



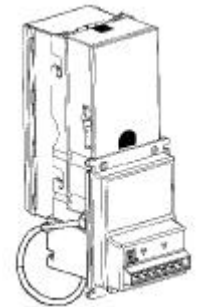
# AE2600 Series Installation Guide

## GENERAL INFORMATION

This Bill Acceptor is designed to fit into the standard bill acceptor opening provided by Gaming, Lottery and Vending machine manufacturers. It mounts on either the existing four mounting studs located in the amusement or vending machine or on the mounting bracket provided in various mounting kits.

Features of the AE2600 include:

- \$1,\$2, \$5, \$10 and \$20 bill acceptance
- Four Direction bill acceptance
- Coupon Configuration
- Enhanced Security
- Easy Access to the bill path even while mounted
- Diagnostic LED (see back of unit)
- Multi-Drop Bus, Extended Bi - Directional Serial ,Vending and Gaming Interfaces (115/24V)
- Lighted Bezel (On Compact Model Only)



**Figure 1**

## INTERFACE OPTIONS

The AE2600 Bill Acceptor is capable of operating via five interfaces: Low Level Pulse, AC/High Level Pulse, Serial, MDB or Extended Bi - directional Serial. The following harnesses are available to support these interfaces.

- 250077006 - 115 VAC Power Cable (High/Low Level Pulse or Serial Interface)
- 250075007 - 24 VAC Power Cable (High/Low Level Pulse or Serial Interface)
- 250071009 - 24 VAC Multi-Drop Bus Interface (MDB)

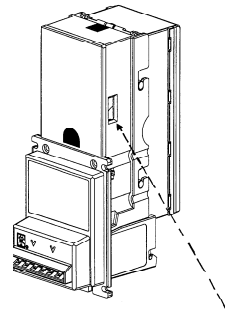
*Note: These harnesses fit onto the male connectors located on the left side of the Bill Acceptor (see Fig. 3) and are designed to connect to the machine controller's or coin changer's Bill Acceptor interface harness. For further information on either interface harnesses or mounting kits, please contact your supplier or Mars Electronics Service Center.*

## INSTALLATION INSTRUCTIONS

### 1. Set Bill Acceptor option switches. See Figure 2.

**Note:** When you receive the product, all switches are off. This will automatically enable the options as follows:

- Accept \$1, \$2, \$5, \$10 and \$20 dollar bills.
- Four way accept.
- High Security accept.
- 50ms on/50 ms off pulse (short pulse).
- One pulse per dollar.
- Harness enable.



**Important note:** Placing any switch ON will override the above options, and the Bill Acceptor will operate according to the switch settings label! (See Figure 2)

**NOTE:** The unit may be configured with the attached coupon rather than using the option switches. *For coupon configuration, turn all option switches OFF and proceed to Coupon Configuration instructions on page 4.*

SWITCH DESCRIPTION	
1,2	Combination of these two switches selects number of enabled bill directions.
3	Position allows either acceptance or security to be maximized.
4,5	Individual switches enable or disable corresponding bill denomination.
6	Position allows for either <b>Always Enable</b> , acceptance at all times or <b>Harness Enable</b> , acceptance by way of controller.
7	Position allows for either <b>gaming: short pulse</b> (50ms on\ 50ms off), <b>long pulse</b> (60ms on\300ms off) or <b>vending: short pulse</b> (30ms on\ 50ms off), <b>long pulse</b> (35ms on\300ms off)
8	Position allows either <b>Gaming Interfaces</b> (amusement) or <b>Vending Interfaces</b> .

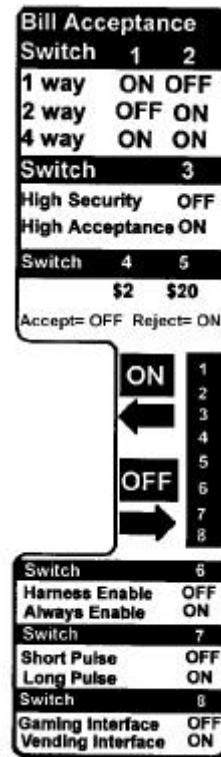


Figure 2

### 2. Remove power from the entire machine.

**3. Install the AE2600** onto the Bill Acceptor mounting studs and through the mounting hole of the machine. Secure using the appropriate hardware.

## NOTES

## NOTES

### INSTALLATION INSTRUCTIONS (CONTINUED)

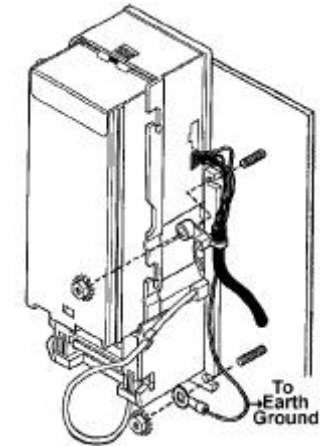
**4. Connect the AE2600 to the appropriate interface harness.** A power cord (available separately - Mars Part No. 01-12-139-4- 110V only ) may be used for supplying power to the bill acceptor and for routing pulse credits to a coin switch.

**Do not force the harness into bill acceptor!! Will cause damage to the pins!**

On 110V units, attach the enclosed tie-wrap to the mounting stud closest to the harness connection on the Bill Acceptor. Pull tie-wrap tightly around harness wires, including ground wire (equipped with ring terminal), to provide strain relief. **See Figure 3.**

**5.** On 110V units, place the ring terminal of the grounding wire to an earth ground location within the machine. Secure with the appropriate hardware.

**IMPORTANT NOTE TO OEMs: Step 5 must be performed prior to Machine Dielectric Voltage - Withstand Testing Hi-Pot.**



**6. Apply power to the machine.**

**Figure 3**

Observe that the LED status indicator on the back of the AE2600 is ON and NOT flashing. This condition indicates that the unit is ready to accept bills.

- If the light is OFF, check to ensure that power has been applied.
- If the light is flashing, refer to the label located on the back of the magazine for a description of diagnostic codes.

**7. Check operation**

- Insert a \$1 bill and observe that it is accepted and stacked.
- Repeat for other enabled bills.
- Ensure that proper credit was given, if not reconfigure the AE2600, using coupon or switch 7, for **LONG PULSE** see page 2.

**8. Remove bills and check status**

- Instructions for bill removal are located on a label at the back of the magazine.
- Verify that the LED status indicator remains steady ON.

## COUPON CONFIGURATION (ALL SWITCHES OFF)

1. **Carefully remove the coupon** from this Installation Guide. Copies are usable if made on a standard, carbon-based, non-color copier, AND if cut to match the size of the attached coupon. **(Coupon can be found on page 9.)**

2. **Fill out the coupon using a #2 pencil. Fill in one block for each line. Do not mark the back of the coupon.**

**Section 1 - Bill Direction** Enable one or two-way (face-up) or four-way acceptance (all directions).

**Section 2 - Bill Denomination** Fill in one block for each denomination. Select High Accept for maximum bill acceptance. Select High Security for a higher level of discrimination. Select OFF to reject bills of that denomination.

**Section 3 - Pulse Timing** Select either SHORT, LONG or Credit Line pulse timing.

**Section 4 - Pulses per Dollar** Most gaming and lottery machines use four pulses per dollar and vending machines use one pulse per dollar.

**Section 5 - Interface Selection** Select one of three interfaces.

3. **Locate the service button** on the back of the unit (refer to Figure 4). depress the button once to enter coupon set-up mode. Depressing again will exit the mode.

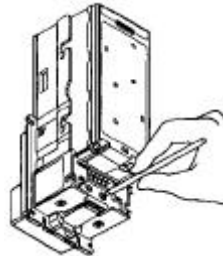


Figure 4

4. **Insert coupon and verify settings were accepted.**

**ACCEPTED:** Coupon returned immediately and LED flashes 10 times when coupon pulled out.

**REJECTED:** Coupon returned after ten seconds. LED flashes number of times corresponding to section improperly filled out. Example: Six flashes for improper section six. If rejected, review instructions or try new coupon.

## CLEANING

The AE2600 series will not need cleaning as often as magnetic sensing Bill Acceptors. If cleaning is required, use a soft cloth moistened with mild, non-abrasive detergent. Refer to label located on the back of the magazine for cleaning instructions.

**PINOUT INFORMATION FOR 30 PIN CONNECTOR (CONT. )**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

115 Volt AC Model

24 Volt AC Model

**GAMING AND LOTTERY PINOUTS ONLY!**

- |          |                                     |                             |
|----------|-------------------------------------|-----------------------------|
| • Pin 1  | CREDIT RELAY, Common                | Same                        |
| • Pin 2  | RESERVED                            | CREDIT RELAY N.O.           |
| • Pin 3  | RESERVED                            | 24 VAC HOT (Power)          |
| • Pin 4  | 115 VAC NEUTRAL ( Power )           | RESERVED                    |
| • Pin 5  | RESERVED                            | <b>KEY</b>                  |
| • Pin 6  | <b>KEY</b>                          | RESERVED                    |
| • Pin 7  | CREDIT PULSE                        | Same                        |
| • Pin 8  | INTERRUPT_NOT                       | Same                        |
| • Pin 9  | SERIAL / PULSE_NOT                  | Same                        |
| • Pin 10 | LOW LEVEL GND / SIGNAL GND          | Same                        |
| • Pin 11 | SERIAL_DATA_OUT /<br>BDS_MASTER_RXD | Same                        |
| • Pin 12 | NOT USED                            | Same                        |
| • Pin 13 | NOT USED                            | Same                        |
| • Pin 14 | NOT USED                            | SERIAL_DATA_IN              |
| • Pin 15 | NOT USED                            | Same                        |
| • Pin 16 | CREDIT RELAY, Normally Open         | DC RET./CSH.CNTR.LOW        |
| • Pin 17 | RESERVED                            | RESERVED                    |
| • Pin 18 | RESERVED                            | RESERVED                    |
| • Pin 19 | <b>KEY</b>                          | CASH COUNTER HIGH           |
| • Pin 20 | 115 VAC HOT ( Power )               | 24 VAC NEUTRAL (Power)      |
| • Pin 21 | EARTH GROUND                        | <b>KEY</b>                  |
| • Pin 22 | OUT-OF-SERVICE_NOT                  | Same                        |
| • Pin 23 | RESERVED                            | RESERVED                    |
| • Pin 24 | ACCEPT ENABLE_NOT                   | Same                        |
| • Pin 25 | 200 OHMS TO 5 VOLT                  | Same                        |
| • Pin 26 | SEND_NOT                            | Same WITH<br>BDS_MASTER_TXD |
| • Pin 27 | RESERVED                            | Same                        |
| • Pin 28 | RESERVED                            | Same                        |
| • Pin 29 | RESERVED                            | Same                        |
| • Pin 30 | RESERVED                            | Same                        |

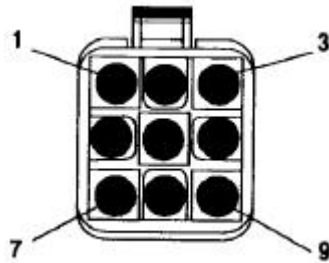
**CHECK LIST**

If a problem occurs	Please check the following
Unit dead (won't power up).	1. Harness(es) may be loose, not properly connected, or bent pins.  2. Check source voltage to ensure that power is being supplied to the bill acceptor.
Red message light flashing twice (disabled from mech / VMC).  <b>NOTE:</b> If flashing other than twice refer to label located on back of the magazine.	1. Check settings on the bill acceptor to ensure that proper interface options are being used. If only the 9 pin power cable is being used make sure that switch # 6 is in the on position (Always Enable) and switch # 8 is in the off position (Gaming Interface).
Unit takes a bill, but won't credit.	1. Check to ensure that the proper interface has been selected.

**PINOUT INFORMATION FOR 30 PIN CONNECTOR**

• **Power Harness**

115VAC Part # 250077006  
 24VAC Part# 250075007

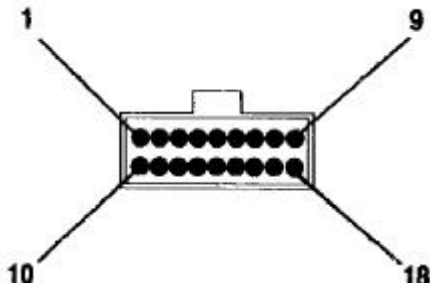


Connector Assignment for the 9 pin Cable

- Pin 1 NEUTRAL INHIBIT
- Pin 2 NEUTRAL ENABLE
- Pin 3 HOT ENABLE
- Pin 4 115 VAC HOT ( POWER )
- Pin 5 24 VAC HOT ( POWER )
- Pin 6 115 / 24 VAC NEUTRAL
- Pin 7 CREDIT RELAY ( N.O.)
- Pin 8 CREDIT RELAY ( COMM. )
- Pin 9 Reserved

9 - Pin Mating Connector
AMP "MATE-N-LOCK (9) pin
AMP Part #172161-1 Shell
AMP Part #170364-1 Male Pin
#22 Gauge Wire Recommended

- **Alternate plug compatibility for pins 7-15 and 22-30 of the 30 pin connector.**



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 Front cover
#22 Gauge Wire Recommended

**PINOUT INFORMATION FOR 30 PIN CONNECTOR (CONT. )**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	

115 Volt AC Model

24 Volt AC / MDB Model

**VENDING PINOUTS ONLY!**

- |          |   |                             |
|----------|---|-----------------------------|
| • Pin 1  | CREDIT RELAY, Common                      | Same                        |
| • Pin 2  | RESERVED                                  | CREDIT RELAY N.O.           |
| • Pin 3  | NEUTRAL ENABLE                            | 24 VAC HOT (Power)          |
| • Pin 4  | 115 VAC NEUTRAL ( Power )                 | HOT ENABLE                  |
| • Pin 5  | NEUTRAL INHIBIT                           | <b>KEY</b>                  |
| • Pin 6  | <b>KEY</b>                                | RESERVED                    |
| • Pin 7  | \$ 1 CREDIT_NOT                           | Same                        |
| • Pin 8  | INTERRUPT_NOT                             | Same                        |
| • Pin 9  | \$ 5 CREDIT_NOT                           | Same                        |
| • Pin 10 | LOW_LEVEL_GND                             | Same                        |
| • Pin 11 | DATA_NOT                                  | Same                        |
| • Pin 12 | ESCROW, High                              | Same                        |
| • Pin 13 | \$ 5 ENABLE, High                         | Same                        |
| • Pin 14 | \$ 2 ENABLE High                          | Same With<br>MDB_MASTER_TXD |
| • Pin 15 | \$ 1 ENABLE, High                         | Same                        |
| • Pin 16 | CREDIT RELAY, Normally Open               | DC RET./CSH.CNTER.LOW       |
| • Pin 17 | RESERVED                                  | NEUTRAL INHIBIT             |
| • Pin 18 | HOT ENABLE                                | NEUTRAL ENABLE              |
| • Pin 19 | <b>KEY</b>                                | CASH COUNTER HIGH           |
| • Pin 20 | 115 VAC HOT ( Power )                     | 24 VAC NEUTRAL (Power)      |
| • Pin 21 | EARTH GROUND                              | <b>KEY</b>                  |
| • Pin 22 | OUT-OF-SERVICE_NOT                        | Same                        |
| • Pin 23 | RESERVED                                  | MDB_34 Volt DC              |
| • Pin 24 | ACCEPT ENABLE_NOT                         | Same                        |
| • Pin 25 | \$ 2 CREDIT_NOT / OUT OF<br>SERVICE POWER | Same                        |
| • Pin 26 | SEND_NOT                                  | Same                        |
| • Pin 27 | \$ 1 ENABLE, Low                          | Same                        |
| • Pin 28 | \$ 2 ENABLE, Low                          | Same With MDB_COMMON        |
| • Pin 29 | \$ 5 ENABLE, Low                          | Same                        |
| • Pin 30 | ESCROW, Low                               | Same                        |

Connector Assignment For Cash Counter 115v model only

3	2	1
6	5	4

- Pin 1 Reserved
- Pin 2 Reserved
- Pin 3 Cash Counter Present Input
- Pin 4 Cash Counter Pulse ( Ground )
- Pin 5 Cash Counter Pulse ( Source )
- Pin 6 Reserved