

# AHD, CVI, TVI and CVBS to HDMI / Composite Video - Built-in Loop Out

---

GHDCONV43



User Manual

Please read these instructions carefully before operating the unit  
and keep for further reference.

genie

1.0 Introduction.....	3
1.1 Product Features.....	3
1.2 Specification .....	3
1.3 Dimensions .....	4
2.0 Functions.....	5
2.1 LED Indicators .....	5
2.2 2 IN/OUT Connector LED (BNC) .....	5
3.0 Installation.....	6
3.1 Loop Out Mode .....	6
3.2 CVBS Output Mode .....	6
3.3 AHD/TVI/CVI/NTSC/PAL/960H Input Mode .....	7
4.0 DIP Switch Settings .....	8
4.1 DIP Switch Settings and Button Functions Quick Reference .....	8
4.2 DIP Switch Settings and Button Function Detail .....	8
4.0 Restore Factory Default.....	11

## 1.0 Introduction

Please read this instruction carefully before operating the product and keep it for further reference. All examples and pictures used here are for reference only. The contents of this manual are subject to change without notice.

The Genie GHDCONV43 is a multifunctional converter that can turn AHD, TVI, CVI and CVBS to HDMI and VGA. The built-in loop out port can be used as a second input port for camera video or as a CVBS output port for a DVR/CVBS monitor. You can also show the video source on HDMI, VGA, CVBS display at the same time. It is an easy-to-use device that supports OSD (On Screen Display) menu to show the current setting status on the monitor as well as supports the PiP function, which allows you to monitor dual videos on one display.

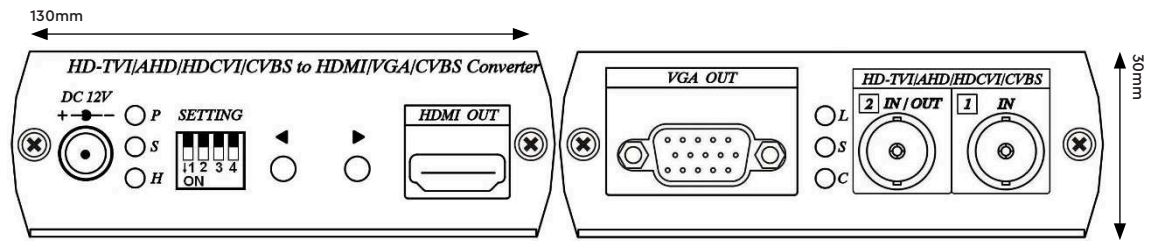
### 1.1 Product Features

- Converts AHD, TVI, CVI, 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 AHD, TVI, CVI, CVBS output
- HDMI, VGA, CVBS output simultaneously
- Built-in PIP, display two input video
- Built-in underscan adjustment for composite output, allowing video edges to fit well
- Built-in OSD menu to display input/output settings

### 1.2 Specification

Supports	Video Format	AHD, TVI, CVI, HDMI, VGA, CVBS
	Maximum Input Video Resolution	1080p @ 25/30Hz
	Maximum CVBS Resolution	480i, 576i (NTSC, PAL)
	Maximum HDMI Resolution	1080p @ 60Hz
	Maximum VGA Resolution	1080p @ 60Hz
Ports & Interfaces	Video Input Connector	1 x 75Ω BNC
	Video Output Connector	1 x HDMI Type A, 1 x D-SUB 15
	Video Loop-out Connector	1 x BNC (75Ω 1Vpp)
	Switch	1 x DIP Switch, 2 x Tact Switch
Others	Power	DC12V 500mA
	Power Supply	350mA, 4-5W
	Temperature	Operation: 0 to 55°C, Storage: -20 ~ 85°C, Humidity: Up to 95%
	Dimensions	88 × 130 × 30 mm
	Weight	275g

### 1.3 Dimensions



## 2.0 Functions

---

### 2.1 LED Indicators

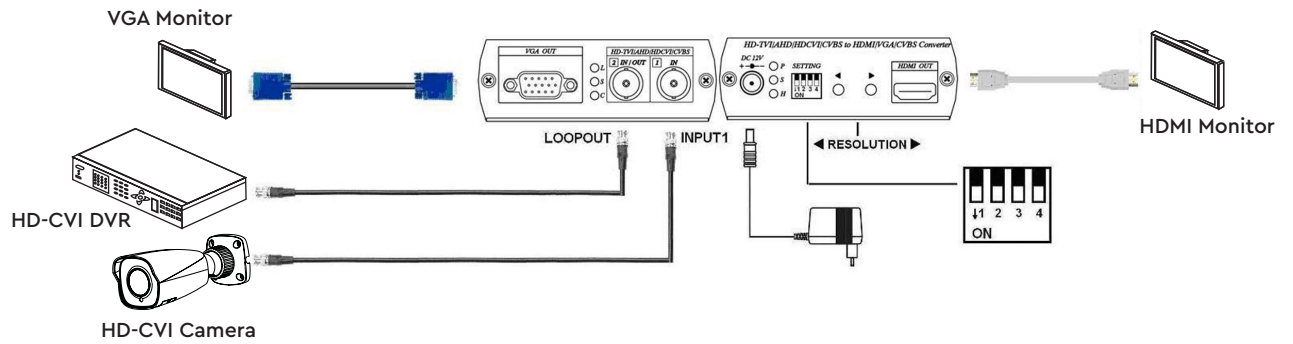
DC JACK LED	
Green P	Power ON
Blue S	Input 1 signal received
Red H	HDMI output linking

### 2.2 2 IN/OUT Connector LED (BNC)

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

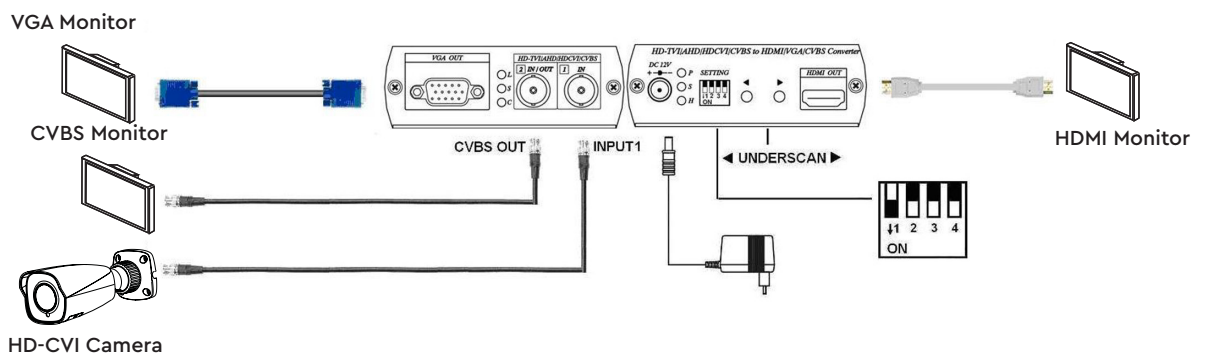
## 3.0 Installation

### 3.1 Loop Out Mode



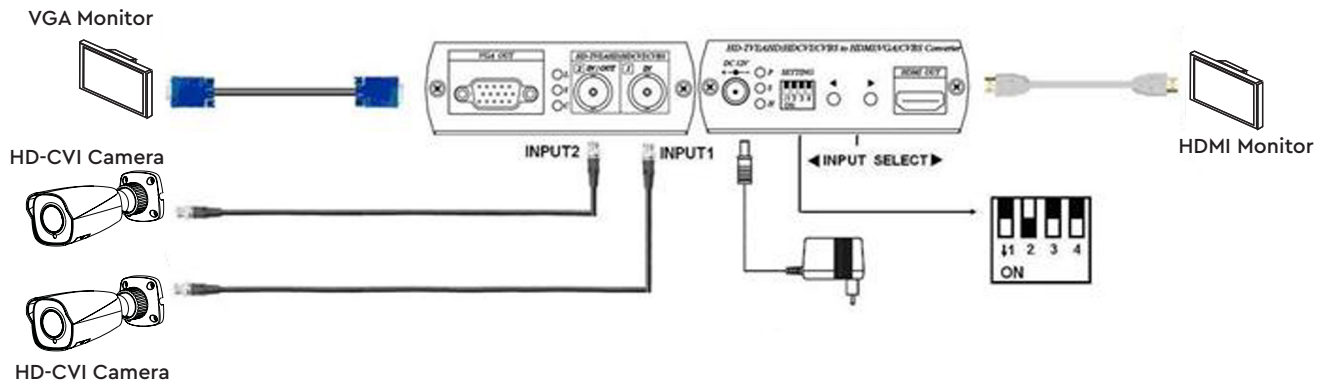
\*3 outputs: HDMI, VGA, loop output as a distributor.  
GHDCONV43 supports Video format manual select function:  
Step 1. Remove video input and set all dip switch off.  
Step 2. Press push left or right button to switch AHD or CVI format.

### 3.2 CVBS Output Mode



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

### 3.3 AHD/TVI/CVI/NTSC/PAL/960H Input Mode



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

## 4.0 DIP Switch Settings

### 4.1 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, GHDCONV43 must reboot for normal operation.

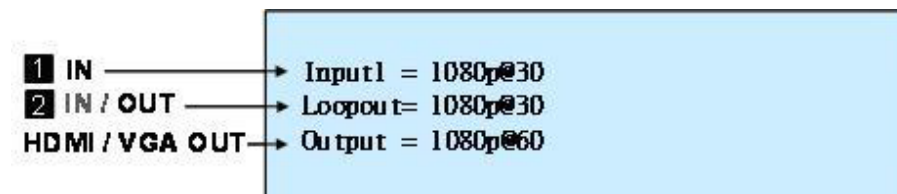
### 4.2 DIP Switch Settings and Button Function Detail

#### 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:

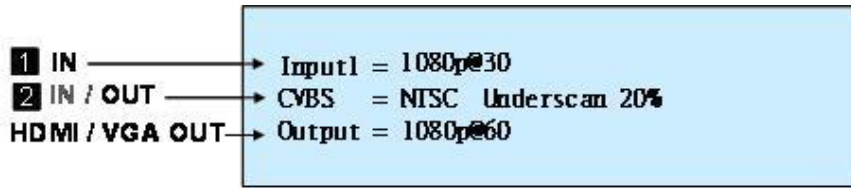
480p -> 576p -> 720p @ 60 -> 720p @ 50 -> 1080i @ 60 -> 1080i @ 50 -> 1080p @ 60 -> 1080p @ 50

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 can cause the picture to enlarge and not see the edge of the screen. The reduce screen adjustment range could be from minimum 0% up to 20% based on each time 2% reduced.

When pressing the ◀▶ 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.

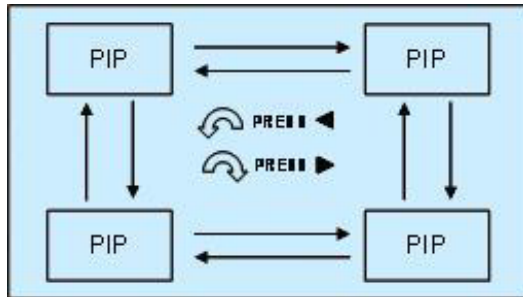
DIP Switch 3

PIP Mode



DIP Switch 3 ↓ (PIP Mode)

This function only activated on DIP Switch 2 ↓

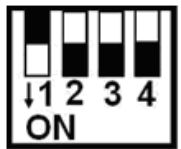


Button as PIP sub-screen display position, press ◀ Counter-Clockwise to switch, press ▶ Clockwise switch

When press ◀▶ two buttons together, two inputs can be switched between the main picture and sub picture.

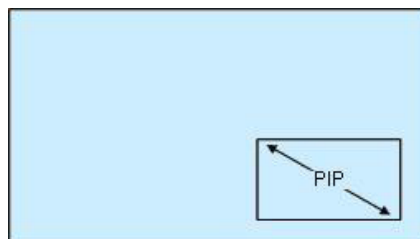
DIP Switch 4

PIP Dimension Setting



DIP Switch 4 ↓ (Adjust PIP Dimension)

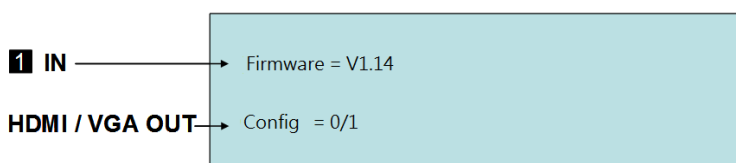
This function only activated on DIP Switch 2 and DIP Switch 3 both at ↓ position.



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 (After firmware V1.14)

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



## 4.0 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 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 GHDCONV43 reboot.

**Sales** +44(0)1707 330541

**Enquiries** [sales@genieproducts.co.uk](mailto:sales@genieproducts.co.uk)

**Website** [www.genieproducts.co.uk](http://www.genieproducts.co.uk)

**genie**