



Converter Series

# User Manual

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Model : AD001HD4

HDCVI/HDTV/AVHD/CVBS to HDMI/VGA/Composite  
Video/loop out Converter



## Introduction

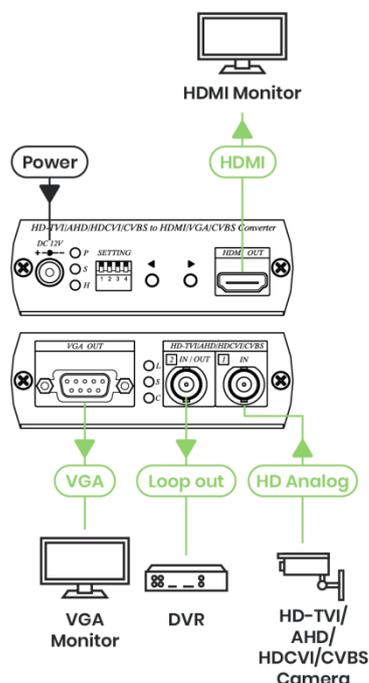
AD001HD4 is a multifunctional converter that can turn HD-TVI/ AHD/ HDCVI/ CVBS to HDMI, VGA, and CVBS. The built-in loop out port can use as a second input port for camera video or as a CVBS output port for DVR/ CVBS monitor. You can also show the video source on HDMI, VGA, CVBS display at the same time. AD001HD4 is an easy-to-use device that supports OSD (On Screen Display) menu to show the current setting status on the monitor and supports the PiP function, which allows you to monitor dual videos on one display.

## Features

- Converts HD-TVI, AHD, HDCVI, NTSC/PAL, 960H to HDMI, VGA, and composite video.
- Resolution up to 1080p@25/30Hz for input, 1080p for HDMI & VGA.
- Built-in loop out for an extra analog video input or a HD-TVI, AHD, HDCVI, CVBS output.
- HDMI, VGA, CVBS output simultaneously.
- Built-in PIP, display two input video.
- Built-in underscan adjustment for composite output, allowing video edges fit well.
- Built-in OSD menu to display input/output settings.

## Installation View

### Loop Out Mode



Enable Loop Out: Connect a DVR

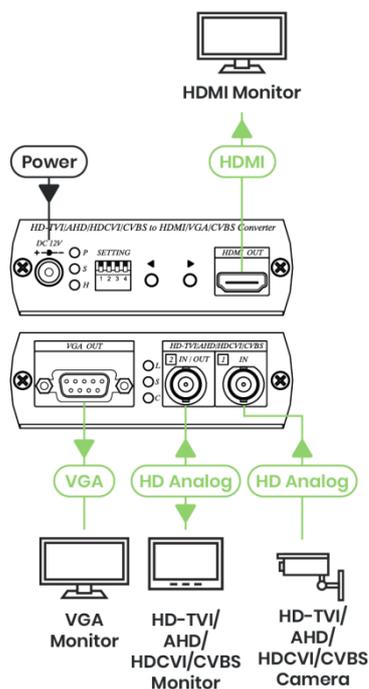


AD001HD4 Support Video format manual select function :

Step 1. Remove video input and set all DIP switch off.

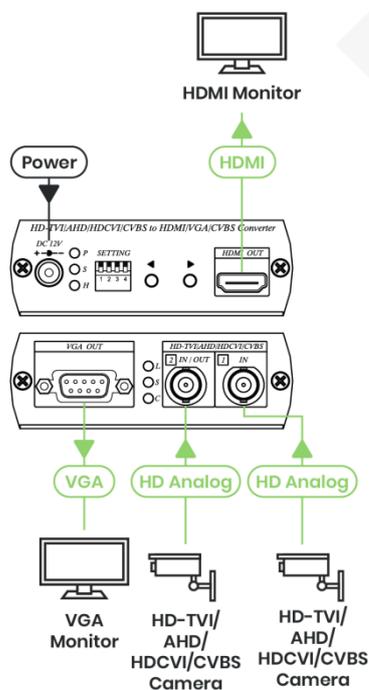
Step 2. Press push left or right button to switch AHD or CVI format.

## CVBS Output Mode



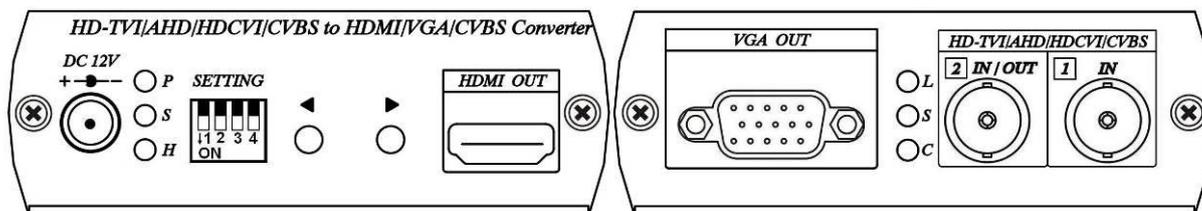
\* Enable HDMI, VGA, CVBS outputs: display 3 videos simultaneously.

## 2 Camera In Mode



\* Enable two camera inputs and VGA, HDMI outputs: HDMI, VGA as a switcher.

## Panel View



| Interface | Function  |
|-----------|---|
| DC 12V    | To connect a DC 12V power adapter                       |
| SETTING   | To configure modes                                      |
| HDMI OUT  | To connect an HDMI display                              |
| VGA OUT   | To connect a VGA display                                |
| 2 IN/OUT  | To connect a DVR, CVBS display or a second video source |
| 1 IN      | To connect a video source                               |

## LED Indication

| LED Name | LED Color    | Function                        |
|----------|--------------|---------------------------------|
| P        | Green ON/OFF | Power ON/OFF                    |
| S        | Blue ON/OFF  | Input 1 linked/ unlinked        |
| H        | Red ON/OFF   | HDMI output linked/ unlinked    |
| L        | Green ON/OFF | Loop Out mode enabled/ disabled |
| S        | Blue ON/OFF  | 2 Camera mode enabled/ disabled |
| C        | Red ON/OFF   | CVBS Out mode enabled/ disabled |

## 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  | Off        | 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 has to reboot to take effect.

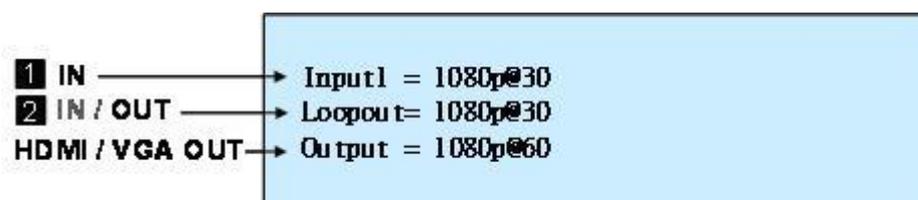
## DIP Switch Settings and Button Function Detail

### 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



Button for HDMI/VGA resolution switching, press ◀ button to decrease the resolution, Press ▶ button to increase output resolution

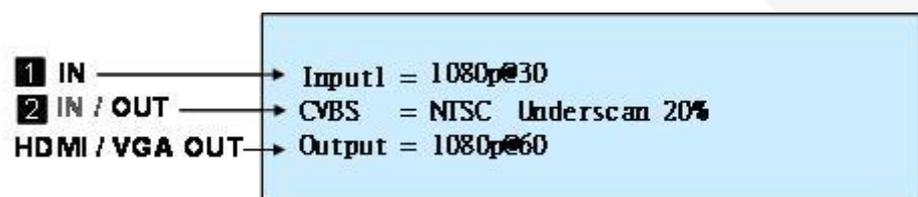
Resolution for switch sequence will be follow as below:

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



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

## 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.

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.

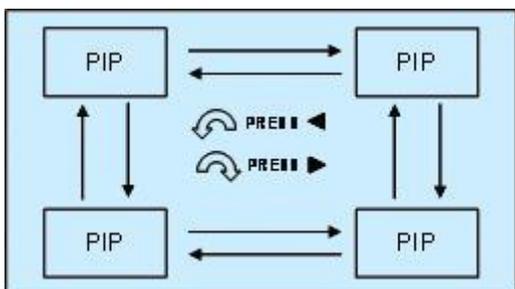
## DIP Switch 3

PIP Mode



DIP Switch 3 ↓ (PIP Mode)

This function only activated on DIP Switch 2 ↓



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.

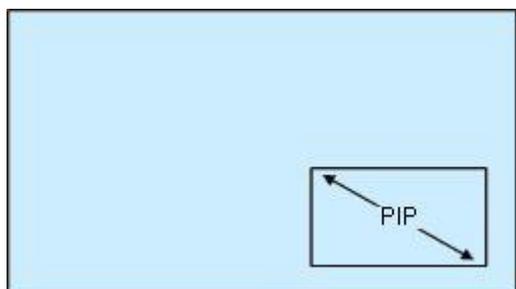
## DIP Switch 4

PIP Dimension Setting



DIP Switch 4 ↓ (Adjust PIP Dimension)

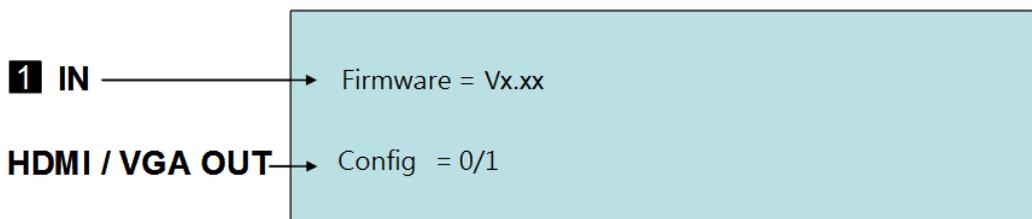
This function only activated on DIP Switch 2 and DIP Switch 3 both at ↓ position.



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

OSD versions show up function

Firmware version will be shown on OSD after input/output resolution information



## 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 HDTV, AHD or HDCVI input mode selection error, the picture will become black and white. Please have AD001HD4 reboot.

## Specifications

|                             |                                     |
|-----------------------------|-------------------------------------|
| ITEM NO.                    | AD001HD4                            |
| Support                     |                                     |
| Video Format                | HD-TVI/ AHD/ HDCVI/ HDMI/ VGA/ CVBS |
| Max. Input Video Resolution | 1080p@25/30Hz                       |
| Max. HDMI Resolution        | 1080p@60Hz                          |
| Max. VGA Resolution         | 1080p@60Hz                          |
| Max. CVBS Resolution        | 480i, 576i (NTSC, PAL)              |
| Ports & Interfaces          |                                     |
| Video Input Connector       | 1 x 75 $\Omega$ BNC                 |
| Video Output Connector      | 1 x HDMI Type A, 1 x D-SUB 15,      |
| Video Loop-out Connector    | 1 x BNC (75 $\Omega$ 1Vpp)          |
| Switch                      | 1 x DIP Switch, 2 x Tact Switch     |
| Power                       |                                     |
| Power Supply                | 12V 500mA                           |
| Power Consumption           | 350mA, 4-5 Watts                    |
| Ambient Temperature         |                                     |
| Operation                   | 0 to 55 $^{\circ}$ C                |
| Storage                     | -20 to 85 $^{\circ}$ C              |
| Humidity                    | up to 95%                           |
| Physical Characteristics    |                                     |
| Dimensions                  | 88 x 130 x 30mm                     |
| Weight                      | 275g                                |