



EN

User Manual

**Converter, HD-CVI, HD-TVI, AHD,
Composite to HDMI, VGA, Com-
posite, Indoor**

MAM-5MM1001M0A

Table of content

- Parts supplied4**
- Panel View5**
 - LED Indication5
- Switch and Button Functions6**
 - DIP Switch Settings and Button Functions Quick Reference:.....6
 - DIP Switch Settings and Button Function Detail6
 - DIP Switch 2 : INPUT/OUTPUT Mode Selection7
 - DIP Switch 3: PIP Mode8
 - DIP Switch 4: PIP Dimension Setting9
 - Restore Factory Default.....9
- Installation10**
 - Loopout Mode 10
 - CVBS Output Mode 10
 - HD-TVI/AHD/HDCVI/NTSC/PAL/960H Input Mode: 11

Safety instructions

EN

General safety instructions

- Before switching on and operating the system, first read this safety advice and the operating instructions.
- Keep the operating instructions in a safe place for later use.
- Installation, commissioning and maintenance of the system may only be carried out by authorised individuals and in accordance with the installation instructions - ensuring that all applicable standards and guidelines are followed.
- Protect the devices from water penetration and humidity, since these can cause lasting damage.
- Should moisture nevertheless enter the system, under no circumstance switch on the devices under these conditions, instead send them for examination to an authorised specialist workshop.
- The system must never be used outside of the technical specifications, since this can destroy it.
- The device must be protected from excesses of heat, dust, humidity and vibration.
- When separating the system from the voltage supply, only ever use the plug to pull out the cable. Never pull directly on the cable itself.
- Lay the connecting cables carefully and check that they are not mechanically stressed, kinked or damaged and that no humidity can penetrate into them.
- In the event of a malfunction, please inform your supplier.
- Maintenance and repairs may only be carried out by authorised specialist personnel.
- The system must be isolated from the power supply before opening the housing.
- The device may only be opened by qualified service personnel. Unauthorised access invalidates any warranty claim.
- Connection cables should always be exchanged through Videor E. Hartig GmbH.
- Use only original spare parts and accessories from Videor E. Hartig GmbH.
- The housing should only be cleaned using a mild domestic cleaning agent. Never use solvents or petrol as these can permanently damage the surface.
- During installation, it is essential to ensure that the seals provided are correctly installed and that they are not displaced during installation. Damaged seals must not be installed and will invalidate any warranty.
- The installer is responsible for the maintenance of the enclosure as per the technical data, e.g. by sealing the cable outlets with silicone.
- Wire end ferrules should be used when shortening the flexible connection cables.
- The devices may only be operated in the temperature range indicated in the data sheet and within the defined air humidity range.

Class A device note

This is a Class A device. This device can cause malfunctions in the living area; in such an event, the operator may need to take appropriate measures to compensate for these.

WEEE (Waste Electrical & Electronic Equipment)

Correct Disposal of This Product (Applicable in the European Union and other European countries with separate collection systems).



This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Graphical symbols

Please pay attention to the safety instructions, and carefully read through this instruction guide before initial operation.



Important points of warning are marked with a caution symbol.



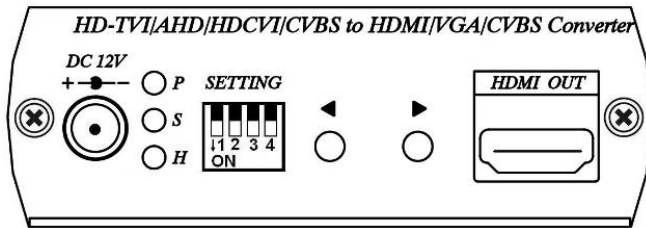
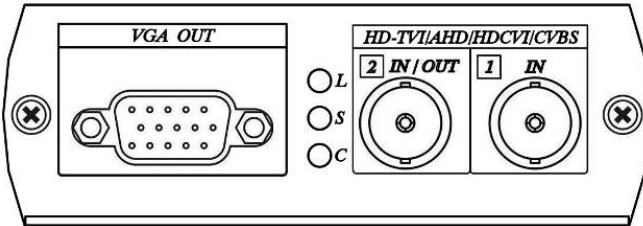
Important points of advice are marked with a notice symbol.

Parts supplied

- Converter
- Power supply
- Instruction manual

Panel View

EN



DC 12V	DC 12V power terminal
HDMI OUT	HDMI output interface
VGA OUT	VGA output interface
① IN	First source input interface
② IN/OUT	Multiple function 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

Switch and Button Functions

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, the converter 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 *

*** The converter has a scaling function to support HDMI and VGA inputs with higher frame rates. It is an electronic adjustment, the frame rate is not doubled.**

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 Loop-out column, you can switch the signal format by button ◀ or ▶



DIP Switch 1 ↓ (CVBS OUT)

② IN/OUT connector setting as CVBS mode

IN	Input1	1080p@30
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

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 followed 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.

IN	*Input1	1080p@30
IN / OUT	Input2	720p@30
HDMI / VGA OUT	Output	1080p@60

* Current input display

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.

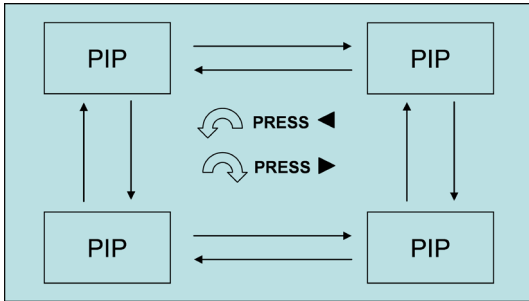
To press the ◀▶ two buttons together could switch the aspect ratio when the source is NTSC or PAL; the switching aspect ratio is 16:9 or 4:3 and affects HDMI and VGA output only, please follow the source to make adjustment. If the input is 960H video format, then make the aspect ratio setting at 16:9. 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 can only be activated on DIP Switch 2 ↓



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

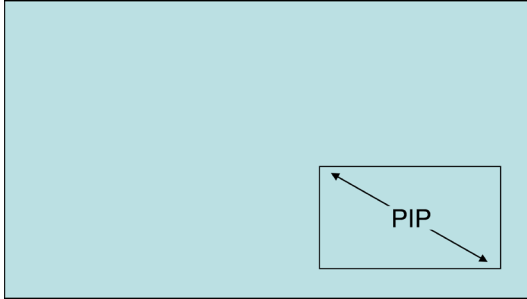
When press ◀▶ two buttons together, two inputs can be switched between the main picture and sub picture.

DIP Switch 4: PIP Dimension Setting



DIP Switch 4 ↓ (Adjust PIP Dimension)

This function can only be 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.

Restore Factory Default

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

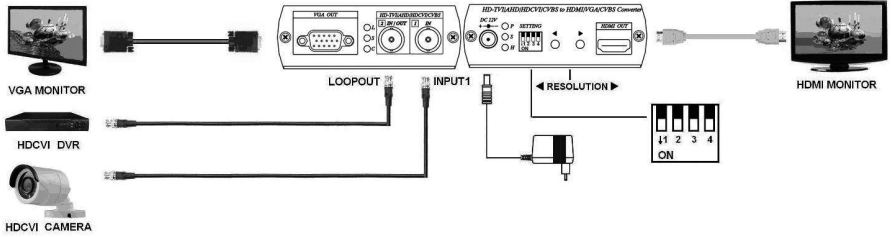


CAUTION:

- 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.
- If the PIP sub-screen from SD source, then the sub-screen picture will come with black edges.
- This product HDCVI input and HDCVI loop out do not support audio and data transmission.
- When HDTV, AHD or HDCVI input mode selection error, the picture will become black and white. Please have AD001HD4 reboot.

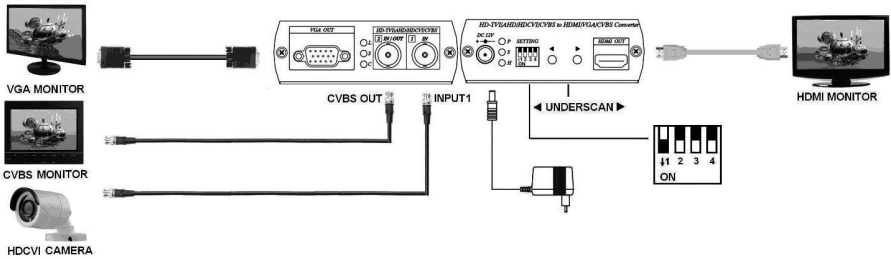
Installation

Loopout Mode



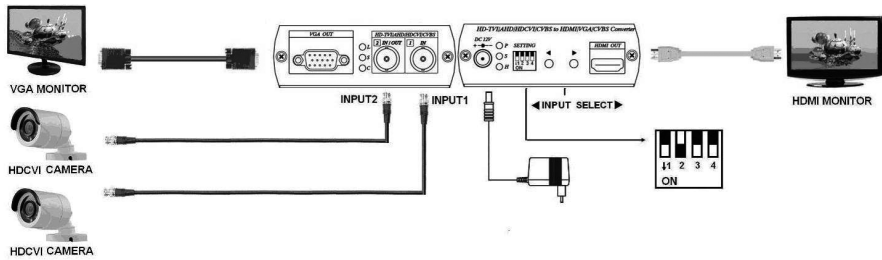
3 outputs: HDMI, VGA, loop output as a distributor.

CVBS Output Mode



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

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



EN

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

This converter supports video format manual select function as below:

Step 1. Connect video source to the converter and wait OSD show up.

Step 2. Remove video source to enter format selection mode (all DIP-SW off)

Step 3. Press left or right button to switch AHD and HDCVI format.



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