

Stoltzen 4K HDMI Controller

SHC-001



SAFETY PRECAUTIONS

Please read all the instructions carefully before using this equipment.

1. Please use only the power supply / power cord packed together with this equipment. Using other power supplies might cause fire, shock, or damage to the equipment.
2. Keep the power cord from being stepped on or pinched.
3. Use only accessories recommended by manufacturer.
4. Install / place this equipment in place with adequate ventilation.
5. Keep the unit away from water, excessive humidity, or sudden temperature changes.
6. Keep the unit away from fire, or heat source, including other units which may produce heat.
7. Do not block any vents of the housing of the unit.
8. Do not spill any liquid on or into the unit.
9. Unplug the power cord before cleaning, and use dry clothes only.
10. Unplug the power cord when lightning or not used for a long period of time.
11. Do not attempt to open the unit, or do any adjustments not described in this manual.
12. Refer all servicing to qualified personnel.

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1. Introduction

The Stoltzen SHC-001 is an HDMI controller that it provides intelligent automatically control to your presentations. It detects HDMI signal comes in and then automatically sends **power on** command to power on the projector; and when presentation is over it sends power off command to shut off the projector in certain time as programmed.

It is such a smart system that is ideal for classroom, training room, board room, small meeting room, etc.

2. Package Contents

- 1 x SHC-001 unit
- 1 x Power supply, DC 5V 1A
- 2 x Mount ears
- 2 x Screws (for the mount ears)
- 1 x User manual

3. Features

- Programmable - Configure RS232 commands of different projectors
- Timing Setting - Set different time for trigger the RS232 commands sending
- Accurate Input Detection - Detect HDMI signal (not only +5V) to trigger commands more correctly
- Auto and Manual Trigger - Can send the commands automatically / manually
- HDMI Input Setting - Set HDMI input active / inactive
- HDMI Output Setting - Set HDMI output on / off
- Support HDMI 1.4, resolution up to 4K@60Hz (4:2:0)
- Support HDCP 2.2

4. Panel Descriptions

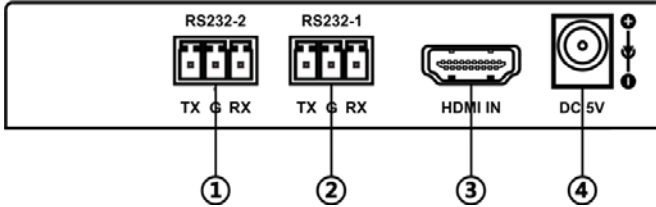
4.1 Front Panel



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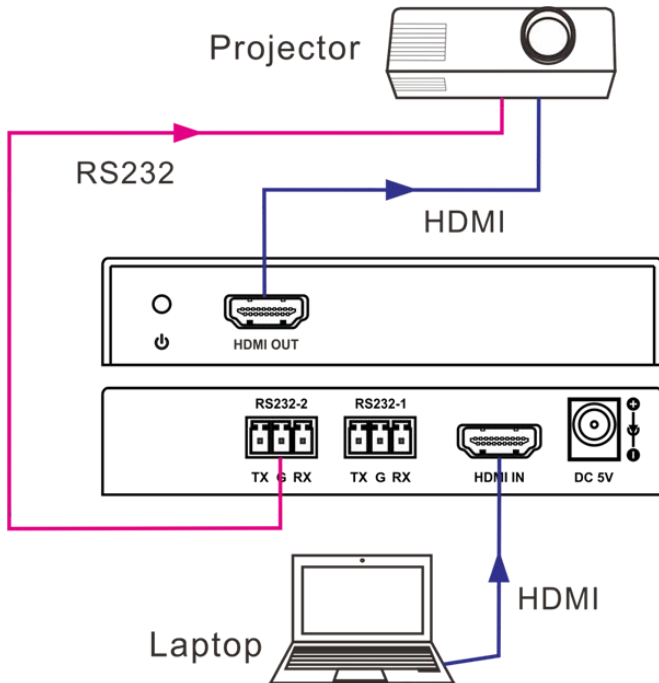
- ① **Power LED** - Lights when the unit is powered on.
- ② **HDMI Output Port** - Connects to the projector.

4.2 Rear Panel



- ① **RS232-2** - Sends RS232 commands to control projector.
- ② **RS232-1** - Program / set the HDMI Controller.
- ③ **HDMI Input Port** - Connects to HDMI source device such as PC.
- ④ **Power Input** - Connects to the DC 5V power supply.

5. Connection Diagram

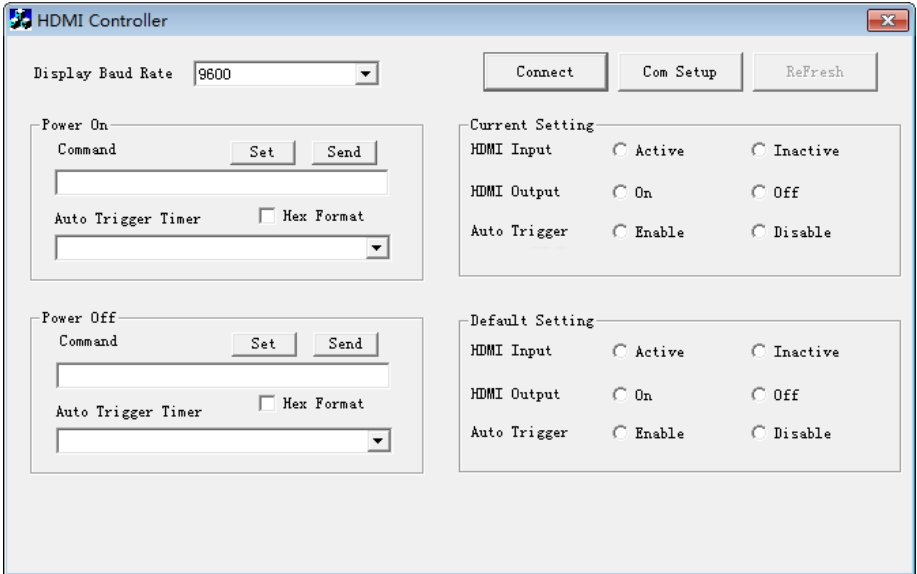


6. Operation - Programming and Setting

6.1 Program and Set the HDMI Controller via software (*Microsoft Windows System Only*)

Power on the HDMI Controller, connect it to a PC by RS232-1, open the software **HDMI Controller.exe** on the PC, and now you can control it with the software.

6.1.1 Connection



Click the **Com Setup** button, select the right com port of your PC on the dropdown menu. There are 24 com ports for selection.

Other settings

Connect Type - Serial

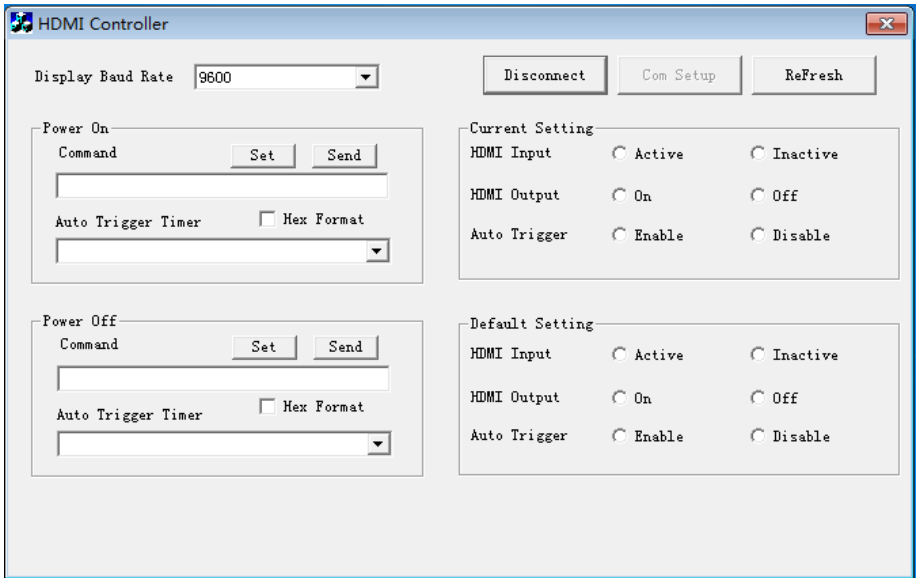
Baud Rate - 115200

Stop Bits - 1

Odd/Even - none

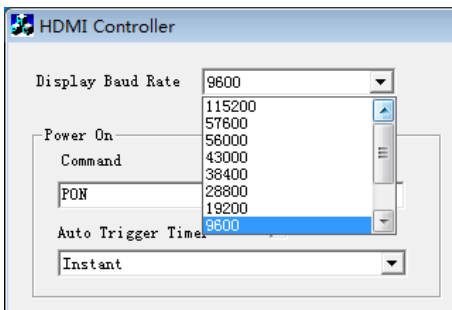
Click the **Connect** button, it changes to **Disconnect**, means the connection is successful.

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6.1.2 Program

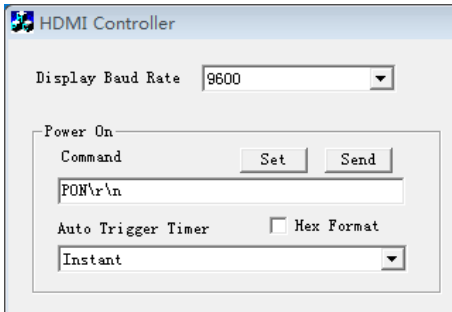
1) Select the right baud rate of the projector.



There are 11 baud rates for selection: 115200, 57600, 56000, 43000, 38400, 28800, 19200, 9600, 4800, 2400, 1200

2) Set the commands for **power on** and **power off** the projector

ex. Set **Power On** command of the projector **PON[cr][lf]**, type **PON\r\n**, then click the **Set** button, then command is set in the HDMI Controller.



Note1: The commands can be Max. 128 Byte.

Note2: **[cr]** has to be changed to **\r** and **[lf]** has to be changed to **\n** when set in the HDMI Controller.

After set the commands, click the **Send** button, it will send the command out through RS232-2 to the projector right away.

If you want to set the Hex command, tick the **Hex Format**.

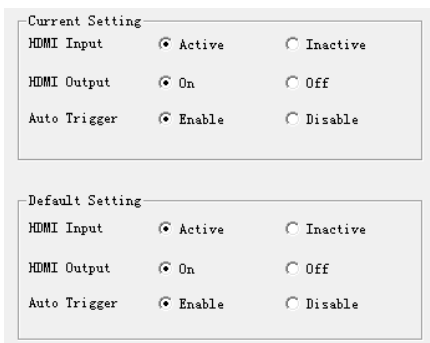
3) Set auto trigger time

After set the **power on** and **power off** commands, you can set the auto trigger time on the dropdown menu. When it detects HDMI signal inputs / HDMI input signal disappears, it will send out the power on / power off command in certain time automatically as set.

There are 7 times selectable for the auto **power on** setting, including Instant, 1 Second, 3 Seconds, 5 Seconds, 10 Seconds, 30 Seconds, 1 Minute;

And 6 for the auto **power off** setting, including Instant, 10 Seconds, 30 Seconds, 1 Minute, 3 Minutes, 5 Minutes

6.1.3 Setting and Control



Current Setting

HDMI Input - Active: The **HDMI Input** is active, it accept HDMI signal input.

HDMI Input - Inactive: The **HDMI Input** is inactive, it does not accept HDMI signal input.

HDMI Output - On: The **HDMI Output** is on.

HDMI Output - Off: The **HDMI Output** is off.

Auto Trigger - Enable: It auto trigger to send power on / power off commands as set.

Auto Trigger - Disable: It does not auto trigger to send power on / power off commands as set, only sends out the commands manually.

Default Setting

HDMI Input - Active: When re-power on the HDMI Controller, the **HDMI Input** is active, accept HDMI signal input.

HDMI Input - Inactive: When re-power on the HDMI Controller, the **HDMI Input** is inactive, it does not accept HDMI signal input.

HDMI Output - On: When re-power on the HDMI Controller, the **HDMI Output** is on.

HDMI Output - Off: When re-power on the HDMI Controller, the **HDMI Output** is off.

Auto Trigger - Enable: When re-power on the HDMI Controller, it is set as to auto trigger to send power on / power off commands as set.

Auto Trigger - Disable: When re-power on the HDMI Controller, it is set as to does not auto trigger to send power on / power off commands as set, only sends out the commands manually.

6.1.4 ReFresh

The **ReFresh** button is for checking the setting status of the HDMI Controller.

6.2 Program and Set the HDMI Controller via RS232

It also can program and set the HDMI Controller by RS232.

Baud rate: 115200

Data bits: 8

Parity: none

Stop bits: 1

#	Command	Function	Response
1	SBR:x[cr][lf]	Set baud rate of the projector x=115200, 57600, 56000, 43000, 38400, 28800, 19200, 9600, 4800, 2400, 1200	SBR:x[cr][lf]
2	CBR[cr][lf]	Check the baud rate of the projector (set in HDMI Controller)	CBR:x[cr][lf]

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3	PONC:x[cr][lf]	<p>Set the power on command of the projector to HDMI Controller</p> <p>x=the command (max. 128 Byte)</p> <p>Note: when x includes [cr], [lf], have to change [cr] to \r, [lf] changes to \n</p>	PONC:x[cr][lf]
4	CPONC[cr][lf]	<p>Check the power on command of the projector (set in HDMI Controller)</p>	CPONC:x[cr][lf]
5	PON[cr][lf]	<p>Send power on command (as set) to power on projector</p>	PON[cr][lf]
6	PONATT:x[cr][lf]	<p>Set the auto trigger time for power on projector</p> <p>x=l, 1S, 3S, 5S, 10S, 30S, 1M</p> <p>l for Instant, S for second, M for minute</p>	PONATT:x[cr][lf]
7	CPONATT[cr][lf]	<p>Check the auto trigger time of power on the projector</p>	CPONATT:x[cr][lf]
8	POFFC:x[cr][lf]	<p>Set the power off command of the projector to HDMI Controller</p> <p>x=the command (max. 128 Byte)</p> <p>Note: when x includes [cr], [lf], have to change [cr] to \r, [lf] changes to \n</p>	POFFC:x[cr][lf]
9	CPOFFC[cr][lf]	<p>Check the power off command of the projector (set in HDMI Controller)</p>	CPOFFC:x[cr][lf]
10	POFF[cr][lf]	<p>Send power off command (as set) to power off projector</p>	POFF[cr][lf]
11	SPOFFATT:x[cr][lf]	<p>Set the auto trigger time to power on projector</p> <p>x=l, 10S, 30S, 1M, 3M, 5M</p> <p>l for Instant, S for second, M for minute</p>	SPOFFATT:x[cr][lf]
12	CPOFFATT[cr][lf]	<p>Check the auto trigger time of power off the projector</p>	CPOFFATT:x[cr][lf]
13	HIA[cr][lf]	<p>HDMI input active</p>	HIA[cr][lf]

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14	HII[cr][lf]	HDMI input inactive	HII[cr][lf]
15	CHI[cr][lf]	Check the HDMI input channel status	CHI:ACTIVE[cr][lf] CHI:INACTIVE[cr][lf]
16	DHIA[cr][lf]	Default HDMI input active	DHIA[cr][lf]
17	DHII[cr][lf]	Default HDMI input inactive	DHII[cr][lf]
18	CDHI[cr][lf]	Check the default setting of the HDMI input channel status	CDHI:ACTIVE[cr][lf] CDHI:INACTIVE[cr][lf]
19	ATE[cr][lf]	Auto trigger enable	ATE[cr][lf]
20	ATD[cr][lf]	Auto trigger disable	ATD[cr][lf]
21	CAT[cr][lf]	Check the auto trigger status	CAT:ACTIVE[cr][lf] CAT:INACTIVE[cr][lf]
22	DATE[cr][lf]	Default auto trigger enable	DATE[cr][lf]
23	DATD[cr][lf]	Default auto trigger disable	DATD[cr][lf]
24	CDAT[cr][lf]	Check the default setting of the auto trigger status	DCAT:ACTIVE[cr][lf] DCAT:INACTIVE[cr][lf]
25	HOON[cr][lf]	HDMI output on	HOON[cr][lf]
26	HOOFF[cr][lf]	HDMI output off	HOOFF[cr][lf]
27	CHO[cr][lf]	Check the HDMI output status	CHO:ACTIVE[cr][lf] CHO:INACTIVE[cr][lf]
28	DHOON[cr][lf]	Default HDMI output on	DHOON[cr][lf]
29	DHOOFF[cr][lf]	Default HDMI output off	DHOOFF[cr][lf]
30	CDHO[cr][lf]	Check the default setting of the HDMI output status	CDHO:ACTIVE[cr][lf] CDHO:INACTIVE[cr][lf]

7. Specifications

Input	1 x HDMI
Outputs	1 x HDMI
Bandwidth	10.2Gbps
HDMI	HDMI 1.4
HDCP	HDCP 1.4, HDCP 2.2
HDMI Resolution	Up to 3840x2160@60Hz (4:2:0)
RS232	2 x 3pin phoenix pole
Operating Temperature	-10°C ~ +50°C / 14°F ~ 122°F
Storage Temperature	-20°C ~ 60°C / -4 °F ~ 140 °F
Operating Humidity	20~ 90% RH (non-condensing)
Storage Humidity	20 ~90% RH (non-condensing)
Power Supply	DC 5V 1A
Power Consumption	Max. 0.83W
Chassis Material	Aluminum
Dimensions	W105 x D79 x H20 (mm) / W4.13 x D3.11 x H0.79 (inch)
Weight	123g / 0.27lb

