



HDMI Splitter

Model No. **SP0104-312**

Instruction update date (version): 2009/12/24

Operating Instructions (P/N of this Instruction is INSSP0104-312)



Dear customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

FEATURES

- Easy to Use: Install in seconds, no need for setting.
- Distribution: One HDMI input, four identical HDMI outputs.
- Support high definition resolutions 1080p, 1080i, 720p and other standard video formats, PAL and NTSC.
- Customer can configure EDID function to enable the best compatibility.
- HDCP compliant.
- HDMI 1.3b version.

- Mounting ears are included for easy fixation on wall, furniture or ceiling.

NOTICE

Grandbeing Inc. reserves the right to make changes in the hardware, packaging and any accompanying documentation without prior written notice.

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE:

- 1) DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.
- 2) DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED.
- 3) TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS, AND SIMILAR ITEMS.
- 4) DO NOT INSTALL NEAR ANY HEAT SOURCES SUCH AS RADIATORS, HEAT REGISTERS, STOVES, OR OTHER APPARATUS (INCLUDING AMPLIFIERS) THAT PRODUCE HEAT.
- 5) DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.
- 6) CLEAN THIS APPARATUS ONLY WITH DRY CLOTH.
- 7) UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.
- 8) PROTECT THE POWER CORD FROM BEING WALKED ON OR PINCHED PARTICULARLY AT PLUGS.
- 9) ONLY USE ATTACHMENTS/ACCESSORIES SPECIFIED BY THE MANUFACTURER.
- 10) REFER ALL SERVICING TO QUALIFIED SERVICE PERSONNEL.

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INTRODUCTION

Grandbeing's SP0104-312 is a four-way HDMI splitter. Functionally, distributes the input HDMI signal to four identical HDMI outputs. These four outputs are synchronized.

SP0104-312 has the ability of pre-emphasis and equalization. Multiple cascaded SP0104-312 achieves long distance transmission of HDMI signal of more than 15 meters.

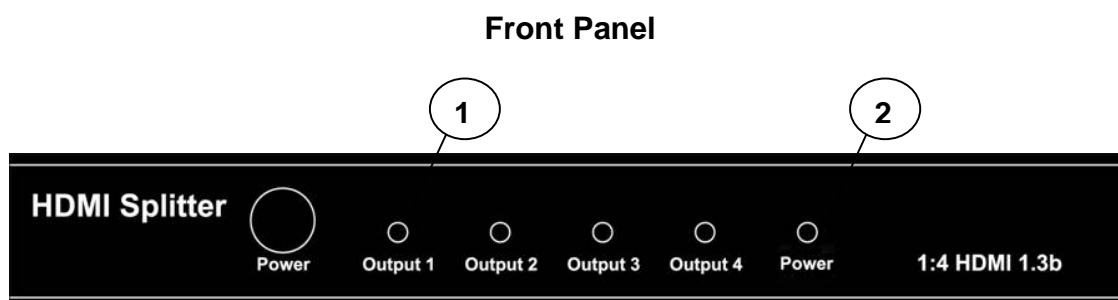
SP0104-312 offers solutions for usage as component of digital HDMI distributions and entertainment systems also HDTV retail and general show sites. Use in conjunction with HDTV, HD Projector, STB, BD, DVD, HD Media Player and in environment where noise, space and security are concerns. Fits perfectly in data center control rooms, information distribution premises, conference and presentation rooms, school educational facilities and corporate training environments.

PACKAGE CONTENTS

- 1) Main unit. P/N_SP0104-312
- 2) 5VDC Power Supply.P/N_VDC0502
- 3) Operating Insrtuctions.P/N_INSSP0104-312
- 4) Mounting Ears. P/N_MESP0104-312

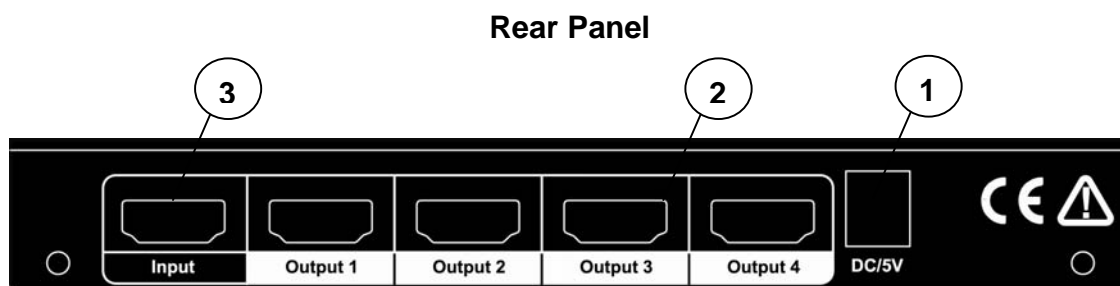
* **Cables are optional.**

PANEL DESCRIPTIONS



- 1) Indicator of HDMI outputs. When the HDMI equipment is connected, the corresponding LED will be lit.

- 2) Standby LED. When the power is on, the Standby LED will be lit.



- 1) Power input.
- 2) HDMI outputs (4 x).
- 3) HDMI input.
- 4) Standby Button. When power is on, the Standby LED will be lit.

CONNECT AND OPERATE

- 1) Connect the HDMI input sources into SP0104-312. (Input cables are optional)
- 2) Connect the HDMI output equipments into SP0104-312. (Output cables are optional)
- 3) Insert the DC side of 5v power supply into SP0104-312 and then connect the AC side of the power supply into the wall outlet.
- 4) Turn on the power via Standby button on the Rear Panel.

Attention! : Insert / Extract cables gently.

SPECIFICATIONS

Operating temperature range.....	-5 to +35°C (-41 to +95°F)
Operating humidity range.....	5 to 90 % RH (no condensation)
Video Amplifier Bandwidth.....	2.25Gbps
Input Video Signal.....	0.5-1.0 volts p-p
Input DDC Signal.....	5 volts p-p (TTL)
Maximum Single Link Range.....	1080P Deep Color
Video format supported:	
VESA: 640x480, 800x600, 1024x768, 1280x1024, 1600x1200,1920x1200	DTV/HDTV:
480i/576i/480p/576p/720p/1080i/1080P	
Output Video.....	HDMI 1.3b
Power Consumption.....	10 Watts (max.)
Power Supply.....	5V DC/2A
Dimensions.....	175mm (W) x 114mm (H) x 24mm (D)
Mass.....	0.5 Kgs

Note: Specifications are subject to change without notice. Mass and dimensions are

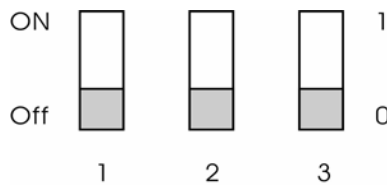
approximate.

Device Top Cover



Device cover is labelled for DIP Switch (EDID setting) and for easy HDMI port recognition especially useful when Mounting Ears are used for fixation.

*DIP Switch EDID setting index:



Default position is Off(0)

Position1	Position2	Position3	Function
0	0	0	EDID Mixing (note1)
0	0	1	Copy EDID from the specific sink (note2)
0	1	0	1080P stereo (Using Embedded EDID) (note3)
0	1	1	1080i stereo (Using Embedded EDID)(note4)
1	0	0	EDID Mixing,long cable mode(note5)
1	0	1	Copy EDID from the specific sink,long cable mode (note6)
1	1	0	1080P 5.1 (Using Embedded EDID) (note7)
1	1	1	1080P 7.1(Using Embedded EDID) (note8)

Note1: The splitter will mix the EDID data of all connected sink devices. And forward this mixed EDID to the HDMI source device. The thought of EDID mixing is to enable all the connected sink device can have video and audio they can display or output. For example, One TV is 1080P, stereo, another is 1080i, 5.1 audio. The mixed EDID will be 1080i, stereo audio.

Note2: When the splitter is powered on, it will detect the active sink devices by sequence started from output1, and the first sink it detects will be the one from where will be copied EDID from. If there is no active sink from the beginning when power was on, the first connected sink device will be source of EDID data from where will copy. Use this DIP Switch setting can force splitter use the EDID of one of the sink device. For example, there 3 stereo TV sets and one 7.1 audio AVR. User don't want to have 7.1 audio from the AVR but not to be mixed stereo audio. Then connect the AVR to the output1 of the splitter, and power on the AVR first, and then power on the splitter. Or power on the AVR before power on other sink devices that connected to the splitter.

Note3: The splitter will use the embedded 1080P-stereo EDID when the DIP switch is in this mode. The EDID will be 1080P video and stereo audio.

Note4: The splitter will use the embedded 1080i-stereo EDID when the DIP switch is in this mode. The EDID will be 1080i video and stereo audio. This setting can be used when the TV set is an old model that can not support 1080P.

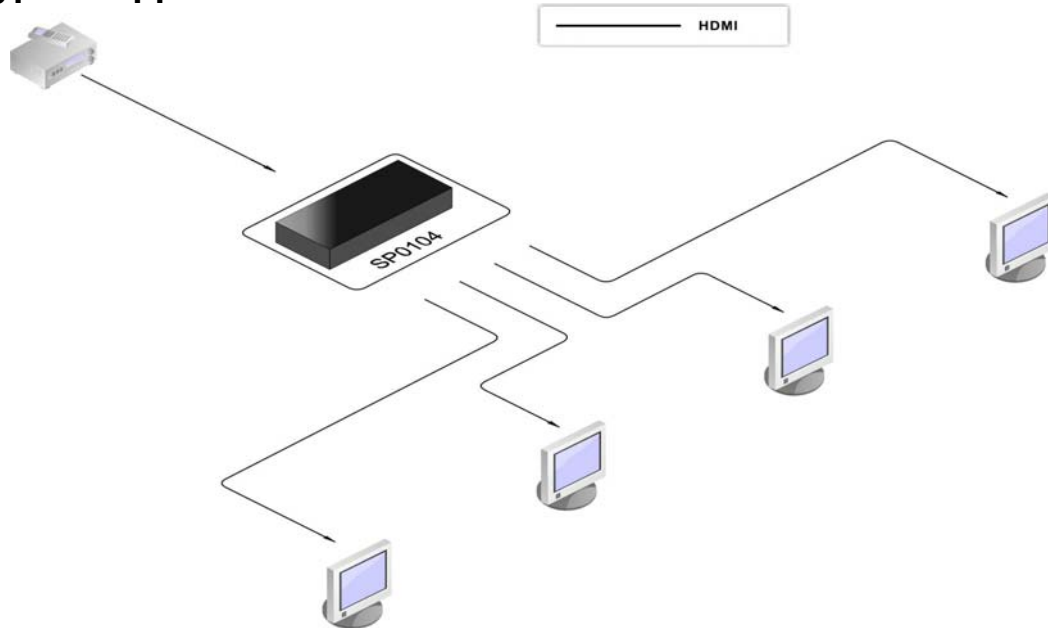
Note5: Reference Note 1, the difference in this state is long-cable mode. When the long HDMI cable is used or the quality of HDMI cable is not good, this DIP setting is recommended in EDID mixing mode.

Note6: Reference Note 2, the difference in this state is long-cable mode. When the long HDMI cable is used or the quality of HDMI cable is not so good, this DIP setting is recommended in EDID copy mode.

Note7: The splitter will use the embedded 1080P-5.1 EDID when the DIP switch is in this mode. The EDID will be 1080P video and 5.1 audio.

Note8: The splitter will use the embedded 1080P-7.1 EDID when the DIP switch is in this mode. The EDID will be 1080P video and 7.1 audio.

Typical Application



MAINTENANCE

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzine to clean this unit.

PRODUCT SERVICE

- 1) **Damage requiring service:** The unit should be serviced by qualified service personnel if:
 - (a) The DC power supply cord or AC adaptor has been damaged;
 - (b) Objects or liquids have gotten into the unit;
 - (c) The unit has been exposed to rain;
 - (d) The unit does not operate normally or exhibits a marked change in performance;
 - (e) The unit has been dropped or the cabinet damaged.
- 2) **Servicing Personnel:** Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
- 3) **Replacement parts:** When parts need replacing ensure the servicer uses

parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.

- 4) **Safety check:** After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

WARRANTY

If your product does not work properly because of a defect in materials or workmanship, Grandbeing Company (referred to as “the warrantor”) will, for the length of the period indicated as below, (**Parts (1) Year, Labor(90) Days**) which starts with the date of original purchase (“Limited Warranty period”), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

During the “Labor” Limited Warranty period there will be no charge for labor. During the “Parts” warranty period, there will be no charge for parts. You must mail-in your product during the warranty period. This Limited Warranty is extended only to the original purchaser and only covers product purchased as new. A purchase receipt or other proof of original purchase date is required for Limited Warranty service.

Mail-In Service

When shipping the unit carefully pack and send it prepaid, adequately insured and preferably in the original carton. Include a letter detailing the complaint and provide a day, time, phone and/or email address where you can be reached.

IF REPAIR IS NEEDED DURING THE LIMITED WARRANTY PERIOD THE PURCHASER WILL BE REQUIRED TO FURNISH A SALES RECEIPT/PROOF OF PURCHASE INDICATING DATE OF PURCHASE, AMOUNT PAID AND PLACE OF PURCHASE. CUSTOMER WILL BE CHARGED FOR THE REPAIR OF ANY UNIT RECEIVED WITHOUT SUCH PROOF OF PURCHASE.

LIMITED WARRANTY LIMITS AND EXCLUSIONS

- 1) This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic

damage. The Limited Warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or service by anyone other than a Factory Service Center or other Authorized Service, or damage that is attributable to acts of God.

- 2) THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. (As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, travel to and from the service location, loss of or damage to media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only.)

- 3) PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.



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