

# DslrBooth cash payment system

User manual

Software Version v2.5.1.1

Board: CASH-Interface2 v1.19

Date: 08.11.2018

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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

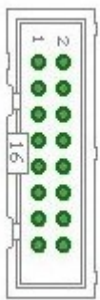
### 2.1 Bill validator

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)

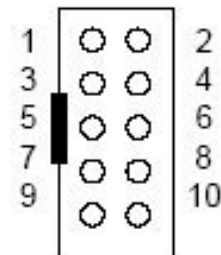
### 2.2 Coin validator

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

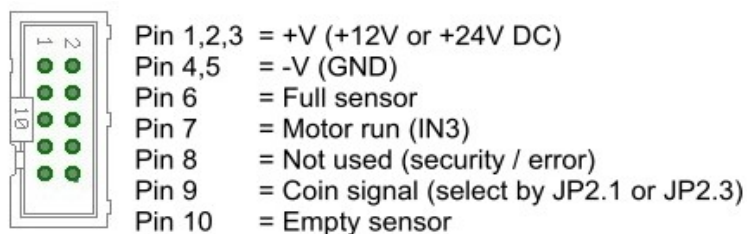
## 2.3 Hopper (Pay Change)

It is possible to pay change via a hopper. At the moment we support to use 2 hoppers. A hopper can hold one coin type. For more information refer to the hopper's manual.

It is possible to connect hoppers 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:



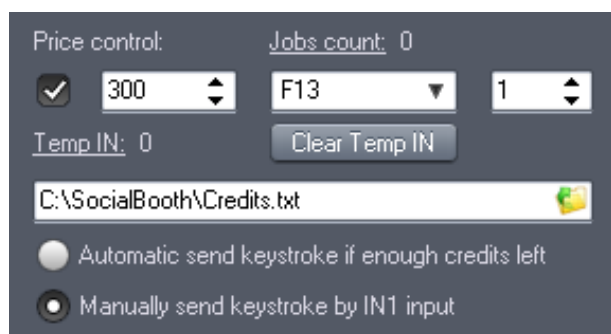
If a hopper becomes empty while pay out process, the control tries to pay out the remaining coins by the next hopper. If both hoppers are empty the credits remain in the OSD display and we do not pay change. So it is the operators job to keep hoppers filled.

## 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. In the keystroke software there is a schematic on the Hardware page.

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 external push button. To use this feature the setting must be selected. 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 and receiver window is found, e.g. “DSLIRBOOTH – START”, the button is illuminated and signals the user the machine is ready to start a photo session or print job. 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).

With “Always visible” activated, the customer can see at any time how many credits they have and how many credits left to pay. Uncheck this to have the OSD only visible if receiver window is found, e.g. show OSD only while START screen of the photo software is active.

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

It is also possible to set own text for the “Price”, “EUR incl. 19% tax” and “Credit” line.

The OSD position can only be moved with the display Left and Top setting. It is not possible to move the OSD with the mouse or by touch screen.

If credits are  $\geq$  costs the color of the credit label changes to lime (default color for enough credits). As long as credits are smaller than costs the color of the credit label is red (default color for less credits). Of course the font color for less and enough credit can be adjusted individually.

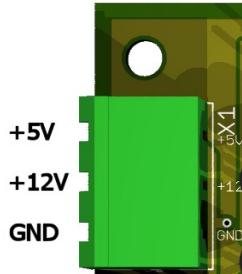
To prevent the OSD gets hidden behind the dslrBooth software, we push it into foreground via 1 second timer. If you want to change settings in the dslrBooth software this results in losing the focus to the OSD. Just make the ci2.exe settings visible by pressing your HotKey, normally CTRL+ALT+S. If the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

With the “Do not force to TOPMOST” checkbox, the OSD is only forced to TOPMOST for around 2 seconds, then the OSD is not set to TOPMOST anymore. This is needed if you use “SHARE + EMAIL” so the user can type in his email address without losing the focus every second.

If you want to try to create an own skin try this skin editor:  
<http://www.alphaskins.com/showdoc.php?l=en&n=102>

## 4. CONNECTIONS

### 4.1 Power supply



The power supply is connected to terminal plug X1. The CASH-Interface2 needs a supply voltage of +5V and +12V DC. The ground connections (GND) of both voltage must be connected together. Easiest is to use the PC power supply. If you use no PC power supply you need an extra separate external power supply. Interfacing of +5V, +12V and GND is printed on the board.

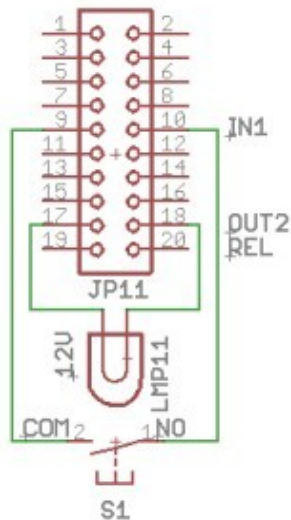
We offer a nice power supply with both voltages in one device in our web shop.

### 4.2 Start button + illumination

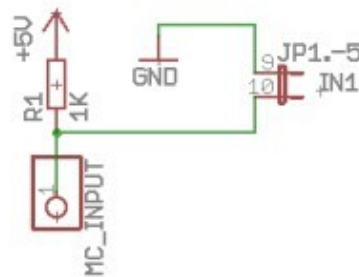
Connection of START button + illumination and connection of camera LEDs:

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

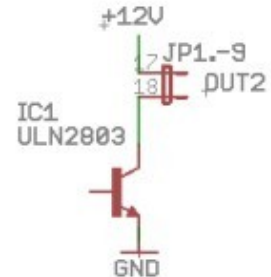
START button + illumination



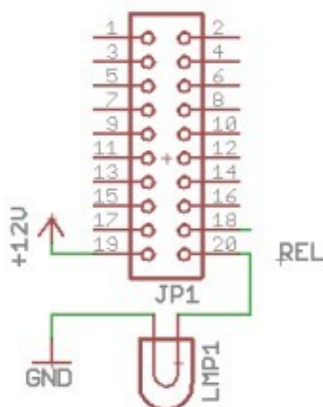
Internal IN1 connection



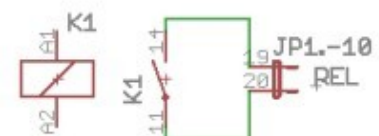
Internal OUT2 connection



REL example



Internal REL connection





## 5. FEATURES

### 5.1 Receiver name

Depends on what photo booth software is used, the receiver name, which is the software that receives the keystroke, 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. The receiver name can also be the SHARE or PRINT screen of the photo booth software, depends on how you want to use the photo booth and if the photo booth software supports it. 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 manually 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".

#### **For the Sparkbooth software there are 2 possible setups:**

IMPORTANT: In Sparkbooth settings, Premium, General you have to activate "Output Status - Display in window title"

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

depends on your Sparkbooth version you have to set:

Sparkbooth - START  
Sparkbooth DSLR Canon - START  
Sparkbooth DSLR Nikon - START

2. Use Sparkbooth DSLR Canon – PRINT\_PROMPT as receiver means only PRINTING from the print screen must be paid. The keystroke should be set to RETURN.  
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".

In Sparkbooth

- a) Go to Settings > Printing and enable printing and the print prompt
- b) Go to Settings > Messages and change the Print Prompt text and blank the Print OK button text so no Print button is displayed
- c) Now during the session, it will display the print prompt screen and the status output is PRINT\_PROMPT

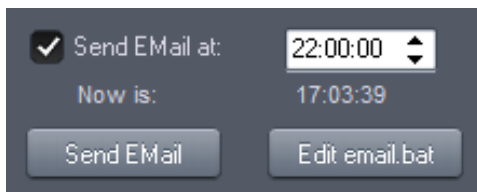
## 5.2 Jobs counter



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.

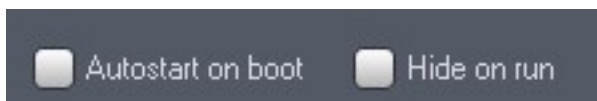
## 5.4 Disable Taskbar



This property allows you to either have the complete Windows Taskbar displayed or hidden.

When all settings are done we recommend to operate the machine with hidden taskbar.

## 5.5 Autostart on system boot



To start the CI2 keystroke software on system boot, just check the Autostart on boot checkbox.

We use the registry Run section of the current user (HKEY\_CURRENT\_USER)

## 5.6 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.

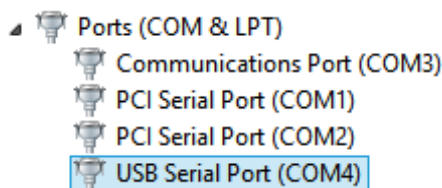


## 6. GETTING STARTED / TESTING

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.

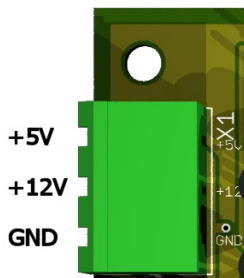
Open the device manager and look for Ports (COM & LPT). There you should see the USB to Serial converter showing the COM port number. On this example the device manager shows the USB to Serial converter uses COM4:



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.

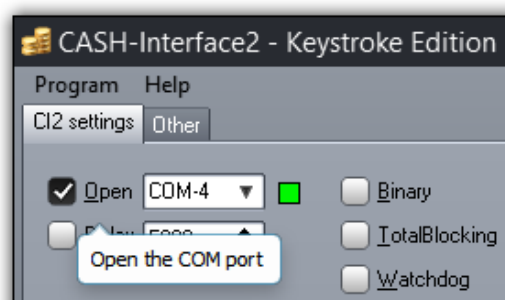
The CASH-Interface2 needs a supply voltage of +5V and +12V DC. The ground connections (GND) of both voltage must be connected. The interfacing of +5V, +12V and GND is printed on the board. Ensure that the poles are connected correctly!

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.

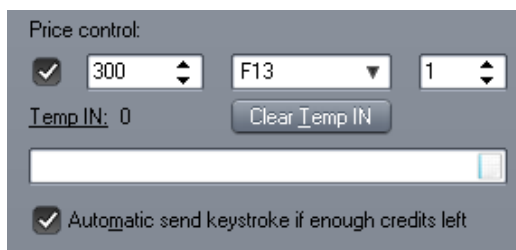


The connection to the CASH-Interface2 is open now and commands can be sent and data received. When the COM port is opened, the CASH-Interface2 sends all stored settings to the PC. You can see that in the log file if “log all” is activated.

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.



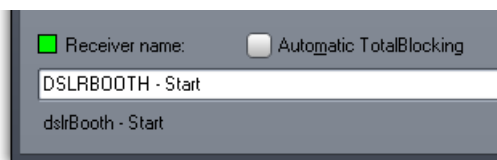
Leave the “credit file” edit field blank to not create a credits file, we do not need this with dslrBooth.

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.

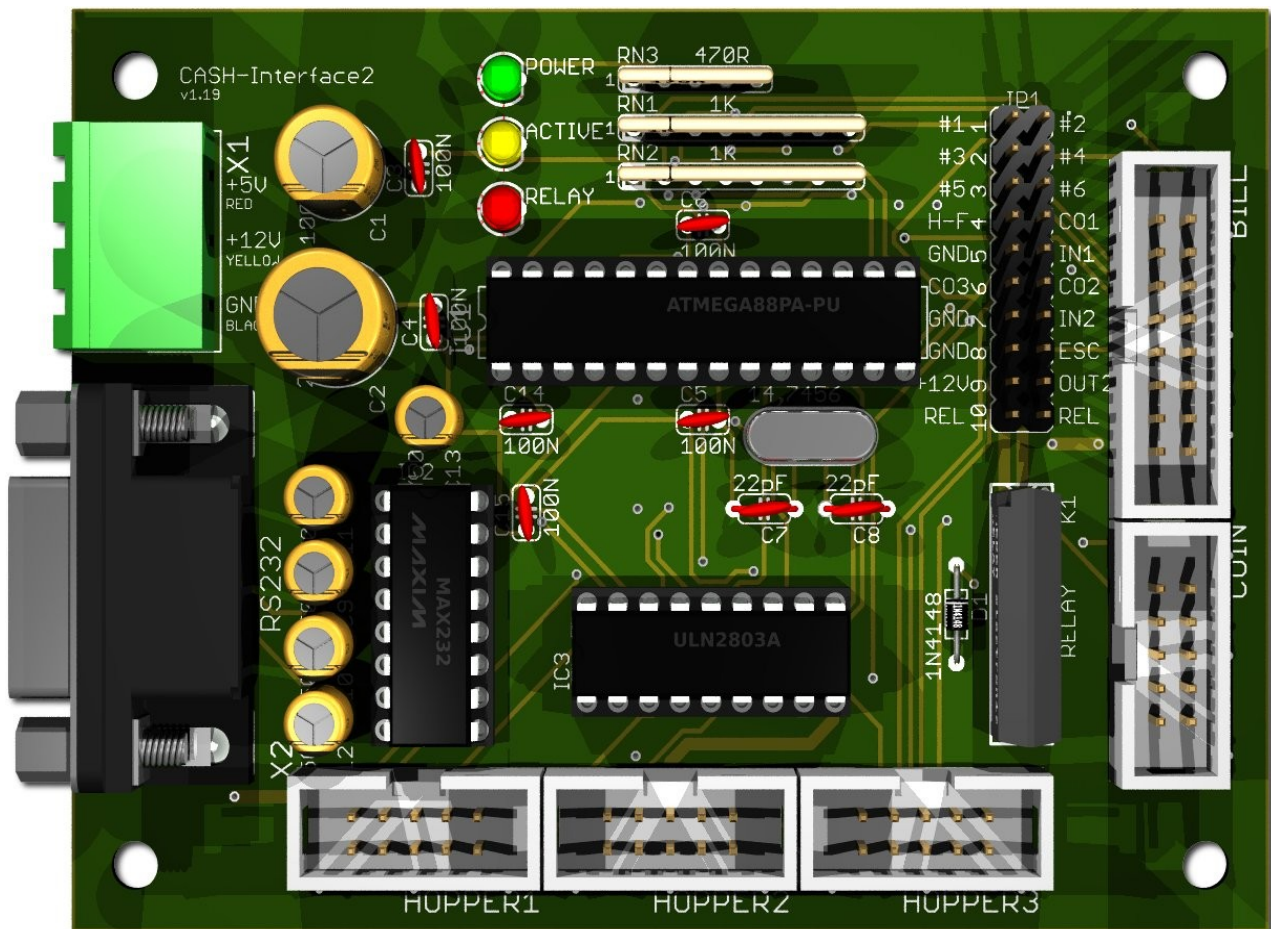
Now everything is set up and ready to use. Insert money and test the system.

The default hotkey to make the settings window visible again when it is hidden is “CTRL+ALT+S” and the default password is 0000.

## 7. DSLRBOOTH SETTINGS

To have the photo session paid go to DSLRBooth settings, Display, Start session trigger, and deactivate "Touch screen". If you have a keyboard present deactivate the "SPACE, ... keys" as well. F13 key is activated all the time, means we can start a photo session by F13. This F13 is sent by the keystroke software, either automatically on enough credits, or manually on enough credits and user hits the external connected push button. Depends how you want to operate the machine.

## 8. CASH-INTERFACE2 BOARD v1.19



### 8.1 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: Hopper 1+2 can be used to pay out changen

Hopper 3is not used so far for the dslrBooth cash payment system.

## 8.2 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)

## 9. PROBLEMS

Having problems work thru this checklist, this should help to fix your issues!

- ➔ If the COM port is open, the answer from the board with all settings must appear in the log. If not, there is something wrong with the connection to the CASH-Interface2, or simply the wrong COM port setting. Important: Check tight cable connections and the power supply is connected correctly. Using a USB to serial converter the correct COM port number can be found in the Windows device manager.
- ➔ Check all cables if they fit tight.
- ➔ Remove all extension cables, e.g. USB extension cord or USB hub.
- ➔ Use a different COM or USB plug on the PC, and replace all cables if problems still appear.
- ➔ If the PC main board offers a free PCI Express slot, it is possible to add a cost-effective PCI Express serial card to have a pure COM port available.
- ➔ A COM port can be opened only once, so be sure the COM port is not open by an other application.
- ➔ Be sure the coin validator is placed horizontal so the device can measure correctly.
- ➔ We figured out that some customers using a serial touch screen, the serial touch screen driver screws up all other Com ports, which results in communication errors with the CASH-Interface2. Try to get a USB controller for your touch screen and uninstall the serial touchscreen drivers. Visit the manufacturer website of the touch screen and download latest touch screen driver, but be sure to do not install serial drivers. A working 3M driver can be downloaded here: [3M touch screen driver win32-64](#)
- ➔ Check the log file for error messages, this gives you hints what exactly is the problem.
- ➔ Sometimes it helps to completely uninstall the software via Windows control panel, and do a fresh install. Doing this visit the CI2 website to download the latest version.

## **10. 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!

## **11. 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.

## **12. LIABILITY NOTICE**

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