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925 Pilot Road, Las Vegas, Nevada 89119

Office & Technical Support: (800) 683-7248 (option 5 after hours), FAX: (702) 651-0214  
 E-mail: [optipaysupport@jcm-american.com](mailto:optipaysupport@jcm-american.com) <http://www.jcm-american.com>



# Optipay® BV

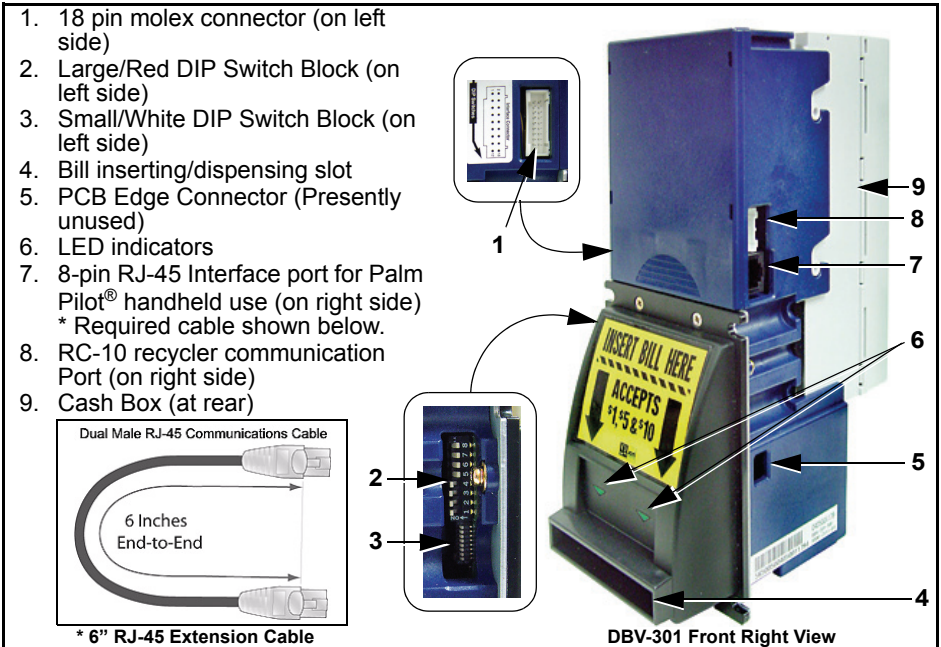
## DBV-30X Bill Validator

This document contains information for installing and configuring the Optipay® DBV-30X Bill Validator. It is designed to mount in a Vending Machine using the four (4) existing studs or a custom bracket provided within the individual machine's configuration kits. The DBV-30X contains the following features:

- \$1, \$5, \$10, and \$20 bill (banknote) acceptance
- Coupon Capable (Magnetic, Optical, Bar Code)
- One Magnetic and three multi-wave length sensors
- 4-Way bill acceptance
- High security
- Optional bill recycling capability (using the Optipay® RC module)
- MDB (Multi Drop Bus)
- Color LED indicators for simple fault diagnostics
- Flash memory programming via Palm Pilot® or PC base station programming
- Removable/Replaceable cassettes

### PRIMARY OPTIPAY® BV BILL VALIDATOR COMPONENTS

Figure 1 illustrates the primary components of a Bottle Mask Fitted DBV-30X.



**Figure 1** Primary Bottle Mask Fitted DBV-30X Component Parts

Figure 2 illustrates the primary components of a Snack Mask Fitted DBV-30X.

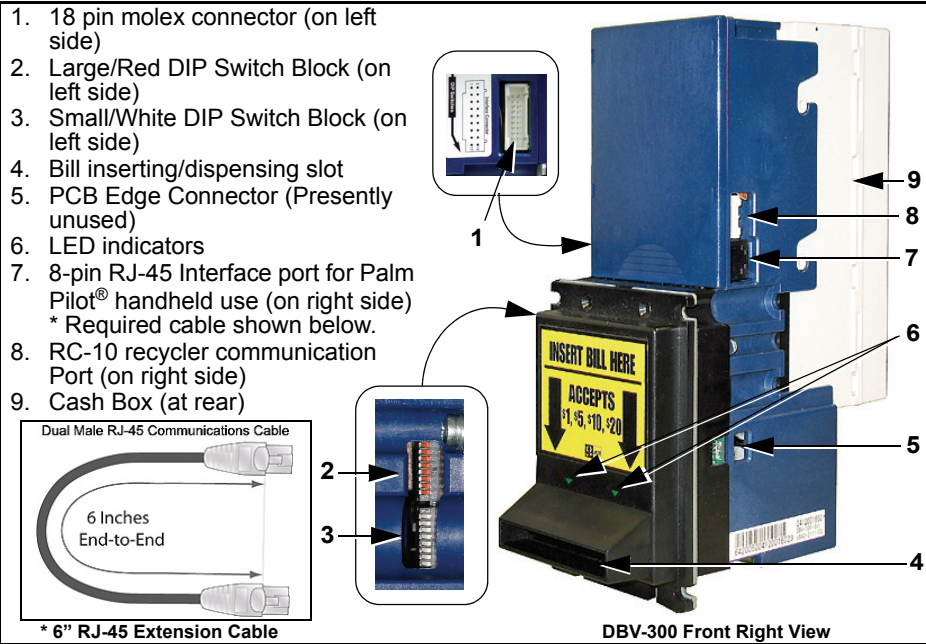


Figure 2 Primary Snack Mask Fitted DBV-30X Component Parts

**MOUNTING INSTRUCTIONS**

The DBV-30X Bottle Mask must be mounted flush to the door surface without interference as illustrated in Figure 3a. The DBV-30X Snack Mask must be mounted flush to the door surface. This configuration initially offsets the unit 1/2" back from the mounting surface as illustrated in Figure 3b. Tighten the four mounting nuts in the order illustrated in Figure 3c.

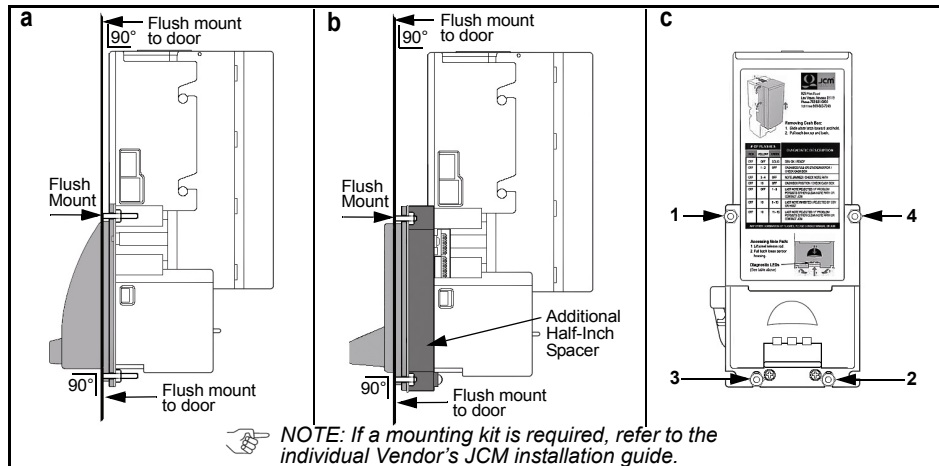


Figure 3 Bottle & Snack Mask Mounting Considerations

**PERSONAL NOTES AND COMMENT AREA**

Write any pertinent notes or comments regarding your particular installation here.


If additional information for interconnecting an A-66 to a DBV-301 and optional RC-10 Optipay® family unit are required, refer to the Optipay® System Interconnection Guide (Part No. 960-000114R) to ensure a proper installation.


**OPERATIONAL CHECK**

Once the unit is installed, perform the following steps to ensure the DBV-301 is communicating with the MDB.

1. Power up the unit.
2. Wait for the LEDs on the front panel to stop flashing.  
When the LEDs are solid the unit is in its operational mode.
3. Insert a bill and make sure the bill value inserted matches the value reading indicated on the machine's front panel illuminated icon displays.
4. Press the coin return lever to clear the machine's credit.

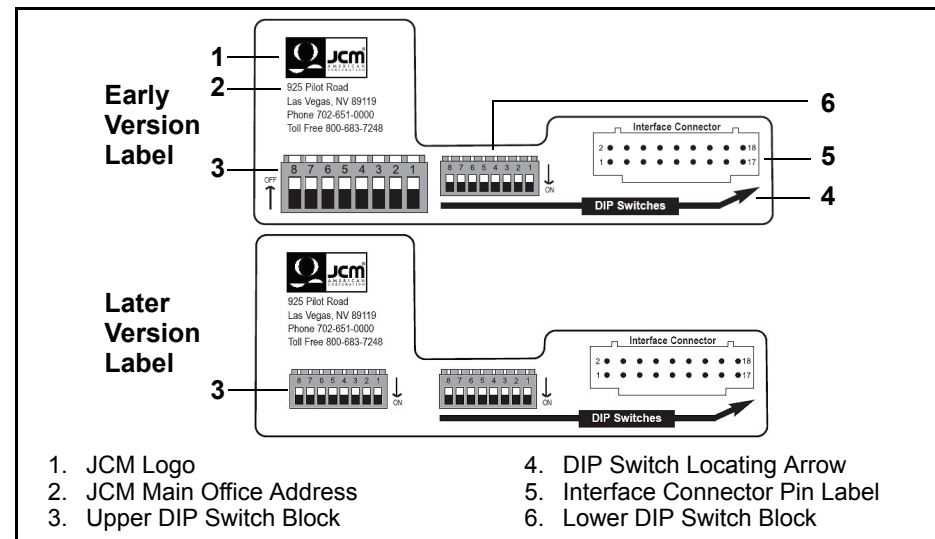
If further detailed instruction is necessary, refer to the primary DBV-301 Service Manual (Part No. 960-000103R).

 **Caution: Turn the equipment power OFF before removing or replacing any components.**

 **Caution: Tighten mounting nuts until snug. DO NOT over tighten.**

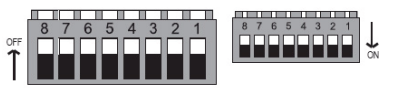

**DIP SWITCH LABELS AND SETTINGS**

Figure 4 illustrates the label differences between the early and later version DBV-30X DIP Switch Blocks.



**Figure 4** Early & Later Version DIP Switch Side Label

Figure 5 defines the DBV-30X DIP Switch settings.

Early Version DIP Switches	Later Version DIP Switches
 <p>Upper DIP Switch Block Lower DIP Switch Block</p>	 <p>Upper DIP Switch Block Lower DIP Switch Block</p>
<p>Upper 8 position (Large/Red or Small/White) DIP Switch Block settings are:</p> <ol style="list-style-type: none"> <li>1. OFF = accept \$1 ON = Reject \$1</li> <li>2. OFF = accept \$5 ON = Reject \$5</li> <li>3. OFF = accept \$10 ON = Reject \$10</li> <li>4. OFF = accept \$20 ON = Reject \$20</li> <li>5. Always = OFF</li> <li>6. Always = OFF</li> <li>7. Always = OFF</li> <li>8. OFF = Normal ON = Test Mode</li> </ol>	<p>Lower 8 position (Small/White) DIP Switch Block settings are:</p> <ol style="list-style-type: none"> <li>1. DIP Switches 1-7 Always = OFF</li> <li>2. DIP Switch 8 OFF = MDB I/F, DIP Switch 8 ON = Pulse I/F*</li> </ol> <p>*See DBV-30X Operations Manual (Part No. 960-000103R) for Pulse I/F settings.</p>

**Figure 5** Default DIP Switch Settings

## REMOVAL/REPLACEMENT

### CASH BOX

When the Recycler is not used, slide the white release tab located on top of the DBV-301 forward (See Figure 6) and pull the Cash Box up and out to remove it.

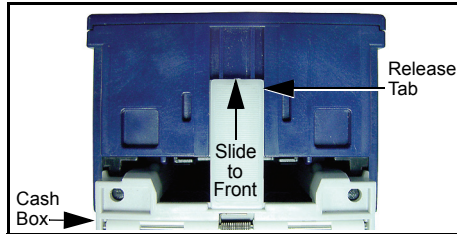


Figure 6 Cash Box Removal

### SENSOR MODULE

To remove the Sensor Module, press up [1] on the release rod locking bar and pull the module outward [2] from the frame (See Figure 7).

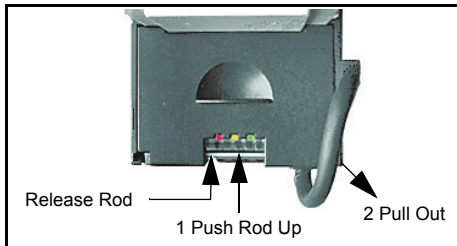
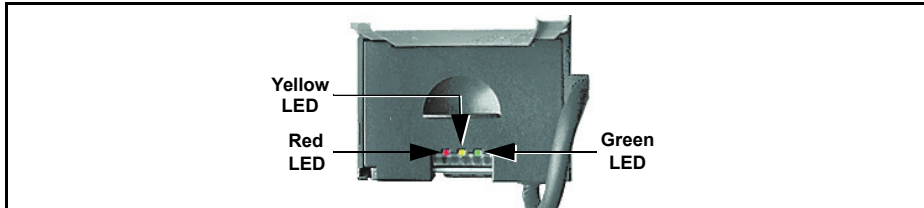


Figure 7 Sensor Module Removal

## ERROR CODES

The Figure 8 Table lists the DBV-30X LED Error Code flash definitions.



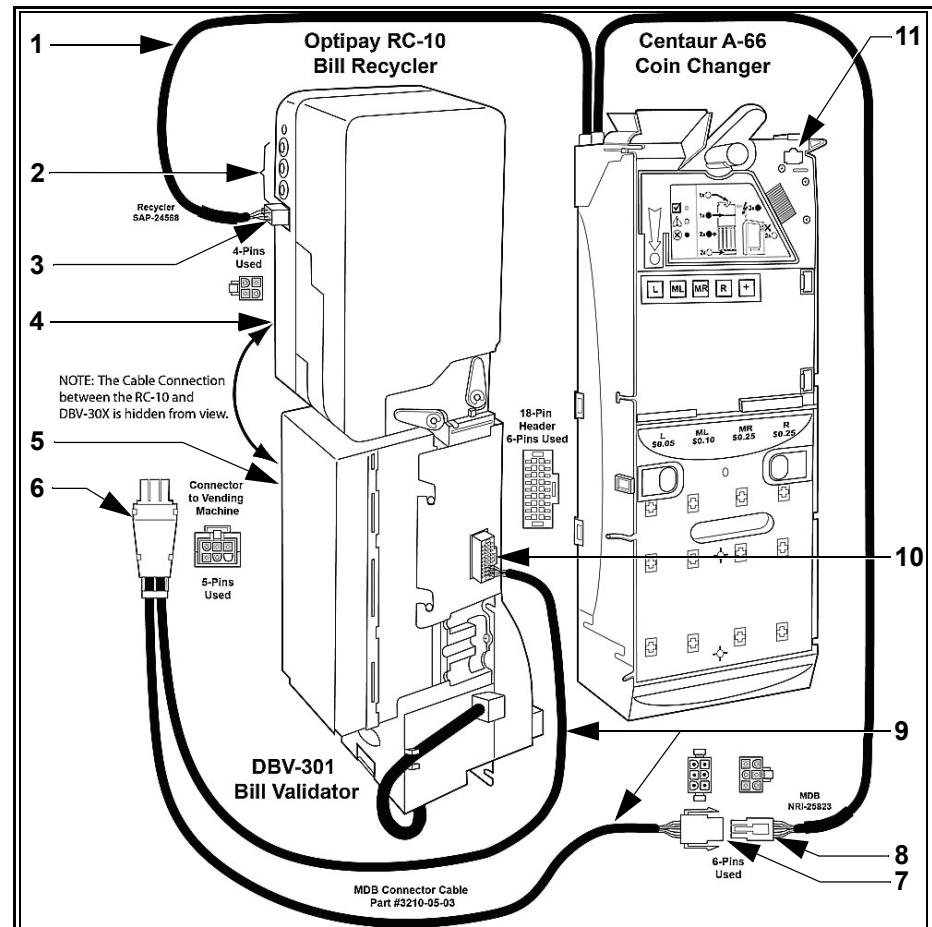
Sensor Module Error Code Flash Indications

Number of Flashes			Diagnostic Description
Red	Yellow	Green	
OFF	OFF	SOLID	DBV / OK / READY
OFF	1	OFF	CASH BOX FULL / CHECK CASH BOX
	2	OFF	STACKER ERROR / CHECK CASH BOX
OFF	3-4	OFF	NOTE JAMMED / CHECK NOTE PATH
OFF	10	OFF	CASH BOX POSITION / CHECK CASH BOX
OFF	OFF	1-8	LAST NOTE REJECTED / IF PROBLEM PERSISTS EITHER CLEAN NOTE PATH OR CONTACT JCM
OFF	OFF	9-10	LAST NOTE INHIBITED / REJECTED BY DBV OR HOST
OFF	OFF	11-15	LAST NOTE REJECTED / IF PROBLEM PERSISTS EITHER CLEAN NOTE PATH OR CONTACT JCM

Figure 8 DBV-30X Error Codes

## OPTIPAY® SYSTEM INTERCONNECTION

Figure 9 illustrates the proper connection of a DBV-30X to an A-66 and RC-10



1. Recycler Cable from the A-66 Top Front Port  
*NOTE: A 24 inch extension cable is also available (Part No. Q/N 400-100187).*
  2. RC-10 Control Buttons
  3. 4-Pin Recycler Plug (SAP-24568)
  4. RC-10 Bill Recycler
  5. DBV-301 Bill Validator
  6. 6-Pin Connector to Vending Machine (5-Pins used)
  7. Female 6-Pin Receptacle
  8. MDB Cable Plug from the A-66 Top Rear Port
  9. MDB Connector Cable Assembly (Part No. 400-100294R)
  10. 18-Pin Header Plug (5-Pins Used)
  11. A-66 Coin Changer
- \* NOTE: The DBV-301 to RC-10 Communications Cable is not shown. Refer to Optipay® RC Installation Guide Part No. 960-000107 for cabling illustrations.*

Figure 9 JCM Optipay System Equipment Interconnection