Cardswipe Options – Benchmark Ticket Station

There are two modes for interfacing cardswipe systems to the Benchmark Ticket Station. They are Serial Mode and Pulse Mode. Either mode can be selected in the field by entering the Ticket Station's programming mode and selecting the option that is desired.

Hardware Connections

There are 5 wires that are used (ALL TTL Levels).

<u>Inputs (to Ticket Eater Board):</u>
ENABLE
TRANSFER TICKETS/COMPLETE TRANSACTION

<u>Outputs(From Ticket Eater Board):</u>
BUSY/FAULT
DATA
CLOCK/PULSE

PLEASE NOTE: the outputs are open collecter, so pull-up resistors will be required.

The connector that is in the Ticket Station harness is a Molex #19-09-1062, 6-pin male. The pinout, wire colors, and connections to the Ticket Eater Board are as follows:

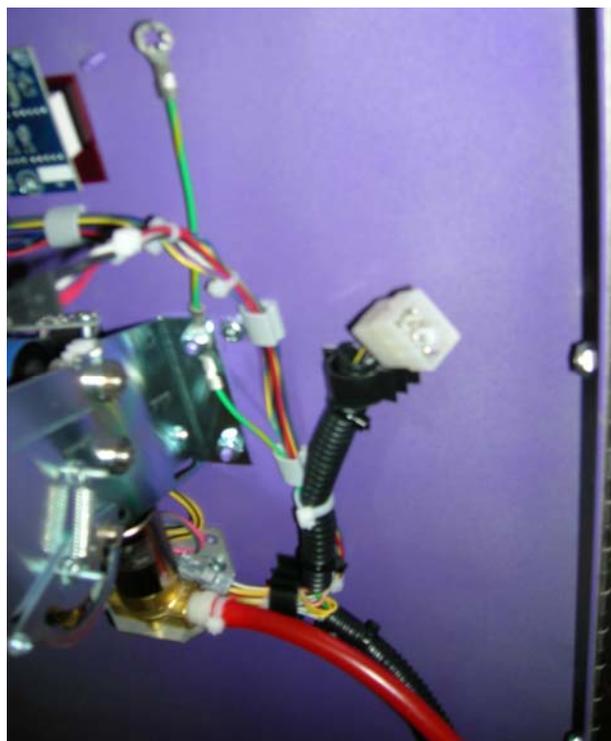Pin1 == Pink/White == CLOCK/PULSE == J2-3
Pin2 == Blue/Yellow == BUSY/FAULT == J2-10
Pin3 == White/Black/Yellow == TRANSFER TICKETS/COMPLETE TRANSACTION == J1-11
Pin4 == White/Grey == DATA == J2-6
Pin5 == Grey/Red == ENABLE == J1-9
Pin6 == Not Used

Protocols:

Serial Mode:
The interfaced system must pull the ENABLE input low to enable the ticket eater. Whenever the card is swiped, the cardswipe system would call for a ticket count by pulling the TRANSFER TICKETS input low for a minimum of 30mS. Immediately following, the ticket eater board will transmit the amount in ASCII, MSB first, using the CLOCK and DATA lines. For example, the amount 54321 would be transmitted as 0x35,0x34,0x33,0x32,0x31. The ticket eater board will wait for 2.5 seconds. If your system needs a retransmission, it must pulse again within that 2.5 seconds and the amount will be retransmitted, otherwise the ticket eater board assumes that the transmission was successful and the ticket count is cleared. If this line is pulsed and there are no tickets, the ticket eater board will respond with 0x30,0x30,0x30,0x30,0x30. There is no "PRINT RECEIPT" button.

CLOCK and DATA:
    Timings are:
    Clock pulse width = 50us min
    Clock period = 700us min
    Data valid on falling clock edge
    Most significant digit transferred first (10000's)
    Least significant bit transferred first

Pulse Mode:

When the card is swiped, the cardswipe system pulls the ENABLE line low, which enables the Ticket Eater. After tickets are inserted, the pushbutton is depressed, (which is connected to the TRANSFER TICKETS/COMPLETE TRANSACTION Input). The Ticket Station responds by sending one 50mS Low pulse for each ticket on the CLOCK/PULSE output, and the ticket total is cleared. The pulse train is 50% duty cycle.

If the Ticket Station has faulted, the BUSY/FAULT output will be held low.