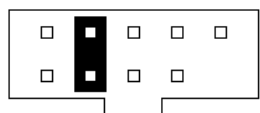
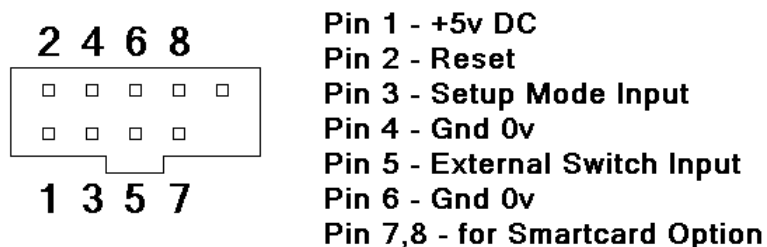


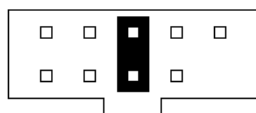
## External connections

An external switch can be connected to the card reader emulator unit to perform the function usually associated with the card return button. This switch should be connected as shown in the diagram below.

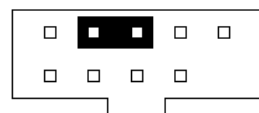
The de-bounce timing can be changed in setup mode. When an external switch is used in cash unit emulation mode, the lowest value that does not result in multiple credits being given for a single press should be used.



**Jumper placed in setup position**



**External switch connection**



**Storage position for jumper**

## Brightness Control.

There is a wide range of LED credit displays used in pachinko machines, each having a different brightness. For this reason a display brightness control is provided in the setup mode options.

Note that on high brightness settings the power dissipation in the card reader emulator unit is increased. With the display set to full brightness on a machine that already has a bright display, the card reader emulator unit may run hot. If it is felt that the temperature of the unit is excessive, then decrease the display brightness setting in the setup mode.

For sales enquiries and technical support, please contact [pinballdave@gmail.com](mailto:pinballdave@gmail.com)

# Pachinko Card Reader Emulator Unit

## Operating Instructions

### Connection and Initial Operation

With the power off, open the pachinko machine and remove the CR Bypass plug from the card unit interface. This is usually located in the lower corner of the pachinko machine nearest the hinged side and is a D-25 socket (similar to a PC printer port) with a small connector module connected to it.

Connect the card reader emulator unit to the card unit interface connector. Check for clearance with the side / rear of the case and the mains transformer and, if necessary, use the optional extension lead to site the card reader emulator in a more appropriate location.

Close the pachinko machine, and turn the power back on. The credit display (usually located on the upper ball tray) will show a zero, indicating that there are no credits available. The ball loan available LED is usually located next to the credit display, and should be lit.

Locate the two card reader operation buttons, 'Ball Loan' (usually the left most one of the two, marked with 玉貸 or 球貸) and 'Card Return' (返却). Press and hold the card return button to add credits to the display.

With credits showing on the display, press the ball loan button to dispense 25 balls into the upper ball tray. One credit will be deducted from the balance shown on the display.

If the pachinko machine is out of balls the ball loan available LED will flash three times, and no credit will be deducted from the display. If the machine runs out of balls during a payout, then the ball loan available LED will remain flashing until the payout has been completed.

## Setup Mode

The card reader emulator unit is provided with a setup mode, where the operation of the unit can be customised to suit your preferences.

To enter the setup mode the card reader emulator unit must be removed from the pachinko and the supplied jumper placed on two of the pins on the units expansion connector. When the unit is replaced on the pachinko and the power is restored, the card reader emulator will enter setup mode.

Before entering setup mode, the version information for the unit will be scrolled across the credit display, when contacting technical support please include this information along with your request.

When setup mode is entered, it can be navigated with the ball loan and card return buttons. Each press of the ball loan button will move onto the next setting, and a press of the card return button will increase the value of the current setting by one. All changes made to the settings are immediately stored in memory, to exit setup mode disconnect the unit from the pachinko machine and remove the jumper from the expansion connector. When the unit is replaced on the pachinko machine, it will enter normal operation mode.

- o-n = Operation mode (range: 0-9 default value: 7)
  - n=0 Card Unit Emulator Functions Disabled
  - n=1 Freeplay (no display)
  - n=2 Ball Counter Mode (Card Return Button disabled)
  - n=3 Ball Counter Mode
  - n=4 Card Unit Emulation (Card Return Button disabled)
  - n=5 Card Unit Emulation
  - n=6 Cash Unit Mode (Card Return Button disabled)
  - n=7 Cash Unit Emulation
  - n=8 Smartcard Mode (Card Return Button disabled)
  - n=9 Smartcard Mode
- C-n = Count divisor (range: 0-1 default value: 0)
  - Note: This setting is applicable in Ball Counter Mode only
  - n=0 Display is incremented every 25 balls dispensed
  - n=1 Display is incremented every 100 balls dispensed
- h-n = Hundreds digit of card/coin value (range: 0-9 default value: 0)

- t-n = Tens digit of card/coin value (range: 0-9 default value: 1)
- u-n = Units digit of card/coin value (range: 0-9 default value: 0)
- E-n = External switch debounce setting (range: 00-3F default value: 5)
- b-n = Brightness setting for credit display (range: 0-9 default value: 6)

## Operation Modes

Mode 0 – Card Unit Emulator Functions Disabled.

In this mode the unit functions exactly like a regular CR Bypass dongle. There is no display and neither of the buttons have any function.

Mode 1 – Freeplay.

In this mode there is no display (but the ball loan available LED is lit), each press of the ball loan button will dispense 25 balls.

Mode 2,3 – Ball Counter Mode.

In these modes each press of the ball loan button will dispense 25 balls. The counter display will be incremented for every 25 balls for setup mode setting C-0, or every 100 balls for setting C-1. The card return button (if enabled) or external switch is used to reset the count to zero.

Mode 4,5 – Card Unit Emulation.

In these modes the credit display will initially show zero credits, and it will not be possible to dispense balls. The card return button (if enabled) or external switch is used to insert a virtual prepaid card containing the amount of credit set by the H-T-U settings in setup mode. While credit is showing on the display, the ball loan button can be pressed to dispense 25 balls, with one credit being deducted for each press.

Mode 6,7 – Cash Unit Emulation.

These modes operate in the same way as the Card Unit emulation modes, however each press of the card return button/external switch will add the preset amount of credit to the display.

Mode 8,9 – Smartcard Mode.

These modes require the smartcard option to be connected to the expansion connector. The operation is identical to the Card Unit emulation mode, except the credit balance is stored on removable smartcards.