

# DslrBooth cash payment system

User manual

Software Version v2.4.3.1

Board: CASH-Interface2 v1.14

Date: 20.05.2018

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## 1. INTRODUCTION

With the dslrBooth cash payment system it is possible to add a cash payment system to the [dslrBooth Photo Booth Software](#) and charge money for printing photos.

It can be used also with [Socialbooth](#), [Sparkbooth](#) and [Breeze](#) photo booth software.

The package is immediately ready for use and includes all necessary components like coin or bill acceptor, a CASH-Interface2 board, USB to Serial converter, all necessary cables, as well as the keystroke software which controls the dslrBooth Photo Booth Software. The coin or bill validator as well as the CASH-Interface2 board is set up already to your needs. Normally you do not need to change any devices settings, just plug it in and go.

The dslrBooth cash payment system can accept coins (also tokens or jetons) and banknotes in almost every currency. Just let us know what currency and what coins or banknotes you want accept and we set up everything for you!

The keystroke software monitors the CASH-Interface2 with connected coin and banknote acceptor, and sends on enough credits, a start signal to the dslrBooth Photo Booth Software and the photo process begins. The photo session can be started automatically or via external push button. Using a push button with lamp or LED included, the button illumination can be controlled and is lit when there are enough credits and photo software is in start screen waiting for session trigger.

In the keystroke software itself there can be done several settings. For example set up the coin and bill validator, set the costs for a photo job, windows security functions and other settings. If there was an over payment, a new photo job is started as soon as the active job has finished, either automatically or triggered manually via customer hits a push button. While the photo booth machine is in action, the keystroke software is running invisible in the background.

To get more information about a software function, point with your mouse over that function and a small pop up window with extra information appears.

Check out the website from time to time if there is a new software version of the dslrBooth as well as CASH-Interface2 keystroke edition available.

- dslrBooth: <http://dslrbooth.com>
- Social Booth: <http://www.photoboothsolutions.com/socialbooth>
- Sparkbooth: <http://sparkbooth.com>
  
- CASH-Interface2 keystroke software:  
[https://www.casino-software.de/dslrbooth\\_cash\\_payment\\_system\\_e.htm](https://www.casino-software.de/dslrbooth_cash_payment_system_e.htm)  
or  
[https://www.casino-software.de/cash-interface2\\_e.htm#keystroke](https://www.casino-software.de/cash-interface2_e.htm#keystroke)

## 2. DEVICES

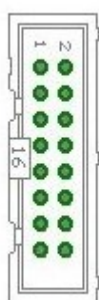
### 2.1 Bill validator

Of the type NV9, NV10 or pin compatible.

GBA HR1/ST1/ST2 via adapter possible.

Protocol: PARALLEL (default), PULSE or BINARY.

Pin out of the BILL plug:



- Pin 1 = +12V DC
- Pin 2 = 0V
- Pin 3,4,5,6 = MDB (not used)
- Pin 7 = Busy (act. low)
- Pin 8 = Escrow (not used)
- Pin 9,10,11,12 = Inhibit 1-4 (blocking = High, accept = Low)
- Pin 13 = Vend 3 (Note channel 3, act. low)
- Pin 14 = Vend 4 (Note channel 4, act. low)
- Pin 15 = Vend 1 (Note channel 1, act. low)
- Pin 16 = Vend 2 (Note channel 2, act. low)

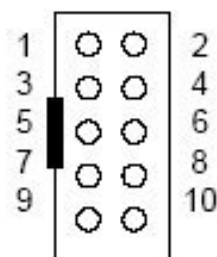
### 2.2 Coin validator

Of the type NRI-G13, RM5, EMP800 or pin compatible.

Protocol: PARALLEL (default), PULSE or BINARY.

Pin out of the COIN plug:

pin	assignment	potential
1	GND	low
2	UB +12V DC	high
3	output line 5	act. low
4	output line 6	act. low
5	return	act. low
6	total blocking	act. high
7	output line 1	act. low
8	output line 2	act. low
9	output line 3	act. low
10	output line 4	act. low



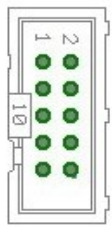
A coin sorter can be directed to the main cash box via hopper full signal, e.g. EMP 800.00/P V6 /O or /N /X Pin4 Low sorter control and SRT 800.2X or SRT 800.3X

### 2.3 Hopper

Hopper of the type Azkoyen U-II, Flow-Hopper, Hopper HS-2012 (STD) via MK4 adapter, MK2/3/4 via MK4 adapter, Note dispenser ND300KM via ND300KM adapter,

Protocol: PULSE

Pin out of the HOPPER plug:



- Pin 1,2,3 = +V (+12V or +24V DC)
- Pin 4,5 = -V (GND)
- Pin 6 = Full sensor
- Pin 7 = Motor run (IN3)
- Pin 8 = Not used (security / error)
- Pin 9 = Coin signal (select by JP2.1 or JP2.3)
- Pin 10 = Empty sensor

If a hopper becomes empty while pay out process, e.g. a 500 Euro banknote shall be changed into 2 Euro coins (corresponds to 250 coins), the control tries to pay out the remaining coins by the next hopper. Is the coins count bigger or equal than 10 coins, the hopper empty detection will be monitored again every 10 coins and pay out is changed to the next hopper if needed.

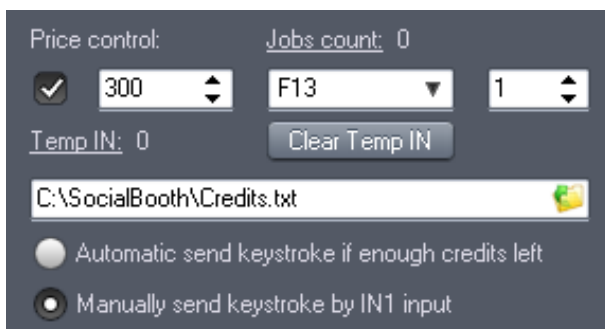
If all hoppers become empty while pay out process, the control signals “HOPPER EMPTY”. In the second row of the LCD display the remaining credits are still shown. Now the service personal must fill up the hoppers. To continue the pay out of the remaining coins, the service personal must push a button connected to the A.5 input, or the START button on the CI MC8 board, after the fill up job is finished. The input A.5 (JP2.6) normally is the “OUT OF SERVICE” trigger, but if there are credits left, the pay out job continues.

## 2.4 Camera ring illumination

The on board relays can be used to switch the illumination of the camera ring or other illumination. The relays gets active close before we send the keystroke. So the light is on while the photo booth software shows its count down. The time is adjustable so it is possible to fit the duration exactly to the photo session.

The relays is a closer contact, NO 200 VDC, 15W. On the board it is marked as REL.

## 2.5 Start button + illumination



It is possible to start the photo session via push button. To use this feature the setting must be. The push button is connected to IN1 pin on the CASH-Interface2.

OUT 2 provides a +12V output used to illuminate the START button connected to IN1. If credits are  $\geq$  costs the button is illuminated

and signals the user the machine is ready to start a photo session. The button is only illuminated if receiver window is found, e.g. “DSLRRBOOTH – START”. This means the button is only lit if photo booth software is in start or ready screen.

The transistor max. current is 0,8A. On the board it is marked as OUT2.

### 3. OSD (On Screen Display)



The costs for a photo print as well as the current credits can be shown in a separate OSD (On Screen Display).

The customer can see at any time how many credits they have and how many credits left to pay.

The look (skin), position, font type and font color of the OSD can be set up individually.

If you want to try to create an own skin try this skin editor:

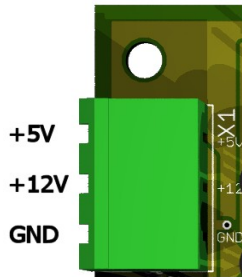
<http://www.alphaskins.com/showdoc.php?l=en&n=102>

If credits are  $\geq$  costs the color of the credit label changes to lime. As long as credits are smaller than costs the color of the credit label is red.

To prevent the OSD gets hidden behind the dslrBooth software, we push it into foreground via 1 second timer. If you want to change settings in the dslrBooth software this results in loosing the focus to the OSD. Just make the ci2.exe settings visible by pressing your HotKey, normally CTRL+ALT+S. If the ci2.exe is visible we stop the OSD foreground timer.

## 4. CONNECTIONS

### 4.1 Power supply



The power supply is connected to terminal plug X1.

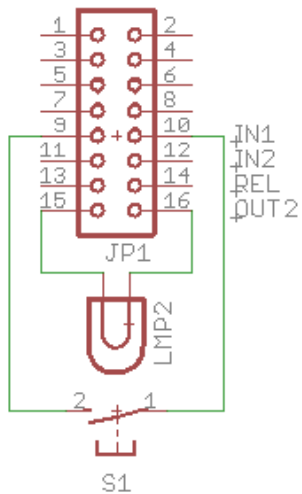
The CASH-Interface MC8 needs a supply voltage of +5V and +12V DC. The ground connections (GND) of both voltage must be connected. The interfacing of +5V, +12V and GND is printed on the board.

### 4.2 Start button + illumination

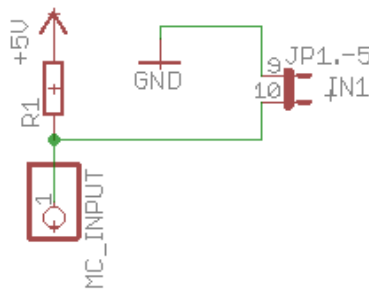
Connection of START button + illumination and connection of camera LEDs:

**HINT: DO NOT SHORT OUT 2 PINS THIS WILL DESTROY THE BOARD !!!**

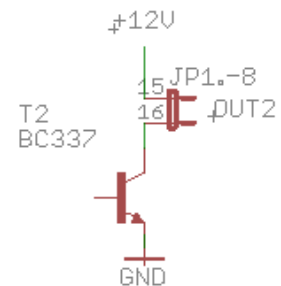
START button + illumination



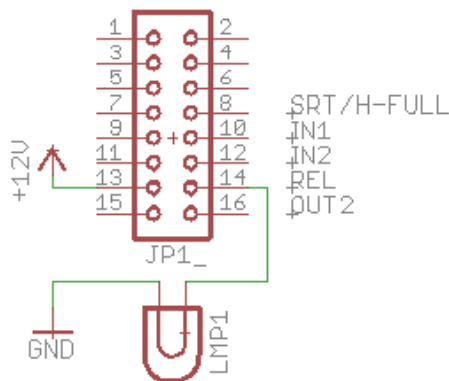
Internal IN1 connection



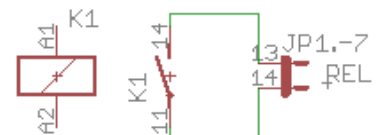
Internal OUT2 connection



REL example



Internal REL connection



## 5. FEATURES

### 5.1 Receiver name

Depends on what photo booth software is used, the receiver name has to be set to the window title of the photo booth software. Normally this is the START screen of the photo booth software, e.g. for dslrBooth it's window title is dslrBooth - Start. There are links in the keystroke software to set automatically the receiver name for the used photo booth software.

For the dslrBooth software there are 2 possible setups:

1. Use dslrBooth - Start as receiver, means the START session must be paid. The keystroke should be set to F13.

2. Use dslrBooth - Share + Print as receiver, means only PRINTING from the share screen must be paid. The keystroke should be set to P.

To trigger the printing there must be a push button connected to IN1 input, and the keystroke setting must be set to "Manually send keystroke by IN1 input".

See also 2.5 Start button and illumination

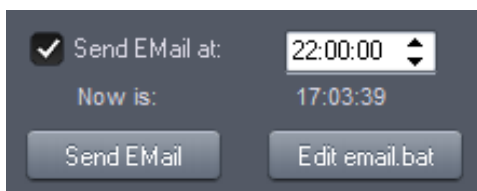
### 5.2 Jobs counter



The jobs counter is increased by one for every triggered price control event. This can be used e.g. as a paper counter.

The Jobs count number is included in the status email, too.

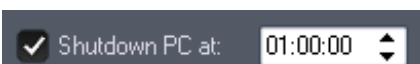
### 5.3 Status Email



The status Email sends out an Email with the log file, and cash numbers like ID, Total IN, Total OUT, Credits and Jobs count.

All mail server settings are stored in the email.bat file, just click the Edit email.bat to open that file.

### 5.4 Shutdown PC



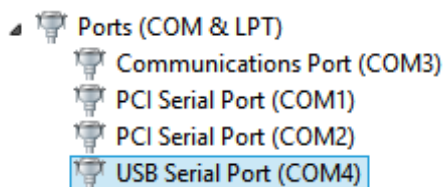
Because Windows do not like a hard power off, and to prevent data lost or corrupted settings file, we recommend to use the auto shutdown feature, so the PC gets a normal shut down experience.

## 6. GETTING STARTED / TESTING

1. Download and install the keystroke edition software from the CASH-Interface2 website. Direct download link is: [https://www.casino-software.de/download/setup\\_ci2\\_keystroke.exe](https://www.casino-software.de/download/setup_ci2_keystroke.exe)

2. Connect the USB to Serial converter to the USB port of your PC. The very first time the driver is automatically installed. If automatic install is not working use the enclosed CD to install the driver.

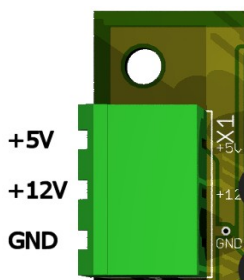
Open the device manager and look for Ports (COM & LPT). There you should see the USB to Serial converter showing the COM port number. On this example the device manager shows the USB to Serial converter uses COM4:



If you see a yellow question mark you have to update the driver manually. Right click onto the USB Serial Port and select "Update Driver Software", Browse and select the enclosed CD. If the driver was installed successfully the question mark will disappear. Remember the COM port number, this is needed to enter in the keystroke software.

3. Connect the coin validator via the 10 pin flat ribbon cable to the CASH-Interface2 COIN plug. If you use bill validator connect it via the 16 pin flat ribbon cable to the CASH-Interface2 BILL plug.

4. Connect the power supply and power it on.



The power supply is connected to terminal connector X1.

The CASH-Interface2 needs a supply voltage of +5V and +12V DC. The ground connections (GND) of both voltage must be connected. The interfacing of +5V, +12V and GND is printed on the board. Ensure that the poles are connected correctly!

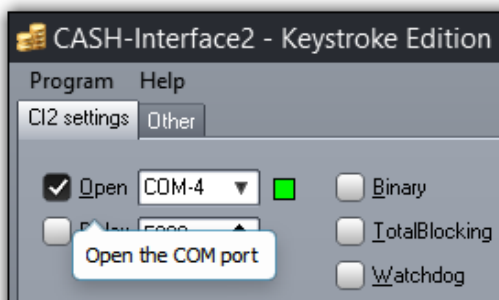
Be also sure to take the precaution of making sure the power supply is strong enough. A bill validator can take up to 1500 mA and a coin acceptor up to 500mA of current. On the CASH-Interface2 the green LED indicates the power supply is ok.

5. Run the keystroke software and set the correct com port where the CASH-Interface2 is connected to.

6. Enable the "Log all events" checkbox to get all messages from the CASH-Interface2 logged. This is good to verify all is working properly.

7. Activate the "Open" checkbox.



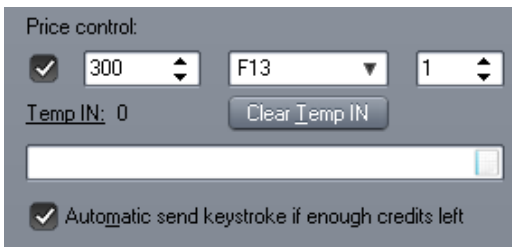


The connection to the CASH-Interface2 is open now and commands can be sent and data received. When the COM port is opened, the CASH-Interface2 sends all stored settings to the PC. You can see that in the log file if “log all” is activated.

Now insert a coin or a bill.

The CASH-Interface2 sends for every accepted coin or bill a string in the format: IN=n. Every cash IN is shown in the log. Maybe you have to adjust the channel values to fit to your coin or bill validator device. Enter the correct number to every channel and finally hit the “Write Settings” button to store all settings on the CASH-Interface2 board.

8. Activate the “Price control” checkbox and set the costs for one print in cents, e.g. 300 means 3 Euro. Keystroke to start the dslrBooth session is F13.



Leave the “credit file” edit field blank to not create a credits file, we do not need this with dslrBooth.

Activate the “Automatic send keystroke if enough credits left” to automatically trigger the next session if

enough credits are left. E.g. customer inserts 10 dollar and costs is 3 dollar.

If price control is activated we store the IN to the Temp IN variable. If Temp IN is  $\geq$  price, we send the keystroke and subtract the costs from the Temp IN. In our example we have 7\$ left. After we sent the keystroke we do a little delay internally, so the dslrBooth software changes to something else than "START". As soon as we detect "START" again we send again a keystroke if "Automatic send keystroke if enough credits left" is checked. In practice it does automatically one job after the other until Temp IN is  $<$  costs.

9. Set the receiver window caption to send the keystroke to. For dslrBooth you have to enter “DSLIRBOOTH – Start” as receiver name:

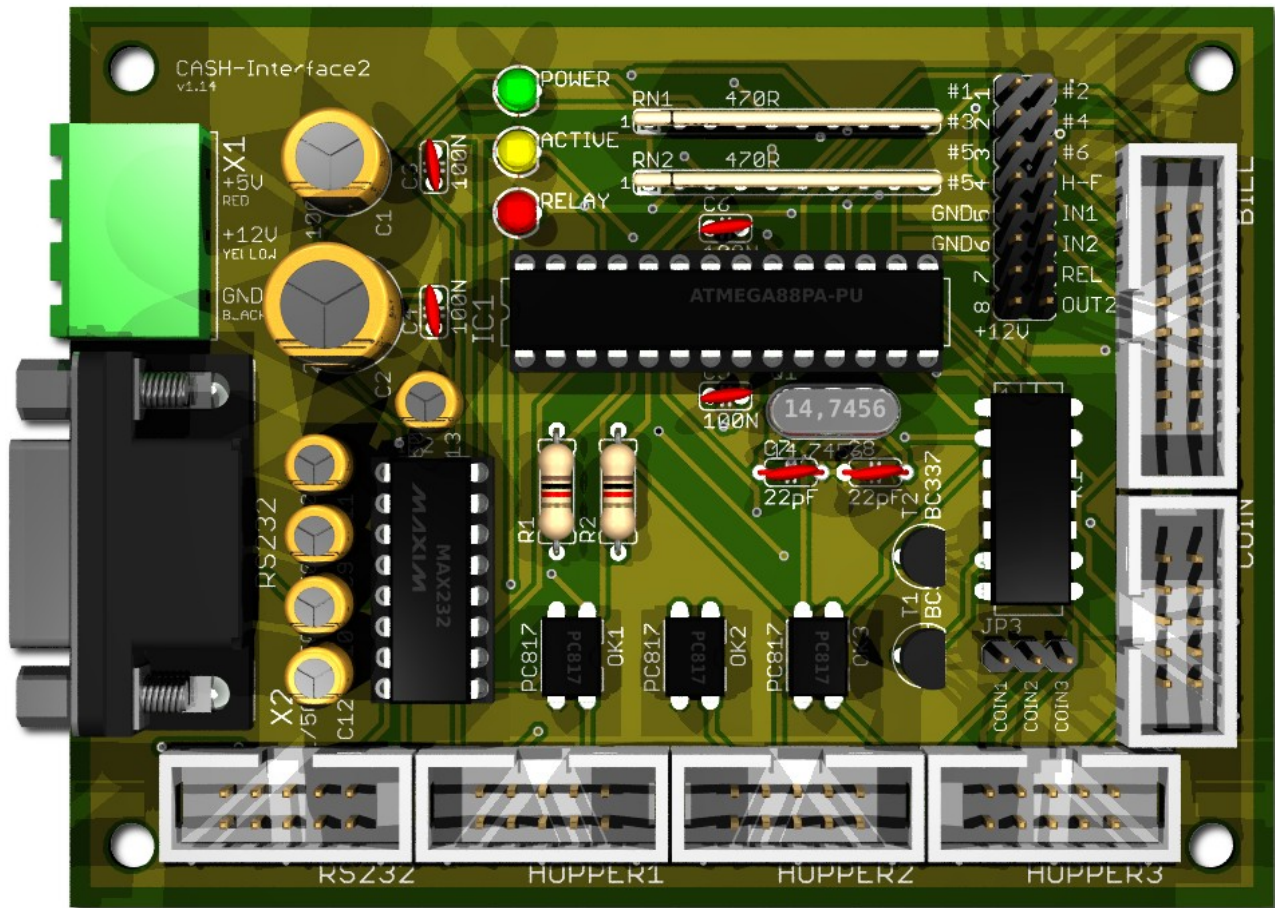


As soon as dslrBooth is running and in START screen we detect the window and we are ready to send the keystroke.

10. Finally activate the “Autostart on boot” checkbox to start the CASH-Interface2 keystroke software automatically when you start the PC.

Now everything is set up and ready to use. Insert money and test the system.

## 7. CASH-INTERFACE2 BOARD v1.14



### 7.1 Connectors

X1: power supply

RS232: connect to COM port of PC, either Serial 9 pin plug,  
or via 10 pin flat ribbon cable directly to the PC's mainboard

BILL: bill validator

COIN: coin validator

HOPPER1-3: not used so far for the dslrBooth cash payment system

### 7.2 Jumper

JP1.1 - #1-6 pin, can be used to connect external pulse devices, e.g. Nayax credit card reader

JP1.2 - IN1, Pin3=GND, Pin4=ATMega PB0      Input1

JP1.3 - IN2, Pin5=GND, Pin6=ATMega PB1      Input2

JP1.4 - RELAYS, Pin7=K1/14, Pin8=K1/8      closer contact for external use

JP1.5 - OUTPUT2, Pin9=+12V, Pin10=T2 open collector      +12V transistor switch

More information about the CASH-Interface2 can be found on its website:

[https://www.casino-software.de/cash-interface2\\_e.htm](https://www.casino-software.de/cash-interface2_e.htm)

## **8. SAFETY INSTRUCTIONS**

Read the user manual completely and carefully before use. The user manual is part of the product and contains important information for correct use.

Use the product, product parts and accessories only in perfect condition. Compare the specifications of all used devices to ensure compatibility. In case of questions, defects, mechanical damage, trouble and other problems, non-recoverable by the documentation, contact your dealer or producer.

The CASH-Interface MC8 module is intended to use in a housing.

Only use the CASH-Interface MC8 module in low-voltage circuits (max. 24V). Higher voltage rates are not permissible. There is danger to life through an electric shock and a risk of fire!

Ensure that all the electrical connections and connection cables conform to the regulations.

The entire product may not be modified or reassembled. Operation is only permissible in dry indoor locations. Never operate the device immediately after bringing it from a cold to a warm room. The resulting condensation water may damage the device. Do not expose the 8 channel digital IN/OUT module to high temperatures, strong vibrations, high degrees of humidity or chemically aggressive dusts, gases and vapors.

Electronic components of the 8 channel digital IN/OUT module may heat up during operation. Ensure sufficient air circulation around the device to prevent heat build-up and overheating.

In case of damage incurred by disregarding these operating instructions, the warranty claim is void. Liability for any and all consequential damage is excluded! We do not assume any liability for damage to property or personal injury caused by improper use or the failure to observe the safety instructions!

## **9. DISPOSAL INSTRUCTIONS**

According to the European WEEE directive, electrical and electronic equipment must not be disposed with consumers waste. Its components must be recycled or disposed apart from each other. Otherwise contaminative and hazardous substances can pollute our environment.

## **10. LIABILITY NOTICE**

We reserve the right to printing errors and changes to product, packaging or product documentation. See our term of warranty.