

Coin Acceptor and Pulse Bill Validator to RS-232 Interface

Model ARB-C14

DESCRIPTION

This Interface Unit (IU) is designed to combine two data streams, from a Bill Validator (BV) in pulse interface mode and a Coin Acceptor (CA), into one, RS-232 serial communication. This unit functions as a slave to a master controller, for example a PC.

OPERATION

The master and slave communication is based on master requests and slave replies. A master repeatedly sends a status request to the IU and IU answers by sending its current status. At power up, acceptance of the BA and CA are inhibited. The master allows acceptance of bills and coins by sending acceptance codes to the IU. If the IU receives an unknown or wrong response, it will send back the NACK message and inhibit acceptance. If the IU does not receive a query from the master in the predefined time slot, it will inhibit acceptance of the BA and CA. When communication with the BV or the CA fails, the IU will transmit an error code to the master as current status. If the master does not receive an answer to its query in the predefined time slot, the master will assume that the IU is out of order.

BILL VALIDATOR CONNECTOR PINOUT

Pin 1: Ground

Pin 2: N/C

Pin 3: Inhibit Bill Validator

Pin 4: Bill Credit pulse Input

Note: Pin 1 is the pin closest to the corner of the box.

HARDWARE SPECIFICATION

- Coin Acceptor CF-330 with Standard 212-interface programmed for up to 6 coins.
Please Note: The 10 Pin Ribbon Cable connects to the set of 10 pins (2 rows of 5) in the bottom right corner of the CF330 (Rear View)
- Bill Acceptor in pulse mode limited to between 1 to 4 pulses per dollar
- Power 12VDC or 24V(DC or AC), consumes an idle current < 0.05A and 0.4A for 0.1 sec. when accepting coins.
- Communication RS-232 asynchronous half duplex.

Baud rate	9600 BPS
Start bit	1
Data bits	8
Parity	NO
Stop bit	1

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|---|--------------------------|---|
| | Cable | Standard RS-232 |
| • | IU query wait time (max) | 1 second |
| • | Master wait time (max) | 2.5 ms |
| • | Query Time-Slot | 200 – 400 ms |
| • | Dimensions | approx. 110 x 70 x 80 mm (4.3” x 2.7” x 3.1”) |
| • | Weight | approx. 100 g (0.2 lb.) |

SOFTWARE SPECIFICATION

- Master Command codes (HEX)

0x01	to get status of the IU (query)
0x02	to enable the Bill Validator and the Coin Acceptor *
0x03	to disable the Bill Validator and the Coin Acceptor *
0x04	to enable the Bill Validator *
0x05	to disable the Bill Validator *
0x06	to enable the Coin Acceptor
0x07	to disable the Coin Acceptor

* **Some Models of the Bill Validator cannot be disabled when it is in Pulse Interface Mode.**

- IU (slave) status response codes

0x00	Acknowledge (ACK)				
0x01	A				
0x02	B				
0x04	C				
0x08	D				
0x10	E				
0x20	F				
0x40	Eject button				
0x80	Bill Validator error (pulse output signal is active (low) for too long a time)				
0x81	\$1 bill	These control codes are for 1 pulse per dollar only.	0x84	\$1 bill	These control codes are for 4 pulses per dollar only.
0x85	\$5 bill		0x94	\$5 bill	
0x8A	\$10 bill		0xA8	\$10 bill	
0x94	\$20 bill		0xD0	\$20 bill	
FE	Coin Acceptor error (one or more output signals are active (low) for too long a time)				
FF	Negative Acknowledge (the IU does not recognise command) (NACK)				

PACKING LIST

1. ARB-C14 Interface Unit
2. 12VDC Power supply (Wall mount adapter)
3. ARB-H900 – 4 to 18 pin Bill Validator adapter harness (Optional)
4. ARB-H201 – 10 pin ribbon cable for CF-330 Coin Acceptor (Optional)
5. ARB-H200 – DB9 RS232 Serial Cable 6’ length (Optional)
6. Cashflow 330 Coin acceptor (Optional)

7. Bill Validator (Optional)
8. Demo Disk including – Demo program, Test Procedure and ARB-C14 Overview
(Trial package only)