VFM1 BILL ACCEPTOR
Installation Guide

GENERAL INFORMATION

INTERFACE METHODS

The MARS ELECTRONICS® Bill Acceptor (Fig. 1) is designed for use with a changer or electronic controller with bill acceptor interface. The bill acceptor is capable of operating via two pulse interfaces, Low Level or AC/High Level. The VFM1 bill acceptor automatically configures to these interfaces.

The VFM1 Bill Acceptor accepts $1 only, regardless of interface used.

Low Level Pulse
Uses 9-pin and 18-pin connectors
Escrows 1 bill

AC/High Level Pulse
Uses 9-pin connector only
No bill escrow capability

OPERATION

The coin changer or controller supplies the logic for bill acceptor operation. As a result, the bill acceptor operates somewhat differently in each application. Variables include:

- accept/no accept function
- number of bills accepted
- exact change operation
- escrow return

Contact the changer or controller manufacturer for operational details.
Step 1: Set Bill Acceptor Option Switches

The bill acceptor option switches are factory pre-set as shown in figure 2. This allows for standard acceptance and bi-directional insertion of the dollar bill.

![Option Switch Functions](image)

*NOTE: The STANDARD ACCEPT MODE (switch #2 on) recognizes only bi-directional acceptance of the dollar bill, regardless of switch #1 setting.

- **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 two (2) captive screws at opposite corners of the black cover and disengaging the Control Board/Cover Assembly.

- **Set the switches** (Fig. 3) with a retracted ball point pen or small screwdriver. Do not use a graphite pencil point. Replace the Control Board when switches are set.
Step 2: Mount Bill Acceptor
Mount the bill acceptor using the studs provided in the vendor. To retrofit existing vendors, a special mounting kit may be required.

Step 3: Set Changer Option Switches
Set changer option switches. Refer to the Installation/Operation Guide included with the changer.

Step 4: Connect Harnesses
Connect the harness to the bill acceptor (Fig. 5). Refer to the installation procedure supplied with the harness being used.

Controllers
When used with an electronic controller, the bill acceptor plugs directly into the control board. A special adapter harness may be required.

Step 5: Test the Bill Acceptor
The bill acceptor is now ready for operation. Load the coin changer with coins as required for bill acceptance.
- Insert $1 bills only. They should be accepted in accordance with changer or controller operation.
- Insert bills black (portrait) side up. Bills should be accepted in one or both directions as selected with Option Switch #1. Insert bills green side up; they should be rejected.

Step 6: Remove Bills
To remove bills from the Magazine (Fig. 4), open the assembly by releasing the magazine latch. Remove bills through the top (all bill acceptors) or side (400, 600, and 1,000-bill magazines) panels.

Note: Do not remove bills from inside the bill acceptor by pressing down on the pressure plate. This can damage the Magazine.
MODELS TRC-6500, TRC-6800H

Cash Meter #91-16-168-4

#01-12-121-4 (factory installed on H models)

LCD Credit Display #91-20-139-4

#01-12-065-4

Bill Acceptor (Low Level Pulse)

#01-12-012-4

Talking Vendor Module (available from The Coca-Cola Co.)

OR

#01-12-111-4

Bill Acceptor (AC/High Level Pulse)

To Changer Power Source

MODELS MC5920AH, MC5930AH

Cash Meter #91-16-168-4

#01-12-118-4 (factory installed)

LCD Credit Display #91-20-139-4

or

LED Credit Display #91-16-175-4

(MC5920AH) #01-12-119-4

(MC5930AH) #01-12-150-4

Bill Acceptor (AC/High Level Pulse)

Bill Acceptor/Changer Interface Guide

FIGURE 5
MODELS TRC-6200/Trc-6200H, TRC-6200C/Trc-6200CH, 6200D/6200DH

#01-12-110-4 (factory installed on H models)

LCD Credit Display #91-20-139-4

Talking Vendor Module (available from The Coca-Cola Co.)

#01-12-012-4

Bill Acceptor (AC/High Level Pulse)

#01-12-111-4

To Changer Power Source

MODELS MC5800D/MC5800DH, MC5805D/MC5805DH

(manufactured after Serial #505-06500)

#01-12-064-4 (factory installed on H models)

Cash Meter #91-16-188-4

LCD Credit Display #91-20-139-4

or LED Credit Display #91-16-175-4

#01-12-065-4

Bill Acceptor (Low Level Pulse)

Bill Acceptor/Changer Interface Guide (cont.)

FIGURE 5

5
MODELS MC5802, MC5807
(manufactured prior to Serial #505-06500)

Cash Meter
#91-16-158-4

LCD Credit Display
#91-20-139-4
or
LED Credit Display
#91-16-175-4

Talking Vender Module
(available from The Coca-Cola Co.)

Bill Acceptor
(AC/High Level Pulse)

#01-12-012-4
(factory installed)

#01-12-011-4
(factory installed)

#01-12-111-4

To Changer Power Source

MODELS MC5802, MC5807
(manufactured after Serial #505-06500)

Cash Meter
#91-16-158-4

LCD Credit Display
#91-20-139-4
or
LED Credit Display
#91-16-175-4

Talking Vender Module
(available from The Coca-Cola Co.)

Bill Acceptor
(AC/High Level Pulse)

#01-12-061-4
(factory installed)

#01-12-012-4
(factory installed)

OR

#01-12-111-4

To Changer Power Source

Bill Acceptor/Changer Interface Guide (cont.)

FIGURE 5

6
MODEL TRC-6800/TRC-6800H COIN CHANGERS

The TRC-6800/TRC-6800H coin changers have the capability of using either AC/High Level or Low Level Interface (Refer to Page 1 for a general description of these interfaces).

The coin changer's option switch #4 selects the type of interface.

![Option Switch Diagram]

**TRC-6800/TRC-6800H Changer Option Switches**

**FIGURE 6**

**Note:** With all TRC-6800 changers, the Accept Gate activates with each bill insertion. This is a signal indicating that a bill has been inserted.

**Other coin changers and the interface they support:**
- MC5800D — Low Level Interface, Escrow to Vend
- MC5805D — Low Level Interface, Escrow to Select — Cigarette
- MC5802 — AC/High Level Interface, Escrow to Vend
- MC5807 — AC/High Level Interface, Escrow to Select — Cigarette
- TRC6200 — AC/High Level Interface, Escrow to Vend
CONTROLLERS

Most electronic vendors interface with the MARS ELECTRONICS® Bill Acceptor. The bill acceptor operates differently with each controller. Contact your vending machine supplier for information on specific applications.

- **U-SELECT-IT MODEL C7/5 CAN SODA & JUICE VENDER (AC/High Level)**
  
  U-Select-It Bill Acceptor Harness, Part #620740, required.

- **ROCK-OLA (MODELS CCC6E-00, CCC6E-01, CCC6E-02) (AC/High Level)**
  
  Mars Electronics Bill Acceptor Harness, Part #01-12-096-4, required.

- **VENDO COMPANY CAN SODA VENDER (MODELS 427E and 475E) (AC/High Level)**
  
  Mars Electronics Bill Acceptor Harness, Part #01-12-096-4, required.

- **AUTOMATIC PRODUCTS SERIES 6000-7000 SNACK VENDER (Low Level)**
  
  Mars Electronics Bill Acceptor Harness, Part #01-12-076-4, required.

- **AUTOMATIC PRODUCTS GLASS FRONT MERCHANDISER (MODELS 101, 102, 103 — NEW SERIES) (Low Level) — 24VAC Bill Acceptor Required**

  Bill acceptor harness supplied by Automatic Products.

- **RMI 200 COFFEE SERIES AND 300 COLD DRINK (CUP) SERIES (Low Level) — 24VAC Bill Acceptor Required**

  Bill acceptor harness supplied by RMI.

For further operation and maintenance information, contact Mars Electronics Customer Service Department at 1-800-345-8172.
VFM Series

Harness and Switches - High Level

- Models TRC-6800, TRC-6800H

#01-12-121-4 (Factory Installed on H Models)

TRC-6800 Option Switch

#01-12-111-4

Bill Acceptor (AC/High Level Pulse)

To Changer Power Source

VFM1

VFM3

Security

Direction

VFM Series

Harness and Switches - Low Level

- Models TRC-6800, TRC-6800H

#01-12-121-4 (Factory Installed on H Models)

TRC-6800 Option Switch

#01-12-065-4

Bill Acceptor (Low Level Pulse)

VFM1

VFM3
# VFM Series

## Electronic Vendors Interface Guide

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<th>Switch Settings</th>
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</table>
VFM Series

VFM3 Option Switch Functions

- **Pulses/Dollar**
  - Short Pulse: 35ms ON/50ms OFF
  - Accepts Bills In One Direction (Operates in High Security Mode Only)
  - Long Pulse: 35ms ON/300ms OFF

- **Standard Acceptance ($1 Only)**
  - Relay (Timing Set by Switch #6)
  - High or Low Level Pulse Interface
  - Accepts $1 Bill

- **Serial Interface**
  - 150ms Pulse on Appropriate Credit Line ($1, $2, $5). In addition, for $1 Only, there is a 150ms Relay Closure

- **High Security Acceptance**

*Note: High Security Acceptance is for Use in Low Level Contamination Environments*

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VFM Series

VFM1 Option Switch Functions

**Bill Direction | Security Option**

- **Accepts Bills In One Direction Only (Face Up and Denomination First)**
  - Standard Accept

- **Accepts Bills In Both Directions (Face Up)**
  - High Security Accept (For Use in Environments with Low Level of Industrial Contamination)

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VFM Series

TRC-6800/TRC-6800H Option Switches

- **U.S./Canada**
  - $ Coin Accept
  - Low 25¢
  - No Escrow
  - Escrow To Select

- **CIGARETTE**
  - Standard
  - No $ Coin Accept
  - U.S. Only
  - High 25¢
  - Escrow To Vend
  - Escrow Return

- **High Level Bill Acceptor**

- **Low Level Bill Acceptor**