HDTVI/AHD/HDCVI/CVBS to HDMI/VGA/CVBS Converter

ITEM NO.: AD001HD4

AD001HD4 support 4 analog cameras: HD-TVI/AHD/HDCVI/CVBS, convert signal to HDMI, VGA and Composite Video or loop out which enabling users to use cost effective HDMI/VGA/BNC monitor to display all HD analog or regular analog camera. It also supports 3 different output displays at same time. It is perfect solution when user wants to display HD analog camera to different monitor without HD DVR.

The **2** **IN/OUT** function could works with 3 different function selections: CVBS output or HD loop out as a distributor function or as second HD camera input could be works as a switcher function with PIP feature to display 2 sources in one monitor.

Features:
- Converts HD-TVI/AHD/HDCVI/NTSC/PAL/960H signal to HDMI, VGA, Composite Video or loop out.
- Input support: HD-TVI/AHD/HDCVI support: 720p@25/30/50/60, 1080p@25/30Hz.
- Output support: HDMI, VGA, Composite Video or loop out.
- 3 outputs could be display simultaneously.
- BNC connector function selection: loop output, composite video output or as second camera input.
- Built in PIP (display two input picture) under dual camera input mode.
- HDMI/VGA output support: 480p,576p,720p,1080i,1080p
- Composite video output support NTSC, PAL.
- Composite output built in underscan adjustment. (allow the edges of the picture fit well)
- Built in OSD to display input/output setting.
- HDMI and DVI compliant. (support DVI monitor by a HDMI to DVI adaptor)
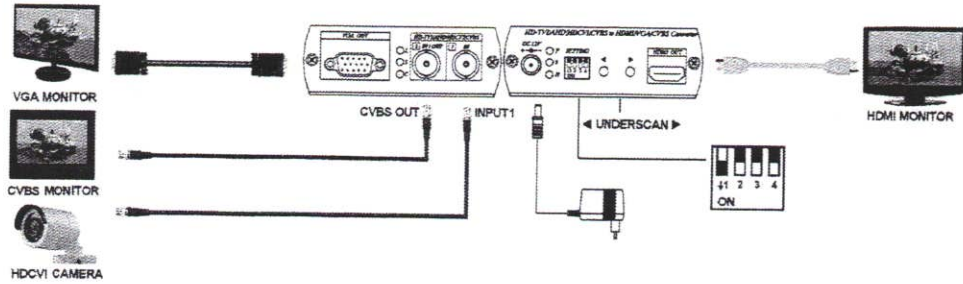
Installation:

Loop out Mode:
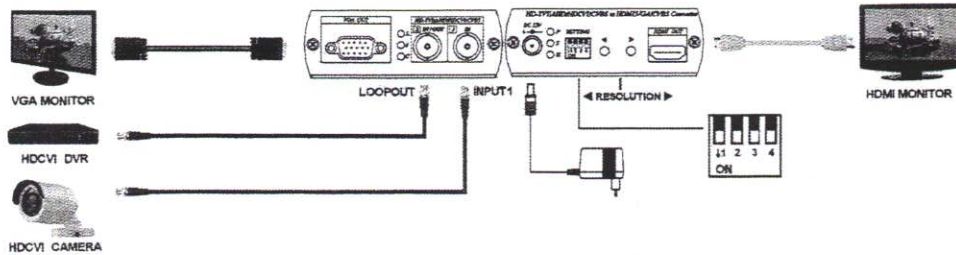
* 3 outputs: HDMI, VGA, loop output as a distributor.

AD001HD4 Support Video format manual select function：

tep 1. Remove video input and set all dip switch off.
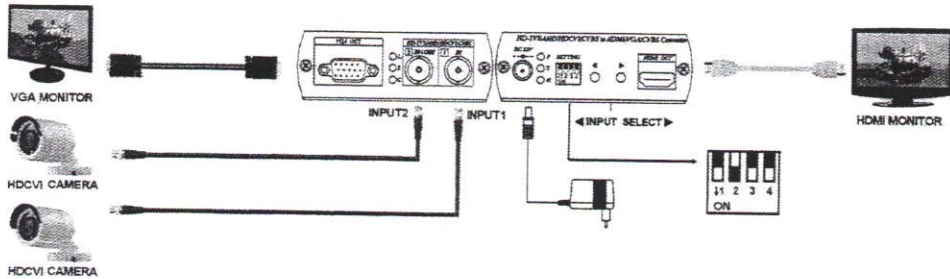tep 2. Press push left or right button twice to switch AHD or CVI format.

Page 1

CVBS Output Mode:

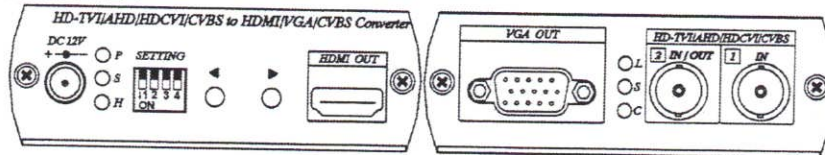* 3 outputs: HDMI, VGA, CVBS could be display simultaneously.

HD-TVI/AHD/HDCVI/NTSC/PAL/960H Input Mode:

* Allow two camera inputs with 2 outputs: HDMI, VGA as a switcher.

Panel View:

AD001HD4

DC 12V	**DC 12V power terminal**
HDMI OUT	**HDMI output interface**
VGA OUT	**VGA output interface**
1 **IN**	**1st source input interface**
2 **IN/OUT**	**Multiple functions source input/output interface**

LED Indication:

DC JACK LED:

Green P	Power ON
Blue S	Input 1 signal received
Red H	HDMI output linking

2 **IN/OUT Connector LED : (BNC)**

Green L	Under LOOPOUT mode
Blue S	Input 2 signal received
Red C	CVBS OUT mode

#2

DIP Switch Settings and Button Functions Quick Reference:

Output Mode	DIP Switch				Button Function		
	1	2	3	4	Left	Right	Left and Right
Loop Output	Off	Off	Off	Off	Decrease output resolution	Increase output resolution	
CVBS Output	On	Off	Off	Off	Decrease CVBS underscan	Increase CVBS underscan	Switch CVBS output 4:3/16:9
Dual Input	Off	On	Off	Off	Display input 1	Display input 2	Switch 4:3/16:9 (CVBS input only)
PIP Output	On	On	On	Off	Adjust PIP positioning counterclockwise	Adjust PIP positioning clockwise	Switch PIP main source
PIP Output	Off	On	On	On	Decrease PIP sizing	Increase PIP sizing	N/A

- After setting the above DIP Switch function, AD001HD4 must reboot for normal operation.

DIP Switch Settings and Button Function Detail:

DIP Switch 1 : LOOPOUT / AHD and HDCVI /CVBS OUT Selection

DIP Switch 1 ↑ (LOOPOUT)/AHD and HDCVI selection
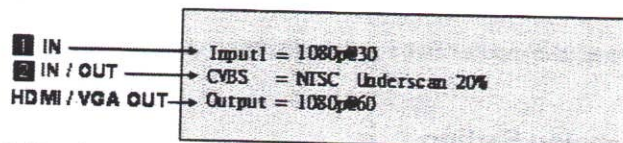2 IN/OUT connector setting as **LOOPOUT** mode

```
1 IN ──────────→ Input1 = 1080p@30
2 IN / OUT ─────→ Loopout= 1080p@30
HDMI / VGA OUT ─→ Output = 1080p@60
```
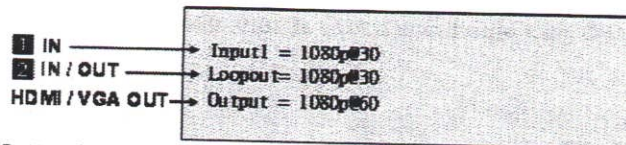
Button for HDMI/VGA resolution switching, press ◄ button to decrease the resolution, press ► button to increase output resolution

Resolution for switch sequence will be follow as below:
480p → 576p → 720p@60 → 720p@50 → 1080i@60 → 1080i@50 → 1080p@60 →1080p@50

First, connect video to input 1 to show OSD then remove, it will show AHD or CVI at Loopout column, you can switch the signal format by button ◄ or ►

DIP Switch 1 ↓ (CVBS OUT)
2 IN/OUT connector setting as **CVBS** mode

```
1 IN ──────────→ Input1 = 1080p@30
2 IN / OUT ─────→ CVBS  = NTSC  Underscan 20%
HDMI / VGA OUT ─→ Output = 1080p@60
```

Button for underscan adjustment, press ◄ decrease CVBS OUT underscan, press ► enlarge CVBS OUT underscan

CVBS underscan adjustment is to avoid overscan situation on CRT screen (Overscan is the situation in which not all of a televised image is present on a viewing screen) which cause picture enlarge and could not see the edge of screen. The reduce screen adjustment range could be from minimum 0% up to 20% based on each time 2% reduced.

When press ◄ ► two buttons at same time to switch CVBS output mode as 16:9 or 4:3

When HDMI/VGA output resolution setting on 480p, 720@60, 1080i@60, 1080p@60, CVBS output is NTSC

When HDMI/VGA output resolution setting on 576p, 720p@50,1080i@50, 1080p@50, CVBS output is PAL

3

DIP Switch 2 : INPUT / OUTPUT Mode Selection

DIP Switch 2 ⬆ **(Output Mode)**
2 IN/OUT connector setting as output mode, **2** IN/OUT connector function follow by DIP Switch 1 selection.

DIP Switch 2 ⬇ **(Input Mode)**
2 IN/OUT connector setting as input mode, **2** IN/OUT connector function as input 2, DIP Switch 1 setting will be ignored.

```
*Current input display
■ IN ─────────┐    *Input1 = 1080p@30
2 IN / OUT ───┤     Input2 = 720p@30
HDMI / VGA OUT      Output = 1080p@60
```

Button as input selection, press ◀ to display Input 1 picture, press ▶ to display input 2 picture, the current input display will be add 「*」 symbol marked.

To press the ◀▶ two buttons together could switch the aspect ratio when the source is NTSC or PAL; the switching aspect ratio is 16:9 or 4:3 and affects HDMI and VGA output only, please follow the source to make adjustment.   If the input is 960H video format, then make the aspect ratio setting at 16:9. For AHD input aspect ratio is fixed at 16:9, this setting is not affected.

DIP Switch 3 : PIP Mode

DIP Switch 3 ⬇ **(PIP Mode)**
This function only activated on **DIP Switch 2** ⬇

```
PIP ←──────→ PIP
  ↑    PRESS ◀   ↓
  ↓    PRESS ▶   ↓
PIP ←──────→ PIP
```
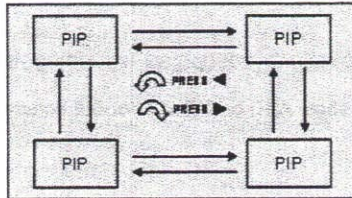
Button as PIP sub-screen display position, press◀ Counter-Clockwise to switch, press▶ Clockwise switch
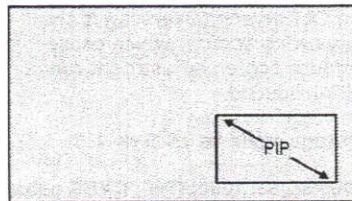
When press◀▶ two buttons together, two inputs can be switched between the main picture and sub picture.

DIP Switch 4 : PIP   Dimension Setting

DIP Switch 4 ⬇ **(Adjust PIP Dimension)**
This function only activated on **DIP Switch 2** and **DIP Switch 3** both at ⬇ position.

```
        ↖
        ┌─────┐
        │ PIP │
        └─────┘
              ↘
```

Button as PIP sub-screen dimension setting, press ◀ to decrease PIP sub-screen dimension, press ▶ button to enlarge PIP sub-screen dimension.

4

Restore Factory Default

Hold and press◄ button, then power on.   After 5 seconds to release◄ button.

Caution

1. Before switching HDMI/VGA monitor, please make sure your monitor supported resolution. If the monitor not supports the resolution, then there will be no output.
2. If the PIP sub-screen from SD source, then the sub-screen picture will comes black edge.
3. This product HDCVI input and HDCVI loop out do not support audio and data transmission.
4. When HDTVI,AHD or HDCVI input mode selection error, the picture will become black and white. Please have AD001HD4 reboot.

Specifications:

ITEM NO	AD001HD4
Video Input	HD-TVI / AHD / HDCVI 720p@25/30/50/60Hz、1080p@25/30Hz、NTSC、PAL、960H
Video Output	HDMI & VGA (480p、576p、720p/50/60、1080i/50/60、1080p/50/60)、CVBS (NTSC、PAL)
Input Connector	BNC (75Ω 1Vpp)
Output Connector	HDMI Type-A、D-SUB 15、BNC (75Ω 1Vpp)
Switch	DIP Switch x 1、Tact Switch x 2
Power Supply	12V 500mA
Power Consumption	350mA (Max) 4-5 Watts
Temperature	Operation: 0 to 55℃, Storage: -20 to 85℃, Humidity: up to 95%
Dimension (mm)	88 * 130 * 30
Weight (g)	275

#5

RoHS CE FC ⚠

HW Ver. B / FW Ver.1.12 / Date: 190131