3. Open the required Ports (Comm and LPT).
4. Identify the Comm Port to which the UAC™ is attached. This is the Comm Port that will be selected by the application to enable the desired Bill Acceptor communications.

UAC LED INDICATORS

The LED Indications present on the top of a UAC™ Device Housing are as follows:

- The Green LED will light when the USB Communications Port is active, indicating a good USB connection, and that power is applied to the UAC™. If either the USB connection is not established, or power is not applied to the UAC™, the Green LED will be OFF (Out).
- The Red LED is the Status Indication for the WBA-xx or the UBA-xx Validator Series. The Red LED indicates errors while in the Test or Diagnostic mode. Refer to the appropriate Bill Acceptor Service Manual for the proper Error Code definition.

PART NUMBER CROSS REFERENCE

Table 3 Part Number Cross Reference List

JCMG Part No.	JAC Part No.	Part Description
G00205	501-100218R	UAC Module
	G00260	DC Power Adapter
	302-100007RA	Power Adapter AC Power Cord
	400-100249R	Harness, USB Cable A/B
G00154	302-200409R	Cable, Test Adapter,UBA/ WBA 1X/2X 4Mb
G00183	302-200411R	Cable, Test Adapter, Taiko ID-003
G00182	302-200410	Cable, Test Adapter, Taiko 7/11 ID-0E2 CC Talk
G00153	302-200404R	Cable, Test Adapter, EBA-1x
G00054	302-200405R	Cable, Test Adapter, EBA-03
G00055	302-200406R	Cable, Test Adapter, EB-200
G00163	302-200407R	Cable, Test Adapter, EBA-3x
N/A	960-100194R	Manual, UAC Operators Guide

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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 http://www.jcm-american.com

Operators Guide

JCM UAC™ Device

Operational Instructions

This document contains information for configuring and operating the JCM Universal Acceptor Connector™ (UAC) Device.

The UAC™ is a TTL and RS-232 to USB Protocol Converter that allows a JCM Product to directly connect to a PC using its standard USB Communications Port. JCM Products utilize either an Opto-isolated current loop (TTL) or an RS-232 Protocol for communication.

The UAC™ eliminates Jumper changing, Power Supply reconfiguration, RS-232 Circuit Board removal (when necessary), or using other complicated harness configurations to connect a Bill Validator to a computer for testing operations.

The three UAC™ Interface Kits available contain the following components:

- 1 - UBA/WBA UAC Kit (JCM Part No: 701-100103R) containing:
  - 1 - UAC Module (Part No: 501-100218R)
  - 1 - DC Power Adaptor (Part No: G00260)
  - 1 - Power Adaptor AC Power Cord (Part No: 302-100007RA) USA Version
  - 1 - USB Male A/B Cable (Part No: 400-100249R)
  - 1 - UBA-WBA Comm Cable (Part No: 302-200409R)
  - 1 - UAC Operators Guide (Part No: 960-100194R).
- 1 - Taiko (PUB7-11) UAC Kit (JCM Part No: 701-100104R) containing:
  - 1 - UAC Module (Part No: 501-100218R)
  - 1 - DC Power Adaptor (Part No: G00260)
  - 1 - Power Adaptor AC Power Cord (Part No: 302-100007RA) USA Version
  - 1 - USB Male A/B Cable (Part No: 400-100249R)
  - 1 - Taiko PUB 7/11 ID-0E3 (ccTalk) Test Adaptor Cable (Part No: 302-200410R)
  - 1 - Taiko ID-003 Test Adaptor Cable (Part No: 302-200411R)
  - 1 - UAC Operators Guide (Part No: 960-100194R)
- 1 - EBA UAC Kit (JCM Part No: 701-100105R) containing:
  - 1 - UAC Module (Part No: 501-100218R)
  - 1 - DC Power Adaptor (Part No: G00260)
  - 1 - Power Adaptor AC Power Cord (Part No: 302-100007RA) USA Version
  - 1 - USB Male A/B Cable (Part No: 400-100249R)
  - 1 - EBA-1x Test Adaptor Cable (Part No: 302-200404R)
  - 1 - EBA-03 Test Adaptor Cable (Part No: 302-200405R)
  - 1 - EB-200 Test Adaptor Cable (Part No: 302-200406R)
  - 1 - EBA-3x Test Adaptor Cable (Part No: 302-200407R)
  - 1 - UAC Operators Guide (Part No: 960-100194R).

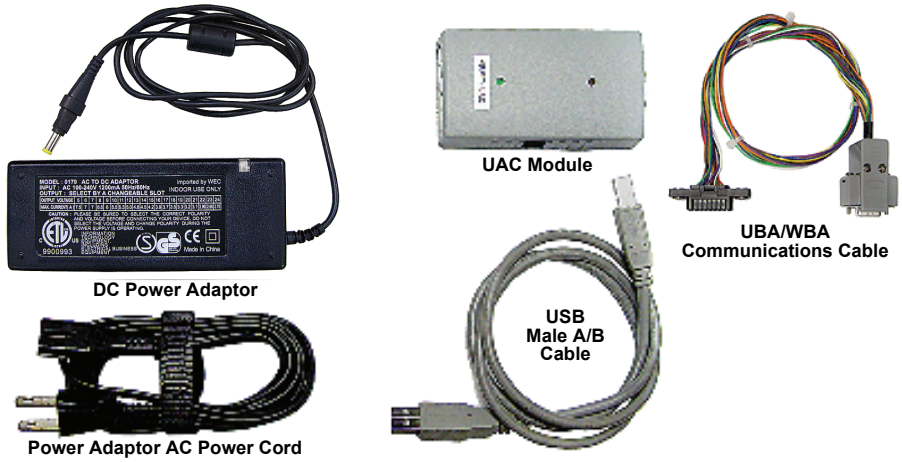
SPECIFICATIONS

The UAC™ Specifications are as follows:

- USB 1.1 or USB 2.0 compliant.
- Power consumption less than 100 mA.
- Power Supply: Input = 110V to 240V AC, Output = + 12 VDC @ 5.0A.
  The +12 VDC Power Adapter provides an operating voltage designed to power the Bill Acceptor while running Diagnostic or Acceptance Tests.
- Dimensions = 3.54 x 1.97 x 0.945 in. (90 x 50 x 24 mm).

UAC DEVICE KIT PRIMARY COMPONENTS

Figure 1 illustrates the primary component parts of a JCM UAC™ Kit.



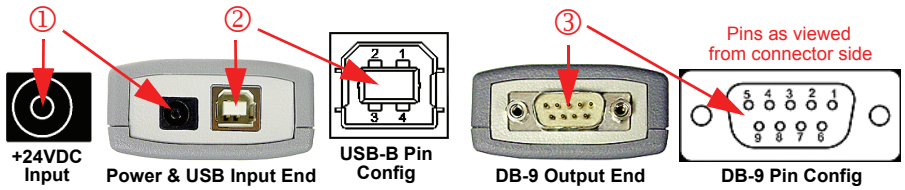
NOTE: Component photographs are for illustration only, JCM may change part manufacture or style, based on availability.

Figure 1 Primary UAC Kit Component Parts

UAC CONNECTORS

Table 1 illustrates and lists the connector types found on the UAC™ Device.

Table 1 UAC Connector Configurations



No.	Connector Function	Remark
1	+12 VDC 2.0A Input from Power Adaptor	Power Adaptor Input Voltage Range = 110 to 240 VAC.
2	USB Type B Connector Jack Pin 1 = V Bus +5VDC Pin 2 = D- Pin 3 = D+ Pin 4 = GND	For USB Type A/B Cable connection between the UAC and a PC USB Jack.
3	Serial 9 Pin-D Connector Pin 1 = LED Anode (WBA/UBA) Pin 2 = Tx (RS232/TTL) Pin 3 = Rx (RS232/TTL) Pin 4 = GND Pin 5 = 12vdc Pin 6 = LED Cathode Pin 7 = Tx (SEB-40x) Pin 8 = Reserved Pin 9 = Reserved	For Serial 9 Pin-D Connector of a Communications Cable to a Bill Acceptor (Cables can be ordered individually for the Bill Acceptor Model desired).

DIP SWITCH SETTINGS

The four position DIP Switch shown in Table 2 is used to set the UAC™ output signal levels.

Table 2 UAC Connector Configurations

Four Position Piano Key Snap Style DIP Switch

NOTE: All Switches shown in the OFF Position.

SW No.	Switch OFF	Switch ON
1	RS232C Output to Bill Acceptor	TTL Output to Bill Acceptor
2	RS232C for the SEB40x Series BV	Standard/Normal Setting
3	Reserved	Reserved
4	Reserved	Reserved

DRIVER INSTALLATION

A USB Driver needs to be installed so a PC will be able to communicate with the UAC™. Perform the following steps to install the necessary Drivers for your specific JCM Validator:

1. Download the required drivers from the following location, or contact JCM for the required Device Drivers:
   http://www.ftdichip.com/Drivers/VCP.htm
2. Select the Virtual Comm Port (VCP) Drivers for the PC Operating System being used on the PC.The CDM 2.04.16 (or newer) Application will be downloaded.
3. Run the CDM 2.04.16 Application to load the required Drivers onto the PC in a Folder. When the UAC™ is connected, the PC will indicate that Drivers need to be loaded.
   Follow the prompts, selecting the Folder directory where the Drivers were stored from the previous step.

Documentation for the UAC™ Drivers is available at the following location:
http://www.ftdichip.com/FTDocuments.htm

OPERATION

Proceed as follows to operate the UAC™ Device:

1. Connect the UAC to the PC using the USB A/B Cable.
2. Connect the proper RS232C Cable from the UAC to the Bill Acceptor (see list of cables for JCM Acceptors on page 1).
3. Apply power to the UAC™.

LOCATING THE COMM PORT BEING USED BY THE UAC

Proceed as follows to locate the PC Comm Port being used by the UAC™:

1. Open the Control Panel on the PC.
2. Click the System ICON and select the Device Manager.

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