Power Source (200 ohm to 5VDC)
5	Data Output	14	Send
6	$1 External Enable	15	Reserved
7	Reserved	16	Reserved
8	$5 External Enable	17	Reserved
9	$10 External Enable (AL4 only)	18	$20 External Enable (AL4 only)

PINOUT OF AL2/4 9 PIN CONNECTOR

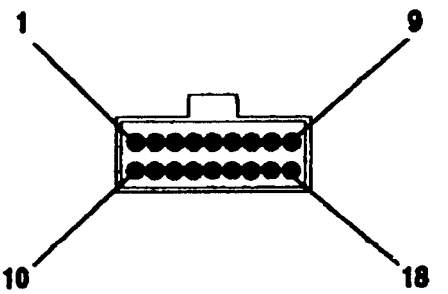
115VAC Model Power Connector (9 pin) 24VAC Model			
Pin	**Function**	**Pin**	**Function**
1	Reserved	1	Reserved
2	Reserved	2	Reserved
3	Reserved	3	Reserved
4	**Bill Acceptor-115VAC Hot (Power)**	4	Reserved
5	Reserved	**5**	**Bill Acceptor 24VAC Hot (Power)**
6	**Bill Acceptor-115VAC Neutral (Power)**	**6**	**Bill Acceptor 24VAC Neutral (Power)**
7	**Credit Relay, Normally Open**	**7**	**Credit Relay, Normally Open**
8	**Credit Relay, Common**	**8**	**Credit Relay, Common**
9	Reserved	9	Reserved

CONNECTOR INFORMATION

9-Pin Mating Connector
AMP "MATE-N-LOCK" 9 pin plug
AMP Part #172161-1 Shell
AMP Part #170364-1 Male Pin
#22 Gauge wire recommended



18-Pin Mating Connector
AMP "MODU" 18 pin MT Receptacle
AMP Part #102398-7 IDC Connector Housing
AMP Part #102536-7 Back Cover
AMP Part #102681-4 Latching Front Cover
#22 or 24 Gauge wire recommended



MAINTENANCE

ROUTINE MAINTENANCE

Periodic routine maintenance improves the performance and extends the optimum working life of the Bill Acceptor. However, it should be cleaned only if it becomes inoperable or if acceptance rates fall below normal.

Frequency of maintenance required will depend on environment and number of transactions. If cleaning does not improve performance, it must be serviced by an authorized Mars Electronics service center.

DISASSEMBLE THE BILL ACCEPTOR

REMOVE THE BILL ACCEPTOR FROM THE VENDING MACHINE

- Disconnect the Bill Acceptor from the power source.
- Remove the nuts holding the Bill Acceptor on the mounting studs and remove the Bill Acceptor from the machine.

REMOVE THE BEZEL

- Remove the four flathead screws (A) from the face of the Bill Acceptor bezel. Refer to Figure 6.
- Remove the bezel.

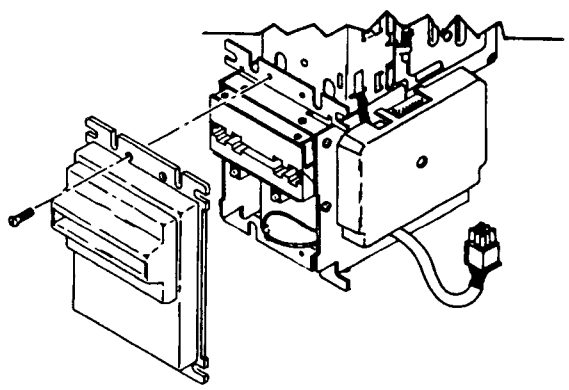


Figure 6. Removing the Bezel

MAINTENANCE

REMOVE THE CONTROL BOARD/COVER ASSEMBLY

- Remove the control board/cover assembly by loosening the captive screws (B) of the assembly. Refer to Figure 7.
- Pull the assembly away from the Bill Acceptor.

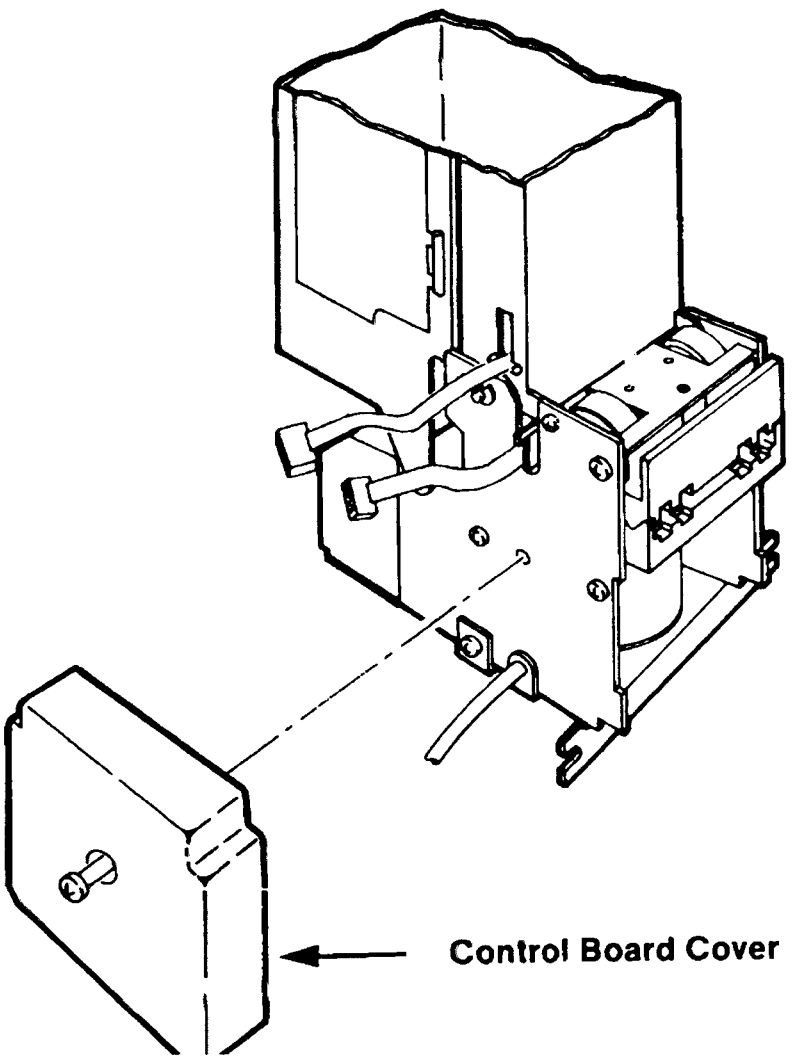
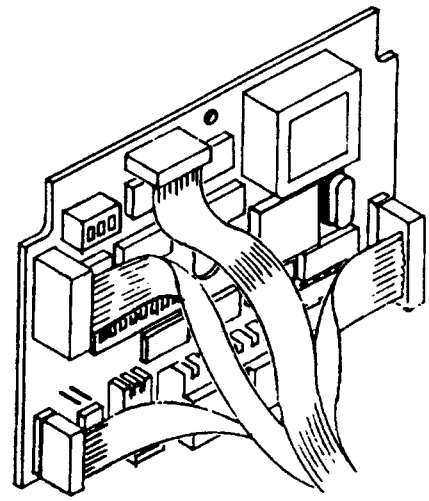
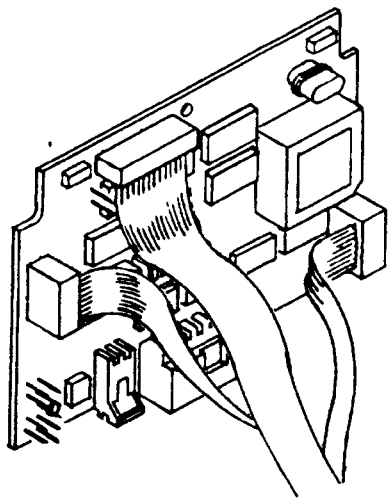


Figure 7. Removing The Control Board/Cover Assembly



Stacker Configuration



Stackerless Configuration

Figure 8. Harness Connections

MAINTENANCE

REMOVE THE BOTTOM ENCLOSURE

- Remove the two screws. (Refer to Figure 10.)
- Left off the bezel mounting bracket.

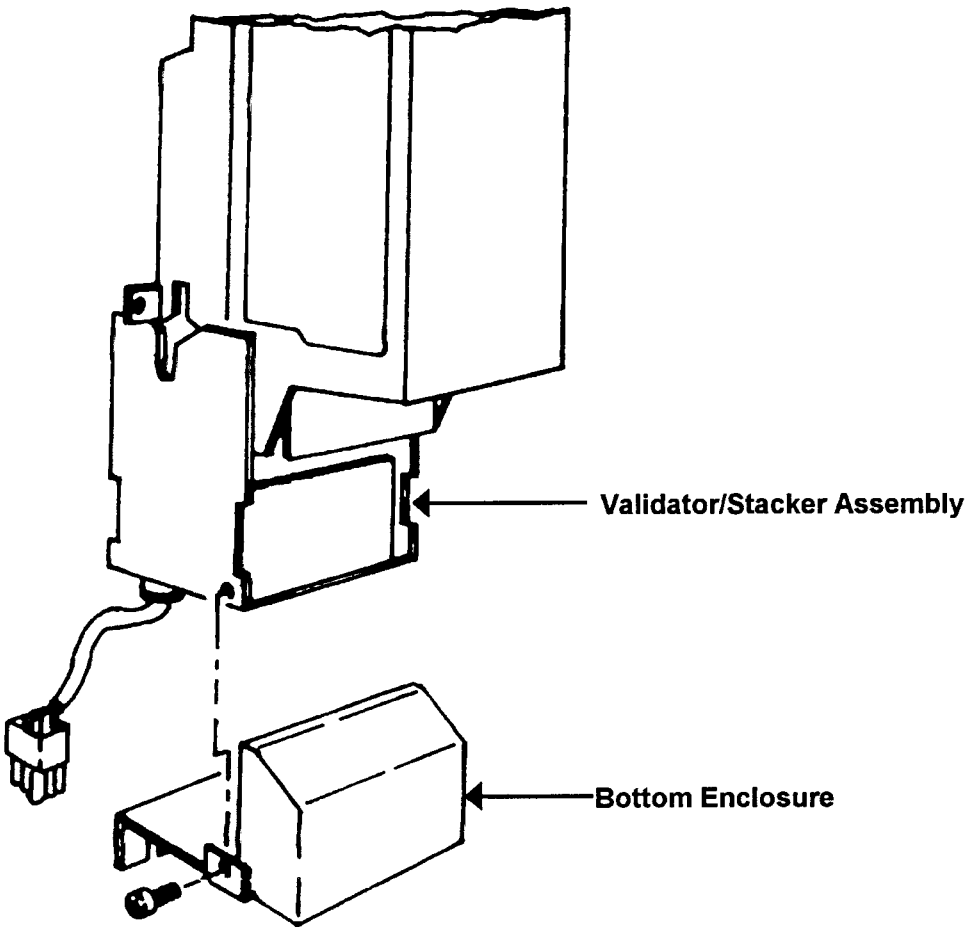


Figure 9. Removing The Bottom Enclosure

REMOVE THE BEZEL MOUNTING BRACKET (STACKERLESS ONLY)

- Remove the two screws. (Refer to Figure 10.)
- Lift off the bezel mounting bracket.

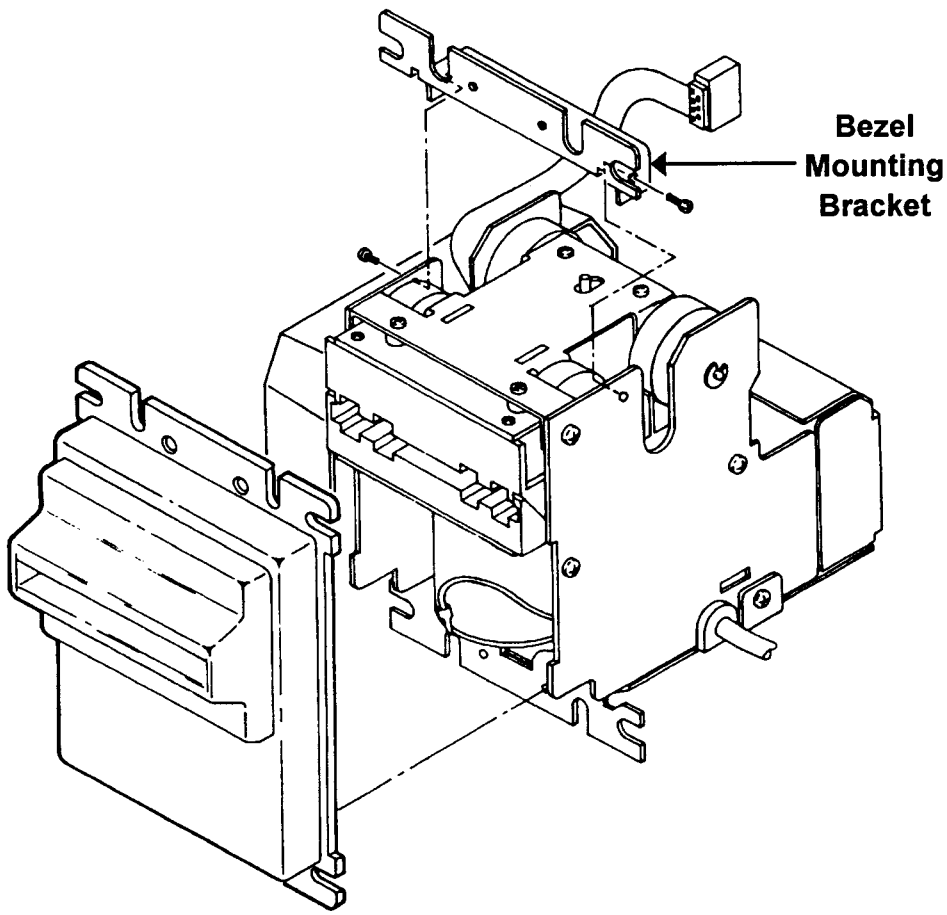


Figure 10. Remove the Bezel Mounting Bracket

MAINTENANCE

SEPARATE THE BILL ACCEPTOR FROM THE STACKER/MAGAZINE ASSEMBLY

- Remove the two screws (F) that hold the bill validator to the stacker/magazine assembly.
- Grasp the bill validator in one hand and the stacker/magazine in the other.
- Slide the validator forward and away from the stacker until the two separate. Refer to Figure 11.

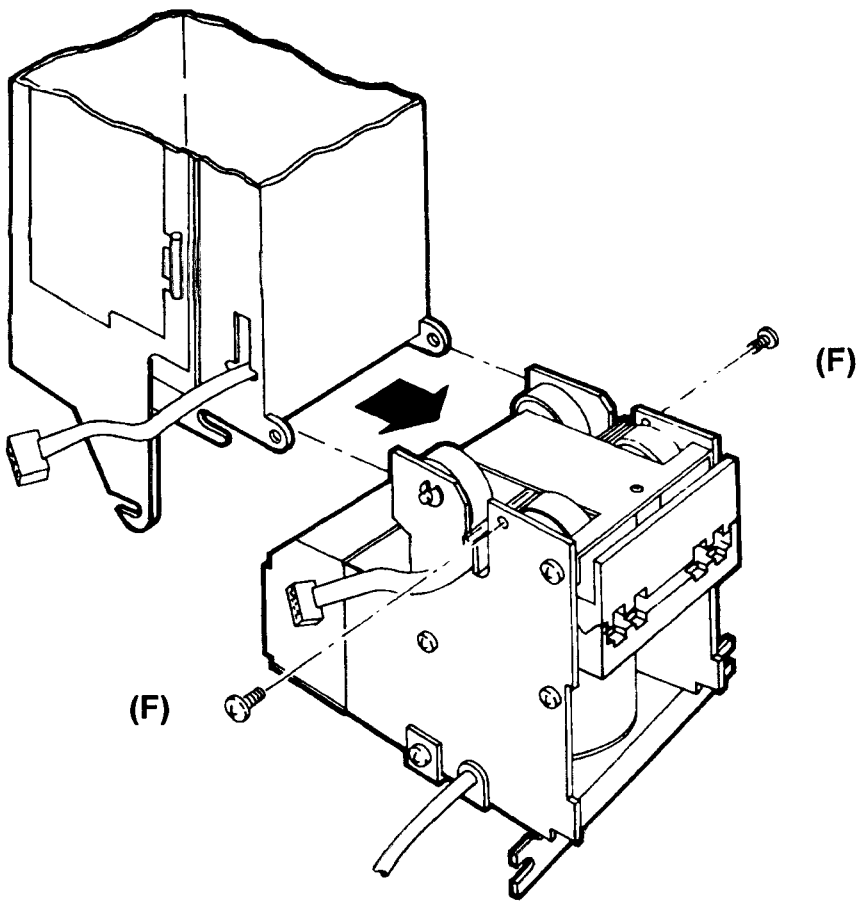


Figure 11. Removing The Stacker/Magazine Assembly

OPEN THE BILL ACCEPTOR

- Remove the screws (G) that hold the bill validator closed. Refer to Figure 12.
- Lift the upper sensor assembly to open the bill validator.

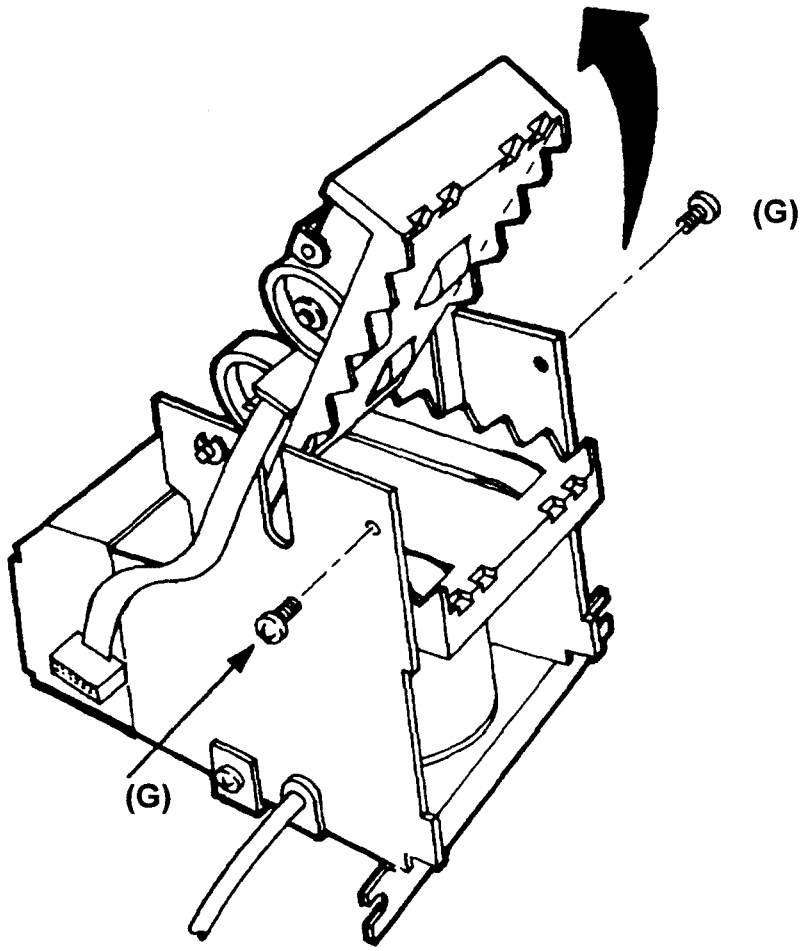


Figure 12. Opening the Bill Validator

MAINTENANCE

CLEAN THE BILL ACCEPTOR

- Clean the magnetic sensor with an alcohol swab.
- Clean the pinch roller by pulling a strip of household transparent tape across the roller, turning the roller as the tape is pulled.
- Clean the bill path plastic and timing belts with a cloth moistened with a mild household cleaner. Do not spray liquid into or on the bill validator.
- Remove any debris trapped by the pinch roller or credit lever.

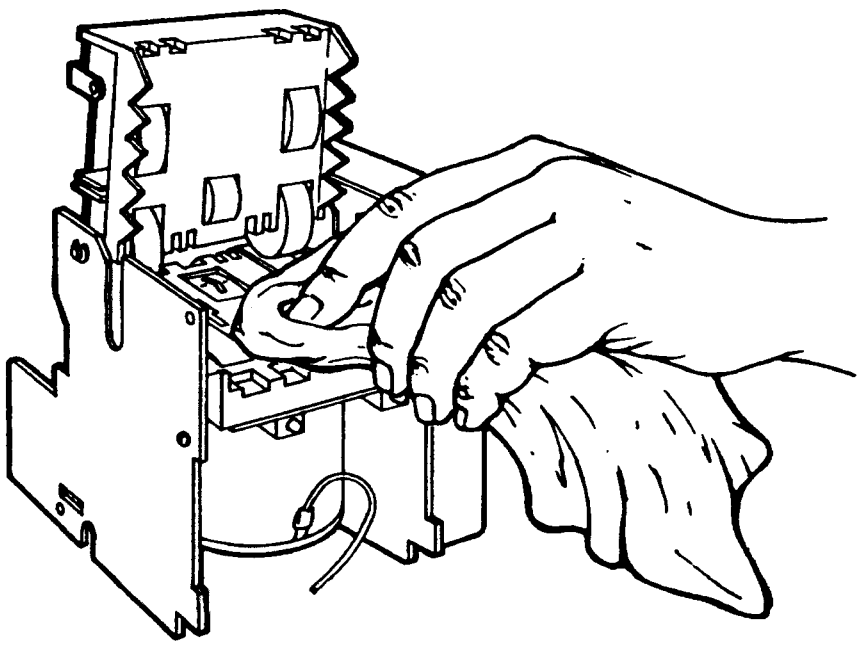


Figure 13. Cleaning The Bill Acceptor

REASSEMBLE THE BILL ACCEPTOR

- To reassemble the bill acceptor, reverse the order of disassembly.

CALIBRATE THE BILL ACCEPTOR

- **For optimum acceptance, recalibration of the unit is necessary when the bill acceptor mouth is opened. Use Calibration Kit P/N 111636021. Calibration Kits are available through your local Authorized Service Center.**

PARTS BREAKDOWN

AL2/4 Bill Acceptor Assembly

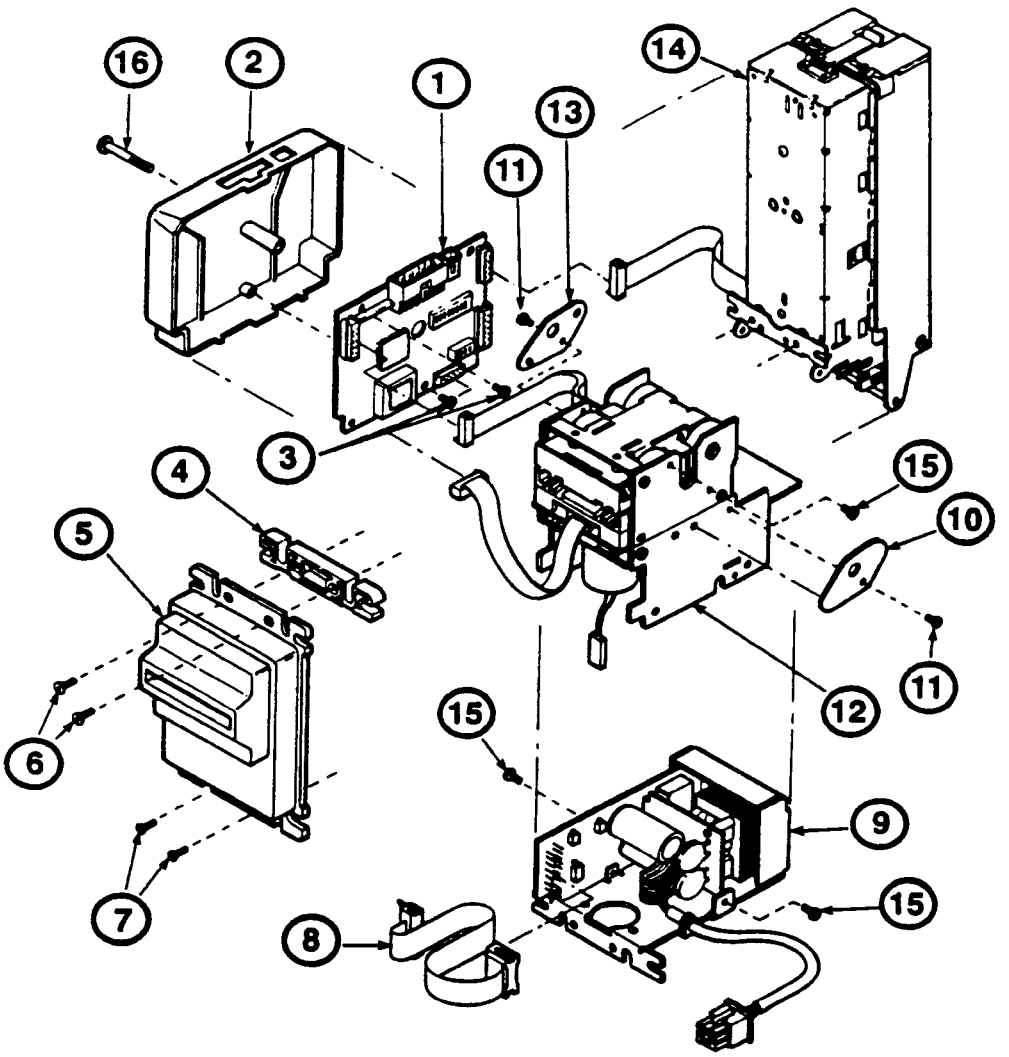


Figure 14. Total Bill Acceptor Breakdown

AL2/4 Bill Acceptor Assembly

Ref Num	Description	Qty	Part Number
1	AL2 Control PC Board Assembly (Kit) AL4 Control PC Board Assembly (Kit) Software (Not included in Control PCB Kit)	1 1	111632121 111636107 111632126
2	Control Board Cover	1	111598126
3	Screw 2-28 x 1/4	2	08-00-066
4	Bezel Spacer	1	111594008
5	Bezel	1	111593051
6	Screw 6-32 x .375"	2	08-00-231
7	Screw 6-32,82	2	111954001
8	Cable Assembly, Power Supply to Control PCB	1	112512011
9	Power Supply Module Assembly	1	Ref. pp. 4,5
10	Magazine Support Right Hand	1	111605125
11	Screw 6-32 x .312"	2	111609101
12	AL2/4 Validator Assembly	1	Ref. pp. 6,7
13	Magazine Support Left Hand	1	111603126
14	Stacker/Magazine Assembly	1	Ref. pp.12,13
15	Screw	4	08-00-138
16	Screw 6-32 x 25.4mm	1	08-00-229

PARTS BREAKDOWN

Power Supply Module Assembly

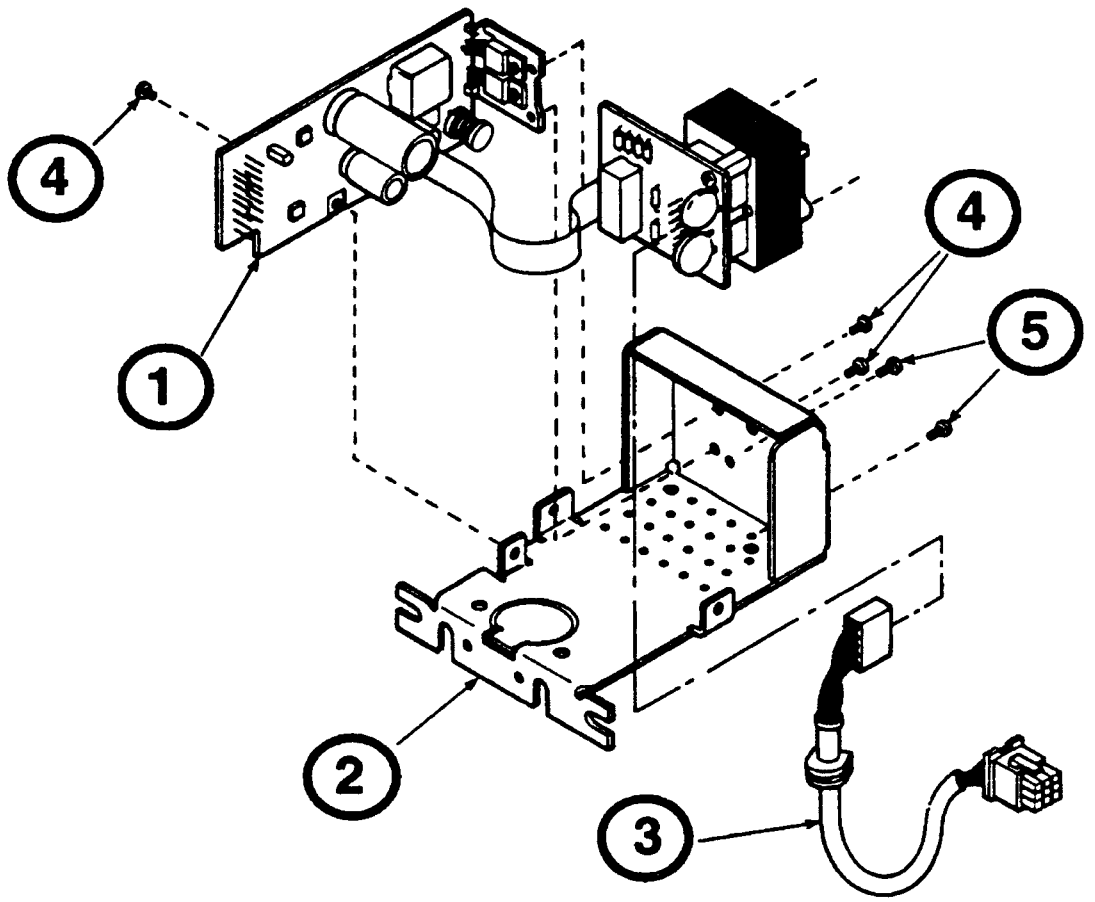


Figure 15. Power Supply Breakdown

Power Supply Module Assembly

Ref Num	Description	Qty	Part Number
1	Power Supply PC Board 110 VAC (Kit) 24 VAC (Kit)	1	 111637034 111633058
2	Power Supply Enclosure	1	110851001
3	Main Cable Assembly 115 VAC 24 VAC	1	 01-12-192 01-12-195
4	Screw #4-40 P/H	3	08-00-138
5	Screw #4-40 x 6.35mm P/H	2	08-00-141

PARTS BREAKDOWN

AL2/4 Validator Assembly

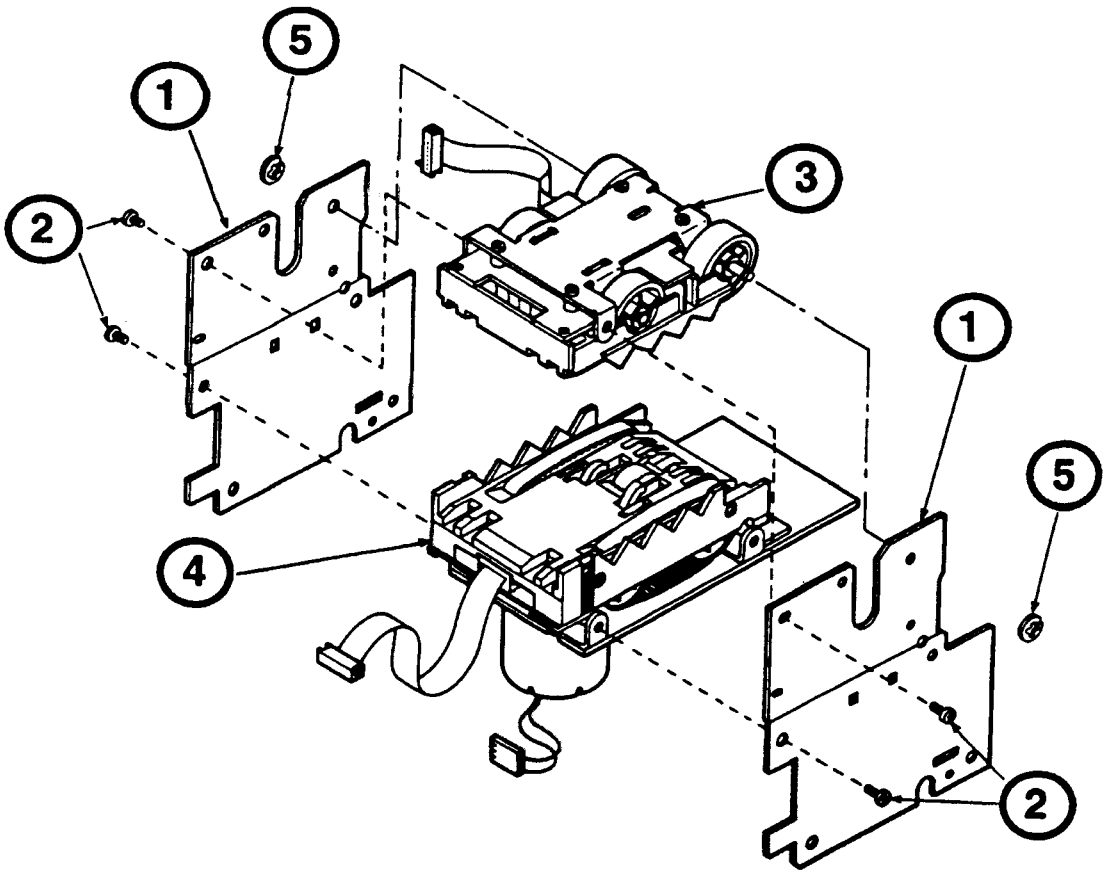


Figure 15. Bill Validator Breakdown

AL2/4 Validator Assembly

Ref Num	Description	Qty	Part Number
1	Side Plate	2	111602130
2	Screw 6-32 P/H	4	08-00-138
3	Optics Housing Assembly	1	Ref. pp. 8,9
4	Motor/LED Housing Assembly	1	Ref. pp. 10,11
5	Retaining Ring	2	08-10-009

PARTS BREAKDOWN

AL2/4 Optics Housing Assembly

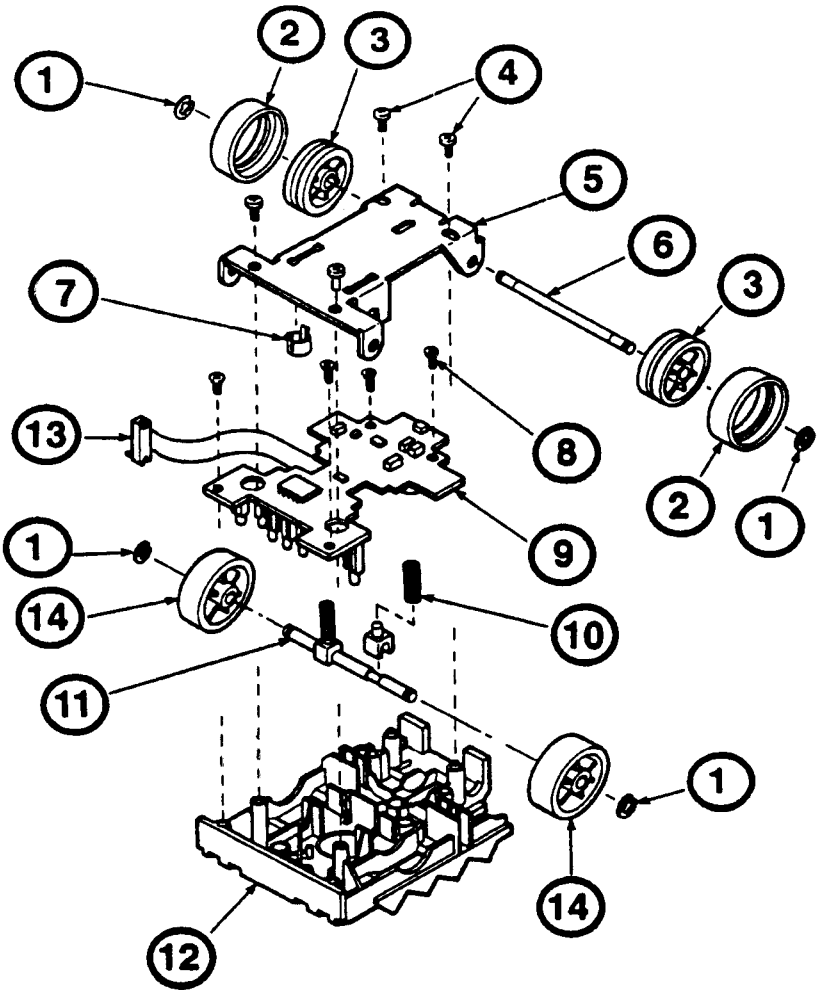


Figure 16. Optics Housing Assembly Breakdown

AL2/4 Optics Housing Assembly

Ref Num	Description	Qty	Part Number
1	Retaining Ring	2	08-10-009
2	Drive Ring (ORC)	2	111597118
3	Grooved Pulley	2	111519198
4	Screw #4-20 x 6	4	08-00-145
5	Optics Bracket Assembly Upstacker (Kit) Downstacker (Kit) Stackerless (Kit)	1	 111636043 111639055 111632062
6	Pivot Shaft	1	05-06-036
7	Spring Cup	2	04-16-043
8	Screw 2-23 x 1/4	4	114680001
9	Optics PC Board Assembly Upstacker (Kit) Downstacker (Kit)	1	 111636124 111634125
10	Spring Compression	2	08-14-079
11	Wheel and Shaft Assembly	1	09-02-040
12	Optics Housing	1	111599139
13	Optics Cable Assembly	1	112513002
14	Wheel	2	04-02-058

PARTS BREAKDOWN

AL2/4 LED Housing Assembly

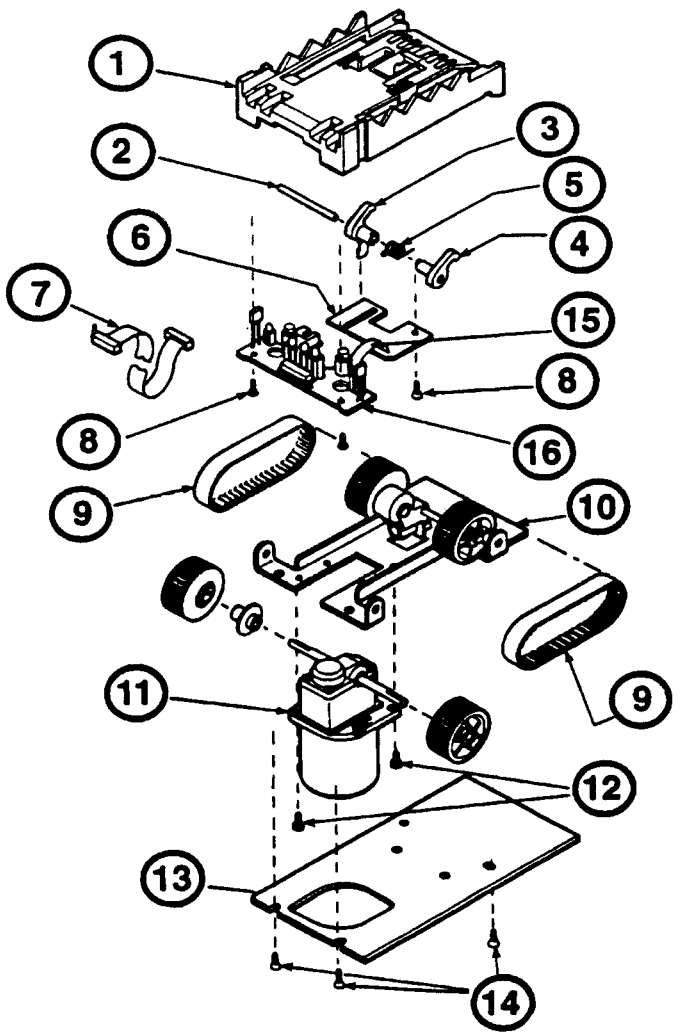


Figure 17. LED Housing Assembly Breakdown

AL2/4 LED Housing Assembly

Ref Num	Description	Qty	Part Number
1	LED Housing	1	111595072
2	Credit Lever Shaft	1	05-06-113
3	Credit Lever Left Hand	1	111592004
4	Credit Lever Right Hand	1	111594081
5	Torsion Spring	1	111607009
6	LED and Extension PC Board Assembly Upstacker (Kit) Downstacker (Kit)	1	 111630122 111638123
7	LED to Control PC Board Cable Assembly	1	112511003
8	Screw 2-28 x 1/4	3	114680001
9	Timing Belt	2	04-22-137
10	Motor Bracket Assembly Upstacker (Kit) Downstacker (Kit)	1	 111513211 111519213
11	Motor/Gearbox Assembly (Kit)	1	111630127
12	Screw #4-40 P/H	2	08-00-138
13	Shield Plate	1	111606133
14	Screw #4-40 x 7.93mm	2	08-00-139

PARTS BREAKDOWN

AL2/4 Magazine/Stacker Housing Assembly

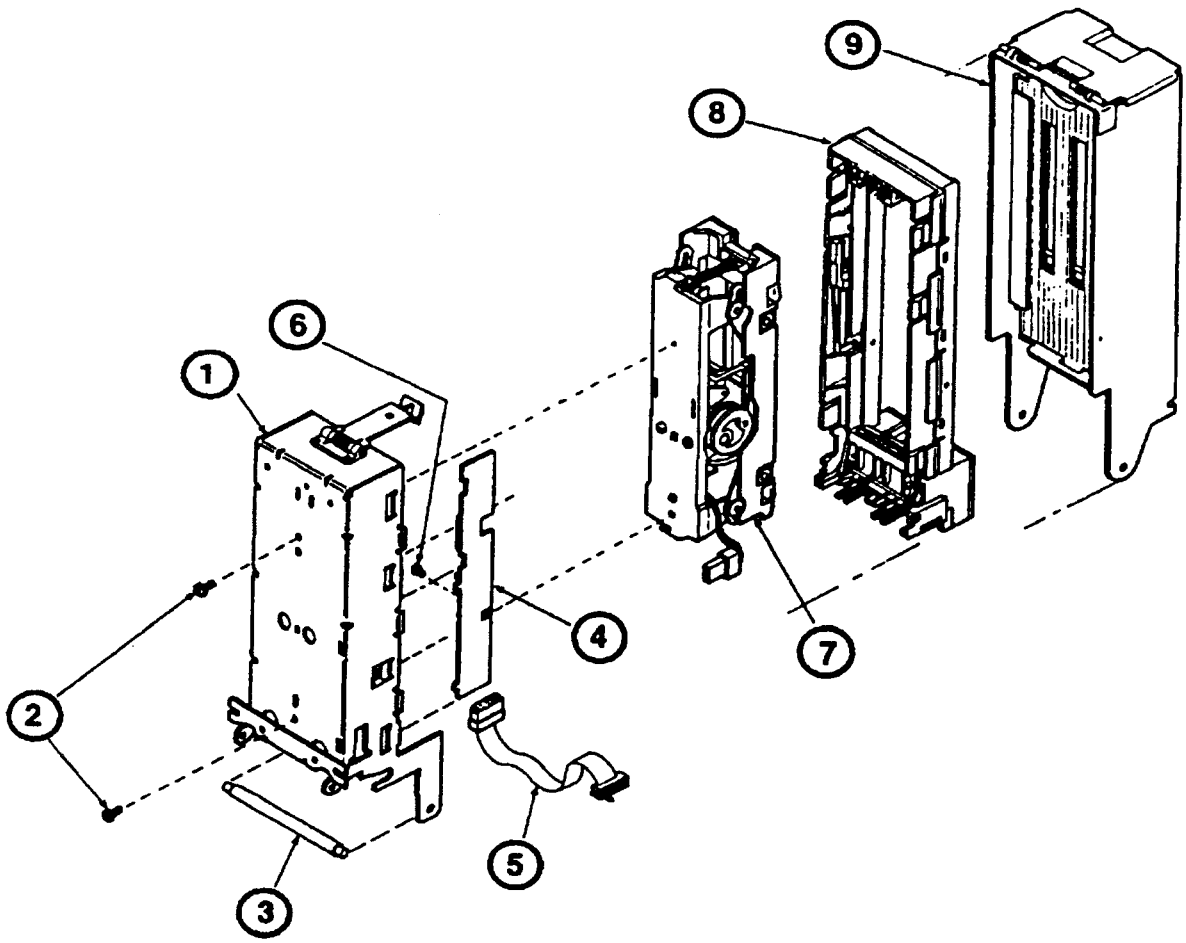


Figure 18. Magazine/Stacker Housing Assembly Breakdown

AL2/4 Magazine/Stacker Housing Assembly

Ref Num	Description	Qty	Part Number
1	Hinged Latch Stacker Assembly	1	09-02-007
2	Screw 6 x .312"	2	08-00-242
3	Magazine Pivot Pin	1	05-06-108
4	Stacker PC Board (Kit)		111638042
5	Stacker to Control PCB Cable Assembly Left Hand Right Hand	1	 112514010 112514015
6	Screw #4-40 P/H	1	08-00-138
7	Chassis High Speed Motor Assembly	1	Ref Pg. 15
8	Elevator (Kit)	1	111632028
9	Magazine Assembly Upstacker 200 Bills 400 Bills 600 Bills 1000 Bills Downstacker 200 Bills 400 Bills 600 Bills 1000 Bills	1	 09-02-026 09-02-027 111601166 111609167 09-02-038 09-02-033 111601166 111609167
Not Shown	Double Tab Hinge (600 and 1000 bill magazines only) Screw (for double tab hinge)	1 1	111596144 116573003
Not Shown	Pressure Plate (for magazine) for 200 Bills for 400 Bills for 600 Bills for 1000 Bills	1	 05-00-067 04-04-056 04-04-082 04-04-100

PARTS BREAKDOWN

High Speed Motor Chassis Assembly

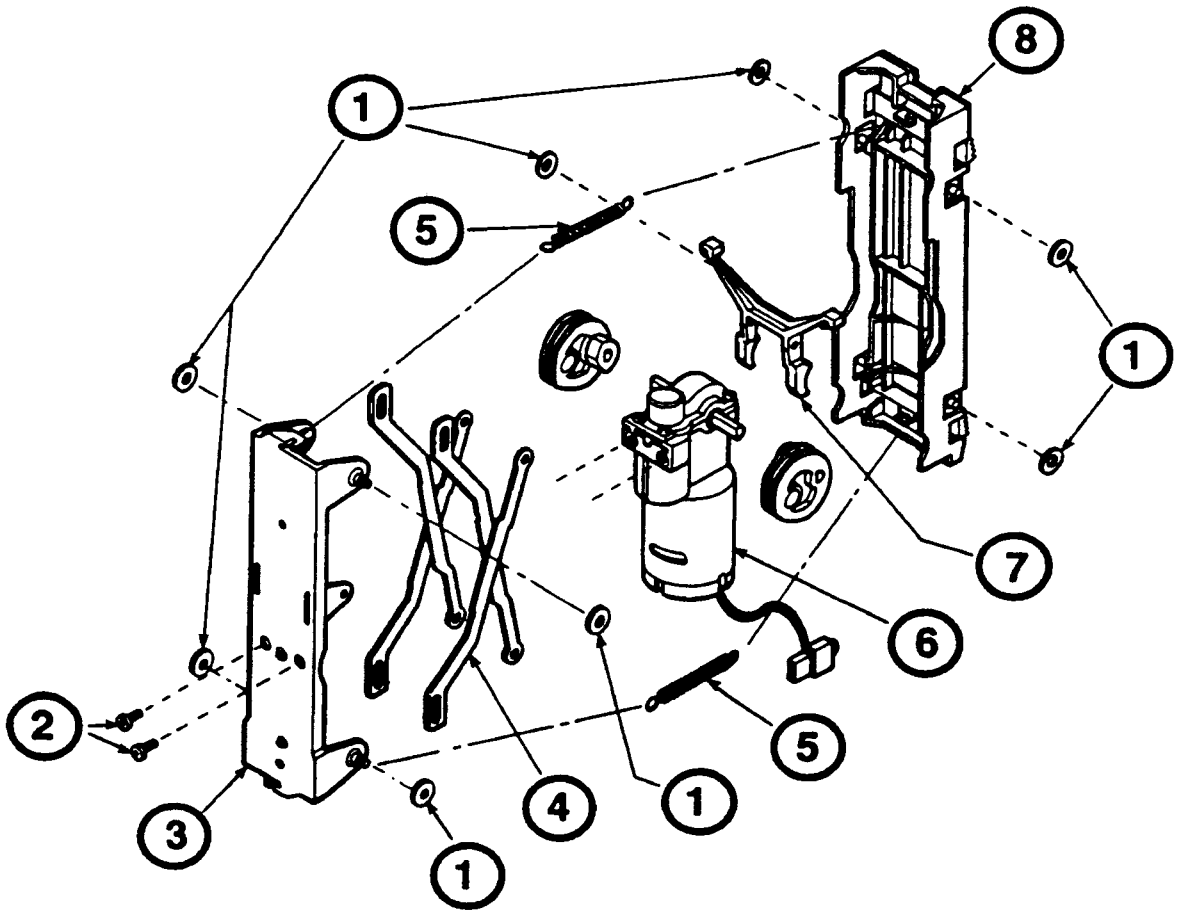


Figure 19. High Speed Motor Chassis Assembly Breakdown