ColourClassic Score Display Product User guide

V1.0

Table of Contents

RetroElectro
Designs

Introduction

Welcome

Welcome to the ColourClassic Score Display. This is a modern replacement score display for Bally Solid State, and Stern Solid State Games.

Installation

The ColourClassic Score Display (CCSD) is a direct plug-in replacement for the existing Score displays. They use low voltage 5v supply, and so we *highly recommend that you remove the fuse(s) from your game that supply the 190v High Voltage to the Score displays*.

Remove the High voltage fuse from your game's SDB board (if it has one)

Remove the High Voltage fuse from your games Rectifier Board. (Usually F2)

With the game powered off, remove each of your existing score displays.

Insert the new CCSD's into the game.

Power-on and check each display starts up.   Refer to the configuration section below

Upgrading 5v supply

The CCSD are powered by the existing 5v supply that is present in the game.   This puts an additional power drain on the 5v supply line. You may need to change F3 from 4A to 5A.

You may need (or want) to provide additional 5v power source to the displays. (I will add an appendix section later about how to do this).

![RetroElectro Designs logo]

Configuration

Set-up Mode

The MPU unit on the CCSD base board has two buttons.   The one on the left (as viewed from the front), marked "BOOT" is used to enter the Set-up mode on the display.   (Note the one on the right marked "EN" is used to re-boot the device).
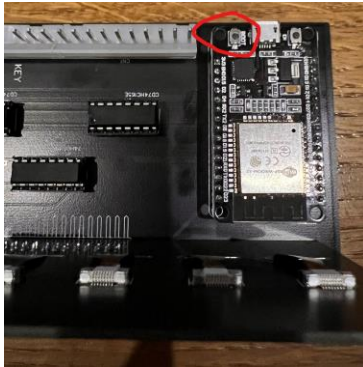
Press and hold this button for around 1/3 of a second, then release and the display should enter Set-Up Mode

The initial Set-Up screen is displayed, which shows to current firmware version number. Press the button to move onto the next screen.

Display Type

Select the type of display, 6 Digit, 7 Digit or Credit/Match.

A short press of the button will cycle around the selections, a longer press will move onto the next setting:

Display Mode:

Select the Display Mode:

0 – Single – a Single Font style is always used on the display

1-Cycle All – All fonts will be cycled through at a specified time interval (see next section)

RetroElectro
Designs

2- Random – A font will be selected at random

3 – 7 Seg Colour Cycle – This will cycle around all the colours in a selected "7 Segment" type of font

A short press of the button will cycle around the selections, a longer press will move onto the next setting:

Change time in secs
If Display Mode is 1,2 or 3 then you can use this screen to select the cycle interval time. 5 – 300 seconds

A short press of the button will cycle around the selections, a longer press will move onto the next setting:

Font (Start)
Select the starting font. Fonts are numbered 0-60

0-20 are Image fonts, they will only be available if you have an SD card present in the CCSD. The SD card should have the font files present.

21-30 – 7 Segment coloured fonts

31-40 – 7 Segment coloured fonts with black line

41-50 – 7 Segment coloured fonts with a white line

51-60 – Circle coloured fonts.

Colours are: White, Red, Green, Blue, Yellow, Orange, Dark Green, Magenta, Grey, Cyan

A short press of the button will cycle around the selections, a longer press will move onto the next setting:

Attract Mode Font
You can choose a "fast" font (21-60) to use when the game is in attract mode. This is useful on some games where there isn't enough time to display the HSTD and the last game score, using the slower jpeg image file fonts.

Select 0 to disable this feature.

A short press of the button will cycle around the selections, a longer press will move onto the next setting, a very long press (>3 seconds) will reset the value to zero (this saves you having to cycle through all the values to get back to zero):

Sender or Receiver

Normally you will set all units to be Receiver.   A single unit (per game) can be set as a "Sender", it will then Send it's current font in use to the other CCSD's in the game. This is useful when cycling around fonts as all the displays in the game will then change font at the same time!

Only one unit in a game should be nominated the "Sender".

A short press of the button will cycle around the selections, a longer press will move onto the next setting:

GameId

To identify which units a Sender should control, both the Sender and Receiver units in a particular game should have the same game ID.   E.g. Paragon – set to game ID 1, Medusa – set to game ID 2, etc.This prevents Receiver units in Paragon from receiving Sender commands from the Sender CCSD in Medusa, and vice-versa.

A short press of the button will cycle around the selections, a longer press will move onto the next setting, a very long press (>3 seconds) will reset the value to zero (this saves you having to cycle through all the values to get back to zero):

Press Any key to Exit

Press the button to save the settings and exit set-up mode.

Note. If you do not want to save the settings, press the other button on the board, marked "EN" – this will reboot the CCSD without saving the settings.

SD Card & jpeg Images

SD card

The CCSD has an SD card reader module, which can receive a Micro SD HC memory Card.

The memory card must be formatted as Fat32 and be no larger than 32Gb

The CCSD will work without an SD card – but of course no jpeg fonts will be available as these need to be stored on an SD card.

JPEG Images – 0 to 9

The jpeg font images should be copied to the SD card. Images are in sets of 10

e.g. 0.jpg to 9.jpg are font 0, 10.jpg to 19jpg are font 1, 120.jpg to 129.jpg are font 12 etc.

Feel free to create your own images.   Pixel size needs to be 135 Wide X 240 High.

Splash screen Images

The splash screen image files are splash0.jpg, splash1.jpg….splash6.jpg.   splash0.jpg is the left most digit on a 7 digit display, splash6.jpg being the rightmost.

One a 6 digit display, you only need splash1 – splash6.

Config file

The SD card also holds the CCSD's configuration information – in a file called "IPSconfig.txt".

If no SD card is present, the system will store the config information internally.

RetroElectro
Designs

Firmware Update

SD card

Obtain the latest Firmware from us.

Rename the firmware binary file to "firmware.bin"

Remove the SD card from your CCSD, and place into a windows computer.

Copy "firmware.bin" to the SD card.

Place the SD card back into the CCSD in your game and power on the game

The CCSD will detect the new firmware on the SD card, and will update itself. The file is renamed on the SD card to "firmware.bak".

RetroElectro Designs

Appendix

List of games tested

I have tested in the following games

Game	MPU	Comments
Lost World	Bally	
Paragon	Alltek	
Fireball II	Bally	
Medusa	Alltek	Not tested 6th Display in the playfield (yet!)
Fathom	Nvram Weebly	
Eight Ball Deluxe	Alltek	
Elektra	Alltek	6th Display – set as "Credit/Match" type
Centaur	Bally	

These games have been tested / verified by others

Game	MPU	Comments

RetroElectro
Designs

Upgrading 5v Power in a game

This section to be completed at a later date…….