Photo booth cash control system

User Manual
Software version 3.5.6.1
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Content

1. Introduction

The photo booth cash control system was designed to work with the Breeze DSLR Remote Pro photo booth software, see http://www.breezesys.com/Photobooth/

With the photo booth cash control system it is possible to add a cash system to the Breeze DSLR Remote Pro photo booth software (or NKRemote, or Webcam Photobooth, or PSRemote) and charge money for printing photos.

You need:
Breeze DSLR Remote Pro Photobooth software,
or NKRemote, or Webcam Photobooth, or PSRemote.
The photo booth cash control system.

The photo booth cash control system package consists of the CONTROL software and a CASH-Interface2 (photo booth edition), plus cables to interface cash devices like coin and bill validator, push buttons and lamps for illumination.

2. Control software

The CONTROL software monitors the CASH-Interface2 and is able to control the photo booth software by sending keystrokes. This can be done by using the integrated on screen display (OSD) or via external push buttons. For example, a push button connected to the CASH-Interface2 board's HOPPER1 plug sends a F4 to the DSLR software and starts a photo session. The OSD buttons or external buttons are only working with enough credits!

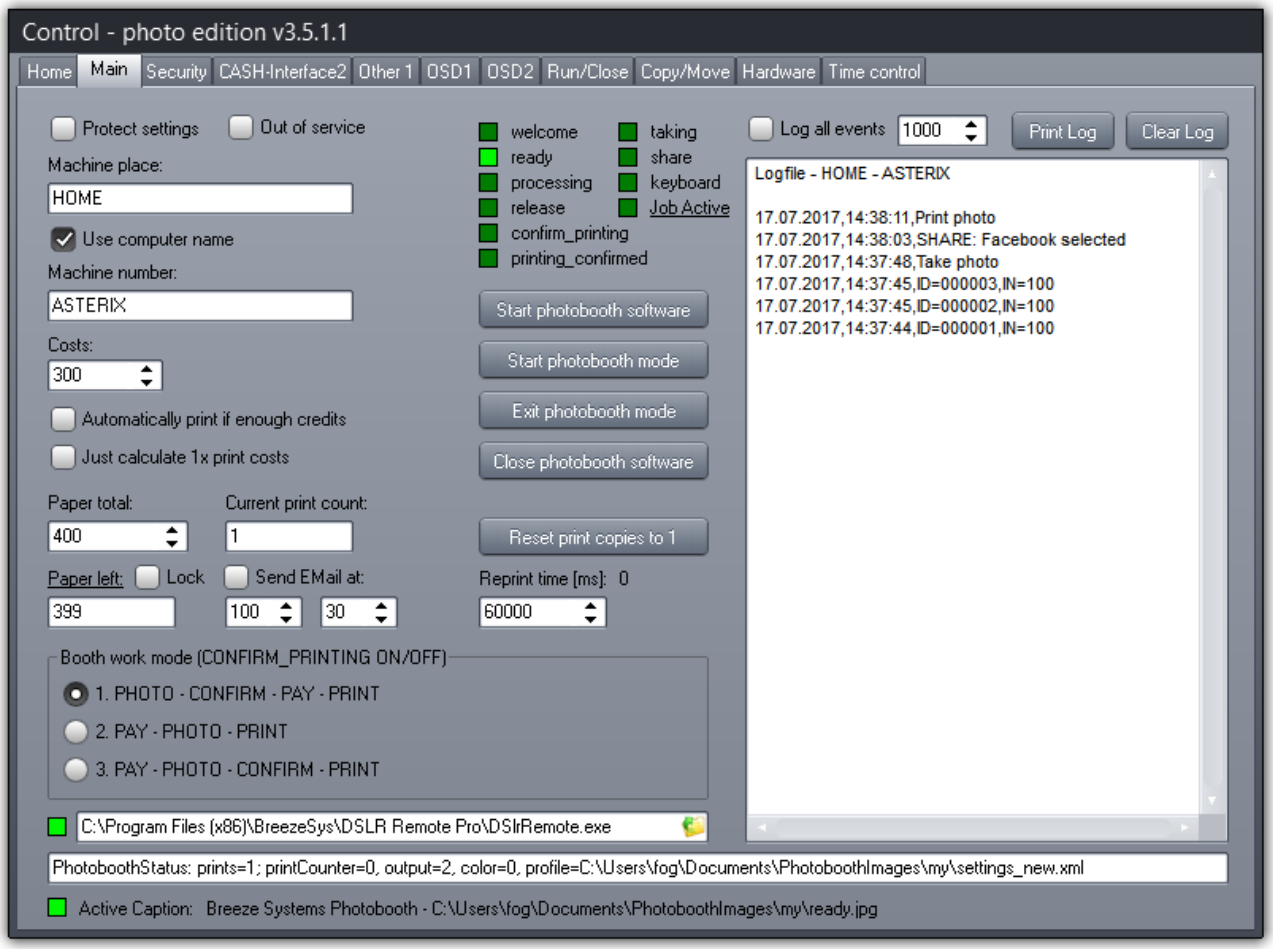
In the CONTROL software itself there can be done several settings. For example set up the coin and bill validator, set the costs for a photo job, activate and set position of the on screen

display (OSD), enter machine name and place, activate e-mail the log file, windows security and other settings. Later the control software is running invisible in the background.

If the DSLR software is running in full screen mode the green LED is lit and the complete window title is shown on bottom line. This way we can detect the state of the DSLR software, e.g. welcome, ready, taking, processing, and so on, and send needed key strokes to the photo booth software.

Hint: In the CONTROL software point with the mouse over an object, a small hint window appears with some more information about the feature and its function.

2.1 Main settings page



The “Protect settings” check-box disables all settings to avoid unwanted changes, disable it to change settings.

It is possible to enter a machine place and machine number. This is used in the OSD and for sending out the log file e-mail.

Set the costs for one photo job. If this is set to 0 taking photos is always possible.

It is possible to activate a print counter and set the amount of paper remaining in the printer. If remaining paper becomes zero an error window is shown and the acceptance of cash is deactivated. To reset the print jobs counter double click to the counter itself.

The CONTROL software can work in 3 different modes.

Work mode 1: the customer can do photos, and must pay before printing the picture.

Work mode 2: the customer must pay before he can start a photo job, and the picture is printed out without confirmation.

Work mode 3: the customer must pay before he can start a photo job, and the picture is printed out with confirmation. Only the real print job costs money, but without credits the machine is locked.

If you use the SHARING feature, be sure to disable the “Confirm before printing” in the DSLR software!

If you set the complete path above the status field, it is possible to run the DSLR software via the “Start photobooth software” button.

Important: The photo booth software must be in full screen mode to detect the status! If so the status and extra information like selected prints, as well as the DSLR software active caption, are available and shown. Also we show the DSLR state like welcome, ready, processing, release, confirm_printing, printing_confirmed, taking, share, keyboard by LEDs. This is needed to control the DSLR software and send correct keystrokes to the DSLR software.

With the Reprint time setting it is possible to set the time the reprint button is visible. Set this to 0 to do not show reprint button. On the OSD2 page there is an extra setting for OSD2 button 2!

Check “Log all events” to show every happening action in the log.

2.2 Security settings page

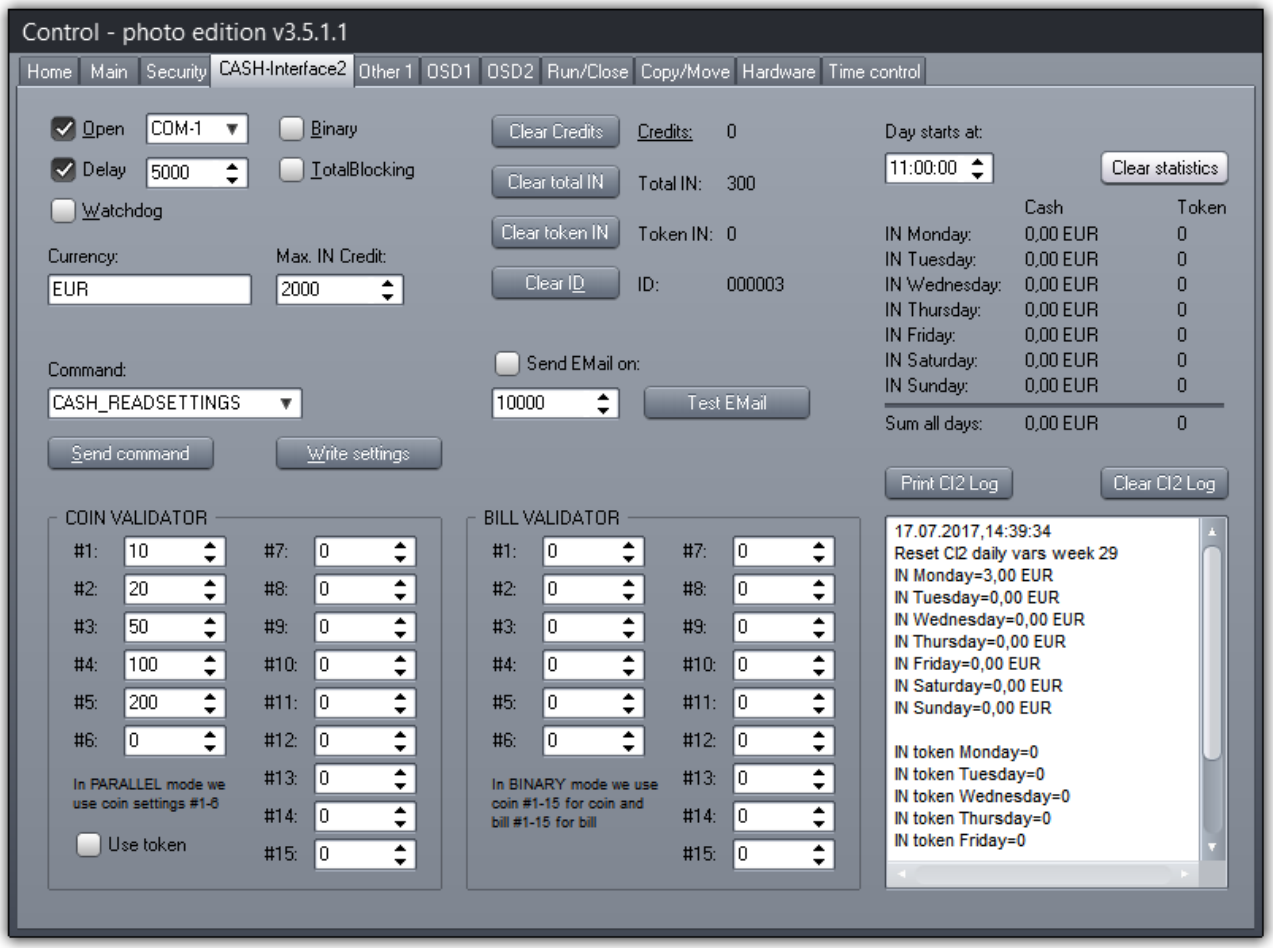
On the “Security” page you can activate some windows security settings, e.g. disable task bar and other security functions.

One of the interesting security functions is to disable the windows taskbar, user can not access windows settings and hard drive. It is also possible to disable CTRL+ALT+DEL and other windows system hot keys.

Windows7 or higher we suggest to create an administrator user and enter that user and password. This is needed to have some security settings working properly. Or be sure to set the “Run as administrator” in the control.exe properties settings. Right mouse click to the control.exe or desktop icon, properties, Compatibility.

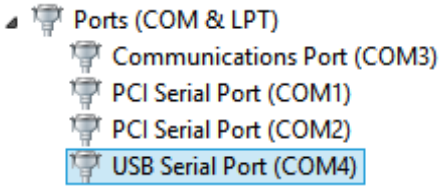
With “Use password for SERVICE” activates a password dialogue for the SERVICE menu. The default password is 1111, but can be changed to whatever is wanted.

2.3 CASH-Interface2 settings page



First set the COM port where the CASH-Interface2 is connected and open the port. If you use a USB to Serial converter the COM port number can be found in the Windows device manager. 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. When you open the COM port you get immediately answer from the CASH-Interface2 board, sending all stored settings. If you get no log messages check your COM port set up and connection.



If needed, adjust all coin and bill settings, and then write the settings to the CASH-Interface2 by using the ”Write settings” button. Normally coin and bill values are already set up correctly by us.

To avoid problems opening the COM port on system boot you can set a delay. Default setting is 5000ms, means 5 seconds delay to open the COM port connection to the CASH-Interface2.

Set the currency you want to show in the OSD1 display, default is EUR for using Euro.

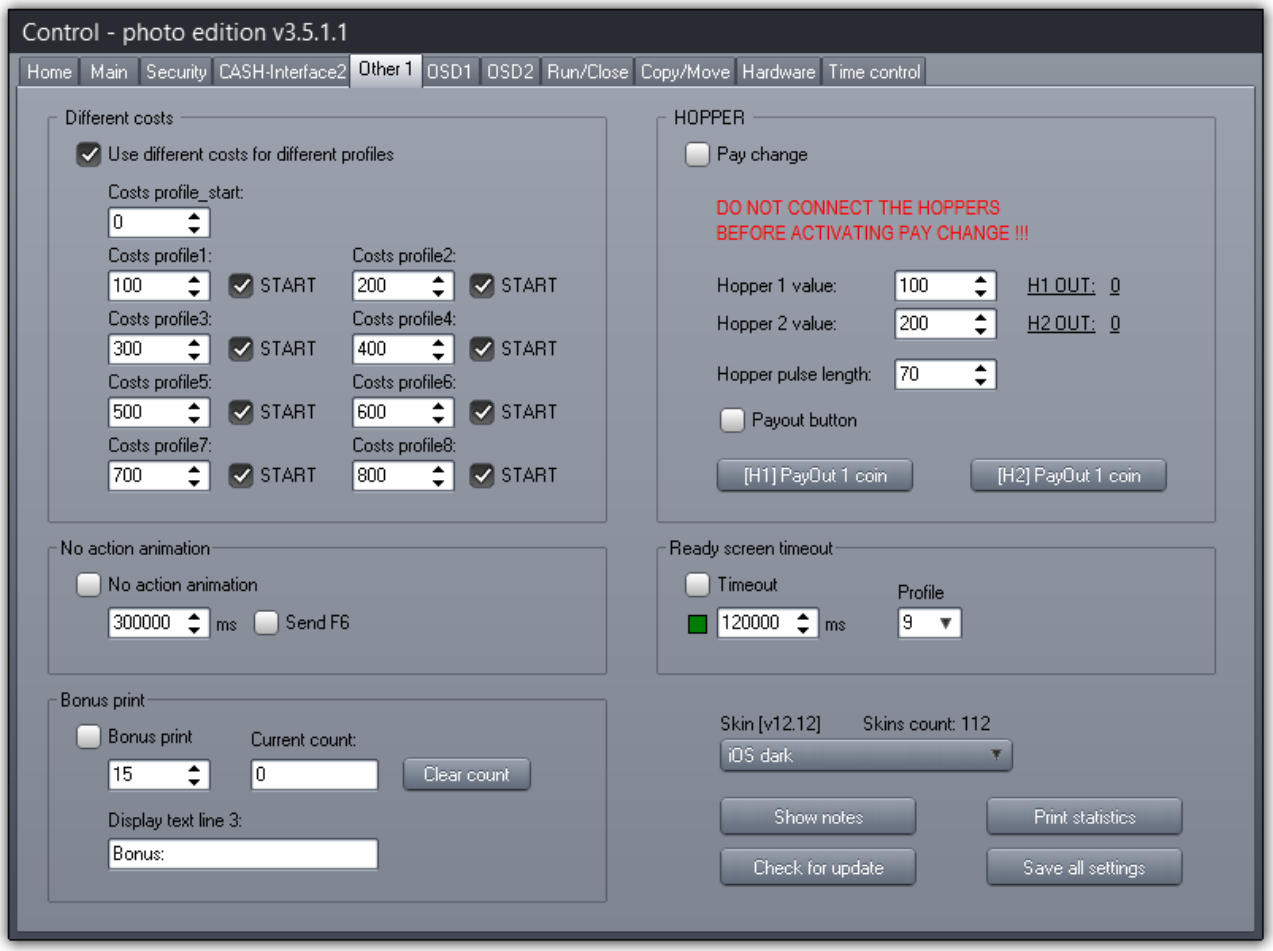
If you want to send out an email when a special cash in is reached just activate the send email function. The email setup can be found on the Run/Close page. Test the email function via the Test Email button.

There is also a weekly CASH IN statistic and log file available. In the CI2 log it shows the weekly statistics for every week.

It is possible to set a special value for using a token. We suggest to use coin #6 and set the value to 6. If the value of the token is detected we can count the token in and we give the costs as credit. For example the costs are 300 and you insert a token you get 300 credit. To have this feature the “use token” function needs to be selected.

Another interesting feature is to use #6 as an input for a Credit card reader, like Nayax or others supporting pulse protocol. Just connect the pulse output line of the reader to #5 or #6 pin of the CASH-Interface. Ask your credit card reader supplier for more details.

2.4 Other settings page



2.4.1 Different costs

With the different costs setting there can be different prices for different user profiles. Create a profile_start where user can select different paper size or other things you set up in an own profile. To detect what profile was selected, the profile name on the hard drive must contain the number of the profile, e.g. profile1, profile2, and so on. As soon as the user has selected the profile we show the costs for that profile in the OSD1 display.

By the START checkbox it is possible to deactivate the START button in the ready screen, this way you can use a profile's ready screen for user stuff like select language or other things and link to another profile then.

2.4.2 Bonus system

It is possible to activate a bonus system, so the customer gets a bonus print every x printout. In the OSD it shows how many prints are needed to trigger the bonus. By default the bonus is set to 15, means the customer gets one extra credits every 15th print.

By activating the No action animation check box the machine starts a timer (adjustable). If there was no action after the adjusted time we play a wave by random (wave1.wav – wave5.wav in the installations directory) and do blink of the outputs to attract people.

Using the Ready screen timeout it is possible to switch back from ready screen to a preset profile's welcome screen.

With the skin setting, the look of the main control software can be adjusted.

Check for new versions by clicking the "Check for update" button.

The show notes button opens the internal notepad, can be used to store messages or other remarks for later use. Originally it was designed to let the service personal leave a note to the main operator.

The Print statistics button prints a simple statistics for paper status, total cash IN, and if Pay change is activated total OUT.

The Print log just prints the log file. Remember this can be some sheets of paper, depends on your log file size.

2.4.3 Pay change function

It is possible to pay change via 2 hoppers. Activate the “Pay change” function and set the value of the coin stored in hopper 1 and hopper 2. Put the lower coin value to hopper 1 and the higher coin value to hopper 2.

If the pay change function is activated, the HOPPER1+2 plug is used for hopper, so you can not use external push buttons any more. It is possible to use IN1+IN2 to have external push buttons AND pay change functionality.

DO NOT CONNECT ANY HOPPER UNTIL PAY CHANGE FUNCTION HAS BEEN ACTIVATED !!!

Originally the software was designed to use no payout feature, so the hopper plugs are normally used to connect external push buttons and its illumination. If you connect a hopper without having the “Pay change” function activated, the hopper receives wrong signals normally routed to the push buttons illumination!

2.5 On screen display 1 settings page

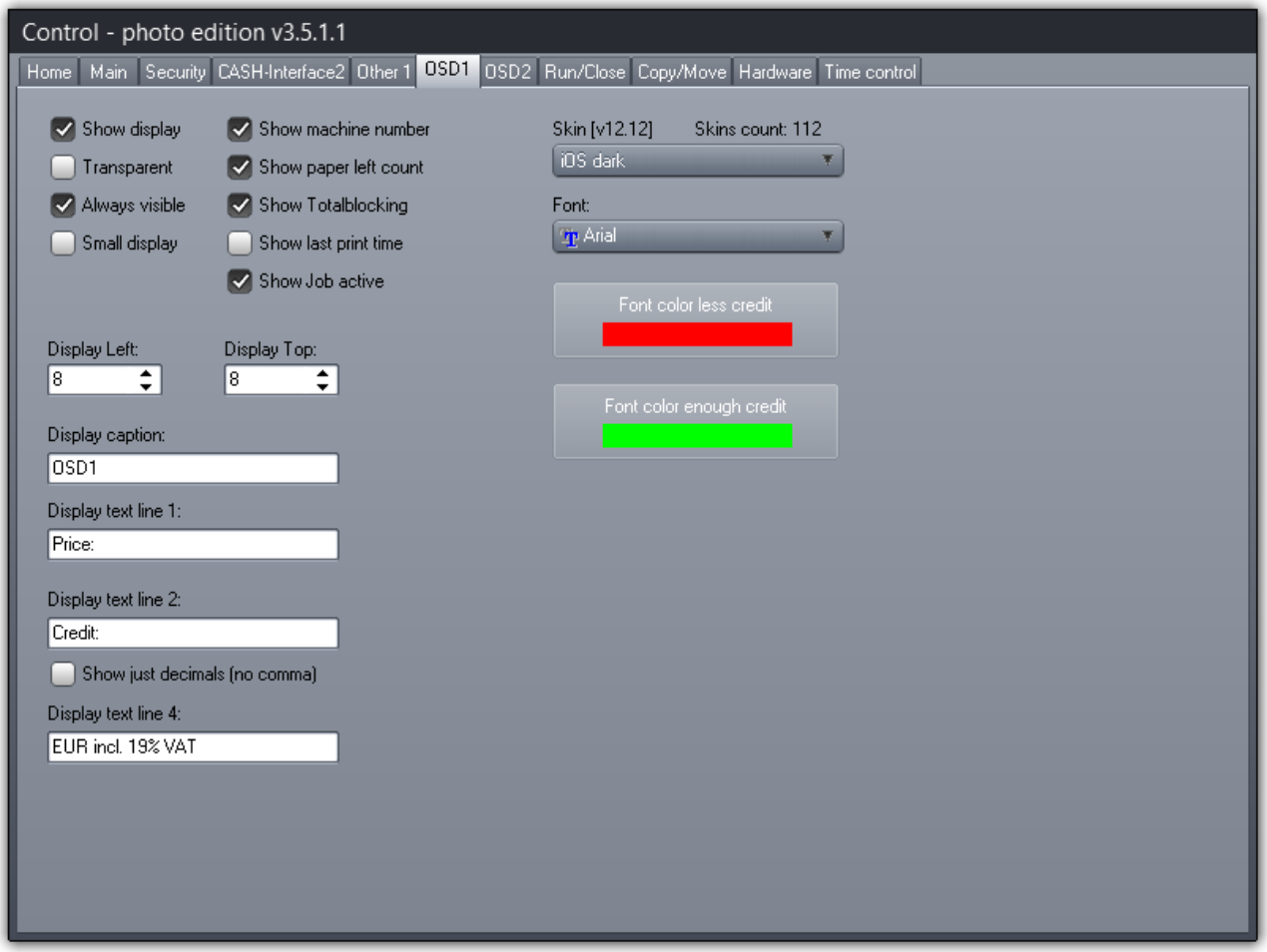
OSD1 shows costs and bonus and other machine data.

The OSD1 window can be shown opaque or transparent. Select to show the OSD1 and set the position.

OSD1 can be shown as “Small display” so it only shows status informations. The status informations to show, like machine number,

paper left counter, accept money or block (OK or XX), job active indicator, can be selected individually. To change the skin or font just select the one of your choice.

Depends on your language you can enter the display text for costs, credits and so on. And you can set the color for less and enough credits label.



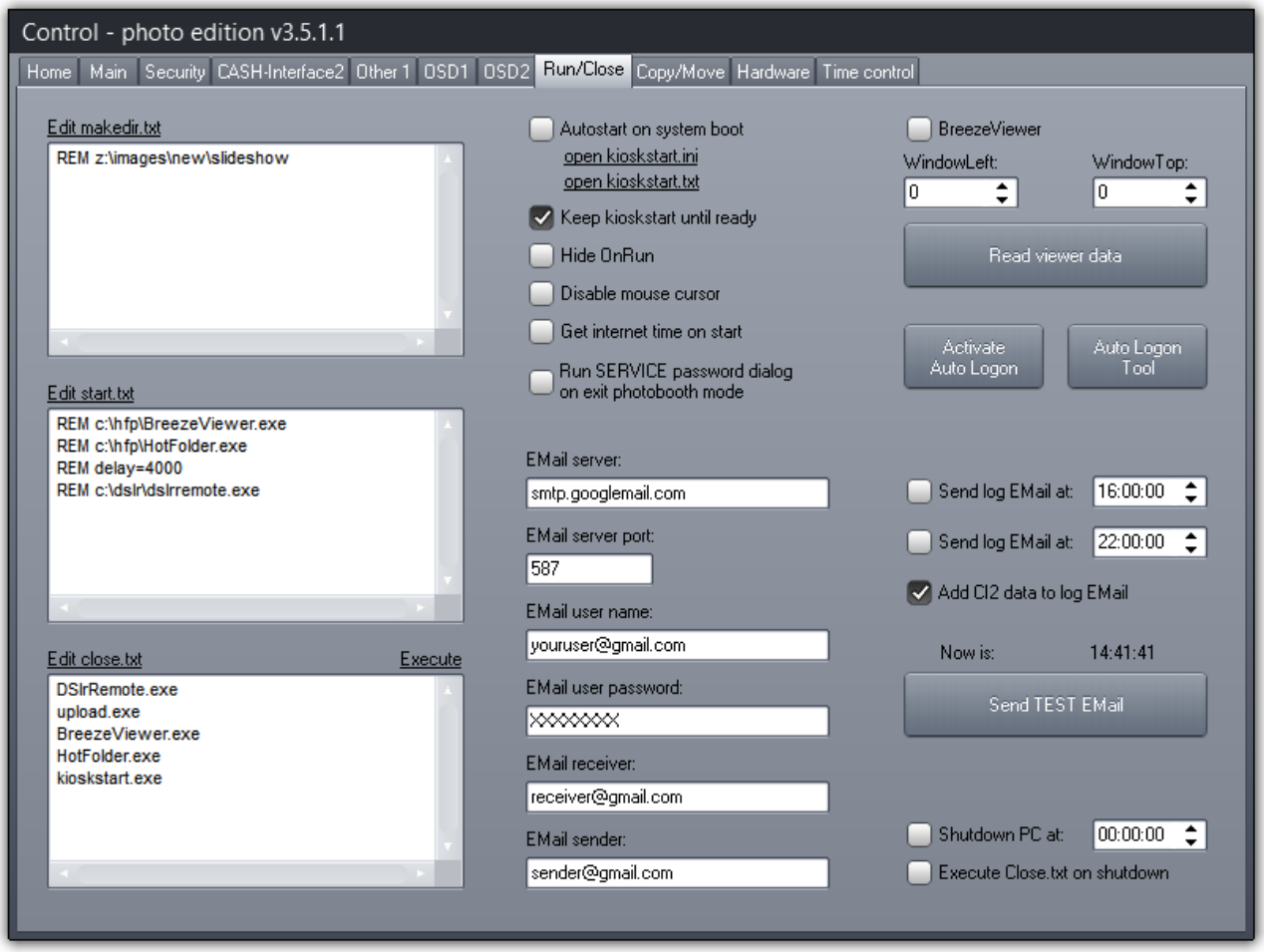
2.6 On screen display 2 settings page

OSD2 shows up to 4 buttons. It is possible to change the position and size for the complete OSD2 and all buttons. It is possible to change the caption of every button for different photo booth state.

The selected skin controls the look of the buttons. Hint: click once to the skin selector so it is active, then you can easily use the mouse reel to change the skin.

Of course it is possible to use real push buttons and the OSD at the same time. For easier set up click the Show all OSD2 buttons. When you set up all the things it may be it shows the OSD2 opaque all the time. Just restart the control software and all items should be painted correctly again.

2.7 Run/Close settings page



The control.exe is started on windows boot via the kioskstart.exe. This means the machine goes to full screen and starts the control.exe invisible in the background. By clicking on the kioskstart.ini or kioskstart.txt link you can adjust some more parameters, e.g. delay to start the control.exe

When the control.exe starts it is possible to run other software, like the dslrremote.exe, just enter the complete path into the start.txt box. We even can create directories if needed.
All programs listed in the close.txt are ended on control exit. We send an Alt+F4 to every exe and finally do a kill task if needed.

To deactivate a line just add a REM in front of the line. REM stands for remark and is known from working with batch files. To add a delay between execution just add a line like “delay=1000” to have a 1 second delay between executon.

The software can also send an e-mail with the log file. Just fill in the user account data needed for the mail server, set the time, and activate the “Send EMail at” check-box. There are two time settings for one day.

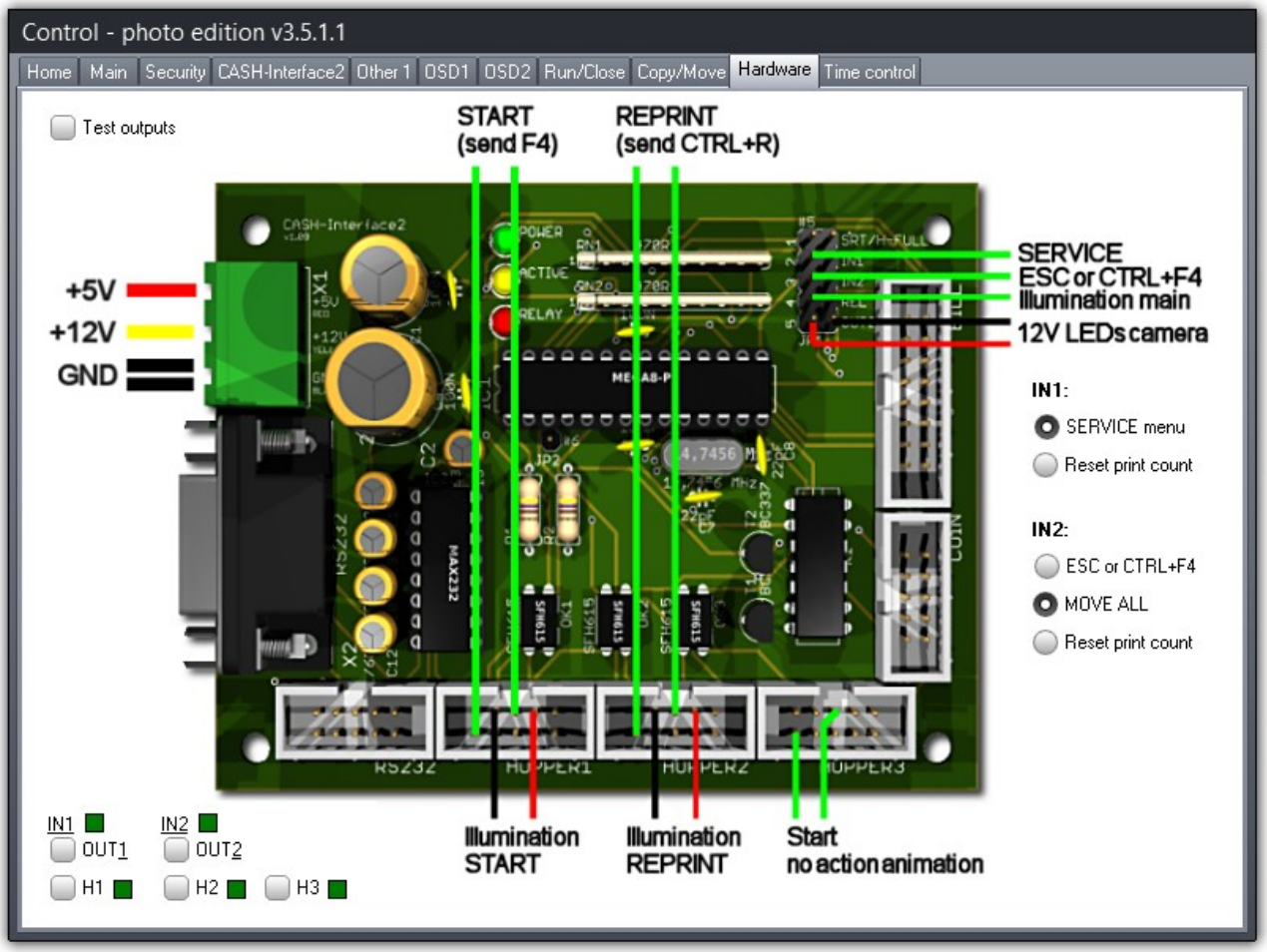
It is possible to shutdown the PC on a given time. Additionally we can execute the Close.txt file and close other applications before shutdown. This is very useful to shut down windows correctly!!!

2.8 Copy/Move settings page

The copy/move was done to easily “move” all taken pictures from the hard drive to an USB stick after the machine comes back from an event, e.g. machine is for rental.

As source directory select the folder where all pictures are stored by the DSLR software. Destination directory should be a external drive like an USB stick. Now it is possible to use the SERVICE menu or the IN1 input via push button to move all files to external drive. After the move operation the machine is cleaned up and ready to go to the next event.

2.9 Hardware settings page



COIN: connection for coin validator of the type NRI-G13 or RM5 or EMP800 or pin compatible.

BILL: connection for bill validator of the type NV9, NV10 or pin compatible.

IN1: a connected push button can be used for different functions
IN2: a connected push button can be used for different functions

OUT1 (REL): Illumination main machine. Relays output NO 200 VDC, 15W.

OUT2: LEDs camera ring, on 1.jpg, 2.jpg, 3.jpg, 4.jpg,

taking.jpg . Transistor controlled 12V/1A

RS232: direct COM port connection to PC main board.

HOPPER1: Illumination push button “Start”. Opto coupler controlled, max. 50mA.

HOPPER1_EMPTY: push button “Start“, sends F4 to DSLR software

HOPPER2: Illumination push button “Reprint”. Opto coupler controlled, max. 50mA.

HOPPER2_EMPTY: push button “Reprint”, sends CTRL+R to DSLR software

HOPPER3: reserved for later use, e.g. can work as output.

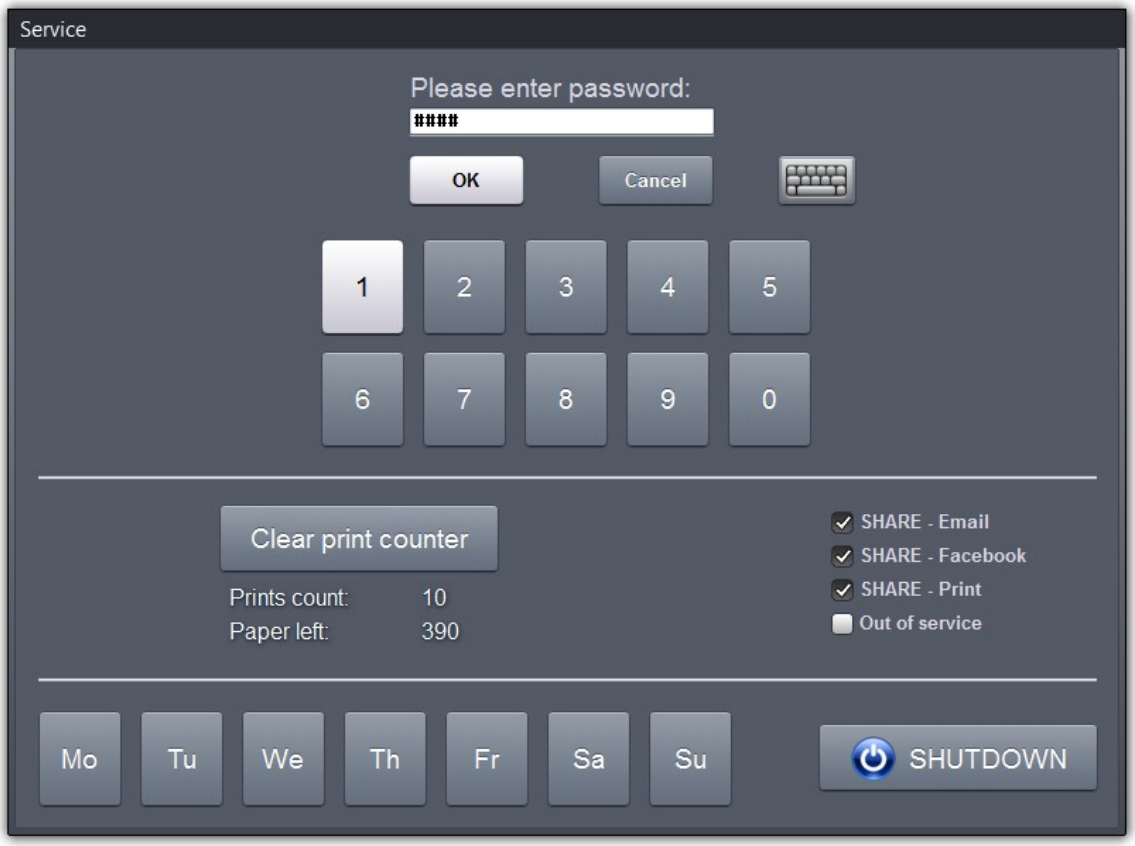
HOPPER3_EMPTY: push button “Start no action animation”

2.10 Time control settings page

To have the time control working properly it is important the PC system time is correct! Press the “Get time” button to receive the current time from the internet. It is possible to use a special time server, default time server is pool.ntp.org

If time control function is activated the control will use different settings for every day. This way it is possible to have “specials”, for example Friday or Saturday evening offer reduced costs. You can even select different Breeze DSLR profiles.

2.11 Service menu password dialogue



Hit the hotkey CTRL+ALT+S to pop up the password dialogue.

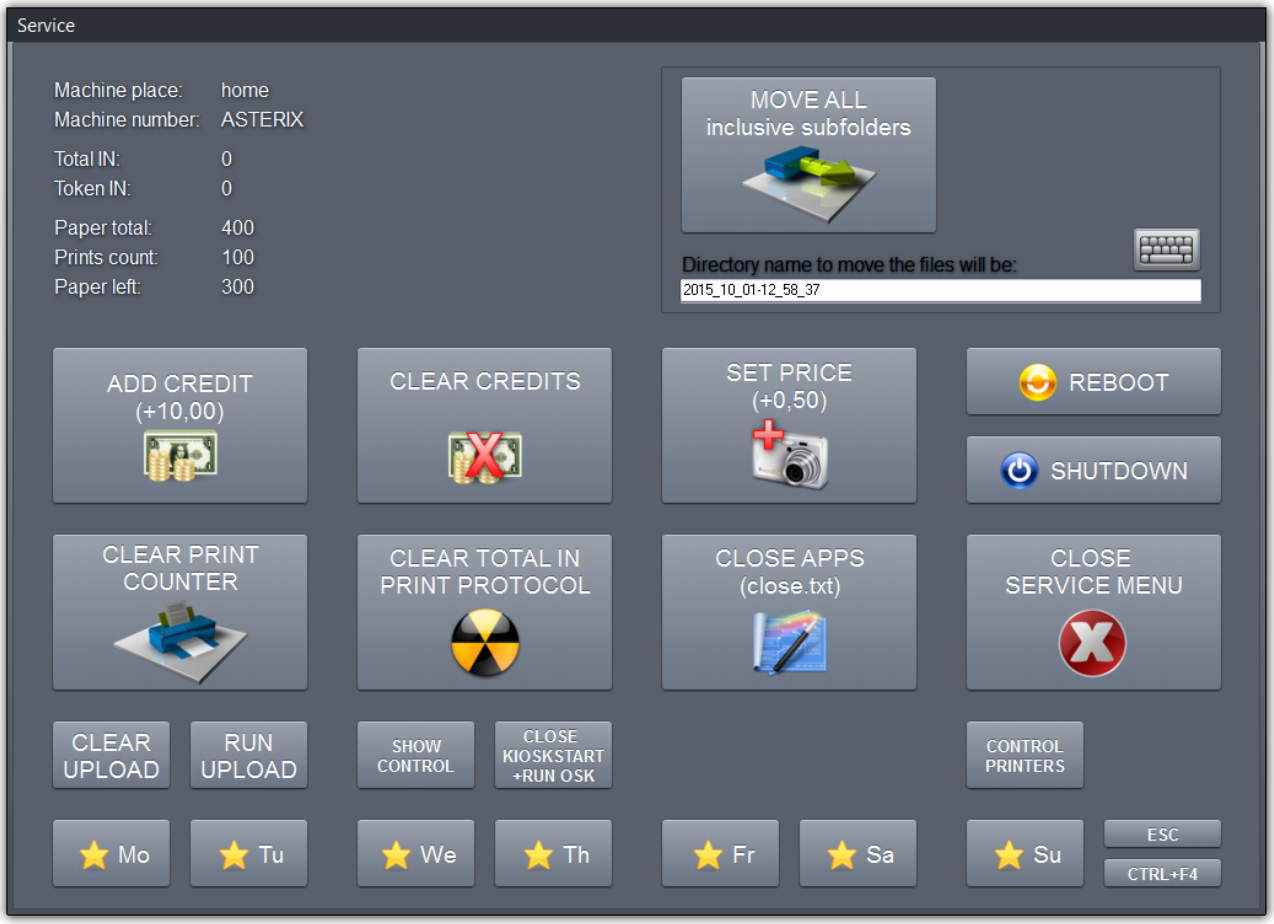
In the password dialogue the service personal can do small jobs without having access to the SERVICE menu or main control settings.

For example service personal fills up the paper and can reset the paper counter here. Or service personal can select a other day profile or change the SHARE features.

The machine can be set to “Out of service” state, showing an out of service screen and cash acceptance is disabled.

For more settings enter the correct password and get the SERVICE menu shown.

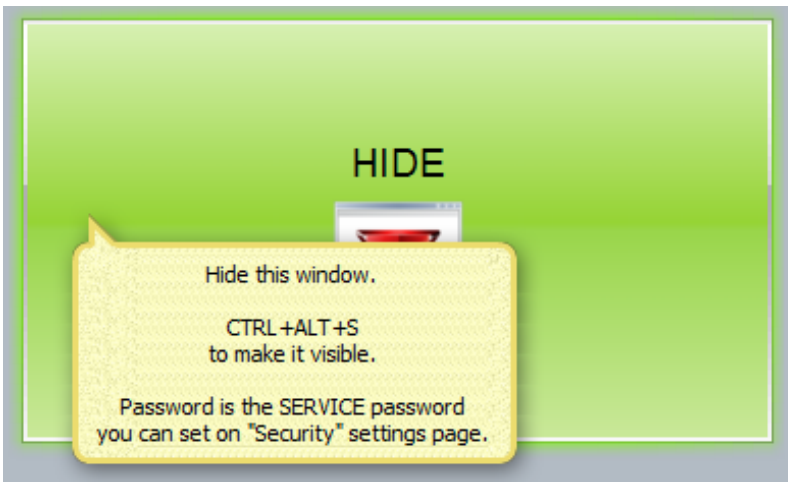
2.12 Service menu



In the SERVICE menu we have some functions available for the service technician. Remember the SERVICE can also be started by a push button connected to IN1 input. This way the service engineer can run some service functions without having access to the main CONTROL software settings.

Activate and set the password for the SERVICE menu on the “Security” settings page. By default the password is: 1111

2.13 Hide/Show

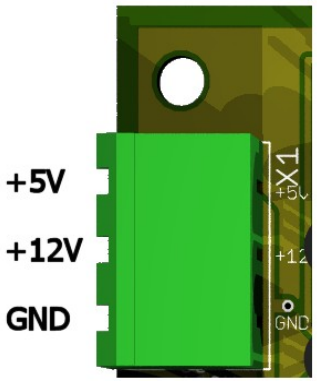


To make the CONTROL window visible press CTRL+ALT+S hot-key or IN1 push button.

Remember, starting the control automatically with system boot, the main window is hidden and only the OSD1+2 are visible if activated. Use the hotkey to get the main settings window visible.

3. Hardware connections

3.1 Power supply



The power supply is connected to clamp 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.

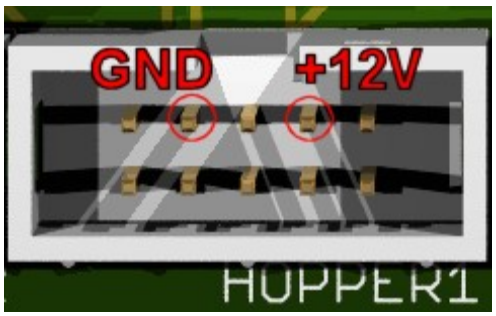
You can use the PC power supply or a separate power supply. Depends on the load be sure the power supply is strong enough!

3.2 COM (USB) port

Connection to the computer is done via 9 pin RS232 connector X2. Be sure the RS232 cable is not longer than 3m.

In order to operate the CASH-Interface2 via USB, you can use a RS232 to USB converter. We suggest to use a USB converter with FTDI chipset.

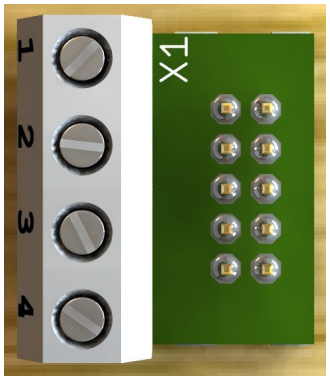
3.3 Hopper output connection



Connect LEDs or lamps to pin 3 and pin 5 of the hopper connector.

Max. current here is 80mA.
For higher load use a relays!

Hopper1 = Illumination push button “Start”
Hopper2 = Illumination push button “Reprint”

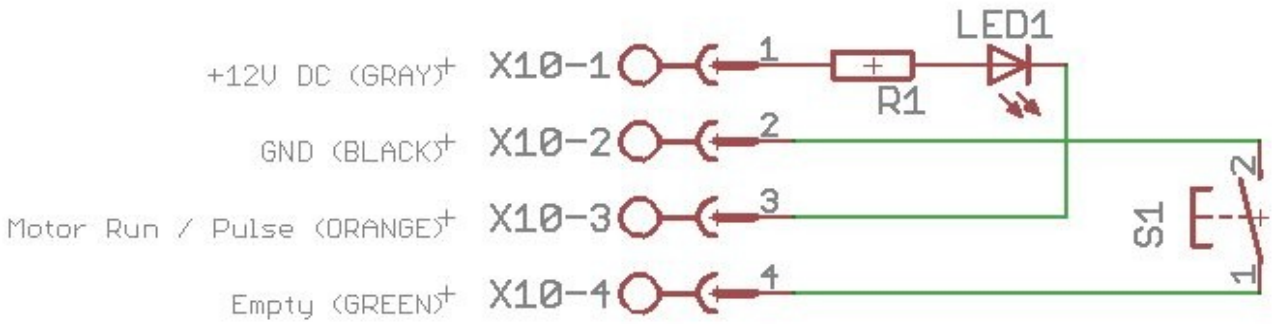


For easy connect of push button and illumination on the hopper connector it is possible to use our ND-300 adapter.

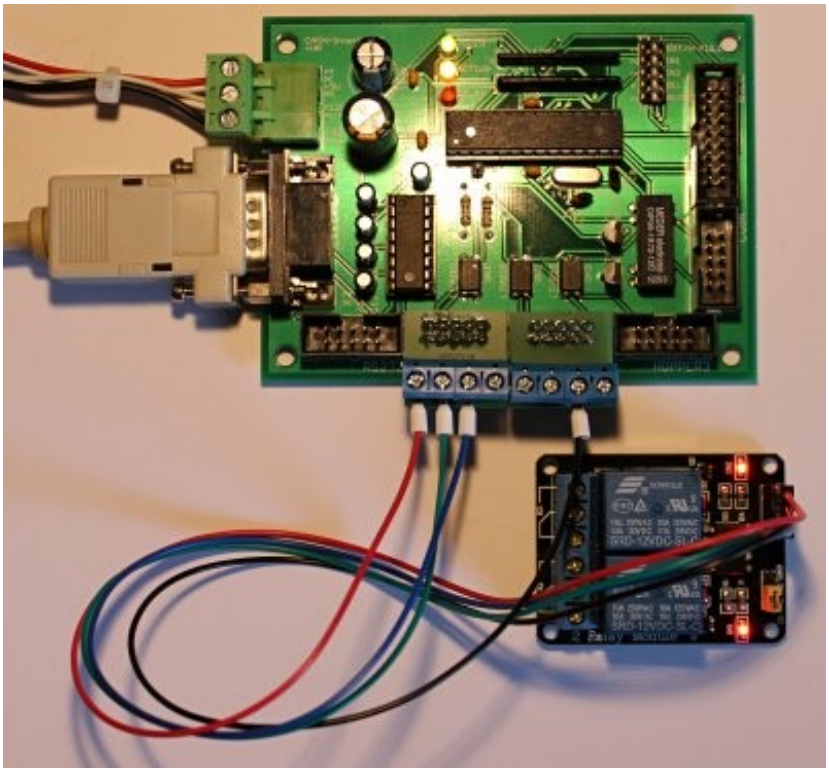
Occupation of the 4 pole plug

1 = +12V DC	GRAY	ILLUMINATION +
2 = GND	BLACK	START button
3 = Motor	ORANGE	ILLUMINATION -
4 = Empty	GREEN	START button

Connection of an illuminated push button using the ND-300 adapter:

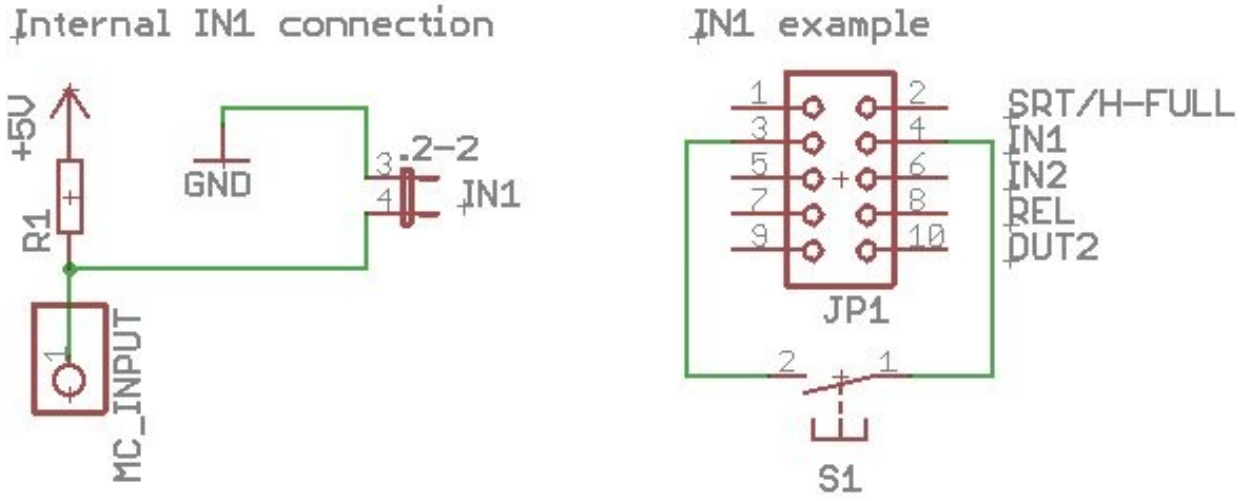


Here is a CI2 board with 2x ND-300 adapter + external 2 channel relays module connected. The relays is needed if the illumination of the push button is more than 50mA current!



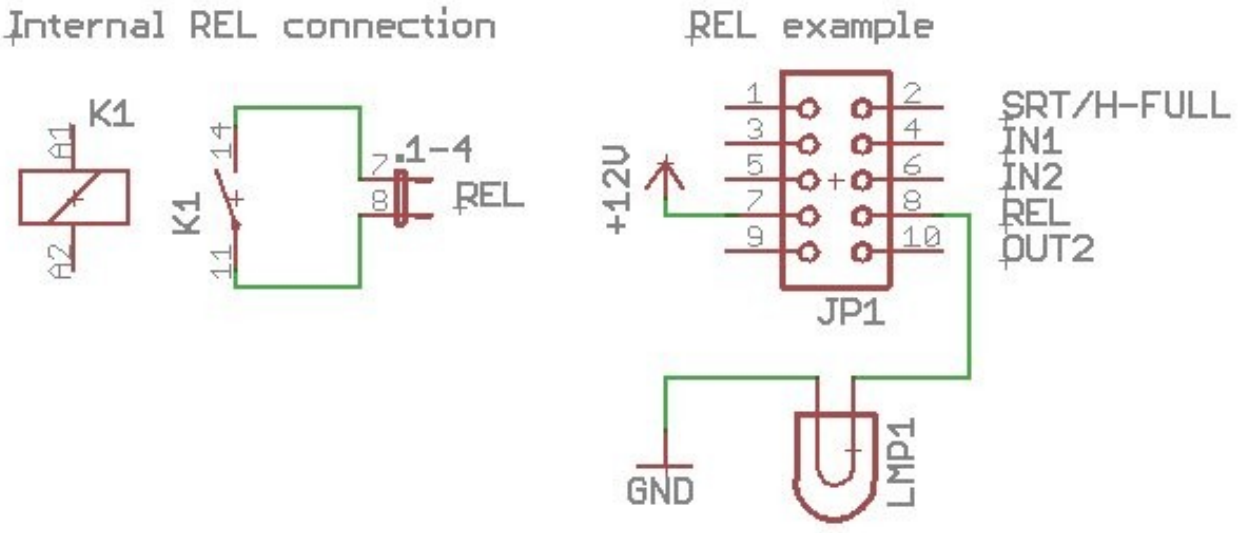
As you can see in above schematic pin1 is +12V DC, so either use a 12V bulb max. 0,6W, or a LED that has a resistor designed for the +12V DC. For more than 50mA load use the relays.

3.4 IN1 + IN2 connection



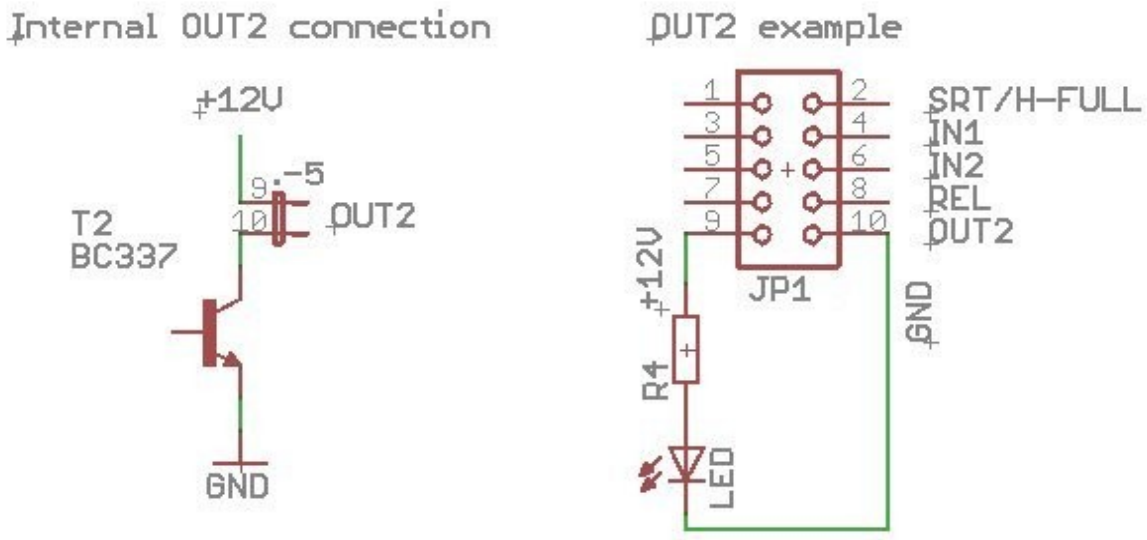
The inputs are ACTIVE LOW, means a GROUND on the input pin is detected as a signal, button pressed. Input1 and Input2 can trigger different functionality, see Hardware settings page.

3.5 REL (relays) connection



The REL output is controlled by the software to switch on the main machine illumination. The on board relays max. voltage is 200V, max. switching power is 15W. For higher load than 15W use another external relays!

3.6 OUT2 connection



OUT2 is controlled by the software to switch on a LED light for the camera, close before the photo is taken. The on board transistor can switch a load of 0,8A. For higher load than 0,8A use a relays!

4. 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 product, product parts and accessories only in perfect condition. Compare the specifications of all used devices to ensure compatibility.

The CASH-Interface2 is intended for installation in a housing.

Only use the CASH-Interface2 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 CASH-Interface2 module to high temperatures, strong vibrations, high degrees of humidity or chemically aggressive dusts, gases and vapors.

Electronic components of the CASH-Interface2 module may heat up during operation. Ensure sufficient air circulation around the device to prevent heat build-up and overheating.

On industrial sites the accident prevention regulations of the association of the industrial workers society for electrical equipment and utilities must be followed.

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!

5. Liability notice

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

6. Disposal instructions

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

7. Getting started / testing

1. Connect the CASH-Interface2 via serial cable or USB to Serial converter to your PC.

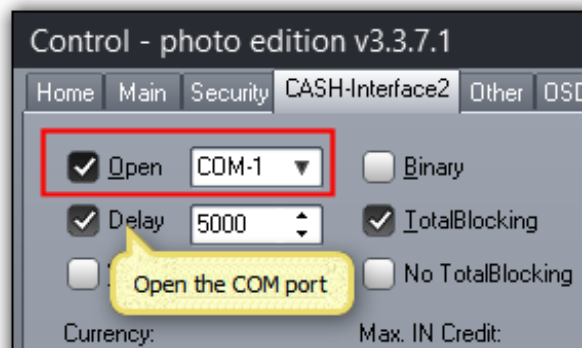
2. Connect the coin validator via the 10 pin flat ribbon cable to the CASH-Interface2 COIN plug. A bill validator is connected via the 16 pin flat ribbon cable to the CASH-Interface2 BILL plug.

3. Connect the power supply and power it on. 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 is ok.

4. Run the control software and set the correct COM port where the CASH-Interface2 is connected to.

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

6. 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.

7. Now everything is set up and ready to use. Insert money and test the system. Insert a coin or a bill. You can see the new credits in the OSD1 and in the Credits label on the CASH-Interface2 page. 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.

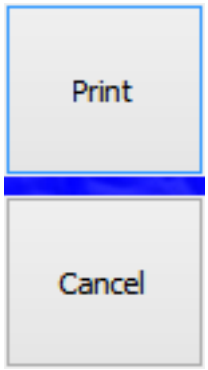
Maybe you have to adjust the channel values to fit to your coin or bill validator device. Enter the correct number to every channel and finally hit the “Write Settings” button to store all settings on the CASH-Interface2 board.

8. Run the DSLR software do your set up and finally start photo booth mode. As soon as the DSLR software is running in full screen we detect the window and the state. If there are enough credits the START button is active now and you can start a photo session. Depends on the selected working mode, the crediits are charged when the print is initiated.

9. Finally activate the “Autostart on boot” checkbox on the Run/Close page, to start the control software automatically when the PC boots up.

8. FAQ

- Get rid of the top left Print and Cancel buttons



This two buttons are displayed by the Breeze software. To deactivate this buttons you can create a new Touchscreen-Action for e.g. the confirm_printing.jpg Just Add a new “Cancel Printing” action as small as possible.

- What keyboard Hot-Keys are available?

1. CTRL+ALT+S => show main settings, password protected
2. CTRL+ALT+M => show service menu, password protected
3. CTRL+ALT+N => show notes window
4. CTRL+ALT+O => toggle “out of service” functionality

- Install which software from the server?

The number in the filename shows the version number. As higher as newer is the software. Use the highest number to install latest.