



TECH TIPS

Card System Installation Guide

August 2015

OVERVIEW:

Most of the companies that buy our games will install a card reader system to accept the patron's money and give the patron e-tickets in place of the traditional coin receivers and paper ticket dispensers. This guide is designed to help you (the technician) install the card reader system into our games and help eliminate possible installation problems.

ALWAYS READ YOUR CARD READER INSTALLATION MANUAL FIRST!

BSR TICKET AND COIN SPECS:

Ticket interface: "dummy" type – refer to the Deltronics DL-1275 user manual – These need to be logically controlled. Positive voltage must be applied to the Ticket Enable line (BLUE wire) to activate the ticket dispenser feed motor and the Ticket Sense line (WHITE wire) is 0v-off and 5v-on.

BSR uses the standard ticket dispenser interface (Deltronics DL-1275 and Entrophy 2000 ticket dispensers) which includes the standard 4 pin Molex type connector and the standard ticket dispenser harness colors RED, BLACK, BLUE and WHITE for the wiring.

Coin interface: The coin switches are wired as a "Normally Open (N.O.) switch. A successful coin up requires a 150 microsecond pulse LOW then a 150 Microsecond pulse HIGH. This is referred to as a "change-of- state" switch read. The COM on the switch must be wired to 0v (ground) in order to complete the circuit as the inputs on the main logic board are ground-seeking.

POWERING YOUR CARD READER:

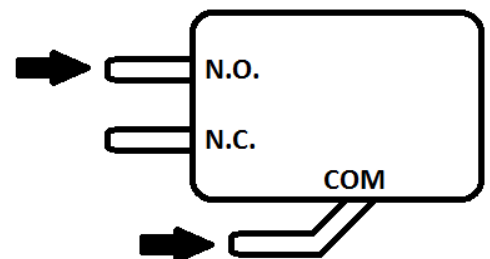
If you have purchased an FEC or group game from BSR, you will find a separate power supply for powering the card reader systems +12vdc power requirements. If you have purchased an arcade, it is highly recommended you install either an external AC outlet for the card readers AC adapter or install a secondary +12vdc power supply.

DO NOT USE THE +12vdc POWER FROM THE GAMES ELECTRONICS HARNESSING!

If secondary power is not available, then use the +12vdc directly from the games +12vdc power supply before it goes to the main logic board. Pulling power from the game harness can cause system failures such as sensors not working, coin switches not reading coins, false or no ticket payouts and etc.

CONNECTING YOUR CARD READER COIN HARNESS:

Check the installation manual for what wires to use for the coin switches and connect them accordingly. For example, the Sacoa uses the INPUT A (Yellow/White wires and Black/White wires) for the coin up. Each manufacture will use different color codes for its coin input wires. It is highly recommended to solder the wires together instead of using crimps because a crimp that is not done correctly can potentially give out false reads and automatically coin up the game or not allow the game to coin up at all.



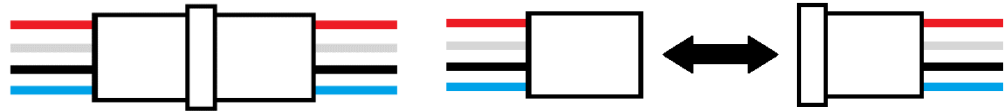
BSR uses a standard color coding of GREEN and WHITE for the coin input harness on FEC and group games and the arcade games are usually WHITE and BLACK. Occasionally they may be RED and BLACK depending on the game. Please refer to your games specific manual, IO sheet or schematic diagram if available.

CONNECTING YOUR CARD READER TICKET DISPENSERS:

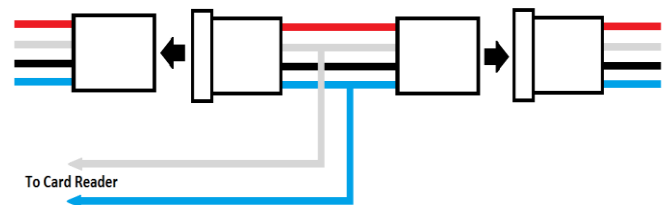
The card reader systems use an in-line connecting harness that has pre-installed four pin Molex type connectors that is standard for BSR and most arcade manufacture type of ticket dispensers interface. Simply disconnect the harness from the ticket dispenser and install the in-line connector between the main game harness and the ticket dispenser harness.

Depending on how your company operates will depend on whether or not you need to connect the ticket dispensers. If you do not supply tickets to your patrons then you do not need to install the ticket dispensers at all and even can be removed. However you still need to connect the ticket dispenser harness back to the main logic board so that the main logic board will know that it has given out tickets.

STEP 1: Locate your ticket dispenser harness and disconnect the four pin Molex connector.



STEP 2: Connect the in-line ticket dispenser harness from your card readers system. The colors for your in-line ticket dispenser harness may not be the standard ticket dispenser wire colors.



STEP 3: Verify that everything is connected correctly and test your game.

CONCLUSION:

Due to the wide spread use of the N.O. coin switches and the “dummy” type ticket dispensers interfaces across the arcade market, the installation process between the different card reader systems are similar in many ways the only difference being wire colors. We strongly suggest you read the installation manual before starting the installation process.

We strongly recommend you do not use any part of our harness for powering your devices post the main logic board. This has proven to cause game malfunctions and false switch reads. Also do not use the optically isolated inputs on you card systems to read our coin switches and/or ticket sensors as they are ground-seeking and must have the adequate voltage reference in order to complete the circuit.

For additional help with your game and installation please contact BSR tech support at 386-677-0761 ext. 41 or email us tech@bobsspacracers.com